



**STATE OF MICHIGAN**  
**CENTRAL PROCUREMENT SERVICES**  
 Department of Technology, Management, and Budget  
 320 S. WALNUT ST., LANSING, MICHIGAN 48933  
 P.O. BOX 30026 LANSING, MICHIGAN 48909

**CONTRACT CHANGE NOTICE**

Change Notice Number 7  
 to  
 Contract Number 210000000322

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Nate Kresge
	317-460-6731
	natek@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Lacey Wilke	DTMB
		517-282-8057	
		wilkel@michigan.gov	
	<b>Contract Administrator</b>	Sean Regan	DTMB
		(517) 243-8459	
		regans@michigan.gov	

**CONTRACT SUMMARY**

<b>IT STAFF AUGMENTATION</b>			
<b>INITIAL EFFECTIVE DATE</b>	<b>INITIAL EXPIRATION DATE</b>	<b>INITIAL AVAILABLE OPTIONS</b>	<b>EXPIRATION DATE BEFORE</b>
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026
<b>PAYMENT TERMS</b>		<b>DELIVERY TIMEFRAME</b>	
<b>ALTERNATE PAYMENT OPTIONS</b>			<b>EXTENDED PURCHASING</b>
<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

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**DESCRIPTION OF CHANGE NOTICE**

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
<b>CURRENT VALUE</b>		<b>VALUE OF CHANGE NOTICE</b>	<b>ESTIMATED AGGREGATE CONTRACT VALUE</b>	
\$400,000,000.00		\$400,000,000.00	\$800,000,000.00	

**DESCRIPTION**

Effective August 1, 2023, this Contract is increased by \$400,000,000.00. The additional funds will provide continued services for IT staff augmentation and deliverable based engagements through this Contract.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement and DTMB Central Procurement Services approval and Administrative Board approval on 8/8/2023.



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 P.O. BOX 30026 LANSING, MICHIGAN 48909

**CONTRACT CHANGE NOTICE**

Change Notice Number **6**  
 to  
 Contract Number **21000000322**

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Lacey Wilke	DTMB
		517-282-8057	
		wilkel@michigan.gov	
	<b>Contract Administrator</b>	Sean Regan	DTMB
		(517) 243-8459	
		regans@michigan.gov	

**CONTRACT SUMMARY**

<b>IT STAFF AUGMENTATION</b>			
<b>INITIAL EFFECTIVE DATE</b>	<b>INITIAL EXPIRATION DATE</b>	<b>INITIAL AVAILABLE OPTIONS</b>	<b>EXPIRATION DATE BEFORE</b>
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026
<b>PAYMENT TERMS</b>		<b>DELIVERY TIMEFRAME</b>	
<b>ALTERNATE PAYMENT OPTIONS</b>			<b>EXTENDED PURCHASING</b>
<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

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**DESCRIPTION OF CHANGE NOTICE**

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
<b>CURRENT VALUE</b>		<b>VALUE OF CHANGE NOTICE</b>	<b>ESTIMATED AGGREGATE CONTRACT VALUE</b>	
\$400,000,000.00		\$0.00	\$400,000,000.00	

**DESCRIPTION**

Effective May 1, 2023, the Schedule A - Exhibit B Service Level Agreement's have been updated with the following changes:  
 - Retention Rate: Updated to 97% or higher  
 - Attrition Rate: Combined metric with retention rate  
 - Timely Invoices: Removed

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement and DTMB Central Procurement Services approval.

**Schedule A - Exhibit B  
Service Level Agreements**

<b>Performance Standard</b>	<b>Description</b>	<b>Performance Target</b>	<b>Calculation</b>	<b>Frequency</b>
<b>Resume Submittal Response Time</b>	Measures response time from receipt of request to delivery of candidate resumes	92%	Average number of requisitions which received first batch review within four business days	Quarterly
<b>Round One Fill Rate</b>	Measures ability to satisfactorily fulfill request with first round of resumes submitted to requestor (top 3-5 candidates)	92%	Total number of filled positions resulting from the first round of resumes/total number of requisitions filled	Quarterly
<b>Retention Rate</b>	Measures the percentage of resources that leave before the end of their engagement, not at the direction of the State	97% or higher	Number of turnovers leaving before the end of their engagement.	Quarterly
<b>Resource Dismissal</b>	Measures number of resources dismissed due to inadequate resource performance	1% or lower	Number of turnovers (due to inadequate performance)/ total number of resources engaged through end of the quarter including SLA exempt resources	Quarterly
<b>Accurate Billing</b>	Monthly invoice is complete and correct, submitted on time	99%	Number of invoices accepted by agency / total number of invoices	Quarterly
<b>Resource Evaluation</b>	For staff augmentation online survey provided after first quarter engagement of resources and annually thereafter and at conclusion of work assignment.  For SOW engagements, on-line survey provided at end of the SOW.	100%	Online survey provided after first quarter of engagement, annually, and at conclusion of work assignment	First Quarter after initial placement & Annually
<b>System Availability</b>	VMS is available to hiring managers and subcontractors	99%	Measured 24/7 with exception of announced down times	Monthly

**Schedule A - Exhibit B  
Service Level Agreements**

<b>Performance Standard</b>	<b>Description</b>	<b>Performance Target</b>	<b>Calculation</b>	<b>Frequency</b>
<b>Resource's meeting Technical Criteria</b>	<p>Measures quality of resources submitted to manager.</p> <p>Resumes need to meet technical requirements.</p>	<b>99% or higher</b>	<b>Number of resumes meeting technical requirements by score submitted to manager / Total numbers of resumes submitted to manager.</b>	<b>Quarterly</b>
<b>Contractor Satisfaction Survey</b>	<b>State will conduct satisfaction survey to measure agency satisfaction with VMS performance.</b>	<b>80%</b>	<b>Number of satisfactory responses / total number of responses</b>	<b>At State's discretion</b>
<b>Candidates Interviewed</b>	<b>Measures the number of candidates who fulfill interview requests</b>	<b>80%</b>	<b>Number of candidates interviewed/total number of candidates requested for interview</b>	<b>Quarterly</b>
<b>Candidates fulfilling offers of engagement/failure to start</b>	<p>Measures the number of candidates who start engagements after offer acceptance</p> <p>Measures false starts</p>	<b>95%</b>	<b>Number of candidates starting engagements/total number of candidates accepting offers of engagement</b>	<b>Quarterly</b>



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**CONTRACT CHANGE NOTICE**

Change Notice Number **5**  
 to  
 Contract Number **21000000322**

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Bill Evans
	317-313-8295
	bille@knowledgeservices.com
	VS0160117

<b>STATE</b>	Program Manager	Lacey Wilke	DTMB
		(517) 282-8057	
	wilkel@Michigan.gov		
	Contract Administrator	Sean Regan	DTMB
(517) 243-8459			
regans@michigan.gov			

**CONTRACT SUMMARY**

IT STAFF AUGMENTATION

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS	EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

**DESCRIPTION OF CHANGE NOTICE**

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$400,000,000.00	\$0.00	\$400,000,000.00		

**DESCRIPTION**

Effective October 1, 2022, this change notice is hereby amending multiple items in the Schedule A Statement of Work, background checks and Schedule B Pricing. Below is the revised language for each section of the Contract.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement and DTMB Central Procurement Services approval and Administrative Board approval on February 15, 2022.

**Schedule A – Statement of Work**

**Revised Scope:**

The State of Michigan will utilize the staffing Managed Service Provider to secure IT staffing resources, reporting directly to DTMB, for the following:

- Temporary resources, individually or by a group, needed to perform work for DTMB IT. These individuals or groups of resources would be paid hourly for work performed for a specific project, or various projects for a work area
- Deliverable-based engagements where the total cost of the project is equal to or less than \$500,000 and where the State of Michigan directs the project activities of the Vendor, exceptions can be approved by DTMB Central Procurement Services
- Staff augmentation situations that are specifically exempted from other competitive bidding requirements

**2.2 Key Personnel Updates**

<b>Contractor</b>
<b>Name: Jami Schooley</b> <b>Address: 9800 Crosspoint Boulevard, Indianapolis, IN 46256</b> <b>Phone: 734-796-7084</b> <b>Email: jamis@knowledgeservices.com</b>

<b>Contractor</b>
<b>Name: Justine Handzel</b> <b>Address: 9800 Crosspoint Boulevard, Indianapolis, IN 46256</b> <b>Phone: 317-806-0011</b> <b>Email: justineh@knowledgeservices.com</b>

**Non-Key Personnel Update:**

<b>Contractor</b>
<b>Name: Nate Kresge</b>

**Address: 9800 Crosspoint Boulevard, Indianapolis,  
IN 46256**  
**Phone: 371-460-6731**  
**Email: natek@knowledgeservices.com**

**Contractor**

**Name: Jenna Lentz**  
**Address: 9800 Crosspoint Boulevard, Indianapolis,  
IN 46256**  
**Phone: (317) 578-1700**  
**Phone: (602) 680-5568**  
**Email: JennaL@knowledgeservices.com**

**Contractor**

**Name: Bill Evans**  
**Address: 9800 Crosspoint Boulevard, Indianapolis,  
IN 46256**  
**Phone: 371-806-6137**  
**Email: bille@knowledgeservices.com**

**Contractor**

**Name: Sarah Karazim**  
**Address: 9800 Crosspoint Boulevard, Indianapolis,  
IN 46256**  
**Phone: 517-258-0540**  
**Email: sarahk@knowledgeservices.com**

**Contractor**

**Name: Ruthann Eplin**  
**Address: 9800 Crosspoint Boulevard, Indianapolis,  
IN 46256**  
**Phone: 810-243-5957**  
**Email: ruthanne@knowledgeservices.com**

<b>Contractor</b>
<b>Name: Anna Alvarez</b> <b>Address: 9800 Crosspoint Boulevard, Indianapolis, IN 46256</b> <b>Phone: 317-806-6182</b> <b>Email: annaa@knowledgeservices.com</b>

**Background Checks.** Contractor must present certifications evidencing satisfactory HireRight and drug test results for all staff identified for assignment to this project to the State of Michigan Program Manager designated for this contract. In addition, select State agencies may require proposed Contractor to complete an RI-8 Fingerprint Card for the National Crime Information Center (NCIC) Finger Prints, if required by project.

Annually, Contractor must perform a HireRight background screening (SOMI Package A) for all staff identified for assignment to this project. Annual background check results will be reported to the State of Michigan Program Manager designated for this contract.

Any contractor, while employed with DTMB, shall disclose to the State of Michigan Program Manager for this contract, in writing at or before the beginning of the next scheduled duty shift:

- a. A felony or misdemeanor court conviction, whether by guilty plea, no contest plea or trial.
- b. A felony arraignment.
- c. Restriction, suspension or loss of driving privileges for any reason, if the employee's current position requires possession of a valid driver's license.

Contractor will pay for all costs associated with ensuring their staff meets all requirements.

**Schedule B – Pricing**

The most up-to-date State of Michigan MSP program not-to-exceed rate card and classifications can be found at the following links:

[DTMB - IT Staff Augmentation \(michigan.gov\)](http://michigan.gov)

[MIMSP Rate Card.pdf \(knowledgeservices.com\)](http://knowledgeservices.com)

The State of Michigan will approve any changes to the rate card or classifications, prior to posting on the links.



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**CONTRACT CHANGE NOTICE**

Change Notice Number **4**  
 to  
 Contract Number **210000000322**

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Natalie Spaniolo	DTMB
		517-930-0153	
	spaniolon@Michigan.gov		
	<b>Contract Administrator</b>	Sean Regan	DTMB
(517) 243-8459			
regans@michigan.gov			

**CONTRACT SUMMARY**

<b>IT STAFF AUGMENTATION</b>			
<b>INITIAL EFFECTIVE DATE</b>	<b>INITIAL EXPIRATION DATE</b>	<b>INITIAL AVAILABLE OPTIONS</b>	<b>EXPIRATION DATE BEFORE</b>
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026
<b>PAYMENT TERMS</b>		<b>DELIVERY TIMEFRAME</b>	
<b>ALTERNATE PAYMENT OPTIONS</b>			<b>EXTENDED PURCHASING</b>
<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

**DESCRIPTION OF CHANGE NOTICE**

<b>OPTION</b>	<b>LENGTH OF OPTION</b>	<b>EXTENSION</b>	<b>LENGTH OF EXTENSION</b>	<b>REVISED EXP. DATE</b>
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
<b>CURRENT VALUE</b>	<b>VALUE OF CHANGE NOTICE</b>	<b>ESTIMATED AGGREGATE CONTRACT VALUE</b>		
\$400,000,000.00	\$0.00	\$400,000,000.00		

**DESCRIPTION**

Effective September 1, 2021, the following language is being updated in Section 3. d. Contractor Personnel, to the following:

Prior to any Contractor Personnel performing any Services, Contractor, or the applicable subcontractor:

- will ensure that such Contractor Personnel have the legal right to work in the United States, exceptions to this may extend to Canadian Citizens, only if the Contractor Personnel meets a set of criteria as defined and approved by the DTMB Executive Office or their delegate ; and
- will ensure all Contractor Personnel are physically located in the United States during the performance of any Services under this Contract. Exceptions to the location of the performance of any Services may extend to Canada, only if the physical location meets a set of criteria as defined and approved by the DTMB Executive Office or their delegate.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement Services approval.



