Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

June 17, 2010

CHANGE NOTICE NO. 71
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-3215 **Steve Motz**
Contract Compliance Inspector :Pete Devlin	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **February 28, 2011**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately this contract is amended to include Change Authorization Requests CAR 2010-001 and CAR 2010-002. CAR 2010-001 modifies the RSS development enhancement pool provided in Appendix E pricing, through June of 2010. Through CAR 2010-002, this Contract is INCREASED by $1,316,270.00 and is EXTENDED to February 28, 2011.

All other terms, conditions, and specifications remain unchanged.

AUTHORITY/REASON(s):

Per DNRE, DTMB, Vendor and Administrative Board approval on June 1, 2010.

INCREASE: $1,316,270.00

TOTAL REVISED CONTRACT VALUE: $35,449,258.08

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207/PO No. 084N9200929
Change Authorization Request No.2010-001

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between HP and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources and Environmental Quality (MDNRE).

II. Description of Change

This Change Authorization Request is to respond to the MDNRE's request to reduce contract costs by $164,000 for the 2010 fiscal year. MDNRE would like to accomplish this reduction by suspending the Development Pool by a total of 12.21 man months. Within the current contract, which ends at the end of June 2010, the Development Pool will be reduced by one (1) FTE for the months of March, April, May, and June which is a total of four (4) man months of development effort.
This change will modify the HP contract by reducing it by the amount of $53,700 from the reduction of the "3 FTE Enhancement Pool ($13,425/FTE/mo)" line item in the contract. Starting in March, the invoice line item will be stated as "2 FTE Enhancement Pool ($13,425/FTE/mo)" with a monthly charge of $26,850. This change will affect the contract payments cycle in Months 6 through 9, March-June 2010.

Development Pool as referenced in the current contract:
EDS will establish a dedicated pool of three (3) information analysts (I/A Development Pool) to perform, in accordance with MDNR priorities, additional system enhancements and documentation that relate to RSS databases, RSS Windows Application, RSS POS applications, RSS batch application and the E-License application during the period of time for which EDS is responsible for such databases and applications. The MDNR will have the option to increase or decrease the number of I/As in the I/A Development Pool effective at the beginning of a monthly billing period upon forty-five (45) days prior written notice to EDS.

III. Cost

No additional cost.

IV. Impact on Contract
Decrease: $53,700

V. Signatures

HP Contractor
By: [signature]
Title: Account Executive
Date: 1-25-10

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNRE Program Manager
By: [signature]
Title: Manager, Customer Support
Date: 2-3-10

Contract payments for Months 19 thorugh 24 in existing CHANGE NOTICE NO. 68	month 19	month 20	month 21	month 22	month 23	month 24	Total
	Jan-2010	Feb-2010	Mar-2010	Apr-2010	May-2010	Jun-2010	
Upgraded hosting Environments	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$252,600
vulnerability scans	$895	$895	$895	$895	$895	$895	$5,370
POS communications 7% pass through	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$57,396
E-License support	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$40,266
RSS operations and support	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$613,608
3 FTE Enhancement pool ($13,425/FTE/mo)	$40,275	$40,275	$40,275	$40,275	$40,275	$40,275	$241,650
TOTAL	$201,815	$201,815	$201,815	$201,815	$201,815	$201,815	$1,210,890

Contract payments supporting CAR 2010-001showing reduction of one FTE Enhancement pool March through June 2010	J10 month 19	F10 month 20	M10 month 21	A10 month 22	M10 month 23	J10 month 24	Total
	Jan-2010	Feb-2010	Mar-2010	Apr-2010	May-2010	Jun-2010	
Upgraded hosting Environments	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$252,600
vulnerability scans	$895	$895	$895	$895	$895	$895	$5,370
POS communications 7% pass through	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$57,396
E-License support	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$40,266
RSS operations and support	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$613,608
3 FTE Enhancement pool ($13,425/FTE/mo)	$40,275	$40,275	$26,850	$26,850	$26,850	$26,850	$187,950
TOTAL	$201,815	$201,815	$188,390	$188,390	$188,390	$188,390	$1,157,190

Appendix E: Pricing

EDS is providing the following indicative pricing for extending the contract for hosting and application support of RSS for the time period July 1, 2008 through June, 30, 2010. The pricing set forth herein is only preliminary; the pricing is non-binding and is subject to change as the parties further define the terms and conditions that shall accompany this extension of work.

	-	-	month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	month 9	months 10 - 24	Total
	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09 hrough Jun-10	
Existing hosting during migration			$39,174	$39,174	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$78,348**
Upgraded hosting Environments			$38,026	$38,026	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100(mo)	**$1,002,252**
Hosting upgrade installation			$55,634	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$55,634**
vulnerability scans			$895	$895	$895	$895	$895	$895	$895	$895	$895	$895(mo)	**$21,480**
POS communications 7% pass through			$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566(mo)	**$229,584**
Circuit installs (6) 7% pass through			$7,097	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$7,097**
E-License support			$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711(mo)	**$161,064**
RSS operations and support			$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268(mo)	**$2,454,432**
3 FTE Enhancement pool ($13,425/FTE/mo)			$0	$0	$0	$0	$0	$0	$0	$10,069	$40,275	$40,275(mo)	**$654,469**
Release 8.3	$39025.5	$39025.5	$78,536	$78,536	$78,536	$62,426	$40,275	$49,001	$42,289	$30,206	$0	$0(mo)	**$459,806**
8.3 FTE staffing	3	3	5.85	5.85	5.85	4.65	3	3.65	3.15	2.25	0	0	
TOTAL			**$337,907**	**$275,176**	**$240,076**	**$223,966**	**$201,185**	**$210,541**	**$203,829**	**$201,815**	**$201,815**	**$3,027,225**	**$5,124,166**

$201,815(mo)

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No. 2010-002

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between HP Enterprise Services, LLC ("HPES") (formally know as Electronic Data Systems Corporation, a Delaware corporation ("EDS")) and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources and Environmental Quality (MDNRE).

II. Description of Change

This Change Authorization Request encompasses a 12 month extension to the RSS contract services from July 1, 2010 through June 30, 2011. Services for March 1, 2011 through June 30 2011 are optional and may be cancelled by the SOM if and when Release 1 of RSSII is implemented.

III-A PROBLEM STATEMENT

The Purpose of this agreement is to continue the relationship between HPES and the MDNRE for the continued maintenance, operations, support, hosting and enhancement of the MDNRE Retail Sales System ("RSS") developed under contract #071B5000207.

III-B OBJECTIVES

To continue current operations in the areas of maintenance, operations, user support, hosting, POS communications, and enhancements to the RSS.

III-C TASKS

1. System Operations, Maintenance, and User Support

a. Operations and Maintenance

1) Operational Hours. HPES will provide normal operational support for RSS from Monday through Friday, 8 A.M. to 5 P.M., except any day that is an official State of Michigan holiday. These operational hours will be referred to as the Primary Service Window. HPES will exercise commercially reasonable efforts to provide occasional support, as needed, outside of the Primary Service Window, unless MDNRE specifically requests special event coverage in which case HPES and MDNRE will mutually agree beforehand to such coverage and to any additional fees, if any, for such services.

2) Service Request Procedure. HPES will respond to a service request within one hour when the call is placed during the Primary Service Window. A mutually agreed to code will be used to identify the call as a MDNRE service request. The MDNRE Contractor or designee(s) will use the following steps when making the call:

- Page the HPES Systems Operator (primary contact person)
- If there is no response after 15 minutes, page again
- If there is no response after 15 minutes, page the HPES Operations Manager (secondary contact person)
- If there is no response after 15 minutes, page again.
- If there is no response after 15 minutes, call or page the HPES Account Manager

b. Operation and Maintenance Responsibilities

HPES will provide the following database maintenance and support services:

- Database maintenance and support of Production, Model Office, and Inquiry RSS databases
- Security
- Backups
- Daily review of transaction log and full database backups
- Performance and tuning
- Daily review of diagnostic reports
- Weekly review of index rebuilds and database size
- Upgrades
- Restores
- Daily restore of production data to RSSINQ
- Switch over to RSS Inquiry Server in case of Production Server Failure
- Perform weekly server re-boots
- Monitor RSS Servers and correct server problems

HPES will provide the following online and batch application support services:

- Investigate and provide software 'fixes' for RSS production application issues from code in Release 2.1 or greater
- Process daily upload files
- Process daily financials
- Process weekly EFT's on the weekend
- Process daily EFT returns from SOM's bank
- Process files from data entry of Sportcards
- Correct and process failed files and failed transactions due to application error, not agent error
- Establish and maintain schedule of batch jobs
- Implement PostalSoft monthly releases
- Archive database records and system files
- Maintain interfaces with third parties: SOS, FIA, Data entry contractors, MNB, LAW, Wildlife
- Provide ad-hoc reporting
- Develop and maintain the following user and system documentation in electronic format:
  - Operator Guide
  - Procedural Guide
  - Communication Server Utilities and System Test Configuration
  - POS Terminal Application Functional Document
  - POS DLL document
  - User Help Files
  - Entity Relationship Diagram
  - Analysis documents
  - Business Design documents
  - Technical Design documents
  - Unit Test cases
  - System Test cases
  - External/Internal file layouts

HPES will provide the following user support services:

1. Develop estimates for Customer Service Requests that are fixes
2. Provide help-desk support for user assistance to MDNRE during normal business hours
3. Assist MDNRE in software release planning
4. Provide business process consulting and requirements definition
5. Provide assistance in User Acceptance Testing for software releases
6. Document, maintain, and report on database of Customer Service Requests ("CSR")
7. Assist MDNRE in developing database queries

c. Application and Integration Maintenance

1) Purpose. The primary purpose of software and integration maintenance is to assure continuous and accurate system operation. HPES shall be dedicated to the concept of continuous quality improvement throughout the term of the Contract.

2) Monitoring, Notification and Reporting. HPES shall make provision for (i) random monitoring of RSS and (ii) for notification of HPES personnel if substantial system failures occur within the Primary Service Window. In addition, HPES and MDNRE will work together to collect, share and mutually agree on the pertinent information that reflects the then current system performance prior to submitting such information to the Department Contract Administrator for review. This information may generate recommended changes in equipment, software, operations, or preventive maintenance schedules that could lead to reduced system costs or improved system quality. Any mutually developed and agreed upon recommendations for improved system specifications shall be addressed through provisions of the System Enhancement portion of this contract.

3) Quality Improvement. HPES shall apply a Customer Service Request (CSR) program and software quality assurance method to measure and improve the quality of RSS software throughout the contract.

4) Fault Identification and Correction. HPES is responsible for correcting all faults in RSS software discovered subsequent to the Effective Date of Change Notice No. 11. Any faults or system failures believed to have occurred on or prior to the effective date of Change Notice No. 11 and on or prior to the effective date of RSS System Release 2.0 (including POS Release MIRel310) but discovered after the Effective Date, will be corrected by mutual agreement of HPES and MDNRE and paid from the Development Pool or Enhancement funds.

5) Commercial Software Faults. Any fault which is diagnosed as a failure within commercial software integrated into RSS is nonetheless the responsibility of HPES. With approval of the Contract Administrator, HPES may obtain corrective services from the software manufacturer, replace the software with an alternate product or custom software, or design and implement a work-around. A list of the current commercial software is listed in Attachment A of this Work Statement.

6) Right to Use Third-Party Software. MDNRE will provide, or cause to be provided, to HPES the right to access MDNR-owned software (including any Deliverables) and software licensed to MDNRE or a customer of MDNRE by a vendor if such is required for HPES to perform the HPES Services, but for no other purpose. HPES will assist MDNRE in determining whether MDNRE will need to obtain any consents, licenses or other rights from vendors as contemplated by this Section. MDNRE will be responsible for obtaining any such consents, licenses or other rights and for finding an alternative solution in the event a vendor refuses consent.

7) Fault Reporting. HPES is obligated to report to the Contract Administrator any apparent fault discovered by HPES, its personnel or sub-contractors. These faults will be reported immediately upon discovery. Likewise, the Contract Administrator shall upon discovery notify HPES of faults discovered by State personnel or retail agents. Upon notification of an apparent fault, HPES shall diagnose and correct such fault within the timeframe mutually agreed upon by HPES and MDNRE based upon C, 4 above.

8) CSR Priority. MDNRE shall determine the priority of all Customer Service Requests (CSR's) and advise HPES of the order in which it desires such CSR's to be addressed by HPES utilizing the existing pool of HPES maintenance staff for faults considered fixes to Releases 2.1 and greater, or enhancements to Releases 2.0 or below.

Production Hosting

RSS Production hosting environment is in the Tulsa SMC is illustrated in Fig. 1.
The MDNRE architectural solution is based on a dedicated custom network design. The MDNRE network is comprised of dedicated firewalls (creating a DMZ) that provide entry point's exclusive to MDNRE's operations, a set of dedicated switches, and a set of web switches for load balancing and inter-VLAN distribution. In addition, there is a VPN Tunnel between HPES Automated Web Hosting and the State

Production Architectural Diagram

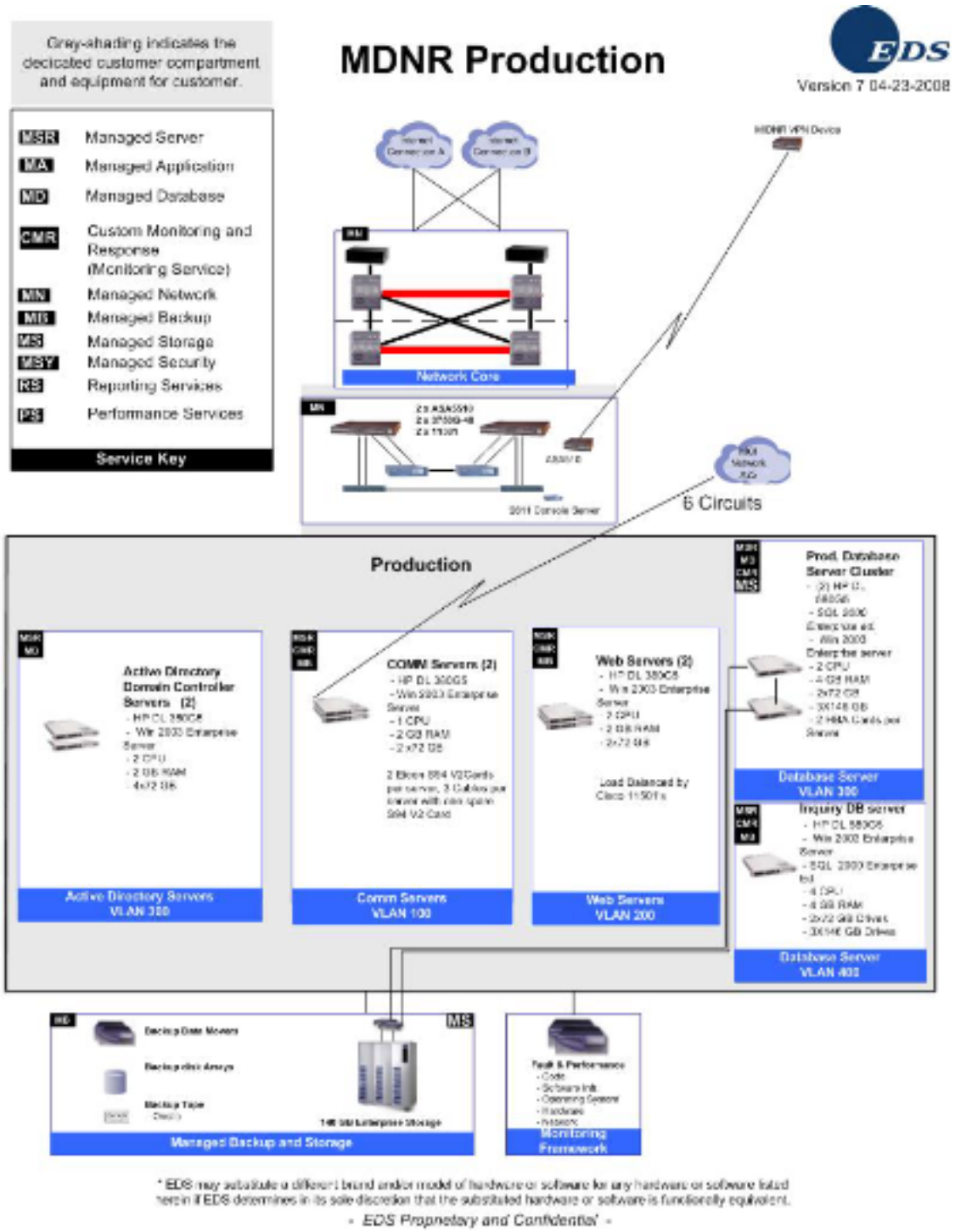


Figure 1

2 – HP DL380G5 Web Servers – load balanced by Cisco 11501 devices.

This is a set of two load-balanced servers that run the production E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet.

2 – HP DL380G5 Communications Servers

These two servers receive and manage the calls and data from the POS terminals in the production environment. Each server has 2 Eicon S94 V2 cards and there is one spare. These cards are connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to numerous Point Of Sale devices for the MDNRE RSS application.

2 – HP DL380G5 Active Directory Domain Controller Servers

These two servers handle all domain level security for the system.

2 - HP DL580G5 in a Production database server cluster running SQL 2000.

This is a set of two clustered active/passive database servers that manage both the E-License sales transactions and control tables, and the entire active RSS database in the production environment. The cluster uses managed SAN storage

1 – Inquiry DL580G5 Inquiry database server running SQL 2000.

This is a database server in the production environment that contains an up to date copy the active RSS database and the archive RSS database. MDNRE staff run ad-hoc queries against these databases on this server, which isolates them from the production databases. This server will also contain all the RSS input and output files (e.g., EFT files, SOS files, etc.) that will be accessible by the MDNRE staff.

2 - Cisco ASA 5510 Firewalls

2 - Cisco 11501 Load Balancers

2 - Catalyst 3750-48 Switches

1 – Cisco ASA 5510 to be used as the VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 6 circuits into the compartment

1 - Cisco 2811 Integrated Services Router

Production Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNRE.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	Catalyst 3750 48-port Switch HA Pix 11501Load Balancer ASA 5510 Firewall 2811 Console Server	N/A	Managed Network
Servers					
Web servers	Web	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives Load Balanced by Cisco 11501's	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication servers	Comms	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 2 Eicon cards	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Servers	DB	2	HP GL 580 G5 2 CPUs, 4Gb RAM; 2X72Gb Drives; 3X146Gb Drives 140GB SAN Storage	Windows 2003 Adv SQL 2000 Enterprise Ed SMTP AdTempus **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Inquiry Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 2X72Gb Drives 3X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP OpenSSH	Managed Server Managed Backup and Restore
Active Directory Domain Controller Servers	AD	2	HP DL 380G5 2 CPUs, 2Gb RAM; 4X72Gb Drives	Windows 2003 Adv	Managed Server
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 7 servers

MO/DR RSS Environment

MO/DR Architectural Diagram

The architecture in Plano SMC for the RSS MO/DR hosted environment is reflected in Figure 2 below.

The HPES Plano Web Hosting Facility will serve as the Model Office location for the MDNRE and will execute a disaster recovery of the HPES Web Hosting Production location in Tulsa on a limited basis. The MO/DR location provides Internet access, a single Web/app server, a single database server and a single RSS POS Communications server. This environment will receive regular shipments of production data via file transfer.

AOPS will store RSS data backups, along with copies of the most recently installed versions and patches for: Windows 2003, SQL 2000, RSS application code and Third Party Software required by RSS – for all Model Office and Production RSS servers. If there is a Model Office server failure, all software and data required to restore the Model Office service will be on-site. If a condition occurs rendering the Production facility inoperable, the Model Office facility will be reconfigured for Production – again relying on on-site storage of all required software (O/S, database environment, RSS application code, Third Party Apps.) and data to configure the Production environment. No hardware reconfiguration will be required; all changes will be data/software related.

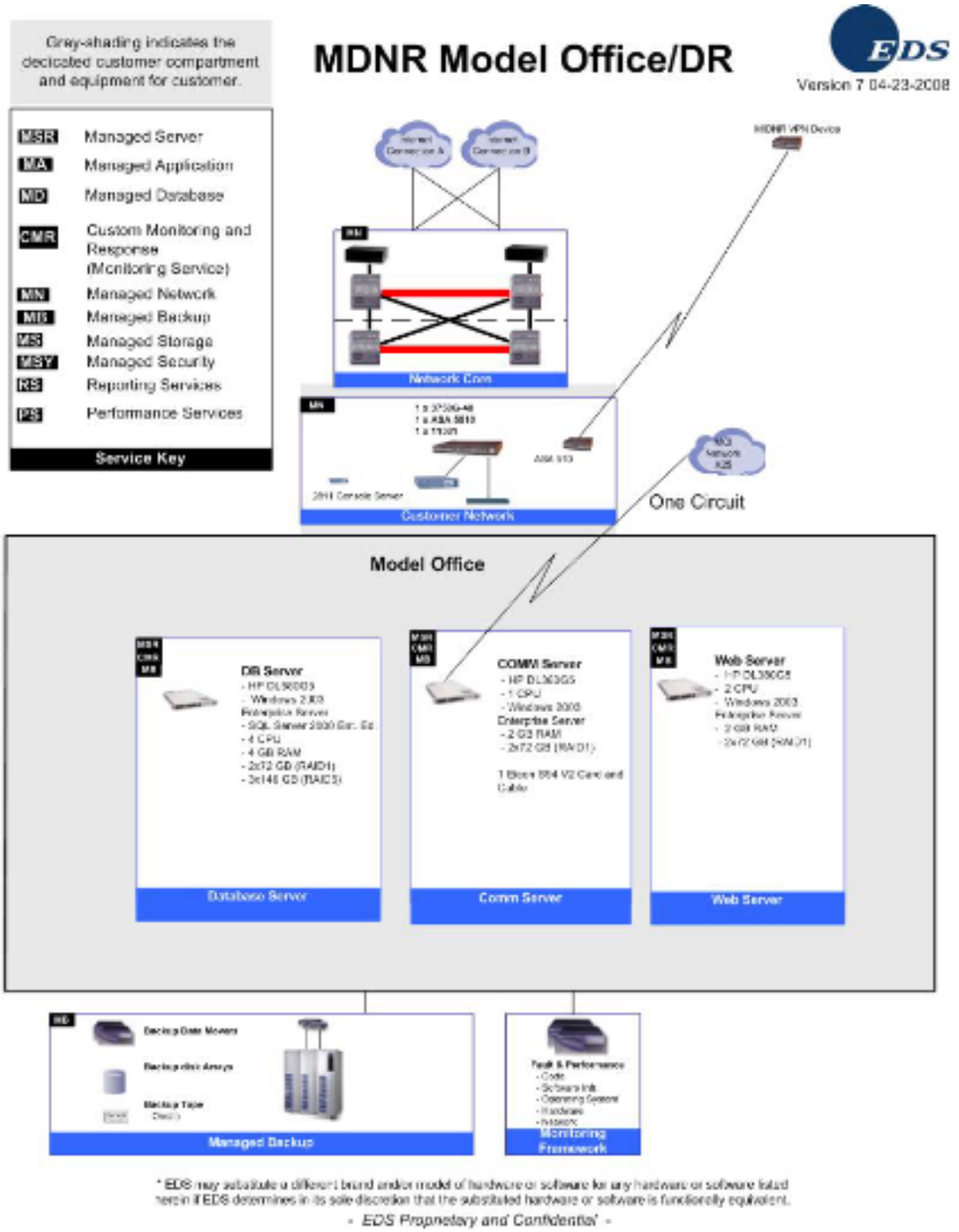

Grey-shading indicates the dedicated customer compartment and equipment for customer.
MSR Managed Server
MA Managed Application
MD Managed Database
CMR Custom Monitoring and Response (Monitoring Service)
MN Managed Network
MB Managed Backup
MS Managed Storage
MSY Managed Security
RS Reporting Services
PS Performance Services
Service Key
MDNR Model Office/DR
EDS
Version 7 04-23-2008
Network Core
Customer Network
One Circuit
Model Office
DB Server
Database Server
COMM Server
Comm Server
Web Server
Web Server
Managed Backup
Monitoring Framework
* EDS may substitute a different brand and/or model of hardware or software for any hardware or software listed herein if EDS determines in its sole discretion that the substituted hardware or software is functionally equivalent.
- EDS Proprietary and Confidential -

Figure 2

MO/DR Hardware components.

1 – HP DL380G5 Web Server – load balanced by Cisco 11501 device

This is a server that runs the Model Office E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet. It will be used for User Acceptance Testing. In the case of a disaster in the production environment, it will be used as the production Web application server.

1 – HP DL380G5 Communications Server

This server receives and manages the calls and data from the POS terminals in the model office environment. In the case of a disaster in the production environment, it will be used as the production Communications Server. The server has 1 Eicon S94 V2 card which is connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to test Point Of Sale devices for the MDNRE RSS application.

1 - HP DL580G5 Database server running SQL 2000 Enterprise Edition

This is a database server that manages both the E-License sales transactions and control tables, and the entire active RSS database and archive RSS database in the Model Office environment. It also serves as the repository for all the RSS input and output files (for example: EFT files, SOS files, etc.) that will be accessible by the MDNRE staff in the model office environment. In the case of a disaster in the production environment, it will be used as the production database server and input/output file server.

1 - Cisco ASA 5510 Firewall

1 - Cisco 11501 Load Balancer

1 - Cisco Catalyst 3750-48 Switch

1 – Cisco ASA 5510 to be used as the VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 1 circuit into the compartment

1 - Cisco 2811 Integrated Services Router

MO/DR Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNRE.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	Catalyst 3750 48-port Switch HA Pix 11501Load Balancer ASA 5510 Firewall 2811 Console Server	N/A	Managed Network
Servers					
Web server	Web	1	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication server	Comms	1	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 1 Eicon S94 V2 card	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 2X72Gb Drives 3X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP SMTP AdTempus OpenSSH **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 3 servers

Disaster Recovery Plan

HPES has developed and documented an RSS-specific Disaster Recovery Plan that covers both a single server failure, and a complete environment failure. This DR Plan was developed in the 2003 contract extension and will continue to be used to support the MDNRE.

The secondary HPES Hosting SMC in Plana will act primarily as the Model Office location for MDNRE with the ability to execute a Disaster Recovery (DR) of the HPES AOPS Production location in Tulsa on a limited basis. This secondary HPES AOPS location provides Internet access, a single web/app server, a single database server, and a single RSS POS Communications server. In the event a condition occurs rendering the HPES AOPS Production Facility in Tulsa inoperable, the Model Office environment will be reconfigured for production using only the hardware available in the Model Office environment. The DR plan for a total Production failure details action items based upon the following high level tasks. The total duration to bring the DR site up as the new RSS production site would be 96 hours.

HPES will own the OS and patches and rebuild the Model Office servers to the last installed Production revisions
HPES will execute a database environment installation. Revisions of the database will match the last Production database within 30 minutes of the failure.
HPES will control all of the application revisions and will be responsible for the application loads.
HPES will control and install all database configuration builds
HPES will contact Verizon to redirect the 1-800 numbers to the secondary HPES AOPS location
HPES Tulsa will point the production URL to the secondary HPES Plano facility
HPES will control the system test plan and test the DR environment to insure the environment is operational
Rebuild the Web/App, Communication and database server
Install a single Database Instance
Re-point the DNS
Load the data
Load the Web/App applications
Load the Database schemas
Verizon redirects the 1-800 numbers
Test the environment

.

Hosting Services Overview

HPES Automated Hosting Services cover all aspects of infrastructure management, which consists of deployment, launch, 24x7 monitoring, security, troubleshooting, and change management of MDNRE's hosted environments.
HPES will implement and perform the managed Automated Hosting Services for MDNRE to the extent and as described in this proposal. Automated Hosting Services consist of the following:
"Deployment Services" are the Build and Launch Services that take MDNRE from planning through launch of the Client Site into production or steady state.
"Managed Services" are those services that directly correspond to MDNRE's infrastructure, consisting of the management and support of network devices, servers, software, storage, and other components. Services consist of the ongoing monitoring, reporting, troubleshooting, and repair services to be provided by HPES following the Operationally-Ready Date. Managed Services includes any "Service Enhancement Services" selected by MDNRE as uplifts and additions to the base Managed Services.
"Client Services" are those services that relate to MDNRE's interaction with HPES client support personnel such as the frequency of contact and level of support. HPES Automated Web Hosting Operations Center support, project management, technical support, and myhosting-eds.com™ client portal are examples of Client Services.

Service Definitions

The capitalized terms are as defined in this section. Additional technical terms and acronyms are included in the Glossary in Appendix C.
"Automated Web Hosting" means the Automated Operations delivery approach provided by Automated Hosting Services.
"Change Control Process" means the approach to follow to request a change to the Client Site as defined in the Operational Guide. All agreed upon changes will be documented in a Change Request executed by MDNRE and HPES.
"Change Request" means the written request submitted by MDNRE pursuant to the Change Control Process with sufficient details to enable HPES to evaluate it.
"Client Compartment" means the physical infrastructure dedicated to MDNRE (server hardware, networking devices) and hosted within the Data Center.
"**Client Infrastructure Services**" means those Services directly related to the management of the physical environment within the Data Center location.
"Client Remote Location" means MDNRE premises or a premises operated by a third party for MDNRE or by the MDNRE. This location is geographically distinct from the Data Center.
"**Client Site**" (or "MDNRE site") means a hosting site that HPES will assist in managing as specified hereunder. The Client Site consists of the hardware, domain name(s) and URL(s), MDNRE's business logic and applications, the content displayed on the hosting site, the data stored or processed by the hosting site, as well as any related data, software, applications, content, and other information managed by MDNRE. Additional Client Sites may be added by mutual agreement.
"Data Center" means the physical locations where HPES installs the client-hosting infrastructure. This is the raised floor at Service Management Centers or third-party data centers.
"Deployment-Ready Code" means code that MDNRE and HPES have tested, and confirmed is ready to be rolled into MDNRE 's *production environment.*
"**Deployment Services**" means the initial services to be provided by HPES prior to the Operationally-Ready Date to make MDNRE 's web site infrastructure Operational.
"**HPES Automated Web Hosting Operations Center**" refers to the HPES organization that provides 24x7 support to MDNRE. This organization consists of system analysts, data center operations personnel, database administrators, and network engineers who support the MDNRE's hosting environment.
"**HPES RSS Support Staff** " refers to the HPES organization in Lansing MI that provides 24x7 RSS Application support to MDNRE. This organization consists of system analysts, database administrators, and project managers who support the MDNRE's E-License, POS, Batch, RSSWIN, Database.
"**Go Live Date**" means the first date that a Client Site is Live with Deployment-Ready Code.
"**Implementation Services**" means the combination of Deployment Services and Launch Services.
"**Launch Services**" mean the Services provided by HPES commencing on the Operationally-Ready Date and ending on the Go Live Date to assist MDNRE in preparing its code for operation within the HPES operating environment.

"**Live**" means that MDNRE 's application code is deployed in the HPES operating environment and the Client Site both takes requests from the public Internet and successfully serves web pages in response to those requests. RSS is fully functional for queries, RSSWIN and RSS batch applications. POS communication servers can take calls from the POS terminals.
"**Managed Services**," means the ongoing monthly monitoring, reporting, troubleshooting, and repair-or-replace services to be provided by HPES following the Operational Date for a MDNRE.
"**Operational**" means that HPES has designed the architecture of the Client Site, installed and configured the HPES-supplied hardware and software, and the HPES Deployment team has been trained and is ready to receive MDNRE 's Deployment-Ready Code.
"Operational Guide" means a document that outlines the operational procedures for interacting with HPES Automated Operations. This document is provided to the HPES RSS Support team during the implementation of the services.
"**Operationally-Ready Date**" means the date on which the Client Site is Operational.
"**Operationally-Ready Period**" means the period commencing on the Operational Date and ending on the Go Live Date of a Client Site.
"User(s)"means any individual accessing the Client Site described in this proposal.

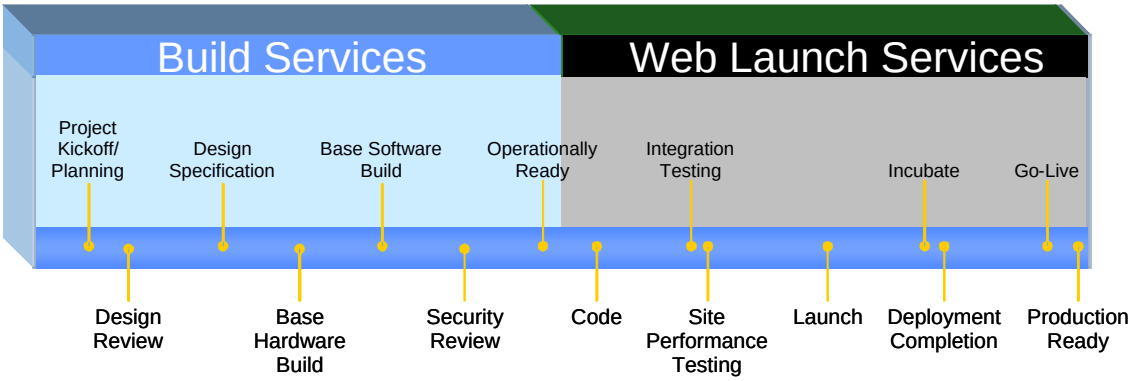
Service Conditions

(Existing service conditions documented in the current contract apply.)

Deployment Services

Overview
Deployment Services comprise all the activities required to take a client from the planning stage through the site's production launch. The detailed activities associated with Deployment Services are documented in each of the sections that follow later in this proposal. The next few pages outline a set of project management and testing services that are part of MDNRE's initial deployment and do not directly correspond to the management and support of the infrastructure in MDNRE's environment.

Deployment Services are divided into two phases – Build and Launch.



Build Services
Build Services involve the basic build of the Client Site, comprising the hardware, Operating System (OS), security features, and software configuration of the devices in the environment to make the Client Site operational and ready to accept client applications. The completion of the Build Service is marked with the Operationally-Ready Date. Additional details specific to the deployment of the Managed Services purchased are documented in the Managed Services section of this proposal.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:
- Host a kickoff meeting with key delivery and MDNRE personnel to review the deployment plan and architecture
- Develop a project plan and prepare for services to support the deployment and ongoing operation of the hosted environment
- Communicate any service issues or deployment concerns

Finalize requirements for the network and architecture
Generate a hardware procurement list during project kick-off and planning build stage
Perform tests to validate that the servers and related hardware are operational
Conduct a final review of the deployment with MDNRE to verify that requirements have been met
Work with MDNRE to determine Go-Live Date

MDNRE Responsibilities

MDNRE will perform the following tasks:

Review and approve the deployment plan
Review and approve the launch test plans
Review and approve the final site architecture that will be deployed
Attend the kickoff meeting, status update meetings, and final deployment review meeting
Provide to HPES primary and backup communication focal point contacts for service requests, security authorizations, support issues, and business continuity requirements

Service Conditions

The following service conditions apply:

- HPES will configure MDNRE's environment as described in the Architecture Diagram

Launch Services

Launch Services involve loading the MDNRE's code to the servers and testing necessary to support the Automated Web Hosting Service Level Agreement following completion of the Build Services. Additional details specific to the Managed Services purchased are documented in the Managed Services section of the SOW. Launch Services end on the Go-Live Date.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Develop a test plan for the MDNRE Site
Perform system testing before MDNRE Site launch. Testing consists of high availability (HA) and system fail-over testing, stability testing, security testing, and monitoring configuration verification.
Develop and execute the Domain Name Server (DNS) cutover plan and launch the MDNRE Site into production
Assist MDNRE with loading the hosted application code and configurations

MDNRE Responsibilities

Review and approve the deployment test plan
Review and approve the site architecture that was deployed
Perform application and business function testing
Attend the final launch review meeting
Review the DNS cutover plan and approve the Go-Live Date

Service Conditions

The following service conditions apply:

HPES will configure MDNRE's environment as described in this proposal
The MDNRE Site will not be activated until the servers and related functionality outlined in this proposal have been installed and are operational
The MDNRE Site will not be activated until MDNRE environment has power access, Internet access, and communication access (power, pipe, and ping access)

Managed Services

This section is organized according to the categories of services listed below and includes a description of each type of Managed Service as well as HPES and MDNRE responsibilities.

Client Infrastructure
Managed Network
Managed Server
Managed Database

Managed Backup and Restore
Enterprise Storage

Client Infrastructure

Client Infrastructure Services are those Services directly related to the management of the physical environment within the Data Center location

Facilities and Asset Management

Facilities and Asset Management are those Services, which are involved in managing Data Center facilities. Facilities Management Services are provided in an HPES certified facility. Facilities Management Services are not available as a stand-alone offering.

Each HPES certified facility provides processing support for HPES' services satisfying the business and technology requirements of multiple clients. HPES certified facilities are constructed specifically for large-scale information technology processing and incorporate environmental systems to minimize hazards from electrical power failure, fire, or water damage, acts of nature, and unauthorized access. Each HPES certified facility is equipped with an uninterruptible power supply, diverse power feeds, and a diesel generator backup system.

Facilities Management Services consist of the following:

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Maintain engineering design and facility environmental systems and manage all aspects of the Data Center, consisting of supervision of all subcontractor maintenance activities
Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities to meet agreed-on hosting environment requirements
Determining floor space provisions for compute environment configuration needs
Managing and supporting infrastructure facilities to maintain or exceed leading industry standards
Providing floor space, rack space, power, HVAC, fire suppression, motor generators, 24x7x365 facility staff, and diverse power feeds
Supervising infrastructure and sub-contractor facilities maintenance activities
Maintain physical security of the Data Center

MDNRE Responsibilities

MDNRE will perform the following tasks:

- MDNRE or MDNRE representative(s) will conform to HPES security policies during all site visits.

Physical Security Services

Physical Security Services include controlling access to the HPES certified facility. Authorized employees are assigned electronically encoded cards that allow access to the general work area. Areas requiring additional security, such as equipment control rooms and raised floor areas have more restricted access controls.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Maintaining a secure database of access authorizations by user
Periodic review of access logs
Review and follow-up of any physical security violations
Security personnel on-site 24x7x365

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Managed Network Services

This section describes Services to support the dedicated network infrastructure, Managed Network Services. The dedicated network infrastructure is the set of network devices that are deployed in the Client Compartment (for example, switches, load balancers, firewalls, and/or remote access devices Managed Network Services consist of the following:

Dedicated Network
Secure Remote Access – VPN
X.25 Packet-Switched Circuits
Bandwidth
DNS Management

Dedicated Network

Dedicated Network describes the Managed Network Services required to monitor and support the dedicated network infrastructure of firewalls, switches, and load balancers deployed for MDNRE within the Data Center, as well as the connectivity between the Dedicated Network and the Shared Networking Equipment. This dedicated network core is connected to a shared, highly available (HA) network infrastructure in each data center, including gateway routers and switches, that provides external connectivity. The HPES core network includes Network-based Intrusion Detection Systems (IDS) used to monitor and respond to unauthorized network access.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Install and configure HPES supported network infrastructure with default configurations and connect to HPES Data Center network
Configure up to four separate server virtual local area networks (VLAN)s, setup virtual IP address(es) and perform up to 10 virtual IP address changes comprised of additions, modifications, and deletions to network devices
Provision up to 14 public IP addresses for use in MDNRE Web sites and applications
Provision up to 500 private IP addresses for server networks

Managed Services

Monitor HPES network and HPES-managed network devices
Respond to and repair problems on HPES-managed network devices
Respond to and repair connectivity problems over HPES network and MDNRE compartment
Update network device OS as necessary
Conduct capacity planning for HPES network and network devices
Monitor availability and performance of network connection from HPES Data Centers to neighboring Internet Service Provider (ISP) peers

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Review and approve the architecture that HPES will deploy

Managed Services

Submit a Change Request as needed to add or remove hardware

Secure Remote Access – VPN

Secure Remote Access – VPN is the service to manage the virtual private network (VPN) devices that provide MDNRE personnel with a secure tunnel into the Client Compartment.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Hardware-Based VPN – HPES Client Compartment

- Procure and install the HPES-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

Hardware-Based VPN – Client Remote Location

- None

Managed Services

Hardware-Based VPN – HPES Client Compartment

- Monitor HPES-managed VPN devices installed at HPES' facilities
- Respond to and repair problems on HPES-managed VPN devices
- Update VPN device OS as necessary
- Respond to and isolate connectivity problems over HPES-managed VPN tunnels between Client Compartment and the Client Remote Location
- Repair problems caused by HPES-managed devices, networks, or HPES service providers

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Hardware-based VPN – Client Remote Location

- Procure and install the MIDNR-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

- Provide Public IP address for VPN device
- Physically install VPN device and integrate with corporate network in a screened subnet (DMZ) in accordance with HPES' standard VPN topology for the Client Remote Location
- Configure corporate firewall to perform Network Address Translation (NAT) for any VPN traffic transmitted to or from the Client Compartment

Verify MDNRE corporate network allows administrative and IPSec traffic from HPES-designated IP ranges to VPN device at the Client Remote Location

Managed Services

Hardware-based VPN Client Remote Location

- Maintain network connectivity between VPN device at Client Remote Location and the Internet
- Assist HPES to perform diagnostics, troubleshooting, and repair for connectivity problems caused by the VPN device at Client Remote Location (reboot, check cables, and so forth)

Install replacement hardware as necessary

X.25 Packet-Switched Circuits

X.25 Packet-Switched Circuits is the service to manage the X.25 circuits that provides MDNRE point of sale agents with access to the HPES DSU/CSU in the Client Compartment.

HPES will provide the following leased line circuits

Fractional T1 with 56Kbs Bandwidth for each circuit

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Procure X.25 circuits to the HPES SMC

Procure and install HPES-supported termination devices in MDNRE compartment in SMC

Provide as many as two hours to consult with MDNRE to determine requirements for HPES-side termination

(2) Toll-free dial up numbers terminating on the X.25 circuits at the HPES SMC

Managed Services

Monitor HPES-managed X.25 circuits and termination devices at the HPES SMC

Respond to and repair problems on HPES-managed X.25 circuits and termination devices
Respond to and isolate X.25 circuit connectivity problems between the HPES SMC and the X.25 network
Repair problems with HPES-managed X.25 devices and network

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Maintain responsibility for X.25 circuit and device deployment at MDNRE point of sale agent locations

Managed Services

Maintain responsibility for X.25 circuit and device deployment at MDNRE point of sale agent locations

Bandwidth Service

Bandwidth is the service to provide Internet connectivity between the Client Compartment and the Internet.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Provision bandwidth from HPES' ISPs to HPES Data Centers. The amount of bandwidth provided to MDNRE is 5 Mb/s
Set up connection from Client Compartment to HPES network in Data Center

Managed Services

No additional responsibilities

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Domain Name Service (DNS) Management

DNS is the service to direct Internet traffic to the MDNRE's hosted Web site by managing MDNRE domains on HPES domain name servers.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Redirect traffic from one old environment to the new environment at Go-Live

Managed Services

Monitor and maintain primary and secondary DNS servers
As necessary, inform MDNRE of IP or name changes for primary and secondary DNS servers
As requested, redirect traffic from one Web address to another within the HPES environment
Update names and IPs for HPES DNS servers as necessary or required

MDNRE Responsibilities

MDNRE will perform the following task:

Deployment Services

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No additional responsibilities

Managed Services

Renew domain(s) registration

Managed Server Services

Managed Server consists of the ongoing monitoring and management Services for the hardware and OS.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Install and configure hardware

Integrate hardware into HPES monitoring environment (fault level analysis only – Internet Control Message Protocol (ICMP), CPU, disk, hardware components)

Install cables between devices

Provision the infrastructure-specific OS that has been certified and packaged for use by HPES

Install OS, Opsware™ and other HPES required software

Define and configure OS monitoring to (1) monitor network connectivity, network devices, or server hardware and (2) gather performance data

Perform security review prior to site launch which consists of the following:

- Configurations and settings check during initial server build
- Audit of password integrity
- Server hardening:
  - Install only required OS components
  - Install HPES recommended vendor security patches
- Set passwords and access control
- Disable unnecessary network and system services
- Limit network services that run under the root account
- Enable account management
- Set up MDNRE administrator accounts

Managed Services

Monitor server hardware

Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches

Apply HPES required patches

Notify MDNRE of monitored OS-related events where it appears that the OS is the root cause of the problem (OS debugging is not included)

OS security patch management

- Monitor relevant vendor and industry bulletins for security-related patch alerts
- Evaluate need for patches
- Get MDNRE approval before proceeding with any service-affecting changes, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm)

Add, delete, and change HPES accounts and update passwords

When necessary, perform reboots of servers

As requested by MDNR, adjust level of log creation to either increase or decrease granularity of data collection

HPES RSS Support Staff Responsibilities

HPES RSS Support Staff will perform the following tasks:

Deployment Services

Configure non-OS applications

Managed Services

Apply HPES required patches

Maintain responsibility for additions, deletions, and changes to MDNRE accounts using the account management tool

When necessary, perform reboots of servers
As requested by MDNR, modify job scheduling on a server, such modifications consist of addition, change, or deletion of jobs

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Review and approve architecture that HPES will deploy

Managed Services

Respond to HPES inquiries regarding patch issues within one business day of notification
Respond to HPES' request for input regarding issues of service management

Managed Database Services

The Managed Database Services consist of installation and configuration and monitoring and issue resolution of the MDNRE database servers on a 7x24x365 basis.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Install and license the database application
Setup database instances
Provision storage
Configure fault monitoring

Managed Services

Monitor server hardware

HPES RSS Support Staff Responsibilities

HPES will perform the following tasks:

Deployment Services

Configure back-ups
Create database
Perform database imports
Implement database security per HPES standards
Create users
Make necessary schema changes
Configure space management
Configure and set the scheduled jobs
Provide documentation for database setup procedures
Configure clustered, High Availability (HA) environment
Verify that database software levels in the development environments match the production environment. The architecture in the development environments should match the production environment
Migrate existing database to suitable format for import into new environment
Perform functional testing and correct bugs in the site that impact site stability or integration with HPES Services
Perform database fail-over testing

Managed Services

Monitor faults
Monitor space availability
Monitor connectivity to the database
Monitor significant exceptions in the alert logs
Respond to and repair problems
Backup database

Recover database if necessary to correct problems
Apply software security patches and major bug fixes

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Freeze all database changes eight business days prior to Go Live Date to allow for HPES testing

Managed Services

Respond to HPES inquiries regarding patch issues within one business day of notification
Follow HPES change management procedures for promoting code and content changes
Verify changes are tested in model office environment prior to pushing to production

Enterprise Storage Services – Enhanced

Enterprise Storage Enhanced Services provides Intelligent Storage with on-demand scalability in a sophisticated SAN environment designed for increased scalability, availability, and information protection. The EMC Enterprise Storage offering provides a faster more scalable solution that any locally attached storage on the market. Each server of the Database Cluster will be attached to the SAN via dual fiber channel host bus adaptor cards for high availability. HPES will provide performance management services consisting of collecting performance data dynamically. HPES will perform load-balancing services, so that utilization is distributed across the disk and channel infrastructure as possible based on the configuration design.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Provide the required storage hardware and software for Intelligent Storage and the hardware and software maintenance contracts for such hardware and software
Install connectivity components for the storage infrastructure (SAN, network attached file server, or direct connectivity storage) and provide connectivity to the MDNRE clustered database servers.
Document the initial and environment growth requirements to the extent possible based on due diligence information provided. Such information will address the amount in gigabytes, required start and end time frame, and number and name of platforms requiring attachment to Storage-on-Demand Service

Managed Services

Provide integrated software, storage hardware, and managed services to provide the appropriate level of capacity, scalability, and performance for the selected services
Provide a leveraged technical and operational monitoring staff to meet agreed-on Service Levels providing continuous support for the storage infrastructure
Implement security practices, such as logical unit masking, preventing unauthorized storage access from an unauthorized server

HPES RSS Support Staff Responsibilities

HPES RSS Support Staff will perform the following tasks:

Deployment Services

Work approve the deployment plan and test plan

Managed Services

Complete an Intelligent Storage requirements definition document to define changes to the service requirements considering the provision of additional storage; designating connectivity of additional servers; or designating configuration changes

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

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No additional responsibilities

Managed Services

No additional responsibilities

Managed Backup/Restore Services

Managed Backup and Restore Services provide operational support and management processes to meet OS and related system software requirements for data availability, accessibility, retention, and restoration. Services are designed to support file system and specialized applications/databases such as Oracle, SQL Server, Lotus Notes, Microsoft Exchange, SAP, and other client-specific backup requirements.

Managed backup services consist of the following:

Operating System Backups
Application / Client Data Backups
Database backups
Backup Monitoring
Restore Services

Operating System Backups

Operating System Backups provides backup of a server's operating system and configuration files. This service uses Trivoli Storage Manager (TSM) backup and an incremental forever approach to backup the operating system and configuration files. Incremental backups are provided on a daily basis. By default seven versions of file changes are retained for 60 days.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Install and configure backup agents
Add system IDs to backup server
Schedule backups
Test backup/restore
Verify hardware and network

Managed Services

Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
Update backup plans as new components are added to the system
Maintain the tape library, media, and expendable supplies
Backup operating system
Conduct a full backup the first time a MDNRE file system is backed up. Thereafter, only daily incremental backups occur.
Retain seven versions (1 active + 6 inactive) of operating system data within the HPES SMC and ship seven versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and it is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

HPES RSS Support Staff Responsibilities

HPES will perform the following tasks:

Deployment Services

Specify directories on file system to backup

Managed Services

Advise HPES when new components, application files or directories need backing up or old components, application files, or directories no longer require backing up

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Application / Client Data Backup

Application /Client Data Backup provides backup of a server's application and client data and configuration files. Web Hosting Backup Service uses TSM backup and incremental forever approach. Incremental backups are provided on a daily basis.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Install and configure backup agents
Add system IDs to backup server
Schedule backups
Test backup/restore
Verify hardware and network

Managed Services

Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
Update backup plans as new components are added to the system
Maintain the tape library, media, and expendable supplies
Backup applications
Conduct a full backup the first time a MDNRE server application and configuration files are backed up. Thereafter, only daily incremental backups occur.
Retain 14 versions (1 active + 13 inactive) of application data within the HPES SMC and ship 14 versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

HPES RSS Support Staff Responsibilities

HPES will perform the following tasks:

Deployment Services

Specify application files and directories to backup

Managed Services

Advise when new components, application files, or directories need backing up or old components, application files, or directories no longer require backing up

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Database Backup

Database Backups are saved as files on the local server. These files are included in daily file backup on each system.

HPES RSS Support Staff Responsibilities

HPES will perform the following tasks:

Deployment Services

Setup initial database backup schedule

Managed Services

Maintain Database Backup schedule

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Backup Monitoring

Backup Monitoring is a standard service that provides failure monitoring for the backup processes and procedures for a successful backup of the shared hosting compute environment.

HPES Responsibilities

HPES will perform the following tasks:

Managed Services

Perform monitoring, verification, notification, and escalation of issues as necessary for application data, operating systems, and related system software backups

Update backup plans as new components are added to the system

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Restore Services

Restore Services consist of the services required to restore an operating system, application, and data file system and/or database content upon request by MDNRE.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Managed Services

File restores provide restoration of a file internal disk to the server to a point in time (within the granularity of the backup schedule). MDNRE will be charged a fixed fee, under Technical Support Services, for file restores.

Full restores (full operating systems, applications and data, file systems, and database contents) when requested, allows MDNRE to request full restoration of a disk environment to a point in time (within the granularity of the backup schedule). MDNRE will be charged on a time and materials basis for full restores.

MDNRE Responsibilities

MDNRE will perform the following tasks:

Managed Services

Specify file or disk system to restore

Service Enhancements

The Service Enhancements Section describes Managed Services that have been be ordered by MDNRE in addition to the HPES' standard Automated Hosting Services (the "Service Enhancements").
The Service Enhancements selected by MDNRE are listed below:

Mail Services
Security Enhancements

Mail Services – Outbound Mail

Outbound Mail Relay Service (the "Outbound Mail Relay Service") enables the delivery of outbound Simple Mail Transfer Protocol (SMTP) e-mail messages using relay servers to the Internet. Mail relay servers are part of the shared environment, segregated by firewall from the dedicated client compartment.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Own, engineer, operate, and administer hardware and software required to provide this service
Monitor the system 24x365
Provide notification of partial or full service outages to designated HPES Account and MDNRE contacts
Troubleshoot system problems and repair or replace system components
Multiple redundant servers at multiple locations to provide load balance and high availability

HPES RSS Support Staff Responsibilities

HPES will perform the following tasks:

Provide at least two HPES client contacts for each client domain/address
Make certain that sender addresses are valid and deliverable
Make certain that all SMTP DNS domains include a valid, functioning postmaster address that delivers to a person
Make certain that receiving servers accept messages in a timely manner. Servers that consistently back up or cause delays on the mail relays must be upgraded to meet capacity.

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Service Conditions

The following service conditions apply:

To allow e-mail routing through the Outbound Mail Relay servers, the sender address, or domain must be provided to Messaging Services by MDNRE
The sender's address or domain must be accessible as a destination domain, and should not use the eds.com domain.
Clients of the Outbound Mail Relay Service are expected to make certain that recipients have requested all messages delivered using this Service.
Clear and easy-to-follow instructions for removal from the distribution must be included in the message.
A maximum per-message size of 512 KB is implemented for the Outbound Mail Relay Service and messages larger than the maximum size will be rejected.
HPES reserves the right to restrict distribution of any messages at HPES' sole discretion.
Use of this service requires both the sender and the recipient to have valid SMTP formatted addresses to send and receive SMTP mail.

For the purposes of this document, availability of the Outbound Mail Relay Service is a state in which at least one mail relay service server is operational, connected to the network, with the means necessary to send and receive data in Internet Protocol formats, and accepting properly formed SMTP messages.

The Outbound Mail Relay Service is implemented with redundant mail relay servers at redundant locations with redundant network connections.

HPES does not guarantee the availability of servers supporting destination domains nor the network infrastructure used to reach those servers, as these devices and networks are typically outside the control of HPES.

Message delivery times may be longer than normal during partial service interruptions where the overall e-mail system is still available.

Mail delivery is the ability of HPES mail relay servers to relay the messages accepted to the next hop to the destination domain. This ability depends on the responsiveness of the destination mail system and the network infrastructure to connect to that destination. Delivery will be attempted periodically for up to three days. After one day, the systems are configured to send a delay notification identifying that delivery attempts will continue. After three days any undeliverable messages will be returned to the envelope sender address.

Problem resolution means the actions required to identify, repair, and resolve system problems that affect the level of service.

Automated monitoring tools and manual processes are used to detect events that could potentially affect the Outbound Mail Relay Service and alert the support team.

Security Enhancement Services

HPES Security Enhancements consist of the following options to allow clients additional technology and security services beyond the base security described in other services purchased:

Digital Certificates
Vulnerability Analysis and Reporting
SAS70 reports

Digital Certificates

HPES will order digital certificates, register MDNRE servers, and install and configure certificates to enable SSL communication.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Deployment Services

Order digital certificates and register MDNRE server accordingly
Install certificates to enable SSL communications on MDNRE's server

Managed Services

Process and implement certificate renewals prior to expiration

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

Provide required information in a timely fashion to enable HPES to order certificates

Vulnerability Analysis and Reporting

System Level Vulnerability detection is the preventive process of examining, prioritizing and resolving vulnerabilities on system hosts.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Managed Services

Perform vulnerability checks through pre-defined scan policies to identify violations to the HPES established security policies. Current scan polices calls for scans to be done twice a year, at no additional charge to the customer. Results are used internally by HPES to access and improve our security process. This proposal includes an additional service of monthly scans done on every production server with reports provided to MDNRE.

Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning

Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take action to mitigate risk

MDNRE Responsibilities

MDNRE will perform the following tasks:

Managed Services

Review HPES recommendations

Initiate Change Control Process if interested in applying HPES' recommendations

Service Conditions

The following service conditions apply:

Information security is a dynamic area. MDNRE acknowledges that not all threats and vulnerabilities are currently understood or identified, that any security solution is subject to being compromised or circumvented in a variety of manners, and that new and unexpected threats and vulnerabilities can be expected to arise in the future. MDNRE understands that as a provider of information security services HPES does not provide a guaranteed identification of all possible threats and vulnerabilities or guaranteed protection against all risks, threats and vulnerabilities.

It is understood and agreed that HPES is not assuming responsibility for any losses that may occur as a result of the failure to identify all possible threats or vulnerabilities, that HPES is not acting in the capacity or taking on the responsibility of an insurer and is not charging a price that would allow it to do so, and that it is the responsibility of MDNRE to obtain insurance, if any, covering damages to MDNRE or third parties.

MDNRE is responsible for obtaining any consent necessary for HPES to access the systems as required to perform these security Services, prior to HPES commencing performance.

SAS70 Reports

HPES performs SAS70 audits on its total SMC hosting environment on a periodic basis and these reports are available to the State during the 4th quarter of 2010. SAS70 reports are restricted to existing HPES clients and their auditors.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Managed Services

Order SAS70 reports for Plano and Tulsa

Provide MDNRE with the SAS70 reports in the 4th quarter of 2010

MDNRE Responsibilities

MDNRE will perform the following tasks:

Deployment Services

The MDNRE shall restrict use of the Proprietary Material to its employees and independent auditors who are involved in the evaluation of the Proprietary Material.

MDNRE Agrees to comply with SAS 70 Non Disclosure Statement:

It is agreed that, in consideration for Electronic Data Systems Corporation's disclosure of this SAS70 Report (hereinafter referred to as the Proprietary Material), the Customer agrees that the Proprietary Material is, and shall at all times remain, the property of Electronic Data Systems Corporation and shall be used solely by the Customer and the independent auditors of the Customer in connection with the services performed or proposed to be performed by Electronic Data Systems Corporation for the Customer. The Customer will not copy, reproduce, sell, assign, license, market, transfer, or otherwise dispose of or give the Proprietary Material to any person, firm or corporation. The Customer shall keep the Proprietary Material confidential and shall not disclose the

Proprietary Material to another party without first obtaining written permission from a duly authorized officer of Electronic Data Systems Corporation.

Client Services

HPES Client Services provides MDNRE with 24x365 support, account management and key technical resources for support of MDNRE's operations. A project manager will be assigned to MDNRE to perform account support and act as an escalation point to expedite the resolution of account issues. Additionally, the service allows for the review of account action items, and their associated follow-up activities on MDNRE behalf.

Client services consist of the following:

Technical Support Portal
Automated Operations Center Support
Site Outage Reporting

myhosting-eds.com™ portal

The portal is utilized for system reporting, operational ticket initiation/review, viewing site documentation, and ordering Technical Support Services.

Technical Support Services are a set of MDNR-initiated requests for ad hoc additional Services that are outside the scope of the on-going Services contained within this proposal.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Provide HPES RSS Support Staff access to the myhosting-eds.com™ portal
Provide HPES RSS Support Staff with administrative privileges and the ability to create user

HPES RSS Support Staff Responsibilities

Monitor and control user access privileges and access code usage on myhosting-eds.com™ client portal by MDNRE's employees or other third parties

MDNRE *Responsibilities*

MDNRE will perform the following tasks:

Designate the individuals of the HPES RSS Support Staff who will be designated to have administrative privileges

Service Conditions

The following service conditions apply:

MDNRE will not share usernames, passwords, or other access credentials that allow the client to access HPES resources with any third-party including contractors, agents, and delegates without HPES' express written permission.

MDNRE agrees that use of valid access codes to order Technical Support Services shall be an authorized act upon which HPES may rely in providing the services requested.

All Technical Support Services orders placed using permitted access codes shall, for all purposes, be deemed to be in writing and signed by MDNRE and will be admissible as between MDNRE and HPES to the same extent and under the same conditions as other business records obtained and maintained in documentary form.

Automated Operations Center Support

The HPES Automated Operations Center is the entry point for resolving system-related problems, and initiating change within MDNRE's environment. The Automated Operations Center also serves as the front line of technical support – in effect, this center provides both initial documentation of problems and their resolution.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

Provide support services to respond to requests for assistance related to the services
Facilitate the receipt and processing of valid requests
Receive, track, and own the request to closure

Accept and respond to authorized submitters, trouble requests that relate to the selected HPES services, or the related system configurations

Redirect any requests from non-authorized submitters to the MDNR-identified authorized submitters

Enter information obtained as a service request or trouble ticket into the request management system. The request management system will then notify the client using e-mail or pager of the request or alert

Provide impact statements for all Severity Level 1 problems describing actions to resolve

MDNRE Responsibilities

MDNRE will perform the following tasks:

Provide in writing a list of authorized submitters that are mutually agreed on by MDNRE and HPES

Provide an ongoing updated list of primary and backup contacts for interaction with HPES

Provide such information as requested by HPES to perform the services

Annually review the list of authorized request submitters and change approvers so that authorized MDNRE representatives approve all changes performed by HPES

Service Conditions

The following service conditions apply:

Although the service or problem may be referred to second-level support groups, third-party maintainers, or the HPES RSS Support Staff Help Desk for resolution, the Automated Operations Center, as the owner of the issue, is responsible for coordinating problem resolution until the problem is resolved.

A complete, authenticated request will be considered received once it has been logged into the request management system and assigned.

A request is not considered complete unless all information has been provided and appropriate authorizations and all prerequisite activities are complete.

Site Outage Reporting

HPES provides automated reporting if MDNRE 's site experiences an outage.

HPES Automated Web Hosting Responsibilities

HPES will perform the following tasks:

HPES RSS Support Staff will be alerted from the ticketing system if an outage occurs

MDNRE Responsibilities

MDNRE will perform the following tasks:

Provide HPES with an up-to-date notification list for Network outages and Application Outages.

Description	Coverage	Service Level
Level 1: Critical Impact Serious failures that cause MDNRE Web site to be offline. Examples: failure of HPES operated routers, system disk failures in non-replicated server, and so on	24x7x365	Estimated time to repair HPES Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to HPES.
Level 2: Major Impact Faults where users may notice a degraded system performance. Examples: failures in HPES access lines to the Internet, HPES operated routers, failed disk in array, and so on	24x7x365	Estimated time to repair HPES Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to HPES.
Level 3: Moderate Impact Faults that MDNRE may not notice and cause little disruption of service. Examples: Rebooting a server or router, memory short-runs and restarting aborted processes.	24x7x365	Estimated time to repair HPES Services will be provided to authorized submitter within 1 hour of call from authorized submitter to HPES.

Level 4: Minor Impact Non-outage situations and are usually requests for information. Example: Request for the version of software on a server.	Regular Business Hours 8 a.m. – 5 p.m. Central Standard Time, Monday - Friday	Authorized submitter will be contacted with 8 business hours of the initial request.

Appendix A – Service Levels

Service Levels Overview

Service Level Agreements. HPES offers Service Level Agreements (SLAs) to Client for the Automated Hosting Managed Services provided by HPES. The SLAs set forth herein specify the availability commitments for each Automated Hosting Managed Services component that MDNRE requires, and the performance and responsiveness of HPES for each such component. The performance against SLAs described herein shall be measured by each SLA.

Architecture Diagram Components. Each Client Site component managed and supported by HPES is identified and classified on the Architecture Diagram as receiving one or more of the Automated Hosting Managed Services.
All SLAs apply 7 x 24 (excluding Scheduled Maintenance), except for Managed Backup and Restore SLAs and Managed Enterprise Application and Database SLAs on Non-Production servers which only apply from 7AM to 7PM local Data Centre time.

Committed Response Times
HPES provides commitments for the total time required to repair. Each such Service Interruption incident has a different Time To Repair (TTR), defined as the total time, measured in minutes, that elapses between the beginning and the end of a single event. For the purpose of calculating the Time To Repair, the start time for a production event shall not be more than 30 minutes before the time the first trouble ticket for that event is created. The end of the event is defined as the cessation of the Service Interruption and resumption of normal service. The following tables summarize the Committed Time To Repair (CTTR) for each event type.

Committed Time To Repair Client Notification. In addition to the commitments set forth below, HPES will notify Client within 30 minutes of any incident impacting the availability of Client Site components covered by the SLA.

Component	Committed Time To Repair
Dedicated Network	Repair: 4 hours
VPN Secure Remote Access	Failure at HPES Data Center. Repair: 4 hours
Bandwidth Services	Bandwidth Services shared infrastructure configuration is HA by default. Fail-Over: 15 minutes Repair: 4 hours (if connectivity on both lines is interrupted)
Managed Server	Repair: 4 hours
Managed AOPS Web and Application Server or Managed AOPS Database Server	Repair: 8 hours
SAN Management	Repair: 6 hours
Mail Services	Repair: 15 minutes

TABLE 1 – COMMITTED TIME TO REPAIR

Requirements and Limitations

The SLAs provided by HPES are subject to the following requirements and limitations:
No SLA during Operationally-Ready Period. For each Client Site, the SLAs do not apply during the Operationally-Ready Period. During the Operationally-Ready Period, HPES will provide limited support to Client between 9:00 AM and

5:00 PM (Client's facility local time zone), Monday through Friday. HPES will respond within one (1) business day to requests for assistance within the scope of the Services. For each Client Site, the SLAs commence on the Client Site Go Live Date.

Scheduled Maintenance. HPES and its subcontractors reserve regularly scheduled maintenance windows in order to maintain and upgrade infrastructure. The SLAs do not include or cover such regularly scheduled or any Client-requested maintenance windows ("Scheduled Maintenance"). HPES shall make commercially reasonable efforts to provide Client with prior notification of all scheduled and emergency maintenance procedures.

Stress Testing. The Parties may agree from time to time to conduct stress testing and/or load testing of a Client Site. To the extent that Client agrees to proceed with such testing, any resulting interruption or impairment of the Client Site is not included in or covered by the SLAs.

Third Party Events. HPES cannot control events or services outside the HPES operational environment, including actions or inactions of third parties (except for third parties acting on behalf or under the direction of HPES and to the extent that is expressly set forth in the SLA's set forth in this Schedule) that impair Client's connections to the Internet including, by way of example, viruses or other intrusions ("Third Party Events"). Accordingly the SLAs do not include or cover any interruption or degradation in service due to such Third Party Events.

Force Majeure Events. HPES shall not be liable for SLAs to the extent that HPES' non-performance is excused due to a force majeure event or for such other events for which performance is excused under the Agreement.

Client Responsibility. The SLAs do not include or cover Service Interruptions, outages, or any performance degradation caused by Client or by its clients, service providers or contractors; by applications not managed by HPES on Managed Servers; by Client's hardware, applications or code within the Client Compartment; or by changes to the Client's applications or code, content, database schema, or Client's site configuration, originated either (i) directly by Client, (ii) by HPES if Client has requested or approved the change to take place outside of HPES Maintenance Windows; by lack of necessary monitoring information from Client; or by Client's failure to comply with operating procedures and documentation provided to Client from time to time. Client will assist HPES in defining certain operating procedures which are specific to the Client Site such as Client contact information and contact methods.

Monitoring. In order to monitor the availability of components for which HPES provides uptime and Time To Repair commitments, HPES implements pre-defined standard monitors on hardware, OS, software application components and software processes. Whenever custom monitors are implemented to monitor specifically the availability of application components which are specific to the Client Site, Client is responsible for assisting HPES in designing and implementing such monitors. While in general all monitors are designed to be as independent as possible from Client's code, content, third party data sources or off-net dependencies (since those dependencies are always excluded from uptime and Time To Repair commitments); in some cases HPES relies on monitors that include such dependencies. However, this does not mean that HPES is responsible for uptime on Client's content, code, third party, off-net dependencies, or any application, software, URL components that are not included in the list of items to be monitored, as defined in the monitoring configuration document.

Client Provided Hardware. The SLA commitments described herein apply, provided that HPES supplies the hardware components. For all hardware components supplied by Client, the definitions shall be amended to exclude failures related to such hardware components. For each hardware failure, HPES will require authorization to buy replacement parts and will charge Client for the parts and labor to complete the replacement or repair.

Supported Technologies. The SLAs described herein are only applicable to hardware and software components managed by HPES and selected from the then current HPES Automated Hosting Managed Services supported technologies list.

Appendix B. Ground Rules and Assumptions

The following assumptions are being considered for this proposal.

Any deviation from the assumptions set forth below or elsewhere in this proposal may affect HPES' performance and may result in changes to the schedule, fees and/or expenses, deliverables, and level of effort required to perform the Services described in this proposal.