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**CONTRACT CHANGE NOTICE**

Change Notice Number **3**  
 to  
 Contract Number **21000000322**

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Natalie Spaniolo	DTMB
		517-930-0153	
		spaniolon@Michigan.gov	
	<b>Contract Administrator</b>	Sean Regan	DTMB
		(517) 243-8459	
		regans@michigan.gov	

**CONTRACT SUMMARY**

<b>IT STAFF AUGMENTATION</b>			
<b>INITIAL EFFECTIVE DATE</b>	<b>INITIAL EXPIRATION DATE</b>	<b>INITIAL AVAILABLE OPTIONS</b>	<b>EXPIRATION DATE BEFORE</b>
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026
<b>PAYMENT TERMS</b>		<b>DELIVERY TIMEFRAME</b>	
<b>ALTERNATE PAYMENT OPTIONS</b>			<b>EXTENDED PURCHASING</b>
<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

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**DESCRIPTION OF CHANGE NOTICE**

<b>OPTION</b>	<b>LENGTH OF OPTION</b>	<b>EXTENSION</b>	<b>LENGTH OF EXTENSION</b>	<b>REVISED EXP. DATE</b>
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
<b>CURRENT VALUE</b>	<b>VALUE OF CHANGE NOTICE</b>	<b>ESTIMATED AGGREGATE CONTRACT VALUE</b>		
\$400,000,000.00	\$0.00	\$400,000,000.00		

**DESCRIPTION**

Effective July 1, 2021, this contract is amended to include the following language: For the purposes of the IT apprenticeship program, Knowledge Services, through its affiliate, becomes the employer of record (EOR), responsible for administering payroll and payroll related costs, as well as all employer mandated taxes and insurances.

For the purposes of the IT apprenticeship program, the State and Knowledges Services have agreed to an EOR/Payrolling rate percentage of the Resources pay rate, as defined below, to include all statutory costs or taxes, including but not limited to Medicare, FICA, SUTA, FUTA, PPACA and Workers Compensation Insurance.

For the purposes of the IT apprenticeship program, the Mark-Up Rate shall be 25.25% above Resource's pay rate as a W2 employee, and ten percent (10%) for 1099 independent contractor Resources. In the event that pre-screening is necessary as determined by the State, to the assignment of a Resource under this service, Knowledge Services shall bear the cost associated with the pre-screening process. The employment status of each Resource (W2 employee or 1099 independent contractor) will be mutually agreed by both parties.

Resources from subcontractors of the MSP program will not be converted to the EOR/Payrolling unless otherwise approved by

the State.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement Services approval.



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**CONTRACT CHANGE NOTICE**

Change Notice Number 2  
 to  
 Contract Number 21000000322

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Natalie Spaniolo	DTMB
		517-930-0153	
	spaniolon@Michigan.gov		
	<b>Contract Administrator</b>	Sean Regan	DTMB
(517) 243-8459			
regans@michigan.gov			

**CONTRACT SUMMARY**

**IT STAFF AUGMENTATION**

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
February 1, 2021	January 31, 2026	5 - 1 Year	January 31, 2026

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS	EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

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**DESCRIPTION OF CHANGE NOTICE**

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$400,000,000.00	\$0.00	\$400,000,000.00		

**DESCRIPTION**

Effective May 1, 2021, this contract is hereby updating Schedule B - Pricing to reflect changes to the following job descriptions: 23. Contact Center Agent & 24. Help Desk. These job descriptions have been updated to better align with existing Civil Service requirements.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement Services approval.

# STATE OF MICHIGAN

## SCHEDULE B PRICING

This schedule identifies the pricing for this Contract. The rate card below with associated job category does not include the administrative fee. This bill rate identified below is prior to the application of the Contractor's administrative fee.

DTMB Administrative Fee Percentage	1%
Vendor Funded MSP Administrative Fee	0.85%
Number of Subcontractors	Unlimited Vendor Pool

Job Category	Job Title	Skill Level	Bill Rate
Applications	Programmer Analyst	Analyst 1	\$ 53.23
		Analyst 2	\$ 64.86
		Analyst 3	\$ 73.13
		Analyst 4	\$ 81.82
		Analyst 5	\$ 85.50
		Analyst 6	\$ 97.27
	Programmer	Programmer 1	\$ 46.04
		Programmer 2	\$ 55.58
		Programmer 3	\$ 67.72
		Programmer 4	\$ 78.28
		Programmer 5	\$ 83.41

	Programmer 6	\$ 90.61
Software Test Analyst	Analyst 1	\$ 38.74
	Analyst 2	\$ 44.88
	Analyst 3	\$ 53.03
	Analyst 4	\$ 59.95
	Analyst 5	\$ 61.37
Technical Writer	Technical Writer 1	\$ 38.12
	Technical Writer 2	\$ 43.14
	Technical Writer 3	\$ 50.85
Business Analyst	Analyst 1	\$ 46.03
	Analyst 2	\$ 53.77
	Analyst 3	\$ 62.29
	Analyst 4	\$ 71.89
	Analyst 5	\$ 80.11
System Analyst	Analyst 1	\$ 50.36
	Analyst 2	\$ 58.71
	Analyst 3	\$ 63.12
	Analyst 4	\$ 74.09
	Analyst 5	\$ 81.32
	Analyst 6	\$ 91.23
Software Solutions Architect		\$ 93.96
Geographic Information Systems	Geospatial Projects Manager	\$ 95.75
	Analyst	\$ 89.16

		Specialist I	\$ 57.03
		Specialist II	\$ 71.06
		Technician Trainee	\$ 57.14
		Technician I	\$ 57.31
		Technician II	\$ 66.43
		Technician III	\$ 69.11
	Graphic Designer	Graphic Designer 1	\$ 38.44
		Graphic Designer 2	\$ 45.32
	Mobile Specialist	Mobile Specialist 1	\$ 122.02
		Mobile Specialist 2	\$ 145.21
Applications	Web Application Developer	Web Application Developer 1	\$ 58.76
		Web Application Developer 2	\$ 68.65
	Webmaster	Webmaster 1	\$ 52.91
		Webmaster 2	\$ 60.85\$
Cloud	Cloud Administrator		\$ 81.11
	Cloud Architect		\$ 111.33
	Cloud Engineer		\$ 90.00
Customer/Technical Support	Contact Center Agent	Contact Center Agent 1	\$ 24.10
		Contact Center Agent 2	\$ 30.59
		Contact Center Agent 3	\$ 35.30
	Help Desk	Help Desk 1	\$ 32.89
		Help Desk 2	\$ 38.23

		Help Desk 3	\$ 45.14
	Technical Support	Technical Support 1	\$ 41.75
		Technical Support 2	\$ 49.52
		Technical Support 3	\$ 60.35
	Infrastructure Solutions Architect	Infrastructure Solutions Architect 1	\$ 68.44
		Infrastructure Solutions Architect 2	\$ 75.29
		Infrastructure Solutions Architect 3	\$ 87.98
		Infrastructure Solutions Architect 4	\$ 94.34
		Infrastructure Solutions Architect 5	\$ 109.42
	System Administrator	System Administrator 1	\$ 52.13
		System Administrator 2	\$ 62.61
		System Administrator 3	\$ 71.07
Data Management	Database Architect	Database Architect 1	\$ 67.55
		Database Architect 2	\$ 71.94
		Database Architect 3	\$ 76.95
		Database Architect 4	\$ 93.16
		Data Warehouse Architect	Data Warehouse Architect 1
	Data Warehouse Architect 2		\$ 90.44
	Data Warehouse Architect 3		\$ 94.63
	Database Administrator	Database Administrator 1	\$ 56.55
		Database Administrator 2	\$ 70.91
		Database Administrator 3	\$ 79.57
		Database Administrator 4	\$ 84.11

		Database Administrator 5	\$ 92.66	
Data Protection	Data Protection Administrator		\$ 79.30	
	Data Protection Architect		\$ 103.00	
	Data Protection Engineer		\$ 83.50	
Data Center Technical Support	Senior Data Center Engineer		\$ 91.30	
Governance	IT Governance Analyst		\$ 96.39	
	IT Procurement Analyst		\$ 63.65	
IT Management Services	Business Continuity Analyst		\$ 67.50	
	Business Continuity Planner		\$ 85.00	
	Business Process Reengineering		\$ 98.01	
	Enterprise Architect		\$ 105.59	
	IT Strategist		\$ 106.08	
	IT Auditor	I.T. Auditor 1		\$ 46.71
		I.T. Auditor 2		\$ 51.78
		I.T. Auditor 3		\$ 66.95
		I.T. Auditor 4		\$ 75.02
		I.T. Auditor 5		\$ 79.51
	IT Trainer		\$ 59.46	
	IT Sourcing Consultant	IT Sourcing Consultant 1	\$ 88.20	
	Senior Technical Writer		\$ 57.14	
IT Management Services	IT Sourcing Consultant	IT Sourcing Consultant 2	\$ 99.12\$	

IT Security	IT Security Analyst	IT Security Analyst 1	\$ 54.82
		IT Security Analyst 2	\$ 66.92
		IT Security Analyst 3	\$ 80.65
	IT Security Architect	IT Security Architect 1	\$ 70.60
		IT Security Architect 2	\$ 82.04
	IT Security Auditor		\$ 97.81
Project Management	Program Manager		\$ 114.19
	Project Manager	Project Manager 1	\$ 80.25
		Project Manager 2	\$ 101.51
		Project Manager 3	\$ 108.56
	Project Coordinator		\$ 43.24
Storage	Storage Administrator		\$ 83.30
	Storage Architect		\$ 93.75
	Storage Engineer		\$ 89.23
Telecommunications and Computer Networking	Network Administrator	Network Administrator 1	\$ 49.07
		Network Administrator 2	\$ 54.30
		Network Administrator 3	\$ 63.01
	Network Architect	Network Architect 1	\$ 60.59
		Network Architect 2	\$ 68.01
		Network Architect 3	\$ 85.37
	Network Engineer	Network Engineer 1	\$ 51.77

	Network Engineer 2	\$ 60.66
	Network Engineer 3	\$ 68.03
	Network Engineer 4	\$ 81.50
	Public Safety Consultant	\$ 72.81
	Radio Engineer	\$ 90.99
	Voice/Data Communications Technician	\$ 38.05
	Voice/Data Communications Engineer/Design Specialist	\$ 67.50
	Voice/Data Communications Architect	\$ 82.50

# Job Category Descriptions

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## APPLICATIONS

### 1. Programmer Analyst

- Plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems. Evaluates user request for new or modified program, such as for financial or human resource management systems, clinical research trial results, statistical study of traffic patterns, or analyzing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Formulates plan outlining steps required to develop program, using methodologies such as structured analysis and design or object-oriented development.
- Work involves assisting in analyzing systems outlines to develop programs for computer applications, writing solution programs, documenting the methods and procedures used in program development, and testing and correcting programs. Works under moderate supervision with limited latitude for the use of initiative and independent judgment. Develops block diagrams and machine logic flowcharts to represent operations and data flow for applications.
- Captures requirements using industry standard development frameworks and tools. Designs reports, forms and letters along with computer terminal screen displays to accomplish goals of user request. Reviews screens, reports, forms and letters designs with users. Converts project specifications, using industry standard tools, such as object-oriented tools and code generation, into sequence of detailed instructions and logical steps for coding into language processable by computer, applying knowledge of computer programming techniques and computer languages.
- Enters program codes into computer system. Enters commands into computer to run and test program. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyzes, reviews and alters program to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites program to correct errors. May use computer-aided software tools in each stage of system development. May train users to use program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and test program at user site. May monitor performance of program after implementation. May specialize in developing programs for business or technical applications.

Programmer Analyst 1	
Years of	1 to 3 years of experience in the field or in a related area.

Experience	
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment
Programmer Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Programmer Analyst 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, may lead and direct the work of others, a wide degree of creativity and latitude is expected.

Programmer Analyst 4	
Years of Experience	12-15 years of experience in the field or in a related area.

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, may lead and direct the work of others, a wide degree of creativity and latitude is expected.
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Programmer Analyst 5	
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Years of Experience	Advanced experience in the IT industry and as a programmer analyst.
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Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry.
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Programmer Analyst 6	
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Years of Experience	Advanced experience in the IT industry and as a programmer analyst
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Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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## 2. Programmer

- Converts data from project specifications and statements of problems and procedures to create or modify computer programs. Prepares, or receives detailed specifications to describe sequence of steps that program must follow and input, output, and logical operations involved. Analyzes specifications, applying knowledge of computer capabilities, subject matter, and symbolic logic. Confers with supervisor and representatives of departments concerned with program to resolve questions of program intent, data input, output requirements, and inclusion of internal checks and controls. Converts detailed specifications to language processable by computer. Enters program codes into computer system. Inputs test data into computer. Observes computer monitor screen to interpret program operating codes. Corrects program errors, using methods such as modifying program or altering sequence of program steps. May prepare computer block diagrams and machine logic flowcharts for detailed coding of problems, and provides for the documentation of programming work.

- Writes instructions to guide operating personnel during production runs. Analyzes, reviews, and rewrites programs to increase operating efficiency or to adapt program to new requirements. Compiles and writes documentation of program development and subsequent revisions. May assist computer operator to resolve problems in running computer program. May work with System Analyst to obtain and analyze project specifications. May direct and coordinate work of others to write, test, and modify computer programs. Work involves writing programs to solve problems, documenting the methods and procedures used in program development, and testing and correcting programs. Work involves analyzing system outlines to develop programs for computer applications; writing solution programs; May train others. Works under general supervision with limited latitude for the use of initiative and independent judgment. Analyzes proposed computer applications in terms of equipment requirements and capabilities. Assists in developing solutions to software-related problems. May assist in the generation or installation of systems software.
- Prepares test data. May assist in writing and maintaining functional and technical specifications. Experience in computer programming work. Knowledge of the principles, practices, and techniques of computer programming and systems analysis, of computer operations procedures and systems, and of computer programming languages. Skill in the use of computer equipment. Ability to design programs and systems architecture; to prepare program specifications; to code, test, and debug computer programs; to interpret technical information relating to computer programming and other areas of data processing; and to communicate effectively.

Programmer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Programmer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Programmer 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Programmer 4	
Years of Experience	12-15 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Programmer 5	
Years of Experience	Advanced experience in the IT industry and as a programmer.
Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry.

Programmer 6	
Years of Experience	Advanced experience in the IT industry and as a programmer.

Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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### 3. Software Test Analyst

- Develops, publishes, and implements test plans. Writes and maintains test automation. Evaluates, recommends, and implements automated test tools and strategies. Develops, maintains, and upgrades automated test scripts and architectures for application products.

Also writes, implements, and reports status for system test cases for testing. Analyzes test cases and provides regular progress reports.

Participates in the testing process through test review and analysis, test witnessing and certification of software.

Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and
	efficiently. Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.

Analyst 2	
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Years of Experience	4-7 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.</p>

Analyst 3	
Years of Experience	7-10 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and</p>

	<p>efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.</p>
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Analyst 4	
Years of Experience	11-14 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify</p>

	defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.
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Analyst 5	
Years of Experience	15 or more years of experience in the field.
Job Description	Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and

efficiently.

Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendor provided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.

#### 4. Technical Writer

- Develops and maintains user and technical documentation and project process documentation for Application Teams. Understands the user's view of applications and /or technology and is able to put procedures in a logical sequence. Provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications. Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document.
- Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. Develop on-line source documentation as appropriate. Maintain documentation libraries and subscription lists. Identify, create, revise, and maintain documentation and templates. Ensure appropriate control access/use of documentation materials. Maintain application and user documentation. Ensure messages and terminology is consistent across all written materials. Research and complete documentation service requests. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Follow quality standards. Ability to work in a team environment. Strong communication skills; both written and spoken.
- Composes technical documents, manuals, bulletins, brochures, publications, training manuals, and special reports. Organizes and coordinates the composition of material and drafting of forms suitable for reproduction. Reviews and edits prepared material and illustrations. Develops and refines material for publication in journals and periodicals. Prepares informational material for release to the mass media. Works with agency staff in the development of formats, graphics, and the layout of publications. Assists agency staff in preparing and refining material for speeches and other public presentations. May research product design, capabilities, and compatibility ranges.
- May oversee the writing, editing, publishing, and distribution of specification documents. May review various resources and prepare analyses or summaries. May train others. Experience in technical writing, journalism, or communications work. Knowledge of the techniques and methods of planning, organizing, and writing various types of materials; of research methodology; and of departmental policies, procedures, and regulations.

Skill in the use of office equipment. Ability to conduct research; to compose, review, illustrate, and edit technical documents, materials, and reports; to communicate effectively; and to train others.

Technical Writer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.
Technical Writer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.
Technical Writer 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 5. Business Analyst

- Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Experienced with business process reengineering and identifying new applications of technology to business problems to make business more effective. Familiar with industry standard (including Legacy, Core, and Emerging technologies), business process mapping, and reengineering. Prepares solution options, risk identification, and financial analyses such as cost/benefit, ROI, buy/build, etc. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs.
- Prepare and document Functional and Technical Specifications for reporting and data warehouse work. Assist with business warehouse/intelligence support and enhancements. Develops RFPs. Assist in deployment and management of end-user reporting tools and platforms. Work with IT and business project teams to understand reporting and data warehousing requirements and propose solutions. Document and provide knowledge transfer to the rest of the Enterprise Reporting Team for all solutions.
- Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Familiar with relational database concepts, and client-server concepts. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project manager. A certain degree of creativity and latitude is required.

Business Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Business Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Business Analyst 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Business Analyst 4	
Years of Experience	12-15 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Business Analyst 5	
Years of Experience	16 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 6. System Analyst

- Understands business objectives and problems, identifies alternative solutions, performs studies and cost/benefit analysis of alternatives. Analyzes user requirements, procedures, and problems to automate processing or to improve existing computer system: Confers with personnel of organizational units involved to analyze current operational procedures, identify problems, and learn specific input and output requirements, such as forms of data input, how data is to be summarized, and formats for reports. Writes detailed description of user needs, program functions,

and steps required to develop or modify computer program. Reviews computer system capabilities, specifications, and scheduling limitations to determine if requested program or program change is possible within existing system.

- Studies existing information processing systems to evaluate effectiveness and develops new systems to improve production or specifications as required. Prepares specifications to detail operations to be performed by equipment and computer programs and operations to be performed by personnel in system. Conducts studies pertaining to development of new information systems to meet current and projected needs. Plans and prepares technical reports, memoranda, and instructional manuals as documentation of program development. Upgrades system and corrects errors to maintain system after implementation. May assist computer programmer in resolution of work problems related to project specifications, or programming. May direct and coordinate work of others to develop, test, install, and modify programs.
- Provides technical assistance and support for applications and hardware problems and for information sharing with external entities in a customer service environment. Provides field coordination and planning for the effective use of management information systems. Determines operational, technical, and support requirements for the location, installation, operation, and maintenance of various office equipment and systems. Prepares charts, diagrams, tables, and flowcharts. Details input and output record formats for computer programs. Assists in formulating logical descriptions of problems and devising optimum solutions. Assists in the design, development, and maintenance of various computer applications. May provide support and make recommendations for information technology systems processes associated with software technology planning, development, implementation, system security, and interfaces.
- Graduation from an accredited four-year college or university with major course work in computer science, computer information systems, or management information systems is generally preferred. Knowledge of the limitations and capabilities of computer systems and of the techniques used in the design of non-automated systems, of information technology equipment, of applicable programming languages, of computer hardware and software, of computer operating systems, of writing program code, and of automated mapping. Ability to analyze systems and procedures, to write and revise standards and procedures, to communicate effectively, and to train others.

System Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

System Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with
	considerable latitude for the use of initiative and independent judgment.

System Analyst 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

System Analyst 4	
Years of Experience	10 or more years of experience in the field.
Job Description	Advanced experience in the field.

System Analyst 5	
Years of Experience	12 or more years of experience in the field.
Job Description	Proven experience with complex concepts, practices, and procedures within the IT industry. Relies on advanced experience and judgment to plan and accomplish goals.

System Analyst 6	
Years of Experience	14 or more years of experience in the field.

Experience	
Job Description	Proven experience with complex concepts, practices, and procedures within the IT industry. Relies on advanced experience and judgment to plan and accomplish goals. Works independently and cooperatively with management and stakeholders.

## 7. Software Solutions Architect

Solutions Architect	
Years of Experience	5 or more years of experience in the field.
Job Description	Lead and manage the design, implementation and delivery of system and software architecture designs, strategies and quality assurance plans. Design, prototype, develop and implement to achieve business results for the client. Experienced expert able to lead and deliver solutions using object-oriented, service-oriented architecture, and n-tier architectures. Adopt, develop, and execute a robust software development lifecycle, using industry best practices. Follows both the State and industry best practices for software engineering. Leads in the development of long term technology strategy and planning for the entire organization leveraging existing and acquiring new resources. Leads and actively participates on project teams, clarifying business needs and requirements, performing analysis, design, development, integration, and maintenance of systems across
	the enterprise. Willing and able to engage with other internal organizations to maximize delivery capabilities and provide value to clients. Participates and leads the development of delivery approach, and labor and cost estimates. Manage projects or tasks using the State and industry project delivery methodologies and best practices. Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 8. Geospatial Projects Manager

Geospatial Projects Manager	
Years of Experience	A minimum of three years of professional experience is required in Geographical Information System (GIS), cartography, CADD, or a related field. A minimum of three years of professional experience as a project manager for geospatial projects is required.

Job Description	Lead and direct cross-functional teams to deliver complex geospatial projects within the constraints of schedule, budget and scope. Assess desired outcomes and identify user requirements and needs. Design geospatial solutions, including geodatabase schema, system requirements, system configuration and application functional requirements. Develop and obtain approval of project plans according to accepted practices and procedures. Integrate resources and develop additional resources to facilitate, manage and execute geospatial projects. Facilitate stakeholder communications, project reporting, and project oversight. Manage project closeout and the development of operations and support plans for geospatial data and application maintenance. Provide technical oversight and develop standards for geospatial data and applications.
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### 9. Geographic Information System Analyst

Geographic Information System Analyst	
Years of Experience	A minimum of two years of professional experience is required in GIS, cartography, CADD, or a related field.
Job Description	Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing complex spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

### 10. Geographic Information System Specialist 1

Geographic Information System Specialist	
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Years of Experience	Two (2) years of professional experience is required in GIS, cartography, CADD, or a related field.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites) in addition to performing simple spatial analyses. Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information. Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

**11. Geographic Information System Specialist 2**

Geographic Information System Specialist 2	
Years of Experience	3-4 years of experience in the field or in a related area.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites) in addition to performing simple spatial analyses. Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information. Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of

	the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.
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**12. Geographic Information System Technician Trainee**

Geographic Information System Technician Trainee	
Years of Experience	One year of professional experience related to GIS, cartography, CADD, or a related field, or a minimum of six undergraduate credit hours in GIS, cartography or CADD.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data.

**13. Geographic Information System Technician I**

Geographic Information System Technician I	
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Years of Experience	A minimum of two (2) years of successful experience at the equivalent of the GIS Trainee level.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data.

#### 14. Geographic Information System Technician II

Geographic Information System Technician II	
Years of Experience	A minimum of three (3) years of professional experience in GIS, cartography, CADD, or a related field.
Job Description	Perform specialized technical work in support of complex GIS applications. Implement geo-databases, establish recovery plans, and monitor geo-database performance. Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

### 15. Geographic Information System Technician III

Geographic Information System Technician III	
Years of Experience	A minimum of four (4) years of professional experience in GIS, cartography, CADD, or a related field.
Job Description	Perform specialized technical work in support of complex GIS applications. Implement geo-databases, establish recovery plans, and monitor geo-database performance. Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

### 16. Graphic Designer

Graphic Designer 1	
Years of Experience	Less than five years industry experience.
Job Description	Ability to assemble and create images for use with electronic and print publishing. Strong understanding of visual identifies and application of logos and identity marks.

Graphic Designer 2	
Years of Experience	5-7 years industry experience.
Job Description	Advanced experience in the use of various design software and technologies; advanced understanding of electronic design standards and techniques.

### 17. Mobile Specialist

- The Mobile Specialist serves in many capacities, including Developer, Engineer, Technical Architect, and Analyst for Mobile Projects. The Mobile Specialist often guides and mentors the technical team in all phases of the SDLC including requirement validation, detail design, development, and implementation.

Mobile Specialist 1	
Years of Experience	4 year college degree or equivalent technical study.
Job Description	<ul style="list-style-type: none"> <li>Serves as the Designer, Developer and/or Engineer on Mobile Projects.</li> <li>Meets with end users and technical staff of all types to gather business and system requirements</li> <li>Develops and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects.</li> <li>Develops standards, repeatable processes, and reusable components</li> <li>Assists in project planning, including developing of timelines, composition of technical teams, and leveling of resources.</li> <li>Mentors technical team leads and team members on Department processes and standards to promote consistency and improve productivity.</li> <li>Assists in the development and review of technical deliverables on projects.</li> </ul>

Mobile Specialist 2	
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Years of Experience	4 year college degree or equivalent technical study.
Job Description	<ul style="list-style-type: none"> <li>• Serves as the Lead Architect/Designer/Developer /Engineer on Mobile Projects.</li> <li>• Meets with end users and technical staff of all types to gather business and system requirements.</li> <li>• Proposes comprehensive solutions based on business and technical requirements</li> <li>• Architects, designs, develops, and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects.</li> <li>• Develops standards, repeatable processes, and reusable components</li> <li>• Leads project planning, including developing of timelines, composition of technical teams, and leveling of resources.</li> <li>• Mentors and manages technical team leads and team members on Department processes and standards to promote consistency and improve productivity.</li> <li>• Leads the development and review of technical deliverables on projects.</li> </ul>

## 18. Web Application Developer

Web Application Developer 1	
Years of Experience	Five years industry experience.
Job Description	Perform specialized programming and technical work for website and Internet development.

Web Application Developer 2	
Years of Experience	5-7 years industry experience.

Job Description	Perform advanced programming and technical development for website and Internet development
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## 19. Webmaster

Webmaster 1	
Years of Experience	Five years industry experience.
Job Description	Experience maintaining multiple websites. Responsibilities include publishing, examining traffic patterns and transactions, and maintaining usability standards.

Webmaster 2	
Years of Experience	More than five years of industry experience.
Job Description	Advanced experience maintaining multiple websites; examining traffic patterns and transactions; testing for multiple platforms; maintaining usability standards and security standards as they relate to the sites; and the ability to coordinate among content managers and developers.

## Cloud

### 20. Cloud Administrator

Cloud Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures cloud environment components.</li> <li>• Ensure all devices are maintained properly. Ensure maintenance activity is scheduled on a regular basis. Performs system upgrades.</li> <li>• Installs cloud-related software programs and applications.</li> <li>• Monitors the performance of cloud services and ensures system efficiencies.</li> </ul>

	<ul style="list-style-type: none"> <li>• Conducts tests to check the efficiency and accuracy of cloud devices.</li> <li>• Troubleshoots cloud devices when issues are reported.</li> </ul>
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## 21. Cloud Architect

Cloud Architect	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Participates in designing, developing and refining the State of Michigan cloud to ensure that it is secure, reliable, and robust. Implements changes to the cloud to increase performance and efficiencies.</li> <li>• Develops and implements detection and disaster recovery activities to test cloud services; participates in detecting, investigating, documenting, and reporting actual or potential cloud environment security violations, intrusions, failures, performance or other issues.</li> <li>• Designs cloud backbone infrastructure, to provide reliable, optimized, high performance cloud services.</li> <li>• Evaluates security products and tests security systems performance; assists in planning, implementing, and testing disaster recovery procedures; participates in making formal risk assessments related to the State of Michigan cloud environment.</li> </ul>

## 22. Cloud Engineer

Cloud Engineer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Designs and implements cloud-based solutions. Assesses existing configurations and makes recommendations based on product specifications. Configures equipment and software to meet business needs, trains others on the solution, and documents the solution for ongoing support. Functions as part of a team on larger projects, or individually provides the services on support visits or smaller projects. Provides technical support and assists with the design of cloud solutions.</li> <li>• Upgrades equipment and software, applies patches, and ensures physical security of data.</li> <li>• Facilitates and leads the engineering process for the State of Michigan cloud environment.</li> <li>• Designs disaster recovery plans for cloud services.</li> <li>• Creates effective cloud strategies, including specific performance reports and metrics.</li> </ul>

	<ul style="list-style-type: none"> <li>Requires experience in the technical services and support field as well as experience in cloud administration (DHCP, DNS, routers, firewall, etc.)</li> </ul> Assists with troubleshooting cloud devices when issues are reported.
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## CUSTOMER/TECHNICAL SUPPORT

### 23. Contact Center Agent

- Answers inbound and places outbound calls in a call center with the goal of increasing business, customer satisfaction, and customer retention. Takes care of somewhat complex customer inquiries and problems and non-routine matters than those handled by lower-level Call Center Representatives. Requires a higher degree of skill and ability to explain more complex matters to ensure customer satisfaction and retention, and to sell products and services.