1. Cookie-session persistence is required for a client to apply for a hunting or fishing license.
2. The migration plan will need to accommodate a 2 day down time in the production database to accommodate the movement of data from the current environment to the proposed environment.
3. A VPN (Virtual Private Network) will continue to be used to provide State of Michigan employees access to the RSS Web Hosting environment – to support SQL ad hoc queries to the Inquiry DB and RSSWIN access to the RSS/E-License Primary DB. Only MDNR-approved IP addressing and protocols will be allowed connections over this tunnel. Strong encryption (168-bit 3DES) will protect data traversing the Public Internet via the MDNR-dedicated VPN tunnel. The VPN tunnel, and therefore data encryption, terminates on a firewall at the perimeter of the State's enterprise network, and at the perimeter of the MDNR-dedicated network in the Web Hosting environment.
4. Any State agent (MDNRE or otherwise) approved by MDNRE to provide data to RSS, or distribute data created by RSS, will need to do so via direct access to RSSINQ. The VPN tunnel described above will serve this purpose.
5. In the event the VPN Internet Bandwidth solution does not meet the need of MDNRE, MDNRE has the option to convert to a dedicated circuit. MDNRE will bear the cost of this change.
6. MDNRE's staff will be readily available to complete their assigned activities.
7. MDNRE will make critical decisions and convey approvals on a timely basis, but no later than three (3) business days after the request for a decision or approval.
8. HPES reserves the right to rotate HPES personnel supporting the MDNRE's hosted environment.
9. HPES will provide additional resources on a time and material basis if service level thresholds defined in the Service Condition sections exceed the defined number quantities set forth in this proposal.
10. If MDNRE exceeds allocated service condition thresholds for two consecutive months, cost adjustments will be applied by HP through the Change Control Process for the activity exceeding the thresholds. HPES will increase the monthly Full-Time Equivalent resource (FTE) support to the level required to support the activity going forward.

Appendix C - General Technical Glossary

General Terms

Term	Definition
archive log	Records that are backed-up dynamically using a file system threshold that, when reached, triggers a standard backup process
cluster	Two or more computers that operate independently but work collectively to provide uninterrupted computing service, higher performance, or both
DBMS	Database Management System
dedicated	A resource that is unique to the Client Site and not shared with other HPES Clients
E-commerce	Doing business online, typically through the Internet
firewall	A set of related hardware and programs that protects the resources of a private network from users from other networks
FTP	File transfer protocol; a simple method of transferring information over a TCP/IP network
IDS	Intrusion Detection System
IP	Internet protocol
IP Address	Address of a computer attached to an IP network
ISP	Internet Service Provider
LDAP	Lightweight Directory Access Protocol
load balancing	Fine tuning a computer system, subsystem, or network to more evenly distribute data, network traffic, or processing across available resources
Mbps	Mega-bits per second
ping	TCP/IP utility used to determine whether a computer is connected to the Internet
platform	Particular hardware or software architecture
port	Logical connection place and, specifically, using the Internet's protocol, TCP/IP, the way a client program specifies a particular server program on a computer in a network
OS	Operating system
reboot	To restart a computer's operating system
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SQL	SQL (Structured Query Language) is a standard interactive and programming language for getting information from and updating a database.
SQL Server	Microsoft SQL server technology
socket	One endpoint of a two-way communication link between two programs running on the network. A socket is bound to a port number so that the TCP layer can identify the application that data is being sent.
SSL	Secured sockets layer; a program layer for managing the security of message transmissions in a network. SSL uses the public-and-private key encryption system that also involves the use of a digital certificate
URL	Uniform resource locator; universal resource locator; the address defining the route to a file on the Internet
VPN	Virtual Private Network
WAN	Wide Area Network

Appendix D – Out-Of-Scope Security Enhancements

HPES provides a comprehensive set of security capabilities to enable clients to tailor an appropriate security solution to fit their business needs. MDNRE currently has the following security uplifts requested in the RSS hosting environments as described in detail in the Service Enhancement Section:

- ◊ **Digital Certificates**
- ◊ **Vulnerability Report**
- ◊ **SAS70**

Besides the security services that are part of the basic MDNRE Infrastructure, Managed Server and Managed Network offering, HPES offers the following Security Enhancements services that are currently out-of-scope for this proposal: HPES Security Enhancements consist of the following enhancement options to allow clients additional technology and security services beyond the base security described in other services purchased:

Network-Based Intrusion Detection – HPES will install and configure filters for a dedicated Network Intrusion Detection System to monitor network traffic in the client compartment. As required, HPES will update the attack signatures and respond to alerts.

Host-Based Intrusion Detection – To enable host-based IDS, select devices are configured to generate alerts. HPES will monitor and respond to alerts as well as update attack-alerting filters.

Intrusion Detection Report – The analysis includes a detailed report of the latest scans, probes, and intrusion attempts directed at client's site over a month period. HPES will recommend specific course of actions to address any identified security exposures.

A client may also select from the HPES Security and Privacy Consulting Services described below. These services as provided as part of a scoped engagement.

Penetration Testing – The client can request consulting services to conduct penetration testing. Penetration testing simulates an adversary's activity; using the same automated tools a hacker would employ to gain unauthorized access to client organization's networks and systems. HPES will identify weaknesses in the environment and suggest corrective action.

Application Attack Simulation – Through a simulated attack, HPES will identify, analyze, and help mitigate security vulnerabilities and exposures related to the application architecture, authentication, connection management, configuration, patching, and coding practices. This service is available as a one-time service or as a subscription service.

Application Code Review – The HPES Code Review Service verifies that all client applications are developed and coded following secure programming procedures. HPES will work with the client development teams to identify and mitigate potential security risks in the software development lifecycle before the application is deployed.

Appendix E: Pricing

HPES is providing the following indicative pricing for extending the contract for hosting and application support of RSS for the time period July 1, 2010 through June, 30, 2011. The pricing set forth herein is only preliminary; the pricing is non-binding and is subject to change as the parties further define the terms and conditions that shall accompany this extension of work.

RSS contract extension for services July 1, 2010 through June 30, 2011

Services	July	August	Sept	Oct	Nov	Dec	Jan	Feb	*Mar **	*Apr **	*May **	*June **	TOTAL
	2010	2010	2010	2010	2010	2010	2011	2011	*2011*	*2011*	*2011*	*2011*	
RSS hosting Environments	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	*$42,100*	*$42,100*	*$42,100*	*$42,100*	$505,200
vulnerability scans	$895	$895	$895	$895	$895	$895	$895	$895	*$895*	*$895*	*$895*	*$895*	$10,740
POS communications 7% management fee	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	*$9,566*	*$9,566*	*$9,566*	*$9,566*	$114,792
E-License support	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	*$6,711*	*$6,711*	*$6,711*	*$6,711*	$80,532
RSS operations and support	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	*$102,268*	*$102,268*	*$102,268*	*$102,268*	$1,227,216
FTE Enhancement pool ($13,425/FTE/mo)	$13,425	$10,525	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,950
Total Invoice per month	**$174,965**	**$172,065**	**$161,540**	**$161,540**	**$161,540**	**$161,540**	**$161,540**	**$161,540**	***$161,540***	***$161,540***	***$161,540***	***$161,540***	**$1,962,430**

** March 2011 through June 2011 projected to be covered under RSSII contract*

III. Cost

See Appendix E Pricing for billing schedule

IV. Impact on Contract

Increase: **$1,962,430.00**

V. Signatures

HP Enterprise Services, LLC

By: _____

Title:_____

Date:_____

DTMB Contract Administrator

By: _____

Title:_____

Date:_____

DNRE, Program Manager

By:_____

Title:_____

Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

March 16, 2009

CHANGE NOTICE NO. 70
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-3215 **Steve Motz**
Contract Compliance Inspector :Pete Devlin	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 30, 2010**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, this contract is amended to include the attached Change Authorization Request No.2009-001. This Change Authorization eliminates the RSS development enhancement pool for four months (June 2009 thru September 2009). In addition, EDS will provide enhancements to E-License and RSS to offer gift certificate purchases and redemptions. All other terms, conditions, and specifications remain unchanged.

In addition, please note that the buyer has been changed to Steve Motz.

AUTHORITY/REASON(s):

Per agency, DIT, DMB and vendor approval.

TOTAL CONTRACT VALUE REMAINS: $34,132,988.08

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207/PO No. 084N9200929
Change Authorization Request No.2009-001

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request is to suspend the Development Pool for the months of June, July, August, and September 2009 as a result of mandatory Fish & Game reductions for FY '09. This change will modify the EDS contract by reducing it in the amount of $161,100 from the suspension of the "3 FTE Enhancement Pool ($13,425/FTE/mo)" line item in the contract. This change will affect the contract payments cycle in Months 9 through 12, June-September '09.

Development Pool as referenced in the contract:
EDS will establish a dedicated pool of three (3) information analysts (I/A Development Pool) to perform, in accordance with MDNR priorities, additional system enhancements and documentation that relate to RSS databases, RSS Windows Application, RSS POS applications, RSS batch application and the E-License application during the period of time for which EDS is responsible for such databases and applications. The MDNR will have the option to increase or decrease the number of I/As in the I/A Development Pool effective at the beginning of a monthly billing period upon forty-five (45) days prior written notice to EDS.

III. Cost

No additional cost.

IV. Impact on Contract
Decrease: $161,100

V. Signatures

EDS Contractor
By:
Title: Account Executive
Date: 3-5-09

~~DIT~~ Contract Administrator, DMB
By:
Title: DMB, BUYER
Date: 3-16-2009

DNR Program Manager
By:
Title:
Date: 3/9/09

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2009-001

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request enhances to E-License and RSS to implement a Gift Certificate (GC) Pilot; CR53088.

E-License will be modified to offer gift certificate purchases and redemptions.

On March 1, 2009, DNR customers will be able to purchase gift certificates and apply gift certificate values to their order totals on E-License. EDS and DNR both have roles in preparing for GC sales and redemptions.

Functional Business Requirements

1. MDNR will create new item types to be used as gift certificates
   - 1.1. MDNR will create a new form (GC) to be used for the new gift certificate item types.
   - 1.2. New item types will only be placed on sale over E-License.
   - 1.3. New item types will distribute the entire amount to the existing fund that handles discounts.
   - 1.4. New item types will be marked as NOT voidable or replaceable.
   - 1.5. The new items will be for the various denominations that are desired for sale.
2. E-License will be modified to sell the new gift certificates.
   - 2.1. The items types using the GC form will be sold in the same way that other license types are sold.
   - 2.2. After the item has been purchased and the customer's credit card has been charged, items with a GC form will also be stored in the new gift certificate tables in rss_db (not ols).
     - 2.2.1. Access to these tables will be restricted.
     - 2.2.2. The gift certificate history record will show the order and customer that purchased the gift certificate.
     - 2.2.3. These tables will be replicated to the INQ database but the actual gift card number column will not be replicated. The key fields will be used to link the data.
     - 2.2.4. Expiration date will not be set.
   - 2.3. The new GC form will be setup to allow the customer to print locally instead of printing at the CPC.
   - 2.4. The gift certificate will contain a unique number that will be 16 digits in length

2.4.1. The first 5 digits will be the selling terminal_key

2.4.2. The next 7 digits will be the order_cart_id for the gift certificate item in the cart. This number is unique among all orders in the system. The current number is 1,340,000 and increments about 300,000 a year.

2.4.3. The next 3 digits will be the three digit day of the year. (November 15th is 319 or 320 in a leap year)

2.4.4. The last digit is a check digit that is created using the LUHN algorithm. This is the same algorithm used in the sportcard numbers and most credit card numbers.

2.4.5. Data security of the gift certification number will not be controlled by encrypting the number within the database table. Very limited authorization to view and update the table containing this number will protect this field. MDNR will establish the access rules to this table.

3. E-License will be modified to allow the redemption of gift certificates.

3.1. The CCInfo page will be modified to allow the entry of 1-many gift certificates.

3.1.1. The gift certificate record will be queried to determine the amount left on the certificate. The certificate amount will not be updated at this time.

3.1.2. The Gift Certificate may or may not have an expiration date. If there is a date and it has passed, an error message will be returned.

3.1.3. If the order has a balance still remaining after the certificate has been applied, the customer will be allowed to enter another certificate.

3.1.4. A "Remove" button will allow the customer to remove a gift certificate from the order.

3.2. If the order has a zero balance after all gift certificates have been applied, CEPAS will be bypassed.

3.3. After the credit card has been successfully charged(or bypassed), the gift certificates will be decremented.

3.3.1. The gift certificate record will be queried to verify that the remaining balance still covers the amount used in this order.

3.3.2. All gift certificates will be updated under the same unit of work. If there is an issue, all others will be backed out.

3.3.3. If there is an issue, the credit card (if charged) will be reversed.

3.3.4. If there is an issue, execution will be passed back to the CCInfo page with a detailed error message

3.3.5. If there are no issues, the gift certificate remaining amount will be decremented and an audit record will be created to show who redeemed it.

3.3.6. Audit record will show the order and customer that redeemed the gift certificate.

3.4. The receipt will be modified to show the gift certificates that were used in the order.

3.4.1. Only the last 5 digits of the gift certificate number will be shown.

3.4.2. The amount used in the order and the remaining balance will be displayed.

3.5. The Welcome page will be updated to contain advertising material promoting the availability of the new gift certificates.

3.6. A new transaction(661) will be created for each gift certificate that is redeemed.

3.6.1. MDNR will create a new AR action code. (it could be called PAYMENTGC)

3.6.2. The existing fund that handles discounts will be used for the distribution of the gift certificate redemption.

3.6.3. The amount on the 661 transaction will be used to create AR transactions with a negative amount. It will use the new AR action code.

3.6.4. The AR transactions will be marked fully collected for the agent key and bank key associated with the selling terminal.

3.6.5. The appropriate AR collection records will be created.

3.6.6. A Payment Gift Certificate voucher will be created for each 661 transaction processed.

3.7. The Internet Sales Extract will be modified to include the new AR action code as part of the report.

Impacted Areas

- Batch job processing
- E-License Application
- MDNR Customer Systems Department
- MDNR Financial Department
- Model Office environment
- Production environment
- Production RSS Database
-

Non-Impacted Areas

- MDNR Customer Systems Department
- MDNR Wildlife Department
- Michigan Department of Information Technology
- RSS Win Application
- Batch reporting
- POS
- Misc. License Application

Assumptions

1. New items MUST not be voided using the RSSWin Void Item interface even though the window allows voiding all items. Modifications to this window to prevent the items from being voided is not part of the scope for this CR.
2. E-License does not allow reprints after 96 hours. MDNR will need to create a process for handling the cases where a customer purchases a gift certificate but does not print it.

Project Schedule for CR53088

Task Name	Start	Finish
MDNR CR53088	12/08/08	02/27/09
Work Management	12/08/08	02/27/09
Application Development	12/08/08	12/19/08
Refine and Analyze Requirements	12/08/08	12/19/08
UIS / LPS delivered	12/12/08	
UIS / LPS client sign off	12/19/08	
Design Application	12/21/08	01/02/09
Produce Application	01/05/09	02/09/09
Produce Perform Integration Testing	02/09/09	02/13/09
Coordinate Formal Acceptance Testing	02/17/09	02/25/09
Obtain Client Sign-off	02/26/09	
Application Implementation	02/27/09	
Implementation Complete	02/27/09	

III. Cost

Total effort for CR53088 = 419 hours (3.18 man months)

Effort for CR53088 will be performed between December 2008 and March 2009. The 3.18 man months will be covered by the contract under the existing FTE enhancement pool. The usage and recording of the 3.18 man months will be deferred until after March 1, 2009. The EDS invoice will record the deferred usage of the FTE pool indicating CR53088.

IV. Impact on Contract
Increase: $ 0

V. Signatures

EDS
By: [signature]
Title: Account Manager
Date: 11/20/08

~~DIT~~ Contract Administrator DMB
By: [signature]
Title: DMB, BUYER
Date: 3-16-2009

DNR, Program Manager
By: [signature]
Title:
Date: 11/20/08

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

September 3, 2008

CHANGE NOTICE NO. 69
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Pete Devlin	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 30, 2010**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, this contract is amended to include the attached proposal from EDS for technical, hardware, and software updates for the Model Office environment. All other terms, conditions, and specifications remain unchanged.

AUTHORITY/REASON(s):

Per agency, DIT, DMB and vendor approval.

TOTAL CONTRACT VALUE REMAINS: $34,132,988.08

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No. 2008-002

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses a 24 month extension to the RSS contract services as defined in the following proposal:

TABLE OF CONTENTS

Overview

RSS Environment

Michigan's Department of Natural Resources (MDNR) Retail Sales System (RSS) processes hunting and fishing license sales via point of sale (POS) terminals located throughout the state or through an Internet Web site. The system currently consists of the Production environment being hosted in the EDS Service Management Center (SMC) Plano, and the Model Office/Disaster Recover (MO/DR) environment being hosted in the EDS Service Management Center (SMC) Tulsa, Oklahoma.

The Production environment was installed in 2003 and the MO/DR environment was relocated to Tulsa with new hardware in 2005. Both environments currently operate on Windows 2000.

Issues and Vision

MDNR has requested that EDS continue to provide application support and hosting services for the RSS from July 2008 through June 2010. MDNR will use this period to analyze the department's requirements for automation of the sports licensing operations and determine requirements for the future operations of RSS. MDNR needs RSS to continue to function in its current state of high availability, and has therefore requested that EDS provide a proposal for necessary technical upgrades, and application support and hosting services, that will facilitate RSS' reliable operation for this 24 month period.

During the last contract extension, January 2006 through June 2008, MDNR and MDIT agreed to extend the life of the Plano SMC Production hardware in order to reduce hosting costs. The State of Michigan had planned for Michigan Department on Information Technology to take over responsibility of application support for E-License and hosting of the RSS Model Office/Disaster Recovery environment sometime during that January 2006 through June 2008 period, as documented in Change Notice 60 (Change Authorization Request 2007-001). However, those plans for the Michigan Department of Information Technology to take over responsibility of such application support has subsequently been cancelled by the State, and EDS has continued to retain responsibility for both areas. Now that these servers have been in use for 5 years, it is important to refresh the hardware and upgrade the operating system to ensure a maintainable low-risk system.

EDS proposes the following products and services for the RSS in this contract extension:

1. Hosting and application upgrades:
    a. Refresh the Production Hosting environment and locate it in the Tulsa SMC
    b. Refresh the MO/DR Hosting environment and locate it in the Plano SMC
    c. Increase the number of POS concurrent connections to the production communication servers
    d. Upgrade EICON Cards to S94 V2
    e. Upgrade clustered database storage method
    f. Upgrade all RSS environments (Development, QA, MO/DR and Production) to Windows 2003
    g. Improve DR file copy process
    h. Increase security of the RSS application passwords to login to the SQL server
    i. Improve database replication
2. Continued RSS operations as defined in the current contract
    a. POS communication services
    b. RSS application support services
    c. RSS application enhancement services

Implementation Approach for Upgrades

Phase 1 – Build Development and QA 2003 Servers in EDS, Lansing.
The Development and Quality Assurance regions will be built first. A System Test will be run in QA to ensure that everything will continue running without issue under Windows 2003.
Phase 2 – Build Tulsa Production 2003 hosting environment.
Because of 2008 license sales and drawing scheduling, the Production region will be built next.
New hardware will be procured and installed in the secured hosting environment. Windows 2003 OS will be loaded.
Two more X.25 circuits will be added to the communication servers, increasing the total number of concurrent POS connections from 300 to 450. The Eicon cards will be upgraded to S94 V2.
The production database cluster will be upgraded to move from direct attached disk storage array to enhanced managed SAN storage. The current production environment uses direct attached storage. The proposed solution will use leveraged SAN storage. SAN attached storage provides a higher availability solution, with greater guaranteed uptime, since the storage is dual connected to the host, and the disk array is monitored continuously for potential areas of failure. The disk array vendor notifies EDS immediately should disk issues start surfacing, so that the array can receive proactive maintenance, and thus avoid a catastrophic failure. The leveraged managed storage solution also enables the storage volumes to be adjusted should growth be required without the need to procure additional hardware.
FTP is the current protocol that State Agencies use to send and receive files with RSS. OpenSSH, which contains the Secured Copy Protocol(SCP) will be installed along with the FTP server so that the other agencies have a more secure option to use for connection to our system. They will be able to switch at their convenience.
In the current setup, the distribution database is on the same server as the replicated copy. When MDNR users execute resource intensive queries against the replicated database, distribution cannot update the replicated database as quickly. In the proposed setup, the distribution database will be moved to the same server as the live database. The replicated database will still reside on the Inquiry database.

After the servers are built, a System Test and a Formal Acceptance Test (FAT) will be run on the new Production servers. This will validate that all parts of RSS are setup correctly on the new servers and all parts will run on the new OS. When all tests are complete, the test data will be removed and the implementation plan will be executed to move the production data over to the new servers.
The implementation is expected to take one week with a two-three day period where the RSS production system will be down in order to setup the database and begin replication on the new servers. Only POS sales that do not require a host authorization will be possible during this period. The target date for the downtime is between 08/29/08 and 09/08/08. This is after the waterfowl application period and before the waterfowl drawing. No other application period or drawing processes are conducted during this window.
We had a very successful implementation when we moved the production region from the State of Michigan servers in Lansing to the EDS servers in Plano, and so we are using this historical project data to model this implementation.
The existing Windows 2000 production hardware will not be decommissioned until MO/DR has been built to Windows 2003.
Phase 3 – Build Plano MO/DR 2003 hosting environment.
Once the new Production region in Tulsa is live, the old production region in Plano will be turned off and the new MO/DR servers will be setup. New hardware will be procured and installed in the secured hosting environment located in Plano. Windows 2003 OS will be loaded. The logical setup will match the current three server MO/DR configuration. The communication server will use the newer S94 V2 Eicon card and will be connection to one X.25 circuit.
DR processing currently consists of a VB script that selects all files that have an accessed date after the date of last run and executing a copy command to move them to the DR holding area in the Model Office region. We are investigating tools that are more robust than windows copy in usable options and stability. One option is Rsync. The primary advantage to Rsync is that it checks for changes at the bit level in the specified file(s). Rsync therefore will only send the differences between the files rather than send the entire file. Rsync also compares files very quickly, so we do not need to use the timestamp to narrow the numbers of files included in the copy. This will ensure that all files are verified in the DR area.

After the servers are built, a System Test and a Formal Acceptance Test will be run on the new MO/DR servers. This will validate that all parts of RSS are setup correctly on the refreshed servers. Once testing is complete, the region will be considered live. There is no need for a data refresh.
Once the MO/DR region is live on Windows 2003, the old Production and MO/DR environments will be decommissioned.

Phase 4 – Software improvements.
SQL Password Protection
There are several parts of the MDNR RSS application that need passwords to login to the SQL server. Many of these passwords are currently stored in readable format (in ini files, command files, and Windows registry). Access to these locations is controlled via user login IDs, but there is still a risk in leaving them in a readable format.
In order to improve the security of these RSS application passwords and better protect the SQL databases, it is necessary to change this practice of storing passwords in a readable format. The preferred method is using Windows Authentication.

Using Windows Authentication allows the use of Windows IDs when connecting to SQL instead of internal SQL IDs. The password for the Windows ID still needs to be entered (i.e. Windows services, Batch Schedules, etc.), but it is never stored in a readable format. Windows Authentication will be used to connect to the SQL server for E-License, the Comsrv service, VB scripts, and all batch C programs.

When Windows Authentication is not possible, encrypting the passwords becomes the solution. Since the MDNR users are on a separate network than the SQL server, Windows Authentication is not an option for their RSSWIN application. The RSSWIN application will be modified to use an encrypted password. RSSWIN will need to decrypt the passwords prior to connecting to the database. This only applies to SQL IDs and passwords used to connect to the database, not the individual RSSWIN IDs and passwords that are stored in the user_table.

Project Schedule

MDNR Release 8.3 Project Summary	Start Date	Finish Date
MDNR Release 8.3	12/21/08	1/30/2009
Initiation	12/21/08	4/6/2008
SoM reviews and approves SOW for contract extension	12/21/08	1/8/08
EDS presents pricing	1/09/08	1/14/08
SoM reviews and approves pricing	1/15/08	1/20/08
EDS presents updated contract language w/ SOW and pricing	1/21/08	1/27/08
SoM reviews and approves contract through Ad. Board	1/28/08	3/17/2008
EDS and SoM sign contract extension	3/19/2008	3/19/2008
EDS Hosting PM assigned	3/20/2008	3/20/2008
EDS finalizes BOM and applies for Capital Appropriations	3/24/2008	4/11/2008
Hardware Planning	4/11/2008	6/16/2008
EDS Orders Production & MO/DR hardware	4/11/2008	4/30/2008
EDS Receives Production & MO/DR hardware	4/30/2008	4/30/2008
EDS Builds Production environment	5/1/2008	6/13/2008
Planning	3/25/2008	5/1/2008
Manage and Control	5/1/2008	2/11/2009
Rel 8.3 Project Start	3/25/2008	3/25/2008
MDNR Drawings to avoid for production implementation	8/1/2008	9/9/2008
Fall Turkey Drawing	8/11/2008	8/11/2008
Antlerless Deer Drawing	8/25/2008	8/27/2008
Waterfowl Application Period	8/1/2008	8/28/2008
Waterfowl Drawing	9/9/2008	9/9/2008
Deliverables		
Phase 1 Development & QA Environments W2003 Refresh	3/25/2008	5/27/2008
CR488 - Development Environment refreshed to W2003	3/25/2008	5/27/2008
CR488 - QA Environment refreshed to W2003	3/25/2008	5/27/2008
Phase 2 Production Environment Build & W2003	5/1/2008	12/19/2008
CR474 - Production Environment build	5/1/2008	12/19/2008
Requirements Approval - Send to Client	5/1/2008	5/1/2008
Requirements Approval - Client Signoff Received	5/7/2008	5/7/2008
Production Environment - Operational Ready	6/1/2008	6/1/2008
Production Environment - Perform Integration Testing	7/10/2008	7/24/2008
Production Environment - Coordinate FAT	8/18/2008	8/29/2008
Production Environment - Obtain Client Signoff	8/29/2008	8/29/2008
Production Environment - Implementation	9/2/2008	9/8/2008
Impl. - E-License in maintenance / No POS host auths	9/3/2008	9/5/2008
Production Environment - Go Live / Complete	9/5/2008	9/5/2008
Production Environment - Monitor Production Appl.	9/8/2008	9/23/2008
Phase 3 Model Office Environment Build W2003	5/1/2008	10/30/2008
CR490 Rsync for DRA	6/26/2008	10/30/2008

CR487 - Model Office Environment built to W2003	5/1/2008	10/30/2008
Model Office Environment - Shutdown old Hardware	9/5/2008	9/5/2008
Model Office Environment - Operational Ready	9/15/2008	9/15/2008
Model Office Environment - Perform Integration Testing	10/15/2008	10/22/2008
Model Office Environment - Coordinate FAT	10/23/2008	10/30/2008
Model Office Environment - Obtain Client Signoff	10/30/2008	10/30/2008
Model Office Environment - GO Live / Complete	10/30/2008	10/30/2008
Old Production Environment - Disassemble	10/30/2008	10/30/2008
Phase 4 Software Improvements	6/18/2008	1/21/2009
CR489 Improve P/W Security	6/18/2008	1/20/2009
Software Improvements - Perform Integration Testing	11/24/2008	12/18/2008
Software Improvements - Coordinate FAT	1/5/2009	1/20/2009
Software Improvements - Obtain Client Signoff	1/20/2009	1/20/2009
Software Improvements - Implement Production	1/20/2009	1/21/2009
Software Improvements - Go Live / Complete	1/21/2009	1/21/2009
Close Down	1/21/2009	1/30/2009

Summary

The hardware and operating system upgrades, along with the application software and security enhancements, will position the RSS system to maintain its history of performance, data management, security, reliability and recoverability. Confident that RSS will continue to be supported to world-class standards, MDNR can focus internal resources on core business activities and strategic initiatives, while EDS assumes daily operational responsibility for keeping RSS available and responsive to Michigan's sporting consumers.

Application Support

The EDS RSS Support Staff will continue to provide support and enhancements for the MDNR license sales application. EDS will retain the team of experienced application development and project management resources on the RSS team. 3 Full Time Equivalent Information Analysts will be committed to RSS enhancements defined by the MDNR during the contract period. MDNR will work with EDS to identify required changes to the RSS system based on the department's business and operational needs. EDS will also maintain the current dedicated technical staff to provide 24x7x365 operational support and continuous RSS application functions that are required and detailed within the Liquidated Damages section of the current contract as the 10 critical conditions.

EDS RSS Support Staff will access these servers via EDS*Link and Web Hosting's Tarantella Servers. The Tarantella servers use Terminal Services to gain direct access to these servers. EDS RSS Support staff will continue to have full administrative access to all the MDNR servers in the Web Hosting facility. The EDS RSS Support team will carry a pager and the MDNR staff will contact them with application questions or production support issues. If assistance is required at a Web Hosting facility to resolve an issue, the EDS RSS Support team will be responsible for engaging them. The Web Hosting Production Environment support coverage is 24x7x365 support The EDS Development and QA Environment servers dedicated to testing the RSS application will run Windows 2003 with the necessary software to thoroughly test changes to the RSS application code.

Once application code changes have been tested within the EDS RSS QA testing environment, a planned release of this code is scheduled through Model Office and to Production. RSS application code changes will be made available to the Model Office environment by using SCP to securely transport the files for User Formal Acceptance Testing by the MDNR staff

The Model Office environment is designed to execute disaster recovery for the production environment it will have identical functionality and be updated with operating system and third party software upgrades or patches. This allows the MDNR staff to conduct User Formal Acceptance Tests that model what will occur in Production. At the request of the MDNR staff, the EDS RSS support staff will refresh the database on the Model Office server.

MDNR can access the Model Office environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the Model Office database, run the RSSWIN application, access the E-License Model Office Web site and modify input and output files used in testing. The EDS RSS staff will assist the MDNR staff during User Formal Acceptance Testing to run batch jobs, resolve testing issues and answer questions.

Once the RSS application code changes are approved and signed off during User Formal Acceptance Testing, they are promoted to the Production environment. RSS application code changes will be made available to the Production environments by using SCP to securely transport the files.

MDNR can access the Production environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the replicated database, and run the RSSWIN application.

Hosting Technical Solution

The services described in the technical solution involve the hardware infrastructure and associated services to support the Michigan Department of Natural Resources (MDNR) RSS system hosting environment (the "Automated WEB Hosting Services" or "Services").
The MDNR RSS Production & Model Office/Disaster Recovery environments will continue to be hosted on dedicated hardware platforms and deployed, as of the Effective Date, at EDS Service Management Center (SMC) facilities.
Hardware, operating system (OS), and SQL license, maintenance, and financial agreements are held and maintained by EDS.
Application and third-party software license, maintenance, and financial agreements are held and maintained by MDNR.
MDNR will maintain financial responsibility for any vendor-imposed charges for transfer of hardware or software maintenance contracts from MDNR to EDS.

Production Hosting Upgrade

The design for the Phase 2 Production hosting environment in the Tulsa SMC is illustrated in Fig. 1. It includes an upgrade to Windows 2003, an additional two X.25 circuits, and upgraded Eicon cards to S94 V2 version.
The MDNR architectural solution is based on a dedicated custom network design. The MDNR network is comprised of dedicated firewalls (creating a DMZ) that provide entry point's exclusive to MDNR's operations, a set of dedicated switches, and a set of web switches for load balancing and inter-VLAN distribution. In addition, there is a VPN Tunnel between EDS Automated Web Hosting and the State

Production Architectural Diagram

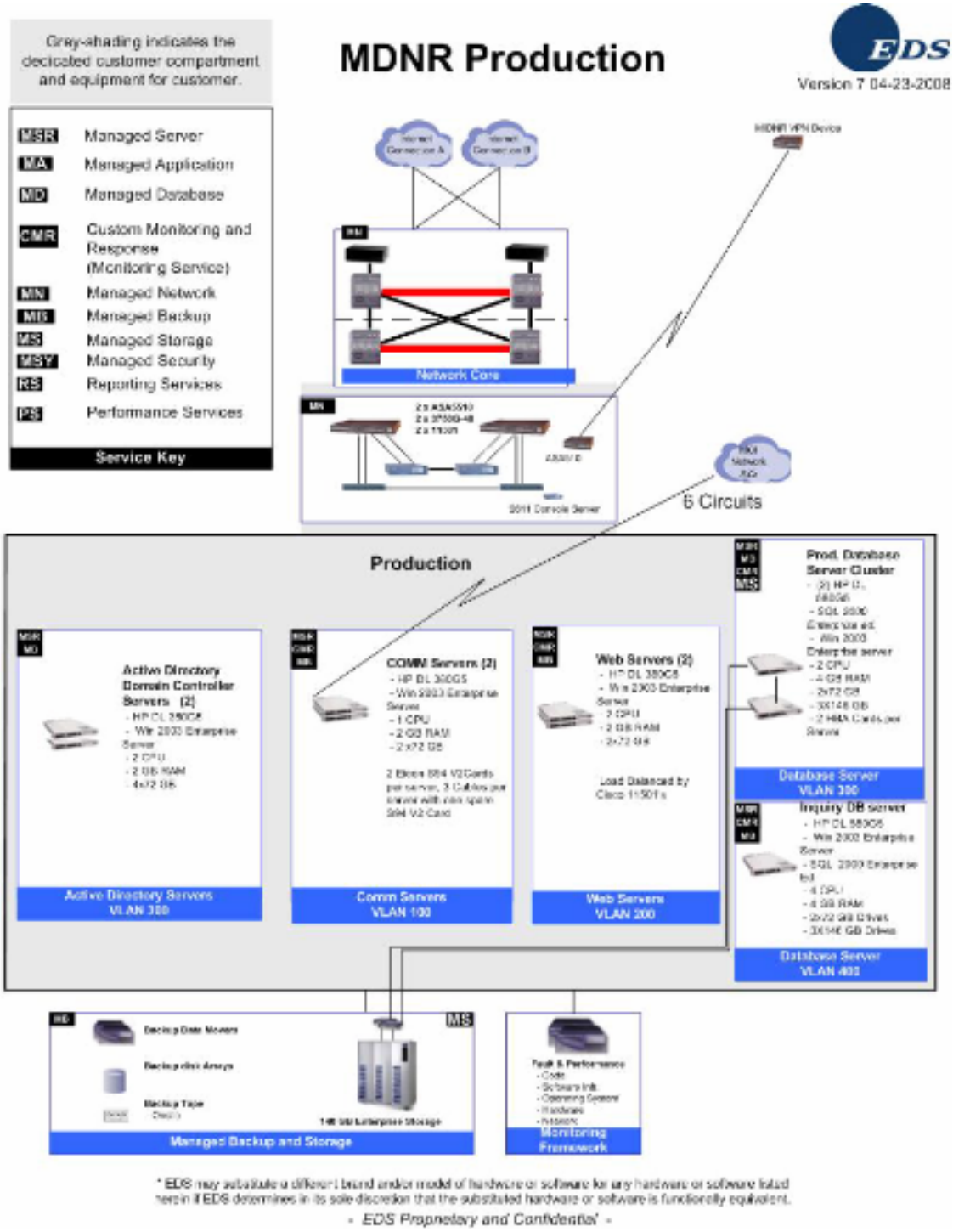


Figure 1

Hardware components.

2 – HP DL380G5 Web Servers – load balanced by Cisco 11501 devices.

This is a set of two load-balanced servers that run the production E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet.

2 – HP DL380G5 Communications Servers

These two servers receive and manage the calls and data from the POS terminals in the production environment. Each server has 2 Eicon S94 V2 cards and there is one spare. These cards are connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to numerous Point Of Sale devices for the MDNR RSS application.

2 – HP DL380G5 Active Directory Domain Controller Servers

These two servers handle all domain level security for the system.

2 - HP DL580G5 in a Production database server cluster running SQL 2000.

This is a set of two clustered active/passive database servers that manage both the E-License sales transactions and control tables, and the entire active RSS database in the production environment. The cluster uses managed SAN storage

1 – Inquiry DL580G5 Inquiry database server running SQL 2000.

This is a database server in the production environment that contains an up to date copy the active RSS database and the archive RSS database. MDNR staff run ad-hoc queries against these databases on this server, which isolates them from the production databases. This server will also contain all the RSS input and output files (e.g., EFT files, SOS files, etc.) that will be accessible by the MDNR staff.

2 - Cisco ASA 5510 Firewalls

2 - Cisco 11501 Load Balancers

2 - Catalyst 3750-48 Switches

1 – Cisco ASA 5510 to be used as the VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 6 circuits into the compartment

1 - Cisco 2811 Integrated Services Router

Production Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.
The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	Catalyst 3750 48-port Switch HA Pix 11501Load Balancer ASA 5510 Firewall 2811 Console Server	N/A	Managed Network
Servers					
Web servers	Web	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives Load Balanced by Cisco 11501's	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication servers	Comms	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 2 Eicon cards	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Servers	DB	2	HP GL 580 G5 2 CPUs, 4Gb RAM; 2X72Gb Drives; 3X146Gb Drives 140GB SAN Storage	Windows 2003 Adv SQL 2000 Enterprise Ed SMTP AdTempus **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Inquiry Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 2X72Gb Drives 3X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP OpenSSH	Managed Server Managed Backup and Restore
Active Directory Domain Controller Servers	AD	2	HP DL 380G5 2 CPUs, 2Gb RAM; 4X72Gb Drives	Windows 2003 Adv	Managed Server
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 7 servers

Production VLAN configuration

Production Extranet VLAN 100

The Extranet VLAN provides a point of demarcation for two RSS POS Communications servers. The two RSS POS Communications servers will be Managed HP DL380G5 Servers running Windows 2003. Each server will have 2 S94 V2 Eicon cards installed. Verizon engineers will install the cards within the EDS SMC. These servers will support the RSS communications software and the Eicon cards necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack. Verizon engineers will install the CSU/DSU within the EDS SMC.
EDS cannot provide SLAs on the Eicon card. There will be a spare card available in case of failure. Automated Web Hosting will provide the "Break-Fix" action(s) on a time and materials (T&M) basis.
Verizon will provide support to the port on the Verilink AS2000 DSU. Verizon will support troubleshooting the circuits to the cards and any X.25 commands necessary for problem resolution. Verizon will provide support in testing of circuits and Eicon cards at installation.
The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Public VLAN 200

The Production Public VLAN will consist of two load-balanced Web/App servers. Each server will be connected to a separate Dedicated Switch. The Web/App Servers are HP DL380G5 servers running Windows 2003. The servers will require an SSL certificate for MDNR's custom E-License application resolving to www.mdnr-elicense.com. MDNR currently owns the MDNR-ELICENSE.COM. EDS Automated Web Hosting will be responsible for the maintenance of the URL. Cookie-session persistence is required for the load-balanced servers.
The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Database VLAN 300 and Active Directory Servers

The Production Database VLAN consists of 2 database servers (a clustered RSS/OLS Database) and 2 Active Directory Servers. The Database servers are HP DL580G5 with Windows 20003 Advanced Server. The servers on the Production Database VLAN will not maintain a Public Address for use by the VPN tunnel only. This will allow RSSWIN access from the State of Michigan network .
EDS will provide installation and clustering of the MSSQL Databases on the database servers. The Application team will be responsible for the database configurations and support of the databases.
The production database servers will be configured in a clustered active/passive operation using MS Windows 2003 Advanced Server and each server will be connected to a separate MDNR Compartment Switch. The active/passive clustering configuration will allow for one of the database servers to be the primary database while maintaining a secondary database server in an idle state until a failover has occurred. The MSSQL binaries will be on the local internal disks while maintaining the created databases on a shared external storage array. The RSS/OLS DB will have one instance of MS SQL 2000 Enterprise Edition loaded running several schemas.
The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Inquire Database VLAN 400

The Production Inquiry Database Server is a standalone HP DL580G5. This server will run MS SQL 2000 Enterprise Edition for 4 CPUs(but using SAL licensing). The Enterprise Edition will be required to access more than 2GB of RAM and support the replication features.
EDS will use Windows MSSQL Transactional Replication to copy the production database to the Inquiry database in near real-time.. Updates (i.e. INSERT, UPDATE, or DELETE statements) executed on the RSS Database will be replicated to the Inquiry Database as the updates on the RSS Database occur. With transactional replication, an initial snapshot of the RSS Database will be required on the Inquiry Database server. When data modifications occur at the RSS Database Server, the individual transactions are captured and propagated to the Inquiry Database.
The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

MO/DR RSS Environment

MO/DR Architectural Diagram

The new architecture that that will be built in Plano SMC for the RSS MO/DR hosted environment is reflected in Figure 2 below. EDS will be upgrading the Eicon Card to S94 V2 and the Operation system to Windows 2003.

The EDS Plano Web Hosting Facility will serve as the Model Office location for the MDNR and will execute a disaster recovery of the EDS Web Hosting Production location in Tulsa on a limited basis. The MO/DR location provides Internet access, a single Web/app server, a single database server and a single RSS POS Communications server. This environment will receive regular shipments of production data via file transfer.

AOPS will store RSS data backups, along with copies of the most recently installed versions and patches for: Windows 2003, SQL 2000, RSS application code and Third Party Software required by RSS – for all Model Office and Production RSS servers. If there is a Model Office server failure, all software and data required to restore the Model Office service will be on-site. If a condition occurs rendering the Production facility inoperable, the Model Office facility will be reconfigured for Production – again relying on on-site storage of all required software (O/S, database environment, RSS application code, Third Party Apps.) and data to configure the Production environment. No hardware reconfiguration will be required; all changes will be data/software related.

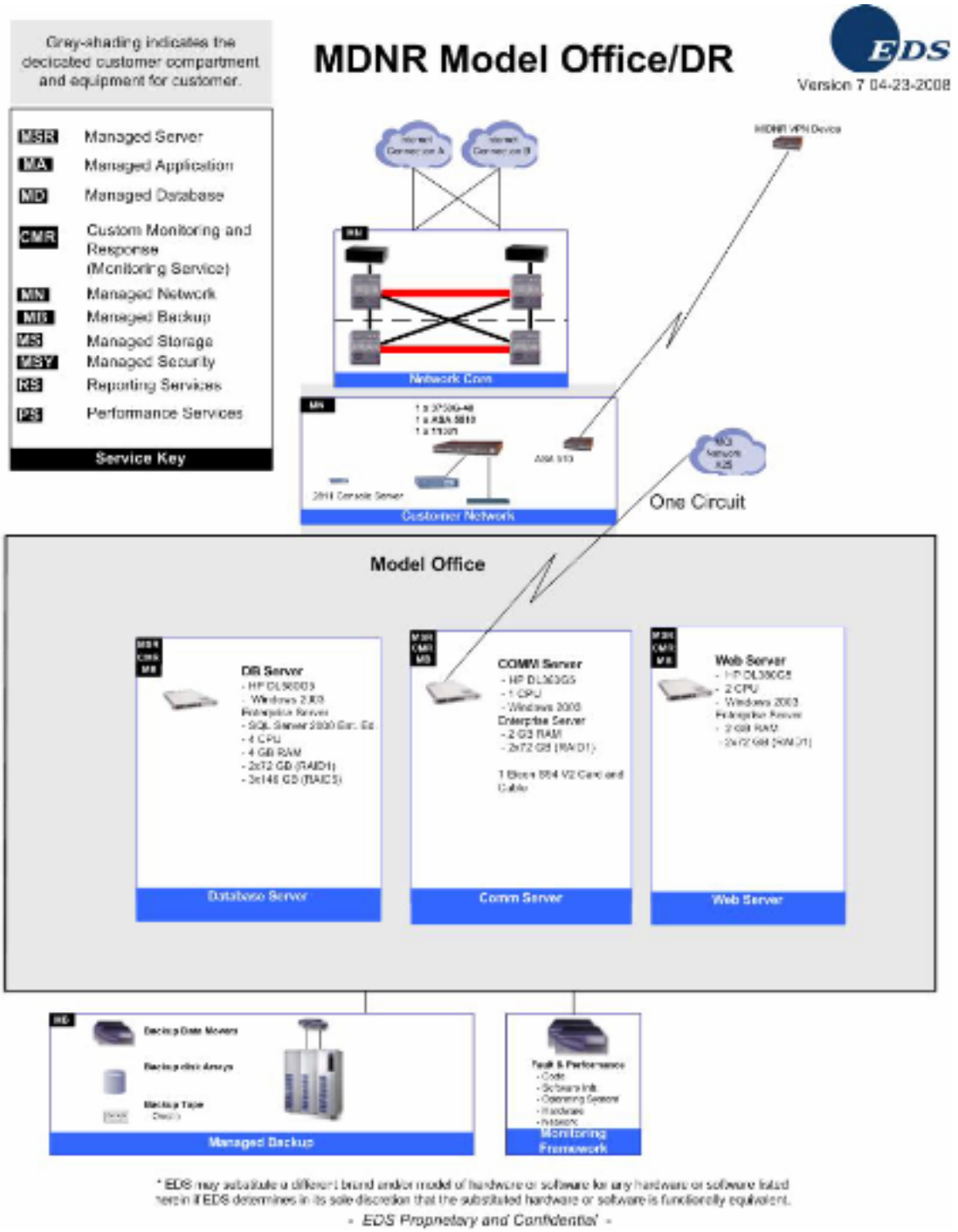


Figure 2

MO/DR Hardware components.

1 – HP DL380G5 Web Server – load balanced by Cisco 11501 device

This is a server that runs the Model Office E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet. It will be used

for User Acceptance Testing. In the case of a disaster in the production environment, it will be used as the production Web application server.

1 – HP DL380G5 Communications Server

This server receives and manages the calls and data from the POS terminals in the model office environment. In the case of a disaster in the production environment, it will be used as the production Communications Server. The server has 1 Eicon S94 V2 card which is connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to test Point Of Sale devices for the MDNR RSS application.

1 - HP DL580G5 Database server running SQL 2000 Enterprise Edition

This is a database server that manages both the E-License sales transactions and control tables, and the entire active RSS database and archive RSS database in the Model Office environment. It also serves as the repository for all the RSS input and output files (for example: EFT files, SOS files, etc.) that will be accessible by the MDNR staff in the model office environment. In the case of a disaster in the production environment, it will be used as the production database server and input/output file server.

1 - Cisco ASA 5510 Firewall

1 - Cisco 11501 Load Balancer

1 - Cisco Catalyst 3750-48 Switch

1 – Cisco ASA 5510 to be used as the VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 1 circuit into the compartment

1 - Cisco 2811 Integrated Services Router

MO/DR Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.
The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	Catalyst 3750 48-port Switch HA Pix 11501Load Balancer ASA 5510 Firewall 2811 Console Server	N/A	Managed Network
Servers					
Web server	Web	1	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication server	Comms	1	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 1 Eicon S94 V2 card	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 2X72Gb Drives 3X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP SMTP AdTempus OpenSSH **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 3 servers

MO/DR VLAN Configuration

MO/DR Public VLAN

The MO/DR Public VLAN will consist of a single Web/App.
The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Database VLAN

The MO/DR Database VLAN consists of a single database server.

The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Extranet VLAN

The MO/DR Extranet provides a point of demarcation for the MO/DR RSS POS Communications server. This server will not be accessible from the Public Internet unless routing has been configured within the Firewall to allow such access. This server supports the RSS communications software and the Eicon card necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack.

The EDS RSS Support team will have full system access (not physical) to this server to support the RSS application and WAN connectivity. AOPS will have a management connection to this server to manage the server.

Disaster Recovery Plan

EDS has developed and documented an RSS-specific Disaster Recovery Plan that covers both a single server failure, and a complete environment failure. This DR Plan was developed in the 2003 contract extension and will continue to be used to support the MDNR.

The secondary EDS Hosting SMC in Plana will act primarily as the Model Office location for MDNR with the ability to execute a Disaster Recovery (DR) of the EDS AOPS Production location in Tulsa on a limited basis. This secondary EDS AOPS location provides Internet access, a single web/app server, a single database server, and a single RSS POS Communications server. In the event a condition occurs rendering the EDS AOPS Production Facility in Tulsa inoperable, the Model Office environment will be reconfigured for production using only the hardware available in the Model Office environment. The DR plan for a total Production failure details action items based upon the following high level tasks. The total duration to bring the DR site up as the new RSS production site would be 96 hours.

EDS will own the OS and patches and rebuild the Model Office servers to the last installed Production revisions

EDS will execute a database environment installation. Revisions of the database will match the last Production database within 30 minutes of the failure.

EDS will control all of the application revisions and will be responsible for the application loads.

EDS will control and install all database configuration builds

EDS will contact Verizon to redirect the 1-800 numbers to the secondary EDS AOPS location

EDS Tulsa will point the production URL to the secondary EDS Plano facility

EDS will control the system test plan and test the DR environment to insure the environment is operational

Rebuild the Web/App, Communication and database server

Install a single Database Instance

Re-point the DNS

Load the data

Load the Web/App applications

Load the Database schemas

Verizon redirects the 1-800 numbers

Test the environment

.

Hosting Services Overview

EDS Automated Hosting Services cover all aspects of infrastructure management, which consists of deployment, launch, 24x7 monitoring, security, troubleshooting, and change management of MDNR's hosted environments.
EDS will implement and perform the managed Automated Hosting Services for MDNR to the extent and as described in this proposal. Automated Hosting Services consist of the following:
"Deployment Services" are the Build and Launch Services that take MDNR from planning through launch of the Client Site into production or steady state.
"Managed Services" are those services that directly correspond to MDNR's infrastructure, consisting of the management and support of network devices, servers, software, storage, and other components. Services consist of the ongoing monitoring, reporting, troubleshooting, and repair services to be provided by EDS following the Operationally-Ready Date. Managed Services includes any "Service Enhancement Services" selected by MDNR as uplifts and additions to the base Managed Services.
"Client Services" are those services that relate to MDNR's interaction with EDS client support personnel such as the frequency of contact and level of support. EDS Automated Web Hosting Operations Center support, project management, technical support, and myhosting-eds.com™ client portal are examples of Client Services.

Service Definitions

The capitalized terms are as defined in this section. Additional technical terms and acronyms are included in the Glossary in Appendix C.
"Automated Web Hosting" means the Automated Operations delivery approach provided by Automated Hosting Services.
"Change Control Process" means the approach to follow to request a change to the Client Site as defined in the Operational Guide. All agreed upon changes will be documented in a Change Request executed by MDNR and EDS.
"Change Request" means the written request submitted by MDNR pursuant to the Change Control Process with sufficient details to enable EDS to evaluate it.
"Client Compartment" means the physical infrastructure dedicated to MDNR (server hardware, networking devices) and hosted within the Data Center.
"**Client Infrastructure Services**" means those Services directly related to the management of the physical environment within the Data Center location.
"Client Remote Location" means MDNR premises or a premises operated by a third party for MDNR or by the MDNR. This location is geographically distinct from the Data Center.
"**Client Site**" (or "MDNR site") means a hosting site that EDS will assist in managing as specified hereunder. The Client Site consists of the hardware, domain name(s) and URL(s), MDNR's business logic and applications, the content displayed on the hosting site, the data stored or processed by the hosting site, as well as any related data, software, applications, content, and other information managed by MDNR. Additional Client Sites may be added by mutual agreement.
"Data Center" means the physical locations where EDS installs the client-hosting infrastructure. This is the raised floor at Service Management Centers or third-party data centers.
"Deployment-Ready Code" means code that MDNR and EDS have tested, and confirmed is ready to be rolled into MDNR 's *production environment.*
"**Deployment Services**" means the initial services to be provided by EDS prior to the Operationally-Ready Date to make MDNR 's web site infrastructure Operational.
"**EDS Automated Web Hosting Operations Center**" refers to the EDS organization that provides 24x7 support to MDNR. This organization consists of system analysts, data center operations personnel, database administrators, and network engineers who support the MDNR's hosting environment.
"**EDS RSS Support Staff** " refers to the EDS organization in Lansing MI that provides 24x7 RSS Application support to MDNR. This organization consists of system analysts, database administrators, and project managers who support the MDNR's E-License, POS, Batch, RSSWIN, Database.
"**Go Live Date**" means the first date that a Client Site is Live with Deployment-Ready Code.
"**Implementation Services**" means the combination of Deployment Services and Launch Services.
"**Launch Services**" mean the Services provided by EDS commencing on the Operationally-Ready Date and ending on the Go Live Date to assist MDNR in preparing its code for operation within the EDS operating environment.
"**Live**" means that MDNR 's application code is deployed in the EDS operating environment and the Client Site both takes requests from the public Internet and successfully serves web pages in response to those requests. RSS is fully functional for queries, RSSWIN and RSS batch applications. POS communication servers can take calls from the POS terminals.
"**Managed Services**," means the ongoing monthly monitoring, reporting, troubleshooting, and repair-or-replace services to be provided by EDS following the Operational Date for a MDNR.

"**Operational**" means that EDS has designed the architecture of the Client Site, installed and configured the EDS-supplied hardware and software, and the EDS Deployment team has been trained and is ready to receive MDNR 's Deployment-Ready Code.
"Operational Guide" means a document that outlines the operational procedures for interacting with EDS Automated Operations. This document is provided to the EDS RSS Support team during the implementation of the services.
"**Operationally-Ready Date**" means the date on which the Client Site is Operational.
"**Operationally-Ready Period**" means the period commencing on the Operational Date and ending on the Go Live Date of a Client Site.
"User(s)"means any individual accessing the Client Site described in this proposal.

Service Conditions

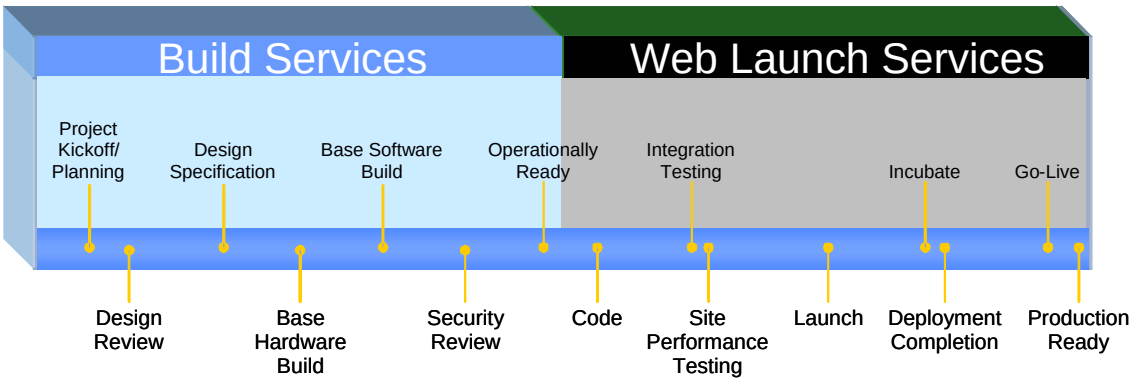
(Existing service conditions documented in the current contract apply.)

Deployment Services

Overview

Deployment Services comprise all the activities required to take a client from the planning stage through the site's production launch. The detailed activities associated with Deployment Services are documented in each of the sections that follow later in this proposal. The next few pages outline a set of project management and testing services that are part of MDNR's initial deployment and do not directly correspond to the management and support of the infrastructure in MDNR's environment.

Deployment Services are divided into two phases – Build and Launch.



Build Services

Build Services involve the basic build of the Client Site, comprising the hardware, Operating System (OS), security features, and software configuration of the devices in the environment to make the Client Site operational and ready to accept client applications. The completion of the Build Service is marked with the Operationally-Ready Date. Additional details specific to the deployment of the Managed Services purchased are documented in the Managed Services section of this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Host a kickoff meeting with key delivery and MDNR personnel to review the deployment plan and architecture
- Develop a project plan and prepare for services to support the deployment and ongoing operation of the hosted environment
- Communicate any service issues or deployment concerns
- Finalize requirements for the network and architecture
- Generate a hardware procurement list during project kick-off and planning build stage
- Perform tests to validate that the servers and related hardware are operational
- Conduct a final review of the deployment with MDNR to verify that requirements have been met
- Work with MDNR to determine Go-Live Date

MDNR Responsibilities

MDNR will perform the following tasks:

Review and approve the deployment plan
Review and approve the launch test plans
Review and approve the final site architecture that will be deployed
Attend the kickoff meeting, status update meetings, and final deployment review meeting
Provide to EDS primary and backup communication focal point contacts for service requests, security authorizations, support issues, and business continuity requirements

Service Conditions

The following service conditions apply:

- EDS will configure MDNR's environment as described in the Architecture Diagram

Launch Services

Launch Services involve loading the MDNR's code to the servers and testing necessary to support the Automated Web Hosting Service Level Agreement following completion of the Build Services. Additional details specific to the Managed Services purchased are documented in the Managed Services section of the SOW. Launch Services end on the Go-Live Date.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Develop a test plan for the MDNR Site
Perform system testing before MDNR Site launch. Testing consists of high availability (HA) and system fail-over testing, stability testing, security testing, and monitoring configuration verification.
Develop and execute the Domain Name Server (DNS) cutover plan and launch the MDNR Site into production
Assist MDNR with loading the hosted application code and configurations

MDNR Responsibilities

Review and approve the deployment test plan
Review and approve the site architecture that was deployed
Perform application and business function testing
Attend the final launch review meeting
Review the DNS cutover plan and approve the Go-Live Date

Service Conditions

The following service conditions apply:

EDS will configure MDNR's environment as described in this proposal
The MDNR Site will not be activated until the servers and related functionality outlined in this proposal have been installed and are operational
The MDNR Site will not be activated until MDNR environment has power access, Internet access, and communication access (power, pipe, and ping access)

Managed Services

This section is organized according to the categories of services listed below and includes a description of each type of Managed Service as well as EDS and MDNR responsibilities.

Client Infrastructure
Managed Network
Managed Server
Managed Database
Managed Backup and Restore
Enterprise Storage

Client Infrastructure

Client Infrastructure Services are those Services directly related to the management of the physical environment within the Data Center location

Facilities and Asset Management

Facilities and Asset Management are those Services, which are involved in managing Data Center facilities. Facilities Management Services are provided in an EDS certified facility. Facilities Management Services are not available as a stand-alone offering.

Each EDS certified facility provides processing support for EDS' services satisfying the business and technology requirements of multiple clients. EDS certified facilities are constructed specifically for large-scale information technology processing and incorporate environmental systems to minimize hazards from electrical power failure, fire, or water damage, acts of nature, and unauthorized access. Each EDS certified facility is equipped with an uninterruptible power supply, diverse power feeds, and a diesel generator backup system.

Facilities Management Services consist of the following:

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Maintain engineering design and facility environmental systems and manage all aspects of the Data Center, consisting of supervision of all subcontractor maintenance activities
- Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities to meet agreed-on hosting environment requirements
- Determining floor space provisions for compute environment configuration needs
- Managing and supporting infrastructure facilities to maintain or exceed leading industry standards
- Providing floor space, rack space, power, HVAC, fire suppression, motor generators, 24x7x365 facility staff, and diverse power feeds
- Supervising infrastructure and sub-contractor facilities maintenance activities
- Maintain physical security of the Data Center

MDNR Responsibilities

MDNR will perform the following tasks:

- MDNR or MDNR representative(s) will conform to EDS security policies during all site visits.

Physical Security Services

Physical Security Services include controlling access to the EDS certified facility. Authorized employees are assigned electronically encoded cards that allow access to the general work area. Areas requiring additional security, such as equipment control rooms and raised floor areas have more restricted access controls.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Maintaining a secure database of access authorizations by user
- Periodic review of access logs
- Review and follow-up of any physical security violations
- Security personnel on-site 24x7x365

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Managed Network Services

This section describes Services to support the dedicated network infrastructure, Managed Network Services. The dedicated network infrastructure is the set of network devices that are deployed in the Client Compartment (for example, switches, load balancers, firewalls, and/or remote access devices Managed Network Services consist of the following:

Dedicated Network
Secure Remote Access – VPN
X.25 Packet-Switched Circuits
Bandwidth
DNS Management

Dedicated Network

Dedicated Network describes the Managed Network Services required to monitor and support the dedicated network infrastructure of firewalls, switches, and load balancers deployed for MDNR within the Data Center, as well as the connectivity between the Dedicated Network and the Shared Networking Equipment. This dedicated network core is connected to a shared, highly available (HA) network infrastructure in each data center, including gateway routers and switches, that provides external connectivity. The EDS core network includes Network-based Intrusion Detection Systems (IDS) used to monitor and respond to unauthorized network access.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure EDS supported network infrastructure with default configurations and connect to EDS Data Center network
Configure up to four separate server virtual local area networks (VLAN)s, setup virtual IP address(es) and perform up to 10 virtual IP address changes comprised of additions, modifications, and deletions to network devices
Provision up to 14 public IP addresses for use in MDNR Web sites and applications
Provision up to 500 private IP addresses for server networks

Managed Services

Monitor EDS network and EDS-managed network devices
Respond to and repair problems on EDS-managed network devices
Respond to and repair connectivity problems over EDS network and MDNR compartment
Update network device OS as necessary
Conduct capacity planning for EDS network and network devices
Monitor availability and performance of network connection from EDS Data Centers to neighboring Internet Service Provider (ISP) peers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Review and approve the architecture that EDS will deploy

Managed Services

Submit a Change Request as needed to add or remove hardware

Secure Remote Access – VPN

Secure Remote Access – VPN is the service to manage the virtual private network (VPN) devices that provide MDNR personnel with a secure tunnel into the Client Compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Hardware-Based VPN – EDS Client Compartment
- Procure and install the EDS-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

Hardware-Based VPN – Client Remote Location

- None

Managed Services

Hardware-Based VPN – EDS Client Compartment

- Monitor EDS-managed VPN devices installed at EDS' facilities
- Respond to and repair problems on EDS-managed VPN devices
- Update VPN device OS as necessary
- Respond to and isolate connectivity problems over EDS-managed VPN tunnels between Client Compartment and the Client Remote Location
- Repair problems caused by EDS-managed devices, networks, or EDS service providers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Hardware-based VPN – Client Remote Location

- Procure and install the MIDNR-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

- Provide Public IP address for VPN device
- Physically install VPN device and integrate with corporate network in a screened subnet (DMZ) in accordance with EDS' standard VPN topology for the Client Remote Location
- Configure corporate firewall to perform Network Address Translation (NAT) for any VPN traffic transmitted to or from the Client Compartment

Verify MDNR corporate network allows administrative and IPSec traffic from EDS-designated IP ranges to VPN device at the Client Remote Location

Managed Services

Hardware-based VPN Client Remote Location

- Maintain network connectivity between VPN device at Client Remote Location and the Internet
- Assist EDS to perform diagnostics, troubleshooting, and repair for connectivity problems caused by the VPN device at Client Remote Location (reboot, check cables, and so forth)

Install replacement hardware as necessary

X.25 Packet-Switched Circuits

X.25 Packet-Switched Circuits is the service to manage the X.25 circuits that provides MDNR point of sale agents with access to the EDS DSU/CSU in the Client Compartment.

EDS will provide the following leased line circuits

Fractional T1 with 56Kbs Bandwidth for each circuit

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Procure X.25 circuits to the EDS SMC

Procure and install EDS-supported termination devices in MDNR compartment in SMC

Provide as many as two hours to consult with MDNR to determine requirements for EDS-side termination

(2) Toll-free dial up numbers terminating on the X.25 circuits at the EDS SMC

Managed Services

Monitor EDS-managed X.25 circuits and termination devices at the EDS SMC

Respond to and repair problems on EDS-managed X.25 circuits and termination devices

Respond to and isolate X.25 circuit connectivity problems between the EDS SMC and the X.25 network
Repair problems with EDS-managed X.25 devices and network

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Managed Services

Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Bandwidth Service

Bandwidth is the service to provide Internet connectivity between the Client Compartment and the Internet.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Provision bandwidth from EDS' ISPs to EDS Data Centers. The amount of bandwidth provided to MDNR is 5 Mb/s
Set up connection from Client Compartment to EDS network in Data Center

Managed Services

No additional responsibilities

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Domain Name Service (DNS) Management

DNS is the service to direct Internet traffic to the MDNR's hosted Web site by managing MDNR domains on EDS domain name servers.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Redirect traffic from one old environment to the new environment at Go-Live

Managed Services

Monitor and maintain primary and secondary DNS servers
As necessary, inform MDNR of IP or name changes for primary and secondary DNS servers
As requested, redirect traffic from one Web address to another within the EDS environment
Update names and IPs for EDS DNS servers as necessary or required

MDNR Responsibilities

MDNR will perform the following task:

Deployment Services

No additional responsibilities

Managed Services

Renew domain(s) registration

Managed Server Services

Managed Server consists of the ongoing monitoring and management Services for the hardware and OS.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure hardware
Integrate hardware into EDS monitoring environment (fault level analysis only – Internet Control Message Protocol (ICMP), CPU, disk, hardware components)
Install cables between devices
Provision the infrastructure-specific OS that has been certified and packaged for use by EDS
Install OS, Opsware™ and other EDS required software
Define and configure OS monitoring to (1) monitor network connectivity, network devices, or server hardware and (2) gather performance data
Perform security review prior to site launch which consists of the following:
- Configurations and settings check during initial server build
- Audit of password integrity
- Server hardening:
  - Install only required OS components
  - Install EDS recommended vendor security patches
- Set passwords and access control
- Disable unnecessary network and system services
- Limit network services that run under the root account
- Enable account management
- Set up MDNR administrator accounts

Managed Services

Monitor server hardware
Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches
Apply EDS required patches
Notify MDNR of monitored OS-related events where it appears that the OS is the root cause of the problem (OS debugging is not included)
OS security patch management
- Monitor relevant vendor and industry bulletins for security-related patch alerts
- Evaluate need for patches
- Get MDNR approval before proceeding with any service-affecting changes, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm)

Add, delete, and change EDS accounts and update passwords
When necessary, perform reboots of servers
As requested by MDNR, adjust level of log creation to either increase or decrease granularity of data collection

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

Configure non-OS applications

Managed Services

Apply EDS required patches
Maintain responsibility for additions, deletions, and changes to MDNR accounts using the account management tool
When necessary, perform reboots of servers
As requested by MDNR, modify job scheduling on a server, such modifications consist of addition, change, or deletion of jobs

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Review and approve architecture that EDS will deploy

Managed Services

Respond to EDS inquiries regarding patch issues within one business day of notification
Respond to EDS' request for input regarding issues of service management

Managed Database Services

The Managed Database Services consist of installation and configuration and monitoring and issue resolution of the MDNR database servers on a 7x24x365 basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and license the database application
Setup database instances
Provision storage
Configure fault monitoring

Managed Services

Monitor server hardware

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Configure back-ups
Create database
Perform database imports
Implement database security per EDS standards
Create users
Make necessary schema changes
Configure space management
Configure and set the scheduled jobs
Provide documentation for database setup procedures
Configure clustered, High Availability (HA) environment
Verify that database software levels in the development environments match the production environment. The architecture in the development environments should match the production environment
Migrate existing database to suitable format for import into new environment
Perform functional testing and correct bugs in the site that impact site stability or integration with EDS Services
Perform database fail-over testing

Managed Services

Monitor faults
Monitor space availability

Monitor connectivity to the database
Monitor significant exceptions in the alert logs
Respond to and repair problems
Backup database
Recover database if necessary to correct problems
Apply software security patches and major bug fixes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Freeze all database changes eight business days prior to Go Live Date to allow for EDS testing

Managed Services

Respond to EDS inquiries regarding patch issues within one business day of notification
Follow EDS change management procedures for promoting code and content changes
Verify changes are tested in model office environment prior to pushing to production

Enterprise Storage Services – Enhanced

Enterprise Storage Enhanced Services provides Intelligent Storage with on-demand scalability in a sophisticated SAN environment designed for increased scalability, availability, and information protection. The EMC Enterprise Storage offering provides a faster more scalable solution that any locally attached storage on the market. Each server of the Database Cluster will be attached to the SAN via dual fiber channel host bus adaptor cards for high availability. EDS will provide performance management services consisting of collecting performance data dynamically. EDS will perform load-balancing services, so that utilization is distributed across the disk and channel infrastructure as possible based on the configuration design.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Provide the required storage hardware and software for Intelligent Storage and the hardware and software maintenance contracts for such hardware and software
Install connectivity components for the storage infrastructure (SAN, network attached file server, or direct connectivity storage) and provide connectivity to the MDNR clustered database servers.
Document the initial and environment growth requirements to the extent possible based on due diligence information provided. Such information will address the amount in gigabytes, required start and end time frame, and number and name of platforms requiring attachment to Storage-on-Demand Service

Managed Services

Provide integrated software, storage hardware, and managed services to provide the appropriate level of capacity, scalability, and performance for the selected services
Provide a leveraged technical and operational monitoring staff to meet agreed-on Service Levels providing continuous support for the storage infrastructure
Implement security practices, such as logical unit masking, preventing unauthorized storage access from an unauthorized server

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

Work approve the deployment plan and test plan

Managed Services

Complete an Intelligent Storage requirements definition document to define changes to the service requirements considering the provision of additional storage; designating connectivity of additional servers; or designating configuration changes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Managed Backup/Restore Services

Managed Backup and Restore Services provide operational support and management processes to meet OS and related system software requirements for data availability, accessibility, retention, and restoration. Services are designed to support file system and specialized applications/databases such as Oracle, SQL Server, Lotus Notes, Microsoft Exchange, SAP, and other client-specific backup requirements.