Contact Center Agent 1	
Years of Experience	3 to 6 months of experience in the field or in a related area. On the job or other customer service training can be used to substitute for related work experience.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Contact Center Agent 2	
Years of Experience	6- months to 2 years of experience in the field or in a related area. On the job or other customer service/help desk training can be used to substitute for related work experience.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with some latitude for the use of initiative and independent judgment.
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Contact Center Agent 3	
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Years of Experience	2 or more years of experience in the field. On the job or other customer service/help desk training can be used to substitute for related work experience.
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Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.
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## 24. Help Desk

- Provide technical assistance to computer system users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks, and monitors the problem to ensure a timely resolution. Has knowledge of commonly used concepts, practices, and procedures within a particular field. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.
- Provide service and preventive maintenance activities on terminals, printers, personal computers, etc. Basic knowledge of electrical/mechanical principles and basic electronics. Read and comprehend technical service manuals and publications. Knowledge of basic mathematics to read and understand various gauges, meters, and measurement devices. Able to diagnose and repair products by replacing worn or broken parts, and making technical adjustments. Makes appropriate use of reference publications and diagnostic aids in resolving technical problems. Strong communication skills.
- Assist in coordination of changes, upgrades and new products, ensuring systems shall operate correctly in current and future environment. Provide accurate and complete answers to general use and administrative environment questions in a timely manner. Implement shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Ability to work in a team environment.

Help Desk 1	
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Years of Experience	3 to 6 months of experience in the field or in a related area. On the job or other technical training can be used to substitute for related work experience.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Help Desk 2	
Years of Experience	6 months to 2 years of experience in the field or in a related area. On the job training or possession of 2 year degree in IT systems or other technical training can be used to substitute for related work experience.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with some latitude for the use of initiative and independent judgment.

Help Desk 3	
Years of Experience	2 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 25. Technical Support

- Maintains, analyzes, troubleshoots, and repairs computer systems, hardware, and computer peripherals. Documents, maintains, upgrades or replaces hardware and software systems. Supports and maintains user account information including rights, security, and systems groups. Performs basic operation, monitoring, installation, trouble shooting, relocations, or maintenance of communications equipment. Identifies and resolves basic communications problems. Prepares or assists in the preparation of service record documentation. Shows awareness of standards and regulatory requirements related to assigned tasks.
- Assists in monitoring and providing assistance on the use and interface of systems, subsystems, and software applications. May be responsible for accessing data from and transferring data to various local, state, or federal databases. May assist in the review and recommendation of the procurement and inventory of information resources hardware or software. May write and update personal computer and mainframe application

programs. Experience in automated data processing systems. Knowledge of the practices, principles, and techniques of computer operations, of information systems, of computer software and hardware, and of information security policies and procedures. Skill in the use and support of personal computers, in the use of applicable programs and systems, and in troubleshooting information systems. Ability to operate information technology systems, to communicate effectively, and to train others.

- Provides assistance in the design, development, and maintenance of various system applications. Provides technical assistance and support for applications and hardware problems. Installs, maintains, moves, and assists in testing and upgrading new and existing hardware/software. Reviews and recommends procurement of information technology equipment. Maintains the necessary security controls over software. Makes presentations and briefings for training sessions. Prepares briefings, reports, and evaluations on system efficiency and utilization. May be responsible for accessing data from and transferring data to various local, state, or federal databases.
- Installs, maintains, moves, and assists in testing and upgrading new and existing hardware and software. Reviews and recommends procurement of information technology equipment. Maintains the necessary security controls over software. Develops procedure manuals. Develops and makes presentations and briefings for training sessions. Prepares briefings, reports, and evaluations on systems efficiency and utilization. May supervise the work of others.

Technical Support 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Technical Support 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Technical Support 3	
Years of Experience	8 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 26. Infrastructure Solutions Architect

- Must be proficient at the techniques that go into the formulation of architectures, including requirements discovery and analysis, application of abstraction, formulation of solution context, solution alternatives identification and assessment, technology selection, and architectural configuration. Extensive understanding and experience in technology areas for Mainframe and Distributed platforms, networking, databases, High Availability/Disaster Recovery, and IT security.
- Ability to work closely with client/application architects, senior managers, and project managers to design and assist with the implementation of the solutions infrastructure related components. Demonstrated ability to work independently and complete assigned project responsibilities under limited supervision. Experience and skills in prevailing industry architecture and engineering methodologies such as ITIL. Knowledge of and experience with a broad range of application servers, web servers, messaging servers, database servers, and related technologies. Able to analyze business requirements and define solutions to address complex business needs. Experience in web infrastructure design and operations including IP, HTTP, HTTPS, FTP, load balancing, clustering, failover, monitoring, diagnostics, performance tuning, etc. Possess high aptitude for problem-solving and trouble-shooting.

Infrastructure Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Infrastructure Architect 2	
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Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Infrastructure Architect 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Infrastructure Architect 4	
Years of Experience	10-12 years of experience.
Job Description	Advanced experience in architecting infrastructure solutions including proven experience with infrastructure integration.

Infrastructure Architect 5	
Years of Experience	12 or more years of experience in the field.

Job Description	Includes descriptions detailed earlier as well as experience in architecting advanced infrastructure solutions which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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## 27. System Administrator

- The System Administrator (SA) is responsible for effective provisioning, installation/configuration, operation, and maintenance of computer hardware and software and related infrastructure. This individual participates in technical research and development to enable continuing innovation within the infrastructure. This individual ensures that system hardware, operating systems, software systems, and related procedures adhere to State policies, standards, and guidelines. Responsibilities include systems administration engineering and provisioning, operations and support, maintenance and research and development to ensure continual innovation. Install new / rebuild existing servers and configure hardware, peripherals, services, settings, directories, storage, etc. in accordance with standards and project/operational requirements. Perform daily system monitoring, verifying the integrity and availability of all hardware, server resources, systems and key processes, reviewing system and application logs, and verifying completion of scheduled jobs such as backups. Perform regular security monitoring to identify any possible intrusions. Perform daily backup operations, ensuring all required file systems and system data are successfully backed up to the appropriate media, recovery tapes or disks are created, and media is recycled and sent off site as necessary. Perform regular file archival and purge as necessary. Create, change, and delete user accounts per request. Provide Tier III/other support per request from various constituencies. Investigate and troubleshoot issues. Diagnose and recover from hardware or software failures. Coordinate and communicate with impacted constituencies. Apply OS patches and upgrades on a regular basis, and upgrade administrative tools and utilities. Configure / add new services as necessary. Upgrade and configure system software that supports GIS infrastructure applications or Asset Management applications per project or operational needs. Maintain operational, configuration, or other procedures. Perform periodic performance reporting to support capacity planning. Perform ongoing performance tuning, hardware upgrades, and resource optimization as required. Configure CPU, memory, and disk partitions as required. Maintain data center environmental and monitoring equipment. Apply OS patches and upgrades on a regular basis, and upgrade administrative tools and utilities. Configure / add new services as necessary. Upgrade and configure system software or Asset Management applications per project or operational needs. Maintain operational, configuration, or other procedures. Perform periodic performance reporting to support capacity planning. Perform ongoing performance tuning, hardware upgrades, and resource optimization as required. Configure CPU, memory, and disk partitions as required.

System Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

System Administrator 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

System Administrator 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## DATA MANAGEMENT

### 28. Database Architect

- Designs and builds relational databases. Develops strategies for data acquisitions, archive recovery, and implementation of a database. Must be able to design, develop and manipulate database management systems, data warehouses and multidimensional databases. Requires a depth and breadth of database knowledge that shall help with formal design of relational databases and provides insight into strategic data manipulation. Responsible for making sure an organization's strategic goals are optimized through the use of enterprise data standards. This frequently involves creating and maintaining a centralized registry of metadata. Capable of performing the role of a database administrator, if needed.

Database Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area

Experience	
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Database Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Database Architect 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Architect 4	
Years of Experience	12 or more years of experience in the field

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.
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## 29. Data Warehouse Architect

- Designs, implements and supports data warehousing. Implements business rules via stored procedures, middleware, or other technologies. Defines user interfaces and functional specifications. Responsible for verifying accuracy of data, and the maintenance and support of the data warehouse. Knowledge of data warehouse end-to-end implementation processes, from business requirement logical modeling, physical database design, ETL, end-user tools, database, SQL, performance tuning. Demonstrated problem resolution skills with team of persons, and strong leadership with implementation team Experience in data warehouse design and data modeling (both relational and dimensional) and development and maintenance of multi-dimensional data models. Development experience in implementation of data warehousing utilizing RDBMS. Understanding of data warehouse Metadata concepts, tools and different data warehouse methodologies. Expertise in SQL and proficiency in database tuning techniques. Responsible for the ongoing architecture and design of the data warehouse, data mart, and reporting environments. Develop strategies for flexibility and scalability, and define the future technical architecture direction for the business intelligence reporting physical environment.
- Responsible for proper selection of appropriate hardware, software, tools and system lifecycle techniques for the different components of the end-to-end data warehouse architecture including ETL, metadata, data profiling software, database platform, performance monitoring, reporting and analytic tools. Defining and documenting the technical architecture of the data warehouse, including the physical components and their functionality. Setting or enforcing standards and overall architecture for data warehouse systems. Monitoring the data warehousing industry and assisting in establishing the organization's data warehousing strategy and selection of strategic warehousing tools and techniques. Ensuring compatibility of the different components of the DW architecture and ensuring alignment with broader IT strategies and goals. Ability to educate the project teams on the standards and architecture of each component of the data warehouse architecture. Very strong written and oral communication skills, including some presentation skills.

Data Warehouse Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Data Warehouse	
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Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Data Warehouse Architect 3	
Years of Experience	8 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

### 30. Database Administrator

- Responsible for data analysis and database management. Involved in maintenance, enhancement, designing of data dictionaries, physical and logical database models, and performance tuning. Knowledge of the utilities and production tools used for data storage management to support the Application Team. Coordinates physical changes to computer databases; codes, tests, and implements physical database, applying knowledge of data base management system. Designs logical and physical databases reviews description of changes to database design to understand how changes to be made affect physical data base (how data is stored in terms of physical characteristics, such as location, amount of space, and access method).
- Establishes physical database parameters. Uses structured query language (SQL) to define database objects using database definition language (DDL) and control access to database objects using data control language (DCL). Language descriptions and specifies identifiers of database to database management system or directs others in coding database descriptions. Calculates optimum values for database parameters, such as amount of computer memory to be used by database, following manuals and using calculator. Specifies user access level for each segment of one or more data items, such as insert, replace, retrieve, or delete data. Specifies which users can access data bases and what data can be accessed by user. Tests and corrects errors, and refines changes to database.
- Enters SQL to create production data base. Uses database utility programs and 3<sup>rd</sup> party utilities to monitor database performance, such as distribution of records and amount of available memory. Directs programmers and analysts to make changes to data base management system.

Reviews and corrects programs. Answers user questions. Confers with coworkers to determine impact of data base changes on other systems and staff cost for making changes to data base. Modifies data base programs to increase processing performance, referred to as performance tuning. Workers typically specialize in one or more types of data base management systems. Providing assistance in the planning, development, maintenance, and monitoring of integrated database systems, and ensuring that the conceptual and design phases of new applications are consistent with the structural parameters within the database environment.

- Evaluates users' requests for new data elements and systems, incorporates them into the existing shared data environment, and provides technical assistance. Coordinates the use of data to ensure data integrity and control redundancy, loads databases, and reorganizes as needed. Performs data modeling and prototyping. Performs logical and physical data modeling, designs relational database models, and creates physical data models from logical data models. Performs security recovery procedures. Determines and implements database search strategies and storage requirements. Maintains data dictionary ensuring uniformity of definitions and sets standards for use of data dictionary. Monitors database performance and recommends efficiency improvements. Creates test database environment for applications section, including the creation of necessary libraries and procedures.
- Executes the procedures necessary to save, retrieve, and recover databases from hardware and software failures within established procedures. Assists with determining, implementing, and enhancing standards on database security and with monitoring agency disaster recovery procedures and systems. Assists with the installation of database software and with analyzing, designing, and implementing databases. Assists in benchmarking and threshold testing of databases and with establishing and controlling necessary database security. Assists in the selection of database management software. Experience in computer systems analysis or computer programming work.
- Knowledge of the principles, practices, and techniques of computer programming and systems design; of computer operations, systems, and procedures; of project control and cost estimating techniques; of computer programming languages; of data processing flowcharting techniques; of database structures and theories; and of current database technologies.

Database Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Database Administrator 2	
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Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Database Administrator 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Administrator 4	
Years of Experience	12 - 14 years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Administrator 5	
Years of Experience	15 or more years of experience in the field

Experience	
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## DATA PROTECTION

### 31. Data Protection Administrator

Data Protection Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures various data protection devices simultaneously.</li> <li>• Ensure all devices are maintained properly. Ensure maintenance activity is scheduled on a regular basis. Performs system upgrades.</li> <li>• Installs data protection related software programs and applications.</li> <li>• Monitors the performance of data protection devices and ensures system efficiencies.</li> <li>• Ensure back up of data prior to/during installation/uninstall any software or application.</li> <li>• Conducts tests to check the efficiency and accuracy of data protection devices.</li> </ul>

### 32. Data Protection Architect

Data Protection Architect	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>- Analyzes data needed to determine key requirements to store and access data and communicate that information to management.</li> <li>• Plans and designs data protection systems, both for temporary use and to meet long-term data protection needs.</li> </ul>
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### 33. Data Protection Engineer

Data Protection Engineer	
Analyst	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Facilitates and leads the engineering process for data protection.</li> <li>• Creates effective data protection strategies, including specific performance and data usage reports and metrics.</li> <li>• Designs and implements solutions for data protection and maintenance.</li> <li>• Upgrades software, apply patches, and ensure physical security of data.</li> <li>• Evaluates input and output for systems and overall architecture; identifies and recommends improvements.</li> <li>• Designs disaster recovery plans and enforces backup and archival procedures.</li> </ul>

## DATA CENTER TECHNICAL SUPPORT

### 34. Senior Data Center Engineer

Senior Data Center Engineer	
Analyst	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>•Develop operational and project documentation and provide advice as a Technical Authority. Support data center engineering projects. Supervise staff on site to ensure projects tasks are fully delivered to the correct standards. Support the Data Center Manager to maintain all data center standards, documented procedures, adherence to security policies and audit compliance tasks. Provide technical advice on managing problems within the data center services team. Ensure that the data center is maintained and operational 24/7 by providing daily audits and reports about the performance level of services. Mentor, coach, train and guide other colleagues to deliver quality data center service.</li> </ul>
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## GOVERNANCE

### 35. IT Procurement Analyst

- Considerable knowledge of principles and practices of IT procurement including automated procurement systems and tools, budget monitoring/maintenance, file and records management, statistical report development, and related bookkeeping/governmental accounting/fiscal procedures.
- Effective oral and written communication skills; strong computer skills including a high level of proficiency with MS Office, databases, spreadsheets, and automated financial systems; proven ability to maintain divisional inventory and to establish effective working relationships with both internal and external vendors and personnel.
- Demonstrated ability to analyze data, develop statistical reports, reconcile records, and provide customer service at all levels; significant experience in IT procurement including, but not limited to, software and hardware licenses; experience administering state contracts.
- Degree in information technology, business, a related field, or an equivalent combination of education and/or training/experience; demonstrated competencies in customer service, problem solving, organizational and negotiation skills.

IT Procurement	
Analyst	
Years of Experience	A minimum of four years of experience required in the following areas; IT procurement experience, purchasing of software/hardware, negotiation. A minimum of two years of experience required in problem solving. A minimum of four years of experience in an accounting-related field highly desired.
Job Description	Will be responsible for a wide range of information technology procurements including IT goods and services through a variety of purchasing options; follows procurement guidelines, selects appropriate procurement method, processes and maintains procurement requests and invoices through automated accounting systems; reconciles vendor inquiries and discrepancies; participates in pre-bid conferences as needed. Will also perform administrative and fiscal tasks, accounts payable and receivable, and IT software inventory; will compile financial data and review/analyze for budget formulation; develop and maintain numerous fiscal and/or procurement related spreadsheets; and perform related functions as required.

### 36. IT Governance Analyst

- Works within IT Project Governance to provide oversight, direction and guidance/consultation for IT projects from project request submission through project close-out and post-implementation review. As a governance liaison, works with project managers to ensure all aspects of project management disciplines and ensures compliance with agency specific and State project management and project governance policies, procedures, standards and guidelines have been followed. Reviews and validates project deliverables to ensure information accuracy, thoroughness, completeness and compliance. Ensures all projects have a valid project plan that maintains scope, tasks, schedules, estimates, and status, and that information is accurately disseminated to IT management. Directs corrective actions in any area where performance falls below objectives.
- Assists with the development, promulgation, implementation and regular updates of IT Project Management and Systems Development standards, policies, and guidelines and any other governance policies and procedures needed for the overall IT governance framework. Ensures compliance with all policies and procedures in the execution of technology projects. Monitor the progress of technology projects and provide quick and accurate responses to IT Management as to status, issues and risks of those projects. Serve as liaison between IT management, project managers and SOM. Monitor and support the management of the division's technology portfolio comprised of projects, systems, data and tools. Provide mentoring, coaching, training and on-boarding for project managers in the areas of project management tools, standards, policies, and procedures. Train and mentor new members of the IT Project Governance team as needed.
- Initiate and conduct ongoing and regular IT Policy, Process, Procedure, and Standard reviews to ensure technology and governance best practices are incorporated into the agency's set of procedures and improve business and IT compliance with legislative and regulatory policies which impact IT deliverables. Assist in the preparation of reports and materials for regularly scheduled project and program portfolio reviews with IT CIO, IT Managers and PM's.

IT Governance Analyst	
Years of Experience	10 years of experience in the field
Job Description	Ensure projects have adequate project management and oversight structures and processes that will enable the success of the project. Verifies and validates project status reports. Assists with the training and implementation of new agency and/or COV project policies, standards, guidelines and procedures introduced. Assists with assessment of project management training needs, schedules classes as needed, or provides one on one project consulting. Reviews project documentation
	including project initiation documents such as the project charter, budget, schedule, cost benefit analysis, etc. throughout the project lifecycle until the end of the project including the project closeout report. Recommends approval of documents to AITR and Director. Attends project review and steering committee meetings for all projects for which he or she is governance liaison.

## IT MANAGEMENT SERVICES

### 37. Business Continuity Analyst

Business Continuity Analyst	
Years of Experience	
Job Description	<ul style="list-style-type: none"><li>• Develop, prepare and implement plans to ensure the State of Michigan can continue to operate in case of serious incidents or disasters. (i.e. analyzing organizations and suggesting improvement)</li><li>• Security and risk management professional who develop strategies to return to normal business operations in a timely manner and ensures all data is backed up in case of an emergency or disaster.</li><li>• Includes facilitating trainings.</li><li>• Periodic maintenance tests.</li><li>• Enhancing technical processes to make sure best strategies are being used.</li></ul>

### 38. Business Continuity Planner

Business Continuity Planner	
Years of Experience	5 or more years

Job Description	<p>Provides specialized expertise in business continuity planning, project management and problem analysis and resolution. Participates in major project assignments to: assist business partners in resolving business issues related to work area (business function), recovery planning and recovery plan development / enhancements. Capitalizes on business opportunities to refine processes to mitigate exposure during disruptions of service, and possibly, improve day-to-day operations. Facilitates and coordinates the development of work area (business function) business continuity plans for business units.</p> <p>Responsibilities include, but are not limited to, the following: assist business units with assessment of potential business impact, definition of critical, time-sensitive functions, design, development, and documentation of business continuity plans, recommend recovery strategies and options, and assist with the implementation of recovery solutions, coordinate business continuity plan exercises, develop schedules for training / awareness for business partner associates, coordinate development of business unit schedules for annual business continuity documentation maintenance and update, exercises, and independent review and validation, report the business continuity status of business units to senior management, provide expertise and support to management and business functional areas, as requested, when a disruption occurs.</p>
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### 39. Business Process Reengineering

Business Process Reengineering	
Years of Experience	5 or more years
Job Description	<p>This position applies process improvement and re-engineering methodologies and principles to conduct process modernization projects. Additional duties may include activity and data modeling, developing modern business methods, identifying best practices, and creating and assessing performance measurements. Providing group facilitation, interviewing, training, and provides additional forms of knowledge transfer. Serves as a key coordinator between multiple project teams to ensure enterprise wide integration of re-engineering efforts.</p> <p>Additional Responsibilities: Design workflow for purchasing software, collect and analyze statistics/metrics for software purchases, identify gaps in all associated processes and risks, establish memorandum of understanding (MOU's) where required, maintain SOP's for all processes, and support the client at customer meetings.</p>

#### 40. Enterprise Architect

Enterprise Architect	
Years of Experience	5 or more years
Job Description	<p>This position works across Application Development, Service Delivery and Infrastructure to identify, research, discuss, design, and implement key enterprise architecture standards. Other responsibilities include: Research, design, document, build, and pilot prioritized topics for standards. Manage the list of potential standards and work with the application development management to prioritize efforts. Work closely with Development, Infrastructure, and Service Delivery teams to understand their needs and ensure the best enterprise standard is implemented. Work closely with development teams to pilot and prove out the standard. Drive the identification, development and implementation of key new standards in areas such as: Performance Testing, Security, Event Management, Web UI Framework, .NET Design Standards, Application To Application Communication, Caching, etc. Propose new enterprise standards based on business need, IT need and technology advances. Assist development teams to implement the standards into business applications. Investigate new technology and techniques that should be developed into an agency enterprise architecture standard.</p> <p>Lead key enterprise architectural design projects as necessary. Operate as business savvy technical leader across the organization. Influence development teams to design high-quality technical solutions that fit the Enterprise Architecture and standards. Educate application development managers, developers, and business analyst on State Enterprise Architecture Standards.</p>

#### 41. IT Strategist

IT Strategist	
Years of Experience	5 or more years
Job Description	<p>Supports top management in IT strategy formulation, IT strategic plans execution, strategic process improvements, and communication of IT strategies to all stakeholders. Analyze business performance, industry trends, existing or new regulatory requirements and their impact on IT operations; make recommendations on alternative courses of action, including risk assessment, capital investment, and acquisitions needed to align IT strategy with agency strategic plan. Requires advanced knowledge of strategic planning concepts and frameworks, business issues and concepts, research methodology, general management and financial analysis. Additionally, requires good interaction skills with senior management, with ability to articulate and defend recommendations made.</p>

#### 42. IT Auditor

IT Auditor 1	
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Years of Experience	0-2 years
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 2	
Years of Experience	2-4 years
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 3	
Years of Experience	4-6 years

Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.
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IT Auditor 4	
Years of	6-8 years
Experience	
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 5	
Years of	8+ years
Experience	
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

#### 43. IT Trainer

IT Trainer	
Years of Experience	0-2 years
Job Description	Develop an agency-wide training plan. Coordinate IT strategic planning process to determine the department's training requirements through communications with staff throughout the agency. Identify existing training that meets the requirements and provide a gap analysis of courses to develop in house. Develop curriculum and training plan. Develop evaluation and monitoring methods to ensure quality training. Develop short video training. Produce written documents with clearly organized thoughts using proper English sentence construction, punctuation, and grammar.

#### 44. IT Sourcing Consultant

IT Sourcing Consultant 1	
Years of Experience	5+ years
Job Description	Position requires the ability to work independently as the team leader in the development and execution of sourcing strategies for assigned projects, assisting customers in solving IT business problems. This role will function to lead the sourcing process,
	through creation of the solicitation documents, evaluation of proposals and in execution of agreed upon negotiations strategy with selected suppliers. Leads evaluation and execution of risk mitigation strategies and establishes solid contracts that are in the long-term best interest of the customer. Has responsibility for managing customer expectations for project deliverables through effective and timely communications. Conducts a post-project lessons learned reviews with the customers to promote knowledge transfer and customer satisfaction.

IT Sourcing Consultant 2	
Years of Experience	10+ years

Experience	
Job Description	Position requires a proven ability to lead development and execution of complex sourcing strategies for assigned projects and consulting with customers to solve IT business problems. Conducts meaningful market research and works with business owners to develop sourcing scope, timelines and deliverables. This role will function as the leader of cross-functional teams through the sourcing process, in the evaluation of proposals, conducting and managing the negotiations process with selected suppliers. Has responsibility for proactively managing customer expectations for project deliverables through effective and timely communications to various levels of senior management. Identifies and manages contractual risks and establishes firm contracts that are in the long-term best interest of the customer. Conduct post-project lessons learned reviews with the customers to promote knowledge transfer and customer satisfaction.

#### 45. Senior Technical Writer

Senior Technical Writer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Develops and maintains user and technical documentation and project process documentation for Application Teams. Understands the user's view of applications and /or technology and is able to put procedures in a logical sequence. Provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications. Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document.</li> <li>• Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. Develop on-line source documentation as appropriate. Maintain documentation libraries and subscription lists. Identify, create, revise, and maintain documentation and templates. Ensure appropriate control access/use of documentation materials. Maintain application and user documentation. Ensure messages and terminology is consistent across all written materials. Research and complete documentation service requests. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Follow quality standards. Ability to work in a team environment. Strong communication skills; both written and spoken.</li> <li>• Composes technical documents, manuals, bulletins, brochures, publications, training manuals, and special reports. Organizes and coordinates the composition of material and drafting of forms suitable for reproduction. Reviews and edits prepared material and illustrations. Develops and refines material for publication in journals and periodicals. Prepares informational material for release to the mass media. Works with agency staff in the development of formats, graphics, and the</li> </ul>

	<p>layout of publications. Assists agency staff in preparing and refining material for speeches and other public presentations. May research product design, capabilities, and compatibility ranges.</p> <ul style="list-style-type: none"> <li>• May oversee the writing, editing, publishing, and distribution of specification documents. May review various resources and prepare analyses or summaries. May train others. Experience in technical writing, journalism, or communications work. Knowledge of the techniques and methods of planning, organizing, and writing various types of materials; of research methodology; and of departmental policies, procedures, and regulations. Skill in the use of office equipment. Ability to conduct research; to compose, review, illustrate, and edit technical documents, materials, and reports; to communicate effectively; and to train others.</li> </ul>
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## IT SECURITY

### 46. IT Security Analyst

- Monitor and advise on information security issues related to the systems and workflow at an agency to ensure the internal IT security controls for an agency are appropriate and operating as intended. Coordinate and execute IT security related projects for the agency. Coordinate response to information security incidents. Develop and publish Information Security policies, procedures, standards and guidelines based on knowledge of best practices and compliance with State IT Security policies, standards, and guidelines..
- Conduct campus-wide data classification assessment and security audits and manage remediation plans. Collaborate with IT management, Internal Audit, and SOM to manage security vulnerabilities. Create, manage and maintain user security awareness. Conduct security research and keeps abreast of latest security issues.
- Prepares IT security documentation, including department policies and procedures, agency notifications, Web content, and alerts.

IT Security Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent
	judgment.