Managed backup services consist of the following:

- Operating System Backups
- Application / Client Data Backups
- Database backups
- Backup Monitoring
- Restore Services

Operating System Backups

Operating System Backups provides backup of a server's operating system and configuration files. This service uses Trivoli Storage Manager (TSM) backup and an incremental forever approach to backup the operating system and configuration files. Incremental backups are provided on a daily basis. By default seven versions of file changes are retained for 60 days.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure backup agents
- Add system IDs to backup server
- Schedule backups
- Test backup/restore
- Verify hardware and network

Managed Services

- Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
- Update backup plans as new components are added to the system
- Maintain the tape library, media, and expendable supplies
- Backup operating system
- Conduct a full backup the first time a MDNR file system is backed up. Thereafter, only daily incremental backups occur.
- Retain seven versions (1 active + 6 inactive) of operating system data within the EDS SMC and ship seven versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and it is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Specify directories on file system to backup

Managed Services

Advise EDS when new components, application files or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Application / Client Data Backup

Application /Client Data Backup provides backup of a server's application and client data and configuration files. Web Hosting Backup Service uses TSM backup and incremental forever approach. Incremental backups are provided on a daily basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure backup agents
Add system IDs to backup server
Schedule backups
Test backup/restore
Verify hardware and network

Managed Services

Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
Update backup plans as new components are added to the system
Maintain the tape library, media, and expendable supplies
Backup applications
Conduct a full backup the first time a MDNR server application and configuration files are backed up. Thereafter, only daily incremental backups occur.
Retain 14 versions (1 active + 13 inactive) of application data within the EDS SMC and ship 14 versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Specify application files and directories to backup

Managed Services

Advise when new components, application files, or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Database Backup

Database Backups are saved as files on the local server. These files are included in daily file backup on each system.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Setup initial database backup schedule

Managed Services

Maintain Database Backup schedule

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Backup Monitoring

Backup Monitoring is a standard service that provides failure monitoring for the backup processes and procedures for a successful backup of the shared hosting compute environment.

EDS Responsibilities

EDS will perform the following tasks:

Managed Services

Perform monitoring, verification, notification, and escalation of issues as necessary for application data, operating systems, and related system software backups

Update backup plans as new components are added to the system

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Restore Services

Restore Services consist of the services required to restore an operating system, application, and data file system and/or database content upon request by MDNR.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

File restores provide restoration of a file internal disk to the server to a point in time (within the granularity of the backup schedule). MDNR will be charged a fixed fee, under Technical Support Services, for file restores.

Full restores (full operating systems, applications and data, file systems, and database contents) when requested, allows MDNR to request full restoration of a disk environment to a point in time (within the granularity of the backup schedule). MDNR will be charged on a time and materials basis for full restores.

MDNR Responsibilities

MDNR will perform the following tasks:

Managed Services

Specify file or disk system to restore

Service Enhancements

The Service Enhancements Section describes Managed Services that have been be ordered by MDNR in addition to the EDS' standard Automated Hosting Services (the "Service Enhancements").

The Service Enhancements selected by MDNR are listed below:

Mail Services

Security Enhancements

Mail Services – Outbound Mail

Outbound Mail Relay Service (the "Outbound Mail Relay Service") enables the delivery of outbound Simple Mail Transfer Protocol (SMTP) e-mail messages using relay servers to the Internet. Mail relay servers are part of the shared environment, segregated by firewall from the dedicated client compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Own, engineer, operate, and administer hardware and software required to provide this service

Monitor the system 24x365

Provide notification of partial or full service outages to designated EDS Account and MDNR contacts

Troubleshoot system problems and repair or replace system components

Multiple redundant servers at multiple locations to provide load balance and high availability

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Provide at least two EDS client contacts for each client domain/address

Make certain that sender addresses are valid and deliverable

Make certain that all SMTP DNS domains include a valid, functioning postmaster address that delivers to a person

Make certain that receiving servers accept messages in a timely manner. Servers that consistently back up or cause delays on the mail relays must be upgraded to meet capacity.

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Service Conditions

The following service conditions apply:

- To allow e-mail routing through the Outbound Mail Relay servers, the sender address, or domain must be provided to Messaging Services by MDNR.
- The sender's address or domain must be accessible as a destination domain, and should not use the eds.com domain.
- Clients of the Outbound Mail Relay Service are expected to make certain that recipients have requested all messages delivered using this Service.
- Clear and easy-to-follow instructions for removal from the distribution must be included in the message.
- A maximum per-message size of 512 KB is implemented for the Outbound Mail Relay Service and messages larger than the maximum size will be rejected.
- EDS reserves the right to restrict distribution of any messages at EDS' sole discretion.
- Use of this service requires both the sender and the recipient to have valid SMTP formatted addresses to send and receive SMTP mail.
- For the purposes of this document, availability of the Outbound Mail Relay Service is a state in which at least one mail relay service server is operational, connected to the network, with the means necessary to send and receive data in Internet Protocol formats, and accepting properly formed SMTP messages.
- The Outbound Mail Relay Service is implemented with redundant mail relay servers at redundant locations with redundant network connections.
- EDS does not guarantee the availability of servers supporting destination domains nor the network infrastructure used to reach those servers, as these devices and networks are typically outside the control of EDS.
- Message delivery times may be longer than normal during partial service interruptions where the overall e-mail system is still available.
- Mail delivery is the ability of EDS mail relay servers to relay the messages accepted to the next hop to the destination domain. This ability depends on the responsiveness of the destination mail system and the network infrastructure to connect to that destination. Delivery will be attempted periodically for up to three days. After one day, the systems are configured to send a delay notification identifying that delivery attempts will continue. After three days any undeliverable messages will be returned to the envelope sender address.
- Problem resolution means the actions required to identify, repair, and resolve system problems that affect the level of service.
- Automated monitoring tools and manual processes are used to detect events that could potentially affect the Outbound Mail Relay Service and alert the support team.

Security Enhancement Services

EDS Security Enhancements consist of the following options to allow clients additional technology and security services beyond the base security described in other services purchased:

- Digital Certificates
- Vulnerability Analysis and Reporting
- SAS70 reports

Digital Certificates

EDS will order digital certificates, register MDNR servers, and install and configure certificates to enable SSL communication.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Order digital certificates and register MDNR server accordingly
- Install certificates to enable SSL communications on MDNR's server

Managed Services

- Process and implement certificate renewals prior to expiration

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Provide required information in a timely fashion to enable EDS to order certificates

Vulnerability Analysis and Reporting

System Level Vulnerability detection is the preventive process of examining, prioritizing and resolving vulnerabilities on system hosts.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

Perform vulnerability checks through pre-defined scan policies to identify violations to the EDS established security policies. Current scan polices calls for scans to be done twice a year, at no additional charge to the customer. Results are used internally by EDS to access and improve our security process. This proposal includes an additional service of monthly scans done on every production server with reports provided to MDNR.

Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning

Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take action to mitigate risk

MDNR Responsibilities

MDNR will perform the following tasks:

Managed Services

Review EDS recommendations

Initiate Change Control Process if interested in applying EDS' recommendations

Service Conditions

The following service conditions apply:

Information security is a dynamic area. MDNR acknowledges that not all threats and vulnerabilities are currently understood or identified, that any security solution is subject to being compromised or circumvented in a variety of manners, and that new and unexpected threats and vulnerabilities can be expected to arise in the future. MDNR understands that as a provider of information security services EDS does not provide a guaranteed identification of all possible threats and vulnerabilities or guaranteed protection against all risks, threats and vulnerabilities.

It is understood and agreed that EDS is not assuming responsibility for any losses that may occur as a result of the failure to identify all possible threats or vulnerabilities, that EDS is not acting in the capacity or taking on the responsibility of an insurer and is not charging a price that would allow it to do so, and that it is the responsibility of MDNR to obtain insurance, if any, covering damages to MDNR or third parties.

MDNR is responsible for obtaining any consent necessary for EDS to access the systems as required to perform these security Services, prior to EDS commencing performance.

SAS70 Reports

EDS performs SAS70 audits on its total SMC hosting environment on a periodic basis and these reports are available to the State during the 4th quarter of 2008 and the 4th quarter of 2009. SAS70 reports are restricted to existing EDS clients and their auditors.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

Order SAS70 reports for Plano and Tulsa
Provide MDNR with the SAS70 reports in the 4th quarter of 2008 and 2009

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

The MDNR shall restrict use of the Proprietary Material to its employees and independent auditors who are involved in the evaluation of the Proprietary Material.

MDNR Agrees to comply with SAS 70 Non Disclosure Statement:

It is agreed that, in consideration for Electronic Data Systems Corporation's disclosure of this SAS70 Report (hereinafter referred to as the Proprietary Material), the Customer agrees that the Proprietary Material is, and shall at all times remain, the property of Electronic Data Systems Corporation and shall be used solely by the Customer and the independent auditors of the Customer in connection with the services performed or proposed to be performed by Electronic Data Systems Corporation for the Customer. The Customer will not copy, reproduce, sell, assign, license, market, transfer, or otherwise dispose of or give the Proprietary Material to any person, firm or corporation. The Customer shall keep the Proprietary Material confidential and shall not disclose the Proprietary Material to another party without first obtaining written permission from a duly authorized officer of Electronic Data Systems Corporation.

Client Services

EDS Client Services provides MDNR with 24x365 support, account management and key technical resources for support of MDNR's operations. A project manager will be assigned to MDNR to perform account support and act as an escalation point to expedite the resolution of account issues. Additionally, the service allows for the review of account action items, and their associated follow-up activities on MDNR behalf.

Client services consist of the following:

Technical Support Portal
Automated Operations Center Support
Site Outage Reporting

myhosting-eds.com™ portal

The portal is utilized for system reporting, operational ticket initiation/review, viewing site documentation, and ordering Technical Support Services.

Technical Support Services are a set of MDNR-initiated requests for ad hoc additional Services that are outside the scope of the on-going Services contained within this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Provide EDS RSS Support Staff access to the myhosting-eds.com™ portal
Provide EDS RSS Support Staff with administrative privileges and the ability to create user

EDS RSS Support Staff Responsibilities

Monitor and control user access privileges and access code usage on myhosting-eds.com™ client portal by MDNR's employees or other third parties

MDNR *Responsibilities*

MDNR will perform the following tasks:

Designate the individuals of the EDS RSS Support Staff who will be designated to have administrative privileges

Service Conditions

The following service conditions apply:

- MDNR will not share usernames, passwords, or other access credentials that allow the client to access EDS resources with any third-party including contractors, agents, and delegates without EDS' express written permission.
- MDNR agrees that use of valid access codes to order Technical Support Services shall be an authorized act upon which EDS may rely in providing the services requested.
- All Technical Support Services orders placed using permitted access codes shall, for all purposes, be deemed to be in writing and signed by MDNR and will be admissible as between MDNR and EDS to the same extent and under the same conditions as other business records obtained and maintained in documentary form.

Automated Operations Center Support

The EDS Automated Operations Center is the entry point for resolving system-related problems, and initiating change within MDNR's environment. The Automated Operations Center also serves as the front line of technical support – in effect, this center provides both initial documentation of problems and their resolution.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Provide support services to respond to requests for assistance related to the services
- Facilitate the receipt and processing of valid requests
- Receive, track, and own the request to closure
- Accept and respond to authorized submitters, trouble requests that relate to the selected EDS services, or the related system configurations
- Redirect any requests from non-authorized submitters to the MDNR-identified authorized submitters
- Enter information obtained as a service request or trouble ticket into the request management system. The request management system will then notify the client using e-mail or pager of the request or alert
- Provide impact statements for all Severity Level 1 problems describing actions to resolve

MDNR Responsibilities

MDNR will perform the following tasks:

- Provide in writing a list of authorized submitters that are mutually agreed on by MDNR and EDS
- Provide an ongoing updated list of primary and backup contacts for interaction with EDS
- Provide such information as requested by EDS to perform the services
- Annually review the list of authorized request submitters and change approvers so that authorized MDNR representatives approve all changes performed by EDS

Service Conditions

The following service conditions apply:

- Although the service or problem may be referred to second-level support groups, third-party maintainers, or the EDS RSS Support Staff Help Desk for resolution, the Automated Operations Center, as the owner of the issue, is responsible for coordinating problem resolution until the problem is resolved.
- A complete, authenticated request will be considered received once it has been logged into the request management system and assigned.
- A request is not considered complete unless all information has been provided and appropriate authorizations and all prerequisite activities are complete.

Site Outage Reporting

EDS provides automated reporting if MDNR 's site experiences an outage.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- EDS RSS Support Staff will be alerted from the ticketing system if an outage occurs

MDNR Responsibilities

MDNR will perform the following tasks:
Provide EDS with an up-to-date notification list for Network outages and Application Outages.

Description	Coverage	Service Level
Level 1: Critical Impact Serious failures that cause MDNR Web site to be offline. Examples: failure of EDS operated routers, system disk failures in non-replicated server, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 2: Major Impact Faults where users may notice a degraded system performance. Examples: failures in EDS access lines to the Internet, EDS operated routers, failed disk in array, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 3: Moderate Impact Faults that MDNR may not notice and cause little disruption of service. Examples: Rebooting a server or router, memory short-runs and restarting aborted processes.	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 1 hour of call from authorized submitter to EDS.
Level 4: Minor Impact Non-outage situations and are usually requests for information. Example: Request for the version of software on a server.	Regular Business Hours 8 a.m. – 5 p.m. Central Standard Time, Monday - Friday	Authorized submitter will be contacted with 8 business hours of the initial request.

Appendix A – Service Levels

Service Levels Overview

Service Level Agreements. EDS offers Service Level Agreements (SLAs) to Client for the Automated Hosting Managed Services provided by EDS. The SLAs set forth herein specify the availability commitments for each Automated Hosting Managed Services component that MDNR requires, and the performance and responsiveness of EDS for each such component. The performance against SLAs described herein shall be measured by each SLA.

Architecture Diagram Components. Each Client Site component managed and supported by EDS is identified and classified on the Architecture Diagram as receiving one or more of the Automated Hosting Managed Services.
All SLAs apply 7 x 24 (excluding Scheduled Maintenance), except for Managed Backup and Restore SLAs and Managed Enterprise Application and Database SLAs on Non-Production servers which only apply from 7AM to 7PM local Data Centre time.

Committed Response Times

EDS provides commitments for the total time required to repair. Each such Service Interruption incident has a different Time To Repair (TTR), defined as the total time, measured in minutes, that elapses between the beginning and the end of a single event. For the purpose of calculating the Time To Repair, the start time for a production event shall not be more than 30 minutes before the time the first trouble ticket for that event is created. The end of the event is defined as the cessation of the Service Interruption and resumption of normal service. The following tables summarize the Committed Time To Repair (CTTR) for each event type.

Committed Time To Repair Client Notification. In addition to the commitments set forth below, EDS will notify Client within 30 minutes of any incident impacting the availability of Client Site components covered by the SLA.

Component	Committed Time To Repair
Dedicated Network	Repair: 4 hours
VPN Secure Remote Access	Failure at EDS Data Center. Repair: 4 hours
Bandwidth Services	Bandwidth Services shared infrastructure configuration is HA by default. Fail-Over: 15 minutes Repair: 4 hours (if connectivity on both lines is interrupted)
Managed Server	Repair: 4 hours
Managed AOPS Web and Application Server or Managed AOPS Database Server	Repair: 8 hours
SAN Management	Repair: 6 hours
Mail Services	Repair: 15 minutes

TABLE 1 – COMMITTED TIME TO REPAIR

Requirements and Limitations

The SLAs provided by EDS are subject to the following requirements and limitations:

No SLA during Operationally-Ready Period. For each Client Site, the SLAs do not apply during the Operationally-Ready Period. During the Operationally-Ready Period, EDS will provide limited support to Client between 9:00 AM and 5:00 PM (Client's facility local time zone), Monday through Friday. EDS will respond within one (1) business day to requests for assistance within the scope of the Services. For each Client Site, the SLAs commence on the Client Site Go Live Date.

Scheduled Maintenance. EDS and its subcontractors reserve regularly scheduled maintenance windows in order to maintain and upgrade infrastructure. The SLAs do not include or cover such regularly scheduled or any Client-requested maintenance windows ("Scheduled Maintenance"). EDS shall make commercially reasonable efforts to provide Client with prior notification of all scheduled and emergency maintenance procedures.

Stress Testing. The Parties may agree from time to time to conduct stress testing and/or load testing of a Client Site. To the extent that Client agrees to proceed with such testing, any resulting interruption or impairment of the Client Site is not included in or covered by the SLAs.

Third Party Events. EDS cannot control events or services outside the EDS operational environment, including actions or inactions of third parties (except for third parties acting on behalf or under the direction of EDS and to the extent that is expressly set forth in the SLA's set forth in this Schedule) that impair Client's connections to the Internet including, by way of example, viruses or other intrusions ("Third Party Events"). Accordingly the SLAs do not include or cover any interruption or degradation in service due to such Third Party Events.

Force Majeure Events. EDS shall not be liable for SLAs to the extent that EDS' non-performance is excused due to a force majeure event or for such other events for which performance is excused under the Agreement.

Client Responsibility. The SLAs do not include or cover Service Interruptions, outages, or any performance degradation caused by Client or by its clients, service providers or contractors; by applications not managed by EDS on Managed Servers; by Client's hardware, applications or code within the Client Compartment; or by changes to the Client's applications or code, content, database schema, or Client's site configuration, originated either (i) directly by Client, (ii) by EDS if Client has requested or approved the change to take place outside of EDS Maintenance Windows; by lack of necessary monitoring information from Client; or by Client's failure to comply with operating procedures and documentation provided to Client from time to time. Client will assist EDS in defining certain operating procedures which are specific to the Client Site such as Client contact information and contact methods.

Monitoring. In order to monitor the availability of components for which EDS provides uptime and Time To Repair commitments, EDS implements pre-defined standard monitors on hardware, OS, software application components and software processes. Whenever custom monitors are implemented to monitor specifically the availability of application components which are specific to the Client Site, Client is responsible for assisting EDS in designing and implementing such monitors. While in general all monitors are designed to be as independent as possible from Client's code, content, third party data sources or off-net dependencies (since those dependencies are always excluded from uptime and Time To Repair commitments); in some cases EDS relies on monitors that include such dependencies. However, this does not mean that EDS is responsible for uptime on Client's content, code, third party, off-net dependencies, or any application, software, URL components that are not included in the list of items to be monitored, as defined in the monitoring configuration document.

Client Provided Hardware. The SLA commitments described herein apply, provided that EDS supplies the hardware components. For all hardware components supplied by Client, the definitions shall be amended to exclude failures related to such hardware components. For each hardware failure, EDS will require authorization to buy replacement parts and will charge Client for the parts and labor to complete the replacement or repair.

Supported Technologies. The SLAs described herein are only applicable to hardware and software components managed by EDS and selected from the then current EDS Automated Hosting Managed Services supported technologies list.

Appendix B. Ground Rules and Assumptions

The following assumptions are being considered for this proposal.

Any deviation from the assumptions set forth below or elsewhere in this proposal may affect EDS' performance and may result in changes to the schedule, fees and/or expenses, deliverables, and level of effort required to perform the Services described in this proposal.

1. Cookie-session persistence is required for a client to apply for a hunting or fishing license.
2. The migration plan will need to accommodate a 2 day down time in the production database to accommodate the movement of data from the current environment to the proposed environment.
3. A VPN (Virtual Private Network) will continue to be used to provide State of Michigan employees access to the RSS Web Hosting environment – to support SQL ad hoc queries to the Inquiry DB and RSSWIN access to the RSS/E-License Primary DB. Only MDNR-approved IP addressing and protocols will be allowed connections over this tunnel. Strong encryption (168-bit 3DES) will protect data traversing the Public Internet via the MDNR-dedicated VPN tunnel. The VPN tunnel, and therefore data encryption, terminates on a firewall at the perimeter of the State's enterprise network, and at the perimeter of the MDNR-dedicated network in the Web Hosting environment.
4. Any State agent (MDNR or otherwise) approved by MDNR to provide data to RSS, or distribute data created by RSS, will need to do so via direct access to RSSINQ. The VPN tunnel described above will serve this purpose.
5. In the event the VPN Internet Bandwidth solution does not meet the needs of MDNR, MDNR has the option to convert to a dedicated circuit. MDNR will bear the cost of this change.
6. MDNR's staff will be readily available to complete their assigned activities.
7. MDNR will make critical decisions and convey approvals on a timely basis, but no later than three (3) business days after the request for a decision or approval.
8. EDS reserves the right to rotate EDS personnel supporting the MDNR's hosted environment.
9. EDS will provide additional resources on a time and material basis if service level thresholds defined in the Service Condition sections exceed the defined number quantities set forth in this proposal.

10. If MDNR exceeds allocated service condition thresholds for two consecutive months, cost adjustments will be applied by EDS through the Change Control Process for the activity exceeding the thresholds. EDS will increase the monthly Full-Time Equivalent resource (FTE) support to the level required to support the activity going forward.

Appendix C - General Technical Glossary

General Terms

Term	Definition
archive log	Records that are backed-up dynamically using a file system threshold that, when reached, triggers a standard backup process
cluster	Two or more computers that operate independently but work collectively to provide uninterrupted computing service, higher performance, or both
DBMS	Database Management System
dedicated	A resource that is unique to the Client Site and not shared with other EDS Clients
E-commerce	Doing business online, typically through the Internet
firewall	A set of related hardware and programs that protects the resources of a private network from users from other networks
FTP	File transfer protocol; a simple method of transferring information over a TCP/IP network
IDS	Intrusion Detection System
IP	Internet protocol
IP Address	Address of a computer attached to an IP network
ISP	Internet Service Provider
LDAP	Lightweight Directory Access Protocol
load balancing	Fine tuning a computer system, subsystem, or network to more evenly distribute data, network traffic, or processing across available resources
Mbps	Mega-bits per second
ping	TCP/IP utility used to determine whether a computer is connected to the Internet
platform	Particular hardware or software architecture
port	Logical connection place and, specifically, using the Internet's protocol, TCP/IP, the way a client program specifies a particular server program on a computer in a network
OS	Operating system
reboot	To restart a computer's operating system
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SQL	SQL (Structured Query Language) is a standard interactive and programming language for getting information from and updating a database.
SQL Server	Microsoft SQL server technology
socket	One endpoint of a two-way communication link between two programs running on the network. A socket is bound to a port number so that the TCP layer can identify the application that data is being sent.
SSL	Secured sockets layer; a program layer for managing the security of message transmissions in a network. SSL uses the public-and-private key encryption system that also involves the use of a digital certificate
URL	Uniform resource locator; universal resource locator; the address defining the route to a file on the Internet
VPN	Virtual Private Network
WAN	Wide Area Network

Appendix D – Out-Of-Scope Security Enhancements

EDS provides a comprehensive set of security capabilities to enable clients to tailor an appropriate security solution to fit their business needs. MDNR currently has the following security uplifts requested in the RSS hosting environments as described in detail in the Service Enhancement Section:

- ◊ **Digital Certificates**
- ◊ **Vulnerability Report**
- ◊ **SAS70**

Besides the security services that are part of the basic MDNR Infrastructure, Managed Server and Managed Network offering, EDS offers the following Security Enhancements services that are currently out-of-scope for this proposal:
EDS Security Enhancements consist of the following enhancement options to allow clients additional technology and security services beyond the base security described in other services purchased:

Network-Based Intrusion Detection – EDS will install and configure filters for a dedicated Network Intrusion Detection System to monitor network traffic in the client compartment. As required, EDS will update the attack signatures and respond to alerts.

Host-Based Intrusion Detection – To enable host-based IDS, select devices are configured to generate alerts. EDS will monitor and respond to alerts as well as update attack-alerting filters.

Intrusion Detection Report – The analysis includes a detailed report of the latest scans, probes, and intrusion attempts directed at client's site over a month period. EDS will recommend specific course of actions to address any identified security exposures.

A client may also select from the EDS Security and Privacy Consulting Services described below. These services as provided as part of a scoped engagement.

Penetration Testing – The client can request consulting services to conduct penetration testing. Penetration testing simulates an adversary's activity; using the same automated tools a hacker would employ to gain unauthorized access to client organization's networks and systems. EDS will identify weaknesses in the environment and suggest corrective action.

Application Attack Simulation – Through a simulated attack, EDS will identify, analyze, and help mitigate security vulnerabilities and exposures related to the application architecture, authentication, connection management, configuration, patching, and coding practices. This service is available as a one-time service or as a subscription service.

Application Code Review – The EDS Code Review Service verifies that all client applications are developed and coded following secure programming procedures. EDS will work with the client development teams to identify and mitigate potential security risks in the software development lifecycle before the application is deployed.

Appendix E: Pricing

EDS is providing the following indicative pricing for extending the contract for hosting and application support of RSS for the time period July 1, 2008 through June, 30, 2010. The pricing set forth herein is only preliminary; the pricing is non-binding and is subject to change as the parties further define the terms and conditions that shall accompany this extension of work.

	-	-	month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	mo
	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar
Existing hosting during migration			$39,174	$39,174	$0	$0	$0	$0	$0	$0	
Upgraded hosting Environments			$38,026	$38,026	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$4
Hosting upgrade installation			$55,634	$0	$0	$0	$0	$0	$0	$0	
vulnerability scans			$895	$895	$895	$895	$895	$895	$895	$895	
POS communications 7% pass through			$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$
Circuit installs (6) 7% pass through			$7,097	$0	$0	$0	$0	$0	$0	$0	
E-License support			$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$
RSS operations and support			$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$10
3 FTE Enhancement pool ($13,425/FTE/mo)			$0	$0	$0	$0	$0	$0	$0	$10,069	$4
Release 8.3	*$39025.5*	*$39025.5*	$78,536	$78,536	$78,536	$62,426	$40,275	$49,001	$42,289	$30,206	
8.3 FTE staffing	3	3	5.85	5.85	5.85	4.65	3	3.65	3.15	2.25	
TOTAL			**$337,907**	**$275,176**	**$240,076**	**$223,966**	**$201,185**	**$210,541**	**$203,829**	**$201,815**	**$20**

Add-On Application Services Rates: Information Analyst @ $127.00/hr
Project Manger @ $183.00/hr

III. Cost

See Appendix E Pricing for billing schedule

IV. Impact on Contract

Increase: **$5,124,166**

V. Signatures

EDS

By: _____

Title:_____

Date:_____

DIT Contract Administrator

By: _____

Title:_____

Date:_____

DNR, Program Manager

By:_____

Title:_____

Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **March 13, 2008**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 68
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Pete Devlin	Program Administrator: William Pemble
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 30, 2010**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

This change notice is being issued to correct the EDS Proposal in CCN#67.

AUTHORITY/REASON (S):

Per agency, DIT, DMB and SAB (3/4/08) approval.

INCREASE: $5,189,166.00

TOTAL CONTRACT VALUE REMAINS: $34,132,988.08

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No. 2008-002

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses a 24 month extension to the RSS contract services as defined in the following proposal:

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RSS Environment

Michigan's Department of Natural Resources (MDNR) Retail Sales System (RSS) processes hunting and fishing license sales via point of sale (POS) terminals located throughout the state or through an Internet Web site. The system currently consists of the Production environment being hosted in the EDS Service Management Center (SMC) Plano, and the Model Office/Disaster Recover (MO/DR) environment being hosted in the EDS Service Management Center (SMC) Tulsa, Oklahoma.

The Production environment was installed in 2003 and the MO/DR environment was relocated to Tulsa with new hardware in 2005. Both environments currently operate on Windows 2000.

Issues and Vision

MDNR has requested that EDS continue to provide application support and hosting services for the RSS from July 2008 through June 2010. MDNR will use this period to analyze the department's requirements for automation of the sports licensing operations and determine requirements for the future operations of RSS. MDNR needs RSS to continue to function in its current state of high availability, and has therefore requested that EDS provide a proposal for necessary technical upgrades, and application support and hosting services, that will facilitate RSS' reliable operation for this 24 month period.

During the last contract extension, January 2006 through June 2008, MDNR and MDIT agreed to extend the life of the Plano SMC Production hardware in order to reduce hosting costs. The State of Michigan had planned for Michigan Department on Information Technology to take over responsibility of application support for E-License and hosting of the RSS Model Office/Disaster Recovery environment sometime during that January 2006 through June 2008 period, as documented in Change Notice 60 (Change Authorization Request 2007-001). However, those plans for the Michigan Department of Information Technology to take over responsibility of such application support has subsequently been cancelled by the State, and EDS has continued to retain responsibility for both areas. Now that these servers have been in use for 5 years, it is important to refresh the hardware and upgrade the operating system to ensure a maintainable low-risk system.

EDS proposes the following products and services for the RSS in this contract extension:

1. Hosting and application upgrades:
    a. Refresh the Production Hosting environment in Plano SMC
    b. Increase the number of POS concurrent connections to the production communication servers
    c. Upgrade EICON Cards to S94 V2
    d. Upgrade clustered database storage method
    e. Upgrade all RSS environments (Development, QA, MO/DR and Production) to Windows 2003
    f. Improve DR file copy process
    g. Increase security of the RSS application passwords to login to the SQL server
    h. Improve database replication
2. Continued RSS operations as defined in the current contract
    a. POS communication services
    b. RSS application support services
    c. RSS application enhancement services

Implementation Approach for Upgrades

Phase 1 – Build Development and QA 2003 Servers in EDS, Lansing.

The Development and Quality Assurance regions will be built first. A System Test will be run in QA to ensure that everything will continue running without issue under Windows 2003.

Phase 2 – Build Plano Production 2003 hosting environment.

Because of 2008 license sales and drawing scheduling, the Production region will be built next.

New hardware will be procured and installed in the secured hosting environment. Windows 2003 OS will be loaded.

Two more X.25 circuits will be added to the communication servers, increasing the total number of concurrent POS connections from 300 to 450. The Eicon cards will be upgraded to S94 V2.

The production database cluster will be upgraded to move from direct attached disk storage array to enhanced managed SAN storage. The current production envirionment uses direct attached storage. The proposed solution will use leveraged SAN storage. SAN attached storage provides a higher availability solution, with greater guaranteed uptime, since the storage is dual connected to the host, and the disk array is monitored continuously for potential areas of failure. The disk array vendor notifies EDS immediately should disk issues start surfacing, so that the array can receive proactive maintenance, and thus avoid a catastrophic failure. The leveraged managed storage solution also enables the storage volumes to be adjusted should growth be required without the need to procure additional hardware.

After the servers are built, a System Test and a Formal Acceptance Test (FAT) will be run on the new Production servers. This will validate that all parts of RSS are setup correctly on the new servers and all parts will run on the new OS. When all tests are complete, the test data will be removed and the implementation plan will be executed to move the production data over to the new servers.

The implementation is expected to take one week with a two-three day period where the RSS production system will be down in order to setup the database and begin replication on the new servers. Only POS sales that do not require a host authorization will be possible during this period. The target date for the downtime is between 08/29/08 and 09/08/08. This is after the waterfowl application period and before the waterfowl drawing. No other application period or drawing processes are conducted during this window.

We had a very successful implementation when we moved the production region from the State of Michigan servers in Lansing to the EDS servers in Plano, and so we are using this historical project data to model this implementation.

The existing Windows 2000 production hardware will not be decommissioned until MO/DR has been upgraded to Windows 2003.

Phase 3 – Upgrade Tulsa MO/DR 2003 hosting environment.

The MO/DR region was relocated to Tulsa in 2005, so the servers are still usable, and can be reliable under a maintenance contract for the 2 year extension period. Extending the usable life of the MO/DR hardware will reduce the hosting costs of new hardware for this region.. The existing MO/DR servers will be rebuilt with Windows 2003 and the Eicon card will be replaced with a new S94 V2 card.

After the servers are built, a System Test and a Formal Acceptance Test will be run on the new MO/DR servers. This will validate that all parts of RSS are setup correctly on the refreshed servers. Once testing is complete, the region will be considered live. There is no need for a data refresh.

Once the MO/DR region is live on Windows 2003, the old Production environment will be decommissioned.

Phase 4 – Software improvements.

SQL Password Protection

There are several parts of the MDNR RSS application that need passwords to login to the SQL server. Many of these passwords are currently stored in readable format (in ini files, command files, and Windows registry). Access to these locations is controlled via user login IDs, but there is still a risk in leaving them in a readable format.

In order to improve the security of these RSS application passwords and better protect the SQL databases, it is necessary to change this practice of storing passwords in a readable format. The preferred method is using Windows Authentication. Using Windows Authentication allows the use of Windows IDs when connecting to SQL instead of internal SQL IDs. The password for the Windows ID still needs to be entered (i.e. Windows services, Batch Schedules, etc.), but it is never stored in a readable format. Windows Authentication will be used to connect to the SQL server for E-License, the Comsrv service, VB scripts, and all batch C programs.

When Windows Authentication is not possible, encrypting the passwords becomes the solution. Since the MDNR users are on a separate network than the SQL server, Windows Authentication is not an option for their RSSWIN application. The RSSWIN application will be modified to use an encrypted password. RSSWIN will need to decrypt the passwords prior to connecting to the database. This only applies to SQL IDs and passwords used to connect to the database, not the individual RSSWIN IDs and passwords that are stored in the user_table.

File Copies

There are two issues with the current process for file copies. First, the Disaster Recovery(DR) file copy solution needs to be more robust to ensure files are not missed and to decrease the amount of time / resources it takes to make a DR copy of production.. Second, the file copies to other State agencies could be more secure.

DR processing currently consists of a VB script that selects all files that have an accessed date after the date of last run and executing a copy command to move them to the DR holding area in the Model Office region. We are investigating tools that are more robust than windows copy in usable options and stability. One option is Rsync. The primary advantage to Rsync is that it checks for changes at the bit level in the specified file(s). Rsync therefore will only send the differences between the files rather than send the entire file. Rsync also compares files very quickly, so we do not need to use the timestamp to narrow the numbers of files included in the copy. This will ensure that all files are verified in the DR area.

FTP is the current protocol that State Agencies use to send and receive files with RSS. We will install OpenSSH along with the FTP server so that the other agencies have a more secure option to use for connection to our system. They will be able to switch at their convenience.

Database Replication

In the current setup, the distribution database is on the same server as the replicated copy. When MDNR users execute resource intensive queries against the replicated database, distribution cannot update the replicated database as quickly. In the proposed setup, the distribution database will be moved to the same server as the live database. The replicated database will still reside on the Inquiry database.

Project Schedule

MDNR Release 8.3 Project Summary	Start Date	Finish Date
MDNR Release 8.3	12/21/08	1/30/2009
Initiation	12/21/08	4/6/2008
SoM reviews and approves SOW for contract extension	12/21/08	1/8/08
EDS presents pricing	1/09/08	1/14/08
SoM reviews and approves pricing	1/15/08	1/20/08
EDS presents updated contract language w/ SOW and pricing	1/21/08	1/27/08
SoM reviews and approves contract through Ad. Board	1/28/08	3/17/2008
EDS and SoM sign contract extension	3/19/2008	3/19/2008
EDS Hosting PM assigned	3/20/2008	3/20/2008
EDS finalizes BOM and applies for Capital Appropriations	3/24/2008	4/11/2008
Hardware Planning	4/11/2008	6/16/2008
EDS Orders Production hardware	4/11/2008	4/30/2008
EDS Receives Production hardware	4/30/2008	4/30/2008
EDS Builds Production environment	5/1/2008	6/13/2008
Planning	5/1/2008	6/10/2008
Manage and Control	5/1/2008	2/11/2009
Rel 8.3 Project Start	5/1/2008	5/1/2008
MDNR Drawings to avoid for production implementation	8/1/2008	9/9/2008
Fall Turkey Drawing	8/11/2008	8/11/2008
Antlerless Deer Drawing	8/25/2008	8/27/2008
Waterfowl Application Period	8/1/2008	8/28/2008
Waterfowl Drawing	9/9/2008	9/9/2008
Deliverables		
Phase 1 Development & QA Environments W2003 Refresh	5/1/2008	6/26/2008
CR488 - Development Environment refreshed to W2003	5/1/2008	5/15/2008
CR488 - QA Environment refreshed to W2003	5/12/2008	6/26/2008
Phase 2 Production Environment Build & W2003	5/1/2008	12/4/2008
CR474 - Production Environment build	5/1/2008	12/4/2008
Requirements Approval - Send to Client	5/2/2008	5/2/2008
Requirements Approval - Client Signoff Received	5/8/2008	5/8/2008
Production Environment - Operational Ready	6/16/2008	6/16/2008
Production Environment - Perform Integration Testing	7/31/2008	8/14/2008
Production Environment - Coordinate FAT	8/18/2008	8/29/2008
Production Environment - Obtain Client Signoff	8/29/2008	8/29/2008
Production Environment - Implementation	9/2/2008	9/8/2008
Impl. - E-License in maintenance / No POS host auths	9/3/2008	9/5/2008
Production Environment - Go Live / Complete	9/5/2008	9/5/2008
Production Environment - Monitor Production Appl.	9/8/2008	9/23/2008
Phase 3 Model Office Environment W2003 Refresh	9/8/2008	10/30/2008
CR487 - Model Office Environment refreshed to W2003	9/8/2008	10/30/2008

Model Office Environment - Shutdown Hardware	9/8/2008	9/8/2008
Model Office Environment - Operational Ready	9/15/2008	9/15/2008
Model Office Environment - Perform Integration Testing	10/15/2008	10/22/2008
Model Office Environment - Coordinate FAT	10/23/2008	10/30/2008
Model Office Environment - Obtain Client Signoff	10/30/2008	10/30/2008
Model Office Environment - GO Live / Complete	10/30/2008	10/30/2008
Old Production Environment - Disassemble	10/30/2008	10/30/2008
Phase 4 Software Improvements	7/1/2008	1/21/2009
CR489 Improve P/W Security	7/1/2008	1/20/2009
CR490 Rsync for DRA	9/9/2008	1/20/2009
Software Improvements - Perform Integration Testing	11/24/2008	12/18/2008
Software Improvements - Coordinate FAT	1/5/2009	1/20/2009
Software Improvements - Obtain Client Signoff	1/20/2009	1/20/2009
Software Improvements - Implement Production	1/20/2009	1/21/2009
Software Improvements - Go Live / Complete	1/21/2009	1/21/2009
Close Down	1/21/2009	1/30/2009

Summary

The hardware and operating system upgrades, along with the application software and security enhancements, will position the RSS system to maintain its history of performance, data management, security, reliability and recoverability. Confident that RSS will continue to be supported to world-class standards, MDNR can focus internal resources on core business activities and strategic initiatives, while EDS assumes daily operational responsibility for keeping RSS available and responsive to Michigan's sporting consumers.

Application Support

The EDS RSS Support Staff will continue to provide support and enhancements for the MDNR license sales application. EDS will retain the team of experienced application development and project management resources on the RSS team. 3 Full Time Equivalent Information Analysts will be committed to RSS enhancements defined by the MDNR during the contract period. MDNR will work with EDS to identify required changes to the RSS system based on the department's business and operational needs. EDS will also maintain the current dedicated technical staff to provide 24x7x365 operational support and continuous RSS application functions that are required and detailed within the Liquidated Damages section of the current contract as the 10 critical conditions.

EDS RSS Support Staff will access these servers via EDS*Link and Web Hosting's Tarantella Servers. The Tarantella servers use Terminal Services to gain direct access to these servers. EDS RSS Support staff will continue to have full administrative access to all the MDNR servers in the Web Hosting facility. The EDS RSS Support team will carry a pager and the MDNR staff will contact them with application questions or production support issues. If assistance is required at a Web Hosting facility to resolve an issue, the EDS RSS Support team will be responsible for engaging them. The Web Hosting Production Environment support coverage is 24x7x365 support The EDS Development and QA Environment servers dedicated to testing the RSS application will run Windows 2003 with the necessary software to thoroughly test changes to the RSS application code.

Once application code changes have been tested within the EDS RSS QA testing environment, a planned release of this code is scheduled through Model Office and to Production. RSS application code changes will be made available to the Model Office environment by using SCP to securely transport the files for User Formal Acceptance Testing by the MDNR staff

The Model Office environment is designed to execute disaster recovery for the production environment it will have identical functionality and be updated with operating system and third party software upgrades or patches. This allows the MDNR staff to conduct User Formal Acceptance Tests that model what will occur in Production. At the request of the MDNR staff, the EDS RSS support staff will refresh the database on the Model Office server.

MDNR can access the Model Office environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the Model Office database, run the RSSWIN application, access the E-License Model Office Web site and modify input and output files used in testing. The EDS RSS staff will assist the MDNR staff during User Formal Acceptance Testing to run batch jobs, resolve testing issues and answer questions.

Once the RSS application code changes are approved and signed off during User Formal Acceptance Testing, they are promoted to the Production environment. RSS application code changes will be made available to the Production environments by using SCP to securely transport the files.

MDNR can access the Production environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the replicated database, and run the RSSWIN application.

Hosting Technical Solution

The services described in the technical solution involve the hardware infrastructure and associated services to support the Michigan Department of Natural Resources (MDNR) RSS system hosting environment (the "Automated WEB Hosting Services" or "Services").

The MDNR RSS Production & Model Office/Disaster Recovery environments will continue to be hosted on dedicated hardware platforms and deployed, as of the Effective Date, at EDS Service Management Center (SMC) facilities.

Hardware, operating system (OS), and SQL license, maintenance, and financial agreements are held and maintained by EDS.

Application and third-party software license, maintenance, and financial agreements are held and maintained by MDNR.

MDNR will maintain financial responsibility for any vendor-imposed charges for transfer of hardware or software maintenance contracts from MDNR to EDS.

Production Plano Hosting Upgrade

The design for the Phase 2 Production hosting environment in Plano SMC is illustrated in Fig. 1. It includes an upgrade to Windows 2003, an additional two X.25 circuits, and upgraded Eicon cards to S94 V2 version.

The MDNR architectural solution is based on a dedicated custom network design. The MDNR network is comprised of dedicated firewalls (creating a DMZ) that provide entry point's exclusive to MDNR's operations, a set of dedicated switches, and a set of web switches for load balancing and inter-VLAN distribution. In addition, there is a VPN Tunnel between EDS Automated Web Hosting and the State

Production Architectural Diagram

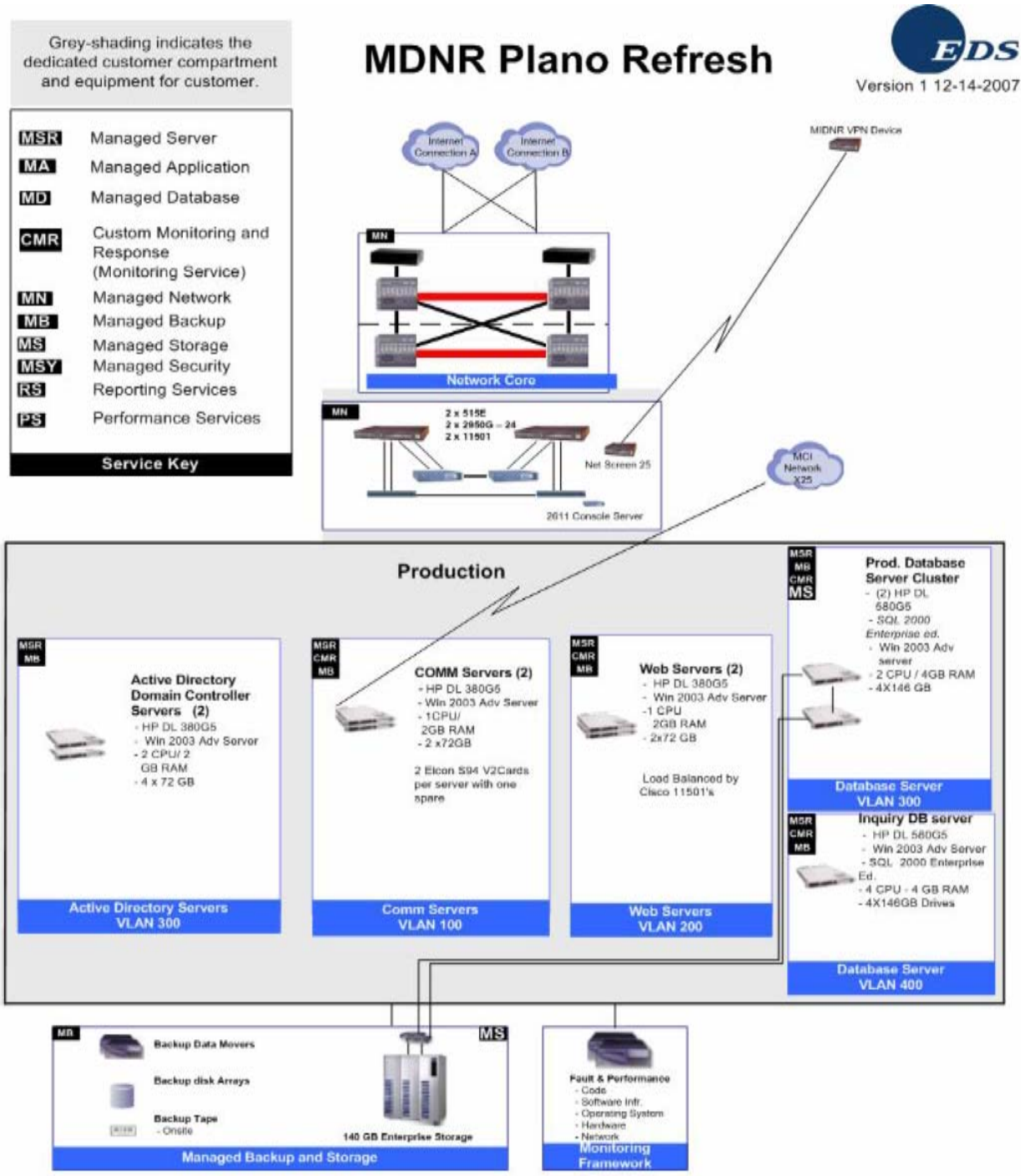


Figure 1

Hardware components.

2 – HP DL380G5 Web Servers – load balanced by Cisco 11501 devices.

This is a set of two load-balanced servers that run the production E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet.

2 – HP DL380G5 Communications Servers

These two servers receive and manage the calls and data from the POS terminals in the production environment. Each server has 2 Eicon S94 V2 cards and there is one spare. These cards are connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to numerous Point Of Sale devices for the MDNR RSS application.

2 – HP DL380G5 Active Directory Domain Controller Servers

These two servers handle all domain level security for the system.

2 - HP DL580G5 in a Production database server cluster running SQL 2000.

This is a set of two clustered active/passive database servers that manage both the E-License sales transactions and control tables, and the entire active RSS database in the production environment. The cluster uses managed SAN storage

1 – Inquiry DL580G5 Inquiry database server running SQL 2000.

This is a database server in the production environment that contains an up to date copy the active RSS database and the archive RSS database. MDNR staff run ad-hoc queries against these databases on this server, which isolates them from the production databases. This server will also contain all the RSS input and output files (e.g., EFT files, SOS files, etc.) that will be accessible by the MDNR staff.

2 - Cisco PIX HA 515E Firewalls

2 - Cisco 11501 Load Balancers

2 - Cisco 2950G-25 Switches

1 – Netscreen 25 VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 6 circuits into the compartment

Production Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	HA FE 24-port Switches HA Pix 11501Load Balancers HA Pix 515E Firewalls 2611XM Console Server	N/A	Managed Network
Servers					
Web servers	Web	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives Load Balanced by Cisco 11501's	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication servers	Comms	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 2 Eicon cards	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Servers	DB	2	HP GL 580 G5 2 CPUs, 4Gb RAM; 4X146Gb Drives 140GB SAN Storage	Windows 2003 Adv SQL 2000 Enterprise Ed SMTP AdTempus **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Inquiry Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 4X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP OpenSSH	Managed Server Managed Backup and Restore
Active Directory Domain Controller Servers	AD	2	HP DL 380G5 2 CPUs, 2Gb RAM; 4X72Gb Drives	Windows 2003 Adv	Managed Server
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 7 servers

Production VLAN configuration

Production Extranet VLAN 100

The Extranet VLAN provides a point of demarcation for two RSS POS Communications servers. The two RSS POS Communications servers will be Managed HP DL380G5 Servers running Windows 2003. Each server will have 2 S94 V2 Eicon cards installed. Verizon engineers will install the cards within the EDS SMC. These servers will support the RSS communications software and the Eicon cards necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack.

EDS cannot provide SLAs on the Eicon card. There will be a spare card available in case of failure. Automated Web Hosting will provide the "Break-Fix" action(s) on a time and materials (T&M) basis.

Verizon will provide support to the port on the Verilink AS2000 DSU. Verizon will support troubleshooting the circuits to the cards and any X.25 commands necessary for problem resolution. Verizon will provide support in testing of circuits and Eicon cards at installation.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Public VLAN 200

The Production Public VLAN will consist of two load-balanced Web/App servers. Each server will be connected to a separate Dedicated Switch. The Web/App Servers are HP DL580G5 servers running Windows 2003. The servers will require an SSL certificate for MDNR's custom E-License application resolving to www.mdnr-elicense.com. MDNR currently owns the MDNR-ELICENSE.COM. EDS Automated Web Hosting will be responsible for the maintenance of the URL. Cookie-session persistence is required for the load-balanced servers.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Database VLAN 300 and Active Directory Servers

The Production Database VLAN consists of 2 database servers (a clustered RSS/OLS Database) and 2 Active Directory Servers. The Database servers are HP DL580G5 with Windows 20003 Advanced Server. The servers on the Production Database VLAN will not maintain Public Addresses.

EDS will provide installation and clustering of the MSSQL Databases on the database servers. The Application team will be responsible for the database configurations and support of the databases.

The production database servers will be configured in a clustered active/passive operation using MS Windows 2003 Advanced Server and each server will be connected to a separate MDNR Compartment Switch. The active/passive clustering configuration will allow for one of the database servers to be the primary database while maintaining a secondary database server in an idle state until a failover has occurred. The MSSQL binaries will be on the local internal disks while maintaining the created databases on a shared external storage array. The RSS/OLS DB will have one instance of MS SQL 2000 Enterprise Edition loaded running several schemas.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Inquire Database VLAN 400

The Production Inquiry Database Server is a standalone HP DL580G5. This server will run MS SQL 2000 Enterprise Edition for 4 CPUs(but using SAL licensing). The Enterprise Edition will be required to access more than 2GB of RAM and support the replication features.

EDS will use Windows MSSQL Transactional Replication to copy the production database to the Inquiry database in near real-time.. Updates (i.e. INSERT, UPDATE, or DELETE statements) executed on the RSS Database will be replicated to the Inquiry Database as the updates on the RSS Database occur. With transactional replication, an initial snapshot of the RSS Database will be required on the Inquiry Database server. When data modifications occur at the RSS Database Server, the individual transactions are captured and propagated to the Inquiry Database.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

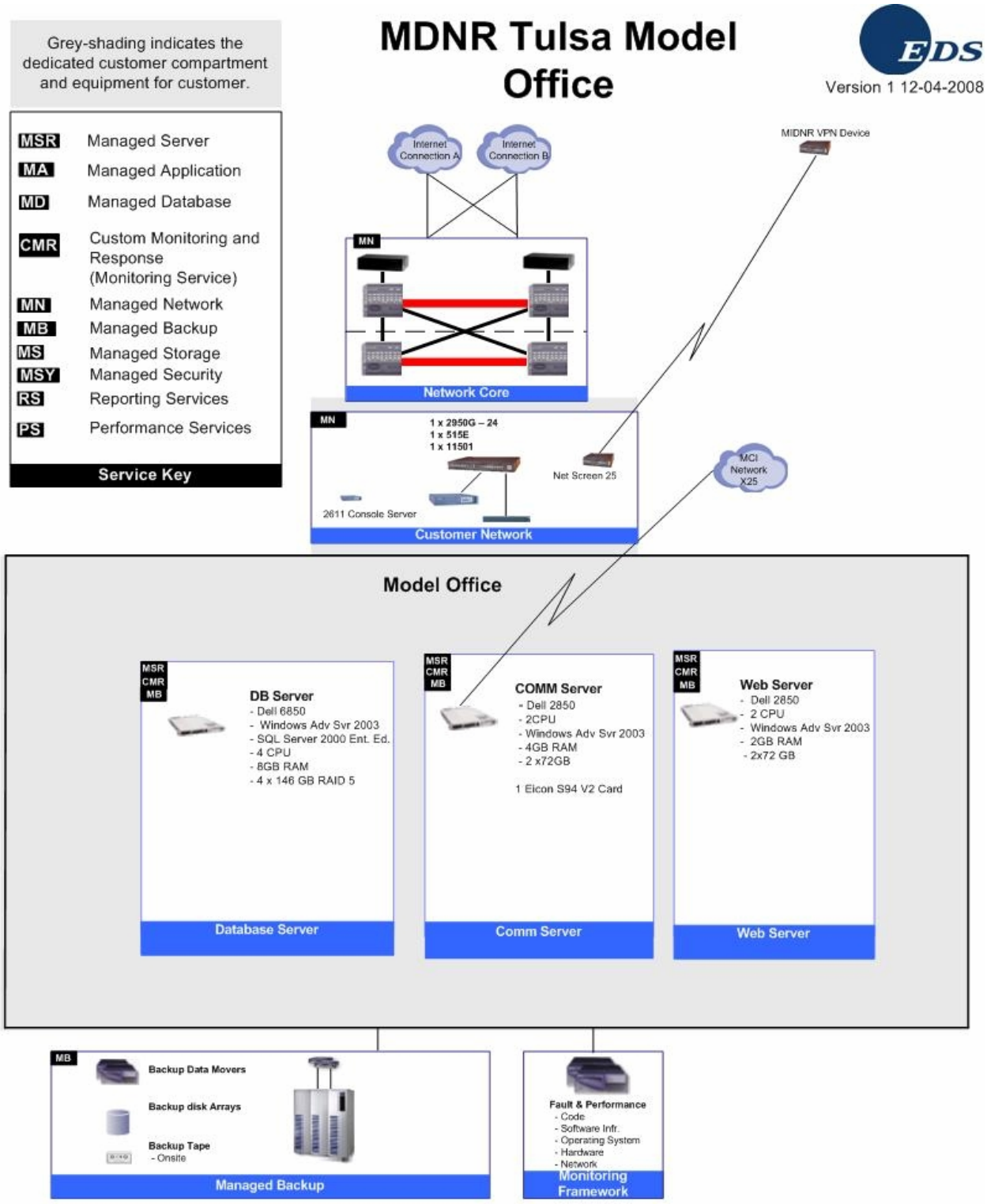
Tulsa MO/DR RSS Environment

Tulsa MO/DR Architectural Diagram

The current architecture that exists for the RSS MO/DR hosted environment is reflected in Figure 2 below. EDS will be upgrading the Eicon Card to S94 V2 and the Operation system to Windows 2003.

The EDS Tulsa Web Hosting Facility serves as the Model Office location for the MDNR and can execute a disaster recovery of the EDS Web Hosting Production location in Plano on a limited basis. The MO/DR location provides Internet access, a single Web/app server, a single database server and a single RSS POS Communications server. This environment will receive regular shipments of production data via file transfer.

AOPS will store RSS data backups, along with copies of the most recently installed versions and patches for: Windows 2003, SQL 2000, RSS application code and Third Party Software required by RSS – for all Model Office and Production RSS servers. If there is a Model Office server failure, all software and data required to restore the Model Office service will be on-site. If a condition occurs rendering the Production facility inoperable, the Model Office facility will be reconfigured for Production – again relying on on-site storage of all required software (O/S, database environment, RSS application code, Third Party Apps.) and data to configure the Production environment. No hardware reconfiguration will be required; all changes will be data/software related.



* EDS may substitute a different brand and/or model of hardware or software for any hardware or software listed herein if EDS determines in its sole discretion that the substituted hardware or software is functionally equivalent.

Figure 2

MO/DR Hardware components.

1 – DELL 2850 Web Server

This is a server that runs the Model Office E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet. It will be used for User Acceptance Testing. In the case of a disaster in the production environment, it will be used as the production Web application server.

1 – DELL 2850 Communications Server

This server receives and manages the calls and data from the POS terminals in the model office environment. In the case of a disaster in the production environment, it will be used as the production Communications Server. The server has 1 Eicon S94 V2 card which is connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to test Point Of Sale devices for the MDNR RSS application.

1 - DELL 6850 Database server running SQL 2000 Enterprise Edition

This is a database server that manages both the E-License sales transactions and control tables, and the entire active RSS database and archive RSS database in the Model Office environment. It also serves as the repository for all the RSS input and output files (for example: EFT files, SOS files, etc.) that will be accessible by the MDNR staff in the model office environment. In the case of a disaster in the production environment, it will be used as the production database server and input/output file server.

1 - Cisco PIX 515E Firewall

1 - Cisco 11501 Load Balancer

1 - Cisco 2950G-25 Switch

1 – Netscreen 25 VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 1 circuit into the compartment

MO/DR Configuration Table.
The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	HA FE 24-port Switch HA Pix 11501Load Balancer HA Pix 515E Firewall 2611XM Console Server	N/A	Managed Network
Servers					
Web server	Web	1	Dell 2850 2CPU, 2GB RAM, 2X72GB Drives	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication server	Comms	1	Dell 2850 2CPU, 4GB RAM, 2X72GB Drives 1 Eicon S94 V2 card	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Server	DB	1	Dell 6850 4 CPUs, 8Gb RAM; 4X146GB Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP SMTP AdTempus OpenSSH **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 3 servers

MO/DR VLAN Configuration

MO/DR Public VLAN
The MO/DR Public VLAN will consist of a single Web/App.

The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Database VLAN
The MO/DR Database VLAN consists of a single database server.

The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Extranet VLAN
The MO/DR Extranet provides a point of demarcation for the MO/DR RSS POS Communications server. This server will not be accessible from the Public Internet unless routing has been configured within the Firewall to allow such access. This server supports the RSS communications software and the Eicon card necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack.

The EDS RSS Support team will have full system access (not physical) to this server to support the RSS application and WAN connectivity. AOPS will have a management connection to this server to manage the server.

Disaster Recovery Plan

EDS has developed and documented an RSS-specific Disaster Recovery Plan that covers both a single server failure, and a complete environment failure. This DR Plan was developed in the 2003 contract extension and will continue to be used to support the MDNR.

The secondary EDS Hosting SMC in Tulsa acts primarily as the Model Office location for MDNR with the ability to execute a Disaster Recovery (DR) of the EDS AOPS Production location in Plano on a limited basis. This secondary EDS AOPS location provides Internet access, a single web/app server, a single database server, and a single RSS POS Communications server. In the event a condition occurs rendering the EDS AOPS Production Facility in Plano inoperable, the Model Office environment will be reconfigured for production using only the hardware available in the Model Office environment. The DR plan for a total Production failure details action items based upon the following high level tasks. The total duration to bring the DR site up as the new RSS production site would be 96 hours.

- EDS will own the OS and patches and rebuild the Model Office servers to the last installed Production revisions
- EDS will execute a database environment installation. Revisions of the database will match the last Production database within 30 minutes of the failure.
- EDS will control all of the application revisions and will be responsible for the application loads.
- EDS will control and install all database configuration builds
- EDS will contact Verizon to redirect the 1-800 numbers to the secondary EDS AOPS location
- EDS Plano will point the production URL to the secondary EDS Tulsa facility
- EDS will control the system test plan and test the DR environment to insure the environment is operational
- Rebuild the Web/App, Communication and database server
- Install a single Database Instance
- Re-point the DNS
- Load the data
- Load the Web/App applications
- Load the Database schemas
- Verizon redirects the 1-800 numbers
- Test the environment

.

Hosting Services Statement of Work

Hosting Services Overview

EDS Automated Hosting Services cover all aspects of infrastructure management, which consists of deployment, launch, 24x7 monitoring, security, troubleshooting, and change management of MDNR's hosted environments.

EDS will implement and perform the managed Automated Hosting Services for MDNR to the extent and as described in this proposal. Automated Hosting Services consist of the following:

"Deployment Services" are the Build and Launch Services that take MDNR from planning through launch of the Client Site into production or steady state.

"Managed Services" are those services that directly correspond to MDNR's infrastructure, consisting of the management and support of network devices, servers, software, storage, and other components. Services consist of the ongoing monitoring, reporting, troubleshooting, and repair services to be provided by EDS following the Operationally-Ready Date. Managed Services includes any "Service Enhancement Services" selected by MDNR as uplifts and additions to the base Managed Services.

"Client Services" are those services that relate to MDNR's interaction with EDS client support personnel such as the frequency of contact and level of support. EDS Automated Web Hosting Operations Center support, project management, technical support, and myhosting-eds.com™ client portal are examples of Client Services.

Service Definitions

The capitalized terms are as defined in this section. Additional technical terms and acronyms are included in the Glossary in Appendix C.

"Automated Web Hosting" means the Automated Operations delivery approach provided by Automated Hosting Services.

"Change Control Process" means the approach to follow to request a change to the Client Site as defined in the Operational Guide. All agreed upon changes will be documented in a Change Request executed by MDNR and EDS.

"Change Request" means the written request submitted by MDNR pursuant to the Change Control Process with sufficient details to enable EDS to evaluate it.

"Client Compartment" means the physical infrastructure dedicated to MDNR (server hardware, networking devices) and hosted within the Data Center.

"**Client Infrastructure Services**" means those Services directly related to the management of the physical environment within the Data Center location.

"Client Remote Location" means MDNR premises or a premises operated by a third party for MDNR or by the MDNR. This location is geographically distinct from the Data Center.

"**Client Site**" (or "MDNR site") means a hosting site that EDS will assist in managing as specified hereunder. The Client Site consists of the hardware, domain name(s) and URL(s), MDNR's business logic and applications, the content displayed on the hosting site, the data stored or processed by the hosting site, as well as any related data, software, applications, content, and other information managed by MDNR. Additional Client Sites may be added by mutual agreement.

"Data Center" means the physical locations where EDS installs the client-hosting infrastructure. This is the raised floor at Service Management Centers or third-party data centers.

"Deployment-Ready Code" means code that MDNR and EDS have tested, and confirmed is ready to be rolled into MDNR 's *production environment.*

"**Deployment Services**" means the initial services to be provided by EDS prior to the Operationally-Ready Date to make MDNR 's web site infrastructure Operational.

"**EDS Automated Web Hosting Operations Center**" refers to the EDS organization that provides 24x7 support to MDNR. This organization consists of system analysts, data center operations personnel, database administrators, and network engineers who support the MDNR's hosting environment.

"**EDS RSS Support Staff** " refers to the EDS organization in Lansing MI that provides 24x7 RSS Application support to MDNR. This organization consists of system analysts, database administrators, and project managers who support the MDNR's E-License, POS, Batch, RSSWIN, Database.

"**Go Live Date**" means the first date that a Client Site is Live with Deployment-Ready Code.

"**Implementation Services**" means the combination of Deployment Services and Launch Services.

"**Launch Services**" mean the Services provided by EDS commencing on the Operationally-Ready Date and ending on the Go Live Date to assist MDNR in preparing its code for operation within the EDS operating environment.

"**Live**" means that MDNR 's application code is deployed in the EDS operating environment and the Client Site both takes requests from the public Internet and successfully serves web pages in response to those requests. RSS is fully functional for queries, RSSWIN and RSS batch applications. POS communication servers can take calls from the POS terminals.

"**Managed Services**," means the ongoing monthly monitoring, reporting, troubleshooting, and repair-or-replace services to be provided by EDS following the Operational Date for a MDNR.

"**Operational**" means that EDS has designed the architecture of the Client Site, installed and configured the EDS-supplied hardware and software, and the EDS Deployment team has been trained and is ready to receive MDNR 's Deployment-Ready Code.

"Operational Guide" means a document that outlines the operational procedures for interacting with EDS Automated Operations. This document is provided to the EDS RSS Support team during the implementation of the services.

"**Operationally-Ready Date**" means the date on which the Client Site is Operational.

"**Operationally-Ready Period**" means the period commencing on the Operational Date and ending on the Go Live Date of a Client Site.

"User(s)"means any individual accessing the Client Site described in this proposal.

Service Conditions

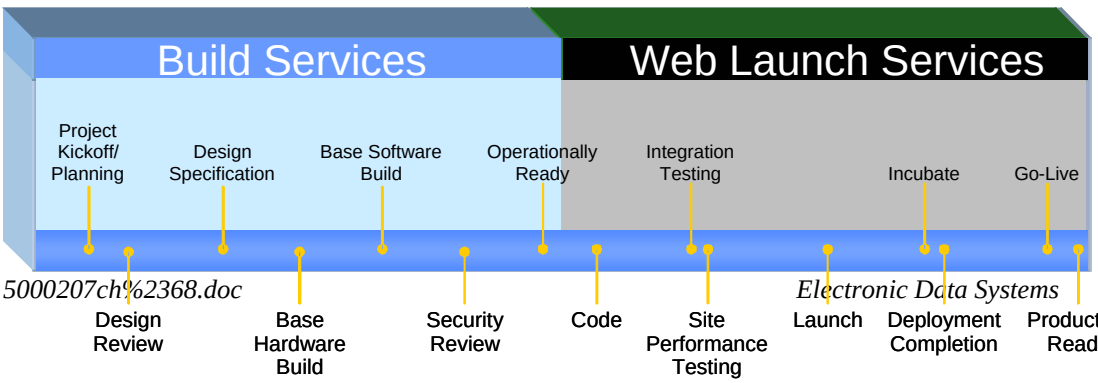
(Existing service conditions documented in the current contract apply.)

Deployment Services

Overview

Deployment Services comprise all the activities required to take a client from the planning stage through the site's production launch. The detailed activities associated with Deployment Services are documented in each of the sections that follow later in this proposal. The next few pages outline a set of project management and testing services that are part of MDNR's initial deployment and do not directly correspond to the management and support of the infrastructure in MDNR's environment.

Deployment Services are divided into two phases – Build and Launch.



Build Services
Build Services involve the basic build of the Client Site, comprising the hardware, Operating System (OS), security features, and software configuration of the devices in the environment to make the Client Site operational and ready to accept client applications. The completion of the Build Service is marked with the Operationally-Ready Date. Additional details specific to the deployment of the Managed Services purchased are documented in the Managed Services section of this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Host a kickoff meeting with key delivery and MDNR personnel to review the deployment plan and architecture
- Develop a project plan and prepare for services to support the deployment and ongoing operation of the hosted environment
- Communicate any service issues or deployment concerns
- Finalize requirements for the network and architecture
- Generate a hardware procurement list during project kick-off and planning build stage
- Perform tests to validate that the servers and related hardware are operational
- Conduct a final review of the deployment with MDNR to verify that requirements have been met
- Work with MDNR to determine Go-Live Date

MDNR Responsibilities

MDNR will perform the following tasks:

- Review and approve the deployment plan
- Review and approve the launch test plans
- Review and approve the final site architecture that will be deployed
- Attend the kickoff meeting, status update meetings, and final deployment review meeting
- Provide to EDS primary and backup communication focal point contacts for service requests, security authorizations, support issues, and business continuity requirements

Service Conditions

The following service conditions apply:

- EDS will configure MDNR's environment as described in the Architecture Diagram

Launch Services
Launch Services involve loading the MDNR's code to the servers and testing necessary to support the Automated Web Hosting Service Level Agreement following completion of the Build Services. Additional details specific to the Managed Services purchased are documented in the Managed Services section of the SOW. Launch Services end on the Go-Live Date.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Develop a test plan for the MDNR Site
- Perform system testing before MDNR Site launch. Testing consists of high availability (HA) and system fail-over testing, stability testing, security testing, and monitoring configuration verification.
- Develop and execute the Domain Name Server (DNS) cutover plan and launch the MDNR Site into production
- Assist MDNR with loading the hosted application code and configurations

MDNR Responsibilities

- Review and approve the deployment test plan

- Review and approve the site architecture that was deployed
- Perform application and business function testing
- Attend the final launch review meeting
- Review the DNS cutover plan and approve the Go-Live Date

Service Conditions

The following service conditions apply:

- EDS will configure MDNR's environment as described in this proposal
- The MDNR Site will not be activated until the servers and related functionality outlined in this proposal have been installed and are operational
- The MDNR Site will not be activated until MDNR environment has power access, Internet access, and communication access (power, pipe, and ping access)

Managed Services

This section is organized according to the categories of services listed below and includes a description of each type of Managed Service as well as EDS and MDNR responsibilities.

- Client Infrastructure
- Managed Network
- Managed Server
- Managed Database
- Managed Backup and Restore
- Enterprise Storage

Client Infrastructure

Client Infrastructure Services are those Services directly related to the management of the physical environment within the Data Center location

Facilities and Asset Management

Facilities and Asset Management are those Services, which are involved in managing Data Center facilities. Facilities Management Services are provided in an EDS certified facility. Facilities Management Services are not available as a stand-alone offering.

Each EDS certified facility provides processing support for EDS' services satisfying the business and technology requirements of multiple clients. EDS certified facilities are constructed specifically for large-scale information technology processing and incorporate environmental systems to minimize hazards from electrical power failure, fire, or water damage, acts of nature, and unauthorized access. Each EDS certified facility is equipped with an uninterruptible power supply, diverse power feeds, and a diesel generator backup system.

Facilities Management Services consist of the following:

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Maintain engineering design and facility environmental systems and manage all aspects of the Data Center, consisting of supervision of all subcontractor maintenance activities
- Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities to meet agreed-on hosting environment requirements
- Determining floor space provisions for compute environment configuration needs
- Managing and supporting infrastructure facilities to maintain or exceed leading industry standards
- Providing floor space, rack space, power, HVAC, fire suppression, motor generators, 24x7x365 facility staff, and diverse power feeds
- Supervising infrastructure and sub-contractor facilities maintenance activities
- Maintain physical security of the Data Center

MDNR Responsibilities

MDNR will perform the following tasks:

- MDNR or MDNR representative(s) will conform to EDS security policies during all site visits.