IT Security Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

IT Security Analyst 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

**47. IT Security Architect**

IT Security Architect 1	
Years of Experience	<p>3+ years of experience in security architecture</p> <p>9+ years of experience in information security</p> <p>9+ years of experience working with computer systems</p> <p>9+ years of experience working with network software and hardware, data or voice as well as experience with open and proprietary software and hardware</p>

Job Description	<p>Establish the target security/infrastructure architecture. Author corresponding requirements, including definition of dependencies on infrastructure consolidation efforts. Define Security/Information Assurance requirements (and dependencies). Specify key architectural aspects of the architecture view, and identify other aspects that need definition. Other duties include researching best practices for reuse, applying State IT Security and industry standards, and defining the transformation approach that transitions the current architecture to the target architecture.</p> <p>Experience working with current and emerging information security technologies and development methodologies. Bachelor's degree in computer science, management information systems, or related field preferred. Good analytical and creative problem solving skills.</p> <p>Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.</p>
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IT Security Architect 2	
Years of Experience	<p>5+ years of experience in security architecture</p> <p>11+ years of experience in information security</p> <p>11+ years of experience working with computer systems</p> <p>11+ years of experience working with network software and hardware, data or voice as well as experience with open and proprietary software and hardware</p>
Job Description	<p>Establish the target security/infrastructure architecture. Author corresponding requirements, including definition of dependencies on infrastructure consolidation efforts. Define Security/Information Assurance requirements (and dependencies). Specify key architectural aspects of the architecture view, and identify other aspects that need definition. Other duties include researching best practices for reuse, applying State IT Security and industry standards, and defining the transformation approach that transitions the current architecture to the target architecture.</p> <p>Experience working with current and emerging information security technologies and development methodologies. Bachelor's degree in computer science, management information systems, or related field preferred. Good analytical and creative problem solving skills.</p> <p>Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.</p>

**48. IT Security Auditor**

IT Security Auditor	
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Years of Experience	15 or more years with IT security and audit experience
Job Description	Advanced knowledge of security standards and progressive experience performing security audits.

## PROJECT MANAGEMENT

### 49. Program Manager

- Responsible for supporting all project delivery work in accordance with required methodology (such as the State of Michigan’s State Unified Information Technology Environment (SUITE) methodology), and following all standard project management industry standards such as PMI’s framework.
- Coordinates and controls the end to end process of capturing all key project artifacts, including but not limited to: business cases, project charters, baselined project schedules, project management plans, change requests, status reports, lessons learned. May require consistent utilization of the State of Michigan’s SUITE methodology and Project Portfolio Management (PPM) tool.
- Raises identified issues and risks to the appropriate senior management level including the Project Management Office (PMO) for action inclusive of description of the issue, comprehensive analysis of options and recommendation for remediation.
- Manages portfolio of projects’ execution to ensure conformity to established budgets, timelines and scope.
- Works with the stakeholders, including the PMO to facilitate project governance effectiveness through weekly status reporting, project/portfolio data, regular governance meetings, etc.

Program Manager 1	
Years of Experience	5+ years of recent experience in managing IT projects (preferably within a government environment)

Job Description	Experience in successfully managing Information Technology (IT) projects (full project life cycle) whose budget was greater than \$10,000,000 (excluding hardware/software costs) and whose timeline was greater than 3 years.. Documented experience in performing Project Management, Quality Management, or other critical functions within complex Information Technology projects (preferably with budgets greater than \$10,000,000 and multi-phase, multiyear implementations). Professional certification in Project Management, such as Project Management Professional (PMP) certification from the Project Management Institute.
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**50. Project Manager**

- Designs, plans, and coordinates work teams. Follows standard project management industry practices such as the PMI's framework. Understands business and technical objectives of a project and works closely with project sponsor. Creates project charter and work plan and tracks budget and schedule progress via appropriate metrics. Establishes project organization and methodologies and defines roles and responsibilities. Documents risks and develops mitigation plans. Manages scope. Creates and implements a communication plan. Builds an effective team, assigns tasks to team members, and evaluates outcomes. Negotiates resources. Communicates to stakeholders and project sponsor. Identifies, tracks, and ensures resolution of issues and removal of barriers. Provides technical support to project team members. Handles complex application features and technical designs. Designs and implements the components required for complex application features. Generally manages a group of applications system analysts. Relies on experience and judgment to plan and accomplish goals. Professional certification is highly desirable.
- May require specific PC, workstation, operating system, application or platform skills. Provides overall direction to the formulation, development, implementation, and delivery of a project. Exercises management responsibility over the achievement of performance, revenue, and profit objectives of a project and its contracts. Ensures that the project plan maintains tasks, schedules, estimates, and status, and disseminates information to team members and customers. Creates a structure and organization for the management of a complex environment with emphasis on quality, productivity, and consistency. Directs corrective actions in any area where performance falls below objectives. Arranges for the assignment of responsibility to other supporting facilities, business areas, and support functions, and monitors their performance. Self-directed and independent. Responsible for the coordination and completion of projects. Oversees all aspects of projects. Sets deadlines, assigns responsibilities, and monitors and summarizes progress of project. Prepares reports for upper management regarding status of project.

Project Manager 1	
Years of Experience	Minimum 2 years of experience as a Project Manager.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.
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Project Manager 2	
Years of Experience	Minimum 4 years of experience as a Project Manager.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Project Manager 3	
Years of Experience	Minimum 5 years of experience as a Project Manager.
Job Description	Advanced experience managing programs of projects, complex projects or multiple projects. Demonstrated and advanced understanding of project management methodologies. Relies on experience and judgment to plan and accomplish goals. A significant degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

**51. Project Coordinator**

Project Coordinator	
Years of Experience	Minimum 2 years of experience as a Project Coordinator

Job Description	The Project Coordinator shall provide day-to-day coordination of project tasks. The project coordinator maintains version control and provides administrative support for project management information system. Prior experience of large project administration. Ability to communicate at all levels of an organization and third parties. Experience with similar scale roles and organizations. The project coordinator is task focused. Works under the direction of the project manager and reports to a project manager.
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## STORAGE

### 52. Storage Administrator

Storage Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures various storage devices simultaneously with the help of storage area network. Ensure all devices are maintained properly. Schedules maintenance activity of devices on a regular basis. Performs system upgrades.</li> <li>• Installs storage related software programs and applications.</li> <li>• Monitors the performance of storage devices and ensures that the systems work efficiently.</li>   <li>• Ensure that important data is backed up at the time of installing or uninstalling any software program or application.</li> <li>• Conducts tests to check the efficiency and accuracy of storage devices.</li> </ul>

### 53. Storage Architect

Storage Architect	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>• Analyzes data needed to determine key requirements to store and access data and communicate that information to management.</li> <li>• Plans and designs storage systems, both for temporary use and to meet long-term data storage needs.</li> </ul>
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#### 54. Storage Engineer

Storage Engineer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Facilitates and leads the engineering process for data storage.</li> <li>• Creates effective storage strategies, including specific performance and data usage reports and metrics.</li> <li>• Designs and implements solutions for data storage and maintenance.</li> <li>• Upgrades software, apply patches, and ensure physical security of data.</li> <li>• Evaluates input and output for systems and overall architecture; identifies and recommends improvements.</li> <li>• Designs disaster recovery plans and enforces backup and archival procedures.</li> </ul>

## TELECOMMUNICATIONS AND COMPUTER NETWORKING

#### 55. Network Administrator

- Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures. Coordinate the development, implementation, and maintenance of a local area network or wide area network. Maintains the network's physical and logical structures, including network connections. Maintains network support software, analyzes user support statistics, and recommends appropriate measures. Installs, tests, and maintains network hardware and software. Prepares and analyzes statistics on network utilization and availability. Prepares training courses and provides user support and training in the use of available hardware, software, and utilities. Performs tuning and capacity planning activities to enhance the performance of the network resources.
- Assist in the development, implementation, maintenance, and monitoring of a local area network or wide area network. Works under close supervision with minimal latitude for the use of initiative and independent judgment. Performs procedures for backup, recovery, and archival of files stored on the network. Communicates with vendors, users, management, and network programming staff. Serves as contact for remote network locations to obtain clarification of problems and to identify solutions or corrective actions. Assists in preparing training courses and

providing user support and training in the use of available hardware, software, and utilities. Assists in maintaining the local area network or wide area network, cable and hub installations, and inventories. Conducts product evaluations of upgraded or new hardware and software—identifying strengths, weaknesses, and potential benefits to the agency—and recommends enhancements to network facilities.

- Assists in maintaining the network's physical and logical structures and in installing and testing hardware and software. Assists in performance tuning and capacity planning activities to enhance the performance of the network resources and in maintaining network support software. Assists in or conducts product evaluations of upgraded or new hardware and software and identifies strengths, weaknesses, and potential benefits to the agency. Assists in maintaining the operating system and security software utilized on the network, including the addition of new users to the network and establishment of rights and privileges. Experience in local or wide area network work. Knowledge of network facilities and data processing techniques; of personal computer hardware and software; of network operating system and security software; and of performance monitoring and capacity management tools.

Network	
Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Administrator 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network	
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Administrator 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 56. Network Architect

- Participates in designing and developing the network to ensure that it is secure, reliable, and robust; implements and maintains network management servers that assist the agency in managing, monitoring, and securing the network.
- Develops and implements detection activities to test network vulnerability to intrusion by hostile individuals or groups; participates in detecting, investigating, documenting, and reporting actual or potential network security violations, intrusions, or other inappropriate use.
- Designs backbone infrastructure, network facilities, wide area networks, local area network, wireless and telecommunication networks to provide reliable Internet access, remote access to information technology services (ITS), network security, and high performance networking.
- Evaluates security products and tests security systems performance; assists in planning, implementing, and testing disaster recovery procedures; participates in making formal risk assessments related to network security.
- Certification in areas related to network management and security preferred (CNE, MCSE, MSCE+1, CISA, CCNA, CCNP, CCIE, CCSA, CCSE, CCSE-PLUS, Cisco Security Specialist).
- Requires experience in the technical services and support field as well as experience in network administration (DHCP, DNS, routers, firewall, etc.)

Network Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network Architect 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 57. Network Engineer

- Responsible for installing networking technologies and supporting networks. Assesses existing network configurations and makes recommendations based on product specifications. Configures equipment and software to meet business needs, trains others on the solution, and documents the solution for ongoing support. Functions as part of a team on larger projects, or individually provides the services on support visits or smaller projects. Provides technical support and assists with the design of network solutions.
- Requires experience in the technical services and support field as well as experience in network administration (DHCP, DNS, routers, firewall, etc.)

Network Engineer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.

Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Engineer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network Engineer 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Network Engineer 4	
Years of Experience	12 or more years of experience in the field.

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.
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**58. Public Safety Consultant**

Public Safety Communications Consultant	
Years of Experience	Extensive knowledge of public safety communications and enhanced 9-1-1 systems. Knowledge of current 9-1-1 industry trends in technology architecture, microcomputers, networking, and the Internet/Worldwide Web.
Job Description	Performs systems analysis, design, documentation, and implementation of complex public safety communications projects. These projects may include needs analyses, staffing studies, consolidation plans, equipment assessments and planning, budget preparation and forecasting, performance reporting/analysis and other related supporting the operation of public safety answering points and first responders.

**59. Radio Engineer**

Radio Engineer	
Years of Experience	Considerable experience in voice, data and video systems. Training in electronics is required. Advanced technical experience in the design of voice, data, video and wireless/radio systems and services. FCC General Radio Telephone license or Amateur Radio License highly desirable. Certification in public procurement would be desirable. Advanced knowledge of complex communications systems; business management practices and principles.
Job Description	Conducts the review, analysis and design of current and proposed voice, data and video communications, both wire line and wireless, also develop engineering plans and networks for state agencies and institutions. Performs research to develop recommendations for enhancements, expansions and/or consolidations of voice, data and video communications, using wire line and wireless equipment, facilities and services. Engineer system/network migration details toward sharing of integrated services, while laying the foundation of Open System Interconnections. Assist in the coordination, engineering and processing of FCC licenses. Educate and keeps abreast of FCC Land Mobile Radio (LMR) rules, policies, legal rulings and ongoing spectrum issues--analyzes results and impacts.

**60. Voice/Data Communications Technician:**

Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Plans network installations by studying customer orders and technical specifications. Configures and establishes voice and data networks. Verifies service by performing appropriate testing; identifying, correcting, or escalating problems. Documents network by prescribed methodology; recording configuration diagrams and specifications. Maintains network by troubleshooting and repairing outages; testing network procedures; updating documentation.

**61. Voice/Data Communications Engineer/Design Specialist:**

Years of Experience	4 to 7 years of experience in the field or in a related area.
Job Description	Primarily responsible for providing technical expertise, services and solutions for various voice and data services. Provides technical direction and engineering knowledge for activities including planning, designing, configuring, developing, testing, installing and maintaining the communications networks. Ensures that adequate and appropriate planning is provided to direct architects and planners in building communications spaces and media pathways. Provides complex engineering or analytical tasks and activities associated with one or more technical areas.

**62. Voice/Data Communications Architect:**

Years of Experience	8 years or more of experience in the field or in a related area.
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Job Description	Coordinates strategies for defining, deploying, and maintaining the voice communication architecture and its associated network connections and component hardware. Manages initiatives, planning technology roadmaps, and configuring and optimizing all systems and services. Maintains the department's service level standards.
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**STATE OF MICHIGAN**  
**CENTRAL PROCUREMENT SERVICES**  
 Department of Technology, Management, and Budget  
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913  
 P.O. BOX 30026 LANSING, MICHIGAN 48909



**CONTRACT CHANGE NOTICE**

Change Notice Number 1  
 to  
 Contract Number 210000000322

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	<b>Program Manager</b>	Natalie Spaniolo	DTMB
		517-930-0153	
	spaniolon@Michigan.gov		
	<b>Contract Administrator</b>	Sean Regan	DTMB
(517) 243-8459			
regans@michigan.gov			

**CONTRACT SUMMARY**

<b>IT STAFF AUGMENTATION</b>			
<b>INITIAL EFFECTIVE DATE</b>	<b>INITIAL EXPIRATION DATE</b>	<b>INITIAL AVAILABLE OPTIONS</b>	<b>EXPIRATION DATE BEFORE</b>
February 1, 2021	January 31, 2026	5, 1 Year	January 31, 2026
<b>PAYMENT TERMS</b>		<b>DELIVERY TIMEFRAME</b>	
<b>ALTERNATE PAYMENT OPTIONS</b>		<b>EXTENDED PURCHASING</b>	
<input type="checkbox"/> P-Card	<input type="checkbox"/> PRC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**MINIMUM DELIVERY REQUIREMENTS**

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**DESCRIPTION OF CHANGE NOTICE**

<b>OPTION</b>	<b>LENGTH OF OPTION</b>	<b>EXTENSION</b>	<b>LENGTH OF EXTENSION</b>	<b>REVISED EXP. DATE</b>
<input type="checkbox"/>		<input type="checkbox"/>		January 31, 2026
<b>CURRENT VALUE</b>	<b>VALUE OF CHANGE NOTICE</b>	<b>ESTIMATED AGGREGATE CONTRACT VALUE</b>		
\$400,000,000.00	\$0.00	\$400,000,000.00		

**DESCRIPTION**

Effective April 1, 2021, this contract is updating the insurance requirements to lower the professional liability insurance from \$3,000,000 to \$1,000,000. The contract is also updating the rate card to include a new rate card inclusive of the 1% DTMB administrative fee.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement Services approval.

# STATE OF MICHIGAN

## SCHEDULE B PRICING

This schedule identifies the pricing for this Contract. The rate card below with associated job category **does** include the DTMB administrative fee of 1%. This bill rate identified below is prior to the application of the Vendor Funded MSP administrative fee.

DTMB Administrative Fee Percentage	1%
Vendor Funded MSP Administrative Fee	0.85%
Number of Subcontractors	Unlimited Vendor Pool

Job Category	Job Title	Skill Level	Max Bill Rate
Applications	Programmer Analyst	Analyst 1	\$ 53.76
		Analyst 2	\$ 65.51
		Analyst 3	\$ 73.86
		Analyst 4	\$ 82.64
		Analyst 5	\$ 86.36
		Analyst 6	\$ 98.24
	Programmer	Programmer 1	\$ 46.50
		Programmer 2	\$ 56.14
		Programmer 3	\$ 68.40
		Programmer 4	\$ 79.06
		Programmer 5	\$ 84.24
		Programmer 6	\$ 91.52
	Software Test Analyst	Analyst 1	\$ 39.13
		Analyst 2	\$ 45.33
		Analyst 3	\$ 53.56
		Analyst 4	\$ 60.55
		Analyst 5	\$ 61.98
	Technical Writer	Technical Writer 1	\$ 38.50
		Technical Writer 2	\$ 43.57

		Technical Writer 3	\$ 51.36
	Business Analyst	Analyst 1	\$ 46.49
		Analyst 2	\$ 54.31
		Analyst 3	\$ 62.91
		Analyst 4	\$ 72.61
		Analyst 5	\$ 80.91
	System Analyst	Analyst 1	\$ 50.86
		Analyst 2	\$ 59.30
		Analyst 3	\$ 63.75
		Analyst 4	\$ 74.83
		Analyst 5	\$ 82.13
		Analyst 6	\$ 92.14
	Software Solutions Architect		\$ 94.90
	Geographic Information Systems	Geospatial Projects Manager	\$ 96.71
		Analyst	\$ 90.05
		Specialist I	\$ 57.71
		Specialist II	\$ 71.77
		Technician Trainee	\$ 57.71
		Technician I	\$ 57.88
		Technician II	\$ 67.09
		Technician III	\$ 69.80
	Graphic Designer	Graphic Designer 1	\$ 38.82
		Graphic Designer 2	\$ 45.77
	Mobile Specialist	Mobile Specialist 1	\$ 123.24
		Mobile Specialist 2	\$ 146.66
Applications	Web Application Developer	Web Application Developer 1	\$ 59.35
		Web Application Developer 2	\$ 69.37
	Webmaster	Webmaster 1	\$ 53.44
		Webmaster 2	\$ 61.46\$
Cloud	Cloud Administrator		\$ 81.92
	Cloud Architect		\$ 112.44
	Cloud Engineer		\$ 90.90

Customer/Technical Support	Contact Center Agent	Contact Center Agent 1	\$ 24.34
		Contact Center Agent 2	\$ 30.90
		Contact Center Agent 3	\$ 35.65
		Help Desk	Help Desk 1
	Help Desk 2		\$ 38.61
	Help Desk 3		\$ 45.59
	Technical Support	Technical Support 1	\$ 42.17
		Technical Support 2	\$ 50.02
		Technical Support 3	\$ 60.95
	Infrastructure Solutions Architect	Infrastructure Solutions Architect 1	\$ 69.12
		Infrastructure Solutions Architect 2	\$ 76.04
		Infrastructure Solutions Architect 3	\$ 88.86
		Infrastructure Solutions Architect 4	\$ 95.28
		Infrastructure Solutions Architect 5	\$ 110.51
	System Administrator	System Administrator 1	\$ 52.65
		System Administrator 2	\$ 63.24
System Administrator 3		\$ 71.78	
Data Management	Database Architect	Database Architect 1	\$ 68.23
		Database Architect 2	\$ 72.66
		Database Architect 3	\$ 77.72
		Database Architect 4	\$ 94.09
		Data Warehouse Architect	Data Warehouse Architect 1
	Data Warehouse Architect 2		\$ 91.34
	Data Warehouse Architect 3		\$ 95.58
	Database Administrator	Database Administrator 1	\$ 57.12
		Database Administrator 2	\$ 71.62
		Database Administrator 3	\$ 80.37
		Database Administrator 4	\$ 84.95
Database Administrator 5		\$ 93.59	
Data Protection	Data Protection Administrator		\$ 80.09
	Data Protection Architect		\$ 104.03
	Data Protection Engineer		\$ 84.34

Data Center Technical Support	Senior Data Center Engineer		\$ 92.21	
Governance	IT Governance Analyst		\$ 97.35	
	IT Procurement Analyst		\$ 64.29	
IT Management Services	Business Continuity Analyst		\$ 68.18	
	Business Continuity Planner		\$ 85.85	
	Business Process Reengineering		\$ 98.99	
	Enterprise Architect		\$ 106.65	
	IT Strategist		\$ 107.14	
	IT Auditor	I.T. Auditor 1		\$ 47.18
		I.T. Auditor 2		\$ 52.30
		I.T. Auditor 3		\$ 67.62
		I.T. Auditor 4		\$ 75.77
		I.T. Auditor 5		\$ 80.31
	IT Trainer		\$ 60.05	
IT Sourcing Consultant	IT Sourcing Consultant 1	\$ 89.08		
Senior Technical Writer		\$ 57.71		
IT Management Services	IT Sourcing Consultant	IT Sourcing Consultant 2	\$ 100.11	
IT Security	IT Security Analyst	IT Security Analyst 1	\$ 55.37	
		IT Security Analyst 2	\$ 67.59	
		IT Security Analyst 3	\$ 81.46	
	IT Security Architect	IT Security Architect 1	\$ 71.31	
		IT Security Architect 2	\$ 82.86	
IT Security Auditor		\$ 98.79		
Project Management	Program Manager		\$ 115.33	
	Project Manager	Project Manager 1	\$ 81.05	
		Project Manager 2	\$ 102.53	
		Project Manager 3	\$ 109.65	
Project Coordinator		\$ 43.67		

Storage	Storage Administrator		\$ 84.13
	Storage Architect		\$ 94.69
	Storage Engineer		\$ 90.12
Telecommunications and Computer Networking	Network Administrator	Network Administrator 1	\$ 49.56
		Network Administrator 2	\$ 54.84
		Network Administrator 3	\$ 63.64
	Network Architect	Network Architect 1	\$ 61.20
		Network Architect 2	\$ 68.69
		Network Architect 3	\$ 86.22
	Network Engineer	Network Engineer 1	\$ 52.29
		Network Engineer 2	\$ 61.27
		Network Engineer 3	\$ 68.71
		Network Engineer 4	\$ 82.32
	Public Safety Consultant		\$ 73.54
	Radio Engineer		\$ 91.99
	Voice/Data Communications Technician		\$ 38.43
	Voice/Data Communications Engineer/Design Specialist		\$ 68.18
	Voice/Data Communications Architect		\$ 83.33

**Insurance Requirements.** Contractor, at its sole expense, must maintain the insurance coverage identified below. All required insurance must: (i) protect the State from claims that arise out of, are alleged to arise out of, or otherwise result from Contractor's or subcontractor's performance; (ii) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (iii) be provided by a company with an A.M. Best rating of "A-" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
<b>Commercial General Liability Insurance</b>	
<u>Minimum Limits:</u> \$1,000,000 Each Occurrence \$1,000,000 Personal & Advertising Injury \$2,000,000 Products/Completed Operations \$2,000,000 General Aggregate	Policy must be endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.
<b>Umbrella or Excess Liability Insurance</b>	
<u>Minimum Limits:</u> \$5,000,000 General Aggregate	Policy must follow form.
<b>Automobile Liability Insurance</b>	
<u>Minimum Limits:</u> \$1,000,000 Per Accident	Policy must include Hired and Non-Owned Automobile coverage.
<b>Workers' Compensation Insurance</b>	
<u>Minimum Limits:</u> Coverage according to applicable laws governing work activities	Waiver of subrogation, except where waiver is prohibited by law.
<b>Employers Liability Insurance</b>	
<u>Minimum Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease	
<b>Privacy and Security Liability (Cyber Liability) Insurance</b>	
<u>Minimum Limits:</u>	Policy must cover information security and privacy liability, privacy notification costs,

\$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate	regulatory defense and penalties, and website media content liability.
<b>Professional Liability (Errors and Omissions) Insurance</b>	
<u>Minimum Limits:</u> \$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate	

If any required policies provide claims-made coverage, the Contractor must: (i) provide coverage with a retroactive date before the Effective Date of the Contract or the beginning of Contract Activities; (ii) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (iii) if coverage is cancelled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Contract, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (i) provide insurance certificates to the Contract Administrator, containing the agreement or delivery order number, at Contract formation and within twenty (20) calendar days of the expiration date of the applicable policies; (ii) require that subcontractors maintain the required insurances contained in this Section; (iii) notify the Contract Administrator within five (5) business days if any policy is cancelled; and (iv) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not to be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).



**STATE OF MICHIGAN PROCUREMENT**  
 Department of Technology, Management, and Budget  
 525 W. Allegan, Lansing, MI 48933  
 P.O. Box 30026 Lansing, MI 48909

**NOTICE OF CONTRACT**

NOTICE OF CONTRACT NO. **210000000322**  
 between  
 THE STATE OF MICHIGAN  
 and

<b>CONTRACTOR</b>	Knowledge Services
	9800 Crosspoint Blvd.
	Indianapolis, IN 46256
	Scott Wiseman
	616-378-6805
	scottw@knowledgeservices.com
	VS0160117

<b>STATE</b>	Program Manager	Natalie Spaniolo	DTMB
		517-930-0153	
		spaniolon@michigan.gov	
<b>STATE</b>	Contract Administrator	Sean Regan	DTMB
		517-243-8459	
		regans@michigan.gov	

<b>CONTRACT SUMMARY</b>			
<b>DESCRIPTION: IT Staff Augmentation</b>			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
2/1/2021	1/31/2026	5, 1 year	
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45			
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Payment Request (PRC) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
MISCELLANEOUS INFORMATION			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION			<b>\$400,000,000.00</b>

**FOR THE CONTRACTOR:**

\_\_\_\_\_  
**Company Name**

\_\_\_\_\_  
**Authorized Agent Signature**

\_\_\_\_\_  
**Authorized Agent** (Print or Type)

\_\_\_\_\_  
**Date**

**FOR THE STATE:**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Name & Title**

\_\_\_\_\_  
**Agency**

\_\_\_\_\_  
**Date**



# STATE OF MICHIGAN

## STANDARD CONTRACT TERMS

This IT Professional Services Contract (the “**Contract**”) is agreed to between the State of Michigan (the “**State**”) and [Insert Company Name] (“**Contractor**”), a [Insert State & Entity Status, e.g., a Michigan corporation or a Texas limited liability company]. This Contract is effective on February 1, 2021 [Month, Day, Year] (“**Effective Date**”), and unless terminated, expires on January 31, 2026 [Month, Day, Year] (the “**Term**”).

This Contract may be renewed for up to five (5) additional one (1) year periods. Renewal must be by written notice from the State and will automatically extend the Term of this Contract.

The parties agree as follows:

1. **Definitions.** For the purposes of this Contract, the following terms have the following meanings:

“**Business Day**” means a day other than a Saturday, Sunday or other day on which the State is authorized or required by Law to be closed for business.

“**Change**” has the meaning set forth in **Section 3.c.**

“**Change Notice**” has the meaning set forth in **Section 3.c.ii.**

“**Change Proposal**” has the meaning set forth in **Section 3.c.i.**

“**Change Request**” has the meaning set forth in **Section 3.c.**

“**Confidential Information**” has the meaning set forth in **Section 21a.**

“**Contract**” has the meaning set forth in the preamble.

“**Contract Administrator**” is the individual appointed by each party to (a) administer the terms of this Contract, and (b) approve any Change Notices under this Contract. Each party’s Contract Administrator will be identified in **Section 5.**

“**Contract Deliverables**” means documentation, reports, and all other materials that Contractor or any Subcontractor is required to or otherwise does provide to the State under this Contract and otherwise in connection with any Services, including all items specifically identified as Deliverables in the Statement of Work.

“**Contract Statement of Work**” means the statement of work for Services and Contract Deliverables attached as a schedule to this Contract. This initial Contract Statement of Work is attached as **Schedule A** to this Contract.

“**Contractor**” has the meaning set forth in the preamble.

**“Contractor Personnel”** means all employees of Contractor or any Subcontractors involved in the performance of Services and creation of Contract Deliverables or Engagement Deliverables under this Contract.

**“Criminal Justice Information Data”** or **“CJI Data”** means data necessary for criminal justice agencies to perform their mission and enforce the laws.

**“Deliverables”** means collectively Contract Deliverables and Engagement Deliverables.

**“Effective Date”** has the meaning set forth in the preamble.

**“Engagement Deliverables”** means documentation, reports, and all other materials that Contractor or any Subcontractor is required to or otherwise does provide to the State under this Contract and otherwise in connection with any Engagement Services, including but not limited to application programming interfaces, computer scripts, macros, user interfaces, graphics, drawings, analysis, project management documents, forms, templates and all items specifically identified as Deliverables in an Engagement Statement of Work together with all ideas, concepts, processes, and methodologies developed in connection with this Contract whether or not embodied in this Contract.