Physical Security Services
Physical Security Services include controlling access to the EDS certified facility. Authorized employees are assigned electronically encoded cards that allow access to the general work area. Areas requiring additional security, such as equipment control rooms and raised floor areas have more restricted access controls.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Maintaining a secure database of access authorizations by user
- Periodic review of access logs
- Review and follow-up of any physical security violations
- Security personnel on-site 24x7x365

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Managed Network Services
This section describes Services to support the dedicated network infrastructure, Managed Network Services. The dedicated network infrastructure is the set of network devices that are deployed in the Client Compartment (for example, switches, load balancers, firewalls, and/or remote access devices Managed Network Services consist of the following:

- Dedicated Network
- Secure Remote Access – VPN
- X.25 Packet-Switched Circuits
- Bandwidth
- DNS Management

Dedicated Network
Dedicated Network describes the Managed Network Services required to monitor and support the dedicated network infrastructure of firewalls, switches, and load balancers deployed for MDNR within the Data Center, as well as the connectivity between the Dedicated Network and the Shared Networking Equipment. This dedicated network core is connected to a shared, highly available (HA) network infrastructure in each data center, including gateway routers and switches, that provides external connectivity. The EDS core network includes Network-based Intrusion Detection Systems (IDS) used to monitor and respond to unauthorized network access.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure EDS supported network infrastructure with default configurations and connect to EDS Data Center network

- Configure up to four separate server virtual local area networks (VLAN)s, setup virtual IP address(es) and perform up to 10 virtual IP address changes comprised of additions, modifications, and deletions to network devices
- Provision up to 14 public IP addresses for use in MDNR Web sites and applications
- Provision up to 500 private IP addresses for server networks

Managed Services

- Monitor EDS network and EDS-managed network devices
- Respond to and repair problems on EDS-managed network devices
- Respond to and repair connectivity problems over EDS network and MDNR compartment
- Update network device OS as necessary
- Conduct capacity planning for EDS network and network devices
- Monitor availability and performance of network connection from EDS Data Centers to neighboring Internet Service Provider (ISP) peers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Review and approve the architecture that EDS will deploy

Managed Services

- Submit a Change Request as needed to add or remove hardware

Secure Remote Access – VPN

Secure Remote Access – VPN is the service to manage the virtual private network (VPN) devices that provide MDNR personnel with a secure tunnel into the Client Compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Hardware-Based VPN – EDS Client Compartment
  - Procure and install the EDS-supported VPN device
  - Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

- Hardware-Based VPN – Client Remote Location
  - None

Managed Services

- Hardware-Based VPN – EDS Client Compartment
  - Monitor EDS-managed VPN devices installed at EDS' facilities
  - Respond to and repair problems on EDS-managed VPN devices
  - Update VPN device OS as necessary
  - Respond to and isolate connectivity problems over EDS-managed VPN tunnels between Client Compartment and the Client Remote Location
  - Repair problems caused by EDS-managed devices, networks, or EDS service providers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Hardware-based VPN – Client Remote Location
  - Procure and install the MIDNR-supported VPN device
  - Install default configuration on VPN device
- Define and configure standard monitors required to support VPN connectivity
  - Provide Public IP address for VPN device
  - Physically install VPN device and integrate with corporate network in a screened subnet (DMZ) in accordance with EDS' standard VPN topology for the Client Remote Location
  - Configure corporate firewall to perform Network Address Translation (NAT) for any VPN traffic transmitted to or from the Client Compartment
- Verify MDNR corporate network allows administrative and IPSec traffic from EDS-designated IP ranges to VPN device at the Client Remote Location

Managed Services

- Hardware-based VPN Client Remote Location
  - Maintain network connectivity between VPN device at Client Remote Location and the Internet
  - Assist EDS to perform diagnostics, troubleshooting, and repair for connectivity problems caused by the VPN device at Client Remote Location (reboot, check cables, and so forth)
- Install replacement hardware as necessary

X.25 Packet-Switched Circuits

X.25 Packet-Switched Circuits is the service to manage the X.25 circuits that provides MDNR point of sale agents with access to the EDS DSU/CSU in the Client Compartment.

EDS will provide the following leased line circuits

- Fractional T1 with 56Kbs Bandwidth for each circuit

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Deployment Services
- Procure X.25 circuits to the EDS SMC
- Procure and install EDS-supported termination devices in MDNR compartment in SMC
- Provide as many as two hours to consult with MDNR to determine requirements for EDS-side termination
- (2) Toll-free dial up numbers terminating on the X.25 circuits at the EDS SMC

Managed Services

- Monitor EDS-managed X.25 circuits and termination devices at the EDS SMC
- Respond to and repair problems on EDS-managed X.25 circuits and termination devices
- Respond to and isolate X.25 circuit connectivity problems between the EDS SMC and the X.25 network
- Repair problems with EDS-managed X.25 devices and network

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Managed Services

- Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Bandwidth Service
Bandwidth is the service to provide Internet connectivity between the Client Compartment and the Internet.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Provision bandwidth from EDS' ISPs to EDS Data Centers. The amount of bandwidth provided to MDNR is 5 Mb/s
- Set up connection from Client Compartment to EDS network in Data Center

Managed Services

- No additional responsibilities

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Domain Name Service (DNS) Management
DNS is the service to direct Internet traffic to the MDNR's hosted Web site by managing MDNR domains on EDS domain name servers.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Redirect traffic from one old environment to the new environment at Go-Live

Managed Services

- Monitor and maintain primary and secondary DNS servers
- As necessary, inform MDNR of IP or name changes for primary and secondary DNS servers
- As requested, redirect traffic from one Web address to another within the EDS environment
- Update names and IPs for EDS DNS servers as necessary or required

MDNR Responsibilities

MDNR will perform the following task:

Deployment Services

- No additional responsibilities

Managed Services

- Renew domain(s) registration

Managed Server Services
Managed Server consists of the ongoing monitoring and management Services for the hardware and OS.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure hardware
- Integrate hardware into EDS monitoring environment (fault level analysis only – Internet Control Message Protocol (ICMP), CPU, disk, hardware components)
- Install cables between devices
- Provision the infrastructure-specific OS that has been certified and packaged for use by EDS
- Install OS, Opsware™ and other EDS required software
- Define and configure OS monitoring to (1) monitor network connectivity, network devices, or server hardware and (2) gather performance data
- Perform security review prior to site launch which consists of the following:
  - Configurations and settings check during initial server build
  - Audit of password integrity
  - Server hardening:
    - Install only required OS components
    - Install EDS recommended vendor security patches
  - Set passwords and access control
  - Disable unnecessary network and system services
  - Limit network services that run under the root account
  - Enable account management
  - Set up MDNR administrator accounts

Managed Services

- Monitor server hardware
- Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches
- Apply EDS required patches
- Notify MDNR of monitored OS-related events where it appears that the OS is the root cause of the problem (OS debugging is not included)
- OS security patch management
  - Monitor relevant vendor and industry bulletins for security-related patch alerts
  - Evaluate need for patches
  - Get MDNR approval before proceeding with any service-affecting changes, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm)
- Add, delete, and change EDS accounts and update passwords
- When necessary, perform reboots of servers
- As requested by MDNR, adjust level of log creation to either increase or decrease granularity of data collection

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

- Configure non-OS applications

Managed Services

- Apply EDS required patches
- Maintain responsibility for additions, deletions, and changes to MDNR accounts using the account management tool
- When necessary, perform reboots of servers
- As requested by MDNR, modify job scheduling on a server, such modifications consist of addition, change, or deletion of jobs

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Review and approve architecture that EDS will deploy

Managed Services

- Respond to EDS inquiries regarding patch issues within one business day of notification
- Respond to EDS' request for input regarding issues of service management

Managed Database Services
The Managed Database Services consist of installation and configuration and monitoring and issue resolution of the MDNR database servers on a 7x24x365 basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and license the database application
- Setup database instances
- Provision storage
- Configure fault monitoring

Managed Services

- Monitor server hardware

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

- Configure back-ups
- Create database
- Perform database imports
- Implement database security per EDS standards
- Create users
- Make necessary schema changes
- Configure space management
- Configure and set the scheduled jobs
- Provide documentation for database setup procedures
- Configure clustered, High Availability (HA) environment
- Verify that database software levels in the development environments match the production environment. The architecture in the development environments should match the production environment
- Migrate existing database to suitable format for import into new environment
- Perform functional testing and correct bugs in the site that impact site stability or integration with EDS Services
- Perform database fail-over testing

Managed Services

- Monitor faults
- Monitor space availability

- Monitor connectivity to the database
- Monitor significant exceptions in the alert logs
- Respond to and repair problems
- Backup database
- Recover database if necessary to correct problems
- Apply software security patches and major bug fixes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Freeze all database changes eight business days prior to Go Live Date to allow for EDS testing

Managed Services

- Respond to EDS inquiries regarding patch issues within one business day of notification
- Follow EDS change management procedures for promoting code and content changes
- Verify changes are tested in model office environment prior to pushing to production

Enterprise Storage Services – Enhanced

Enterprise Storage Enhanced Services provides Intelligent Storage with on-demand scalability in a sophisticated SAN environment designed for increased scalability, availability, and information protection. The EMC Enterprise Storage offering provides a faster more scalable solution that any locally attached storage on the market. Each server of the Database Cluster will be attached to the SAN via dual fiber channel host bus adaptor cards for high availability. EDS will provide performance management services consisting of collecting performance data dynamically. EDS will perform load-balancing services, so that utilization is distributed across the disk and channel infrastructure as possible based on the configuration design.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Provide the required storage hardware and software for Intelligent Storage and the hardware and software maintenance contracts for such hardware and software
- Install connectivity components for the storage infrastructure (SAN, network attached file server, or direct connectivity storage) and provide connectivity to the MDNR clustered database servers.
- Document the initial and environment growth requirements to the extent possible based on due diligence information provided. Such information will address the amount in gigabytes, required start and end time frame, and number and name of platforms requiring attachment to Storage-on-Demand Service

Managed Services

- Provide integrated software, storage hardware, and managed services to provide the appropriate level of capacity, scalability, and performance for the selected services
- Provide a leveraged technical and operational monitoring staff to meet agreed-on Service Levels providing continuous support for the storage infrastructure
- Implement security practices, such as logical unit masking, preventing unauthorized storage access from an unauthorized server

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

- Work approve the deployment plan and test plan

Managed Services

- Complete an Intelligent Storage requirements definition document to define changes to the service requirements considering the provision of additional storage; designating connectivity of additional servers; or designating configuration changes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Managed Backup/Restore Services

Managed Backup and Restore Services provide operational support and management processes to meet OS and related system software requirements for data availability, accessibility, retention, and restoration. Services are designed to support file system and specialized applications/databases such as Oracle, SQL Server, Lotus Notes, Microsoft Exchange, SAP, and other client-specific backup requirements.

Managed backup services consist of the following:

- Operating System Backups
- Application / Client Data Backups
- Database backups
- Backup Monitoring
- Restore Services

Operating System Backups

Operating System Backups provides backup of a server's operating system and configuration files. This service uses Trivoli Storage Manager (TSM) backup and an incremental forever approach to backup the operating system and configuration files. Incremental backups are provided on a daily basis. By default seven versions of file changes are retained for 60 days.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure backup agents
- Add system IDs to backup server
- Schedule backups
- Test backup/restore
- Verify hardware and network

Managed Services

- Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
- Update backup plans as new components are added to the system
- Maintain the tape library, media, and expendable supplies
- Backup operating system

- Conduct a full backup the first time a MDNR file system is backed up. Thereafter, only daily incremental backups occur.
- Retain seven versions (1 active + 6 inactive) of operating system data within the EDS SMC and ship seven versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and it is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

- Specify directories on file system to backup

Managed Services

- Advise EDS when new components, application files or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Application / Client Data Backup

Application /Client Data Backup provides backup of a server's application and client data and configuration files. Web Hosting Backup Service uses TSM backup and incremental forever approach. Incremental backups are provided on a daily basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure backup agents
- Add system IDs to backup server
- Schedule backups
- Test backup/restore
- Verify hardware and network

Managed Services

- Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
- Update backup plans as new components are added to the system
- Maintain the tape library, media, and expendable supplies
- Backup applications
- Conduct a full backup the first time a MDNR server application and configuration files are backed up. Thereafter, only daily incremental backups occur.
- Retain 14 versions (1 active + 13 inactive) of application data within the EDS SMC and ship 14 versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive

version eclipses its retention period it is expired and is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

- Specify application files and directories to backup

Managed Services

- Advise when new components, application files, or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Database Backup

Database Backups are saved as files on the local server. These files are included in daily file backup on each system.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

- Setup initial database backup schedule

Managed Services

- Maintain Database Backup schedule

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Backup Monitoring

Backup Monitoring is a standard service that provides failure monitoring for the backup processes and procedures for a successful backup of the shared hosting compute environment.

EDS Responsibilities

EDS will perform the following tasks:

Managed Services

- Perform monitoring, verification, notification, and escalation of issues as necessary for application data, operating systems, and related system software backups
- Update backup plans as new components are added to the system

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Restore Services

Restore Services consist of the services required to restore an operating system, application, and data file system and/or database content upon request by MDNR.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

- File restores provide restoration of a file internal disk to the server to a point in time (within the granularity of the backup schedule). MDNR will be charged a fixed fee, under Technical Support Services, for file restores.
- Full restores (full operating systems, applications and data, file systems, and database contents) when requested, allows MDNR to request full restoration of a disk environment to a point in time (within the granularity of the backup schedule). MDNR will be charged on a time and materials basis for full restores.

MDNR Responsibilities

MDNR will perform the following tasks:

Managed Services

- Specify file or disk system to restore

Service Enhancements

The Service Enhancements Section describes Managed Services that have been be ordered by MDNR in addition to the EDS' standard Automated Hosting Services (the "Service Enhancements").

The Service Enhancements selected by MDNR are listed below:

- Mail Services
- Security Enhancements

Mail Services – Outbound Mail

Outbound Mail Relay Service (the "Outbound Mail Relay Service") enables the delivery of outbound Simple Mail Transfer Protocol (SMTP) e-mail messages using relay servers to the Internet. Mail relay servers are part of the shared environment, segregated by firewall from the dedicated client compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Own, engineer, operate, and administer hardware and software required to provide this service
- Monitor the system 24x365
- Provide notification of partial or full service outages to designated EDS Account and MDNR contacts
- Troubleshoot system problems and repair or replace system components
- Multiple redundant servers at multiple locations to provide load balance and high availability

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

- Provide at least two EDS client contacts for each client domain/address
- Make certain that sender addresses are valid and deliverable
- Make certain that all SMTP DNS domains include a valid, functioning postmaster address that delivers to a person
- Make certain that receiving servers accept messages in a timely manner. Servers that consistently back up or cause delays on the mail relays must be upgraded to meet capacity.

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- No additional responsibilities

Managed Services

- No additional responsibilities

Service Conditions

The following service conditions apply:

- To allow e-mail routing through the Outbound Mail Relay servers, the sender address, or domain must be provided to Messaging Services by MDNR.
- The sender's address or domain must be accessible as a destination domain, and should not use the eds.com domain.
- Clients of the Outbound Mail Relay Service are expected to make certain that recipients have requested all messages delivered using this Service.
- Clear and easy-to-follow instructions for removal from the distribution must be included in the message.
- A maximum per-message size of 512 KB is implemented for the Outbound Mail Relay Service and messages larger than the maximum size will be rejected.
- EDS reserves the right to restrict distribution of any messages at EDS' sole discretion.
- Use of this service requires both the sender and the recipient to have valid SMTP formatted addresses to send and receive SMTP mail.
- For the purposes of this document, availability of the Outbound Mail Relay Service is a state in which at least one mail relay service server is operational, connected to the network, with the means necessary to send and receive data in Internet Protocol formats, and accepting properly formed SMTP messages.
- The Outbound Mail Relay Service is implemented with redundant mail relay servers at redundant locations with redundant network connections.
- EDS does not guarantee the availability of servers supporting destination domains nor the network infrastructure used to reach those servers, as these devices and networks are typically outside the control of EDS.
- Message delivery times may be longer than normal during partial service interruptions where the overall e-mail system is still available.
- Mail delivery is the ability of EDS mail relay servers to relay the messages accepted to the next hop to the destination domain. This ability depends on the responsiveness of the destination mail system and the network infrastructure to connect to that destination. Delivery will be attempted periodically for up to

three days. After one day, the systems are configured to send a delay notification identifying that delivery attempts will continue. After three days any undeliverable messages will be returned to the envelope sender address.
- Problem resolution means the actions required to identify, repair, and resolve system problems that affect the level of service.
- Automated monitoring tools and manual processes are used to detect events that could potentially affect the Outbound Mail Relay Service and alert the support team.

Security Enhancement Services

EDS Security Enhancements consist of the following options to allow clients additional technology and security services beyond the base security described in other services purchased:

- Digital Certificates
- Vulnerability Analysis and Reporting
- SAS70 reports

Digital Certificates

EDS will order digital certificates, register MDNR servers, and install and configure certificates to enable SSL communication.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Order digital certificates and register MDNR server accordingly
- Install certificates to enable SSL communications on MDNR's server

Managed Services

- Process and implement certificate renewals prior to expiration

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- Provide required information in a timely fashion to enable EDS to order certificates

Vulnerability Analysis and Reporting

System Level Vulnerability detection is the preventive process of examining, prioritizing and resolving vulnerabilities on system hosts.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

- Perform vulnerability checks through pre-defined scan policies to identify violations to the EDS established security policies. Current scan polices calls for scans to be done twice a year, at no additional charge to the customer. Results are used internally by EDS to access and improve our

security process. This proposal includes an additional service of monthly scans done on every production server with reports provided to MDNR.
- Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning
- Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take action to mitigate risk

MDNR Responsibilities

MDNR will perform the following tasks:

Managed Services

- Review EDS recommendations
- Initiate Change Control Process if interested in applying EDS' recommendations

Service Conditions

The following service conditions apply:

- Information security is a dynamic area. MDNR acknowledges that not all threats and vulnerabilities are currently understood or identified, that any security solution is subject to being compromised or circumvented in a variety of manners, and that new and unexpected threats and vulnerabilities can be expected to arise in the future. MDNR understands that as a provider of information security services EDS does not provide a guaranteed identification of all possible threats and vulnerabilities or guaranteed protection against all risks, threats and vulnerabilities.
- It is understood and agreed that EDS is not assuming responsibility for any losses that may occur as a result of the failure to identify all possible threats or vulnerabilities, that EDS is not acting in the capacity or taking on the responsibility of an insurer and is not charging a price that would allow it to do so, and that it is the responsibility of MDNR to obtain insurance, if any, covering damages to MDNR or third parties.
- MDNR is responsible for obtaining any consent necessary for EDS to access the systems as required to perform these security Services, prior to EDS commencing performance.

SAS70 Reports

EDS performs SAS70 audits on its total SMC hosting environment on a periodic basis and these reports are available to the State during the 4th quarter of 2008 and the 4th quarter of 2009. SAS70 reports are restricted to existing EDS clients and their auditors.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

- Order SAS70 reports for Plano and Tulsa
- Provide MDNR with the SAS70 reports in the 4th quarter of 2008 and 2009

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

- The MDNR shall restrict use of the Proprietary Material to its employees and independent auditors who are involved in the evaluation of the Proprietary Material.
- MDNR Agrees to comply with SAS 70 Non Disclosure Statement:
  It is agreed that, in consideration for Electronic Data Systems Corporation's disclosure of this SAS70 Report (hereinafter referred to as the Proprietary Material), the Customer agrees that the Proprietary

Material is, and shall at all times remain, the property of Electronic Data Systems Corporation and shall be used solely by the Customer and the independent auditors of the Customer in connection with the services performed or proposed to be performed by Electronic Data Systems Corporation for the Customer. The Customer will not copy, reproduce, sell, assign, license, market, transfer, or otherwise dispose of or give the Proprietary Material to any person, firm or corporation. The Customer shall keep the Proprietary Material confidential and shall not disclose the Proprietary Material to another party without first obtaining written permission from a duly authorized officer of Electronic Data Systems Corporation.

Client Services

EDS Client Services provides MDNR with 24x365 support, account management and key technical resources for support of MDNR's operations. A project manager will be assigned to MDNR to perform account support and act as an escalation point to expedite the resolution of account issues. Additionally, the service allows for the review of account action items, and their associated follow-up activities on MDNR behalf.

Client services consist of the following:

- Technical Support Portal
- Automated Operations Center Support
- Site Outage Reporting

myhosting-eds.com™ portal
The portal is utilized for system reporting, operational ticket initiation/review, viewing site documentation, and ordering Technical Support Services.

Technical Support Services are a set of MDNR-initiated requests for ad hoc additional Services that are outside the scope of the on-going Services contained within this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Provide EDS RSS Support Staff access to the myhosting-eds.com™ portal
- Provide EDS RSS Support Staff with administrative privileges and the ability to create user

EDS RSS Support Staff Responsibilities

- Monitor and control user access privileges and access code usage on myhosting-eds.com™ client portal by MDNR's employees or other third parties

MDNR *Responsibilities*

MDNR will perform the following tasks:

- Designate the individuals of the EDS RSS Support Staff who will be designated to have administrative privileges

Service Conditions

The following service conditions apply:

- MDNR will not share usernames, passwords, or other access credentials that allow the client to access EDS resources with any third-party including contractors, agents, and delegates without EDS' express written permission.
- MDNR agrees that use of valid access codes to order Technical Support Services shall be an authorized act upon which EDS may rely in providing the services requested.
- All Technical Support Services orders placed using permitted access codes shall, for all purposes, be deemed to be in writing and signed by MDNR and will be admissible as between MDNR and EDS to

the same extent and under the same conditions as other business records obtained and maintained in documentary form.

Automated Operations Center Support

The EDS Automated Operations Center is the entry point for resolving system-related problems, and initiating change within MDNR's environment. The Automated Operations Center also serves as the front line of technical support – in effect, this center provides both initial documentation of problems and their resolution.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Provide support services to respond to requests for assistance related to the services
- Facilitate the receipt and processing of valid requests
- Receive, track, and own the request to closure
- Accept and respond to authorized submitters, trouble requests that relate to the selected EDS services, or the related system configurations
- Redirect any requests from non-authorized submitters to the MDNR-identified authorized submitters
- Enter information obtained as a service request or trouble ticket into the request management system. The request management system will then notify the client using e-mail or pager of the request or alert
- Provide impact statements for all Severity Level 1 problems describing actions to resolve

MDNR Responsibilities

MDNR will perform the following tasks:

- Provide in writing a list of authorized submitters that are mutually agreed on by MDNR and EDS
- Provide an ongoing updated list of primary and backup contacts for interaction with EDS
- Provide such information as requested by EDS to perform the services
- Annually review the list of authorized request submitters and change approvers so that authorized MDNR representatives approve all changes performed by EDS

Service Conditions

The following service conditions apply:

- Although the service or problem may be referred to second-level support groups, third-party maintainers, or the EDS RSS Support Staff Help Desk for resolution, the Automated Operations Center, as the owner of the issue, is responsible for coordinating problem resolution until the problem is resolved.
- A complete, authenticated request will be considered received once it has been logged into the request management system and assigned.
- A request is not considered complete unless all information has been provided and appropriate authorizations and all prerequisite activities are complete.

Site Outage Reporting

EDS provides automated reporting if MDNR 's site experiences an outage.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- EDS RSS Support Staff will be alerted from the ticketing system if an outage occurs

MDNR Responsibilities

MDNR will perform the following tasks:

- Provide EDS with an up-to-date notification list for Network outages and Application Outages.

Description	Coverage	Service Level
Level 1: Critical Impact Serious failures that cause MDNR Web site to be offline. Examples: failure of EDS operated routers, system disk failures in non-replicated server, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 2: Major Impact Faults where users may notice a degraded system performance. Examples: failures in EDS access lines to the Internet, EDS operated routers, failed disk in array, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 3: Moderate Impact Faults that MDNR may not notice and cause little disruption of service. Examples: Rebooting a server or router, memory short-runs and restarting aborted processes.	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 1 hour of call from authorized submitter to EDS.
Level 4: Minor Impact Non-outage situations and are usually requests for information. Example: Request for the version of software on a server.	Regular Business Hours 8 a.m. – 5 p.m. Central Standard Time, Monday - Friday	Authorized submitter will be contacted with 8 business hours of the initial request.

Appendix A – Service Levels

Service Levels Overview

Service Level Agreements. EDS offers Service Level Agreements (SLAs) to Client for the Automated Hosting Managed Services provided by EDS. The SLAs set forth herein specify the availability commitments for each Automated Hosting Managed Services component that MDNR requires, and the performance and responsiveness of EDS for each such component. The performance against SLAs described herein shall be measured by each SLA.

Architecture Diagram Components. Each Client Site component managed and supported by EDS is identified and classified on the Architecture Diagram as receiving one or more of the Automated Hosting Managed Services.
All SLAs apply 7 x 24 (excluding Scheduled Maintenance), except for Managed Backup and Restore SLAs and Managed Enterprise Application and Database SLAs on Non-Production servers which only apply from 7AM to 7PM local Data Centre time.

Committed Response Times

EDS provides commitments for the total time required to repair. Each such Service Interruption incident has a different Time To Repair (TTR), defined as the total time, measured in minutes, that elapses between the beginning and the end of a single event. For the purpose of calculating the Time To Repair, the start time for a production event shall not be more than 30 minutes before the time the first trouble ticket for that event is created. The end of the event is defined as the cessation of the Service Interruption and resumption of normal service. The following tables summarize the Committed Time To Repair (CTTR) for each event type.

Committed Time To Repair Client Notification. In addition to the commitments set forth below, EDS will notify Client within 30 minutes of any incident impacting the availability of Client Site components covered by the SLA.

Component	**Committed Time To Repair**
Dedicated Network	Repair: 4 hours
VPN Secure Remote Access	Failure at EDS Data Center. Repair: 4 hours
Bandwidth Services	Bandwidth Services shared infrastructure configuration is HA by default. Fail-Over: 15 minutes Repair: 4 hours (if connectivity on both lines is interrupted)
Managed Server	Repair: 4 hours
Managed AOPS Web and Application Server or Managed AOPS Database Server	Repair: 8 hours
SAN Management	Repair: 6 hours
Mail Services	Repair: 15 minutes

TABLE 1 – COMMITTED TIME TO REPAIR

Requirements and Limitations

The SLAs provided by EDS are subject to the following requirements and limitations:

No SLA during Operationally-Ready Period. For each Client Site, the SLAs do not apply during the Operationally-Ready Period. During the Operationally-Ready Period, EDS will provide limited support to Client between 9:00 AM and 5:00 PM (Client's facility local time zone), Monday through Friday. EDS will respond within one (1) business day to requests for assistance within the scope of the Services. For each Client Site, the SLAs commence on the Client Site Go Live Date.

Scheduled Maintenance. EDS and its subcontractors reserve regularly scheduled maintenance windows in order to maintain and upgrade infrastructure. The SLAs do not include or cover such regularly scheduled or any Client-requested maintenance windows ("Scheduled Maintenance"). EDS shall make commercially reasonable efforts to provide Client with prior notification of all scheduled and emergency maintenance procedures.

Stress Testing. The Parties may agree from time to time to conduct stress testing and/or load testing of a Client Site. To the extent that Client agrees to proceed with such testing, any resulting interruption or impairment of the Client Site is not included in or covered by the SLAs.

Third Party Events. EDS cannot control events or services outside the EDS operational environment, including actions or inactions of third parties (except for third parties acting on behalf or under the direction of EDS and to the extent that is expressly set forth in the SLA's set forth in this Schedule) that impair Client's connections to the Internet including, by way of example, viruses or other intrusions ("Third Party Events"). Accordingly the SLAs do not include or cover any interruption or degradation in service due to such Third Party Events.

Force Majeure Events. EDS shall not be liable for SLAs to the extent that EDS' non-performance is excused due to a force majeure event or for such other events for which performance is excused under the Agreement.

Client Responsibility. The SLAs do not include or cover Service Interruptions, outages, or any performance degradation caused by Client or by its clients, service providers or contractors; by applications not managed by EDS on Managed Servers; by Client's hardware, applications or code within the Client Compartment; or by changes to the Client's applications or code, content, database schema, or Client's site configuration, originated either (i) directly by Client, (ii) by EDS if Client has requested or approved the change to take place outside of EDS Maintenance Windows; by lack of necessary monitoring information from Client; or by Client's failure to comply with operating procedures and documentation provided to Client from time to time. Client will assist EDS in defining certain operating procedures which are specific to the Client Site such as Client contact information and contact methods.

Monitoring. In order to monitor the availability of components for which EDS provides uptime and Time To Repair commitments, EDS implements pre-defined standard monitors on hardware, OS, software application components and software processes. Whenever custom monitors are implemented to monitor specifically the availability of application components which are specific to the Client Site, Client is responsible for assisting EDS in designing and implementing such monitors. While in general all monitors are designed to be as independent as possible from Client's code, content, third party data sources or off-net dependencies (since those dependencies are always excluded from uptime and Time To Repair commitments); in some cases EDS relies on monitors that include such dependencies. However, this does not mean that EDS is responsible for uptime on Client's content, code, third party, off-net dependencies, or any application, software, URL components that are not included in the list of items to be monitored, as defined in the monitoring configuration document.

Client Provided Hardware. The SLA commitments described herein apply, provided that EDS supplies the hardware components. For all hardware components supplied by Client, the definitions shall be amended to exclude failures related to such hardware components. For each hardware failure, EDS will require authorization to buy replacement parts and will charge Client for the parts and labor to complete the replacement or repair.

Supported Technologies. The SLAs described herein are only applicable to hardware and software components managed by EDS and selected from the then current EDS Automated Hosting Managed Services supported technologies list.

Appendix B. Ground Rules and Assumptions

The following assumptions are being considered for this proposal.

Any deviation from the assumptions set forth below or elsewhere in this proposal may affect EDS' performance and may result in changes to the schedule, fees and/or expenses, deliverables, and level of effort required to perform the Services described in this proposal.

1. Cookie-session persistence is required for a client to apply for a hunting or fishing license.
2. The migration plan will need to accommodate a 2 day down time in the production database to accommodate the movement of data from the current environment to the proposed environment.
3. A VPN (Virtual Private Network) will continue to be used to provide State of Michigan employees access to the RSS Web Hosting environment – to support SQL ad hoc queries to the Inquiry DB and RSSWIN access to the RSS/E-License Primary DB. Only MDNR-approved IP addressing and protocols will be allowed connections over this tunnel. Strong encryption (168-bit 3DES) will protect data traversing the Public Internet via the MDNR-dedicated VPN tunnel. The VPN tunnel, and therefore data encryption, terminates on a firewall at the perimeter of the State's enterprise network, and at the perimeter of the MDNR-dedicated network in the Web Hosting environment.
4. Any State agent (MDNR or otherwise) approved by MDNR to provide data to RSS, or distribute data created by RSS, will need to do so via direct access to RSSINQ. The VPN tunnel described above will serve this purpose.
5. In the event the VPN Internet Bandwidth solution does not meet the needs of MDNR, MDNR has the option to convert to a dedicated circuit. MDNR will bear the cost of this change.
6. MDNR's staff will be readily available to complete their assigned activities.
7. MDNR will make critical decisions and convey approvals on a timely basis, but no later than three (3) business days after the request for a decision or approval.
8. EDS reserves the right to rotate EDS personnel supporting the MDNR's hosted environment.
9. EDS will provide additional resources on a time and material basis if service level thresholds defined in the Service Condition sections exceed the defined number quantities set forth in this proposal.
10. If MDNR exceeds allocated service condition thresholds for two consecutive months, cost adjustments will be applied by EDS through the Change Control Process for the activity exceeding the thresholds. EDS will increase the monthly Full-Time Equivalent resource (FTE) support to the level required to support the activity going forward.

Appendix C - General Technical Glossary
General Terms

Term	Definition
archive log	Records that are backed-up dynamically using a file system threshold that, when reached, triggers a standard backup process
cluster	Two or more computers that operate independently but work collectively to provide uninterrupted computing service, higher performance, or both
DBMS	Database Management System
dedicated	A resource that is unique to the Client Site and not shared with other EDS Clients
E-commerce	Doing business online, typically through the Internet
firewall	A set of related hardware and programs that protects the resources of a private network from users from other networks
FTP	File transfer protocol; a simple method of transferring information over a TCP/IP network
IDS	Intrusion Detection System
IP	Internet protocol
IP Address	Address of a computer attached to an IP network
ISP	Internet Service Provider
LDAP	Lightweight Directory Access Protocol
load balancing	Fine tuning a computer system, subsystem, or network to more evenly distribute data, network traffic, or processing across available resources
Mbps	Mega-bits per second
ping	TCP/IP utility used to determine whether a computer is connected to the Internet
platform	Particular hardware or software architecture
port	Logical connection place and, specifically, using the Internet's protocol, TCP/IP, the way a client program specifies a particular server program on a computer in a network
OS	Operating system
reboot	To restart a computer's operating system
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SQL	SQL (Structured Query Language) is a standard interactive and programming language for getting information from and updating a database.
SQL Server	Microsoft SQL server technology
socket	One endpoint of a two-way communication link between two programs running on the network. A socket is bound to a port number so that the TCP layer can identify the application that data is being sent.
SSL	Secured sockets layer; a program layer for managing the security of message transmissions in a network. SSL uses the public-and-private key encryption system that also involves the use of a digital certificate
URL	Uniform resource locator; universal resource locator; the address defining the route to a file on the Internet
VPN	Virtual Private Network
WAN	Wide Area Network

Appendix D – Out-Of-Scope Security Enhancements

EDS provides a comprehensive set of security capabilities to enable clients to tailor an appropriate security solution to fit their business needs. MDNR currently has the following security uplifts requested in the RSS hosting environments as described in detail in the Service Enhancement Section:

- ◊ **Digital Certificates**
- ◊ **Vulnerability Report**
- ◊ **SAS70**

Besides the security services that are part of the basic MDNR Infrastructure, Managed Server and Managed Network offering, EDS offers the following Security Enhancements services that are currently out-of-scope for this proposal:

EDS Security Enhancements consist of the following enhancement options to allow clients additional technology and security services beyond the base security described in other services purchased:

Network-Based Intrusion Detection – EDS will install and configure filters for a dedicated Network Intrusion Detection System to monitor network traffic in the client compartment. As required, EDS will update the attack signatures and respond to alerts.

Host-Based Intrusion Detection – To enable host-based IDS, select devices are configured to generate alerts. EDS will monitor and respond to alerts as well as update attack-alerting filters.

Intrusion Detection Report – The analysis includes a detailed report of the latest scans, probes, and intrusion attempts directed at client's site over a month period. EDS will recommend specific course of actions to address any identified security exposures.

A client may also select from the EDS Security and Privacy Consulting Services described below. These services as provided as part of a scoped engagement.

Penetration Testing – The client can request consulting services to conduct penetration testing. Penetration testing simulates an adversary's activity; using the same automated tools a hacker would employ to gain unauthorized access to client organization's networks and systems. EDS will identify weaknesses in the environment and suggest corrective action.

Application Attack Simulation – Through a simulated attack, EDS will identify, analyze, and help mitigate security vulnerabilities and exposures related to the application architecture, authentication, connection management, configuration, patching, and coding practices. This service is available as a one-time service or as a subscription service.

Application Code Review – The EDS Code Review Service verifies that all client applications are developed and coded following secure programming procedures. EDS will work with the client development teams to identify and mitigate potential security risks in the software development lifecycle before the application is deployed.

Appendix E: Pricing

EDS is providing the following indicative pricing for extending the contract for hosting and application support of RSS for the time period July 1, 2008 through June, 30, 2010. The pricing set forth herein is only preliminary; the pricing is non-binding and is subject to change as the parties further define the terms and conditions that shall accompany this extension of work.

	-	-	month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	month 9	months 10 - 24	Total
	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09 through Jun-10	
Existing hosting during migration			$39,174	$39,174	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$78,348**
Upgraded hosting Environments			$38,026	$38,026	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100	$42,100(mo)	**1,002,252**
Hosting upgrade installation			$55,634	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$55,634**
vulnerability scans			$895	$895	$895	$895	$895	$895	$895	$895	$895	$895(mo)	**$21,480**
POS communications 7% pass through			$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566	$9,566(mo)	**$229,584**
Circuit installs (6) 7% pass through			$7,097	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$7,097**
E-License support			$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711(mo)	**$161,064**
RSS operations and support			$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	$102,268	102,268	102,268(mo)	**2,454,432**
3 FTE Enhancement pool ($13,425/FTE/mo)			$0	$0	$0	$0	$0	$0	$0	$10,069	$40,275	$40,275(mo)	**$654,469**
Release 8.3	*$39025.5*	*$39025.5*	$78,536	$78,536	$78,536	$62,426	$40,275	$49,001	$42,289	$30,206	$0	$0(mo)	**$459,806**
8.3 FTE staffing	3	3	5.85	5.85	5.85	4.65	3	3.65	3.15	2.25	0	0	
TOTAL			**$337,907**	**$275,176**	**$240,076**	**$223,966**	**$201,185**	**$210,541**	**$203,829**	**$201,815**	**201,815**	**$3,027,225**	**5,124,166**

$201,815(mo)

Add-On Application Services Rates: Information Analyst @ $127.00/hr

Project Manger @ $183.00/hr

III. Cost

See Appendix E Pricing for billing schedule

IV. Impact on Contract

Increase: **$5,124,166**

V. Signatures

EDS

By: _____

Title:_____

Date:_____

DIT Contract Administrator

By: _____

Title:_____

Date:_____

DNR, Program Manager

By:_____

Title:_____

Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **March 6, 2008**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 67
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Pete Devlin	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 30, 2010**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, this contract is INCREASED by $5,189,166.00 and has been EXTENDED to June 30, 2010, per the attached proposal from EDS.

AUTHORITY/REASON (S):

Per agency, DIT, DMB and SAB (3/4/08) approval.

INCREASE: $5,189,166.00

TOTAL REVISED CONTRACT VALUE: $34,132,988.08

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No. 2008-002 V2.0

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses a 24 month extension to the RSS contract services as defined in the following proposal:

TABLE OF CONTENTS

Overview

RSS Environment

Michigan's Department of Natural Resources (MDNR) Retail Sales System (RSS) processes hunting and fishing license sales via point of sale (POS) terminals located throughout the state or through an Internet Web site. The system currently consists of the Production environment being hosted in the

EDS Service Management Center (SMC) Plano, and the Model Office/Disaster Recover (MO/DR) environment being hosted in the EDS Service Management Center (SMC) Tulsa, Oklahoma.
The Production environment was installed in 2003 and the MO/DR environment was relocated to Tulsa with new hardware in 2005. Both environments currently operate on Windows 2000.

Issues and Vision

MDNR has requested that EDS continue to provide application support and hosting services for the RSS from July 2008 through June 2010. MDNR will use this period to analyze the department's requirements for automation of the sports licensing operations and determine requirements for the future operations of RSS. MDNR needs RSS to continue to function in its current state of high availability, and has therefore requested that EDS provide a proposal for necessary technical upgrades, and application support and hosting services, that will facilitate RSS' reliable operation for this 24 month period.
During the last contract extension, January 2006 through June 2008, MDNR and MDIT agreed to extend the life of the Plano SMC Production hardware in order to reduce hosting costs. The State of Michigan had planned for Michigan Department on Information Technology to take over responsibility of application support for E-License and hosting of the RSS Model Office/Disaster Recovery environment sometime during that January 2006 through June 2008 period, as documented in Change Notice 60 (Change Authorization Request 2007-001). However, those plans for the Michigan Department of Information Technology to take over responsibility of such application support has subsequently been cancelled by the State, and EDS has continued to retain responsibility for both areas. Now that these servers have been in use for 5 years, it is important to refresh the hardware and upgrade the operating system to ensure a maintainable low-risk system.
EDS proposes the following products and services for the RSS in this contract extension:

1. Hosting and application upgrades:
    a. Refresh the Production Hosting environment in Plano SMC
    b. Maintain the same number of POS concurrent connections to the production communication servers
    c. Upgrade EICON Cards to S94 V2
    d. Upgrade clustered database storage method
    e. Upgrade all RSS environments (Development, QA, MO/DR and Production) to Windows 2003
    f. Improve DR file copy process
    g. Increase security of the RSS application passwords to login to the SQL server
    h. Improve database replication
    i. Remove the requirement for providing MDNR with SAS70 reports for Tulsa and Plano
2. Continued RSS operations as defined in the current contract
    a. POS communication services
    b. RSS application support services
    c. RSS application enhancement services

The following services will no longer be performed by EDS under RSS operations and support staff. MDNR may request that EDS perform these services using the Enhancement Pool (3 FTEs). MDNR will be responsible for planning the use of the Enhancement Pool and prioritizing the work load between these stated services the the development of enhancement CSRs.

1. As stated under User Support Services,
    Provide business process consulting and requirements definition that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch Application.
    Provide business process consulting and requirements definition that relate to E-License

application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

2. As stated under 2. System Enhancment, b. Enhancement proposals:
   prepare System Enhancement Proposal which will provide pertinent information such as, but not limited to:

   - Description of the enhancement;
   - Scope;
   - Benefits;
   - Effects on current design;
   - Effects on completed system components;
   - Cost;
   - Effects on hardware and software;
   - Effects on MDNR staffing and skills requirements; and
   - Project schedule.

Implementation Approach for Upgrades

Phase 1 – Build Development and QA 2003 Servers in EDS, Lansing.
The Development and Quality Assurance regions will be built first. A System Test will be run in QA to ensure that everything will continue running without issue under Windows 2003.
Phase 2 – Build Plano Production 2003 hosting environment.
Because of 2008 license sales and drawing scheduling, the Production region will be built next.
New hardware will be procured and installed in the secured hosting environment. Windows 2003 OS will be loaded.
The Eicon cards will be upgraded to S94 V2.
The production database cluster will be upgraded to move from direct attached disk storage array to enhanced managed SAN storage. The current production envirionment uses direct attached storage. The proposed solution will use leveraged SAN storage. SAN attached storage provides a higher availability solution, with greater guaranteed uptime, since the storage is dual connected to the host, and the disk array is monitored continuously for potential areas of failure. The disk array vendor notifies EDS immediately should disk issues start surfacing, so that the array can receive proactive maintenance, and thus avoid a catastrophic failure. The leveraged managed storage solution also enables the storage volumes to be adjusted should growth be required without the need to procure additional hardware.
After the servers are built, a System Test and a Formal Acceptance Test (FAT) will be run on the new Production servers. This will validate that all parts of RSS are setup correctly on the new servers and all parts will run on the new OS. When all tests are complete, the test data will be removed and the implementation plan will be executed to move the production data over to the new servers.
The implementation is expected to take one week with a two-three day period where the RSS production system will be down in order to setup the database and begin replication on the new servers. Only POS sales that do not require a host authorization will be possible during this period. The target date for the downtime is between 08/29/08 and 09/08/08. This is after the waterfowl application period and before the waterfowl drawing. No other application period or drawing processes are conducted during this window.
We had a very successful implementation when we moved the production region from the State of Michigan servers in Lansing to the EDS servers in Plano, and so we are using this historical project data to model this implementation.
The existing Windows 2000 production hardware will not be decommissioned until MO/DR has been upgraded to Windows 2003.
Phase 3 – Upgrade Tulsa MO/DR 2003 hosting environment.
The MO/DR region was relocated to Tulsa in 2005, so the servers are still usable, and can be reliable under a maintenance contract for the 2 year extension period. Extending the usable life of the MO/DR hardware will reduce the hosting costs of new hardware for this region.. The existing MO/DR servers will be rebuilt with Windows 2003 and the Eicon card will be replaced with a new S94 V2 card.

After the servers are built, a System Test and a Formal Acceptance Test will be run on the new MO/DR servers. This will validate that all parts of RSS are setup correctly on the refreshed servers. Once testing is complete, the region will be considered live. There is no need for a data refresh.
Once the MO/DR region is live on Windows 2003, the old Production environment will be decommissioned.

Phase 4 – Software improvements.

SQL Password Protection

There are several parts of the MDNR RSS application that need passwords to login to the SQL server. Many of these passwords are currently stored in readable format (in ini files, command files, and Windows registry). Access to these locations is controlled via user login IDs, but there is still a risk in leaving them in a readable format.
In order to improve the security of these RSS application passwords and better protect the SQL databases, it is necessary to change this practice of storing passwords in a readable format. The preferred method is using Windows Authentication. Using Windows Authentication allows the use of Windows IDs when connecting to SQL instead of internal SQL IDs. The password for the Windows ID still needs to be entered (i.e. Windows services, Batch Schedules, etc.), but it is never stored in a readable format. Windows Authentication will be used to connect to the SQL server for E-License, the Comsrv service, VB scripts, and all batch C programs.
When Windows Authentication is not possible, encrypting the passwords becomes the solution. Since the MDNR users are on a separate network than the SQL server, Windows Authentication is not an option for their RSSWIN application. The RSSWIN application will be modified to use an encrypted password. RSSWIN will need to decrypt the passwords prior to connecting to the database. This only applies to SQL IDs and passwords used to connect to the database, not the individual RSSWIN IDs and passwords that are stored in the user_table.

File Copies

There are two issues with the current process for file copies. First, the Disaster Recovery(DR) file copy solution needs to be more robust to ensure files are not missed and to decrease the amount of time / resources it takes to make a DR copy of production.. Second, the file copies to other State agencies could be more secure.
DR processing currently consists of a VB script that selects all files that have an accessed date after the date of last run and executing a copy command to move them to the DR holding area in the Model Office region. We are investigating tools that are more robust than windows copy in usable options and stability. One option is Rsync. The primary advantage to Rsync is that it checks for changes at the bit level in the specified file(s). Rsync therefore will only send the differences between the files rather than send the entire file. Rsync also compares files very quickly, so we do not need to use the timestamp to narrow the numbers of files included in the copy. This will ensure that all files are verified in the DR area.
FTP is the current protocol that State Agencies use to send and receive files with RSS. We will install OpenSSH along with the FTP server so that the other agencies have a more secure option to use for connection to our system. They will be able to switch at their convenience.

Database Replication

In the current setup, the distribution database is on the same server as the replicated copy. When MDNR users execute resource intensive queries against the replicated database, distribution cannot update the replicated database as quickly. In the proposed setup, the distribution database will be moved to the same server as the live database. The replicated database will still reside on the Inquiry database.

Project Schedule

MDNR Release 8.3 Project Summary	Start Date	Finish Date
MDNR Release 8.3	12/21/08	1/30/2009
Initiation	12/21/08	4/6/2008
SoM reviews and approves SOW for contract extension	12/21/08	1/8/08
EDS presents pricing	1/09/08	1/14/08
SoM reviews and approves pricing	1/15/08	1/20/08
EDS presents updated contract language w/ SOW and pricing	1/21/08	1/27/08
SoM reviews and approves contract through Ad. Board	1/28/08	3/17/2008
EDS and SoM sign contract extension	3/19/2008	3/19/2008
EDS Hosting PM assigned	3/20/2008	3/20/2008
EDS finalizes BOM and applies for Capital Appropriations	3/24/2008	4/11/2008
Hardware Planning	4/11/2008	6/16/2008
EDS Orders Production hardware	4/11/2008	4/30/2008
EDS Receives Production hardware	4/30/2008	4/30/2008
EDS Builds Production environment	5/1/2008	6/13/2008
Planning	5/1/2008	6/10/2008
Manage and Control	5/1/2008	2/11/2009
Rel 8.3 Project Start	5/1/2008	5/1/2008
MDNR Drawings to avoid for production implementation	8/1/2008	9/9/2008
Fall Turkey Drawing	8/11/2008	8/11/2008
Antlerless Deer Drawing	8/25/2008	8/27/2008
Waterfowl Application Period	8/1/2008	8/28/2008
Waterfowl Drawing	9/9/2008	9/9/2008
Deliverables		
Phase 1 Development & QA Environments W2003 Refresh	5/1/2008	6/26/2008
CR488 - Development Environment refreshed to W2003	5/1/2008	5/15/2008
CR488 - QA Environment refreshed to W2003	5/12/2008	6/26/2008
Phase 2 Production Environment Build & W2003	5/1/2008	12/4/2008
CR474 - Production Environment build	5/1/2008	12/4/2008
Requirements Approval - Send to Client	5/2/2008	5/2/2008
Requirements Approval - Client Signoff Received	5/8/2008	5/8/2008
Production Environment - Operational Ready	6/16/2008	6/16/2008
Production Environment - Perform Integration Testing	7/31/2008	8/14/2008
Production Environment - Coordinate FAT	8/18/2008	8/29/2008
Production Environment - Obtain Client Signoff	8/29/2008	8/29/2008
Production Environment - Implementation	9/2/2008	9/8/2008
Impl. - E-License in maintenance / No POS host auths	9/3/2008	9/5/2008
Production Environment - Go Live / Complete	9/5/2008	9/5/2008
Production Environment - Monitor Production Appl.	9/8/2008	9/23/2008
Phase 3 Model Office Environment W2003 Refresh	9/8/2008	10/30/2008
CR487 - Model Office Environment refreshed to W2003	9/8/2008	10/30/2008

Model Office Environment - Shutdown Hardware	9/8/2008	9/8/2008
Model Office Environment - Operational Ready	9/15/2008	9/15/2008
Model Office Environment - Perform Integration Testing	10/15/2008	10/22/2008
Model Office Environment - Coordinate FAT	10/23/2008	10/30/2008
Model Office Environment - Obtain Client Signoff	10/30/2008	10/30/2008
Model Office Environment - GO Live / Complete	10/30/2008	10/30/2008
Old Production Environment - Disassemble	10/30/2008	10/30/2008
Phase 4 Software Improvements	7/1/2008	1/21/2009
CR489 Improve P/W Security	7/1/2008	1/20/2009
CR490 Rsync for DRA	9/9/2008	1/20/2009
Software Improvements - Perform Integration Testing	11/24/2008	12/18/2008
Software Improvements - Coordinate FAT	1/5/2009	1/20/2009
Software Improvements - Obtain Client Signoff	1/20/2009	1/20/2009
Software Improvements - Implement Production	1/20/2009	1/21/2009
Software Improvements - Go Live / Complete	1/21/2009	1/21/2009
Close Down	1/21/2009	1/30/2009

Summary

The hardware and operating system upgrades, along with the application software and security enhancements, will position the RSS system to maintain its history of performance, data management, security, reliability and recoverability. Confident that RSS will continue to be supported to world-class standards, MDNR can focus internal resources on core business activities and strategic initiatives, while EDS assumes daily operational responsibility for keeping RSS available and responsive to Michigan's sporting consumers.

Application Support

The EDS RSS Support Staff will continue to provide support and enhancements for the MDNR license sales application. EDS will retain the team of experienced application development and project management resources on the RSS team. 3 Full Time Equivalent Information Analysts will be committed to RSS enhancements defined by the MDNR during the contract period. MDNR will work with EDS to identify required changes to the RSS system based on the department's business and operational needs.

MDNR may request that EDS perform the following System Enhancement services using the Enhancement Pool (3 FTEs):

> Provide business process consulting and requirements definition that relate to RSS databases, RSS Windows Application, RSS POS applications, RSS batch Application, and E-License. Provide business process consulting and requirements definition that relate to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application. Prepare system enhancement proposals.

MDNR will be responsible for planning the use of the Enhancement Pool and prioritizing the work load between these stated services the the development of enhancement CSRs.

EDS will also maintain the current dedicated technical staff to provide 24x7x365 operational support and continuous RSS application functions that are required and detailed within the Liquidated Damages section of the current contract as the 10 critical conditions.

EDS RSS Support Staff will access these servers via EDS*Link and Web Hosting's Tarantella Servers. The Tarantella servers use Terminal Services to gain direct access to these servers. EDS RSS Support staff will continue to have full administrative access to all the MDNR servers in the Web Hosting facility. The EDS RSS Support team will carry a pager and the MDNR staff will contact them with application questions or production support issues. If assistance is required at a Web Hosting facility to resolve an issue, the EDS RSS Support team will be responsible for engaging them. The Web Hosting Production Environment support coverage is 24x7x365 support The EDS Development and QA Environment servers dedicated to testing the RSS application will run Windows 2003 with the necessary software to thoroughly test changes to the RSS application code.

Once application code changes have been tested within the EDS RSS QA testing environment, a planned release of this code is scheduled through Model Office and to Production. RSS application code changes will be made available to the Model Office environment by using SCP to securely transport the files for User Formal Acceptance Testing by the MDNR staff

The Model Office environment is designed to execute disaster recovery for the production environment it will have identical functionality and be updated with operating system and third party software upgrades or patches. This allows the MDNR staff to conduct User Formal Acceptance Tests that model what will occur in Production. At the request of the MDNR staff, the EDS RSS support staff will refresh the database on the Model Office server.

MDNR can access the Model Office environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the Model Office database, run the RSSWIN application, access the E-License Model Office Web site and modify input and output files used in testing. The EDS RSS staff will assist the MDNR staff during User Formal Acceptance Testing to run batch jobs, resolve testing issues and answer questions.

Once the RSS application code changes are approved and signed off during User Formal Acceptance Testing, they are promoted to the Production environment. RSS application code changes will be made available to the Production environments by using SCP to securely transport the files.

MDNR can access the Production environment through a VPN tunnel that connects the region to the State of Michigan network. From their desktops, the MDNR staff will be able to perform SQL queries of the replicated database, and run the RSSWIN application.

The services described in the technical solution involve the hardware infrastructure and associated services to support the Michigan Department of Natural Resources (MDNR) RSS system hosting environment (the "Automated WEB Hosting Services" or "Services").
The MDNR RSS Production & Model Office/Disaster Recovery environments will continue to be hosted on dedicated hardware platforms and deployed, as of the Effective Date, at EDS Service Management Center (SMC) facilities.
Hardware, operating system (OS), and SQL license, maintenance, and financial agreements are held and maintained by EDS.
Application and third-party software license, maintenance, and financial agreements are held and maintained by MDNR.
MDNR will maintain financial responsibility for any vendor-imposed charges for transfer of hardware or software maintenance contracts from MDNR to EDS.

Production Plano Hosting Upgrade

The design for the Phase 2 Production hosting environment in Plano SMC is illustrated in Fig. 1. It includes an upgrade to Windows 2003, and upgraded Eicon cards to S94 V2 version.
The MDNR architectural solution is based on a dedicated custom network design. The MDNR network is comprised of dedicated firewalls (creating a DMZ) that provide entry point's exclusive to MDNR's operations, a set of dedicated switches, and a set of web switches for load balancing and inter-VLAN distribution. In addition, there is a VPN Tunnel between EDS Automated Web Hosting and the State

Production Architectural Diagram

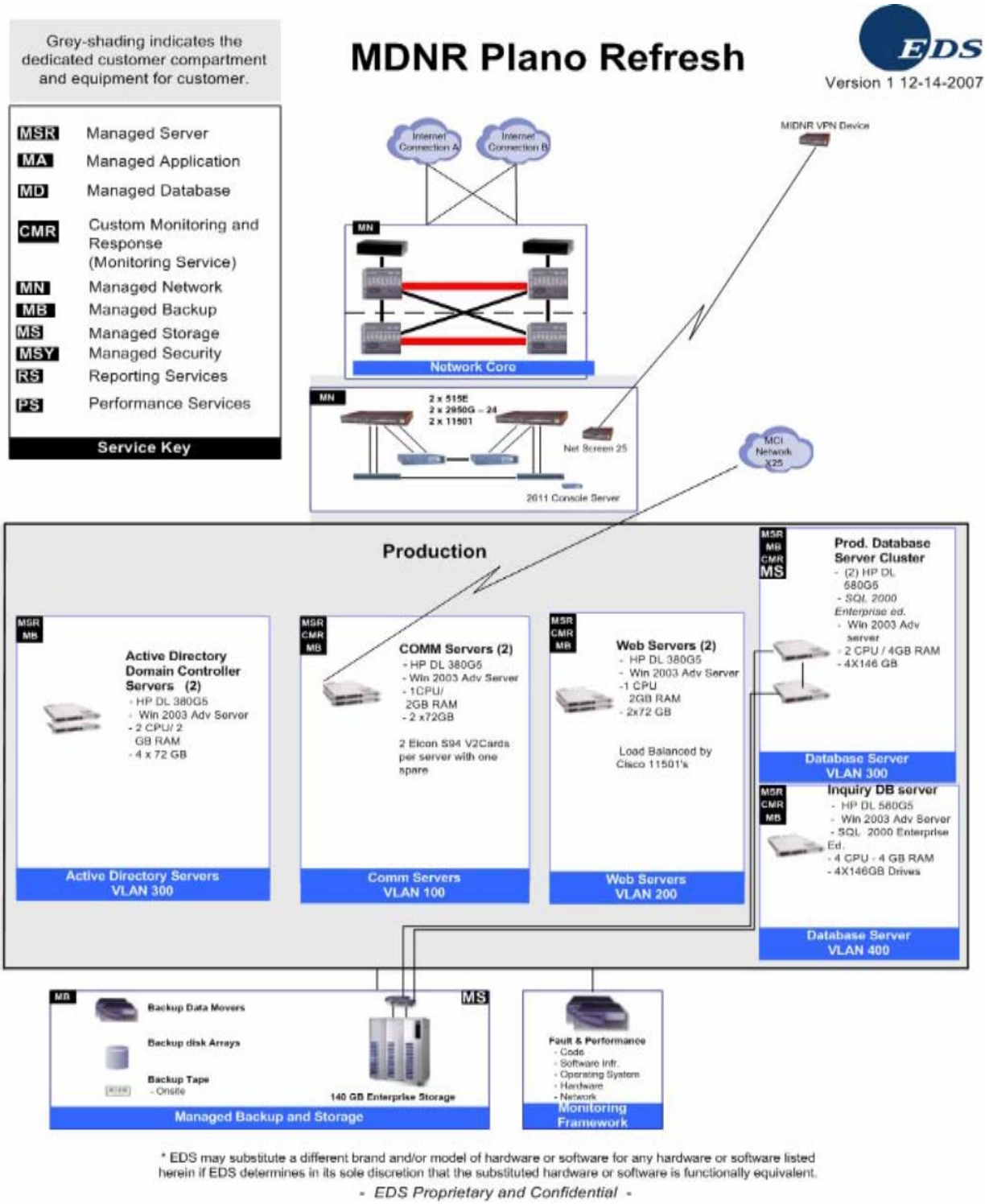


Figure 1

Hardware components.

2 – HP DL380G5 Web Servers – load balanced by Cisco 11501 devices.

This is a set of two load-balanced servers that run the production E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet.

2 – HP DL380G5 Communications Servers

These two servers receive and manage the calls and data from the POS terminals in the production environment. Each server has 2 Eicon S94 V2 cards and there is one spare. These cards are connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to numerous Point Of Sale devices for the MDNR RSS application.

2 – HP DL380G5 Active Directory Domain Controller Servers

These two servers handle all domain level security for the system.

2 - HP DL580G5 in a Production database server cluster running SQL 2000.

This is a set of two clustered active/passive database servers that manage both the E-License sales transactions and control tables, and the entire active RSS database in the production environment. The cluster uses managed SAN storage

1 – Inquiry DL580G5 Inquiry database server running SQL 2000.

This is a database server in the production environment that contains an up to date copy the active RSS database and the archive RSS database. MDNR staff run ad-hoc queries against these databases on this server, which isolates them from the production databases. This server will also contain all the RSS input and output files (e.g., EFT files, SOS files, etc.) that will be accessible by the MDNR staff.

2 - Cisco PIX HA 515E Firewalls

2 - Cisco 11501 Load Balancers

2 - Cisco 2950G-25 Switches

1 – Netscreen 25 VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 4 circuits into the compartment

Production Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	HA FE 24-port Switches HA Pix 11501Load Balancers HA Pix 515E Firewalls 2611XM Console Server	N/A	Managed Network
Servers					
Web servers	Web	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives Load Balanced by Cisco 11501's	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication servers	Comms	2	HP DL 380G5 1 CPU, 2Gb RAM; 2X72Gb Drives 2 Eicon cards	Windows 2003 Adv	Managed Server Managed Backup and Restore
Database Servers	DB	2	HP GL 580 G5 2 CPUs, 4Gb RAM; 4X146Gb Drives 140GB SAN Storage	Windows 2003 Adv SQL 2000 Enterprise Ed SMTP AdTempus **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Inquiry Database Server	DB	1	HP DL 580G5 4 CPUs, 4Gb RAM; 4X146Gb Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP OpenSSH	Managed Server Managed Backup and Restore
Active Directory Domain Controller Servers	AD	2	HP DL 380G5 2 CPUs, 2Gb RAM; 4X72Gb Drives	Windows 2003 Adv	Managed Server
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 7 servers

Production VLAN configuration

Production Extranet VLAN 100

The Extranet VLAN provides a point of demarcation for two RSS POS Communications servers. The two RSS POS Communications servers will be Managed HP DL380G5 Servers running Windows 2003. Each server will have 2 S94 V2 Eicon cards installed. Verizon engineers will install the cards within the EDS SMC. These servers will support the RSS communications software and the Eicon cards necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack.

EDS cannot provide SLAs on the Eicon card. There will be a spare card available in case of failure. Automated Web Hosting will provide the "Break-Fix" action(s) on a time and materials (T&M) basis.

Verizon will provide support to the port on the Verilink AS2000 DSU. Verizon will support troubleshooting the circuits to the cards and any X.25 commands necessary for problem resolution. Verizon will provide support in testing of circuits and Eicon cards at installation.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Public VLAN 200

The Production Public VLAN will consist of two load-balanced Web/App servers. Each server will be connected to a separate Dedicated Switch. The Web/App Servers are HP DL580G5 servers running Windows 2003. The servers will require an SSL certificate for MDNR's custom E-License application resolving to www.mdnr-elicense.com. MDNR currently owns the MDNR-ELICENSE.COM. EDS Automated Web Hosting will be responsible for the maintenance of the URL. Cookie-session persistence is required for the load-balanced servers.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Production Database VLAN 300 and Active Directory Servers

The Production Database VLAN consists of 2 database servers (a clustered RSS/OLS Database) and 2 Active Directory Servers. The Database servers are HP DL580G5 with Windows 20003 Advanced Server. The servers on the Production Database VLAN will not maintain Public Addresses.

EDS will provide installation and clustering of the MSSQL Databases on the database servers. The Application team will be responsible for the database configurations and support of the databases.

The production database servers will be configured in a clustered active/passive operation using MS Windows 2003 Advanced Server and each server will be connected to a separate MDNR Compartment Switch. The active/passive clustering configuration will allow for one of the database servers to be the primary database while maintaining a secondary database server in an idle state until a failover has occurred. The MSSQL binaries will be on the local internal disks while maintaining the created databases on a shared external storage array. The RSS/OLS DB will have one instance of MS SQL 2000 Enterprise Edition loaded running several schemas.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

Inquire Database VLAN 400

The Production Inquiry Database Server is a standalone HP DL580G5. This server will run MS SQL 2000 Enterprise Edition for 4 CPUs(but using SAL licensing). The Enterprise Edition will be required to access more than 2GB of RAM and support the replication features.

EDS will use Windows MSSQL Transactional Replication to copy the production database to the Inquiry database in near real-time.. Updates (i.e. INSERT, UPDATE, or DELETE statements) executed on the RSS Database will be replicated to the Inquiry Database as the updates on the RSS Database occur. With transactional replication, an initial snapshot of the RSS Database will be required on the Inquiry Database server. When data modifications occur at the RSS Database Server, the individual transactions are captured and propagated to the Inquiry Database.

The EDS RSS support team will have full system access (not physical access) to these servers to support the RSS application. Automated Web Hosting will have a management connection to these servers to manage the servers.

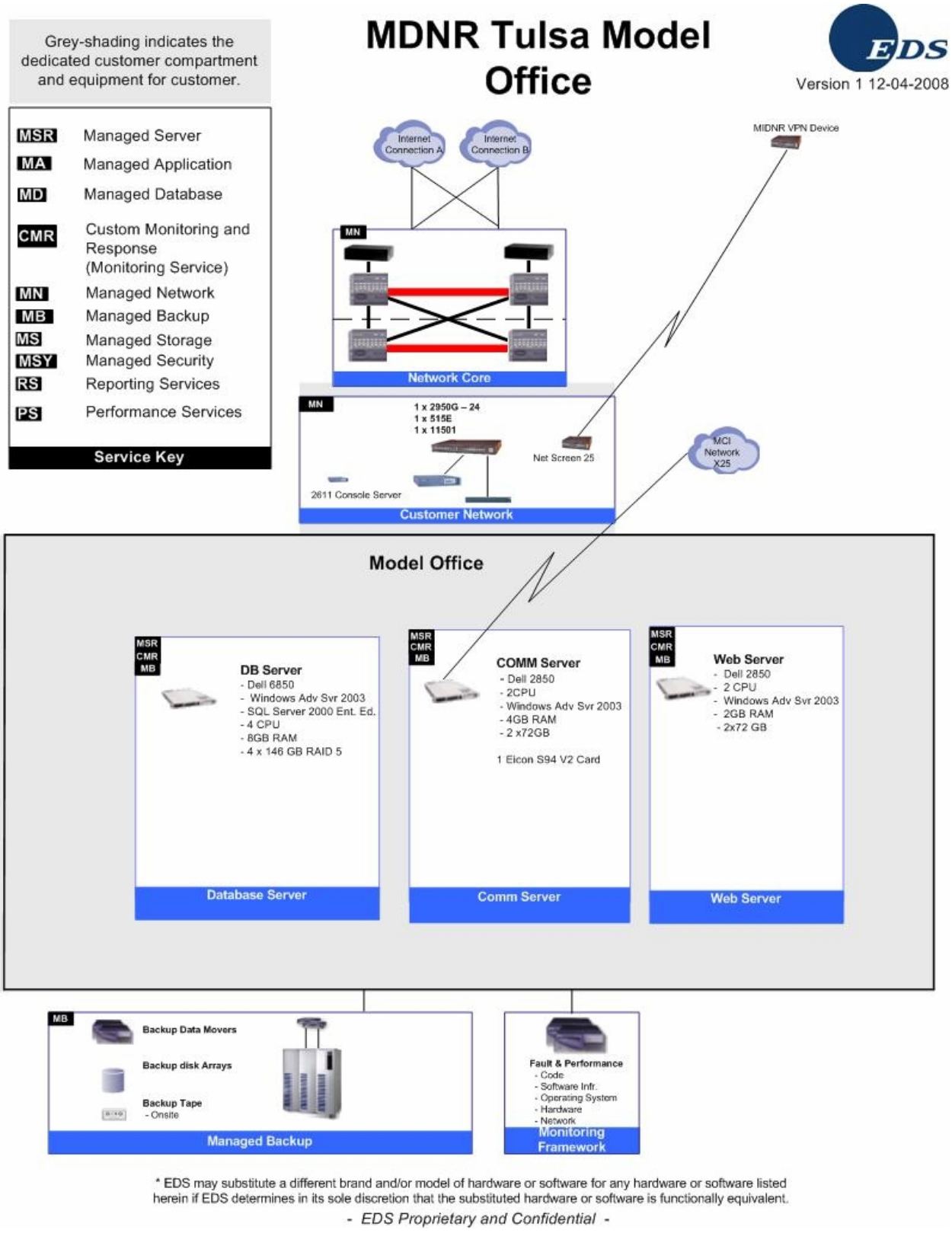
Tulsa MO/DR RSS Environment

Tulsa MO/DR Architectural Diagram

The current architecture that exists for the RSS MO/DR hosted environment is reflected in Figure 2 below. EDS will be upgrading the Eicon Card to S94 V2 and the Operation system to Windows 2003.

The EDS Tulsa Web Hosting Facility serves as the Model Office location for the MDNR and can execute a disaster recovery of the EDS Web Hosting Production location in Plano on a limited basis. The MO/DR location provides Internet access, a single Web/app server, a single database server and a single RSS POS Communications server. This environment will receive regular shipments of production data via file transfer.

AOPS will store RSS data backups, along with copies of the most recently installed versions and patches for: Windows 2003, SQL 2000, RSS application code and Third Party Software required by RSS – for all Model Office and Production RSS servers. If there is a Model Office server failure, all software and data required to restore the Model Office service will be on-site. If a condition occurs rendering the Production facility inoperable, the Model Office facility will be reconfigured for Production – again relying on on-site storage of all required software (O/S, database environment, RSS application code, Third Party Apps.) and data to configure the Production environment. No hardware reconfiguration will be required; all changes will be data/software related.



* EDS may substitute a different brand and/or model of hardware or software for any hardware or software listed herein if EDS determines in its sole discretion that the substituted hardware or software is functionally equivalent.

- EDS Proprietary and Confidential -

Figure 2

MO/DR Hardware components.

1 – DELL 2850 Web Server

This is a server that runs the Model Office E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet. It will be used for User Acceptance Testing. In the case of a disaster in the production environment, it will be used as the production Web application server.

1 – DELL 2850 Communications Server

This server receives and manages the calls and data from the POS terminals in the model office environment. In the case of a disaster in the production environment, it will be used as the production Communications Server. The server has 1 Eicon S94 V2 card which is connected to a CSU/DSU provided by the communications carrier and to a X.25 network that connects the environment to test Point Of Sale devices for the MDNR RSS application.

1 - DELL 6850 Database server running SQL 2000 Enterprise Edition

This is a database server that manages both the E-License sales transactions and control tables, and the entire active RSS database and archive RSS database in the Model Office environment. It also serves as the repository for all the RSS input and output files (for example: EFT files, SOS files, etc.) that will be accessible by the MDNR staff in the model office environment. In the case of a disaster in the production environment, it will be used as the production database server and input/output file server.

1 - Cisco PIX 515E Firewall

1 - Cisco 11501 Load Balancer

1 - Cisco 2950G-25 Switch

1 – Netscreen 25 VPN appliance

VPN Tunnel to State of Michigan Cisco VPN device.

Verizon X.25 network with 1 circuit into the compartment

MO/DR Configuration Table.

The following configuration table describes the Services associated with the infrastructure and software proposal. Descriptions of the Services provided for each configuration are found in the Service Definitions Section.

The items denoted with ** in the configuration table Description column are owned and provided by MDNR.

Description	Tier	Devices	Hardware	Software	Applicable Services
Network					
Dedicated Network	N/A	N/A	HA FE 24-port Switch HA Pix 11501Load Balancer HA Pix 515E Firewall 2611XM Console Server	N/A	Managed Network
Servers					
Web server	Web	1	Dell 2850 2CPU, 2GB RAM, 2X72GB Drives	Windows 2003 Adv IIS SMTP ASPImage	Managed Server Managed Backup and Restore
Communication server	Comms	1	Dell 2850 2CPU, 4GB RAM, 2X72GB Drives	Windows 2003 Adv	Managed Server Managed Backup and

			1 Eicon S94 V2 card		Restore
Database Server	DB	1	Dell 6850 4 CPUs, 8Gb RAM; 4X146GB Drives	Windows 2003 Adv SQL 2000 Enterprise Ed FTP SMTP AdTempus OpenSSH **Postalsoft rsync Winzip	Managed Server Managed Backup and Restore
Service Enhancements					
Security Enhancements					Digital Certificates Monthly Vulnerability scans 3 servers

MO/DR VLAN Configuration

MO/DR Public VLAN

The MO/DR Public VLAN will consist of a single Web/App.

The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Database VLAN

The MO/DR Database VLAN consists of a single database server.

The EDS RSS support team will have full system access (not physical access) to this server to support the RSS application. Automated Web Hosting will have a management connection to this server to manage the server.

MO/DR Extranet VLAN

The MO/DR Extranet provides a point of demarcation for the MO/DR RSS POS Communications server. This server will not be accessible from the Public Internet unless routing has been configured within the Firewall to allow such access. This server supports the RSS communications software and the Eicon card necessary to connect to the WAN V.35 ports on the Verlink-like CSU/DSU rack.

The EDS RSS Support team will have full system access (not physical) to this server to support the RSS application and WAN connectivity. AOPS will have a management connection to this server to manage the server.

Disaster Recovery Plan

EDS has developed and documented an RSS-specific Disaster Recovery Plan that covers both a single server failure, and a complete environment failure. This DR Plan was developed in the 2003 contract extension and will continue to be used to support the MDNR.

The secondary EDS Hosting SMC in Tulsa acts primarily as the Model Office location for MDNR with the ability to execute a Disaster Recovery (DR) of the EDS AOPS Production location in Plano on a limited basis. This secondary EDS AOPS location provides Internet access, a single web/app server, a single database server, and a single RSS POS Communications server. In the event a condition occurs rendering the EDS AOPS Production Facility in Plano inoperable, the Model Office environment will be reconfigured for production using only the hardware available in the Model Office environment.

The DR plan for a total Production failure details action items based upon the following high level tasks. The total duration to bring the DR site up as the new RSS production site would be 96 hours.

EDS will own the OS and patches and rebuild the Model Office servers to the last installed Production revisions
EDS will execute a database environment installation. Revisions of the database will match the last Production database within 30 minutes of the failure.
EDS will control all of the application revisions and will be responsible for the application loads.
EDS will control and install all database configuration builds
EDS will contact Verizon to redirect the 1-800 numbers to the secondary EDS AOPS location
EDS Plano will point the production URL to the secondary EDS Tulsa facility
EDS will control the system test plan and test the DR environment to insure the environment is operational
Rebuild the Web/App, Communication and database server
Install a single Database Instance
Re-point the DNS
Load the data
Load the Web/App applications
Load the Database schemas
Verizon redirects the 1-800 numbers
Test the environment

. Hosting Services Statement of Work

Hosting Services Overview

EDS Automated Hosting Services cover all aspects of infrastructure management, which consists of deployment, launch, 24x7 monitoring, security, troubleshooting, and change management of MDNR's hosted environments.
EDS will implement and perform the managed Automated Hosting Services for MDNR to the extent and as described in this proposal. Automated Hosting Services consist of the following:
"Deployment Services" are the Build and Launch Services that take MDNR from planning through launch of the Client Site into production or steady state.
"Managed Services" are those services that directly correspond to MDNR's infrastructure, consisting of the management and support of network devices, servers, software, storage, and other components. Services consist of the ongoing monitoring, reporting, troubleshooting, and repair services to be provided by EDS following the Operationally-Ready Date. Managed Services includes any "Service Enhancement Services" selected by MDNR as uplifts and additions to the base Managed Services.
"Client Services" are those services that relate to MDNR's interaction with EDS client support personnel such as the frequency of contact and level of support. EDS Automated Web Hosting Operations Center support, project management, technical support, and myhosting-eds.com™ client portal are examples of Client Services.

Service Definitions

The capitalized terms are as defined in this section. Additional technical terms and acronyms are included in the Glossary in Appendix C.
"Automated Web Hosting" means the Automated Operations delivery approach provided by Automated Hosting Services.
"Change Control Process" means the approach to follow to request a change to the Client Site as defined in the Operational Guide. All agreed upon changes will be documented in a Change Request executed by MDNR and EDS.
"Change Request" means the written request submitted by MDNR pursuant to the Change Control Process with sufficient details to enable EDS to evaluate it.
"Client Compartment" means the physical infrastructure dedicated to MDNR (server hardware, networking devices) and hosted within the Data Center.

"**Client Infrastructure Services**" means those Services directly related to the management of the physical environment within the Data Center location.
"Client Remote Location" means MDNR premises or a premises operated by a third party for MDNR or by the MDNR. This location is geographically distinct from the Data Center.
"**Client Site**" (or "MDNR site") means a hosting site that EDS will assist in managing as specified hereunder. The Client Site consists of the hardware, domain name(s) and URL(s), MDNR's business logic and applications, the content displayed on the hosting site, the data stored or processed by the hosting site, as well as any related data, software, applications, content, and other information managed by MDNR. Additional Client Sites may be added by mutual agreement.
"Data Center" means the physical locations where EDS installs the client-hosting infrastructure. This is the raised floor at Service Management Centers or third-party data centers.
"Deployment-Ready Code" means code that MDNR and EDS have tested, and confirmed is ready to be rolled into MDNR 's *production environment.*
"**Deployment Services**" means the initial services to be provided by EDS prior to the Operationally-Ready Date to make MDNR 's web site infrastructure Operational.
"**EDS Automated Web Hosting Operations Center**" refers to the EDS organization that provides 24x7 support to MDNR. This organization consists of system analysts, data center operations personnel, database administrators, and network engineers who support the MDNR's hosting environment.
"**EDS RSS Support Staff** " refers to the EDS organization in Lansing MI that provides 24x7 RSS Application support to MDNR. This organization consists of system analysts, database administrators, and project managers who support the MDNR's E-License, POS, Batch, RSSWIN, Database.
"**Go Live Date**" means the first date that a Client Site is Live with Deployment-Ready Code.
"**Implementation Services**" means the combination of Deployment Services and Launch Services.
"**Launch Services**" mean the Services provided by EDS commencing on the Operationally-Ready Date and ending on the Go Live Date to assist MDNR in preparing its code for operation within the EDS operating environment.
"**Live**" means that MDNR 's application code is deployed in the EDS operating environment and the Client Site both takes requests from the public Internet and successfully serves web pages in response to those requests. RSS is fully functional for queries, RSSWIN and RSS batch applications. POS communication servers can take calls from the POS terminals.
"**Managed Services**," means the ongoing monthly monitoring, reporting, troubleshooting, and repair-or-replace services to be provided by EDS following the Operational Date for a MDNR.
"**Operational**" means that EDS has designed the architecture of the Client Site, installed and configured the EDS-supplied hardware and software, and the EDS Deployment team has been trained and is ready to receive MDNR 's Deployment-Ready Code.
"Operational Guide" means a document that outlines the operational procedures for interacting with EDS Automated Operations. This document is provided to the EDS RSS Support team during the implementation of the services.
"**Operationally-Ready Date**" means the date on which the Client Site is Operational.
"**Operationally-Ready Period**" means the period commencing on the Operational Date and ending on the Go Live Date of a Client Site.
"User(s)"means any individual accessing the Client Site described in this proposal.

Service Conditions

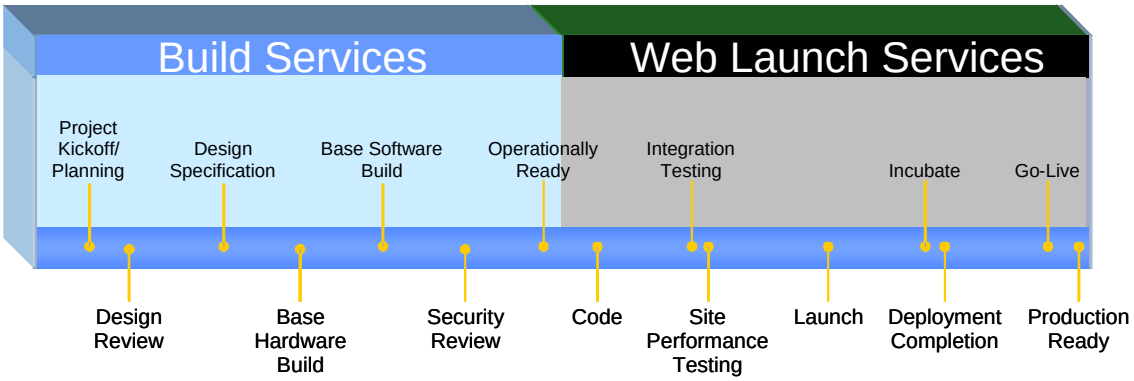
(Existing service conditions documented in the current contract apply.)

Deployment Services

Overview

Deployment Services comprise all the activities required to take a client from the planning stage through the site's production launch. The detailed activities associated with Deployment Services are documented in each of the sections that follow later in this proposal. The next few pages outline a set of project management and testing services that are part of MDNR's initial deployment and do not directly correspond to the management and support of the infrastructure in MDNR's environment.

Deployment Services are divided into two phases – Build and Launch.



Build Services

Build Services involve the basic build of the Client Site, comprising the hardware, Operating System (OS), security features, and software configuration of the devices in the environment to make the Client Site operational and ready to accept client applications. The completion of the Build Service is marked with the Operationally-Ready Date. Additional details specific to the deployment of the Managed Services purchased are documented in the Managed Services section of this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Host a kickoff meeting with key delivery and MDNR personnel to review the deployment plan and architecture
- Develop a project plan and prepare for services to support the deployment and ongoing operation of the hosted environment
- Communicate any service issues or deployment concerns
- Finalize requirements for the network and architecture
- Generate a hardware procurement list during project kick-off and planning build stage
- Perform tests to validate that the servers and related hardware are operational
- Conduct a final review of the deployment with MDNR to verify that requirements have been met
- Work with MDNR to determine Go-Live Date

MDNR Responsibilities

MDNR will perform the following tasks:

- Review and approve the deployment plan
- Review and approve the launch test plans
- Review and approve the final site architecture that will be deployed
- Attend the kickoff meeting, status update meetings, and final deployment review meeting
- Provide to EDS primary and backup communication focal point contacts for service requests, security authorizations, support issues, and business continuity requirements

Service Conditions

The following service conditions apply:

- EDS will configure MDNR's environment as described in the Architecture Diagram

Launch Services

Launch Services involve loading the MDNR's code to the servers and testing necessary to support the Automated Web Hosting Service Level Agreement following completion of the Build Services. Additional details specific to the Managed Services purchased are documented in the Managed Services section of the SOW. Launch Services end on the Go-Live Date.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Develop a test plan for the MDNR Site
Perform system testing before MDNR Site launch. Testing consists of high availability (HA) and system fail-over testing, stability testing, security testing, and monitoring configuration verification.
Develop and execute the Domain Name Server (DNS) cutover plan and launch the MDNR Site into production
Assist MDNR with loading the hosted application code and configurations

MDNR Responsibilities

Review and approve the deployment test plan
Review and approve the site architecture that was deployed
Perform application and business function testing
Attend the final launch review meeting
Review the DNS cutover plan and approve the Go-Live Date

Service Conditions

The following service conditions apply:
EDS will configure MDNR's environment as described in this proposal
The MDNR Site will not be activated until the servers and related functionality outlined in this proposal have been installed and are operational
The MDNR Site will not be activated until MDNR environment has power access, Internet access, and communication access (power, pipe, and ping access)

Managed Services

This section is organized according to the categories of services listed below and includes a description of each type of Managed Service as well as EDS and MDNR responsibilities.
Client Infrastructure
Managed Network
Managed Server
Managed Database
Managed Backup and Restore
Enterprise Storage

Client Infrastructure

Client Infrastructure Services are those Services directly related to the management of the physical environment within the Data Center location

Facilities and Asset Management

Facilities and Asset Management are those Services, which are involved in managing Data Center facilities. Facilities Management Services are provided in an EDS certified facility. Facilities Management Services are not available as a stand-alone offering.
Each EDS certified facility provides processing support for EDS' services satisfying the business and technology requirements of multiple clients. EDS certified facilities are constructed specifically for large-scale information technology processing and incorporate environmental systems to minimize hazards from electrical power failure, fire, or water damage, acts of nature, and unauthorized access. Each EDS certified facility is equipped with an uninterruptible power supply, diverse power feeds, and a diesel generator backup system.
Facilities Management Services consist of the following:

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:
Maintain engineering design and facility environmental systems and manage all aspects of the Data Center, consisting of supervision of all subcontractor maintenance activities

Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities to meet agreed-on hosting environment requirements
Determining floor space provisions for compute environment configuration needs
Managing and supporting infrastructure facilities to maintain or exceed leading industry standards
Providing floor space, rack space, power, HVAC, fire suppression, motor generators, 24x7x365 facility staff, and diverse power feeds
Supervising infrastructure and sub-contractor facilities maintenance activities
Maintain physical security of the Data Center

MDNR Responsibilities

MDNR will perform the following tasks:

- MDNR or MDNR representative(s) will conform to EDS security policies during all site visits.

Physical Security Services

Physical Security Services include controlling access to the EDS certified facility. Authorized employees are assigned electronically encoded cards that allow access to the general work area. Areas requiring additional security, such as equipment control rooms and raised floor areas have more restricted access controls.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Maintaining a secure database of access authorizations by user
Periodic review of access logs
Review and follow-up of any physical security violations
Security personnel on-site 24x7x365

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Managed Network Services

This section describes Services to support the dedicated network infrastructure, Managed Network Services. The dedicated network infrastructure is the set of network devices that are deployed in the Client Compartment (for example, switches, load balancers, firewalls, and/or remote access devices Managed Network Services consist of the following:

Dedicated Network
Secure Remote Access – VPN
X.25 Packet-Switched Circuits
Bandwidth
DNS Management

Dedicated Network

Dedicated Network describes the Managed Network Services required to monitor and support the dedicated network infrastructure of firewalls, switches, and load balancers deployed for MDNR within the Data Center, as well as the connectivity between the Dedicated Network and the Shared Networking Equipment. This dedicated network core is connected to a shared, highly available (HA) network infrastructure in each data center, including gateway routers and switches, that provides external connectivity. The EDS core network includes Network-based Intrusion Detection Systems (IDS) used to monitor and respond to unauthorized network access.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure EDS supported network infrastructure with default configurations and connect to EDS Data Center network

Configure up to four separate server virtual local area networks (VLAN)s, setup virtual IP address(es) and perform up to 10 virtual IP address changes comprised of additions, modifications, and deletions to network devices

Provision up to 14 public IP addresses for use in MDNR Web sites and applications

Provision up to 500 private IP addresses for server networks

Managed Services

Monitor EDS network and EDS-managed network devices

Respond to and repair problems on EDS-managed network devices

Respond to and repair connectivity problems over EDS network and MDNR compartment

Update network device OS as necessary

Conduct capacity planning for EDS network and network devices

Monitor availability and performance of network connection from EDS Data Centers to neighboring Internet Service Provider (ISP) peers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Review and approve the architecture that EDS will deploy

Managed Services

Submit a Change Request as needed to add or remove hardware

Secure Remote Access – VPN

Secure Remote Access – VPN is the service to manage the virtual private network (VPN) devices that provide MDNR personnel with a secure tunnel into the Client Compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Hardware-Based VPN – EDS Client Compartment

- Procure and install the EDS-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity

Hardware-Based VPN – Client Remote Location

- None

Managed Services

Hardware-Based VPN – EDS Client Compartment

- Monitor EDS-managed VPN devices installed at EDS' facilities
- Respond to and repair problems on EDS-managed VPN devices
- Update VPN device OS as necessary
- Respond to and isolate connectivity problems over EDS-managed VPN tunnels between Client Compartment and the Client Remote Location
- Repair problems caused by EDS-managed devices, networks, or EDS service providers

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Hardware-based VPN – Client Remote Location
- Procure and install the MIDNR-supported VPN device
- Install default configuration on VPN device

Define and configure standard monitors required to support VPN connectivity
- Provide Public IP address for VPN device
- Physically install VPN device and integrate with corporate network in a screened subnet (DMZ) in accordance with EDS' standard VPN topology for the Client Remote Location
- Configure corporate firewall to perform Network Address Translation (NAT) for any VPN traffic transmitted to or from the Client Compartment

Verify MDNR corporate network allows administrative and IPSec traffic from EDS-designated IP ranges to VPN device at the Client Remote Location

Managed Services

Hardware-based VPN Client Remote Location
- Maintain network connectivity between VPN device at Client Remote Location and the Internet
- Assist EDS to perform diagnostics, troubleshooting, and repair for connectivity problems caused by the VPN device at Client Remote Location (reboot, check cables, and so forth)

Install replacement hardware as necessary

X.25 Packet-Switched Circuits

X.25 Packet-Switched Circuits is the service to manage the X.25 circuits that provides MDNR point of sale agents with access to the EDS DSU/CSU in the Client Compartment.

EDS will provide the following leased line circuits

Fractional T1 with 56Kbs Bandwidth for each circuit

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Procure X.25 circuits to the EDS SMC

Procure and install EDS-supported termination devices in MDNR compartment in SMC

Provide as many as two hours to consult with MDNR to determine requirements for EDS-side termination

(2) Toll-free dial up numbers terminating on the X.25 circuits at the EDS SMC

Managed Services

Monitor EDS-managed X.25 circuits and termination devices at the EDS SMC

Respond to and repair problems on EDS-managed X.25 circuits and termination devices

Respond to and isolate X.25 circuit connectivity problems between the EDS SMC and the X.25 network

Repair problems with EDS-managed X.25 devices and network

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Managed Services

Maintain responsibility for X.25 circuit and device deployment at MDNR point of sale agent locations

Bandwidth Service
Bandwidth is the service to provide Internet connectivity between the Client Compartment and the Internet.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:
Deployment Services

Provision bandwidth from EDS' ISPs to EDS Data Centers. The amount of bandwidth provided to MDNR is 5 Mb/s
Set up connection from Client Compartment to EDS network in Data Center
Managed Services

No additional responsibilities

MDNR Responsibilities

MDNR will perform the following tasks:
Deployment Services

No additional responsibilities
Managed Services

No additional responsibilities

Domain Name Service (DNS) Management
DNS is the service to direct Internet traffic to the MDNR's hosted Web site by managing MDNR domains on EDS domain name servers.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:
Deployment Services

Redirect traffic from one old environment to the new environment at Go-Live
Managed Services

Monitor and maintain primary and secondary DNS servers
As necessary, inform MDNR of IP or name changes for primary and secondary DNS servers
As requested, redirect traffic from one Web address to another within the EDS environment
Update names and IPs for EDS DNS servers as necessary or required

MDNR Responsibilities

MDNR will perform the following task:
Deployment Services

No additional responsibilities
Managed Services

Renew domain(s) registration

Managed Server Services
Managed Server consists of the ongoing monitoring and management Services for the hardware and OS.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure hardware
Integrate hardware into EDS monitoring environment (fault level analysis only – Internet Control Message Protocol (ICMP), CPU, disk, hardware components)
Install cables between devices
Provision the infrastructure-specific OS that has been certified and packaged for use by EDS
Install OS, Opsware™ and other EDS required software
Define and configure OS monitoring to (1) monitor network connectivity, network devices, or server hardware and (2) gather performance data
Perform security review prior to site launch which consists of the following:
- Configurations and settings check during initial server build
- Audit of password integrity
- Server hardening:
  - Install only required OS components
  - Install EDS recommended vendor security patches
- Set passwords and access control
- Disable unnecessary network and system services
- Limit network services that run under the root account
- Enable account management
- Set up MDNR administrator accounts

Managed Services

Monitor server hardware
Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches
Apply EDS required patches
Notify MDNR of monitored OS-related events where it appears that the OS is the root cause of the problem (OS debugging is not included)
OS security patch management
- Monitor relevant vendor and industry bulletins for security-related patch alerts
- Evaluate need for patches
- Get MDNR approval before proceeding with any service-affecting changes, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm)

Add, delete, and change EDS accounts and update passwords
When necessary, perform reboots of servers
As requested by MDNR, adjust level of log creation to either increase or decrease granularity of data collection

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

Configure non-OS applications

Managed Services

Apply EDS required patches
Maintain responsibility for additions, deletions, and changes to MDNR accounts using the account management tool
When necessary, perform reboots of servers
As requested by MDNR, modify job scheduling on a server, such modifications consist of addition, change, or deletion of jobs

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Review and approve architecture that EDS will deploy

Managed Services

Respond to EDS inquiries regarding patch issues within one business day of notification
Respond to EDS' request for input regarding issues of service management

Managed Database Services

The Managed Database Services consist of installation and configuration and monitoring and issue resolution of the MDNR database servers on a 7x24x365 basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and license the database application
Setup database instances
Provision storage
Configure fault monitoring

Managed Services

Monitor server hardware

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Configure back-ups
Create database
Perform database imports
Implement database security per EDS standards
Create users
Make necessary schema changes
Configure space management
Configure and set the scheduled jobs
Provide documentation for database setup procedures
Configure clustered, High Availability (HA) environment
Verify that database software levels in the development environments match the production environment. The architecture in the development environments should match the production environment
Migrate existing database to suitable format for import into new environment
Perform functional testing and correct bugs in the site that impact site stability or integration with EDS Services
Perform database fail-over testing

Managed Services

Monitor faults
Monitor space availability
Monitor connectivity to the database
Monitor significant exceptions in the alert logs
Respond to and repair problems
Backup database
Recover database if necessary to correct problems
Apply software security patches and major bug fixes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Freeze all database changes eight business days prior to Go Live Date to allow for EDS testing

Managed Services

Respond to EDS inquiries regarding patch issues within one business day of notification
Follow EDS change management procedures for promoting code and content changes
Verify changes are tested in model office environment prior to pushing to production

Enterprise Storage Services – Enhanced

Enterprise Storage Enhanced Services provides Intelligent Storage with on-demand scalability in a sophisticated SAN environment designed for increased scalability, availability, and information protection. The EMC Enterprise Storage offering provides a faster more scalable solution that any locally attached storage on the market. Each server of the Database Cluster will be attached to the SAN via dual fiber channel host bus adaptor cards for high availability. EDS will provide performance management services consisting of collecting performance data dynamically. EDS will perform load-balancing services, so that utilization is distributed across the disk and channel infrastructure as possible based on the configuration design.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Provide the required storage hardware and software for Intelligent Storage and the hardware and software maintenance contracts for such hardware and software
Install connectivity components for the storage infrastructure (SAN, network attached file server, or direct connectivity storage) and provide connectivity to the MDNR clustered database servers.
Document the initial and environment growth requirements to the extent possible based on due diligence information provided. Such information will address the amount in gigabytes, required start and end time frame, and number and name of platforms requiring attachment to Storage-on-Demand Service

Managed Services

Provide integrated software, storage hardware, and managed services to provide the appropriate level of capacity, scalability, and performance for the selected services
Provide a leveraged technical and operational monitoring staff to meet agreed-on Service Levels providing continuous support for the storage infrastructure
Implement security practices, such as logical unit masking, preventing unauthorized storage access from an unauthorized server

EDS RSS Support Staff Responsibilities

EDS RSS Support Staff will perform the following tasks:

Deployment Services

Work approve the deployment plan and test plan

Managed Services

Complete an Intelligent Storage requirements definition document to define changes to the service requirements considering the provision of additional storage; designating connectivity of additional servers; or designating configuration changes

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Managed Backup/Restore Services

Managed Backup and Restore Services provide operational support and management processes to meet OS and related system software requirements for data availability, accessibility, retention, and restoration. Services are designed to support file system and specialized applications/databases such as Oracle, SQL Server, Lotus Notes, Microsoft Exchange, SAP, and other client-specific backup requirements.

Managed backup services consist of the following:

- Operating System Backups
- Application / Client Data Backups
- Database backups
- Backup Monitoring
- Restore Services

Operating System Backups

Operating System Backups provides backup of a server's operating system and configuration files. This service uses Trivoli Storage Manager (TSM) backup and an incremental forever approach to backup the operating system and configuration files. Incremental backups are provided on a daily basis. By default seven versions of file changes are retained for 60 days.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

- Install and configure backup agents
- Add system IDs to backup server
- Schedule backups
- Test backup/restore
- Verify hardware and network

Managed Services

- Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
- Update backup plans as new components are added to the system
- Maintain the tape library, media, and expendable supplies
- Backup operating system
- Conduct a full backup the first time a MDNR file system is backed up. Thereafter, only daily incremental backups occur.
- Retain seven versions (1 active + 6 inactive) of operating system data within the EDS SMC and ship seven versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and it is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

- Specify directories on file system to backup

Managed Services

- Advise EDS when new components, application files or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Application / Client Data Backup

Application /Client Data Backup provides backup of a server's application and client data and configuration files. Web Hosting Backup Service uses TSM backup and incremental forever approach. Incremental backups are provided on a daily basis.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Install and configure backup agents
Add system IDs to backup server
Schedule backups
Test backup/restore
Verify hardware and network

Managed Services

Perform backup monitoring, verification, notification, and escalation of issues as necessary for application data, operating system, and related system software backups
Update backup plans as new components are added to the system
Maintain the tape library, media, and expendable supplies
Backup applications
Conduct a full backup the first time a MDNR server application and configuration files are backed up. Thereafter, only daily incremental backups occur.
Retain 14 versions (1 active + 13 inactive) of application data within the EDS SMC and ship 14 versions of data off-site to a secure facility. Inactive versions are retained for 60 days. When an inactive version eclipses its retention period it is expired and is no longer available. The active version is never expired as long as the file remains on the server from which it was backed-up.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

Deployment Services

Specify application files and directories to backup

Managed Services

Advise when new components, application files, or directories need backing up or old components, application files, or directories no longer require backing up

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Database Backup

Database Backups are saved as files on the local server. These files are included in daily file backup on each system.

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:
Deployment Services

Setup initial database backup schedule
Managed Services

Maintain Database Backup schedule
MDNR Responsibilities

MDNR will perform the following tasks:
Deployment Services

No additional responsibilities
Managed Services

No additional responsibilities

Backup Monitoring
Backup Monitoring is a standard service that provides failure monitoring for the backup processes and procedures for a successful backup of the shared hosting compute environment.

EDS Responsibilities

EDS will perform the following tasks:
Managed Services

Perform monitoring, verification, notification, and escalation of issues as necessary for application data, operating systems, and related system software backups
Update backup plans as new components are added to the system

MDNR Responsibilities

MDNR will perform the following tasks:
Deployment Services

No additional responsibilities
Managed Services

No additional responsibilities

Restore Services
Restore Services consist of the services required to restore an operating system, application, and data file system and/or database content upon request by MDNR.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:
Managed Services

File restores provide restoration of a file internal disk to the server to a point in time (within the granularity of the backup schedule). MDNR will be charged a fixed fee, under Technical Support Services, for file restores.
Full restores (full operating systems, applications and data, file systems, and database contents) when requested, allows MDNR to request full restoration of a disk environment to a point in time (within the granularity of the backup schedule). MDNR will be charged on a time and materials basis for full restores.

MDNR Responsibilities

MDNR will perform the following tasks:

Managed Services

Specify file or disk system to restore

Service Enhancements

The Service Enhancements Section describes Managed Services that have been be ordered by MDNR in addition to the EDS' standard Automated Hosting Services (the "Service Enhancements").
The Service Enhancements selected by MDNR are listed below:

Mail Services
Security Enhancements

Mail Services – Outbound Mail

Outbound Mail Relay Service (the "Outbound Mail Relay Service") enables the delivery of outbound Simple Mail Transfer Protocol (SMTP) e-mail messages using relay servers to the Internet. Mail relay servers are part of the shared environment, segregated by firewall from the dedicated client compartment.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

- Own, engineer, operate, and administer hardware and software required to provide this service
- Monitor the system 24x365
- Provide notification of partial or full service outages to designated EDS Account and MDNR contacts
- Troubleshoot system problems and repair or replace system components
- Multiple redundant servers at multiple locations to provide load balance and high availability

EDS RSS Support Staff Responsibilities

EDS will perform the following tasks:

- Provide at least two EDS client contacts for each client domain/address
- Make certain that sender addresses are valid and deliverable
- Make certain that all SMTP DNS domains include a valid, functioning postmaster address that delivers to a person
- Make certain that receiving servers accept messages in a timely manner. Servers that consistently back up or cause delays on the mail relays must be upgraded to meet capacity.

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

No additional responsibilities

Managed Services

No additional responsibilities

Service Conditions

The following service conditions apply:

- To allow e-mail routing through the Outbound Mail Relay servers, the sender address, or domain must be provided to Messaging Services by MDNR.
- The sender's address or domain must be accessible as a destination domain, and should not use the eds.com domain.
- Clients of the Outbound Mail Relay Service are expected to make certain that recipients have requested all messages delivered using this Service.
- Clear and easy-to-follow instructions for removal from the distribution must be included in the message.

A maximum per-message size of 512 KB is implemented for the Outbound Mail Relay Service and messages larger than the maximum size will be rejected.

EDS reserves the right to restrict distribution of any messages at EDS' sole discretion.

Use of this service requires both the sender and the recipient to have valid SMTP formatted addresses to send and receive SMTP mail.

For the purposes of this document, availability of the Outbound Mail Relay Service is a state in which at least one mail relay service server is operational, connected to the network, with the means necessary to send and receive data in Internet Protocol formats, and accepting properly formed SMTP messages.

The Outbound Mail Relay Service is implemented with redundant mail relay servers at redundant locations with redundant network connections.

EDS does not guarantee the availability of servers supporting destination domains nor the network infrastructure used to reach those servers, as these devices and networks are typically outside the control of EDS.

Message delivery times may be longer than normal during partial service interruptions where the overall e-mail system is still available.

Mail delivery is the ability of EDS mail relay servers to relay the messages accepted to the next hop to the destination domain. This ability depends on the responsiveness of the destination mail system and the network infrastructure to connect to that destination. Delivery will be attempted periodically for up to three days. After one day, the systems are configured to send a delay notification identifying that delivery attempts will continue. After three days any undeliverable messages will be returned to the envelope sender address.

Problem resolution means the actions required to identify, repair, and resolve system problems that affect the level of service.

Automated monitoring tools and manual processes are used to detect events that could potentially affect the Outbound Mail Relay Service and alert the support team.

Security Enhancement Services

EDS Security Enhancements consist of the following options to allow clients additional technology and security services beyond the base security described in other services purchased:

Digital Certificates

Vulnerability Analysis and Reporting

Digital Certificates

EDS will order digital certificates, register MDNR servers, and install and configure certificates to enable SSL communication.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Deployment Services

Order digital certificates and register MDNR server accordingly

Install certificates to enable SSL communications on MDNR's server

Managed Services

Process and implement certificate renewals prior to expiration

MDNR Responsibilities

MDNR will perform the following tasks:

Deployment Services

Provide required information in a timely fashion to enable EDS to order certificates

Vulnerability Analysis and Reporting
System Level Vulnerability detection is the preventive process of examining, prioritizing and resolving vulnerabilities on system hosts.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Managed Services

Perform vulnerability checks through pre-defined scan policies to identify violations to the EDS established security policies. Current scan polices calls for scans to be done twice a year, at no additional charge to the customer. Results are used internally by EDS to access and improve our security process. This proposal includes an additional service of monthly scans done on every production server with reports provided to MDNR.
Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning
Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take action to mitigate risk

MDNR Responsibilities

MDNR will perform the following tasks:
Managed Services

Review EDS recommendations
Initiate Change Control Process if interested in applying EDS' recommendations

Service Conditions

The following service conditions apply:

Information security is a dynamic area. MDNR acknowledges that not all threats and vulnerabilities are currently understood or identified, that any security solution is subject to being compromised or circumvented in a variety of manners, and that new and unexpected threats and vulnerabilities can be expected to arise in the future. MDNR understands that as a provider of information security services EDS does not provide a guaranteed identification of all possible threats and vulnerabilities or guaranteed protection against all risks, threats and vulnerabilities.
It is understood and agreed that EDS is not assuming responsibility for any losses that may occur as a result of the failure to identify all possible threats or vulnerabilities, that EDS is not acting in the capacity or taking on the responsibility of an insurer and is not charging a price that would allow it to do so, and that it is the responsibility of MDNR to obtain insurance, if any, covering damages to MDNR or third parties.
MDNR is responsible for obtaining any consent necessary for EDS to access the systems as required to perform these security Services, prior to EDS commencing performance.

SAS70 Reports

EDS performs SAS70 audits on its total SMC hosting environment on a periodic basis. The delivery of these reports to the MDNR client will not be included in this contract. MDNR may request these reports at an additional charge as an enhancement to the contract.

Client Services

EDS Client Services provides MDNR with 24x365 support, account management and key technical resources for support of MDNR's operations. A project manager will be assigned to MDNR to perform account support and act as an escalation point to expedite the resolution of account issues.

Additionally, the service allows for the review of account action items, and their associated follow-up activities on MDNR behalf.
Client services consist of the following:

Technical Support Portal
Automated Operations Center Support
Site Outage Reporting

myhosting-eds.com™ portal

The portal is utilized for system reporting, operational ticket initiation/review, viewing site documentation, and ordering Technical Support Services.
Technical Support Services are a set of MDNR-initiated requests for ad hoc additional Services that are outside the scope of the on-going Services contained within this proposal.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Provide EDS RSS Support Staff access to the myhosting-eds.com™ portal
Provide EDS RSS Support Staff with administrative privileges and the ability to create user

EDS RSS Support Staff Responsibilities

Monitor and control user access privileges and access code usage on myhosting-eds.com™ client portal by MDNR's employees or other third parties

MDNR *Responsibilities*

MDNR will perform the following tasks:

Designate the individuals of the EDS RSS Support Staff who will be designated to have administrative privileges

Service Conditions

The following service conditions apply:

MDNR will not share usernames, passwords, or other access credentials that allow the client to access EDS resources with any third-party including contractors, agents, and delegates without EDS' express written permission.
MDNR agrees that use of valid access codes to order Technical Support Services shall be an authorized act upon which EDS may rely in providing the services requested.
All Technical Support Services orders placed using permitted access codes shall, for all purposes, be deemed to be in writing and signed by MDNR and will be admissible as between MDNR and EDS to the same extent and under the same conditions as other business records obtained and maintained in documentary form.

Automated Operations Center Support

The EDS Automated Operations Center is the entry point for resolving system-related problems, and initiating change within MDNR's environment. The Automated Operations Center also serves as the front line of technical support – in effect, this center provides both initial documentation of problems and their resolution.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

Provide support services to respond to requests for assistance related to the services
Facilitate the receipt and processing of valid requests
Receive, track, and own the request to closure
Accept and respond to authorized submitters, trouble requests that relate to the selected EDS services, or the related system configurations
Redirect any requests from non-authorized submitters to the MDNR-identified authorized submitters

Enter information obtained as a service request or trouble ticket into the request management system. The request management system will then notify the client using e-mail or pager of the request or alert

Provide impact statements for all Severity Level 1 problems describing actions to resolve

MDNR Responsibilities

MDNR will perform the following tasks:

Provide in writing a list of authorized submitters that are mutually agreed on by MDNR and EDS

Provide an ongoing updated list of primary and backup contacts for interaction with EDS

Provide such information as requested by EDS to perform the services

Annually review the list of authorized request submitters and change approvers so that authorized MDNR representatives approve all changes performed by EDS

Service Conditions

The following service conditions apply:

Although the service or problem may be referred to second-level support groups, third-party maintainers, or the EDS RSS Support Staff Help Desk for resolution, the Automated Operations Center, as the owner of the issue, is responsible for coordinating problem resolution until the problem is resolved.

A complete, authenticated request will be considered received once it has been logged into the request management system and assigned.

A request is not considered complete unless all information has been provided and appropriate authorizations and all prerequisite activities are complete.

Site Outage Reporting

EDS provides automated reporting if MDNR 's site experiences an outage.

EDS Automated Web Hosting Responsibilities

EDS will perform the following tasks:

EDS RSS Support Staff will be alerted from the ticketing system if an outage occurs

MDNR Responsibilities

MDNR will perform the following tasks:

Provide EDS with an up-to-date notification list for Network outages and Application Outages.

Description	Coverage	Service Level
Level 1: Critical Impact Serious failures that cause MDNR Web site to be offline. Examples: failure of EDS operated routers, system disk failures in non-replicated server, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 2: Major Impact Faults where users may notice a degraded system performance. Examples: failures in EDS access lines to the Internet, EDS operated routers, failed disk in array, and so on	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 30 minutes of call from authorized submitter to EDS.
Level 3: Moderate Impact Faults that MDNR may not notice and cause little disruption of service. Examples: Rebooting a server or router, memory short-runs and restarting aborted processes.	24x7x365	Estimated time to repair EDS Services will be provided to authorized submitter within 1 hour of call from authorized submitter to EDS.

Level 4: Minor Impact Non-outage situations and are usually requests for information. Example: Request for the version of software on a server.	Regular Business Hours 8 a.m. – 5 p.m. Central Standard Time, Monday - Friday	Authorized submitter will be contacted with 8 business hours of the initial request.

Appendix A – Service Levels

Service Levels Overview

Service Level Agreements. EDS offers Service Level Agreements (SLAs) to Client for the Automated Hosting Managed Services provided by EDS. The SLAs set forth herein specify the availability commitments for each Automated Hosting Managed Services component that MDNR requires, and the performance and responsiveness of EDS for each such component. The performance against SLAs described herein shall be measured by each SLA.

Architecture Diagram Components. Each Client Site component managed and supported by EDS is identified and classified on the Architecture Diagram as receiving one or more of the Automated Hosting Managed Services.
All SLAs apply 7 x 24 (excluding Scheduled Maintenance), except for Managed Backup and Restore SLAs and Managed Enterprise Application and Database SLAs on Non-Production servers which only apply from 7AM to 7PM local Data Centre time.

Committed Response Times

EDS provides commitments for the total time required to repair. Each such Service Interruption incident has a different Time To Repair (TTR), defined as the total time, measured in minutes, that elapses between the beginning and the end of a single event. For the purpose of calculating the Time To Repair, the start time for a production event shall not be more than 30 minutes before the time the first trouble ticket for that event is created. The end of the event is defined as the cessation of the Service Interruption and resumption of normal service. The following tables summarize the Committed Time To Repair (CTTR) for each event type.

Committed Time To Repair Client Notification. In addition to the commitments set forth below, EDS will notify Client within 30 minutes of any incident impacting the availability of Client Site components covered by the SLA.

Component	Committed Time To Repair
Dedicated Network	Repair: 4 hours
VPN Secure Remote Access	Failure at EDS Data Center. Repair: 4 hours
Bandwidth Services	Bandwidth Services shared infrastructure configuration is HA by default. Fail-Over: 15 minutes Repair: 4 hours (if connectivity on both lines is interrupted)
Managed Server	Repair: 4 hours
Managed AOPS Web and Application Server or Managed AOPS Database Server	Repair: 8 hours
SAN Management	Repair: 6 hours
Mail Services	Repair: 15 minutes

TABLE 1 – COMMITTED TIME TO REPAIR

Requirements and Limitations

The SLAs provided by EDS are subject to the following requirements and limitations:

No SLA during Operationally-Ready Period. For each Client Site, the SLAs do not apply during the Operationally-Ready Period. During the Operationally-Ready Period, EDS will provide limited support to Client between 9:00 AM and 5:00 PM (Client's facility local time zone), Monday through Friday. EDS will respond within one (1) business day to requests for assistance within the scope of the Services. For each Client Site, the SLAs commence on the Client Site Go Live Date.

Scheduled Maintenance. EDS and its subcontractors reserve regularly scheduled maintenance windows in order to maintain and upgrade infrastructure. The SLAs do not include or cover such regularly scheduled or any Client-requested maintenance windows ("Scheduled Maintenance"). EDS shall make commercially reasonable efforts to provide Client with prior notification of all scheduled and emergency maintenance procedures.

Stress Testing. The Parties may agree from time to time to conduct stress testing and/or load testing of a Client Site. To the extent that Client agrees to proceed with such testing, any resulting interruption or impairment of the Client Site is not included in or covered by the SLAs.

Third Party Events. EDS cannot control events or services outside the EDS operational environment, including actions or inactions of third parties (except for third parties acting on behalf or under the direction of EDS and to the extent that is expressly set forth in the SLA's set forth in this Schedule) that impair Client's connections to the Internet including, by way of example, viruses or other intrusions ("Third Party Events"). Accordingly the SLAs do not include or cover any interruption or degradation in service due to such Third Party Events.

Force Majeure Events. EDS shall not be liable for SLAs to the extent that EDS' non-performance is excused due to a force majeure event or for such other events for which performance is excused under the Agreement.

Client Responsibility. The SLAs do not include or cover Service Interruptions, outages, or any performance degradation caused by Client or by its clients, service providers or contractors; by applications not managed by EDS on Managed Servers; by Client's hardware, applications or code within the Client Compartment; or by changes to the Client's applications or code, content, database schema, or Client's site configuration, originated either (i) directly by Client, (ii) by EDS if Client has requested or approved the change to take place outside of EDS Maintenance Windows; by lack of necessary monitoring information from Client; or by Client's failure to comply with operating procedures and documentation provided to Client from time to time. Client will assist EDS in defining certain operating procedures which are specific to the Client Site such as Client contact information and contact methods.

Monitoring. In order to monitor the availability of components for which EDS provides uptime and Time To Repair commitments, EDS implements pre-defined standard monitors on hardware, OS, software application components and software processes. Whenever custom monitors are implemented to monitor specifically the availability of application components which are specific to the Client Site, Client is responsible for assisting EDS in designing and implementing such monitors. While in general all monitors are designed to be as independent as possible from Client's code, content, third party data sources or off-net dependencies (since those dependencies are always excluded from uptime and Time To Repair commitments); in some cases EDS relies on monitors that include such dependencies. However, this does not mean that EDS is responsible for uptime on Client's content, code, third party, off-net dependencies, or any application, software, URL components that are not included in the list of items to be monitored, as defined in the monitoring configuration document.

Client Provided Hardware. The SLA commitments described herein apply, provided that EDS supplies the hardware components. For all hardware components supplied by Client, the definitions shall be amended to exclude failures related to such hardware components. For each hardware failure, EDS will require authorization to buy replacement parts and will charge Client for the parts and labor to complete the replacement or repair.

Supported Technologies. The SLAs described herein are only applicable to hardware and software components managed by EDS and selected from the then current EDS Automated Hosting Managed Services supported technologies list.

Appendix B. Ground Rules and Assumptions

The following assumptions are being considered for this proposal.

Any deviation from the assumptions set forth below or elsewhere in this proposal may affect EDS' performance and may result in changes to the schedule, fees and/or expenses, deliverables, and level of effort required to perform the Services described in this proposal.

1. Cookie-session persistence is required for a client to apply for a hunting or fishing license.
2. The migration plan will need to accommodate a 2 day down time in the production database to accommodate the movement of data from the current environment to the proposed environment.
3. A VPN (Virtual Private Network) will continue to be used to provide State of Michigan employees access to the RSS Web Hosting environment – to support SQL ad hoc queries to the Inquiry DB and RSSWIN access to the RSS/E-License Primary DB. Only MDNR-approved IP addressing and protocols will be allowed connections over this tunnel. Strong encryption (168-bit 3DES) will protect data traversing the Public Internet via the MDNR-dedicated VPN tunnel. The VPN tunnel, and therefore data encryption, terminates on a firewall at the perimeter of the State's enterprise network, and at the perimeter of the MDNR-dedicated network in the Web Hosting environment.
4. Any State agent (MDNR or otherwise) approved by MDNR to provide data to RSS, or distribute data created by RSS, will need to do so via direct access to RSSINQ. The VPN tunnel described above will serve this purpose.
5. In the event the VPN Internet Bandwidth solution does not meet the needs of MDNR, MDNR has the option to convert to a dedicated circuit. MDNR will bear the cost of this change.
6. MDNR's staff will be readily available to complete their assigned activities.
7. MDNR will make critical decisions and convey approvals on a timely basis, but no later than three (3) business days after the request for a decision or approval.
8. EDS reserves the right to rotate EDS personnel supporting the MDNR's hosted environment.
9. EDS will provide additional resources on a time and material basis if service level thresholds defined in the Service Condition sections exceed the defined number quantities set forth in this proposal.
10. If MDNR exceeds allocated service condition thresholds for two consecutive months, cost adjustments will be applied by EDS through the Change Control Process for the activity exceeding

the thresholds. EDS will increase the monthly Full-Time Equivalent resource (FTE) support to the level required to support the activity going forward.

Appendix C - General Technical Glossary

General Terms

Term	Definition
archive log	Records that are backed-up dynamically using a file system threshold that, when reached, triggers a standard backup process
cluster	Two or more computers that operate independently but work collectively to provide uninterrupted computing service, higher performance, or both
DBMS	Database Management System
dedicated	A resource that is unique to the Client Site and not shared with other EDS Clients
E-commerce	Doing business online, typically through the Internet
firewall	A set of related hardware and programs that protects the resources of a private network from users from other networks
FTP	File transfer protocol; a simple method of transferring information over a TCP/IP network
IDS	Intrusion Detection System
IP	Internet protocol
IP Address	Address of a computer attached to an IP network
ISP	Internet Service Provider
LDAP	Lightweight Directory Access Protocol
load balancing	Fine tuning a computer system, subsystem, or network to more evenly distribute data, network traffic, or processing across available resources
Mbps	Mega-bits per second
ping	TCP/IP utility used to determine whether a computer is connected to the Internet
platform	Particular hardware or software architecture
port	Logical connection place and, specifically, using the Internet's protocol, TCP/IP, the way a client program specifies a particular server program on a computer in a network
OS	Operating system
reboot	To restart a computer's operating system
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SQL	SQL (Structured Query Language) is a standard interactive and programming language for getting information from and updating a database.
SQL Server	Microsoft SQL server technology
socket	One endpoint of a two-way communication link between two programs running on the network. A socket is bound to a port number so that the TCP layer can identify the application that data is being sent.
SSL	Secured sockets layer; a program layer for managing the security of message transmissions in a network. SSL uses the public-and-private key encryption system that also involves the use of a digital certificate
URL	Uniform resource locator; universal resource locator; the address defining the route to a file on the Internet
VPN	Virtual Private Network
WAN	Wide Area Network

Appendix D – Out-Of-Scope Security Enhancements

EDS provides a comprehensive set of security capabilities to enable clients to tailor an appropriate security solution to fit their business needs. MDNR currently has the following security uplifts requested in the RSS hosting environments as described in detail in the Service Enhancement Section:

- ◊ Digital Certificates
- ◊ Vulnerability Report

Besides the security services that are part of the basic MDNR Infrastructure, Managed Server and Managed Network offering, EDS offers the following Security Enhancements services that are currently out-of-scope for this proposal:

EDS Security Enhancements consist of the following enhancement options to allow clients additional technology and security services beyond the base security described in other services purchased:

SAS70 Reports

Network-Based Intrusion Detection – EDS will install and configure filters for a dedicated Network Intrusion Detection System to monitor network traffic in the client compartment. As required, EDS will update the attack signatures and respond to alerts.

Host-Based Intrusion Detection – To enable host-based IDS, select devices are configured to generate alerts. EDS will monitor and respond to alerts as well as update attack-alerting filters.

Intrusion Detection Report – The analysis includes a detailed report of the latest scans, probes, and intrusion attempts directed at client's site over a month period. EDS will recommend specific course of actions to address any identified security exposures.

A client may also select from the EDS Security and Privacy Consulting Services described below. These services as provided as part of a scoped engagement.

Penetration Testing – The client can request consulting services to conduct penetration testing. Penetration testing simulates an adversary's activity; using the same automated tools a hacker would employ to gain unauthorized access to client organization's networks and systems. EDS will identify weaknesses in the environment and suggest corrective action.

Application Attack Simulation – Through a simulated attack, EDS will identify, analyze, and help mitigate security vulnerabilities and exposures related to the application architecture, authentication, connection management, configuration, patching, and coding practices. This service is available as a one-time service or as a subscription service.

Application Code Review – The EDS Code Review Service verifies that all client applications are developed and coded following secure programming procedures. EDS will work with the client development teams to identify and mitigate potential security risks in the software development lifecycle before the application is deployed.

Appendix E: Pricing

EDS is providing the following indicative pricing for extending the contract for hosting and application support of RSS for the time period July 1, 2008 through June, 30, 2010. The pricing set forth herein is only preliminary; the pricing is non-binding and is subject to change as the parties further define the terms and conditions that shall accompany this extension of work.

	-	-	month 1	month 2	month 3	month 4	month 5	month 6	month 7	month 8	month 9	months 10 - 24	Total
	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09 hrough Jun-10	
Existing hosting during migration			$39,174	$39,174	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$78,348**
Upgraded hosting Environments			$37,193	$37,193	$41,267	$41,267	$41,267	$41,267	$41,267	$41,267	$41,267	$41,267 (mo)	**$982,260**
Hosting upgrade installation			$55,634	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$55,634**
vulnerability scans			$895	$895	$895	$895	$895	$895	$895	$895	$895	$895(mo)	**$21,480**
POS communications 7% pass through			$8,960	$8,960	$8,960	$8,960	$8,960	$8,960	$8,960	$8,960	$8,960	$8,960	**$215,040**
Circuit installs (4) 7% pass through			$4,280	$0	$0	$0	$0	$0	$0	$0	$0	$0(mo)	**$4,280**
E-License support			$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711	$6,711(mo)	**$161,064**
RSS operations and support			$95,557	$95,557	$95,557	$95,557	$95,557	$95,557	$95,557	$95,557	$95,557	$95,557 (mo)	**$2,293,368**
3 FTE Enhancement pool ($13,425/FTE/mo)			$0	$0	$0	$0	$0	$0	$0	$10,069	$40,275	$40,275(mo)	**$654,469**
Release 8.3	*$39025.5*	*$39025.5*	$78,536	$78,536	$78,536	$62,426	$40,275	$49,001	$42,289	$30,206	$0	$0(mo)	**$459,805**
8.3 FTE staffing	3	3	5.85	5.85	5.85	4.65	3	3.65	3.15	2.25	0	0	
TOTAL			**$326,940**	**$267,026**	**$231,926**	**$215,816**	**$193,665**	**$202,391**	**$195,679**	**$193,665**	**!193,665**	**$2,904,975**	**$,4,925,748**

$193,665(mo)

Add-On Application Services Rates: Information Analyst @ $127.00/hr
Project Manger @ $183.00/hr

III. Cost

See Appendix E Pricing for billing schedule

IV. Impact on Contract

Increase: **$,4,925,748**

V. Signatures

EDS

By: _____

Title:_____

Date:_____

DIT Contract Administrator

By: _____

Title:_____

Date:_____

DNR, Program Manager

By:_____

Title:_____

Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms
and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **January 31, 2008**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 66
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) DNR	
CONTRACT PERIOD From: **June 15, 1994**	To: **July 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

This Change is to correct an error that occurred in Change Notice #60. The Estimated Contract Value was stated to be $37,676,261.76 but should have been shown as $28,943,822.08, due to a mathematical error. The available balance for use on this contract is $0.00all other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB approval.

TOTAL REVISED CONTRACT VALUE: $28,943,822.08

Change No 65 is in a separate document.

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **November 8, 2007**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 65
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **July 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2007-0012, is hereby incorporated into this contract. The attached Change Authorization Request encompasses purchasing and installing a stress testing tool for E-Licenses and executing the tool to stimulate a large load on the system.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Request for change mutually agreed to.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $37,676,261.76

Pre-Approved - $25K

SERVICES REQUEST
Michigan Department of Information Technology

FOR DIT USE ONLY
DIT Reference No. | PO No. | DIT Solution No.

What is this for?

Purpose: Contract Amendment

Date Submitted: 8-21-07

Other Information

Project Name: Stress Testing Software CLAF07-012

Comments: This is to purchase stress testing software for $1,468 for online license sales.

Agency Requestor

Last Name: Pemble
First Name: Bill
Phone: (517) 241-3725
Email / FAX: pemblew@michigan.gov
FACS Agency Code: 751
Dept./Agency/Division: DNR/OLAF

DIT Contact

Last Name: Rutare
First Name: Louis
Phone: (517) 335-4597
Email / FAX: rutarel@michigan.gov
Title:
Address:

AS-1 Information

Request Information

☐ New Project / RFP / Staff Augmentation

☐ Multi-Year Contract From: To: OR ☐ One Time Purchase From: To:

Request Includes: *(Check all applicable)*

☐ Hardware ☐ Software ☐ Telecommunications ☐ Services ☐ Maintenance ☐ Staff Augmentation Services ☐ Hosting ☐ Leasing

☐ Contract Release ☒ Contract Option / Amendment ☐ Delegated Authority PO

Vendor Name: Electronic Data Systems (EDS) Contract #: 071B5000207

Current Contract Period From: 1/01/2007 To: 6/30/2008

Current Contract Remaining Value $:

Length of Extension/Release From: To:

Amount of Release / Option Amendment $:

Government Estimate

Your Estimated Cost $: 1,468.00

Estimate Based on ☐ Competitive Quotes *(Please Attach)* ☐ Market Research (GSA Pricing, Contract in Another State, Web Research ☐ Historical Pricing/Previous Contract Pricing ☒ Other *(Please attach details)*

Has Estimate Amount Been Approved In Department Budget? ☒ YES ☐ NO

If NO, enter amount that has been approved $:

GF / State (%): Federal (%):

Restricted (%): 100 Revolving (%):

Other (%):

Time Constraints

Needed by: Why? *(Grant $, Penalties, etc.)*

DIT Reference Number

Funds Expire | BPO Expires

Project Justification

Purpose/Business Case and Expectations: To test the simultaneous usage capacity of the department's hunting and fishing license purchases website. The department would like to make more licenses available online and would like to purchase this software to ensure the system can handle the increased load. It is important that this software be purchased this year so that we can conduct the needed testing as soon as possible.

Risk Assessment: Needed to support of the DNR's online license sales through the department's Retail Sales System (RSS).

- Legal mandate, court order, or law enforcement ☐
- Citation
- Protect health and safety of Michigan citizens or visitors ☐
- Basic requirements of residents of state institutions or facilities ☐
- Essential to the continued functioning of a legally-mandated program or activity of state government ☒
- To produce budgetary savings or to increase state revenue ☒
- Necessary to comply with federal requirements ☐

Account Coding

Agency Internal Funding Source: Fund 0572 Game & Fish

Appropriation Year: 2007 (2008 MS)

Agency Request	Agency Code 3	Agency Object	Amount	For DIT Internal Requests Only
1 IDG ☐ Yes ☒ No	678101			
2 IDG ☐ Yes ☐ No				
3 IDG ☐ Yes ☐ No				
4 IDG ☐ Yes ☐ No				

Quantity/Product Description

Item No.	QTY. REQ'D.	UNIT	DESCRIPTION: (Name of item or service, including part number, size, weight, color, or type of work, and suggested vendor)	UNIT PRICE	ITEM TOTAL
1	1	1	System support software	1,468.00	1,468.00
			To perform due diligence on the performance of the online sales system to ensure that customers negatively impacted by moving more sales to the web.		0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
				$	$1,468.00

List of Attachments, as required

- ☐ Bid Information Sheet – New Bid
- ☐ Statement of Work, with attached detailed business requirements; grant conditions; specific terms and conditions for project
- ☒ Vendor Proposal
- ☐ Technical Review Approvals

Approvals

Approvers Comments

Agency Authorized Signature Note: Signature represents Agency commitment to fund this purchase	Date
"Click HERE to add electronic signature" Joseph D Fuel	10/31/07

DIT Use Only

Sent for Technical Review To:

(Provide copy of signed approval)

- ☐ Telecommunications
- ☐ Data Center / Tech Services
- ☐ Enterprise Security
- ☐ Standards
- ☐ Desktop Services
- ☐ Model Office
- ☐ Other

MDIT Authorized Signature	Date
"Click HERE to add electronic signature"	
Contract Administration Approval Signature Sally Bogard	Date 11/7/07

DIT Reference Number

DEPARTMENT OF MANAGEMENT AND BUDGET, PURCHASING OPERATIONS
Purchase Request Form
This form is required for all purchase requests and grants, except those that have been Pre-Approved.

Purchase Request Categories (check all that apply):

Commodity ☒			**Service** ☐		**IT** ☒
Contract Release ☐ (Not Pre-Approved)	**Grant** ☐ (If checked, send to State Budget Office)	**Under $25,000** ☒ (Not Pre-Approved)	**Over $25,000** ☐	**MDOT- Highway Construction** ☐	**DMB - Design & Construction** ☐

Section 1. Department Identification

maynard81

1. Department:	DNR	2. Date:	8/21/07	3. E-mail:	~~pemblew~~@michigan.gov
4. Contact Person:	~~Bill Pemble~~ Sharon Maynard	5. Phone #:	~~(517) 241-3725~~ 3737587	5a. Fax #:	(517) ~~355-6504~~ 3736508

Section 2. Purchase Request Identification

Value of Request: No $ added to Contract $200468

6. Enter Value: $1,468.00 Adding Charge to PO 0847~~2~~00425 to add line item and $.

a. For new procurements only:
Government Estimate Based On:
(Copies of Competitive Quotes & Research MUST be attached)

- ☐ Competitive Quotes - # of quotes Date of quotes
- ☐ Historical Pricing/Previous Contract Value – Previous PO/BPO#:
- ☐ Market Research (GSA Pricing, Contract in another State, Web Research) – Resource used:
- ☒ Other (Must attach details) Quote in the amount of $1,468 from the supporting vendor.

b. Has the amount in box 6a above been approved in Department Budget?

- ☒ Yes
- ☐ No If NO, please provide the amount that has been approved: $

New Requests or Contract Release:

7. Requisition #: OLAF07-012	☐ One Time Purchase	☐ Multi-Year Contract: From: To:
8. Contract Release:		
a. Contract #	a. From:	To:
b. PO #	b. From:	To

8a
c

Base PO period: 10/1/06 - 9/30/07

Change Requests:

9. Contract/PO #: 071B5000207/084N7200425	Base Contract Period: From: 01/01/07 To: 6/30/08	Total Contract Value: $ 2,369,356.50 PO Remaining Contract Value: $ 447,212.43
10. Type of request (check one): ☐ Contract Option ☐ Contract Extension (beyond option years) ☒ Contract Amendment		Length of Option / Extension: From: To:

Vendor Information:

11. Current Vendor Name (include for all new and change requests): Electronic Data Systems (EDS)

Vendor ID #: 2752548221 Mail Code: 014

Does Vendor have a Michigan Presence (see P.A. 431 Section 268 for definition): ☒ Yes ☐ No

Section 3. Purchase Justification

12a. **Description of Product/Service Requested:**
To purchase stress testing software that will enable the department to quantify the number of simultaneous users that the department's online license sales system can handle before the level of service is degraded.

b. **Purpose/Business Case of New Contract, Amendment, or Extension and Expected Outcomes:**
This software needs to be purchased this year in order to ensure the adequacy of the capacity of the system before more sales opportunities are added to the website in order to make them conveniently available to customers.

c. **Funding Source:** ☐ Federal ____% ☐ State GF ____% ☒ Restricted 100% ☐ Revolving ____%
☐ Other ____% Provide Details:

d. **Risk / Liability Assessment** (consequences if not procured, potential issues if not procured, etc.):
Without this software, the system capacity would remain unknown and could result in a negative public relations experience for the department if the simultaneous user capacity were reached during a peak sales event.

Section 4. **For all purchases, one or more of the following criteria must be met and detailed documentation must be provided to support this request. These are applicable but not limited to all Executive Directives for 2007 as they pertain to the purchase of goods, services and grants.**

13a. ☐	Legal mandate (enter citation _____), federal mandate, or court order. (Copy of mandate language/citation must be attached.)
b. ☐	To protect health, safety, or welfare of Michigan citizens or visitors. Insert Justification:
c. ☐	To provide for the basic requirements of residents of state institutions or facilities, including but not limited to food, clothing, and prescription drugs. Insert Justification:
d. ☒	To produce budgetary savings or secure additional state revenue, including protecting existing federal funds or securing additional federal funds. Insert Justification: **Will allow the department to make more licenses available online for customers.**
e. ☐	For grant expenditures only, expenditure will provide a financial incentive for the retention or creation of jobs in this state. (Copy of grant authority must be attached.)

Section 5. **The Department Director, autonomous agency head, or their designee certifies agreement with this form, and that this purchase request is critical to the mission priorities of their department.**

14a. Joseph D. Frick, Chief
Signature

b. Joseph D. Frick, Financial Services
Name and Title (type or print)

c. 8/27/07
Date:

For IT purchases only, the Department of Information Technology (DIT) Director, or their designee certifies approval of this purchase request.

14a. Lynn M. Draschil
Signature

b. Lynn Draschil, Deputy Director
Name and Title (type or print)

c. 10/26/2007 11/6/07
Date:

d. _____
# of Requisition/Contract/Grant Approved (see Section 2)

The State Budget Office, Budget Director, or their designee certifies approval of this purchase request. (Only required for Department of Corrections, Department of Human Services and Michigan State Police purchase requests and all grants).

15a. _____
Signature

b. _____
Name and Title (type or print)

c. _____

Date: _____

d. _____

# of Requisition/Contract/Grant Approved (see Section 2)

The Special Monitor for State Purchasing or their designee certifies approval of this purchase request.

16a. _____

Signature

b. _____

Name and Title (type or print)

c. _____

Date: _____

d. _____

# of Requisition/Contract/Grant Approved (see Section 2)

Note to all agencies: Agencies are responsible for obtaining any necessary Civil Services approvals, such as the CS-138.

Submit to:	DMB – Purchasing Operations Attn: DMB-ACQ-Point 2nd Floor Mason Building P.O. Box 30026 Lansing, MI 48909 Fax: (517) 335-0046
FOR GRANTS ONLY, Submit to:	State Budget Office Romney Building, 6th Floor Lansing, MI 48909 Fax: (517) 241-5428

V. Signatures

EDS
By: [signature]
Title: Prin. Mgr.
Date: 8/16/07

DIT Contract Administrator
By: [signature]
Title: C.A.
Date: 11/7/07

DNR Program Manager
By: [signature]
Title: Section Mgr.
Date: 8/16/07

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2007-002

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses purchasing and installing a stress testing tool for E-License and executing the tool to simulate a large load on the system.

MDNR will begin to sell Leftover special hunt licenses on E-License in the fall of 2007. This process causes a spike in sales transactions because the supply of leftover licenses in limited, they go on sale at a specific time of day, they are sold on a first-come-first-serve basis, and the sell out quickly. To date, leftover licenses have only been sold at Retail locations at the POS, so the number of concurrent transactions was limited to the number of POS terminals in the field (approximately 1700). By opening up leftover sales to the internet, thousands of concurrent customers could attempt to purchase a license at the same time. The E-License and back-end RSS system need to be stress tested to establish the transaction load that it can accommodate.

MDNR will need to set up a leftover license in production, that the general customer population will not be able to access during the stress testing period.

EDS will procure WAPT 5.0 stress testing software licenses that will allow EDS to simulate over 2000 concurrent E-License users being authorized to purchase the test leftover license. EDS we verify that at least 3700 customers can be authorized to purchase leftover license within the same minute. EDS will also capture data to show load capabilities on the E-License Welcome Page. Results of the stress test will be presented to MDNR. If there are any load issues discovered during this test, MDNR and EDS will then be able to plan for any necessary upgrades to the system.

WAPT 5.0 is a load and stress testing tool that provides an easy-to-use, consistent and cost-effective way of testing web sites, web servers, and intranet applications with web interfaces. It allows the user to test and analyze the performance characteristics under various load conditions to find bottlenecks in web applications. WAPT has a set of features to test web sites with dynamic content and secure HTTPS pages. It provides informative test results through descriptive graphs and reports.

III. Cost

WAPT 5.0 from SoftLogica	$367.00 per license	Qty 4	= $1,468.00

The resources required to complete this Change Authorization Request includes:
Information Analyst: 48 hours to be performed with EDS Production Support resources

IV. Impact on Contract
Increase: $1,468.00

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms
and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **April 11, 2007**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 64
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **July 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately the contract end date has been EXTENDED 1 month to July 1, 2008. This corrects an administrative error made in Change Notice #60.

The attached documentation represents the governing terms for the extended contract period and supercedes all previous terms.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Request for change mutually agreed to.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $37,676,261.76

SECTION I

GENERAL INFORMATION

I-A PURPOSE

The purpose of this contract is to obtain operations, maintenance, user support and enhancements to the Hunting and Fishing Licenses Retail Sales System.

This contract will be part lump sum and part fixed cost.

I-B ISSUING OFFICE

This contract is issued by Acquisition Services, State of Michigan, Department of Management and Budget (DMB), hereafter known as Acquisition Services, for the State of Michigan, Department of Natural Resources (MDNR). Where actions are a combination of those of Acquisition Services and MDNR, the authority will be known as the State.

Acquisition Services is the sole point of contact in the State with regard to all procurement and contractual matters relating to the services described herein. Acquisition Services is the only office authorized to change, modify, amend, alter, clarify, etc., the specifications, terms, and conditions of this contract. The OFFICE OF ACQUISITION SERVICES will remain the SOLE POINT OF CONTACT throughout the procurement process, until such time as the Director of Purchasing shall direct otherwise in writing. See Section I-C below. All communications concerning this procurement must be addressed to:

???, Buyer
DMB, Acquisition Services
2nd Floor, Mason Building
P.O. Box 30026
Lansing, Michigan 48909

I-C CONTRACT ADMINISTRATOR

The Director of Acquisition Services will direct that the person named below be authorized to administer the Contract on a day-to-day basis during the term of the Contract. However, administration of any contract implies no authority to change, modify, clarify, amend, or otherwise alter the terms, conditions, and specifications of such contract. That authority is retained by Acquisition Services. The Contract Administrator for this project is:

Patty Bogard
Department of Information Technology
Agency Services
Constitution Hall, 6th Floor South
525 W. Allegan Street
Lansing, MI 48933

The Program Administrator for this project is:

Denise Gruben
Department of Natural Resources
Design, Construction, and Customer Systems
P.O. Box 30033
Lansing, MI 48909

I-D COST LIABILITY

Total liability of the State is limited to the terms and conditions of this Contract. The State fiscal year is October 1st through September 30th. The prospective contractor should realize that payments in any given fiscal year are contingent upon enactment of legislative appropriations.

I-E PRIME CONTRACTOR RESPONSIBILITIES

The Prime Contractor will be required to assume responsibility for all contractual activities in accordance with Section III below and the Prime Contractor's February 17, 2006 proposal, which was incorporated into the Contract pursuant to Change Notice Number 60, whether or not that contractor performs them. Further, the State will consider the Prime Contractor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the anticipated contract. If any part of the work is to be subcontracted, the contractor must notify the State and identify a list of subcontractors, including firm name and address, contact person, complete description of work to be subcontracted, and descriptive information concerning subcontractor's organizational abilities. The State reserves the right to approve subcontractors for this project and to require the Primary Contractor to replace subcontractors found to be unacceptable. The contractor is totally responsible for adherence by the subcontractor to all provisions of the contract.

I-F NEWS RELEASES

News releases pertaining to this Contract will not be made without prior written State approval, and then only in accordance with the explicit written instructions from the State. No results of the program are to be released without prior approval of the State and then only to persons designated.

I-G DISCLOSURE

All information contained herein and/or referenced is subject to disclosure under the provisions of the "Freedom of Information Act.", 1976 Public Act No. 442, as amended, MCL 15.231, *et seq.*

SECTION II

CONTRACTUAL SERVICES TERMS AND CONDITIONS

The following are MANDATORY TERMS to which the Contractor MUST agree without word modification.

II-A CONTRACT PAYMENT

(a) CONTRACT INVOICING AND PAYMENT

Invoicing. All invoices should reflect actual work done. Invoices will be in accordance with the Payment Schedule set forth in Section II-A(b) below.

Payment. The State will pay EDS as set forth below.

RSS Application Operations and Maintenance:
The State will pay EDS a base monthly systems maintenance, operations and user support fee for RSS, as reflected in Section II-A(b) of this Contract.

RSS POS Data Communications:
The State will pay EDS a monthly fee for Data Communication services based on actual data communication charges reported by Verizon monthly, at the conclusion of such usage. As a result, EDS' monthly fees to the State will be for services actually used during the prior month. As such, MDNR agrees to pay the final communication charges for June 2008 in July 2008 after communication data is reported by Verizon. The billing schedule for Point of Sale (POS) Data Communications, as set forth in Section II-A(b) of this Contract, reflects past averages of the monthly fee paid by the State to EDS for Data Communications services.

RSS Development Pool:
The State will pay EDS a monthly fixed fee for the Information Analyst (I/A) Development Pool, which consists of three (3) full time equivalents (FTEs), as reflected in Section II-A(b) of this Contract.

E-License Application Operations and Maintenance:
The State will pay EDS a base monthly systems maintenance, operations and user support fee for E-License through the later of March 2007 or such month when the Michigan Department of Information Technology (MDIT) assumes responsibility for E-License, as reflected in Section II-A(b) of this Contract.

Production Hosting:
The State will pay EDS a base monthly production hosting fee, as reflected in Section II-A(b) of this Contract, through June 2008.

Model Office/Disaster Recovery Hosting:
The State will pay EDS a base monthly model office/disaster recovery (MO/DR) hosting fee, as reflected in Section II-A(b) of this Contract, through the later of December 31, 2006 or such month when MDIT assumes responsibility for MO/DR hosting.

Hosting Production Vulnerability Scans:
The State will pay EDS a base monthly production vulnerability scan fee, as reflected in Section II-A(b) of this Contract, through June 2008.

Enhancement Proposals:

The State will pay EDS for specific enhancement projects that are not designated by the MDNR to be performed by the Development Pool on an hourly basis at the rates of (a) one hundred twenty-seven dollars and nine cents ($127.09) per hour for an I/A and (b) one hundred eighty-three dollars and two cents ($183.02) per hour for Project Management, as set forth in Section II-A(b) of this Contract.

Annual Fee Increases. The State agrees to pay EDS an annual fee increase effective January 1 each year for Monthly Base Maintenance (which consists of both the RSS Applications Operations and Maintenance and the E-License Application Operations and Maintenance), Development Pool, and Enhancement Proposals. The amount of the annual increase will be determined using the average salary increase for exempt and executive-level system integration staff from the most recent Hewitt Associates Integration survey not to exceed ten percent (10%) annually. If the average salary increase exceeds ten percent (10%), EDS and MDNR will negotiate an increase in the amount exceeding ten percent (10%).

(b) CONTRACT PAYMENT SCHEDULE

The State shall pay all such invoices in accordance with the State's standard payment procedure as specified in Public Act #279 of 1984.

Monthly Contract Billing Schedule

RSS	***Monthly Billing***
Application Operations & Maintenance	$99,097/mo
POS Data Communications (estimated)	$9,598/mo
Development Pool	$39,025.50/mo
E-License	
Application Operations & Maintenance	$6,503/mo
Hosting	
Production Hosting	$35,100/mo
Model Office/Disaster Recovery Hosting	$4710/mo
Production Vulnerability Scans	$895/mo

Hourly Contract Billing Schedule

Enhancement Proposals	***Hourly Rate***
I/A	$127.09/hour
Project Management	$183.02/hour

There will be annual fee increases related to the Monthly Base Maintenance (which consists of both the RSS Applications Operations and Maintenance and the E-License Application Operations and Maintenance), Development Pool, and Enhancement Proposals as set forth in Section II-A(a) of this Contract.

II-B ACCOUNTING RECORDS

The Contractor will be required to maintain all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted principles of accounting and other procedures specified by the State of Michigan. Pertinent financial and accounting records shall be made available, upon request, to the State of Michigan, its

designees, or the Michigan Department of Auditor General at any time during the contract period and any extension thereof, and for three (3) years from expiration date and final payment on the contract or extension thereof.

II-C INDEMNIFICATION

A. General Indemnification

Upon receipt of written notice, as required herein, the CONTRACTOR shall indemnify, defend and hold harmless the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents from and against all losses, liabilities, penalties, fines, damages and claims (including taxes), and all related costs and expenses (including reasonable attorneys' fees and disbursements and costs of investigation, litigation, settlement, judgments, interest and penalties), arising from or in connection with any of the following:

(1) any claim, demand, action, citation or legal proceeding against the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents for any negligence or wrongful acts arising out of or resulting from (1) the services and products provided or (2) performance of the work, duties, responsibilities, actions or omissions of the CONTRACTOR or any of its subcontractors under this CONTRACT;

(2) any claim, demand, action, citation or legal proceeding against the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents arising out of or resulting from a material breach by the CONTRACTOR of any representation or warranty made by the CONTRACTOR in the CONTRACT;

(3) any claim, demand, action, citation or legal proceeding against the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents arising out of or related to occurrences that the CONTRACTOR is required to insure against as provided for in this CONTRACT;

(4) any claim, demand, action, citation or legal proceeding against the State, its departments divisions, agencies, sections, commissions, officers, employees and agents arising out of or resulting from the death or bodily injury of any person, or the damage, loss or destruction of any real or tangible personal property, in connection with the performance of services by the CONTRACTOR, by any of its subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable; provided, however, that this indemnification obligation shall not apply to the extent, if any, that such death, bodily injury or property damage is caused by the negligence or reckless or intentional wrongful conduct of the State;

(5) any claim, demand, action, citation or legal proceeding against the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents which results from an act or omission of the CONTRACTOR or any of its subcontractors in its or their capacity as an employer of a person.

B. Patent/Copyright Infringement Indemnification

The CONTRACTOR shall indemnify, defend and hold harmless the State, its departments, divisions, agencies, sections, commissions, officers, employees and agents from and against all losses, liabilities, penalties, fines, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and disbursements and costs of

investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State by a third party to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the CONTRACTOR or its subcontractors, or the operation of such equipment, software, commodity or service, infringes any United States or foreign patent, copyright, trade secret or other proprietary right of any person or entity, which right is enforceable under the laws of the United States. In addition, should the equipment, software, commodity, or service, or the operation thereof, become or in the Contractor's opinion be likely to become the subject of a claim of infringement, the CONTRACTOR shall at the Contractor's sole expense (I) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the CONTRACTOR, (ii) replace or modify the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to CONTRACTOR, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

C. Indemnification Obligation Not Limited

In any and all claims against the State of Michigan, its departments, divisions, agencies, sections, commissions, officers, employees and agents, by any employee of the CONTRACTOR or any of its subcontractors, the indemnification obligation under the CONTRACT shall not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any of its subcontractors under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in subclauses, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other subclauses.

D. Continuation of Indemnification Obligation

The duty to indemnify will continue in full force and effect not withstanding the expiration or early termination of the contract with respect to any claims based on facts or conditions which occurred prior to termination.

E. Indemnification Procedures

1) After receipt by the State of notice of the commencement or threatened commencement of any civil, criminal, administrative or investigative action or proceeding involving a claim in respect of which it will seek indemnification, the State shall notify the Contractor of such claim in writing. No failure to so notify the Contractor shall relieve it of its indemnification obligations except to the extent that it can demonstrate damages attributable to such failure. Within fifteen (15) days following receipt of written notice from the State relating to any claim, but no later than ten (10) days before the date on which any response to a complaint or summons is due, the Contractor shall notify the State in writing if the Contractor elects to assume control of the defense and settlement of that claim (a "Notice of Election").

2) If the Contractor delivers a Notice of Election relating to any claim within the required notice period, the Contractor shall be entitled to have sole control over the defense and settlement of such claim; provided, however, that: (1) the State shall be entitled to participate in the defense of such claim and to employ counsel

at its own expense to assist in the handling of such claim and to monitor and advise the State about the status and progress of the defense; (2) the Contractor shall, at the request of the State, demonstrate to the reasonable satisfaction of the State the Contractor's financial ability to carry-out its defense and Indemnity obligations; (3) the Contractor shall periodically advise the State about the status and progress of the defense and shall obtain the prior written approval of the State before entering into any settlement of such claim or ceasing to defend against such claim, which approval shall not be unreasonably withheld; and (4) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State shall have the right, at its own expense, to control the defense of that portion of such claim involving the principle(s) of Michigan governmental or public law. Notwithstanding the foregoing, the State may retain control of the defense and settlement of a claim if the State, in its sole discretion, determines that it is in the best interest of the State to do so. Any determination relinquishing to the contractor the control over the defense and settlement of a claim may be rescinded by the State at any time during the defense and settlement of such claim, at which point the State shall assume the control of the defense and settlement of such claim. The Contractor's indemnification obligations under this Section II-C shall not extend to any losses, liabilities, damages or claims (including taxes), and all related costs and expenses that the Contractor can reasonably demonstrate would not have been incurred but for the State's election to retain or retake control over the defense and settlement of a claim.

3) If the Contractor does not deliver a Notice of Election relating to any claim of which it is notified by the State as provided above, the State shall have the right to defend the claim in such manner as it may deem appropriate, at the cost and expense of the Contractor. The Contractor shall promptly reimburse the State for all such costs and expenses.

II-D CONTRACTOR'S LIABILITY INSURANCE; LIMITATION OF LIABILITY

A. The Contractor shall purchase and maintain such insurance, or alternatively provide evidence satisfactory to the State of the Contractor's ability to self-insure, as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract (Purchase Order), whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

(1) Claims under workers' disability compensation, disability benefit and other similar employee benefit act. A non-resident Contractor shall have insurance for benefits payable under Michigan's Workers' Disability Compensation Law for any employee resident of and hired in Michigan; and as respects any other employee protected by workers' disability compensation laws of any other state the Contractor shall have insurance or participate in a mandatory state fund to cover the benefits payable to any such employee.

(2) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.

(3) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees, subject to limits of liability of not less than $100,000 each occurrence and, when applicable $300,000 annual aggregate, for non-automobile hazards and as required by law for automobile hazards.

(4) Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom, subject to a limit of liability of not less than $50,000

each occurrence for non-automobile hazards and as required by law for automobile hazards.

(5) Insurance for Subparagraphs (3) and (4) non-automobile hazards on a combined single limit of liability basis shall not be less than $100,000 each occurrence and when applicable, $300,000 annual aggregate.

The insurance shall be written for not less than any limits of liability herein specified or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under the Indemnification clause of the Contract (Purchase Order).

BEFORE STARTING WORK THE CONTRACTOR MUST FURNISH TO THE DIRECTOR OF THE OFFICE OF PURCHASING, CERTIFICATE(S) OF INSURANCE VERIFYING LIABILITY COVERAGE. THE CONTRACT OR PURCHASE ORDER NO. MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled until at least fifteen days prior written notice bearing the Contract Number or Purchase Order Number has been given to the Director of Purchasing.

B. Limitation of Liability

The liability of the Contractor for all damages arising out of or related to this Agreement, regardless of the form of action that imposes liability, whether in contract, equity, negligence, intended conduct, tort or otherwise, will be limited to and will not exceed, in the aggregate for all claims, actions and causes of action of every kind and nature, the sum of $8,109,479.

In no event will the measure of damages include, nor will Contractor be liable for, any amounts for loss of income, profit or savings or indirect, incidental, consequential, exemplary, punitive or special damages of any party, including third parties, even if such Party has been advised of the possibility of such damages in advance, and all such damages are expressly disclaimed.

II-E CANCELLATION

(a) The State may cancel the Contract for default of the Contractor. Default is defined as the failure of the Contractor to fulfill the obligations of the quotation or Contract. In case of default by the Contractor, the State may immediately and/or upon 30 days prior written notice to the Contractor cancel the Contract without further liability to the State, its departments, divisions, agencies, sections, commissions, officers, agents and employees, and procure the services from other sources, and hold the Contractor responsible for any excess costs occasioned thereby.

(b) The State may cancel the Contract in the event the State no longer needs the services or products specified in the Contract, or in the event program changes, changes in laws, rules or regulations, relocation of offices occur, or the State determines that statewide implementation of the Contract is not feasible, or if prices for additional services requested by the State are not acceptable to the State. The State may cancel the contract without further liability to the State, its departments, divisions, agencies, sections, commissions, officers, agents and employees by giving the Contractor written notice of such cancellation 30 days prior to the date of cancellation.

(c) The State may cancel the Contract for lack of funding. The Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation of funds for this project. If funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available, the State shall have the right to terminate this Contract without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to the Contractor. The State shall give the Contractor written notice of such non-appropriation within 30 days after it receives notice of such non-appropriation.

(d) The State may immediately cancel the Contract without further liability to the State its departments, divisions, agencies, sections, commissions, officers, agents and employees if the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor, is convicted of a criminal offense incident to the application for or performance of a State, public or private Contract or subcontract; or convicted of a criminal offense including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under state or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State, reflects on the Contractor's business integrity.

(e) The State may immediately cancel the Contract in whole or in part by giving notice of termination to the Contractor if any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, Section 5, and Civil Service Rule 4-6.

(f) The State may, with 90 days written notice to the Contractor, cancel the Contract in the event prices proposed for Contract modification/extensions are unacceptable to the State.

(g) The State shall have the option to take responsibility for operations and support services described in this Contract, by giving EDS 90 days written notice. Upon the date of cancellation, the State will discontinue payments to EDS for these services without liability (except as described in subsection h below) for any direct, indirect, incidental, consequential, or other damages as a result of the cancellation of this portion of the contract. In addition, EDS shall assist MDNR in an orderly transition of these services for 90 days after receiving written notice. If support for the transition is required beyond 90 days, MDNR will pay EDS for the additional transition services at a mutually agreed to fee.

(h) The State shall give EDS written notice of a request to decommission the EDS Automated Operations (AOPs) RSS Model Office/Disaster Recovery (MO/DR) hosting operations. Upon date of receipt of decommission notice, EDS MO/DR services will no longer be available to the State. EDS will have 30 days to decommission the MO/DR site. The State will pay EDS the monthly MO/DR hosting fee during the decommission period.

II-F DELEGATION AND/OR ASSIGNMENT

1. ASSIGNMENT

The Contractor shall not have the right to assign this Contract or to assign or delegate any of its duties or obligation under this contract to any other party (whether by operation of law or otherwise), without the prior written consent of the State. Any purported assignment in violation of this Section shall be null and void. Further, the Contractor may not assign the right to receive money due under the contract without the prior written consent of the State Purchasing Director.

2. DELEGATION

The Contractor shall not delegate any duties or obligations under this Contract to a subcontractor other than a subcontractor named in the bid unless the State Purchasing Director has given written consent to the delegation.

II-G NON-DISCRIMINATION CLAUSE

In the performance of any Contract or purchase order resulting herefrom, the bidder agrees not to discriminate against any employee or applicant for employment, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, physical or mental handicap or disability. The bidder further agrees that every subcontract entered into for the performance of any Contract or purchase order resulting herefrom will contain a provision requiring non-discrimination in employment, as herein specified, binding upon each subcontractor. This covenant is required pursuant to the Elliot Larsen Civil Rights Act, 1976 Public Act 453, as amended, MCL 37.2201, *et seq*, and the Michigan Handicapper's Civil Rights Act, 1976 Public Act 220, as amended, MCL 37.1101, *et seq*, and any breach thereof may be regarded as a material breach of the Contract or purchase order.

II-H UNFAIR LABOR PRACTICES

Pursuant to 1980 Public Act 278, as amended, MCL 423.231, et seq, the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled pursuant to Section 2 of the Act. A Contractor of the State, in relation to the Contract, shall not enter into a Contract with a subcontractor, manufacturer, or supplier whose name appears in this register. Pursuant to Section 4 of 1980 Public Act 278, MCL 423.324, the State may void any Contract if, subsequent to award of the Contract, the name of the Contractor as an employer, or the name of the subcontractor, manufacturer or supplier of the Contractor appears in the register.

II-I SOFTWARE PERFORMANCE

The vendor warrants that all software for which the vendor either sells or licenses to the State of Michigan and used by the State prior to, during or after the calendar year 2000, includes or shall include, at no added cost to the State, design and performance so the State shall not experience software abnormality and/or the generation of incorrect results from the software, due to date oriented processing, in the operation of the business of the State of Michigan.

The software design, to insure year 2000 compatibility, shall include, but is not limited to: data structures (databases, data files, etc.) that provide 4-digit date century; stored data that contain date century recognition, including, but not limited to, data stored in databases and hardware device internal system dates; calculations and program logic (e.g., sort algorithms, calendar generation, event recognition, and all processing actions that use or produce date values) that accommodates same century and multi-century formulas and date values; interfaces that supply data to and receive data from other systems or organizations accessing or using the RSS systems as of April 5, 2000 that prevent non-compliant dates and data from entering any State system; user interfaces (i.e., screens, reports, etc.) that accurately show 4 digit years; and assurance that the year 2000 shall be correctly treated as a leap year within all calculation and calendar logic.

With respect to the requirements of this Section II-I, Software Performance, the State acknowledges and agrees that the services do not include and that the Contractor will not be responsible for:

1. making changes, modifications, updates or enhancements to (a) any software or systems that are not part of the RSS software or systems, (b) any interfaces between (x) any software or systems that are not part of the RSS software or systems and (y) the RSS software or systems, (c) any software or systems for which the source code, copybooks, database definitions, JCL and documentation is unavailable, incomplete, missing or non-existent; or (d) any software or systems for which there are no commercially available tools to enable the Contractor to make changes, modifications, updates or enhancements to such software or systems;

2. any inaccuracies, delays, interruptions or errors (a) caused by interfaces between (x) any software or systems that are not part of the RSS software or systems and (y) the RSS software or systems, (b) occurring as a result of the Contractor receiving from any source, including the State, date data in a two digit year format, (c) occurring as a result of incorrect data or data from other systems, software, hardware, processes or third parties provided in a format that is inconsistent with the format and protocols established for RSS software or systems including date data in two digit format, even if such data is required for the operation of the RSS software or systems, (d) occurring as a result of incorrect data or data which does not conform to required input formats, (e) caused by software or systems provided by any third parties interfacing or doing business with the State that the Contractor is required to interface with in the Contractor's performance of the services, (f) occurring as a result of incorrect data or data from telecommunication hardware or systems, or (g) caused by changes, modifications, updates or enhancements made to the software or systems by parties other than by the Contractor (including the State);

3. any inaccuracies, delays, interruptions or errors caused by software or systems for which the State has provided or approved specifications which do not include an appropriate solution for such software or systems to avoid errors in processing related to dates; and

4. with respect to which the third party vendor refuses or fails to collaborate with the Customer or EDS, or both, to make them year 2000 compliant, EDS shall not be required to take any action with respect to third party items where there are any legal constraints (such as, but not limited to, a software license or copyright law rendering analysis or decompilation legally invalid or illegal).

II-J RIGHT TO OWNERSHIP

All tangible deliverables, consisting of data, materials, documentation, source code, prototypes, tables, application files, registry entries, application executable files, software libraries, and final custom software deliverables prepared or developed by the CONTRACTOR under this Contract shall belong exclusively to the State. The CONTRACTOR agrees to assign and hereby does assign to the State of Michigan all rights, title, ownership and interest in such tangible deliverables.

All Contractor software and documentation used in the performance of this Contract will be and remain Contractor's property, and the State will have no rights or interest therein. However, upon expiration or termination of this Contract, the Contractor will grant to the State a perpetual (subject to compliance with the applicable license), nontransferable, nonexclusive license to use, after the expiration date or the effective date of termination by the State, whichever is applicable, the object code form of any application software programs (including existing documentation) of the Contractor software (if any) then being used by the Contractor in performing the Services (other than those items of Contractor software being used at one or more Contractor data centers as part of the services) solely for the purpose of the State (or a third party provider assuming the obligations of the Contractor hereunder) performing the RSS/OLS services previously performed by the Contractor hereunder (the "Licensed Programs"), subject to the Contractor and the State entering into an agreement, in form and substance reasonably satisfactory to the Contractor and the State, containing such terms and conditions as may be appropriate. Notwithstanding

anything to the contrary in this Contract, such license will not include the right to use any software changes with respect to the Contractor software other than those in use at the time the license is granted.

All third party software used by the Contractor in the performance of this Contract will be and remain the property of the applicable third party vendor(s), and, as between the Contractor and the State, any software changes made by the Contractor thereto will be owned by the Contractor.

Notwithstanding anything to the contrary in this Section II-J, the Contractor, its personnel and its subcontractors shall be free to use and employ its and their general skills, know-how and expertise, and to use, disclose and employ any generalized ideas, concepts, know-how, methods, techniques or skills gained or learned during the course of performing services under the Contract, so long as it or they acquire and apply such information without disclosure of any confidential or proprietary information of the State and without any unauthorized use or disclosure of work product developed in connection with this Contract.

The STATE will not transfer the Retail Sales System nor any component thereof to any other organization, governmental agency or person for independent use by that organization, governmental agency or person.

Data created or obtained through the use of the Retail Sales System and the On-Line System shall be the property of the State. Contractor, its Subcontractors and employees will not modify, obtain, or make use of these data except as necessary in the execution of their duties under this contract. The Contractor will be responsible for maintaining positive policies and procedures for safeguarding the security of such data and may be liable civilly for negligent release of such information.

II-K MODIFICATION OF SERVICES

1. The Director of Purchasing reserves the right to modify this service during the course of the contract. Any changes in pricing proposed by the contractor resulting from possible modifications are subject to acceptance by the state.

If the State requests or directs the Contractor to perform any service or function that is consistent with and similar to the services required under this Contract, but which the Contractor reasonably and in good faith believes is not included within the scope of the Contractor's responsibilities and charges as set forth in this Contract, then, prior to performing such service or function, the Contractor shall promptly notify the State in writing that it considers such service or function to be an "Additional Service" for which the Contractor should receive additional compensation, specifying the basis for such claim. If the Contractor does not so notify the State, the Contractor shall have no right to claim thereafter that it is entitled to additional compensation for performing such service or function. If the Contractor seeks to claim compensation from the State for additional unanticipated costs incurred by it as a result of providing substantial lost efforts in support of fulfilling its contractual obligations because of the State's failure to perform its material responsibilities under this Contract, then the Contractor shall first provide to the State written notice of any such claim of performance failure by the State promptly after the occurrence of the event (performance failure) giving rise to the claim and prior to the Contractor incurring any additional costs for substantial lost efforts for which additional recompense from the State will be sought. If the Contractor does not timely notify the State, the Contractor shall have no right or entitlement to additional compensation from the State for any such unproductive, wasted or Additional Services, functions or the like arising out of or resulting from lost efforts or incurred prior to the submission of such notice.

Any disagreements between the parties arising under this Section II-K shall be resolved in accordance with the dispute resolution procedures in this Contract.

II-L GENERAL

The following constitutes the complete and exclusive statement of the agreement between the parties as it relates to this transaction:

A. The State terms and conditions as set forth in this MDNR Contract Extension to 071B5000207;

B. Contractor's February 17, 2006 proposal, which was incorporated into the Contract pursuant to Change Notice Number 60;

C. The relevant Change Notice Numbers associated with this MDNR Contract Extension 071B5000207 and the Contractor's February 17, 2006 proposal.

The failure of a party to insist upon strict adherence to any term of this contract shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term, or any other term, of the contract.

Personnel Resources

MDNR will provide and make available to EDS appropriate management and technical personnel of MDNR who will work with EDS and will perform, on a timely basis, those activities referenced in this Work Statement, the responsibility for which is required therein to be assumed by MDNR. In addition, MDNR will cooperate with EDS through making available such personnel, management decisions, information, authorizations, approvals and acceptances in order that EDS' performance of the EDS Services may be properly, timely and efficiently accomplished. MDNR's approval will be consistent with EDS' proposal and MDNR's approval will be timely and not be unreasonably withheld.

Third Parties

MDNR is responsible for ensuring that MDNR's business partners, including but not limited to MDNR buyers, supplier and application providers, complete their responsibilities in a timely manner.

Contract Changes

This contract may not be modified, amended, extended, or augmented, except by a writing executed by the parties hereto, and any breach or default by a party shall not be waived or released other than in writing signed by the other party.

Severability

Each provision of this contract shall be deemed to be severable from all other provisions of the contract and, if one or more of the provisions of the contract shall be declared invalid, the remaining provisions of the contract shall remain in full force and effect.

Applicable Law

This contract shall in all respects be governed by, and construed in accordance with, the laws of the State of Michigan.

II-M DISPUTE RESOLUTION

1. Informal Dispute Resolution

Any claim, counterclaim, or dispute between the State and Contractor arising out of or relating to the Contract shall be resolved as set forth herein. Any claim not timely submitted by the Contractor within the deadlines provided in the Contract, or if such deadline is not otherwise provided, more than ten days from the occurrence of the event which gives rise to the dispute, shall be deemed waived.

A claim is a properly and timely written demand or assertion by the State or the Contractor seeking an adjustment in Contract Price and or payment of monies due, an extension or shortening of Contract Time, the adjustment or interpretation of Contract terms, or any other relief arising under or relating to the Contract, which can only become a dispute after a determination by the State under the appropriate provision of the Contract.

For all Contractor claims seeking an increase in Contract price or adjustment to the Contract schedule, the Contractor shall submit an affidavit executed by Contractor's Project Manager, certifying that the claim is made in good faith, the amount claimed accurately reflects the adjustments in Contract price or schedule for which the Contractor believes the State is liable, and covers all costs of every type to which the Contractor is entitled from the occurrence of the claimed event, and supporting cost and pricing data are current, accurate, complete and represent the Contractor's best knowledge and belief.

a. If the Contractor's Project Manager and the Contract Administrator are unable to resolve disputes, the Contractor, upon the written request of a party, will appoint a designated representative(s) who does not devote substantially all of his or her time to performance under the Contract, whose task it will be to meet with the Master Contract Administrator or his successor for the purpose of endeavoring to resolve such dispute.

b. If the Contract Administrator or the successor and the designated Contractor representative(s) are unable to resolve the dispute, the Contractor's designated representative(s) will meet with the Contract Administrator and with the Director of Purchasing or his designee for the purpose of endeavoring to resolve such dispute.

c. The Contractor designated and State representative(s) shall meet as often as the parties reasonably deem necessary in order to gather and furnish to the other all information with respect to the matter in issue which the parties believe to be appropriate and germane in connection with its resolution. The representative(s) shall discuss the problem and negotiate in good faith in an effort to resolve the dispute without the necessity of any formal proceeding.

d. During the course of negotiations, all reasonable requests made by one party to another for non-privileged information, reasonably related to the Contract, will be honored in order that each of the parties may be fully advised of the other's position.

e. The specific format for the discussions will be left to the discretion of the designated State and Contractor representatives, but may include the preparation of agreed-upon statements of fact or written statements of position.

f. Formal proceedings for the resolution of a dispute may not be commenced until the earlier of:

(1) The designated representatives concluding in good faith that amicable resolution through continued negotiation of the matter does not appear likely; or

(2) Thirty (30) days after the initial request to negotiate the dispute; provided, however, that this provision will not be construed to prevent a party from instituting formal proceedings earlier to avoid the expiration of any applicable limitations period, or to preserve a superior position with respect to other creditors.

2. Formal Dispute Resolution

If the State and Contractor are unable to resolve any controversy relating to or arising under the Contract as contemplated by Paragraph 1, then either party shall have recourse in the Michigan State Courts as set forth herein. In the case of an action initiated by the Contractor against the State, such action shall be submitted to the Michigan Court of Claims; while in the case of an action by the State against the Contractor, such action shall be initiated in the applicable Michigan District or Circuit Court; provided however that the State reserves, as its sole option, the right to require that any particular claim for damages, whether it is initiated by the Contractor or the State, be submitted to mandatory and binding arbitration. Prior to commencing any action against the State in the Court of Claims, the Contractor shall request the State to inform the Contractor whether the controversy shall be resolved through litigation in the Court of Claims or by mandatory and binding arbitration. If the controversy is to be resolved by arbitration, then the following procedures shall apply:

a. Selection of Arbitrator

The party submitting the controversy to arbitration (the “Disputing party”) shall notify the American Arbitration Association in Detroit, Michigan (AAA) and the other party in writing describing in reasonable detail the nature of the dispute (the "Dispute Notice"), and shall request that AAA furnish to the parties a list of nine (9) possible arbitrators who shall be licensed to practice law in the United States, who shall not have any conflict of interest, and who shall have at least five (5) years of experience in end user computing and data processing matters. Each party shall have fifteen (15) days to reject three (3) of the proposed arbitrators. If three (3) individuals have not been so rejected, they shall serve as arbitrators; if four (4) or more individuals have not been so rejected, the AAA shall select the three (3) arbitrators from those individuals.

b. Conduct of Arbitration

Arbitration will be conducted by the arbitrators selected pursuant to Subparagraph (a) above with respect to the dispute described in the Dispute Notice and any other disputes related to the Contract between the parties to the Contract (A) pending at the inception of such arbitration and not otherwise being arbitrated under this Paragraph or (B) arising during the pendency of such arbitration, in accordance with the Commercial Arbitration Rules of the AAA, except as specifically provided otherwise in this Paragraph. The arbitrators will allow reasonable discovery as otherwise set forth pursuant to the Michigan Rules of Court, except that the arbitrators may limit or extend the time limits and/or extent of said discovery consistent with the purposes and nature of the specific arbitration at issue. The arbitrators will have no power or authority, under the

Commercial Arbitration Rules of AAA or otherwise, to amend or disregard any provision of the Contract. The arbitration hearing shall be limited to not more than ten (10) hearing days, with each of the parties being allocated one-half of the time for the presentation of its case. Unless otherwise agreed to by the parties, an arbitration hearing shall be conducted on consecutive business days.

c. Replacement of Arbitrator

Should an arbitrator refuse or be unable to proceed with arbitration proceedings as called for by this Paragraph, the arbitrator shall be replaced by an arbitrator selected from the other arbitrators originally proposed by AAA and not rejected by the parties, if any, or if there are no remaining proposed arbitrators who have not been rejected, by repeating the process of selection described in Subparagraph (a) above. If an arbitrator is replaced pursuant to this Subparagraph (c), then a rehearing shall take place in accordance with the provisions of this Paragraph and the Commercial Arbitration Rules of AAA.

d. Findings and Conclusions

The arbitrator rendering judgment upon disputes between the parties to the Contract shall, after reaching judgment and award, prepare and distribute to the parties a writing describing the findings of fact and conclusions of law relevant to such judgment and award and containing an opinion setting forth the reasons for the giving or denial of any award. The parties agree that the arbitrator's opinion shall be a confidential document subject to the confidentiality obligations contained in the Contract.

e. Place of Arbitration Hearings

Arbitration hearings shall be held in Lansing, Michigan.

f. Time of the Essence

The arbitrators are instructed that time is of the essence in the arbitration proceeding, and that the arbitrators shall have the right and authority to issue monetary sanctions against either of the parties if, upon a showing of good cause, that party is unreasonably delaying the proceeding. The arbitrators shall render their judgment or award within fifteen (15) days following the conclusion of the arbitration proceeding. The judgment or award of the arbitrators shall be final and binding on the parties, and judgment thereon may be entered or enforced in any court having jurisdiction thereof or having jurisdiction over either of the parties or their assets.

3. Injunctive Relief

The only circumstance in which disputes between the State and the Contractor will not be subject to the provisions of Paragraph (1) above is where a party makes a good faith determination that a breach of the terms of the Contract by the other party is such that the damages to such party resulting from the breach will be so immediate, so large or severe and so incapable of adequate redress after the fact that a temporary restraining order or other immediate injunctive relief is the only adequate remedy.

4. Continued Performance

The Contractor agrees to continue performing its obligations under the Contract while any dispute is being resolved unless and until the termination or expiration of the Contract terminates such obligations.

5. Governing Law

The provisions of the Contract shall be construed in accordance with the substantive laws of the State of Michigan without regard to its choice of law rules.

6. Jurisdiction

The Contractor irrevocably consents to the exclusive jurisdiction of the Court of Claims and to venue in Ingham County, Michigan, and irrevocably waives any objections it may have to such jurisdiction on the grounds of lack of personal jurisdiction of such court or the laying of venue of such court or on the basis of forum nonconveniens or otherwise. The Contractor agrees to appoint agents in the State of Michigan to receive service of process.

II-N AUDIT RIGHTS

1. General. Employees of the State who agree in writing to the security and confidentiality obligations and procedures reasonably required by the Contractor will be provided with reasonable access to any facility at which the services under this Contract are being performed to enable them to conduct audits of the Contractor's performance of the services and other matters relevant to this Contract, including (i) verifying the accuracy of the Contractor's charges to the State and (ii) verifying that the services are being provided in accordance with this Contract.

2. Procedures. Such audits may be conducted once a year during reasonable business hours; provided, however, that the Parties may agree to more frequent audits as deemed reasonably necessary. The State will provide the Contractor with prior written notice of an audit. The Contractor will cooperate in the audit, will make the information reasonably required to conduct the audit available on a timely basis and will assist the designated employees of the State. If the State requests resources beyond those resources then assigned to the account team who are able to provide reasonable assistance of a routine nature in connection with such audit, such resources will be provided as additional service at the Contractor's then current commercial billing rates for any such services. Notwithstanding anything to the contrary in this Contract, the Contractor will not be required to provide access to the proprietary data of the Contractor or other customers of the Contractor. All information learned or exchanged in connection with the conduct of an audit, as well as the results of any audit, shall be treated as confidential and shall not be disclosed to any third party unless required under FOIA.

3. Results. Following an audit, the State will conduct an exit conference with the Contractor to discuss issues identified in the audit that pertain to the Contractor, and the State will give the Contractor a copy of any portion of the audit report pertaining to the Contractor. The Parties will review each Contractor audit issue and will determine (i) what, if any, actions will be taken in response to such audit issues, when and by whom and (ii) which Party will be responsible for the cost of taking the actions necessary to resolve such issues. Any such determination will be based on the following criteria: (A) who the owner of the original deficiency is; (B) who has contractual responsibility for the improvement of internal controls; and (C) who owns the standards against which the audit is done. The Contractor will not be responsible for the cost of an audit, unless otherwise agreed to in writing by the Parties.

EDS will support a SAS 70 audit performed by a third-party firm. The audit will be performed on the EDS hosted operational environment supporting the RSS application. This is the normal activity for a SAS 70 audit. The State will bear the cost of any third party audits. Note that EDS performs SAS 70 audits on its total Service Management Center (SMC) hosting environment on a periodic basis and these reports are available to the State at no cost.

II-O FORCE MAJEURE

Neither party will be liable to the other or be deemed to be in breach of this Contract for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence.

Such causes may include, but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight, embargoes and unusually severe weather. If the Contractor's failure to perform is caused by the default of a subcontractor, and if such default arises out of causes beyond the reasonable control of both the Contractor and subcontractor, and without the fault or negligence of either of them, the Contractor shall not be liable for any excess costs for failure to perform, unless the equipment or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Contractor to meet the required delivery schedule.

Dates or times of performance will be extended to the extent of delays excused by this Section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

II-P LIQUIDATED DAMAGES

It is agreed by the State and Contractor that:

If the Contractor does not provide or perform the requirements referred to or listed in this Contract, damage to the State will result.

Proving such damages will be costly, difficult, and time consuming;

The damage amounts listed in this section represent a good faith effort to quantify the range of harm that could reasonably be anticipated at the time of the making of the contract.

Nothing in this provision shall be construed as relieving the Contractor from performing all contract requirements whether listed herein or not, nor as diminishing the State's right to enforce or to seek other remedies from failure to perform any other contract duty.

The Department will monitor Contractor performance and determine liquidated damage claims based on the Contractor's development project plans and status reports and on data in the Retail Sales System.

Once the Department has determined that liquidated damages are to be assessed, the Contract Administrator shall notify the Contractor of the assessment (or assessments). Any liquidated damages assessment may be collected, at the Contract Administrator's discretion, by withholding the funds from any payment (or payments) due the Contractor (under this contract) after the date of assessment or by directing the Contractor to make payment of the assessment to the Department. If payment is directed, the Contractor shall pay the assessment within thirty (30) calendar days of receipt of the assessment notice.

If the Contractor wishes to appeal a liquidated damages assessment, the Contractor must deliver that appeal in writing to the Department's Contract Administrator and the Director of Purchasing within 15 calendar days of receiving notice of the assessment. The Director of Purchasing shall be sole judge of such appeal and will make determination of the issue within 14 calendar days of receiving the appeal. If the Director of Purchasing determines that any damage was caused in part by the State, the Contract Administrator shall reduce damage assessment against the Contractor proportionately. Financial settlement, by either party, of appealed liquidated damages assessments will be made within thirty calendar days of the Director of Purchasing's decision concerning the appeal.

Once the Contract Administrator has assessed liquidated damages for a persistent or recurrent problem, the State will withhold disputed payment to the Contractor or receive payments from the Contractor monthly for damages occurring in the preceding month, until the condition is corrected. As determined appropriate by the Contract Administrator, the Contractor may obtain relief from the continued assessment of liquidated damages under the following conditions:

Except as waived by the Contract Administrator, no liquidated damages imposed on the Contractor shall be terminated or suspended until the Contractor has issued a written notice of correction to the Contract Administrator verifying the correction of condition(s) for which liquidated damages were imposed, and all the Contractor corrections have been subjected to system testing, documentation, or other verification at the discretion of the State's Contract Administrator.

If any portion of this liquidated damages provision is determined to be unenforceable in one or more of its applications, all applications not determined to be invalid that are severable from the invalid applications remain in effect. If any portion of this liquidated damages provision is determined to be unenforceable in total, the other portions of this provision shall remain in full force and effect.

Liquidated damages shall not be assessed due to the following circumstances: scheduled down-time; services during any disaster recovery period; any suspensions of service mutually agreed to by the State and the Contractor; and any other factors outside the reasonable control of the Contractor.

There shall be no concurrent applications of liquidated damages resulting due to cascading failures resulting from a single failure; in the event of cascading Contractor failures resulting from a single failure, the State will be entitled to assess the highest single liquidated damage amount only, not to exceed $1,000 per day, and the maximum amount of aggregated liquidated damages payable by the Contractor over any twelve (12) month period is one hundred thousand dollars ($100,000).

The following conditions will result in assessment of liquidated damages:

1. **POS Uploads**:

Condition: All installed store-and-forward POS terminals that are operational and connected to a working phone line are unable to poll and upload sales data within 24 hours following the date of the scheduled poll time. If such data are successfully retrieved but not fully processed, this condition does not apply. Note that this condition does not apply to failures of individual terminals. Damages will not be assessed if store-and-forward operations fail due to common-carrier telephone system failure or utility failures beyond control of the Contractor, or hardware failure that is the responsibility of MDNR.

Damage: No damages shall be assessed for the first 24 hours after Retail Sales System's failure to complete store-and-forward operations. After such 24 hour period has run, for each day or fraction thereof, the Retail Sales System is unable to complete store-and-forward operations, the Contract Administrator may assess liquidated damages of a minimum of $100 per day up to a maximum of 1/365 of the then current rate of return on the State's common cash fund times the total sales amount within the delinquent upload files.

The intent is to ensure that POS software ensures that the terminal polls periodically consistent with the scheduled poll time. Liquidated damages shall not be assessed should an agent prevent the terminal from polling that is not the fault of the contractor.

Performance can be determined by a query comparing the terminal's scheduled polling time on terminal_polling_schedule table to the actual time of upload on the session_log table. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

2. **POS Host Authorizations**:

Condition: The Retail Sales System is unable to respond to POS terminals that communicate to complete on-line host authorizations, void requests and replacement requests.

Damage: Excluding any scheduled down time and schedule maintenance windows, the Contract Administrator may assess liquidated damages of a minimum of $100 per day up to a maximum of 1/365 of the then current rate of return on the State's common cash fund times the total sales amount of on-line host authorization required sales from the POS on the same date of the previous year. No damages shall be assessed for the first 5 hours that the RSS is unable to complete on-line host authorizations. Damages will not be assessed if online transactions fail due to common-carrier telephone system failure or utility failures beyond control of the Contractor, or hardware failure that is the responsibility of MDNR.

Performance can be determined by a query of the authorization_log table for POS terminal keys. EDS has implemented a 'fake' host authorization process, so that a POS terminal will perform an authorization every 15 minutes. If there is a period where there is not an authorization logged within a 15 minute period, it will indicate the period of time where on-line host communication was disrupted. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

3. **E-License Host Authorizations**:

Applicability: Once MDIT assumes responsibility for operational support and development of the E-License application, EDS will only be responsible for providing the production server support and the connection to the database server. As such, once MDIT assumes responsibility for operational support and development of the E-License application, EDS shall not be responsible for any performance issues related to any application failure of E-License and EDS shall no longer be responsible for any liquidated damages set forth in this Section II-P(3).

Condition: During the period of time within which EDS assumes responsibility for operational support and development of the E-License application the E-License is unable to perform host authorizations during the normal service window of the Retail Sales System.

Damage: Excluding any scheduled down time and schedule maintenance windows, and application failures of E-License after MDIT assumes responsibility of E-License, the Contract Administrator may assess liquidated damages of a minimum of $100 per day up to a maximum of 1/365 of the then current rate of return on the State's common cash fund times the total sales amount of on-line host authorization required sales from E-License on the same date of the previous year. Such damages will not be assessed if host authorizations fail due to common-carrier telephone system failure or utility failures beyond control of the Contractor, or hardware failure that is the responsibility of MDNR, or application errors within E-License after MDIT assumes responsibility of the application. No damages shall be assessed for the first 24 hours after EDS is notified by MDIT of E-License's inability to perform such host authorizations due to non-application issues.

Performance can be determined by a query of the authorization_log table for E-License terminal keys. EDS has implemented a 'virtual' host authorization process, so that E-License will perform an authorization every 15 minutes. If there is a period where there is not an authorization logged within a 15 minute period, it will indicate the period of time where on-line host communication was disrupted. This communication disruption condition creates an alert that will send an electronic page to the application support personnel. Once MDIT takes over responsibility of the E-License application, MDIT will receive these pages and be the first line of error investigation to determine the cause of disruption of service. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

4. **POS Sales transactions processed in RSS**:

Condition: The RSS is unable to process and record the POS sale, void, and replacement transactions from successful upload files within 48 hours of the time of the successful upload of the sales transactions.

Damage: No damages shall be assessed for the first 48 hours after the successful file has been uploaded to the Communication Server. No damages shall be assessed for the first 72 hours during peak sales periods if the volume of sales transactions surpasses 90,000 sales for one day. After such delinquent period has run, for each day or fraction thereof, the Retail Sales System is unable to process the upload file, the Contract Administrator may assess liquidated damages of a minimum of $100 per day up to a maximum of 1/365 of the then current rate of return on the State's common cash fund times the total sales amount within the delinquent upload files. Damages will not be assessed if host authorizations fail due to common-carrier telephone system failure or utility failures beyond control of the Contractor, or hardware failure that is the responsibility of MDNR.

Performance can be determined by a query comparing the process_start_time with the session_start_time on the job_control table. This will show the elapsed time from the time the upload file was recorded to the time the transactions in the file were processed. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

5. **E-License Sales transactions processed in RSS**:

Condition: The RSS is unable to process and record the E-License sales transactions that have been recorded in OLS_DB, within 24 hours of the transaction time on E-License.

Damage: No damages shall be assessed for the first 24 hours after the successful nightly transfer of E-License sales data to RSS. After such 24 hour period has run, for each day or fraction thereof, the Retail Sales System is unable to process the E-License sales transactions, the Contract Administrator may assess liquidated damages of a minimum of $100 per day up to a maximum of 1/365 of the then current rate of return on the State's common cash fund times the total sales amount within the delinquent upload files. Damages will not be assessed if a processing failure is beyond the control of the Contractor, or a failure is due to a hardware malfunction that is the responsibility of MDNR.

Performance can be determined by a query comparing the transaction_timestamp (records when the transaction was logged in RSS) on license_issued table and the transaction_date (when the transaction was sold) on license_issued. This will show the elapsed time from the time the E-License batch of sales were transferred to the time the transactions in the batch were processed. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

6. **E-License Print file created**:

Condition: The RSS is unable to create a print file for the E-License sales transactions within 24 hours of the transaction processing time on RSS.

Damage: No damages shall be assessed for the first 24 hours after the successful processing of E-License sales data into RSS. After such 24 hour period has run, for each day or fraction thereof, the Retail Sales System is unable create the E-License print file, the Contract Administrator may assess liquidated damages up to the total amount of sales amount of the delinquent transactions that were to be printed. Damages will not be assessed if a processing failure is beyond the control of the Contractor, or a failure is due to a hardware malfunction that is the responsibility of MDNR.

Performance can be determined by a query comparing the transaction_timestamp (records when the transaction was logged in RSS) on license_issued table and the batch_key date on the OLS_print_detail table. This will show the elapsed time from the time the E-License batch of sales were logged as processed to the time the transactions in the batch were written to the file. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

7. Retail Sales System Funds Collection

Condition: The Retail Sales System is unable to create an electronic funds report according to planned schedules.

Damage: There will be no liquidated damages assessed for the first seven days after which the Contractor is unable to create an EFT report and misses a scheduled EFT date. After the first seven days of a missed EFT date, the Contract Administrator may assess liquidated damages per day of 1/365 of the then current rate of return on the State's common cash fund times the uncollected amount. Damages will not be assessed if a

processing failure is beyond the control of the Contractor, or a failure is due to a hardware malfunction that is the responsibility of MDNR.

Performance can be determined by a query comparing the date_stamp on the process_log table (recording the successful run of the batch job that creates the EFT) to the scheduled run date. MDNR contract administrator does not require a daily report to prove compliance. A report can be generated once a known problem exists to document non-compliance duration and amount.

8. **E-License Continuity of Operations**:

Applicability: Once MDIT assumes responsibility for operational support and development of the E-License application, EDS will only be responsible for E-License Server up-time. As such, once MDIT assumes responsibility for operational support and development of the E-License application, EDS shall not be responsible for any application up-time performance issues related to the availability and/or functionality of E-License and EDS shall no longer be responsible for any liquidated damages set forth in this Section II-P(8).

Condition: During the period of time within which EDS assumes responsibility for operational support and development of the E-License application the E-License System is not available and functioning as designed.

Damage: Excluding any scheduled down time and schedule maintenance windows, and any availability failures of E-License that occur after MDIT assumes responsibility of E-License, the Contract Administrator may assess liquidated damages of $100.00 per day if the E-License System is not available for use within the application availability percentage reflected in Section IV-C(12). Such liquidated damages shall not be assessed (a) if the situation is covered in Condition 3 as set forth in Section II-P(3) above; (b) if the availability issue is related to any PayFlow service downtime which would prohibit credit card authorizations; or (c) for failures due to common-carrier telephone system failure or utility failures beyond control of the Contractor, or hardware failure that is the responsibility of MDNR. No damages shall be assessed for the first 24 hours after E-License's inability to provide such service.

9. **RSS Unauthorized Software/Hardware Modifications**:

Condition: The Contractor shall not modify any software or equipment without the prior written consent of the Contract Administrator or his designee pursuant to the Change Management procedure described herein. The Contractor shall not violate the data security provisions of this contract.

Also any change made by Contractor where consent is not granted by the MDNR should be viewed on a case-by-case basis. Should the change be negative to RSS, system operation or MDNR, the intent of the change would need to be identified to determine if it was a malicious act or merely an accidental error.

Software shall be subject to a formal release process which documents all software changes and requires MDNR sign-off. Any on-the-fly changes to the software needed to correct a problem will be subject to an informal e-mail exchange by the Contract Administrator and the EDS Project Manager. All changes will be documented by the MDNR Contract Administrator.

Damage: The Contract Administrator may issue a written order that the change or modification be removed within seven days and the system restored to its previous operating condition and that any consequent data errors be corrected at the Contractor's expense. Further, the Contract Administrator may assess liquidated damages up to the amount of $10,000 per violation to compensate the State for the extra costs of supervising the Contractor which it expects to incur as a result of this condition. Assessment of liquidated damages under this provision will be in addition to any damages for discontinuity of operations or other conditions provided herein.

10. **Faults in Retail Sales System Windows application, batch application, RSS database, or POS application, or Custom Software**:

Condition: A fault in system integration, system enhancement or custom software development is discovered by the Contract Administrator or Contractor. MDIT will be responsible for E-License application performance when E-License is transitioned from EDS to MDIT.

Damage: Excluding any fault resulting from or related to the E-License application once MDIT has taken over responsibility of the E-License, the Contract Administrator may issue a written order that the fault be corrected and that any consequent data errors be corrected within an agreed to time period at the Contractor's expense. Further, except for any fault resulting from or related to the E-Licensing application once MDIT has taken over responsibility of the E-License, the Contract Administrator may assess liquidated damages up to the amount of $5,000 per violation to compensate the State for the extra costs of supervising the Contractor which it expects to incur as a result of this condition. Assessment of liquidated damages under this provision will be in addition to any damages for discontinuity of operations or other conditions provided herein.

II-Q TITLE

Title to the equipment, accessories and devices leased or purchased under this Contract shall remain with the Contractor until the State makes the final payment; at that time title will pass to the State. The State will be responsible for paying all return shipping expenses. Equipment used to host RSS in the EDS AOPS will not pass to the State at the end of this Contract.

II-R KEY PERSONNEL

The State of Michigan reserves the right to approve substitutions to the proposed staffing table. Replacements must meet or exceed the qualifications of the replaced personnel. This approval will not be unreasonably withheld.

Team Member	Primary Responsibility and Support Areas
Alderson, Jeanne	Operations Manager and Contract Manager, RSS SME
Ayriss, Sandra	Batch, Financials SME, Systems Operator
Burgering, Marcia	RSSWin, Drawings SME, Systems Operator
Gruner, Dave	E-License, Technical Lead, Systems Operator
Knapp, Cliff	DBA
Kuzee, Dennis	POS, DBA backup, Systems Operator
Oldham, John	Project Manager , Systems Operator
Shurlow, Bill	E-License, RSSWin, Systems Operator
Warner, Sue	POS, Batch, Systems Operator

SECTION III
WORK STATEMENT
RETAIL SALES SYSTEM

III-A PROBLEM STATEMENT

The Purpose of this agreement is to extend the relationship between Electronic Data Systems Corporation (EDS) and MDNR for the continued maintenance, operations, support and enhancement of the MDNR Retail Sales System developed under contract #071B5000207. Collectively, the MDNR retail sales system and E-License are referred to as the Retail Sales System (RSS).

EDS will be responsible for RSSWIN, RSS batch, RSS databases and POS application, and the transition of E-License and OLS_DB application support, maintenance and enhancement to MDIT. Once the transition is completed, EDS will no longer be responsible for the E-License application. EDS will continue to be responsible for hosting E-License and its associated database; OLS_DB. See Section III-B for definitions of responsibility.

This agreement provides hosting services for RSS in EDS Automated Operations Centers (EDS Data Centers referred to as AOPS). EDS will continue to provide a RSS production hosting environment that is secure, managed and monitored 24x7x365, for the entire contract period. However, the MO/DR architecture will be discontinued in EDS' Tulsa AOPS facility, and MDIT will establish a MO/DR hosting environment in Lansing, MI that is identical in function to the one being discontinued in EDS' Tulsa AOPS facility. EDS will continue to host RSS MO/DR on a monthly basis in Tulsa until MDIT has established the Lansing facility.

EDS, itself, and through its wholly-owned subsidiaries, including EDS Information Services, L.L.C., will provide the services to the State as more fully described in this Statement of Work. All references to EDS, Contractor, Prime Contractor, CONTRACTOR, Vendor, offeror or bidder in this agreement shall be deemed to include all such subsidiaries.

RSS has been used by the MDNR since November 7, 1994 and utilizes three different applications to manage and issue licenses. The RSS client server application is used by the MDNR to manage 100+ different license types and uses a network of over 1,500 License Agents. These License Agents use over 1,700 POS terminals throughout Michigan, five surrounding States and Ontario. The POS terminals consist of a credit card style terminal with an internal receipt printer, a thermal transfer license printer, and a PC keyboard which connect to the RSS client by toll-free dial-up through a Verizon X.25 network. The E-License application provides a web site for the public to purchase licenses via the internet.

RSS System Release 6.4 is the basis for the current services being provided to the MDNR by EDS.

III-B OBJECTIVES

The objectives include the following:

1. Transfer the E-License application operations, support, maintenance, and application enhancements, including OLS_DB support, maintenance and enhancements from EDS to MDIT by the end of March 2007. Provide subject matter training to MDIT during the transition. After the transition has been completed, the 0.5 FTE EDS support currently included in the contract for E-License support will be eliminated from the Contract. EDS will continue to host E-License and OLS_DB production services in Plano, TX.

- After the transfer of E-License, EDS will have the following E-License application responsibilities:
  - Provide MDIT with proper authorization for production E-license application access;
  - Notify MDIT of RSS changes that impact the E-License application; and
  - Add MDIT to the E-license application error alert notification.
- After the transfer of E-License, MDIT will have the following E-License application responsibilities:
  - Develop, support and install E-License web pages;
  - Develop, support and install the OLS.dll;
  - Respond to production alert pages created from E-license application failures on a 7x24x365 support basis; and
  - Work with MDNR to ensure E-License modifications are coordinated with RSS modifications performed by EDS.
- After the transfer of E-License, MDIT will have the following OLS_DB database responsibilities:
  - Add, delete and update the existing tables;
  - Add or deletion tables to OLS_DB;
  - Create, deletion, or modifiy Stored Procedures; and
  - Provide DBOwner Authorization to OLS_DB.
- After the transfer of E-License, EDS will have the following OLS_DB database responsibilities:
  - Provide OS patches;
  - Provide SQL Patches;
  - Provide File space maintenance;
  - Perform DB backups; and
  - Add or Delete Users to OLS_DB.

2. Continue current operations in the areas of maintenance, operations, user support and enhancements to RSS for RSS Databases, RSS Windows application, RSS batch, and POS application. Provide ongoing RSS Production support on a 24x7x365 basis. This service will be provided from January 1, 2007 through June 30, 2008 by EDS.

3. Continue RSS Production hosting environment in Plano, Texas AOPS, with the current hardware and Windows 2000 OS. This service will be provided from January 1, 2007 through June 30, 2008 by EDS. Refer to Attachment B for the specific technical architecture of the production hosting environment.

4. Discontinue the EDS RSS MO/DR hosting environment in the Tulsa, Oklahoma AOPS. This Service will be provided by MDIT after the State's request to decommission Tulsa MO/DR hosting as stated in Section II-E (h).

III-C TASKS

1. *System Operations, Maintenance, and User Support*

These services apply to RSS Production Hosting in Plano, EDS hosting of MO/DR in Tulsa, and MDIT hosting of MO/DR in Lansing. Services and responsibilities apply to the provider of the services during the contracted months of hosting. Once MDIT has full responsibility for MO/DR hosting in Lansing, EDS will no longer be responsible for hosting services in Tulsa.

a. Operations and Maintenance Service Hours and Service Request Procedure for RSS servers.

1) Operational Hours. EDS will support the State's dedicated servers in EDS' AOPS hosting environments on a 24x7x365 basis.

2) Service Request Procedure. Except with regard to MO/DR hosting or applications errors occurring after MDIT has taken over responsibility for MO/DR hosting and E-License applications errors occurring after MDIT has taken over responsibility for E-License, EDS will respond to a service request for hosting or application errors within one hour when the call is placed during the Operational Hours. A mutually agreed to code will be used to identify the call as a MDNR service request. The MDNR Contractor or designee(s) will use the following steps when making the call:

- Page the EDS Systems Operator (at the 24x7x365 LSC Operations Help Desk);
- If there is no response after 15 minutes, page again;
- If there is no response after 15 minutes, page the EDS Operations Manager (secondary contact person);
- If there is no response after 15 minutes, page again; and
- If there is no response after 15 minutes, call or page the Client Delivery Executive.

b. Operation and Maintenance Responsibilities

1) **Infrastructure Services and Facilities and Asset Management:**
Infrastructure Services are those services directly related to the management of the physical environment within the Data Center locations. Facilities management provides services to manage facilities owned by EDS.

EDS Responsibilities

EDS will perform the following tasks:

1. Maintain engineering design and facility environmental systems and manage all aspects of the EDS Data Center, consisting of supervision of all subcontractor maintenance activities;

2. Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities for the EDS Data Center to meet agreed upon Web hosting environment requirements; and

3. Maintain physical security of the EDS Data Center.

MDNR Responsibilities

MDNR will perform the following tasks:

1. MDNR or MDNR representative(s) will conform to EDS security policies during all site visits or audits.

MDIT Responsibilities

It is expected that MDIT will:

1. Maintain engineering design and facility environmental systems and manage all aspects of the State Data Center, consisting of supervision of all subcontractor maintenance activities;

2. Provide for and maintain adequate facility environmentals, consisting of floor space, power, electrical, air conditioning, uninterruptible power supply (UPS), and diesel generator backup facilities for the State Data Center to meet agreed upon Web hosting environment requirements; and

3. Maintain physical security of the State Data Center

2) **Managed Network Services**

This Section describes services to support the dedicated network infrastructure. The dedicated network infrastructure is the set of network devices that are deployed in the Client Compartment (e.g., switches, load balancers, firewalls and/or remote access devices). Managed Network consists of the following:

- Dedicated Network;
- Bandwidth;
- Manage VPN Services; and
- DNS Management.

a) Dedicated Network

Dedicated Network describes the Managed Network services required to support the dedicated network infrastructure between the Data Centers and the Internet and consists of monitoring and troubleshooting services.

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor availability and performance of network connection from EDS Data Centers to neighboring Internet Service Provider (ISP) peers;

2. Monitor EDS network and EDS-managed network devices;

3. Monitor VPN tunnel;

4. Respond to and repair problems on EDS-managed network devices;

5. Respond to and repair connectivity problems over EDS network, RSS compartment, and the Internet;

6. Update network device OS as necessary (see III-B 3. for restrictions on OS upgrades); and

7. Conduct Capacity planning for EDS network and network devices.

MDNR Responsibilities

MDNR will perform the following tasks:

1. Submit a change request as needed to add or remove hardware

MDIT Responsibilities

It is expected that MDIT will:

1. Monitor availability and performance of network connection from MDIT Data Centers to neighboring Internet Service Provider (ISP) peers;

2. Monitor MDIT network and MDIT-managed network devices;

3. Respond to and repair problems on MDIT-managed network devices;

4. Respond to and repair connectivity problems over MDIT network, RSS compartment, and the Internet;

5. Update network device OS as necessary within the mutually acceptable schedule as to keep in sync with EDS' Production environment ; and

6. Conduct Capacity planning for MDIT network and network devices

b) Bandwidth Service

Bandwidth Service provides Internet connectivity between the Client Compartment and the Internet.

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor bandwidth and routing between EDS Data Center and its ISPs; and

2. Respond to and repair problems between EDS Data Center and its ISPs.

MDNR Responsibilities

MDNR will perform the following tasks:

3. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

4. Monitor bandwidth and routing between MDIT Data Center and its ISPs; and

5. Respond to and repair problems between MDIT Data Center and its ISPs.

c) Intranet / Internet VPN Service

Managed Virtual Private Network (VPN) Service is a site-to-site solution for secure communications over a private (intranet) or public (Internet) network that consists of a connection between two networking devices, router-to-concentrator and firewall-to-concentrator.

EDS Responsibilities

EDS will perform the following tasks:

1. Provide proactive network management for the detection, isolation and restoration of network faults within the EDS AOPs hosting environments;

2. Perform Configuration Management for all WAN network devices consisting of configuration changes necessary because of moves, adds and changes within the EDS AOPs hosting environments;

3. Establish security privileges, maintain passwords and control who and what level of access is allowed to RSS network and network devices within the EDS AOPs hosting environments;

4. Provide service coordination and management of third-party service providers of MDNR consisting of exchange carriers, hardware providers and software providers within the EDS AOPs hosting environments;

5. Administer and coordinate the physical and logical configuration of the VPN within the EDS AOPs hosting environments;

6. Provide planning, engineering, installation and maintenance support for the Managed VPN Service within the EDS AOPs hosting environments;

7. Serve as the single-point-of-contact (SPOC) for install, move, add and change as well as fault notification and resolution for the communications network components within the EDS AOPs hosting environments;

8. Provide integration support for new network security management solutions within the EDS AOPs hosting environments;

9. Monitor for capacity, performance and capability within the EDS AOPs hosting environments;

10. Provide centralized monitoring of the VPN circuit capacity, network performance, network availability and configuration management within the EDS AOPs hosting environments;

11. Provide Virtual Private Network fault isolation, ownership, trouble ticket generation and management of the recovery of network-related problems, consisting of interface with carrier and other client vendors for circuits, firewall, modems and routers for the EDS-controlled and managed portion of the VPN tunnel;

12. Respond to security alerts for VPNs and routers based on pre-set thresholds according to AOPS guidelines within the EDS AOPs hosting environments;

13. Provide Virtual Private Network installation of router software “patch or fix” upgrades as determined by EDS within the EDS AOPs hosting environments; and

14. Perform Virtual Private Network change requests in accordance with the mutually agreed change request process jointly defined by MDNR and EDS.

MDNR Responsibilities

MDNR will provide a list of authorized approvers to request changes to the documented services. Any financial liability resulting from inappropriate use of this product is the responsibility of MDNR.

MDIT Responsibilities

It is expected that MDIT will:

1. Manage the VPN hardware at the State end of the VPN tunnel;
2. Notify EDS before moving any communications-related equipment or devices. Failure to notify EDS before the movement of any such equipment or devices will not count against the EDS service levels;
3. Make certain that communications products are used as intended;
4. Maintain responsibility for MDNR owned, embedded premises wiring, optical or coaxial cabling and wireless hardware;
5. Assume liability for damages to assets within the MDIT hosting environments;
6. Provide proactive network management for the detection, isolation and restoration of network faults within the MDIT hosting environments;
7. Perform Configuration Management for all WAN network devices consisting of configuration changes necessary because of moves, adds and changes within the MDIT hosting environments;
8. Establish security privileges, maintain passwords and control who and what level of access is allowed to MDNR network and network devices within the MDIT hosting environments;
9. Provide service coordination and management of third-party service providers of MDNR consisting of exchange carriers, hardware providers and software providers within the MDIT hosting environments;
10. Administer and coordinate the physical and logical configuration of the VPN within the MDIT hosting environments;
11. Provide planning, engineering, installation and maintenance support for the Managed VPN Service in coordination with EDS;
12. Serve as the single-point-of-contact (SPOC) for install, move, add and change as well as fault notification and resolution for the communications network components within the MDIT hosting environments;
13. Provide integration support for new network security management solutions within the MDIT hosting environments; and
14. Monitor for capacity, performance and capability within the MDIT hosting environments.

d) Domain Name Service (DNS) Management

DNS – Domain Name Service is the Service to direct Internet traffic to the MDNR ’s hosted web site by managing MDNR domains on hosted domain name servers.

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor and maintain primary and secondary DNS servers within the EDS AOPs hosting environments;

2. As necessary, inform MDNR of IP or name changes for primary and secondary DNS servers within the EDS AOPs hosting environments;

3. As requested, redirect traffic from one Web address to another within the EDS environment;

4. Renew domain(s) registration (for the Production domain) within the EDS AOPs hosting environments;

5. Update names and IPs for EDS DNS servers as necessary or required; and

6. Register domain(s) with InterNIC, including names and IPs for EDS DNS servers.

MDNR Responsibilities

MDNR will perform the following task:

1. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

2. Monitor and maintain primary and secondary DNS servers within the MDIT hosting environment;

3. As necessary, inform MDNR of IP or name changes for primary and secondary DNS servers within the MDIT hosting environment;

4. As requested, redirect traffic from one Web address to another within the MDIT hosting environment;

5. Renew domain(s) registration (for the testing domain) within the MDIT hosting environment;

6. Update names and IPs for MDIT DNS servers as necessary or required; and

7. Register domain(s) with InterNIC, including names and IPs for MDIT DNS servers.

3) Managed Server Services

Managed Server Services provides MDNR with a foundation on which to build its site. The Service consists of the ongoing monitoring and management Services for the hardware and OS. (see III-B 3. for restrictions on OS upgrades)

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor server hardware within the EDS AOPs hosting environments

2. Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches within the EDS AOPs hosting environments. Continue to support Windows 2000 on the existing servers.

3. Upgrade operating systems as required by OS software vendors to maintain version currency and ongoing OS vendor support at no additional expense within the EDS AOPs hosting environments. OS will remain at Windows 2000 through the extension period of January 1, 2007 through June 30, 2008. EDS will provide resolution of service issues caused by Windows 2000 OS on a ”best effort” basis.

4. OS security patch management. Apply patches as required to maintain version currency and ongoing OS vendor support at no additional expense within the EDS AOPs hosting environments.

5. Monitor relevant vendor and industry bulletins for security-related patch alerts within the EDS AOPs hosting environments

6. Evaluate need for patches within the EDS AOPs hosting environments

7. Identify and notify MDNR and MDIT of necessary patches within the EDS AOPs hosting environments. Patch installation must be kept in sync with EDS Production Servers. This means that EDS will confirm when and what patches are to be applied.

8. As requested, modify job scheduling on a server, such modifications consist of addition, change, or deletion of tasks within the EDS AOPs hosting environments.

9. Notify MDNR of monitored OS-related events within the EDS AOPs hosting environments where it appears that the OS is the root cause of the problem (OS troubleshooting is not included)

10. Get MDNR approval before proceeding with any service-affecting changes within the EDS AOPs hosting environments, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm). For critical patches, if EDS cannot confirm approval with MDNR within 8 hours, EDS is authorized to implement the patch to the RSS EDS AOPS environments. MDIT will confirm with EDS that the patches have been applied to the MDIT hosted environment. A Critical patch is defined by Microsoft Security Response Center as “A vulnerability whose exploitation could allow the propagation of an Internet worm without user action”.

11. Add, delete, and change EDS accounts and update passwords within the EDS AOPs hosting environments

12. Perform one automated, scheduled reboot per server per month within the EDS AOPs hosting environments.

13. As necessary, perform unscheduled reboots of production servers at no additional cost within the EDS AOPs hosting environments.

14. As requested, adjust level of log creation to either increase or decrease granularity of data collection within the EDS AOPs hosting environments

15. As requested, modify job scheduling on a server, such modifications consist of addition, change, or deletion of tasks within the EDS AOPs hosting environments

MDNR Responsibilities

MDNR will perform the following tasks:

1. Respond to EDS inquiries regarding patch issues within one business day of notification;

2. Responsible for additions, deletions, and changes to MDNR accounts using the account management tool;

3. Notify and consult with EDS concerning the desire to use application software;

4. Respond to EDS' request for input regarding issues of services management; and

5. Approve and accept the risks of continuing to operate RSS on Windows 2000 through the extension period of January 1 2007 through June 30, 2008 on the existing servers. MDNR understands that if a serious issue does arise concerning Windows 2000, the issue that may take longer to get resolved than if RSS' OS version was current. MDNR acknowledges that EDS supports other AOPS clients in this same situation.

MDIT Responsibilities

It is expected that MDIT will:

1. Monitor server hardware within the MDIT hosting environment

2. Repair faulty server hardware; if necessary, reinstall and restore the OS and associated patches within the MDIT hosting environment

3. Upgrade operating systems as required by OS software vendors to maintain version currency and ongoing OS vendor support within the MDIT hosting environment.

4. Apply EDS-mandated patches within the MDIT hosting environment. These are patches that are deemed a security risk, or are required to keep the OS up to date to comply with OS Vendor support requirements.

5. Notify MDNR of monitored OS-related events within the MDIT hosting environment where it appears that the OS is the root cause of the problem (OS troubleshooting is not included)

6. OS security patch management. Apply patches as required to maintain version currency and ongoing OS vendor support within the MDIT hosting environments.

7. Monitor relevant vendor and industry bulletins for security-related patch alerts within the MDIT hosting environment

8. Patch installation must be kept in sync with EDS Production Servers. This means that EDS will confirm when and what patches are to be applied and these patches may not be applied ahead of EDS. MDIT will confirm with EDS that the patches have been applied.

9. Get MDNR approval before proceeding with any service-affecting changes within the MDIT hosting environment, except when a security hole is urgent or must be patched in a timely manner (for example, Code Red Worm)

10. Add, delete, and change Windows accounts and update passwords within the MDIT hosting environment

11. As necessary, perform unscheduled reboots of Model Office servers within the MDIT hosting environment.

12. In order for EDS to support the Eicon communication cards and the Verizon circuit in the MDIT hosted environment, EDS must have the ability to contact a State of Michigan support person who is able respond and have physical access to the server and be prepared to follow EDS provided directions within an hour.

4) Managed Database Services

The Managed Database Services consist of installation and configuration and monitoring and issue resolution of the MDNR database servers on a 24x7x365 basis.

EDS Responsibilities for EDS hosted RSS Databases including OLS_DB

EDS will perform the following tasks:

1. Monitor faults within the EDS AOPs hosting environments;
2. Monitor space availability within the EDS AOPs hosting environments;
3. Monitor connectivity to the database within the EDS AOPs hosting environments;
4. Monitor significant exceptions in the alert logs within the EDS AOPs hosting environments;
5. Respond to and repair problems within the EDS AOPs hosting environments;
6. Recover database at the EDS AOPs Plano Production facility if necessary to correct problems; MDNR induced-errors resulting in recoveries are not included;
7. Apply software security patches and major bug fixes within the EDS AOPs hosting environments;
8. Backup all EDS hosted databases to tape for purposes of database or server disaster and recovery at the EDS AOPs Plano Production facility; and
9. Backup all EDS AOPs Plano Production hosted databases to files for purposes of hot-site storage and total site disaster and recovery at the MO/DR facility (EDS Tulsa AOPS or MDIT Traverse Bay).

MDNR Responsibilities

MDNR will perform the following tasks:

1. Respond to EDS inquiries regarding patch issues within one business day of notification;
2. Follow EDS change management procedures for promoting code and content changes; and
3. Verify changes are tested in model office environment prior to pushing to production.

MDIT Responsibilities for Production Maintenance of OLS_DB in Production after MDIT assumes E-License responsibility

It is expected that MDIT will:

1. Perform additions, deletions, and updates to the existing tables and additions or deletions of tables to OLS_DB;

2. Perform/provide creation, deletion, or modification of Stored Procedures; and

3. Provide DBOwner Authorization to OLS_DB.

MDIT Responsibilities for MO / DR hosted databases

It is expected that MDIT will:

1. Monitor faults within the MDIT hosting environment;

2. Monitor space availability within the MDIT hosting environment;

3. Monitor connectivity to the database within the MDIT hosting environment;

4. Monitor significant exceptions in the alert logs within the MDIT hosting environment;

5. Respond to and repair problems within the MDIT hosting environment;

6. Recover database within the MDIT hosting environment if necessary to correct problems; MDNR induced-errors resulting in recoveries are not included;

7. Apply software security patches and major bug fixes within the MDIT hosting environment;

8. Backup all databases for purposes of database or server disaster and recovery within the MDIT hosting environment; and

9. Develop and deliver a documented Disaster Recover Plan to EDS and MDNR after the MO/DR environment has been installed in Lansing.

5) Managed Backup/Restore Services

Managed Backup and Restore Services provide operational support and management processes to meet OS and related system software requirements for data availability, accessibility, retention, and restoration. Services are designed to support the file system and specialized applications/databases such as Oracle, SQL Server, Lotus Notes, Microsoft Exchange, SAP and other client-specific backup requirements.

a) Backup/Restore

Backup/Restore consists of a combination of daily incremental file system backups and full database backups. Three database backups are performed each week. MDNR will be charged for each restore requested.

b) File System Backup

File system backups consist of both the initial backup of the contents of the file system and incremental changes to the file system.

EDS Responsibilities

EDS will perform the following tasks:

1. Manage operational support processes for performing operating system and related system software backup and recoveries and any tape mount requirements as required by the service levels within the EDS AOPs hosting environments;

2. Maintain the tape library, media, and expendable file system backup within the EDS AOPs hosting environments; and

3. Retain file system data within the EDS Data Center for 14 days and ship data offsite to a secure facility for 14 days.

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

1. Manage operational support processes for performing operating system and related system software backup and recoveries and any tape mount requirements as required by the service levels within the MDIT hosting environment;

2. Maintain the tape library, media, and expendable file system backup within the MDIT hosting environment;

3. Conduct a full backup within the MDIT hosting environment the first time a MDNR file system is backed up. Thereafter, only daily incremental backups occur; and

4. Retain file system data within the MDIT hosting environment for (14, or MDNR specific) days and ship data offsite to a secure facility for (14, or MDNR specific) days.

c) Database Backup

Database backups consist of both the initial backup of the data contained within the database and incremental changes to the data.

EDS Responsibilities

EDS will perform the following tasks:

1. Retain database data within the EDS AOPs hosting environments for 14 days and ship tape offsite to a secure facility for 14 days. Backup tapes are cycled back into the Production environment according to the retention cycle;

2. Retain six full weekly database backup copies offsite for the database within the EDS AOPs hosting environments;

3. Retain monthly database copy off-site – three current plus last two months – for the database within the EDS AOPs hosting environments;

4. Retain the Archive Log Backup within the EDS AOPs hosting environments offsite for 16 days;

5. Perform full backups within the EDS AOPs hosting environments every night for OLS, adtempus, bulk_copy_db, upload_db and system databases (master, model,msdb);

6. Perform Index rebuilds within the EDS AOPs hosting environments every Sunday AM for OLS, adtempus, bulk_copy_db, upload_db and system databases (master, model,msdb);

7. Perform full backups within the EDS AOPs hosting environments every Saturday for RSS_DB;

8. Perform differential backups within the AOPs hosting environements every Sunday through Friday for RSS_DB;

9. Perform log backups within the EDS AOPs hosting environments every 30 minutes 24/7 except 6:00PM to 8:00PM (Full or differential backups are running during this time);

10. Perform Index rebuilds within the EDS AOPs hosting environments for RSS_DB as needed;

11. Back up the database backup files within the EDS AOPs hosting environments to tape daily;

12. Create hot-site backup files for disaster recovery within the EDS AOPs hosting environments. Run DR Copy jobs to copy hot-site files to the MO/DR hosted site;

13. Monitor receipt of hot-site backup files in the EDS hosted MO/DR site. Confirm receipt of hot-site backup files in EDS hosted MO/DR site; and

14. EDS will not be responsible for communication failures or server failures that are not under the responsibility of EDS, that prevent the receipt of the hot-site backup files when EDS is not responsible for the hosted MO/DR site.

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

1. As soon as a hot-site backup file is created in Plano by EDS, the DRA copy jobs start copying the DR files to the model office server. MDIT will provide area on the model office server for the DR backup files. The database DR backup files on the model office server are kept for 2 days for all databases except RSS_DB. The RSS_DB database backup files are kept for 8 days. There is not more than 1 full backup of RSS_DB per week.

2. MDIT will monitor the success/failure of the host-site backup file receipt on the MO servers within the MDIT hosting environment.

3. MDIT will provide a technical communication solution for the hot-site backups that will allow the data to be successfully copied in less than 24 hours within the MDIT hosting environment.

d) Restore

Restore Services consist of the services required to restore file system and/or database content upon request by MDNR.

EDS Responsibilities

EDS will perform the following tasks:

1. File restores as requested allows MDNR to request restoration of a file to the current production environment within the EDS AOPs hosting environments on the internal disk to the server to any point in time on a 24 x7 basis.

2. MDNR requested File restores within the EDS AOPs hosting environments will be charged to MDNR on a time and material basis. In order to keep MDNR (and all clients') costs down, EDS charges nothing automatically for these types of on-demand services – billing only those clients who take advantage of them. To accommodate individual clients' requests for allowing a limited number of free occurrences of these services implies the establishment and maintenance of a system/process to track these individual histories, so EDS would know who had reached what limits on which services at any given time. Tracking activity would introduce an extra cost, which no one would pay now, but which all clients would have to pay some part of if EDS were to offer that. It is cheaper overall, and fairer to each client, to bill for each ad hoc service as requested – and only as requested.

3. Full restores to the current production environment as requested allows MDNR to request the full restoration of a disk environment within the EDS AOPs hosting environments to a point in time (within the granularity of the backup schedule).

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

1. File restores as requested allows MDNR to request restoration of a file on the internal disk to the server within the MDIT hosting environment to any point in time on a 24 x7 basis.

2. Full restores as requested allows MDNR to request the full restoration of a disk environment within the MDIT hosting environment to a point in time (within the granularity of the backup schedule).

3. Upon MDNR's request, MDIT will provide a refresh of the MO data from the DR backup files saved on the MO servers within the MDIT hosting environment.

6) Mail Services – Outbound Mail

Outbound Mail Service enables MDNR to send Simple Mail Transfer Protocol (SMTP) mail messages to other mail systems on the Internet. Mail relay servers are part of the shared environment, segregated by a firewall from the dedicated Client Compartment. The servers route SMTP messages throughout the Internet.

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor mail relay servers within the EDS AOPs hosting environments; and

2. Troubleshoot as necessary – either EDS initiated or MDNR initiated – within the EDS AOPs hosting environments.

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities.

MDIT Responsibilities

It is expected that MDIT will:

1. Monitor mail relay servers within the MDIT hosting environment; and

2. Troubleshoot as necessary within the MDIT hosting environment.

7) Security Services

EDS Security Services for MDNR consist of the following services:

- ◊ Digital Certificates;
- ◊ Intrusion Detection; and
- ◊ Server Vulnerability.

a) Digital Certificates

EDS will order digital certificates, register MDNR servers, and install and configure certificates to enable SSL communication for Production hosting.

EDS Responsibilities

EDS will perform the following tasks:

1. Process and implement certificate renewals prior to expiration on an annual basis for EDS hosted servers.

MDNR Responsibilities

MDNR will perform the following tasks:

1. Provide required information in a timely fashion to enable EDS to order production certificates; and

2. Order MO digital certificates through MDIT.

MDIT Responsibilities

It is expected that MDIT will:

1. Process and implement certificate renewals prior to expiration on an annual basis for MDIT hosted servers; and

2. Register RSS servers and install and configure certificates to enable SSL communication.

b) Intrusion Detection Services - Network

Intrusion Detection is implemented at the AOPS network level. Intrusion Detection capability enables EDS and/or MDIT, as applicable, to protect valuable information assets connected to the Internet and the

intranet from unauthorized access and intrusion. Intrusion Detection controls access to critical data and increases system and communications availability, data integrity and confidentiality. EDS has an outbound security policy that imposes limitations on the traffic headed out from the EDS AOPs hosting environments to the internet.

EDS Responsibilities

EDS will perform the following tasks:

1. Monitor inbound network traffic for attack signatures within the EDS AOPs hosting environments

2. Respond immediately to investigate any detected intrusion within the EDS AOPs hosting environments. Internal AOPS processes determine risk and then trigger appropriate corrective action based upon the severity of the intrusion

3. Work to mitigate security risks associated with intruders entering through the Internet within the EDS AOPs hosting environments

4. Respond to console alarms when security incidents occur within the EDS AOPs hosting environments

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities

MDIT Responsibilities

It is expected that MDIT will:

1. Monitor inbound network traffic for attack signatures within the MDIT hosting environment

2. Respond immediately to investigate any detected intrusion within the MDIT hosting environment. Use processes to determine risk and then trigger appropriate corrective action based upon the severity of the intrusion

3. Work to mitigate security risks associated with intruders entering through the Internet within the MDIT hosting environment

4. Respond to console alarms when security incidents occur within the MDIT hosting environment

c) Server Vulnerability

System Level Vulnerability detection is the preventive process of examining, prioritizing and resolving vulnerabilities on system hosts.

EDS Responsibilities

EDS will perform the following tasks:

1. Perform vulnerability checks within the EDS AOPs hosting environments through pre-defined scan policies to identify violations to the EDS established security policies.

Current scan policies call for scans to be done twice a year, at no additional charge to the customer. Results are used internally by EDS to access and improve our security process.

2. Perform additional service of monthly scans done on every production server with reports reviewed for vulnerabilities

3. Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning within the EDS AOPs hosting environments

4. Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take reasonable action to mitigate risk

MDNR Responsibilities

MDNR will perform the following tasks:

1. Review and respond in writing, as to actions that will or will not be taken to respond to any conditions found in the managed server environment that are within MDNR control and do not meet EDS audit compliance standards

2. Communicate to EDS any changes in personnel authorized to approve logon IDs and file access requests

MDIT Responsibilities

It is expected that MDIT will:

1. Perform vulnerability checks within the MDIT hosting environment through pre-defined scan policies to identify violations to the established security policies.

2. Maintain a vulnerability correction process to resolve any vulnerability detected through server scanning within the MDIT hosting environment

3. Review government and vendor bulletins (CERT, CIAC, SANS, NIPC) and take action to mitigate risk

d) Security Enhancements – Service Conditions

1. Information security is a dynamic area. MDNR acknowledges that not all threats and vulnerabilities are currently understood or identified, that any security solution is subject to being compromised or circumvented in a variety of manners, and that new and unexpected threats and vulnerabilities can be expected to arise in the future. MDNR understands that as a provider of information security services EDS does not provide a guaranteed identification of all possible threats and vulnerabilities or guaranteed protection against all risks, threats and vulnerabilities.

2. It is understood and agreed that EDS is not assuming responsibility for any losses that may occur as a result of the failure to identify all possible threats or vulnerabilities, that EDS is not acting in the capacity or taking on the responsibility of an insurer and is not charging a price that would allow it to do so, and that it is the responsibility of MDNR to obtain insurance, if any, covering damages to MDNR or third parties.

3. MDNR is responsible for obtaining any consent necessary for EDS to access the systems as required to perform these security Services, prior to EDS commencing performance.

8) Client Services

EDS Client Services provides MDNR with 24x7x365 support, dedicated account management and key technical resources for support of MDNR's operations within the EDS AOPs hosting environments.

9) Automated Operations Center Support

The EDS Automated Operations Center is the entry point for resolving system-related problems, and initiating change within the EDS AOPs hosting environments. The Automated Operations Center also serves as the front line of technical support; in effect, this center provides both initial documentation of problems and their resolution.

EDS Responsibilities

EDS will perform the following tasks:

1. Provide Help Desk Services to respond to requests for assistance related to the Services within the EDS AOPs hosting environments
2. Facilitate the receipt and processing of valid requests
3. Receive, track, and own the request to closure
4. Accept and respond to authorized submitters, trouble requests that relate to the selected EDS Services or the related system configurations
5. Enter information obtained as a service request or trouble ticket into the request management system
6. Use a comprehensive problem management process to track and escalate all in-scope problems with systems, processes, and procedures from identification through closure

Service Levels

The following service levels apply for EDS Hosting:

Description	Coverage	Service Level
Level 1: Critical Impact Serious failures that cause MDNR Web site to be offline. Examples: failure of EDS operated routers, system disk failures in non-replicated server, and so on	24x7x365	Estimated time to repair EDS Services will be provided to MDNR or its designee within 30 minutes of identification of a problem.
Level 2: Major Impact Faults where users may notice a degraded system performance. Examples: failures in EDS access lines to the Internet, EDS operated routers, failed disk in array, and so on	24x7x365	Estimated time to repair EDS Services will be provided to MDNR or its designee within 30 minutes of identification of a problem.

Level 3: Moderate Impact Faults that MDNR may not notice and cause little disruption of service. Examples: Rebooting a server or router, memory short-runs and restarting aborted processes.	24x7x365	Estimated time to repair EDS Services will be provided to MDNR or its designee within 1 hour of identification of a problem.
Level 4: Minor Impact Non-outage situations and are usually requests for information. Example: Request for the version of software on a server.	Regular Business Hours 8 a.m. – 5 p.m. Central Standard Time, Monday - Friday	MDNR or its designee will be contacted within 8 business hours of the initial request.

Service Conditions

The following service conditions apply:

- ◊ Although the service or problem may be referred to second-level support groups, third-party maintainers, or the EDS Lansing Service Center application help desk for resolution, the Automated Operations Center, as the owner of the issue, is responsible for coordinating problem resolution until the problem is resolved
- ◊ A complete, authenticated request will be considered received once it has been logged into the request management system and assigned
- ◊ A request is not considered complete unless all information has been provided and appropriate authorizations and all prerequisite activities are complete

MDNR Responsibilities

MDNR will perform the following tasks:

1. Provide in writing a list of authorized submitters that are mutually agreed on by MDNR and EDS
2. Provide an ongoing updated list of primary and backup contacts for interaction with EDS
3. Provide such information as requested by EDS in order to perform the Services
4. Annually review the list of authorized request submitters and change approvers so that authorized MDNR representatives approve all changes performed by EDS

10) Site Outage Reporting

EDS provides automated reporting if the EDS AOPs hosting environments experiences an outage.

EDS Responsibilities

EDS will perform the following tasks:

1. AOPS will alert LSC using an alert from the ticketing system if an outage occurs

MDNR Responsibilities

MDNR will perform the following tasks:

1. No additional responsibilities

11) Online and Batch Services

EDS Responsibilities

EDS will provide the following online and batch application support services:

1. Investigate and provide software 'fixes' for RSS production application issues from code in Release 2.0 or greater that relate to RSS databases, RSS Windows Application, RSS POS applications and RSS batch application.

2. Investigate and provide software 'fixes' for RSS production application issues from E-License application, but only during the period of time prior to the transition of E-License responsibility to MDIT

3. Process daily upload files

4. Process daily financials

5. Process weekly EFT's on the weekend

6. Process daily EFT returns from MDNR's bank

7. Process E-License print files

8. Correct and process failed files and failed transactions due to application error, not agent error

9. Establish and maintain schedule of batch jobs

10. Implement PostalSoft releases

11. Archive database records and system files

12. Maintain interfaces with third parties: SOS, FIA, Data entry contractors, MNB, LAW, Wildlife

13. Develop and maintain the following user and system documentation that relate to RSS databases, RSS Windows Application, RSS POS applications and RSS batch application and E-License application (before the transition of responsibility for the E-License application switches from EDS to MDIT) in electronic format:

    - Operator Guide
    - Procedural Guide
    - User Help Files
    - Entity Relationship Diagram
    - Analysis documents
    - Design documents
    - Unit Test cases
    - Integration Test cases

- External/Internal file layouts
- Technical Architecture Specifications for EDS controlled environments

Note: Users will be given the opportunity to provide suggestions and recommendations for improving user and system documentation content. All documents will be updated during system releases and subsequently provided to the MDNR.

12) **User Support Services**

EDS Responsibilities

EDS will provide the following user support services:

1. Develop estimates for Customer Service Requests that are fixes that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Develop estimates for Customer Service Requests that are fixes that relate to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

2. Provide help-desk support for user assistance to MDNR during normal business hours that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Provide help-desk support for user assistance to E-License during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

3. Assist MDIT and MDNR in software release planning that relates to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Assist MDIT and MDNR in software release planning that relates to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

4. Provide business process consulting and requirements definition that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch Application. Provide business process consulting and requirements definition that relate to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

5. Provide assistance in Formal Acceptance Testing for software releases that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Provide assistance in Formal Acceptance Testing for software releases that relate to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

6. Document, maintain, and report on database of Customer Service Requests (“CSR”) that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Document, maintain, and report on database of Customer Service Requests (“CSR”) that relate to E-License during the period of time within which EDS assumes responsibility for operational support and development of the E-License application

c. Application and Integration Maintenance

EDS Responsibilities

Application and Integration Maintenance that relate to RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application. Application and Integration Maintenance that relate to E-License application during the period of time within which EDS assumes responsibility for operational support and development of the E-License application.

1. Purpose. The primary purpose of software and integration maintenance is to assure continuous and accurate system operation. EDS shall be dedicated to the concept of continuous quality improvement throughout the term of the Contract.

2. Monitoring, Notification and Reporting. EDS shall make provision for (i) random monitoring of RSS and (ii) for notification of EDS personnel if substantial system failures occur within the Operational Hours. In addition, EDS, MDIT and MDNR will work together to collect, share and mutually agree on the pertinent information that reflects the then current system performance prior to submitting such information to the Department Contract Administrator for review. This information may generate recommended changes in equipment, software, operations, or preventive maintenance schedules that could lead to reduced system costs or improved system quality. Any mutually developed and agreed upon recommendations for improved system specifications shall be addressed through provisions of the System Enhancement portion of this contract.

3. Quality Improvement. EDS shall apply a Customer Service Request (CSR) program and software quality assurance method to measure and improve the quality of RSS software throughout the contract.

4. Fault Identification and Correction. EDS is responsible for correcting all faults in RSS software discovered subsequent to the Effective Date of Change Notice No. 11. Any faults or system failures believed to have occurred on or prior to the effective date of Change Notice No. 11 and on or prior to the effective date of RSS System Release 2.0 (including POS Release MIRel310) but discovered after the Effective Date, will be corrected by mutual agreement of EDS and MDNR and paid from the Development Pool or Enhancement funds. EDS will not be responsible for faults in the E-License application once the application responsibility is turned over to MDIT.

5. Commercial Software Faults. Any fault which is diagnosed as a failure within commercial software integrated into RSS is nonetheless the responsibility of EDS. With approval of the Contract Administrator, EDS may obtain corrective services from the software manufacturer, replace the software with an alternate product or custom software, or design and implement a work-around. A list of the current commercial software is listed in Attachment A of this Work Statement.

6. Right to Use Third-Party Software. MDNR will provide, or cause to be provided, to EDS the right to access MDNR-owned software (including any Deliverables) and software licensed to MDNR or a customer of MDNR by a vendor if such is required for EDS to perform the EDS Services, but for no other purpose. EDS will assist MDNR in determining whether MDNR will need to obtain any consents, licenses or other rights from vendors as contemplated by this Section. MDNR will be responsible for obtaining any such consents, licenses or other rights and for finding an alternative solution in the event a vendor refuses consent.

7. Fault Reporting. EDS is obligated to report to the Contract Administrator any apparent fault discovered by EDS, its personnel or sub-contractors. These faults will be reported immediately upon discovery. Likewise, the Contract Administrator shall upon discovery notify EDS of faults discovered by State personnel or retail agents. Upon notification of an apparent fault, EDS shall diagnose and correct such fault to the extent EDS is responsible for such

correction within the timeframe mutually agreed upon by EDS and MDNR based upon the statements in “Fault Identification and Correction” in III-C 1.c.4. above.

8. CSR Priority. MDNR shall determine the priority of all Customer Service Requests (CSRs) and advise EDS of the order in which it desires such CSRs to be addressed by EDS utilizing the existing pool of EDS maintenance staff for faults considered fixes to Releases 2.1 and greater, or enhancements to Releases 2.0 or below.

9. Enhancements. Under license from the MDNR in Contract #071B6000653, EDS may use RSS or sell RSS to other customers. If EDS enhances or corrects custom software used in RSS for its own use or for another customer, EDS must use its best effort to obtain the right for MDNR to have such improved software incorporated into RSS. The integration and testing of such enhancement will be treated as an enhancement under the statements in “Enhancement Proposals” in III-C 2.b. below.

10. EDS must notify the Contract Administrator of such an update of custom software within thirty (30) days of completion of such update. Upon request of the Contract Administrator, EDS shall install the update within thirty (30) days. EDS will be responsible for successful installation and will be subject to liquidated damages for any failure conditions which arise as a result of installing the update.

MDIT Responsibilities

It is expected that MDIT will:

1. Apply E-License software application updates to the EDS AOPS Production Web Servers after the transition of the E-License application to MDIT. MDIT will be granted appropriate access of the E-License application servers in EDS production hosting, in order to push E-License application releases.

d. Hardware Maintenance and Support

EDS will be responsible for ongoing support of RSS production hardware during this extension in the EDS hosting facility. EDS will be responsible for ongoing support of RSS MO/DR hardware in EDS AOPS from the beginning of this extension through the State requested decommission date (Decommission Date) of EDS AOPS RSS MO/DR hosting environment, which date shall be set pursuant to Section II-E (h). After such Decommission Date, MDIT will be responsible for the maintenance and support of all operating system software, network software, and non-RSS application software, of the RSS MO/DR hardware.

Note: EDS will be responsible for maintaining the EDS-owned development, quality assurance, and test server platforms for the RSS application.

e. Data Communication Responsibilities

EDS will provide the following POS data communication and network management services:

1. Maintain the POS network including the daily monitoring of Production communication servers;
2. Investigate and resolve Verizon communication problems for Production and Model Office;
3. Obtain and analyze Verizon reports as requested;
4. Monitor Production communication server lines randomly during the primary service window to identify and resolve problems;
5. Investigate and resolve EDS hosted communication server problems including Eicon technology diagnostics and problem resolution; and
6. Collaborate with MDNR to incorporate changes to the communication server code at the design, coding, testing and implementation phases of enhancements.

2. System Enhancements

a. General

1) Development Pool. EDS will establish a dedicated pool of three (3) information analysts (I/A Development Pool) to perform, in accordance with MDNR priorities, additional system enhancements and documentation that relate to RSS databases, RSS Windows Application, RSS POS applications, RSS batch application and the E-License application during the period of time for which EDS is responsible for such databases and applications. The MDNR will have the option to increase or decrease the number of I/As in the I/A Development Pool effective at the beginning of a monthly billing period upon forty-five (45) days prior written notice to EDS.

2) Enhancements and Changes. Additional support for system enhancements and changes, and additional I/As or Project Mangers for the Development Pool, will be available to the MDNR at a rate as described in Section II-A (a).

3) Commercial Software Updates. Upon receipt of an update or correction notice from the commercial vendor, EDS will evaluate the update's compatibility with RSS and recommend adoption or deferral of the update. Such recommendation shall be in the form of a System Enhancement Proposal as described below. The Contract Administrator will ultimately determine which updates or corrections will be obtained and installed. Obtaining and installing such an update will be considered a System Enhancement.

4) Integration of Components. RSS requires integration of EDS-supplied components with a number of other data processing facilities and applications (i.e. Department of State and banks servicing the State of Michigan, and others by mutual agreement of the parties). Some of these systems may change during the course of this Contract. State Enterprise Security prefers that output data files created by RSS for State agencies, are left on the RSSINQ server, where third parties may request their data, as opposed to EDS/RSS initiating sessions with remote State computers, then pushing the data. MDNR will be responsible for engaging entities (e.g., agencies, banks, etc.) that create or receive RSS input/output and communicating necessary changes in their processes to EDS. These entities will be responsible for changing their file processing to receive their RSS output file from RSSINQ server, or write their RSS input file to the RSSINQ server. They must also be involved in system testing.

5) Scope Documents. EDS will develop Scope documents for all software releases in accordance with the statements in "Enhancement Proposals" in Section III-C 2.b. below.

6) Cost Savings. In the event that EDS is able to enhance system performance to a level that provides the opportunity for (i) significant cost savings or (ii) an increase in operational scope, EDS will communicate and discuss such opportunities with MDNR and both parties will mutually agree to any contract changes, if any, that reflect the benefits of such system performance improvement opportunities.

b. Enhancement Proposals

EDS or the MDNR may from time to time identify and propose system enhancements or extensions to the RSS application. In addition, third-party application software vendors may issue updates that the Contract Administrator may determine should be incorporated into RSS.

In the event that an enhancement is proposed by EDS or the MDNR, the following procedure will be completed before work can begin:

1) MDNR will provide a written Customer Service Request detailing high-level requirements, required implementation date, implementation priority, and fix/enhancement status.

2) EDS will prepare a System Enhancement Proposal which will provide pertinent information such as, but not limited to:

- Description of the enhancement;
- Scope;
- Benefits;
- Effects on current design;
- Effects on completed system components;
- Cost;
- Effects on hardware and software;
- Effects on MDNR staffing and skills requirements; and
- Project schedule.

3) EDS will obtain approval for the System Enhancement from the MDNR Contract Administrator and receive a Purchase Order prior to commencing work.

IF PRICES FOR THE PROPOSED ENHANCEMENT ARE NOT ACCEPTABLE TO THE STATE, THEN THE NECESSARY MODIFICATIONS OR ADDITIONAL WORK SHALL BE SUBJECT TO COMPETITIVE BIDDING EVEN IF FIRST PROPOSED BY EDS, BUT EDS SHALL NOT BE HELD LIABLE FOR ANY DAMAGES RESULTING FROM THE WORKMANSHIP OR PERFORMANCE OF ENHANCEMENTS SUBSEQUENTLY PROVIDED BY THIRD-PARTY CONTRACTORS

THE STATE WILL NOT PAY FOR ANY WORK ON PROPOSED ENHANCEMENTS UNTIL BOTH (i) THE DEPARTMENT'S APPROVAL HAS BEEN OBTAINED AND (ii) THE PROPER DOCUMENTS HAVE BEEN ISSUED BY THE OFFICE OF PURCHASING.

c. Work and Management Standards

All management and work standards contained in this Contract with respect to systems development and integration will apply to any System Enhancements. Liquidated damages will apply to any conditions which arise as a result of Systems Enhancement activity by EDS.

d. Software Development Team Certification

EDS will provide an EDS software development team with a minimum System Engineering Institute (SEI) Capability Maturity Model Integration (CMMI) rating of Level

3. EDS will notify MDNR of any changes in this certification level. At least 80% of software development resources will be provided by United States residents.

e. Additional System Enhancement Services that relate to (a) RSS databases, RSS Windows Application, RSS POS applications, and RSS batch application, and (b) and, during the period of time within which EDS assumes responsibility for operational support and development of the E-License application the, the E-License application.

1) Develop project plans and schedules for all analysis, design, construction, testing and implementation phases of each software release .
2) Develop analysis documents, designs, unit test cases and integration test cases for all software releases.
3) Develop Release Notes for all software releases.
4) Perform database changes for RSS databases. MDIT will be responsible for OLS_DB changes after the E-License transition.
5) Perform analysis, design, construction, unit testing, system testing, and implementation for all software releases.
6) Develop and implement changes to POS Printer forms.
7) Update user and system documentation.

3. Content Acquisition, Management and Use

The MDNR is responsible for all content and any post-implementation content refresh or changes to the web site and for any and all content acquisition costs incurred during the life of the project.

The MDNR is responsible for ensuring all materials used on the Web site are legally obtained through the appropriate methods of licensing, royalties, usage rights and copyrights.

4. Critical dependencies

a. The MDNR will provide a single operational point of contact and responsibility for this project.
b. Changes in scope will be submitted in writing to the Client Delivery Executive.
c. The MDNR will warrant that all materials supplied are Year 2000 compliant.
d. The State represents and warrants the following:

1) That the computer systems that are the subject of the services to be performed by EDS under this agreement are either owned by the State or under the State's legal control, that the State has the legal right to perform the Services on the computer systems, as well as the authority to delegate to EDS the right to do so.
2) That the State maintains no contracts or agreements with third parties that would prohibit EDS from performing the Services and that the State has obtained in writing all permissions from third parties, including but not limited to the State's employees, vendors of leased equipment that are necessary to permit EDS to perform the Services.
3) That the information, data, representations, and materials furnished by the State on which EDS based the description of the information security services and negotiated the price therefore were current, accurate, and complete in all material aspects; that no material changes have occurred up through the date of execution of this Agreement; and that the State will immediately notify EDS of any material changes to such information, data, representations and materials, or to the representations made.
4) The MO/DR hosted environment that is established by the MDIT for RSS will be identical in function to the current MO/DR environment hosted at EDS' Tulsa AOPS, and the operating system will remain at Windows 2000 until the end of the extension.

5) The MDIT will be responsible for the established duration of disaster recovery based upon their processes of switching from Model Office configuration to Production configuration.
6) The MO/DR hosted environment that is established by the MDIT for RSS will recover from a Production Disaster by restoring from the hot-site backup files stored on the MO servers.
7) At the time that the MDIT assumes responsibility for E-License application, the MDIT will be responsible for configuration management of E-License application code, documentation, and the OLS database. EDS will no longer maintain source or documentation to E-License.

5. Acceptance Criteria

a. MDNR will approve the transition of E-License application support, maintenance, and development to MDIT based upon the following criteria:
   1) MDIT has received current operation support documentation for E-License;
   2) MDIT has received proper application access to E-License; and
   3) MDIT has received proper training as established by MDIT Project Manager.

b. MDNR will approve the decommissioning of EDS MO/DR hosting services based upon the following criteria:
   1) MDNR has successfully completed User Acceptance Testing provided by MDIT; and
   2) MDNR has signed-off on the MDIT MO/DR environment providing acceptable service and reliability for hosting RSS Model Office functions and RSS Disaster Recovery functions.

6. Credit Card Processing

The MDNR will maintain a merchant account and is responsible for any Credit Card processing costs, including transaction cost.

IV-E REPORTING

1. Project Control

a. The contractor will carry out this project under the direction of the Michigan Department of Natural Resources.

b. Although there will be continuous liaison with the contractor team, the MDNR project director will meet bi-weekly as a minimum, with the contractor's project manager for the purpose of reviewing progress and providing necessary guidance to the contractor in solving problems which arise.

c. The contractor will submit brief written monthly summaries of progress which outline the work accomplished during the reporting period; work to be accomplished during the subsequent reporting period; problems, real or anticipated, which should be brought to the attention of the client agency's project director; and notification of any significant deviation from previously agreed-upon work plans.

2. Reports

EDS will provide quarterly reports that are reasonably available to the MDNR for the purpose of monitoring system performance. These reports will be used by the Contract Administrator to determine the current status of the Retail Sales System from both a hardware and software perspective. These reports should include:

- Uptime report generated by the data produced from the virtual host authorization application monitoring process;
- Hardware performance issues for the Production environment;
- Software performance issues that relate to RSS databases, RSS Windows Application, RSS POS applications and RSS batch application;
- Batch Schedule adherence;
- Suggestions from EDS to improve overall system performance and or business processes; that will benefit MDNR/EDS and lead to reduced costs or increased performance; and
- A detailed breakdown of maintenance fixes that relate to RSS databases, RSS Windows Application, RSS POS applications and RSS batch application.

Attachment A - Associated RSS Software Products

Server Software

Server	Software	Purpose of Software Requested	Software Provider	Owner of Software	Configuration of Required SW (i.e. Load-Balancing,)
Production Web/App	IIS	Web Server	EDS	EDS	Load Balancing 128-bit Certificate
	E-License App	License Application Software	MDIT (after E-License Transition)	MDNR	
	ASP Image	E-License Print Image Formatting	MDIT (after E-License. Transition)	EDS / MDIT (after E-License Transition)	
	Terminal Services	Remote Server Control	EDS	EDS	
Production RSS/E-License DB	MS SQL Enterprise	RSS/E-License DB	EDS / MDIT (after E-License Transition)	EDS / MDIT (after E-License Transition)	
	Windows 2000 Advanced Server	O/S feature extension to support clustering	EDS	EDS	
	Postal Soft	Standardizes addresses within the RSS database	MDNR	MDNR	
	Ad Tempus	Schedules the RSS batch jobs	EDS	EDS	
	Pay Flow Pro Plus	License for credit card authorization process within E-License	MDNR	MDNR	
	RSS Win	RSS custom windows applications for viewing and managing RSS data	EDS	MDNR	

Server	Software	Purpose of Software Requested	Software Provider	Owner of Software	Configuration of Required SW (i.e. Load-Balancing,)
	RSS Batch	RSS custom batch applications for processing RSS data	EDS	MDNR	
	Terminal Services	Remote Server Control	EDS	EDS	
Production Inquiry DB	MS SQL Enterprise	Inq DB	EDS	EDS	
	Terminal Services	Remote Server Control	EDS	EDS	
Production RSS Comm. Servers	RSS Communications Server App	Manage POS Calls	EDS	MDNR	
	Terminal Services	Remote Server Control	EDS	EDS	

Attachment B - System Configuration & RSS Hardware Descriptions

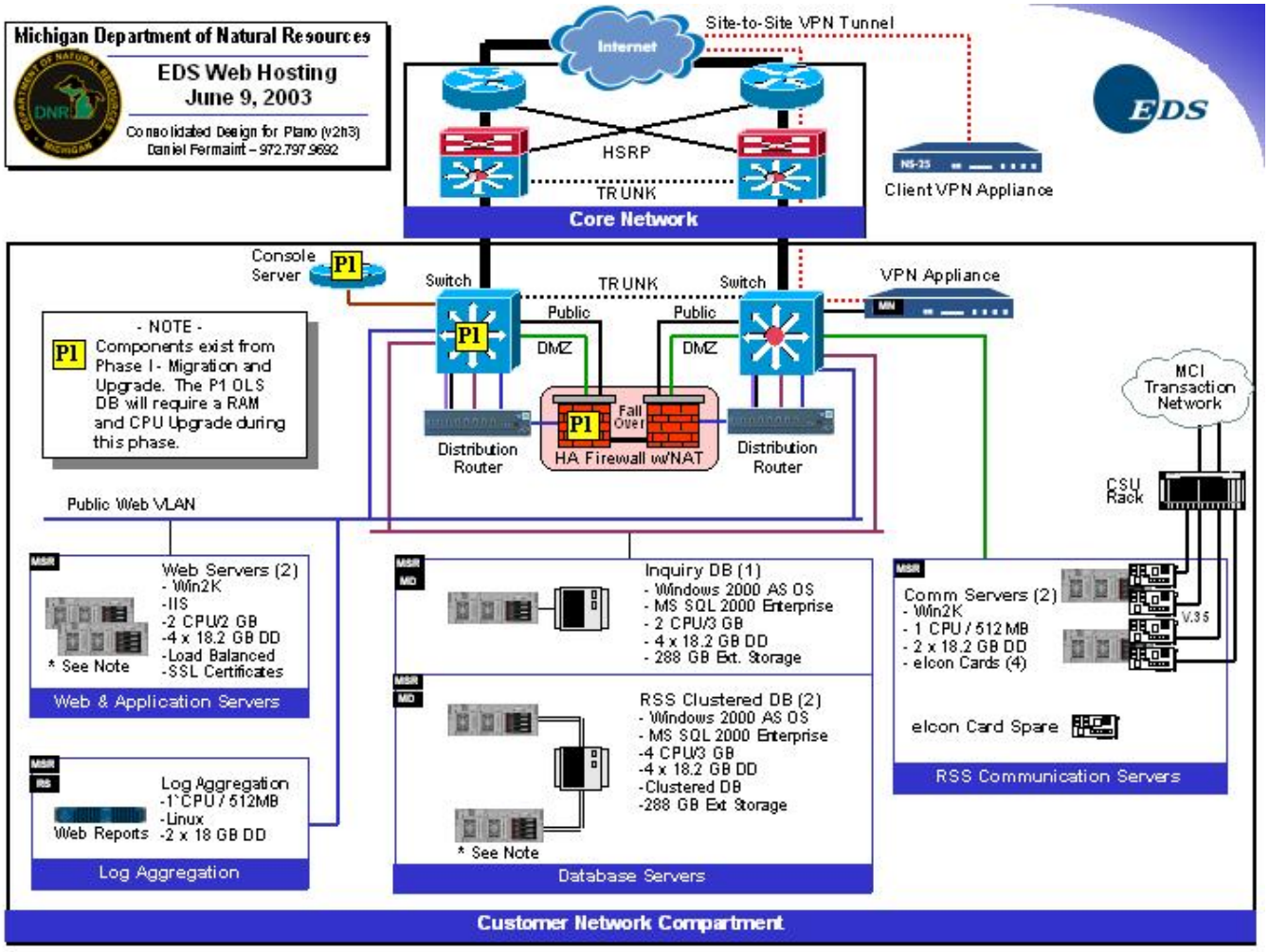
Changes to the current RSS hosted production environment:

1. EDS will extend the use and life of the current servers for 1.5 years, and remain at Windows 2000 OS.

2. In 2003, MDNR requested web usage statistical reporting capabilities. This data has never been used by the MDNR in the last three years. EDS will remove the Log Aggregation dedicated server (Linux) used to capture and present this data from the production hosting environment.

3. Plano will upgrade from the VPN Appliance Netscreen 10 to Netscreen 25.

EDS Plano Production Architectural Diagram



RSS Production Hosting Servers

Server	Description
Production Web/App	This is a set of two load-balanced servers that run the production E-License Web application, which sells hunting and fishing licenses to the end-customer over the Public Internet.
Production RSS/E-License DB	This is a set of two clustered active/passive database servers that manage both the E-License sales transactions and control tables, and the entire active RSS database and archive RSS database in the production environment.
Production Inquiry DB	This is a database server in the production environment that contains an up to date copy of both the active RSS database and the archive RSS database. MDNR staff run ad-hoc queries against these databases on this server, which isolates them from the production databases. This server also contains all the RSS input and output files (e.g., EFT files, SOS files, etc.) that are accessible by the MDNR staff.
Production RSS Comm. Servers	These two servers receive and manage the calls and data from the POS terminals in the production environment.

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
PURCHASING OPERATIONS **September 15, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 63
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-005, 006 is hereby incorporated into this contract. The attached Change Authorization Request encompasses for (005) Release 6.3 Change Control 52, which includes the following Customer Service Request:, (006) **encompasses 5 Change Requests (CR), 4 that were initiated by the Natural Resources Commission, and 1 corrective action change request. MDNR has requested that these CRs be released to MDNR before the end of July 2006. These enhancements will be referred to as Release 6.3.2. See attached CAR-005, 006.**

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Purchasing Operations and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $37,676,261.76

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2006-005

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses Release 6.3 Change Control 52, which includes the following Customer Service Request:

During the User Acceptance Testing of release 6.3, it was discovered there are certain cases where there is an amount to be distributed that totals to a ½ a penny. This is due to the fund distribution that is set up for 7.5% agents. When one of these agents sells an odd number of licenses that are distributed in this manner, the financial functions were rounding and distributing a full penny to the incorrect funds in certain cases, depending upon the exact funds in the distribution. The extra ½ a penny was allocated to the commission for the agent, and then a full penny was deducted from the fund with the highest fund key value. The RSS system had always operated in this fashion. This was causing "not whole distributions". EDS and MDNR discussed the issue and decided on a set business process that the RSS batch process would follow. The correction will take that extra ½ a penny from the commission and give it to the fund where that commission was designated to be deducted from, usually fund 7, but in some cases fund 11. This modification in the batch processes in RSS was designed, developed and tested by EDS through Change Control 51 without adding additional cost to the 6.3 project.

Change Control 52 is an enhancement to the Customer Void Item window of RSSWIN. This window allows MDNR staff to void a license without using the POS. It allows the staff to designate the 'voiding terminal' and calculates the fund distribution of the void and the commission and displays the distribution. A print (created by clicking the Print Screen button) of this window is used to communicate the fund adjustments for financial reconciliation. The fund adjustments currently follow the old business practices that were found to be incorrect during the testing of 6.3. That reconciliation will not match the agent AR records created by the batch process and they must.

This Change Control will modify the window using the newly defined business practices so that the fund distributions will properly handle the ½ penny amounts and allocate that to the proper funds, matching the batch process that has already been corrected by EDS.

III. Cost

The resources required to complete Analysis for Release 6.3 Change Control 52 will include:

Information Analyst: 57 hours @ $133.91 / hour = $7,632.87

Billing Schedule

May 06
$7,632.87

IV. Impact on Contract

Increase: $7,632.87

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2006-006

V. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

VI. Description of Change

This Change Authorization Request encompasses 5 Change Requests (CR), 4 that were initiated by the Natural Resources Commission, and 1 corrective action change request. MDNR has requested that these CRs be released to MDNR before the end of July 2006. These enhancements will be referred to as Release 6.3.2.

CR348 - . Create a new POS license form for Private OTC Deer license (estimated at 40 hours).

1.0 Create a new POS license form for Private OTC Deer license. (see example provided below).
- 1.1 Create a certification line with the following text on the form: "I hereby certify that I qualify to purchase this license in accordance with the residency and hunter safety requirements as provided by PA 451 of 1994 and have not purchased more than the allowable season limit of private land antlerless deer licenses. Signature of Licensee:_____
  License must be signed to be valid. License holder must carry ID used to purchase license."
- 1.2 Increase the size of the font for 'mnth, sex, points' labels and corresponding numbers for notching
- 1.3 Remove the printed "V" for the notch (customer will notch the number instead).
- 1.4 Instead of all 31 days of notching being listed on the harvest tag, change the notching pattern so that the hunter indicates the day by picking 0-3 for the first number of the day, and 0-9 for the second number of the day. This will reduce the number of notches from 31 to 14.
- 1.5 Instead of having the number and the "V" for the notch, have the hunter poke a hole into the appropriate number to indicate the day, rather than cutting the "V" notch. This would eliminate more text and allow for larger font on the day numbers.
- 1.6 Add blank line for formatting the Land Owner Phone # that will be printed if the attribute for the question is turned on.
- 1.7 In order to make more room for the added certification and Land Owner Phone #, and larger notching, MDNR has authorized removing the following text in order of least importance:
  - 1.7.1 First remove "LICENSE AND KILL TAGE ARE NOT VALID FOR 12 AND 13 YEAR OLDS UNLESS ARCHERY ONLY HUNTING" if more room is needed for prior requirements.
  - 1.7.2 Second remove "THIS IS YOUR LICENSE AND KILL TAG. IMMEADIATELY AFTER KILL NOTCH TAG FOR MONTH, DATE, SEX AND ANTLER POINTS. ATTACHE LICENSE AND KILL TAG TO DEER" if more room is needed for prior requirements.
- 1.8 Keep Customer ID and Barcode on the lower half of license

This Change Request does not encompass a change to any CPC license form.

CR349 - Modify RSS to allow the private land question set to be asked without asking the land owner's tax id number. The land owner's phone number will be printed on the OTC deer license kill tag. (estimated at 112 hours if done with CR348).

1.0 MDNR would use RSSWIN to turn the Private Land question on for Private OTC Deer item types.
- 1.1 Private OTC Deer item types would only be set up by MDNR to be sold on the POS device and not through E-License.

2.0 Currently this question requests both Land Owner Tax ID number and Land Owner Phone number. The POS application only would be changed to only ask for the Land Owner Phone number.
- 2.1 The Land Owner Phone number would be asked on the POS regardless of whether the customer's answer to the 'Basis For Private Land Application' question was 'Guest' or 'Owner'.

3.0 Change the POS to require and print the label "Land Owner Phone #" and the entered phone number, on the license only when the Private Land question is turned on. (see example provided below). When the Private Land question is turned off a blank line will print in its place.

4.0 RSS will not be modified to store the data entered differently than it does today. RSS will continue to store the provided phone number in Special_license_application table.

CR350 - Modify 12 Current Kill tags for improved notching.(estimated at 102 hours).

1.0 Modify all kill tags to eliminate verbiage that is already contained in the guides (i.e. elk, hunt/trap, turkey)

1.1 In order to make more room for the larger notching, MDNR has authorized removing the following text in order of least importance:

1.1.1 First remove the age statement: "LICENSE AND KILL TAGE ARE NOT VALID FOR 12 AND 13 YEAR OLDS UNLESS ARCHERY ONLY HUNTING" if more room is needed for prior requirements.

1.1.2 Second remove the legal statements such as: "IT IS A VIOLATIN TO POSOESS AN UNTAGGED OR IMPROPERLY TAGGED……" , "ISSUED UNDER AUTHORITY OF ACT 451 P.A. 1994", "REPORT YOUR TURKEY HUNTING ACTIVITY TO THE DNR AT……" if more room is needed for prior requirements.

1.1.3 Last, remove the notching directions: "THIS IS YOUR LICENSE AND KILL TAG. IMMEADIATELY AFTER KILL NOTCH TAG FOR MONTH, DATE, SEX (*AND ANTLER POINTS)*. ATTACH LICENSE AND KILL TAG TO (animal name)" if more room is needed for requirements 3, 4 and 5 of this change request.

2.0 Keep Customer ID (and Barcode) on the lower half of licenses that currently have it.

3.0 On all kill tags increase the size of the font for 'mnth, sex, points' labels and corresponding numbers for notching

4.0 On all kill tags remove the printed "V" for the notch (customer will notch the number instead).

5.0 On all kill tags instead of all 31 days of notching being listed on the harvest tag, change the notching pattern so that the hunter indicates the day by poking a hole into 0-3 for the first number of the day, and 0-9 for the second number of the day. This will reduce the number of notches from 31 to 14.

CR351 - Add text to the Questions web page to indicate that online applicants must check their drawing results online. (estimated at 24 hours).

1.0 Add text at the bottom of the application question page that reminds customers that they will not have a postcard sent to them, and they need to come check their success on the web.

2.0 The text to add is: "Online Applicants must check their drawing results at www.michigan.gov/dnr".

3.0 Arrange text of the questions page when the hunt party/hunt area question is asked. The application question page refers to all applications.

3.1 For all applications except elk, the text will appear after the hunt area question.

3.2 For the elk application, the text will appear after the elk question.

CR 342 - Process Internet hangs when no address (Corrective Action - no effort billed to MDNR)

There are situations where an E-License customer is able to bypass the JavaScript edits on the Checkout page. This causes blank data to be stored on the database and eventually passed to ProcessInternetTxns for processing. When ProcessInternetTxns encounters the blank data the programs generates an error and sends a message box to the console, and waits for operator intervention to allow the program to continue. To prevent invalid data from reaching the database, the edits will be copied from the Checkout page to the Process Transaction page.

1.0 Copy the JavaScript edits from the Checkout page to the Process Transaction page. When an error is found at the server, the user is returned to the Checkout page to correct the problem.

1.1 No popup message box is displayed when an error occurs. The error information will be displayed in red text at the top of the Checkout page. The information that was previously entered on the Checkout page will be redisplayed to the user.

Project Schedule for Release 6.3.2

Task Name	Start	Finish
MDNR 6.3.2	5/30/06	07/28/06
Work Management	5/30/06	07/28/06
Application Development	5/30/06	
Refine and Analyze Requirements		
UIS / LPS delivered	06/07/06	06/07/06
UIS / LPS client sign off	06/09/06	06/09/06

Design Application	06/05/06	06/16/06
Produce Application	06/08/06	06/28/06
Produce Perform E-License Integration Testing	06/14/06	06/14/06
Produce Perform POS Integration Testing	07/05/06	07/12/06
Coordinate Formal Acceptance Testing E-License	06/16/06	06/16/06
Obtain Client Sign-off E-License	06/16/06	06/16/06
Application Implementation E-License	06/19/06	06/19/06
Coordinate Formal Acceptance Testing POS	07/14/06	07/19/06
Obtain Client Sign-off POS	07/19/06	07/19/06
Application Implementation POS (Coordinated with Releases 6.2, and 6.3 implementations)	07/24/06	07/28/06
E-License **CR342 and CR351** Implementation Complete	06/19/06	06/19/06
POS Implementation Complete	07/28/06	07/28/06

Example of new OTC Antlerless Deer kill tag:

VII. Cost

The resources required to complete Release 6.3.2 will include:

Information Analyst:	250 hours	@	$133.91 / hour	=	$33,477.50
Project Management:	28 hours	@	$192.84 / hour	=	$5,399.52

Billing Schedule

June 06	July 06
$19,438.51	$19,438.51

VIII. Impact on Contract

Increase: $38,877.02

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **September 6, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 62
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-008 is hereby incorporated into this contract. The attached Change Authorization Request encompasses for setup 450 Licenses and removal of the four (4) bullets related to application sales data.

$269,312.45 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Purchasing Operations and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $37,676,261.76

DIT-15-06-909

SERVICES REQUEST
Michigan Department of Information Technology

FOR USE BY DIT ONLY		
1. DIT Reference No.	2. P.O. No.	3. Requisition No.

What is this for?

Purpose: Contract Amendment

Date Submitted: 8-4-06

Other Information

Project Name: OLAF06-0075

Comments: To enable POS agents and e-License to be able to sell the new antlerless deer licenses in the Special Regulation Units. And to update e-License to remove inaccurate information as a result of the immediate modification of the application periods.

Agency Requestor

Last Name: Pemble
First Name: Bill
Phone: (517) 241-3725
Email / FAX: pemblew@michigan.gov
FACS Agency Code: 751
Dept./Agency/Division: DNR/OLAF

DIT Contact

Last Name: Rutare
First Name: Louis
Phone: (517) 335-4597
Email / FAX: rutarel@michigan.gov
Title:
Address:

AS-1 Information

Request Information

☐ New Project / RFP / Staff Augmentation

☐ Multi-Year Contract — From: ____ To: ____

OR

☐ One Time Purchase — From: ____ To: ____

Request includes: *(Check all applicable)*

☐ Hardware ☐ Services ☐ Hosting
☐ Software ☐ Maintenance ☐ Leasing
☐ Telecommunications ☐ Staff Augmentation Services

☐ Contract Release ☒ Contract Option / Amendment ☐ Delegated Authority PO

Vendor Name: Electronic Data Systems **Contract #:** 084N6201077

Current Contract Period From: 11/20/2004 To: 1/01/2007

Current Contract Remaining Value $

Length of Extension/Release From: ____ To: ____

Amount of Release / Option Amendment $ 4,151.21

Government Estimate

Your Estimated Cost $ 4,151.21

Estimate Based on

☐ Competitive Quotes *(Please Attach)*
☐ Market Research (GSA Pricing, Contract in Another State, Web Research
☐ Historical Pricing/Previous Contract Pricing
☒ Other *(Please attach details)*

Has Estimate Amount Been Approved in Department Budget? ☒ YES ☐ NO

If NO, enter amount that has been approved $

GF / State (%) ____ **Federal (%)** ____

DIT Reference Number

Restricted (%) 100 Revolving (%)

Other (%)

Time Constraints

Needed by Why? *(Grant $, Penalties, etc.)*

Funds Expire BPO Expires 1/1/2007

Purchase Justification

Purpose/Business Case and Expectations: To roll out modifications as a result of regulation changes affecting Special Antlerless Deer licenses and e-License web information content.

Risk Assessment: Needed to be in compliance with regulation changes.

Legal mandate, court order, or law enforcement ☐

Citation

Protect health and safety of Michigan citizens or visitors ☐

Basic requirements of residents of state institutions or facilities ☐

Essential to the continued functioning of a legally-mandated program or activity of state government ☒

To produce budgetary savings or to increase state revenue ☒

Necessary to comply with federal requirements ☐

Account Coding

Agency Internal Funding Source 0572

Appropriation Year 2006

Agency Request	Agency Code 3	Agency Object	Amount	For DIT Internal Requests Index
1 IDG ☐ Yes ☒ No	636000	6112	$4,151.21	
2 IDG ☐ Yes ☐ No				
3 IDG ☐ Yes ☐ No				
4 IDG ☐ Yes ☐ No				

Quantity/Product Description

DIT Reference Number

Item No.	QTY. REQ'D.	UNIT	DESCRIPTION: (Name of item or service, including part number, size, weight, color, or type of work, and suggested vendor)	UNIT PRICE	ITEM TOTAL
1	1	1	System support services CHR- 2006-008	4,151.21	4,151.21
			To implement immediate modifications as a result of recent regulation changes resulting in new application periods and license types. This work will establish new license types for the Special Regulation Units and will update e-License removing inaccurate information as a result of the new application period dates. No dollar impact to BPO Add additional accounting line to 084N6201077		0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
				$	$4,151.21

List of Attachments, as required

- ☐ Bid Information Sheet – New Bid
- ☐ Statement of Work, with attached detailed business requirements; grant conditions; specific terms and conditions for project
- ☐ Vendor Proposal
- ☐ Technical Review Approvals

Approvals

Approvers Comments

Agency Authorized Signature Note: Signature represents Agency commitment to fund this purchase	Date
Dennis Pedeua	8/8/06

DIT Use Only

Sent for Technical Review To:

(Provide copy of signed approval)

- ☐ Telecommunications
- ☐ Data Center / Tech Services
- ☐ Enterprise Security
- ☐ Standards
- ☐ Desktop Services
- ☐ Model Office
- ☐ Other

MDIT Authorized Signature	Date

DIT Reference Number

Paul Groll	10 Aug 2006
Contract Administration Approval Signature Patty Bogard "Click HERE to add electronic signature"	**Date** 8/28/06
Executive Review Approval Signature "Click HERE to add electronic signature"	**Date**

Post-it® Fax Note 7671	Date 8/22	# of pages ▶ 1
To Patty Boogard	From Bill Pemberton	
Co./Dept. DIT	Co. DNR	
Phone #	Phone # 13725	
Fax # 18852	Fax #	

CHANGE AUTHO

Contract No. 071B5000207
Change Authorization Request No.2006-008

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses a Change Control for setup 450 license and removal of the four bullets related to application sales dates.

EDS assisted MDNR in setting up the 450 application so that it would authorize properly. The following day, EDS made an emergency change to the store procedure that authorizes applications that are sold on E-license and POS application. This change required EDS to add the 450 applications that are hard coded in the stored procedure.

In addition, after the Deputy Director contacted MDNR, EDS provided a change to the E-License Welcome (home page) to remove bullet items dealing with the application sales dates.

III. Cost

The resources required to complete this Change Control includes:
Information Analyst: 31 hours @ $133.91 / hour = $4,151.21

Billing Schedule

Aug 06
$4,151.21

IV. Impact on Contract
Increase: $4,151.21

V. Signatures

EDS
By: Jean T Alder
Title: Acct Mgr
Date: 8/3/06

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNR, Program Manager
By: Bill Pemberton
Title: RSS Program Mgr.
Date: 8/2/06

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **August 16, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 61
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-007 is hereby incorporated into this contract. The attached Change Authorization Request encompasses Release 6.3.2 Change Control 1 to release 6.3.3 initialized by DNR.

$269,312.45 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Purchasing Operations and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $37,676,261.76

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2006-007

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses a Change Control 1 to release 6.3.2 and Change Control 1 to release 6.3.3 initiated by the MDNR.

Change Control 1 6.3.2:. 40 POS devices were to be loaded ONLY with the operating system and then sent to EDS. The terminals arrived with the current version of the POS application and some configuration settings were different than Fran's spreadsheet. EDS must invest 20 hours to remove the current application version and validate or update each terminal's configuration settings to match Fran's spreadsheet. This effort is over and above the previous agreement that was made for EDS to load the new Release 6.3 version before shipping the terminals. (estimated at 20 hours).

Change Control 1 6.3.3:. Arrange the displayed fields on the Application Parameters Maintenance window to be in the order as they exist on the application parameter table. Also add 4 fields: void_internet_terminal, void_general_terminal, version_control, and pre_version_to_use and remove unused fields. (estimated at 6 hours).

III. Cost

The resources required to complete Change Control 1 for Release 6.3.3 will include:
Information Analyst: 26 hours @ $133.91 / hour = $3481.66

Billing Schedule

Aug 06
$3481.66

IV. Impact on Contract
Increase: $3481.66

V. Signatures

EDS
By: _____
Title: _____
Date: _____

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNR, Program Manager
By: _____
Title: _____
Date: _____

SERVICES REQUEST

Michigan Department of Information Technology

FOR USE BY DIT ONLY		
1. DIT Reference No.	2. P.O. No.	3. Req

NOTE: This form contains "Click HERE to add electronic signature" areas which allow you to cut and paste / insert a scanned si in approval areas. You MUST use the mouse and click over the word HERE to highlight the phrase before adding the signature. insert the signature and tab from the signature to the Date location. **DO NOT** tab from the Date field or another row will be insert form (Edit + Undo will remove the extra row if this should happen). **Use the mouse to click in the next location for entry.**

What is this for?

Purpose: Contract Amendment

Date Submitted: 7-19-06

Other Information

Project Name: OLAF06-0074

Comments: DIT-15-06-872
To update DNR field
and the application
most current RSS
enhancement functior
increasing efficienc
financial reconcilia

Agency Requestor

Last Name: Pemble
First Name: Bill
Phone: (517) 241-3725
Email / FAX: pemblew@michigan.gov
FACS Agency Code: 751
Dept./Agency/Division: DNR/OLAF

DIT Contact

Last Name: Rutare
First Name: Louis
Phone: (517) 335-4597
Email / FAX: rutarel@michigan.gov
Title:
Address:

AS-1 Information

Request Information

☐ New Project / RFP / Staff Augmentation

☐ Multi-Year Contract From: To: OR ☐ One Time Purchase From: To:

Request includes: *(Check all applicable)*

☐ Hardware ☐ Services ☐ Hosting
☐ Software ☐ Maintenance ☐ Leasing
☐ Telecommunications ☐ Staff Augmentation Services

☐ Contract Release ☒ Contract Option / Amendment ☐ Delegated Authority PO

Vendor Name: Electronic Data Systems **Contract #:** 084N6201077

Current Contract Period
From: 11/20/2004 To: 1/01/2007

Current Contract Remaining Value
$

Length of Extension/Release
From: To:

Amount of Release / Option Amendment
$ 3,481.66

Government Estimate

Your Estimated Cost $ 3,481.66

Estimate Based on
☐ Competitive Quotes *(Please Attach)*
☐ Market Research (GSA Pricing, Contract in Another State, Web Research
☐ Historical Pricing/Previous Contract Pricing
☒ Other *(Please attach details)*

Has Estimate Amount Been Approved in Department Budget? ☒ YES ☐ NO

If NO, enter amount that has been approved $

DIT Reference Number

GF / State (%)		Federal (%)	
Restrictedl (%)	100	Revolving (%)	
Other (%)			

Time Constraints

Needed by		Why? *(Grant $, Penalties, etc.)*	
Funds Expire		BPO Expires	1/1/2007

Purchase Justification

Purpose/Business Case and Expectations
Problem or opportunity definition, i.e., replaces manual system; changed program requirements; regulatory requirement; etc.

To roll out RSS financial reconcilaiton license sales modifications to field offices and central staff.

Risk Assessment

Needed to complete the implementation of significant modifications to financial processing procedures.

- Legal mandate, court order, or law enforcement ☐
- Citation
- Protect health and safety of Michigan citizens or visitors ☐
- Basic requirements of residents of state institutions or facilities ☐
- Essential to the continued functioning of a legally-mandated program or activity of state government ☒
- To produce budgetary savings or to increase state revenue ☒
- Necessary to comply with federal requirements ☐

Account Coding

Agency Internal Funding Source	0572
Appropriation Year	2006

Agency Request	Agency Code 3	Agency Object	Amount	For DIT Internal Requests Index
1 IDG ☐ Yes ☒ No	636000	6112	$3,481.66	
2 IDG ☐ Yes ☐ No				
3 IDG ☐ Yes ☐ No				
4 IDG ☐ Yes ☐ No				

Quantity/Product Description

DIT Reference Number

Item No.	QTY. REQ'D.	UNIT	DESCRIPTION: (Name of item or service, including part number, size, weight, color, or type of work, and suggested vendor)	UNIT PRICE	ITEM TOTAL
1	1	1	System support services	3,481.66	3,481.66
			CAR 2006-007: To configure and roll out 40 devices to DNR field and update an application screen used by central staff with the new modifications that were previously approved. No dollar impact to BPO Add additional accounting line to 084N6201077		0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
				$	$3,481.66

List of Attachments, as required

- ☐ Bid Information Sheet – New Bid
- ☐ Statement of Work, with attached detailed business requirements; grant conditions; specific terms and conditions for project
- ☐ Vendor Proposal
- ☐ Technical Review Approvals

Approvals

Approvers Comments

Agency Authorized Signature Note: Signature represents Agency commitment to fund this purchase	Date
Dennis Fedewa	7-24-06

DIT Use Only

Sent for Technical Review To:

(Provide copy of signed approval)

☐ Telecommunications ☐ Data Center / Tech Services ☐ Enterprise Security
☐ Standards ☐ Desktop Services ☐ Model Office
☐ Other

MDIT Authorized Signature	Date
Paul Groll	26 July 2006

DIT Reference Number

Contract Administration Approval Signature	Date
Patty Boqard Patty Boqard	7-29-06
Executive Review Approval Signature	**Date**
"Click HERE to add electronic signature"	

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **June 8, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 60
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **June 1, 2008**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached RSS 2007 Extension to upgrade RSS to support the current licensing and wildlife management business functions and upgrade and maintain RSS technology is hereby incorporated into this contract. Also effective immediately, contract is hereby EXTENDED 18 months to June 1, 2008.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/DIT and vendor concurrence.

AMOUNT OF INCREASE: $3,997,880.00

TOTAL ESTIMATED CONTRACT VALUE: $37,676,261.76

Proposal for RSS Support Services 1/1/2007 – 6/30/2008

A Proposal to the Michigan Department of Natural Resources
Submitted by Jeanne Alderson, EDS Operations Manager for RSS
February 17, 2006

Table of Contents

Overview

RSS Environment

Michigan's Department of Natural Resources (MDNR) Retail Sales System (RSS) processes hunting and fishing license sales via point of sale (POS) terminals located throughout the state or through an Internet Web site. The system currently consists of production servers located in the EDS Plano, Texas AOPs facility, and Model Office/Disaster Recover servers in Tulsa, Oklahoma AOPs facility.

About 2 million sportspersons a year purchase approximately five million hunting and fishing licenses at the POS sites or through the E-License Web site. These purchases generate more than $50 million a year in revenue for the MDNR.

Vision

EDS has supported MDNR's RSS system from its creation in 1994. EDS has enjoyed working with MDNR to provide a team approach to operating the system with the main focus being on providing excellent customer service to the hunters and anglers that use RSS. Over the years of this relationship, responsibilities of operations have shifted between EDS and MDNR as we have learned the strengths of each organization, and recognized the most efficient solution for a particular RSS process.

As MDNR looks toward the future of the RSS System, there are 5 goals that are important for MDNR to achieve.

1. Reduce Costs of Operating the RSS System
2. Shift the resource support of RSS from outside the State to within the State of Michigan
3. Upgrade RSS to support current licensing and wildlife management business functions
4. Upgrade RSS Technology
5. Maintain the high level of RSS reliability and availability

EDS can immediately address some of these areas with a short term 1.5 year extension to the contract.

During this time, EDS can join with MDNR and DIT to establish a long term strategy for achieving some of the items that may take place after 2008.

Accomplishing the Goals

Reduce Costs of Operating the System

EDS proposes addressing several areas of the current contract that can be adjusted in a contract extension to reduce the cost of operations.

1. Hosting Cost Reductions
    a. The majority of servers that are hosted within the Plano Production Hosting environment have their lease period fully depreciated. EDS can reduce hosting costs for this hardware for MDNR by switching over to an end-of-life service agreement. EDS proposes that MDNR extend the use and life of the current servers for 1.5 years, and remain at Windows 2000 OS.
    b. In 2003, MDNR requested web usage statistical reporting capabilities. This data has never been used by the MDNR in the last three years. EDS proposes that the dedicated server used to capture and present this data be eliminated from the production hosting environment.
    c. DIT hosts several other agency systems, and the State's infrastructure continues to grow to allow the support of more of this business. EDS proposes that at the end of December 2006, DIT will create and support the Model Office / DRA RSS environment that is currently hosted by EDS in Tulsa.

    These cost savings are depicted in lines 9 and 10 of the RSS 07 Draft Extension Billing Spreadsheet.

2. Application Support Cost Reductions
    a. MDNR has requested in the past that DIT be able to make content changes to E-License. EDS proposes that we train DIT on the development, support, and monitoring of E-License in January and February of 2007. In March of 2007, E-License responsibilities will be turned over to DIT. This will reduce EDS's required support by 0.5 FTE per month.

    These cost savings are depicted in line 5 of the RSS 07 Draft Extension Billing Spreadsheet.

    b. EDS proposes reducing production support rates back to the 2003 contract level for the 1.5 year extension

    These cost savings are depicted in line 2 of the RSS 07 Draft Extension Billing Spreadsheet.

3. Application Development and Enhancement Cost Reductions
    a. MDNR requested over 6000 hours in 2004 and over 4000 hours in 2005 of add-on enhancements to the system that were above the 2 FTE Enhancement pool.
        i. EDS proposes that an additional FTE Enhancement resource be added to the pool, shifting the required hours of resources from an add-on ("as-needed") higher billing rate to a managed lower billing rate.

ii. EDS proposes that the add-on billing rate be dropped back to the 2003 hourly rates for the remaining enhancements that will be over-and-above the 3 FTE enhancement pool.

These cost savings are depicted in line 22 and 23 of the RSS 07 Draft Extension Billing Spreadsheet.

b. EDS proposes reducing the FTE Enhancement pool billing rate back to the 2003 contract level for the 1.5 year extension.

These cost savings are depicted in line 3 of the RSS 07 Draft Extension Billing Spreadsheet.

Shift the resource support of RSS to the State of Michigan

EDS understands the State's desire to have it's IT needs supported through resources that are within the State of Michigan, and two of our proposal areas address this goal immediately in the 1.5 year contract extension.

1. EDS proposes that we train DIT on the development and support of E-License in January and February of 2007. In March of 2007, E-License application development, support, and monitoring will be turned over to DIT. This will reduce EDS's required support by 0.5 FTE per month.
2. EDS proposes that at the end of December 2006, DIT will create and support the Model Office / DRA RSS environment that is currently hosted by EDS in Tulsa.
3. At the end of the 1.5 year extension, RSS will be in need of a hardware and operating system upgrade. EDS proposes that at this time, the Plano Production hosting services offered by EDS be discontinued and RSS production will be hosted in Michigan by DIT.

Upgrade RSS to support current licensing and wildlife management business functions, and upgrade RSS technology.

RSS was designed around the business processes of MDNR licensing, and enabled by available technology of the mid-1990's. As business processes have changed, RSS has been enhanced to automate those new processes. Also as new technologies have surfaced, MDNR has taken advantage of using those technologies, such as license sales via the web. As MDNR looks toward the future of RSS, now is an opportune time to address the fit of RSS application capabilities with the processes of mid-2000 business. At the same time, technology upgrades should be driven by the business needs and the availability of the technology. EDS proposes that during the 1.5 year extension, MDNR, DIT and EDS team together to create the strategy that will streamline MDNR's processes and the RSS application.

1. Move from Store-and-forward to Real-time.
    a. Enable more business rule enforcement and customer verification at the Point of Sale.
    b. Reduce license sales financial balancing issues.
2. Move RSSWIN from Powerbuilder to Web while re-engineering for current MDNR business practices.

a. Simplify the RSS application set, thus making the system easier and more cost efficient to maintain and enhance.

b. Eliminate un-used system functions, thus reducing the maintenance efforts required to support the system.

c. Provide a more efficient Agent application process via the web.

d. Give Hunters and Anglers more access to their license history and current status of purchases.

3. Move from Dial-up POS to broadband enabled Point-of-sale model.

   a. Eliminate POS terminals and have agents provide their own PC's to sell licenses via a web interface.

   b. Eliminate the need for the MCI X.25 network, communication servers, and Eicon cards.

   c. Shift communication costs from MDNR to the Retail Agent.

   d. Provide the Retail Agent with more data about their license transactions.

Maintain the high level of RSS reliability and availability

MDNR and EDS have worked well together over the past 12 years to consistently increase the quality of the services provided through RSS. In our current contract, EDS commits to a 99.5% application up-time. On a monthly basis EDS provides a report to MDNR to document the percentage of uptime. Consistently, RSS application has maintained 100% uptime, even during the days before Opening Deer season, when the highest volume of sales occur. EDS proposes to team with the State to strategically move hosting, application support, and application development over to DIT, with a plan that ensures the level of reliability and availability that MDNR requires of RSS.

1. Move Model Office hosting to DIT at the end of 2006.
2. Move E-License application support, monitoring, and development to DIT at the beginning of 2007.
3. Move Production Hosting to DIT in mid 2008.
4. Migrate RSSWIN from Powerbuilder to Web based application, and transfer RSSWIN web functional areas to DIT as they are required by MDNR.
5. Migrate POS from Dial-up to Web base Point-of-Sale and transfer POS to DIT as required by MDNR.
6. Train DIT on the remaining Database and Batch functions of RSS and transfer to DIT as required by MDNR.

Conclusion

EDS believes that we can be an instrumental partner in helping the State achieve it's future goals for the Retail Sales System. We look forward to our continuing teamwork with MDNR and DIT, and welcome the opportunity to work together in defining and implementing RSS's long term strategy and transition of responsibilities from EDS to the State of Michigan.

RSS 07 Draft Extension Billing

	EDS RSS Support areas	2003 Pricing per month	Current 2006 Pricing per month	Proposed Extension per month: 1/1/07 to 6/30/08	Total extension cost at current 2006 pricing and services	Total proposed cost for Extension
1	POS Communications (Direct costs + 7% overhead)	$9,598	$9,598	$9,598	$172,764	$172,764
2	RSS Operations and Maintenance (Man-Time Only)	$99,097	$104,416	$99,097	$1,879,483	$1,783,746
3	Systems Enhancement pool (Man-Time Only) 2 FTE per mo	$26,017	$27,413	$26,017	$493,441	$468,306
4	OLS Maintenance (2003 Web Vault Hosting)					$0
5	E-License application support .5 FTE. This will be turned over to DIT in March 2007. E-License maintenance will be dropped to 2003 rates and required for only Jan. and Feb. of 2007	$6,503	$6,852	$6,503	$123,337	$13,006
6	Ongoing EZ-License application maintenance					$0
7	Hosting Production Servers Monthly Vulnerability Scans	$895	$895	$895	$16,110	$16,110
8	Web Hosting Production Servers Intrusion Detection	$0	$0			$0
9	Web Hosting of RSS production and MO / DR Leveraged Environment (Hardware & Software)	$9,290	$9,290	$0	$167,223	$0
10	Web Hosting of RSS Production Only Environment	$32,938	$32,938	$35,100	$592,881	$631,800
11	Disaster recover plan and testing, project management, travel (Man Time Only)		$0			$0
12	LSC development hardware/maintenance (HW/SW Only) Being supplied by MDNR with old RSS equipment		$0			$0
13	LSC RSS enhancements, and preparation for hosting implementation (Man Time Only)		$0			$0
14	Project Management for Hosting RSS and MO/DR (Man Time)		$0			$0
15	Acct. Tech Support (Man Time Only)		$0			$0
16	Circuit installation for POS (MCI costs)		$0			$0
17	Web Hosting implementation for RSS & MO/DR (Man Time Only)		$0			$0
18	Travel for Phase 2 implementation		$0			$0
19	Project Management for E-License migration		$0			$0
20	Web Hosting implementation for E-License Migration		$0			$0
21	Ad-hoc Reporting (Man Time)	$600	$600	$600	$10,800	$10,800
22	Increase Enhancement FTE pool by one, to reduce the needed number of Add-On requests: (2004 spent more than 6000 hours, 2005 spent more than 4000 hours): This line compares one man month at 2006 ADD-ON rates(blended PM+IA) to Proposed one man-month of Enh. FTE rates	$17,474	$18,559	$13,009	$334,066	$234,153
23	Reduce Add-On rates from current 2006 to 2003 rates: line item depicts blended rates of PM and Information Analyst	$37,066	$39,368	$37,066	$708,624	$667,195
	Totals	$239,479	$249,929	$227,885	$4,498,728	$3,997,880
	Total Savings for proposed extension					$500,848
	Total Percentage of savings of proposed extension					11.13%

ORIGINAL $ 93,123 /MONTH

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **June 5, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 59
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-004 is hereby incorporated into this contract. The attached Change Authorization Request encompasses Release 6.3 Change Control 50 and lists the corrective actions and enhancements that are to be made.

$269,312.45 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $11,301,666.57

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **June 5, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 58
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-003 is hereby incorporated into this contract. The attached Change Authorization Request encompasses CR322 and lists the corrective actions and enhancements that are to be made.

$272,526.29 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $11,301,666.57

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **March 31, 2006**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 57
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2006-002 is hereby incorporated into this contract. The attached Change Authorization Request encompasses Release 5.4.2 and lists the corrective actions and enhancements that are to be made.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $11,301,666.57

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **September 20, 2005**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 56
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2005-6 is hereby incorporated into this contract. The attached Change Authorization Request encompasses Release 5.4.2 and lists the corrective actions and enhancements that are to be made.

All other terms, conditions, specifications and pricing remain unchanged.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services and vendor concurrence.

TOTAL ESTIMATED CONTRACT VALUE REMAINS: $11,301,666.57

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2005-006

IX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

X. Description of Change

This Change Authorization Request encompasses **Release 5.4.2**, which includes the following Customer Service Requests: August 16, 2006 – February, 06, 2006

The development and testing will be completed in 2005, and all CRs except CR118, CR235 and CR254 will be implemented in December 2005. Those CRs that impact E-License will be implemented after Spring Turkey Application period in February 2006.

Corrective Actions

- CR118: Correct the insert null into hunter safety flag E-License error
- CR209: Allow multiple runs of the lifetime license process to be performed without generating duplicate records in license issued for the same terminal key, sequence number and transaction date
- CR261: Correct the license void process to allow the upload file to be marked as complete instead of partial when a duplicate void transaction that has not been previously rejected is encountered
- CR271: Modify the void verification process so that the correct amount paid price is returned to the POS device

Enhancements

- CR202: Enhance the RSSWIN application to allow the Bear Lifetime application license type to be copied from one license year to another - 140 hours estimated
- CR235: Replace VeriSign with CEPAS – 431 hours estimated
- CR254: Incorporate American Express and Discover into Elicense – 40 hours estimated
- CR266: Misc License Merge Document Process – 150 hours estimated
- CR294 : Automate Misc License Taxidermy renewal form changes - 64 hours estimated
- Delayed implementation of E-License CRs until 2/2006 - 33 hours estimated

Project Schedule for Release 5.4.2

Task Name	Start Date	Finish Date
47 - MDNR Rel 5.4.2	08/15/05	02/16/06
Work Management	08/15/05	02/16/06
Plan Project Work	08/15/05	10/06/05
Execute Project Plan	08/15/05	02/16/06
Application Development - Overlapping Waterfall	08/15/05	12/13/05
Refine and Analyze Requirements	08/15/05	09/12/05
AN-Client Requirements Signoff	08/18/05	08/26/05
AN-Corrective Actions	08/22/05	08/31/05
AN-Enhancements	08/23/05	09/07/05
AN-Client UIS/LPS Signoff	09/07/05	09/12/05
Design Application	08/30/05	10/10/05
DS-Corrective Actions	08/30/05	09/21/05
DS-Enhancements	08/30/05	09/29/05
Develop Test Specifications	09/07/05	10/05/05
Produce Application	09/26/05	11/28/05
PR-Corrective Actions	09/26/05	10/19/05
PR-Enhancements	09/29/05	11/08/05
Load Stress Testing Tool	10/10/05	10/19/05
PR-Perform Integration Testing	11/09/05	11/28/05
Release Application	11/28/05	12/13/05
RL-Deliver Release Notes, Implementation Plan & FAT signoff to client	11/29/05	11/29/05
RL-RSSWIN test push (@MDNR)	11/29/05	11/29/05
RL-Coordinate Formal Acceptance Testing	11/29/05	12/13/05
Obtain Client Sign-off	12/13/05	12/13/05
Application Implementation	12/14/05	02/06/05
IM-Install Application Software to Production	12/14/05	12/14/05
Create Misc License CD's	12/14/05	12/14/05
IM-Data Conversion for CR261, CR271	12/14/05	12/14/05
Client training on Misc License	12/15/05	12/15/05
Install Elicense items to Production	02/06/06	02/06/06
IM-Implementation Complete	02/06/06	02/06/06

XI. Cost

TOTAL EFFORT REQUIRED BY 5.4 PROJECT:

Information Analyst:	768 hours
Project Management:	90 hours

Hour Effort covered by Enhancement FTEs:

05-Aug	05-Sep	05-Oct	05-Nov	05-Dec	06-Feb
66	264	264	132	99	33

Total Cost	6.5 Man Mo	@	$13,424.77/FTE	=	$87,261.01

TOTAL Add-On EFFORT REQUIRED BY 5.4 PROJECT:

Information Analyst:	0 hours	@	$131.16 /hour	=	0
Project Management:	0 hours	@	$188.88/hour	=	0
Total Add-On cost					0

XII. Impact on Contract

Increase: $0

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **July 15, 2005**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 55
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 **Jacque Kuch**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2005-04a, CAR 2005-04b and CAR 2005-005 are hereby incorporated into this contract. $725,528.37 of the Administrative Board approval dated December 17, 2002 will fund this change notice, while the remaining $370,366.19 that dated approval will fund future projects.

All other terms, conditions, specifications and pricing remain unchanged.

Please note: The buyer has been changed to Jacque Kuch.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2005-003

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

This Change Authorization Request encompasses **Release 5.4**, which includes the following Customer Service Requests:
March 16 – September 22, 2005

Corrective Actions: (performed with Production Support resources)

•CR251- Add Diary to Merge Purge Process and allow Merge Purge to process records that have null in the application license type flag .
•CR252 - address processing for address line 1
•CR 239 – Rebuild ProcessMissingUploadFiles.exe
•CR 259 – Write invalid terminal key records, found in POS upload files, to the failed transaction table and email the customer.
•CR 176 – Correct problem with the CustomerMergeLoad process as multiple entries exist on the customer table with the same DL.
•CR 272 – Correct MergePurge duplicate error when each customer has a preference point in the same year for same hunt type.

Enhancements:

•CR116 - Provide for the Purchase of Elk Receipt on the E-License application (estimated at 38 hours)
•CR232 – Provide notification to user of Annual License end date when license is being purchased within 60 days of end of season (estimated at 39 hours)
•CR255 - Remove Party ID from Shopping Cart display in E-License (estimated at 24 hours)
•CR 269 – Add a function in RSSWIN, on the Customer Purchases Item List Window, to allow MDNR to void any customer purchase (estimated at 1258 hours)
•CR 268 – Change the E-License error message to be more descriptive to the customer. (estimated at 32 hours)

Revised Project Schedule for Release 5.4

Task Name	Start Date	Finish Date
43 - MDNR Rel 5.4	03/07/05	09/29/05
Work Management	03/07/05	09/29/05
Plan Project Work	03/07/05	05/11/05
Execute Project Plan	03/16/05	09/29/05
Application Development - Overlapping Waterfall	03/16/05	09/02/05
Refine and Analyze Requirements	03/16/05	05/17/05
AN-Client Requirements Signoff	04/27/05	04/27/05
AN-Corrective Actions	03/16/05	04/19/05
AN-Enhancements	03/16/05	05/17/05
AN-Client UIS/LPS Signoff	05/10/05	05/17/05
Design Application	03/16/05	06/15/05
DS-Corrective Actions	03/22/05	05/13/05
DS-Enhancements	04/04/05	05/31/05
Develop Test Specifications	03/16/05	06/15/05
Produce Application	04/05/05	08/17/05
PR-Corrective Actions	04/05/05	06/20/05
PR-Enhancements	04/13/05	07/22/05
PR-Perform Integration Testing	07/29/05	08/17/05
Release Application	08/18/05	09/02/05
RL-Deliver Release Notes, Implementation Plan & FAT signoff to client	08/18/05	08/18/05
RL-RSSWIN test push (@MDNR)	08/18/05	08/18/05
RL-Coordinate Formal Acceptance Testing	08/19/05	09/02/05
Obtain Client Sign-off	09/02/05	09/02/05
Application Implementation	09/22/05	09/22/05
IM-Install Application Software to Production	09/22/05	09/22/05
IM-Data Conversion for CR251	09/22/05	09/22/05
IM-Implementation Complete	09/22/05	09/22/05

III. Cost

TOTAL EFFORT REQUIRED BY 5.4 PROJECT:

Information Analyst:	1181 hours
Project Management:	210 hours

Hour Effort covered by Enhancement FTEs:

05-Mar	Apr. 05	May. 05	05-Jun	05-Jul	05-Aug
132	264	264	264	264.00	198.00

Total Cost	10.5 Man Mo	@	$13,424.77/FTE	=	$140,960.09

TOTAL Add-On EFFORT REQUIRED BY 5.4 PROJECT:

Information Analyst:	0 hours	@	$131.16 /hour	=	0
Project Management:	0 hours	@	$188.88/hour	=	0
Total Add-On cost					0

IV. Impact on Contract

Increase: $0

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2005-004a

V. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

VI. Description of Change

This Change Authorization Request encompasses the initial startup tasks and Analysis phase of Release 6.3, which defines the MDNR's accounting's staff requirements for modifying RSS to assist them in reconciling the financial transactions. Detailed requirements are documented in CR173_Financial_HighLevelRequirements.doc version 17 dated 4/1/2005. Six Analysis sub-sections will be presented to MDNR for review and sign-off at specific dates within the duration of this CAR. Also the RSS database changes required will be completed through Design and Produce phases, which are necessary products to complete for the analysis completion of the other tasks.

Available staffing has been committed for the Analysis phase of 6.3 with a start date of May 1st and completion at the end of July. The Project plan below shows the dates that the analysis documents will be delivered to MDNR by sub-section in a staggered plan so that the MDNR will have 7 days to review and provide sign-off on each sub-section.

The original 6.3 project plan was built to maximize efficiency and minimize effort of delivering through implementation the entire release and scope as described in CR173_Financial_HighLevelRequirements.doc version 17. EDS plans to maintain the entire project plan for delivering both CAR 2005-004a (Analysis Phase) CAR 2005-004b (Design through Implementation) in order to prevent an increase in effort. Therefore it is critical to obtain sign-offs in the timeframe allowed within the project plan. It is also critical to obtain approval for Design through Implementation by June 15th , 2005 in order to maintain the trained staff and progress with the defined schedule. If EDS is not able to maintain a consistent effort throughout completion of the entire release, additional effort may be required if delays occur and impact the project plan or the staffing requirements.

This CAR is being delivered to MDNR based upon current contract established hourly rates for enhancement work. EDS is aware that the State of Michigan (SoM) is requesting rate negotiations for the RSS contract. If during the duration of CAR 2005-004a, EDS and SoM agree to a rate change, the new rates will be applied to all the effort provided in CAR 2005-004a, and future invoices will compensate MDNR for the difference in billing.

Problem Overview:

Collection Fund Distribution for Receipts Voucher is not appropriate for sales accounting purposes; it is based upon paying off oldest charges first. It includes Non Sufficient Funds (NSF) and void dollar amounts in the distribution amounts. It also nets out the credits with the first debit transaction. It is difficult for Accounting to reconcile the revenue using RSS.

When a weekly Electronic Fund Transfer (EFT) is dropped because of NSF, it is rolled into the next week's charges. It then becomes difficult to reconcile the inventory of sales for a specific week since the value continually changes.

DNR offices have a Calculate Deposit function on the POS that is based upon the transactions that are still in memory on the POS. Sometimes these transactions can be wiped out if there is a terminal failure and a new terminal must be sent to the agent. This causes a calculated deposit that is not based upon what was actually sold and recorded in RSS or the total amount of the POS's transactions for the week. Also, not all DNR offices calculate a deposit each week.

Requirements Overview:

Accounting would like to keep each weekly EFT intact so that it represents an invoice for that agent's weekly sales and voids, and so that the fund distribution is retained for those transactions within that week. If that invoice is not paid by the agent in that week (NSF creates a failed EFT), then the total amount of the original EFT is still retained, and submitted again in the following week's EFT processing. NSF will no longer "drop' the EFT detail and just add those charges to the next week's detail. Both the existing outstanding invoices and the current week's charges in a different newly formulated EFT will be submitted separately. As full payment is made against the weekly EFT invoice, the system needs to show how those payments are being distributed amongst the funds that were intended to collect the amount based upon the sales included in that week's sales.

DNR offices will be treated like retail agents and will start paying through the EFT process; the "DNR Functions" on the main menu of the POS application will be disabled. RSS will calculate what is owed for the week based upon the transactions that have been processed into the License Issued table. The DNR office will have a invoice sent to them so that the staff will know how much money should be deposited and recorded as a deposit. The total dollar amount for the transactions received in the week for sales and voids will remain unchanged.

The data stored in the system will allow the MDNR to review the fund distribution at any point in time for the sale or void of an item, a successful EFT, an unsuccessful EFT, or a Receipts Voucher (RV).

Solution Summary:

Payments will no longer be applied to oldest charges first and recorded as such in the Agent Account Receivable (AR) Collection and Agent AR Fund Collection tables. A specific payment will be applied to the transactions from that specific EFT only via the Agent AR tables. The total dollar value of an EFT will always be maintained from the time it is originally formulated. Collections will now be recorded to the transactions within the EFT that they are tied to. The dollar amount for a single item will never be partially collected, and therefore the fund distributions for items sold, replaced and voided will now be tied to full dollar amount of the transaction. Collections and fund distribution will be based on the Agent AR and Agent Fund AR tables that currently record the distribution based on the full value of the sale, void, or replacement of the item.

Each EFT summary record will separate the current week's amount from the total requested. Resubmitted amounts will be the difference between the two.

The weekly EFT job will process DNR sales as well as an agent's sales. An EFT bulletin will be sent to the DNR office that will detail the weekly invoice. The DNR office will deposit based upon the bulletin invoice, rather than a calculation from the POS device.

DNR field offices will continue to deposit to their local bank and fax the tickets into the cashier's office. The cashier's office enters the tickets into MAIN (the state of Michigan's main accounting system). So the revenue is recorded once as it is deposited in the bank and then again when the EFT is processed because they both go to MDNR accounts. MDNR will set up DNR field offices with a sales outlet type that will allow them to identify these offices for interface requirements to the MAIN system. MDNR will create a file with records for these sales outlets to record a negative deposit in MAIN. This will alleviate the need for new deposit tickets or a new manual process for Department of Treasury bank reconciliation. In the

event that a field office deposits less than the EFT amount, the DNR will hold the shortage and make the necessary entry to "over/short".

Project Schedule:

Task Name	Start Date	Finish Date
44 - MDNR Rel 6.3	04/21/05	10/01/06
Work Management	04/21/05	04/22/05
Application Development - Overlapping Waterfall	04/21/05	04/21/06
Refine and Analyze Requirements	04/21/05	07/27/05
Analyze Logical System	05/26/05	07/27/05
AN-Big Agent Complete - Send docs to client	06/23/05	06/23/05
AN-Client Review & Signoff - BigAgent	06/30/05	06/30/05
AN-EFT Complete - Send docs to client	07/20/05	07/20/05
AN-Client Review & Signoff - EFT	07/27/05	07/27/05
AN-AR Complete - Send docs to client	07/08/05	07/08/05
AN-Client Review & Signoff - AR	07/18/05	07/18/05
AN-POS Complete - Send docs to client	07/14/05	07/14/05
AN-Client Review & Signoff - POS	07/21/05	07/21/05
AN-Miscellaneouse Adj Complete - Send docs to client	06/29/05	06/29/05
AN-Client Review & Signoff - Miscellaneous Adjustments	07/18/05	07/18/05
AN-Data Conversion complete - Send docs to client	07/14/05	07/14/05
AN-Client Review & Signoff - Data Conversion	07/21/05	07/21/05
Design Application	05/26/05	12/09/05
DS-Table changes	05/26/05	05/31/05
Produce Application	06/01/05	03/29/06
PR-Table Changes - Code	06/01/05	06/07/05

VII. Cost

The resources required to complete Analysis for release 6.3 will include:

Information Analyst:	1059	@	$131.16 / hour	=	$138,898.44
Project Management:	118	@	$188.88 / hour	=	$22,287.84

Billing Schedule

May 05	Jun 05	Jul 05
$45,500	$57,938	$ 57,748.28

VIII. Impact on Contract
Increase: $161,186.28

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2005-004b

IX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

X. Description of Change

This Change Authorization Request encompasses the design through implementation tasks of Release 6.3, which defines the MDNR's accounting's staff requirements for modifying RSS to assist them in reconciling the financial transactions. Detailed requirements are documented in CR173_Financial_HighLevelRequirements.doc version 17 dated 4/1/2005. The development and testing of this release will be completed and available to the MDNR for model office testing in April 2006, assuming an approval for this CAR before 6/15/05. Implementation will be planned for September 2006 to coincide with the MDNR's new fiscal year start.

The original 6.3 project plan was built to maximize efficiency and minimize effort of delivering through implementation the entire release and scope as described in CR173_Financial_HighLevelRequirements.doc version 17. EDS plans to maintain the entire project plan for delivering both CAR 2005-004a (Analysis Phase) CAR 2005-004b (Design through Implementation) in order to prevent an increase in effort. Therefore it is critical to obtain sign-offs in the timeframe allowed within the project plan. It is also critical to obtain approval for Design through Implementation by June 15th , 2005 in order to maintain the trained staff and progress with the defined schedule. If EDS is not able to obtain CAR signoff by June 15th, 2005 and maintain a consistent effort throughout completion of the entire release, additional effort may be required if delays occur and impact the project plan or the staffing requirements.

This CAR is being delivered to MDNR based upon current contract established hourly rates for enhancement work. EDS is aware that the State of Michigan (SoM) is requesting rate negotiations for the RSS contract. If during the 2005 calendar year, EDS and SoM agree to a rate change, the new rates will be applied to all the effort provided in CAR 2005-004b for 2005, and future invoices will compensate MDNR for the difference in billing.

Problem Overview:

Collection Fund Distribution for Receipts Voucher is not appropriate for sales accounting purposes; it is based upon paying off oldest charges first. It includes Non Sufficient Funds (NSF) and void dollar amounts in the distribution amounts. It also nets out the credits with the first debit transaction. It is difficult for Accounting to reconcile the revenue using RSS.

When a weekly Electronic Fund Transfer (EFT) is dropped because of NSF, it is rolled into the next week's charges. It then becomes difficult to reconcile the inventory of sales for a specific week since the value continually changes.

DNR offices have a Calculate Deposit function on the POS that is based upon the transactions that are still in memory on the POS. Sometimes these transactions can be wiped out if there is a terminal failure and a new terminal must be sent to the agent. This causes a calculated deposit that is not based upon

what was actually sold and recorded in RSS or the total amount of the POS's transactions for the week. Also, not all DNR offices calculate a deposit each week.

Requirements Overview:

Accounting would like to keep each weekly EFT intact so that it represents an invoice for that agent's weekly sales and voids, and so that the fund distribution is retained for those transactions within that week. If that invoice is not paid by the agent in that week (NSF creates a failed EFT), then the total amount of the original EFT is still retained, and submitted again in the following week's EFT processing. NSF will no longer "drop' the EFT detail and just add those charges to the next week's detail. Both the existing outstanding invoices and the current week's charges in a different newly formulated EFT will be submitted separately. As full payment is made against the weekly EFT invoice, the system needs to show how those payments are being distributed amongst the funds that were intended to collect the amount based upon the sales included in that week's sales.

DNR offices will be treated like retail agents and will start paying through the EFT process; the "DNR Functions" on the main menu of the POS application will be disabled. RSS will calculate what is owed for the week based upon the transactions that have been processed into the License Issued table. The DNR office will have a invoice sent to them so that the staff will know how much money should be deposited and recorded as a deposit. The total dollar amount for the transactions received in the week for sales and voids will remain unchanged.

The data stored in the system will allow the MDNR to review the fund distribution at any point in time for the sale or void of an item, a successful EFT, an unsuccessful EFT, or a Receipts Voucher (RV).

Solution Summary:

Payments will no longer be applied to oldest charges first and recorded as such in the Agent Account Receivable (AR) Collection and Agent AR Fund Collection tables. A specific payment will be applied to the transactions from that specific EFT only via the Agent AR tables. The total dollar value of an EFT will always be maintained from the time it is originally formulated. Collections will now be recorded to the transactions within the EFT that they are tied to. The dollar amount for a single item will never be partially collected, and therefore the fund distributions for items sold, replaced and voided will now be tied to full dollar amount of the transaction. Collections and fund distribution will be based on the Agent AR and Agent Fund AR tables that currently record the distribution based on the full value of the sale, void, or replacement of the item.

Each EFT summary record will separate the current week's amount from the total requested. Resubmitted amounts will be the difference between the two.

The weekly EFT job will process DNR sales as well as an agent's sales. An EFT bulletin will be sent to the DNR office that will detail the weekly invoice. The DNR office will deposit based upon the bulletin invoice, rather than a calculation from the POS device.

DNR field offices will continue to deposit to their local bank and fax the tickets into the cashier's office. The cashier's office enters the tickets into MAIN (the state of Michigan's main accounting system). So the revenue is recorded once as it is deposited in the bank and then again when the EFT is processed because they both go to MDNR accounts. MDNR will set up DNR field offices with a sales outlet type that will allow them to identify these offices for interface requirements to the MAIN system. MDNR will create a file with records for these sales outlets to record a negative deposit in MAIN. This will alleviate the need for new deposit tickets or a new manual process for Department of Treasury bank reconciliation. In the event that a field office deposits less than the EFT amount, the DNR will hold the shortage and make the necessary entry to "over/short".

Project Schedule:

Task Name	Start	Finish
44 - MDNR Release 6.3	04/20/05	10/13/06
Work Management	04/20/05	10/13/06
Application Development - Overlapping Waterfall	04/20/05	05/04/06
Design Application	05/26/05	11/08/05
Produce Application	06/01/05	04/10/06
Perform Integration Testing	03/13/06	04/10/06
Release Application	04/10/06	05/04/06
RL-Formal Acceptance Testing Move to Model Office	04/10/06	04/12/06
RL-Deliver Business Organization Components to Client	04/10/06	04/10/06
RL-Coordinate Formal Acceptance Testing	04/13/06	05/04/06
RL-Obtain Client Sign-off	05/04/06	05/04/06
Application Implementation	09/29/06	10/01/06
IM-Install Application Software - Move to Production	09/29/06	10/01/06
IM-Data Conversion	09/29/06	09/30/06
IM-Complete	10/01/06	10/01/06

XI. Cost

The resources required to design, develop, test, and implement will include:

Information Analyst:	3547	@	$131.16 / hour	=	$465,224.52
Project Management:	394	@	$188.88 / hour	=	$74,418.72

Billing Schedule

05-Jul	05-Aug	05-Sep	Oct. 05	Nov. 05	Dec. 05
$189.72	$57,938	$57,938	$57,938	$57,938	$57,938

06-Jan	06-Feb	06-Mar	06-Apr	06-Sep
$57,938	$57,938	$58,938	$57,938	$17,011.52

XII. Impact on Contract
Increase: $539,643.24

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2005-005

XIII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XIV. Description of Change

The purpose of this change is to provide services for RSS to MDNR's Wildlife division. These services include the following:

1) CR133: Create a new ELK form for POS. This CR will be implemented in July 2005, coordinated with MDNR for the specific download date. (51 hours)

2) Provide information analyst support for Drawing Coordinator activities from June 20th through July 31st 2005.

- This period may be extended through August 2005 with agreement of both Wildlife division and EDS. The effort for the extension has been provisioned in this CAR for budgeting purposes, even though both EDS and MDNR have not committed to the extension to the end of August. The analyst will be on site at the Mason Building and take direction from the MDNR Wildlife division staff.
- The analyst will work one to two days a week, at the request of MDNR. MDNR will schedule 8 days in advance, the required number of days for the week, and the days will be coordinated between the EDS analyst and MDNR. The part-time resource will work 8 hours a day on the specified days, @ $101.70 per hour. The MDNR will be billed in July for the actual hours and the parking expenses. A maximum of twenty-two 8 hour days (12 days through July 31st and 10 days in August) will be accounted for in this CAR. MDNR will only be billed for the actual hours and parking expenses incurred. MDNR will be billed in July for all services provided in July. MDNR will be billed in August for any services provided in August.
- MDNR will provide a cubicle, workstation, network connectivity, email, and parking for the analyst support person.
- The EDS analyst being provided has performed RSS drawing activities in prior years for the MDNR and has SQL experience.

XV. Cost

TOTAL Add-On EFFORT REQUIRED BY CR133 PROJECT:

Information Analyst:	51 hours	@	$131.16 /hour	=	$6,689.16

MAXIMUM Add-On EFFORT THAT MAY BE REQUIRED by Drawing Coordinator assistant:

Information Analyst:	176 hours	@	$101.70 /hour	=	$17,899.69

Estimated parking expenses ($5.00/day) = $110.00

XVI. Impact on Contract
Increase: $24,698.85

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **February 25, 2005**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 54
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-1218 **Melissa Castro**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2004-016 are hereby incorporated into this contract.

$25,944 of the Ad Board approval dated December 17, 2002 will fund this change notice.

The remaining $1,095,894.56 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-016

XIII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XIV. Description of Change

This Change Authorization Request encompasses **Release 5.3**, which includes the following Customer Service Requests:
PHASE 1 December 1, 2004 – February 10, 2005

- CR203 Missing Sequence Number for Void: When a host authorization is required for a Void transaction, the first transaction is missing the sequence number and the license amount on the Upload file. The remainder of the transactions after the intial void from that order will have an incorrect sequence number and license amount. Update the void process to accurately include the transaction sequence number and license price in the message sent to the authorization log table.

- CR204B - Long Term Void Child to Parent Association: Update internal functions (valid sales type, fill temporary transaction header from item type and validate last order) to correctly process error codes returned by original and new functionality. Add local screen messages explaining errors when they occur. Remove redundant commission code from fill temporary transaction header from item type

- CR205 - Add Dove Question to HIP: For POS and E-License: Modify the HIP survey to include a separate question for dove for the 2005 hunt season. The new question should read, "Your last years dove harvest?" Responses, "No Hunt, None 1-30, 31-more." This question should look like and be placed just above the question for woodcocks

- CR210 - POS Load License Forms from General Menu: Add a function that will allow the agent to reload license forms from the General Menu with out having to restart the Omni 3740. Modify POS to allow license forms to be loaded from the general menu with out performing a restart. This will eliminate the need for the agent to know the system mode password

- CR211 - POS Restart the application from General: Add Functionality in POS that will allow the agent to restart the application without having to go to the System Mode. This will eliminate the need for the agent to know the system mode password.

- CR215 - Incorrect Total $ with Sportcard: If a Sportcard is purchased, along with any licenses with a print type of 'S' (prints on receipt printer), the total amount on the license is off by $1 (on the receipt printer). Update PrintItem to properly display the total for the customer license/application receipt. The customer is being charged the correct amount, but the total printed on the POS receipt that the customer receives.

- CR219 - Starting Sales Time: Sell license_type by Starting_sales_time as well as starting sales date to avoid having to update the quota on the hunt area at the exact time that all the agents are trying to purchase using a host authorization.

Name	Start	Finish
MDNR Rel 5.3	12/1/2004	2/15/2005
Start Date	**12/1/2004**	12/1/2004
Refine and Analyze Requirements - Summary	12/1/2004	12/16/2004
Requirements document	12/1/2004	12/7/2004
Logical Process Specs / User Interface Specs	12/8/2004	12/16/2004
Analyze Review	12/7/2004	12/16/2004

Analyze Rework	12/7/2004	12/17/2004
Client Review of Requirements document	12/8/2004	12/8/2004
Client Review of LPS/UIS	12/17/2004	12/17/2004
Design	12/17/2004	1/19/2005
Integration Test Plan & Strategy	1/4/2005	1/6/2005
Integration Test Cases	1/7/2005	1/11/2005
Implementation Plan / Promotion Form	1/11/2005	1/12/2005
Design Reviews	1/4/2005	1/19/2005
Design Rework	1/4/2005	1/19/2005
Produce	1/11/2005	2/4/2005
Code	1/11/2005	1/26/2005
Unit Test	1/12/2005	1/28/2005
Release Notes	1/24/2005	1/24/2005
Prod Support Manual Updates	1/24/2005	1/25/2005
Operator Guide Updates	1/25/2005	1/26/2005
Proc Master Updates	1/26/2005	1/27/2005
S and P Updates	1/27/2005	1/28/2005
Move CI's to QA	1/27/2005	1/28/2005
Prepare Integraton Testing Tool	1/26/2005	1/27/2005
Produce Reviews	1/18/2005	1/28/2005
Produce Rework	1/19/2005	1/28/2005
Perform Integration Testing	1/28/2005	2/4/2005
Package CI's for Model Office	2/4/2005	2/4/2005
Deliver Release Notes and Sign off to Client	2/4/2005	2/4/2005
Coordinate Formal Acceptance Testing	2/7/2005	2/8/2005
Support FAT Issues	2/9/2005	2/10/2005
Obtain Client Sign-off	2/10/2005	2/10/2005
Install Application Software	**2/10/2005**	**2/10/2005**
Create CD for CDE	2/10/2005	2/10/2005
Monitor Production Application	2/10/2005	2/15/2005

XV. Cost

TOTAL EFFORT REQUIRED BY 5.3 PROJECT:

Information Analyst:	798 hours	@	$127.00/hour	=	$101,346.00
Project Management:	46 hours	@	$183.00/hour	=	$8,418.00
Total					$109,764.00

Hour Effort covered by Enhancement FTEs:

Dec 04	Jan. 05	Feb. 05
132	264	264

TOTAL Add-On EFFORT REQUIRED BY 5.3 PROJECT:

Information Analyst:	138 hours	@	$127.00/hour	=	$17,526.00
Project Management:	46 hours	@	$183.00/hour	=	$8,418.00
Total Add-On cost					$25,944.00

Billing Schedule for additional resources:

Dec 04	Jan. 05	Feb. 05
$0	$12,972	$12,972

XVI. Impact on Contract

Increase: $25,944.00

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **September 2, 2004**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 53
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR	TELEPHONE: (517) 272-5803 **Jeanne Alderson**
Electronic Data Systems Corporation **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-1218 **Melissa Castro**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2004-011, 2004-012, 2004-014 and 2004-015 are hereby incorporated into this contract.

$388,778.90 of the AdBoard approval dated December 17, 2002 will fund this change notice.

The remaining $1,121,838.56 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-011

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

A memorandum to the Natural Resources Commission dated May 12, 2003 and resubmitted on June 16, 2003, by former director K.L. Cool initiated a request for changes to the current Retail Sales System (RSS) regarding the elk hunt processes. The memo indicates that the number of applicants is approximately 40,000 customers while the number of available licenses annually is fewer than 500. The memo states that the preference point system, which was initiated in the year 2000 for the allocation of bear licenses, has generated interest in changing the allocation of the elk licenses to a similar system.

It was deemed that the preference point system was undesirable for the elk drawings because of the excessively large applicant pool and limited number of elk hunting licenses. Only those who apply the first year and every year thereafter would be able to receive a license. It was determined that a weighted lottery would combine the random lottery and the preference point system giving some advantage to customers that are persistent in applying while still providing an opportunity to all applicants. A weighted drawing will give every applicant one additional chance for each year of applying without being selected.

The Department of Natural Resources met with EDS between May 2003 and October 2003 to discuss the changes that would be needed to the current RSS elk drawing processes to meet the goal of providing a weighted lottery. Other related requirements were included to enhance the drawing processes of RSS within the same release. As a result of that meeting high level requirements were determined and documented within the RSS Release 5.2 Elk Drawing Enhancement High Level Requirements Document Version 2.0 dated 06/30/2004.

Project Time Line for Release 5.2 Elk Enhancements

ID	Task Name	Start_Date	Finish_Date
1	MDNR Elk	09/01/04	04/29/05
2	Work Management	09/01/04	04/29/05
3	Plan Project Work	09/01/04	09/24/04
9	Execute Project Plan	09/01/04	04/29/05
78	Application Development - Overlapping Waterfall	09/01/04	04/08/05
79	Refine and Analyze Requirements	09/01/04	11/30/04
82	AN-Refine Requirements	09/01/04	09/16/04
84	AN-Requirements Client Signoff	09/27/04	09/27/04
85	Analyze Logical System	10/14/04	11/30/04
90	AN-Pre Drawing	10/14/04	10/20/04
103	AN-Client Review Pre-Drawing	10/27/04	10/27/04
104	AN-Drawing	10/20/04	10/28/04
111	AN-Client Review Drawing	11/04/04	11/04/04
112	AN-Post Selection	10/19/04	11/19/04
122	AN-Client Review Post Selection	11/30/04	11/30/04
123	AN-Post Drawing	10/19/04	11/11/04
145	AN-Client Review Post Drawing	11/18/04	11/18/04
146	AN-Other	10/14/04	11/05/04
174	AN-Client Review Other	11/15/04	11/15/04
175	Design Application	09/20/04	02/15/05
185	DS-PreDrawing	11/04/04	11/15/04
198	DS-Drawing	11/09/04	11/16/04
205	DS-Post Selection	11/30/04	01/27/05
215	DS-Post Drawing	11/19/04	12/13/04
237	DS-Other	11/15/04	12/13/04
265	DS-Develop Test Specifications	11/29/04	02/09/05
269	DS-Create Implementation Plan / Promotion Form	02/09/05	02/15/05
270	Produce Application	10/21/04	03/18/05
278	PR-PreDrawing	12/13/04	01/11/05
299	PR-Drawing	01/06/05	01/24/05
310	PR-Post Selection	01/03/05	02/10/05
326	PR-Post Drawing	01/11/05	02/03/05
362	PR-Other	11/16/04	02/03/05
408	PR-Integrate Components	02/04/05	02/25/05
416	PR-Perform Integration Testing	02/25/05	03/18/05
417	Release Application	03/18/05	04/08/05
420	RL- Deliver Release Notes, Impl Plan & UAT signoff	03/25/05	03/25/05
421	RL-Coordinate User Acceptance Testing	03/25/05	04/08/05
423	RL-Obtain Client Sign-off	04/08/05	04/08/05
424	Application Implementation	04/11/05	04/13/05
427	IM-Install Application Software	04/11/05	04/12/05
428	IM-Convert Application Data - 2003&04 chances	04/11/05	04/12/05
429	IM-Convert Application Data - previously successful customers w/ eligibility year	04/11/05	04/12/05
430	IM-Obtain Production Installation Acceptance	04/12/05	04/12/05

The resources required to develop, test, and implement will include:

Information Analyst hours: 2830

III. Costs
Information Analyst: 2830 @ $127.09/hour = $359,664.70

Billing Schedule

Sep. 04	Oct. 04	Nov. 04	Dec. 04	Jan. 05	Feb. 05	Mar. 05	Apr. 05
$24,958.09	$44,958.09	$44,958.09	$44,958.09	$49,958.09	$49,958.09	$49,958.09	$49,958.07

IV. Impact on Contract
Increase: $359,664.70

V. Signatures

EDS
By: _____
Title: _____
Date: _____

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNR, Program Manager
By: _____
Title: _____
Date: _____

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-012

V. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

VI. Description of Change

This Change Authorization Request encompasses Release 5.1, which includes the following Customer Service Requests:

- CR106 Long Term Fulfillment of License Type 153 (Corrective; not included in effort hours) - This is a permanent fix to allow fulfillment processing for junior deer, OTC, and leftover licenses that are purchased through E-License.
- CR109 PowerBuilder Upgrade to Version 9 (Enhancement).
- CR149 - Hunt Area changes being deleted (Enhancement) - The PowerBuilder window will be changed to use an update record as opposed to an insert and delete.
- CR175 - Modify HIP job to include incomplete entries (Enhancement) - Survey results with partial addresses will be included in the file sent to Fish / Wildlife services.
- CR181 New Bobcat Kill Tags (Enhancement) - Changes are to the new POS only
- CR192 Marten Form Changes (Enhancement) - Changes are for E-license only

Name	Start_Date	Finish_Date
Release 5.1	07/12/04	9/27/04
Analyze	07/12/04	7/22/04
Rel 5.1 Analyze High Level Reqmts doc	07/12/04	7/12/04
Analyze Review	07/12/04	7/22/04
Analyze Rework	07/12/04	7/22/04
Analyze Client Review	07/22/04	7/22/04
Design	07/22/04	8/3/04
Rel 5.1 Integration Test Plan / Test Cases	07/29/04	8/3/04
Rel 5.1 Implementation Plan / Promotion Form	07/29/04	7/30/04
Design Review	07/23/04	7/29/04
Design Rework	07/23/04	7/29/04
Produce	07/30/04	8/12/04
Produce Review	08/02/04	8/12/04
Produce Rework	08/02/04	8/12/04
Produce Integration Testing	08/05/04	9/9/04

Rel 5.1 System Testing Coordination	08/05/04	8/6/04
Rel 5.1 Release Notes	08/06/04	8/9/04
Rel 5.1 Move to QA	08/12/04	8/13/04
Rel 5.1 System Testing	08/13/04	9/9/04
Rel 5.1 Move to MO	09/09/04	9/9/04
Rel 5.1 Customer Acceptance Testing	09/10/04	9/23/04
Rel 5.1 Proc Master Updates	09/24/04	9/24/04
Rel 5.1 Prod Support Manual Updates	09/24/04	9/27/04
Rel 5.1 Operators Guide Updates	09/27/04	9/27/04
Rel 5.1 Move to Production	09/24/04	9/24/04

VII. Cost

Information Analyst:	517 hours	@	$127.00/hour	=	$65,659
Project Management:	62 hours	@	$183.00/hour	=	$11,346
Total					$77,005

Billing Schedule using Existing System Enhancement Pool:

Aug 04	Sep. 04
$26,017	$26,017

Billing Schedule for additional resources:

July 04	Aug. 04	Sep. 04
$10,000	$7,500	$7,471

VIII. Impact on Contract

Increase: $24,971

V. Signatures

EDS
By: _____
Title: _____
Date: _____

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNR, Program Manager
By: _____
Title: _____
Date: _____

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-014

IX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

X. Description of Change

This Change Authorization Request will be added to Release 5.1, which includes the following Customer Service Requests:

CR 199
For POS: Modify the HIP survey to default all dove purchases to Migratory Bird Hunter. For small game hunters that take the HIP survey,for the 2004 hunt starting in September the HIP survey question should be modified to say, "Did you hunt for snipe, rails, galinulles, dove last year?" (Answer: Yes, No). If they answer Yes, their license will say, "Migratory Bird Hunter". If they answer No, their license will say, "Not Migratory Bird Hunter." This change should modify the POS application for release 5.0 for UAT, then the modification should be removed prior to implementing in production. A long term solution will be created for 2005 season.

XI. Cost

Information Analyst:	22 hours	@	$127.00/hour	=	$2,794
Project Management:	0 hours (already managed under release 5.1 project plan)				

Billing Schedule for additional resources:

Aug. 04
$2,794

XII. Impact on Contract
Increase: $2,794

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

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CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-015

XIII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XIV. Description of Change

This Change Authorization Request will implement a requirement from the Release 4.0 Hosting project. The AshWin 3.6 software package used for the scheduling of batch jobs is no longer supported by the vendor and will be replaced with a scheduling product supported under a Windows 2000, SQL 2000 environment. EDS will evaluate other scheduling packages available and implement the replacement in Phase 4 of the project. All of the current batch schedules set up under AshWin will need to be converted to work within the specifications of this new product.

EDS has evaluated several packages and has selected adTempus 2.0 System Management Edition Single-Server License (Electronic Delivery/License Only)
Part Number: 070200-01-0001-ED
7 Licenses are needed to cover all of the servers in the development environment, the Model Office environment, and the production environment.

Part Number: 070200-01-0001-ED @ $192.84
Total: $1,349.90

XV. Cost

Billing Schedule for software:

Sept. 04
$1,349.90

XVI. Impact on Contract
Increase: $1,349.90

V. Signatures

EDS
By: _____
Title: _____
Date: _____

DIT Contract Administrator
By: _____
Title: _____
Date: _____

DNR, Program Manager
By: _____
Title: _____
Date: _____

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Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **May 24, 2004**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 52
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and **FAX (517) 885-3718**

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER/CA (517) 241-1218 **Melissa Castro**
Contract Compliance Inspector :Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2004-008, 2004-009 and 2004-010 are hereby incorporated into this contract.

$8,996.33 of the AdBoard approval dated December 17, 2002 will fund this change notice.

The remaining $1,510,617.26 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-008

XVII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XVIII. Description of Change

The purpose of this change is to incorporate 1 change to the current scope and schedule of Release 4.5:

1. CR 161: Change E-License print at home special license application form: 14 hours

The purpose of this change is to incorporate 2 changes to the current scope and schedule of Release 5.0:

2. CSR 100 / CR 160: Change E-License Link for Agent Locations: 3 hours
3. Change the POS code to pass the expiration date on the printing of licenses to the license year + 1 on F1 (Single Form - Off Road Vehicle) , F2 (Single Form – Snowmobile Permit), and M2 (Multiple Forms - Multiple Licenses) POS forms: 48 hours

The duration of the project schedule for release 5.0 will not be impacted.

The resources required to develop, test, implement, and compress will include:

Information Analyst hours: 65

XIX. Costs

Information Analyst: 65 @ $127.09/hour = $8,260.85

Billing Schedule under Adhoc Enhancements:

May 04	Jun. 04	Jul. 04	Aug. 04
$6600.00	$600.00	$600.00	$460.85

XX. Impact on Contract

Increase: $0.00 Using Ad Hoc Enhancement dollars from scheduled pricing sheet.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-009

XXI. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXII. Description of Change

CSR 174

1.0 Add 'Report your turkey hunting activity to the DNR at www.michigan.gov/dnr' on the S2 and S3 POS print forms.
1.1 Add 'Report your turkey hunting activity to the DNR at www.michigan.gov/dnr' on the S2 and S3 E-License print forms.

The duration of the project schedule for release 4.5 will not be impacted.

The resources required to develop, test, and implement, and compress will include:

Information Analyst hours: 37

XXIII. Costs

Information Analyst:	37	@	$127.09/hour	=	$4702.33

Billing Schedule

Jun. 04
$4702.33

XXIV. Impact on Contract
Increase: $4702.33

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-010

XXV. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXVI. Description of Change

MDNR has purchased new POS terminals for the Release 5.0 upgrade. The terminals can be customized for MDNR's POS license sales application by providing an overlay to indicate key functions. This CAR covers the cost of producing the 1800 customized overlays.

Set up fee:		$ 280.00
Overlay:	$ 2.23 x 1800 =	$4014.00
Total price		$4294.00

XXVII. Costs

Billing Schedule

Jun. 04
$4294.00

XXVIII. Impact on Contract
Increase: $4294.00

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **March 30, 2004**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 51
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and **FAX (517) 885-3718**

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Compliance Inspector:Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR's 2004-007 are hereby incorporated into this contract.

$30,501.00 of the AdBoard approval dated December 17, 2002 will fund this change notice.

The remaining $1,519,613.59 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-007

XXIX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXX. Description of Change

The purpose of this change is to incorporate 6 changes to the current scope and schedule of Release 5.0 2004 POS Upgrade project.

4. Change the Thermal transfer printer from the Verifone P801 to the Zebra TLP 2844.
5. The new POS device allows for two additional baud rates – 9600 and 14400. These baud rates need to be included on the terminal detail screen.
6. Remove Cash Drawer functions
7. Remove the requirement to sell "ELK Chances" on the POS device.
8. Add resources to compress the schedule to implement the release before September 1st.
9. Reduce User Acceptance testing from 3 weeks to 2 weeks.

Three additional weeks of effort are required due to changes 1 and 2. 6 total weeks were compressed from the schedule. The new implementation date has been moved back 22 days to August 11, 2004.

Revised Project Schedule

	Task Name	Start Date	Finish Date
1	Printer Impact	01/26/04	02/13/04
2	Design	01/05/04	04/08/04
3	Produce (Code and Test)	03/02/04	07/20/04
4	Customer Acceptance Testing	07/20/04	08/02/04
5	Implementation	08/10/04	08/11/04

The resources required to develop, test, and implement, and compress will include:

Information Analyst hours: 240

XXXI. Costs

Information Analyst: 240 @ $127.09/hour = $30,501.00

Billing Schedule:

Mar. 04	Apr. 04	May 04	Jun. 04
$7625.25	$7625.25	$7625.25	$7625.25

XXXII. Impact on Contract

Increase: $30,501.00

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **January 29, 2004**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 50
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Administrator: Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR's 2004-004 and 2004-005 are hereby incorporated into this contract.

$63,675.69 of the AdBoard approval dated December 17, 2002 will fund this change notice.

The remaining $1,550,114.59 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-004

I. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

II. Description of Change

The purpose of this change is to process two project change controls for RSS Release 4.0, Hosting project.

Change Control 10 was required due to a delay in establishing the VPN connection between EDS Hosting environment in Plano and SoM environment in Lansing. The VPN for Phase 1 was scheduled to be installed and functional on 9/20/03 and testing completed by 9/30/03. The SoM was not able to accomplish setting up the VPN rules on the SoM side until 10/17/03. This caused a delay in the project plan for the implementation of Phase 1, moving the date from 10/26/03 to 11/17/03.

The impact to the current hosting project plan:

- Extend resources for implementation of phase 1 from 10/26/03 to 11/17/03
- Extend resources for implementation of phase 2 from 1/21/04 to 1/28/04
- Extend resources for implementation of phase 3 from 4/15/04 to 4/30/04
- Extend resources for implementation of phase 4 from 7/28/04 to 8/13/04

Phase 2 resource impact:

4 weeks delay of VPN, causes 2 weeks delay to phase 2 work and the following resources are impacted by the extension:

PM: 19 hours
3 Information Analysts: 192 hours

Change Control 11 was requested by the MDNR to extend the User Acceptance Testing period for Phase 2 hosting from 1 week to two weeks. This will allow the MDNR to use one full week to establish transaction data for sales and drawings and 1 full week to run their complete production cycle.

The impact to the current hosting project plan after Change Control 10 impact:

- Extend resources for implementation of phase 2 from 1/28/04 to 02/04/04
- Extend resources for implementation of phase 3 from 4/30/04 to 05/12/04
- Extend resources for implementation of phase 4 from 8/13/04 to 08/18/04

Phase 2 impact:

1 additional week of user acceptance testing, the following resources are impacted by the extension:

PM: 9 hours

2 Information Analysts 65 hours

III. Costs

Change Control 10 and Change Control 11

Information Analyst:	257	@	$127.09/hour	=	$32,662.13
Project Management:	28	@	$183.02/hour	=	$5,124.56

Total Resources for Change Control 10 and 11: $33,786.69

Phase 2 additional resources are required in January 2004.

IV. Impact on Contract

Increase: $33,786.69

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-006

V. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by Acquisition Services, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

VI. Description of Change

The purpose of this change is to maintain the EZ-License application and its integration into RSS for the pilot period extending from 01/01/04 through 09/30/04.

This requires 0.25 FTE for maintenance of the EZ-License application and hosting.
This would be a contract increase of $3,321.00 per month.

VII. Costs

Total: **$**3,321.00 / mo

VIII. Impact on Contract
Increase **$29,889.00**

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **December 16, 2003**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 49
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Administrator: Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994** To: **January 1, 2007**	
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR – 2004 – 005 is hereby incorporated into this contract.

$555,042.70 of the AdBoard approval dated December 17, 2002 will fund this change notice.

The remaining $1,613,790.28 of the AdBoard approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-005

IX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

X. Description of Change

The purpose of this change is to continue with the project defined in CAR 2004-001 to modify RSS for additional functionality to the system. CAR 2004-005 defines the remaining scope of the 2004 POS upgrade project through implementation, along with three enhancements requested by the MDNR. This upgrade project will be identified as Release 5.0.

The MDNR is upgrading both the POS terminal hardware and POS printer hardware. The current hardware is beyond its normal life expectancy and is encountering increasing number of hardware errors. Also, the current terminal does not have enough memory to provide expansion of the POS license application. MDNR will be purchasing new POS equipment and migrating from the OMNI 395 to a POS terminal that provides more memory, a direct thermal receipt printer, and Ethernet capability. The MDNR will also be upgrading the thermal transfer printer. This change requires a conversion of the POS application for it to fun on a new operating system, as well as change its current print processes to use the new printers.

The Release 5.0 POS Upgrade Scope includes:

- Upgrade the Omni 395 terminal with a Omni 3740 terminal
- Re-Write all current POS functionality to the new environment by rewriting the current POS system:
    - CLERK
    - MANAGER
    - GENERAL
    - DNR
    - DNR Setup
- Transfer P-250 printer functionality to the Omni 3740 terminal integrated receipt printer
- Transfer Eltron TLP-2242 printer to P801 license printer
- Re-Write the Demonstration function to the Omni 3740 terminal
- Create the ORV and Snowmobile forms for the P801 License printer
- Include 3 CR's in the POS upgrade release:
    - CR# 28 - During installation of a new POS device when a full Zontalk software download occurs the party ID sequence number needs be retained.
    - CR#27 - Correctly display and print the replacement cost on the POS when the replacements amounts is greater than the original price of the license type
    - CR#126 - Correctly display and print the correct order totals for a voided Waterfowl license with HIP survey.
- Include the Elk drawing changes in the POS upgrade release:
    - CR#120 – When selling an Elk Application, allow the customer to purchase a "CHANCE"

- Include 3 system enhancements:
    - Modify the RSS Windows application on the Item Type Maintenance window. Include a new attribute associated with each item as Resident, Non-resident or Other. The attribute will be used to filter license types displayed for purchase based on the customer being a resident or non-resident. All “Other” attributes will be displayed regardless of residency. Modify the POS, EZ-License and E-License applications to interpret the value of this attribute and select the appropriate license types for display.
    - Add the POS item description (21 bytes long) to the Item Type Maintenance window. The POS item description will include the item id and the item description (up to 21 characters). The POS item description will not be stored on a table.
    - Download the internet category to the POS device and use this to display a new window on the POS of categories. Once the selection of category has occurred, only display those item types associated to the selected category.
- System test POS Omni 3740 application and print conversion.
- System test E-License
- System test EZ-License
- System test RSS Windows application
- Assist MDNR with User Acceptance Testing for POS Omni 3740 application and print conversion, E-License, EZ-License and RSSWIN.
- Implement MIREL500 (POS Omni 3740 application) to the production communication server software directories. Implement E-License and EZ-License to the web server. Implement RSS Windows application and provide MDNR with software for pushing out to the workstations.

Abbreviated Project Plan

ID	Name	Start_Date	Finish_Date
0	Release 5.0	10/27/03	9/17/04
1	**Work Management**	10/28/03	9/17/04
2	Plan Project Work	10/28/03	11/21/03
17	Execute Project Plan	11/3/03	9/17/04
19	Manage Plan Execution	11/17/03	8/31/04
30	Manage Performance Quantitatively	11/17/03	7/30/04
36	Manage PO Issues / Questions	11/3/03	8/6/04
46	Causal Analysis	12/2/03	7/6/04
51	Manage Requests for Change	11/17/03	5/17/04
53	Communicate Progress	11/3/03	8/31/04
64	Design/Produce QA Audits	3/10/04	5/27/04
67	Close Down Project	9/10/04	9/17/04
79	**Application Development**	10/27/03	8/31/04
80	**Refine and Analyze Requirements**	10/27/03	12/17/03
81	Refine and Analyze Requirements - Summary	10/27/03	12/11/03
82	Refine Business Need and Solution	10/27/03	12/10/03
83	(analyze) LPS SYSTEM ARCH Format	10/27/03	11/19/03
84	(analyze) Create Prototype	11/6/03	11/20/03
94	Analyze Logical System	10/29/03	12/11/03
95	(analyze) User Interface Specs	10/29/03	12/11/03
117	**Design Application**	1/5/04	4/13/04
118	**Obtain Client Signoff**	1/5/04	1/15/04
119	Design Application - Summary	1/16/04	3/29/04
183	Develop Int Test Plan / Cases	2/25/04	3/29/04
207	**Produce Application**	3/5/04	8/3/04
208	Produce Application - Summary	3/5/04	8/3/04
209	Develop Code	3/5/04	6/23/04
369	Perform Integration Testing	7/14/04	8/3/04
393	**Release Application**	8/3/04	8/31/04
394	Release Application - Summary	8/3/04	8/31/04
395	(release) Create Release Notes	8/3/04	8/5/04
396	(release) Update Proc Master	8/3/04	8/4/04
397	(release) Update Prod Support Manual	8/4/04	8/5/04
398	(release) Move to Model Office	8/3/04	8/10/04
399	**(release) Coordinate User Acceptance Testing**	8/10/04	8/30/04
403	**(release) Obtain Client Sign-off**	8/30/04	8/31/04
406	**Application Implementation**	8/27/04	9/14/04
407	Implement Application	8/27/04	9/14/04
410	(implement) Establish Production Environment	8/30/04	8/31/04
411	(implement) Create CD	8/30/04	8/31/04
412	(implement) Move to Production	8/31/04	9/2/04
413	**Monitor Production Application during MDNR download**	9/2/04	9/10/04

The resources required to develop, test, and implement will include:

Information Analyst hours: 4026
Project Management hours: 405

EDS will accomplish this effort at a 6% rate reduction, using the established RSS billing rates from 2002.

Information Analyst rates: $119.90/hour
Project Management rates: $172.66/hour

(Current 2003 - Information Analyst rates: $127.09/hour, Project Management rates: $183.02/hour)

EDS will not apply any rate increases for this scope during the duration of this project.
EDS will leverage existing team members for reviews and walkthroughs.

XI. Costs

Information Analyst:	4046	@	$119.90/hour	=	$485,115.40
Project Management:	405	@	$172.66/hour	=	$69,927.30

Total Resources for project: $555,042.70

Billing Schedule:

Nov. 03	Dec. 03	Jan. 04	Feb. 04	Mar. 04	Apr. 04	May 04	Jun. 04	Jul. 04	Aug. 04
$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27	$55,504.27

XII. Impact on Contract
Increase: $555,042.70

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **November 24, 2003**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 48
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Administrator: Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2004-001 and CAR 2004-002 are incorporated into this contract.

$46,553.35 of the Ad Board approval dated December 17, 2002 will fund this change notice.

The remaining $2,168,832.98 of the Ad Board approval dated December 17, 2002 will fund future process on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-001

XIII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XIV. Description of Change

The purpose of this change is to modify RSS for additional functionality to the system. The MDNR is upgrading both the POS terminal hardware and POS printer hardware. The current hardware is beyond its normal life expectancy and is encountering increasing number of hardware errors. Also, the current terminal does not have enough memory to provide expansion of the POS license application. MDNR will be purchasing new POS equipment and migrating from the OMNI 395 to a POS terminal that provides more memory, a direct thermal receipt printer, and Ethernet capability. The MDNR will also be upgrading the thermal transfer printer. This change requires a conversion of the POS application for it to fun on a new operation system, as well as change its current print processes to use the new printers. The analysis task can begin once the MDNR has decided on the new model of License Printer. EDS is expected to complete the analysis phase in October 2003.

This CAR covers the following:

- Training on the Verix Operating system for 3 developers.
- 115 hours of effort for Project Management: Start up tasks which will produce a project timeline and defined resource requirements for Design through implementation.
- 140 hours of Information Analyst effort: Analysis phase for POS OMNI Verix conversion. EDS will deliver an analysis document which will include a refined scope for the development needed for the POS Verix Operation system conversion, as well as changes to the current receipt and license printing process at the POS.

XV. Costs

Information Analyst	140 hours @ $127.09 = $17,792.60	
Project Management	115 hours @ $183.02 = $21,047.30	
Verix in-house class training provided by Verifone		$ 4,000.00

Reduction from Change Authorization Request 2002-015: Yearly Verix Membership for 5 years: $7500.00 (This product was cancelled when the project was put on hold in November 2002)

XVI. Impact on Contract
Increase $35,339.90

V. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____

DNR, Program Manager
By:_____

Title:_____ Title:_____
Date:_____ Date:_____

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2004-002

XVII. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XVIII. Description of Change

The purpose of this change is to continue with the project defined in CAR 2004-001 to modify RSS for additional functionality to the system. MDNR will be purchasing new POS equipment and migrating from the OMNI 395 to the OMNI 3740. This change requires a conversion of the POS application.
CAR 2004-002 defines the products for the 3740 Terminal that are needed for the Verix development environment for the 2004 POS upgrade project.

ITEM	Part	Qty	Quote	Item Total	Description
Bundled Verix Development Tool Kit V4.0	V006-500-01-PK	1	$5070.00	$5070.00	Package that includes both the Verix Development Tool and one SDS compiler.
SDS Compiler/Debugger	P006-501-01-MK	1	$2800.00	$2800.00	SDS compiler.
Maintenance, Verix Development Suite	P006-500-01-MN	1	$2050.00	$2050.00	Provides free upgrades to development suite and compilers, and provides tool kit help desk
Verix TCP/IP Library V1.3	P006-505-04-MK	1	$0.00	$0.00	Add-on development software
Verix UC Library V1.2	P006-506-02-MK	1	$0.00	$0.00	Add-on development software
Verifone Omni 3740 POS terminals	M197-410-14-US1	3	$423.40	$1270.20	Terminals for development
Terminal Direct Download Cables for 3740 series	26264-02	3	$7.75	$23.25	Cable to download software from PC to POS Terminal
TOTAL COST				$11,213.45	

XIX. Impact on Contract
*Increase: $*11,213.45

XX. Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **August 8, 2003**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 47
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Administrator: Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, the attached CAR 2003-015v2 and CAR 2003-016 are incorporated into this contract.

$67,917.26 of the Ad Board approval dated December 7, 2002 will fund this change notice.

The remaining $2,215,386.33 of the Ad Board approval dated December 17, 2002 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2003-015 v2

XXI. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXII. Description of Change

The purpose of this change is to modify RSS for additional functionality to the system. The following Service Request will be included in this Change Authorization Request and will be implemented during release 3.9.3 development.

CR92	Barcode length eLic & eZLic	Change the length of the bar codes on Deer Kill Tags on eLicense and eZLicense to make them consistent with the length of the POS bar codes. The bar code length will be the same for both a 13 character Driver License ID or a 15 character Sportcard ID. The POS bar codes when shorter are padded with spaces and the spaces print out in bar code.
CR93 FIX	Encrypt Bear Pref Point data	Bear Preference Point Look up data that is submitted needs to be encrypted. Encrypt the customer data sent with the preference point lookup - DL/Sportcard ID/SOM ID and Date of birth.
CR101	Add barcodes to sportcard eLic & eZLic	Add barcodes to the sportcard eZ-License application and eLicense print at home. There is a potential issue with the licensing of the font required for the barcode. The font that is used by the print center is barcode 93c. This font will need to be installed in Web Vault. If the current licensing of this font does not cover the installation in Web Vault, then a license will need to be purchased.

The dates for the project are as follows:

Analyze - 7/1 - 7/28
Design - 7/29 - 9/8
Produce - 8/1 - 10/05
Release (Customer Acceptance Testing) - 10/6 - 10/7
Implement - 10/8 - 10/9 (Code in production Thursday morning)

The project was planned starting with CR93, CR92 and then CR101. Design and Produce would be completed on each CR before the next CR would start Design. All three CR's will be implemented together. One resource was planned to complete the work.

Misc Notes:

CR92 - Print Center (CPC) will need to be involved with testing. I believe coding changes on their end has already been completed.

CR101 - The font may need to be purchased for multiple servers. The font currently resides in test environment (box 19) but the licensing needs to be researched to allow font to be placed on multiple boxes. This will be determined in the Design Phase an the cost of this font is not currently included in this CAR.

XXIII. Costs

The resources required to develop, test, and implement will include:

Information Analyst hours:	322 @ $127.09 =		$40,922.98
Project Management hours:	25 @ $183.02 =		$ 4,575.50

Analysis Phase complete in July	$16,437.00
Design Phase complete in September	$14,530.74
Implementation complete in October	$14,530.74

XXIV. Impact on Contract

Increase $45,498.48

Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2003-016

XXV. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXVI. Description of Change

The purpose of this change is to modify RSS for additional functionality to the system. The following Service Requests will be included in this Change Authorization Request and will be implemented during release 3.9.4 development. The project will begin August 1st. The POS application will be ready for downloading to the POS terminals on 9/10/03.
Modify the POS Sportcard Eltron Form request will be added to this release with no additional costs to MDNR.

CSR 72.1	Modify General Menu to not need the Tsetup.out file. Eliminating the terminal setup function for the application	Modify logic to not use the tsetup.out.file so the tsetup.out.file can be removed.	50 hours
CSR 72.2	Eliminate the Shift report	Remove the shift (sales) report.	112 hours
	Modify the POS Sportcard Eltron Form	Remove the "Card #:" literal on the C1 form used to print a DNR Sportcard and center the bar code in the middle of the license.	*(27 hours not being billed)*

XXVII. Costs

Modify the POS Sportcard Eltron Form request will be implemented in release 3.9.4 with no additional costs to the MDNR.
The resources required to develop, test, and implement CSR 72 will include:

Information Analyst hours: 162 @ $127.09 = $20,588.58
Project Management hours: 10 @ $183.02 = $ 1,830.20
Implementation complete in September: TOTAL COST $22,418.78

XXVIII. Impact on Contract
Increase $22,418.78
Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____

Form No. DMB 234A (Rev. 3/92)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Failure to deliver in accordance with contract terms and conditions and this notice, may be considered in default of contract

STATE OF MICHIGAN
DEPARTMENT OF MANAGEMENT AND BUDGET
ACQUISITION SERVICES **July 15, 2003**
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 46
TO
CONTRACT NO. 071B5000207
between
THE STATE OF MICHIGAN
and

FAX (517) 885-3718

NAME & ADDRESS OF VENDOR **Electronic Data Systems Corporation** **905 Southland Street, Mail Stop 1023** **Lansing, MI 48910** **jeanne.alderson@eds.com**	TELEPHONE: (517) 272-5803 **Jeanne Alderson** VENDOR NUMBER/MAIL CODE BUYER (517) 241-1218 **Melissa Castro**
Contract Administrator: Patty Bogard	Program Administrator: Loren Hersey
Development and Maintenance of the Retail Sales System (RSS) **Department of Natural Resources**	
CONTRACT PERIOD From: **June 15, 1994**	To: **January 1, 2007**
TERMS **Net 30**	SHIPMENT **N/A**
F.O.B. **N/A**	SHIPPED FROM **N/A**
MINIMUM DELIVERY REQUIREMENTS: **N/A**	

NATURE OF CHANGES:

Effective immediately, this contract is hereby EXTENDED per the attached CAR #2003-012.

$2,033.44 of this Ad Board approval dated 12/17/02 will fund this change notice.

The remaining $2,283,303.59 of the Ad Board approval dated 12/17/02 will fund future projects on an as-needed basis.

AUTHORITY/REASON (S):

Per DMB/Acquisition Services.

CHANGE AUTHORIZATION REQUEST

Contract No. 071B5000207
Change Authorization Request No.2003-012

XXIX. General

This Change Authorization Request is subject to all terms and conditions of the Retail Sales System (RSS) Contract between EDS and the State of Michigan. Except as expressly specified herein, all terms and conditions of the Contract shall remain in full force and effect upon execution of this request. This request is not valid until it is signed by all parties, a Contract Change Notice is issued by the Office of Purchasing, Department of Management and Budget and a Purchase Order is issued by the Department of Information Technology representing the Department of Natural Resources.

XXX. Description of Change

The purpose of this change is to modify the RSS Contract to add information analyst support for Drawing Coordinator activities for the 2003 Elk Drawing. The MDNR has requested drawing assistance on the following days of 2003: 7/24 and 7/25. This individual will be available to assist the MDNR in drawing activities and queries for the Elk drawing. This individual will work at the MDNR site, and take direction from the MDNR staff. The part-time resource will work 8 hours a day on the specified days, @ $127.09 per hour. The MDNR will be billed in July for the actual hours.

MDNR will provide a cubicle, workstation, network connectivity, email, and parking for the support person.

XXXI. Costs

The Support Information Analyst will be billed for Time and Materials, not to exceed 16 hours and two days of parking expenses, at a rate of $127.09 hour, on 7/24 and 7/25.

XXXII. Impact on Contract
Increase $2033.44
Signatures

EDS
By: _____
Title:_____
Date:_____

DIT Contract Administrator
By: _____
Title:_____
Date:_____

DNR, Program Manager
By:_____
Title:_____
Date:_____