**“Engagement Resources”** means any Contractor Personnel who provide Engagement Services under this Contract.

**“Engagement Services”** means the Services provided pursuant to an Engagement Statement of Work or an ordering document.

**“Engagement Statement of Work”** means any statement of work entered into by the parties to provide Engagement Services and/or Engagement Deliverables.

**“Financial Audit Period”** has the meaning set forth in **Section 24**.

**“Key Personnel”** means any Contractor Personnel identified as key personnel in this Contract or the Statement of Work.

**“PAT”** means a document or product accessibility template, including any Information Technology Industry Council Voluntary Product Accessibility Template or VPAT®, that specifies how information and software products, such as websites, applications, software and associated content, conform to WCAG 2.0 Level AA.

**“Services”** means any of the services Contractor, or any Subcontractor, is required to or otherwise does provide under this Contract, the Contract Statement of Work, the Contract Service Level Agreement, or an Engagement Statement of Work.

**“Service Level Agreement”** means the service level agreement setting forth Contractor’s support obligations for the Software, attached as **Schedule C** to this Contract.

**“State”** has the meaning set forth in the preamble.

**“State Data”** has the meaning set forth in **Section 10.a**.

**“State Review Period”** has the meaning set forth in **Section 11**.

**“Statement of Work”** means the Contract Statement of Work or any Engagement Statement of Work entered into by the parties under this Contract. All references to “the Statement of Work” shall mean “the applicable Statement of Work.”

“**Stop Work Order**” has the meaning set forth in **Section 13**.

“**Subcontractor**” has the meaning set forth in **Section 3.g**.

“**Transition Responsibilities**” has the meaning set forth in **Section 16**.

“**Unauthorized Removal**” has the meaning set forth in **Section 3.f.ii**.

“**Unauthorized Removal Credit**” has the meaning set forth in **Section 3.f.iii**

“**WCAG 2.0 Level AA**” means level AA of the World Wide Web Consortium Web Content Accessibility Guidelines version 2.0.

2. **Statement of Work.** Contractor shall provide the Services and Deliverables pursuant to the Contract Statement of Work, attached as **Schedule A** to this Contract. State may order Engagement Services or Engagement Deliverables through an Engagement Statement of Work or an ordering document. The terms and conditions of this Contract will apply at all times to any Statement of Work. The State shall have the right to terminate any Statement of Work, in whole or in part, as set forth in **Sections 14 and 15** of this Contract.

3. **Performance of Services.**

- a. **Performance Warranty.** Contractor represents and warrants that its Services hereunder shall be performed by competent personnel and shall be of professional quality consistent with generally accepted industry standards for the performance of such services and shall comply in all respects with the requirements of this Contract and the specifications set forth in the Statement of Work and the Service Level Agreement. For any breach of this warranty, the State may, at its option, either terminate a Statement of Work immediately pursuant to the termination provision herein, or require Contractor to provide replacement Engagement Resources satisfactory to the State within thirty (30) calendar days of Contractor’s receipt of notification from the State. Whether or not the departing Engagement Resources are to continue working while Contractor attempts to find replacement personnel is at the sole discretion of the State. If Contractor is notified within the first forty (40) hours of assignment that the person is unsatisfactory, Contractor will not charge the State for those hours; otherwise, the State shall pay for all actual hours worked prior to the State’s notification of a replacement request to Contractor.

- b. **State Standards**

- i. The Contractor and its Subcontractor(s) must adhere to all existing standards as described within the comprehensive listing of the State’s existing technology standards of which the publicly available ones are at [https://www.michigan.gov/dtmb/0,5552,7-358-82547\\_56579\\_56755---,00.html](https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html)
- ii. To the extent that Contractor and its Subcontractor(s) has access to the State’s computer system, they must all comply with the State’s Acceptable Use Policy, see [https://www.michigan.gov/documents/dtmb/1340.00.01\\_Acceptable\\_Use](https://www.michigan.gov/documents/dtmb/1340.00.01_Acceptable_Use)

[of Information Technology Standard 458958 7.pdf](#). All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access or specific Contractor Personnel's access to the State's system if the State, in its sole discretion, determines that a violation has occurred.

- c. **Change Control Process.** The State may at any time request in writing (each, a "**Change Request**") changes to a Statement of Work, including changes to the Services and Implementation Plan (each, a "**Change**"). Upon the State's submission of a Change Request, the parties will evaluate and implement all Changes in accordance with this Section.
- i. As soon as reasonably practicable, and in any case within twenty (20) Business Days following receipt of a Change Request, Contractor will provide the State with a written proposal for implementing the requested Change ("**Change Proposal**"), setting forth:
    1. a written description of the proposed Changes to any Services or Deliverables;
    2. an amended Implementation Plan reflecting: (A) the schedule for commencing and completing any additional or modified Services or Deliverables; and (B) the effect of such Changes, if any, on completing any other Services under a Statement of Work; and
    3. any increase or decrease in Fees resulting from the proposed Changes, which increase or decrease will reflect only the increase or decrease in time and expenses Contractor requires to carry out the Change.
  - ii. Within thirty (30) Business Days following the State's receipt of a Change Proposal, the State will by written notice to Contractor, approve, reject, or propose modifications to such Change Proposal. If the State proposes modifications, Contractor must modify and re-deliver the Change Proposal reflecting such modifications, or notify the State of any disagreement, in which event the parties will negotiate in good faith to resolve their disagreement. Upon the State's approval of the Change Proposal or the parties' agreement on all proposed modifications, as the case may be, the parties will execute a written agreement to the Change Proposal ("**Change Notice**"), which Change Notice will be signed by the State's Contract Administrator and will constitute an amendment to a Statement of Work to which it relates; and
  - iii. If the parties fail to enter into a Change Notice within fifteen (15) Business Days following the State's response to a Change Proposal, the State may, in its discretion:
    1. require Contractor to perform the Services under a Statement of Work without the Change;
    2. require Contractor to continue to negotiate a Change Notice;
    3. initiate a Dispute Resolution Procedure; or

4. notwithstanding any provision to the contrary in a Statement of Work, terminate this Contract under **Section 16.1**.
- iv. No Change will be effective until the parties have executed a Change Notice. Except as the State may request in its Change Request or otherwise in writing, Contractor must continue to perform its obligations in accordance with a Statement of Work pending negotiation and execution of a Change Notice. Contractor will use its best efforts to limit any delays or Fee increases from any Change to those necessary to perform the Change in accordance with the applicable Change Notice. Each party is responsible for its own costs and expenses of preparing, evaluating, negotiating, and otherwise processing any Change Request, Change Proposal, and Change Notice.
  - v. The performance of any functions, activities, tasks, obligations, roles and responsibilities comprising the Services as described in this Contract are considered part of the Services and, thus, will not be considered a Change. This includes the delivery of all Deliverables in accordance with their respective Specifications, and the diagnosis and correction of Non-Conformities discovered in Deliverables prior to their Acceptance by the State or, subsequent to their Acceptance by the State, as necessary for Contractor to fulfill its associated warranty requirements and its Support Services under this Contract.
  - vi. Contractor may, on its own initiative and at its own expense, prepare and submit its own Change Request to the State. However, the State will be under no obligation to approve or otherwise respond to a Change Request initiated by Contractor.

**d. Contractor Personnel**

- i. Contractor is responsible for all Contractor Personnel and for the payment of their compensation, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.
- ii. Prior to any Contractor Personnel performing any Services, Contractor, or the applicable subcontractor:
  1. will ensure that such Contractor Personnel have the legal right to work in the United States; and
  2. will ensure all Contractor Personnel are physically located in the United States during the performance of any Services under this Contract.
  3. at State's request, will require such Contractor Personnel to execute written agreements, in form and substance acceptable

to the State, that bind such Contractor Personnel to confidentiality provisions that are at least as protective of the State's information (including all Confidential Information) as those contained in this Contract.

- iii. Contractor and all Contractor Personnel will comply with all rules, regulations, and policies of the State that are communicated to Contractor in writing, including security procedures concerning systems and data and remote access, building security procedures, including the restriction of access by the State to certain areas of its premises or systems, and general health and safety practices and procedures.
  - iv. The State reserves the right to interview and approve all Engagement Resources who will be performing work directly for the State prior to their beginning any work for the State.
  - v. The State reserves the right to require the removal of any Contractor Personnel found, in the judgment of the State, to be unacceptable. The State's request must be written with reasonable detail outlining the reasons for the removal request. Replacement personnel for the removed person must be fully qualified for the position. If the State exercises this right, and Contractor cannot immediately replace the removed personnel, the State agrees to negotiate an equitable adjustment in schedule or other terms that may be affected by the State's required removal.
- e. **Background Checks.** Pursuant to Michigan law, all agencies subject to IRS Pub. 1075 are required to ask the Michigan State Police to perform fingerprint background checks on all employees, including Contractor and Subcontractor employees, who may have access to any database of information maintained by the federal government that contains confidential or personal information, including, but not limited to, federal tax information. Further, pursuant to Michigan law, any agency described above is prohibited from providing Contractors or Subcontractors with the result of such background check. For more information, please see Michigan Public Act 427 of 2018. Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.
- f. **Contractor's Key Personnel**
- i. The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Project Manager, and provide the State with a resume and any other information about the individual

reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection.

- ii. Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("**Unauthorized Removal**"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under **Section 14**.
- iii. It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to determine and remedy the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 14**, Contractor will issue to the State the corresponding credits set forth below (each, an "**Unauthorized Removal Credit**"):
  1. For the Unauthorized Removal of any Key Personnel designated in the Statement of Work (as included in Schedule A), the credit amount will be \$25,000.00 per individual or as otherwise specified in an Engagement Statement of Work or ordering document, if Contractor identifies a replacement approved by the State and assigns the replacement to shadow the Key Personnel who is leaving for a period of at least 30 calendar days before the Key Personnel's removal.
  2. If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 calendar days, in addition to the credit specified above, Contractor will credit the State 1/30<sup>th</sup> of the credit amount per calendar day for each day of the 30 calendar-day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to the stated credit amount per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 calendar days of shadowing will not exceed two times the stated credit amount per individual.

- iv. Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed under **Subsection iii** above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any Fees or other charges payable to Contractor under this Contract.
- g. **Subcontractors.** Contractor will not, without the prior written approval of the State, which consent may be given or withheld in the State's sole discretion, engage any third party to perform Services (including to create any Deliverables). The State's approval of any such third party (each approved third party, a "**Subcontractor**") does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will:
- i. be responsible and liable for the acts and omissions of each such Subcontractor (including such Subcontractor's employees who, to the extent providing Services or creating Deliverables, shall be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees;
  - ii. name the State a third party beneficiary under Contractor's contract with each Subcontractor with respect to the Services and Deliverables;
  - iii. be responsible for all fees and expenses payable to, by or on behalf of each Subcontractor in connection with this Contract, including, if applicable, withholding of income taxes, and the payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits; and
  - iv. prior to the provision of Services or creation of Deliverables by any Subcontractor, if requested by the State:
    - 1. obtain from such Subcontractor confidentiality, work-for-hire and intellectual property rights assignment agreements, in form and substance acceptable by the State, giving the State rights consistent with those set forth in **Section 8** and, upon request, provide the State with a fully-executed copy of each such contract; and
    - 2. with respect to all Subcontractor employees providing Services or Deliverables, comply with its obligations under **subsection d** above.
    - 3. It is understood by the State that Contractor may flow down certain applicable terms in this Contract to Contractor's

subcontractors, but such flow down will not relieve Contractor of its obligations to the State under the Contract.

4. **Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

<b>If to State:</b>	<b>If to Contractor:</b>
<i>Sean Regan 525 W. Allegan St. Lansing, MI 48913 regans@michigan.gov 517-243-8459</i>	<i>Damon Grothe GuideSoft, Inc. dba Knowledge Services 9800 Crosspoint Boulevard Indianapolis, IN 46256 damong@knowledgeservices.com 317-806-6116</i>

5. **Contract Administrators.** The Contract Administrator for each party is the only person authorized to modify any terms and conditions of this Contract and are identified below:

<b>State:</b>	<b>Contractor:</b>
<i>Sean Regan 525 W. Allegan St. Lansing, MI 48913 regans@michigan.gov 517-243-8459</i>	<i>Katie Belange GuideSoft, Inc. dba Knowledge Services 9800 Crosspoint Boulevard Indianapolis, IN 46256 katieb@knoweldgeservices.com 317-806-6197</i>

6. **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by an company with an A.M. Best rating of "A" or better and a financial size of VII or better.

<b>Insurance Type</b>	<b>Additional Requirements</b>
<b>Commercial General Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations  <u>Deductible Maximum:</u> \$50,000 Each Occurrence	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 0.
<b>Umbrella or Excess Liability Insurance</b>	

<u>Minimal Limits:</u> \$5,000,000 General Aggregate	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds.
<b>Automobile Liability Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	
<b>Workers' Compensation Insurance</b>	
<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
<b>Employers Liability Insurance</b>	
<u>Minimal Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.	
<b>Privacy and Security Liability (Cyber Liability) Insurance</b>	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) cover information security and privacy liability, privacy notification costs, regulatory defense and penalties, and website media content liability.
<b>Professional Liability (Errors and Omissions) Insurance</b>	
<u>Minimal Limits:</u> \$3,000,000 Each Occurrence \$3,000,000 Annual Aggregate  <u>Deductible Maximum:</u> \$50,000 Per Loss	

If any of the required policies provide claim-made coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Services; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Services; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract

effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 Business Days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

**7. Administrative Fee and Reporting.** Contractor must pay an administrative fee of 1% on all payments made to Contractor under the Contract including transactions with the State (including its departments, divisions, agencies, offices, and commissions), MiDEAL members, and other states (including governmental subdivisions and authorized entities). Administrative fee payments must be made online by check or credit card at: <https://www.thepayplace.com/mi/dtmb/adminfee>

Contractor must submit an itemized purchasing activity report, which includes at a minimum, the name of the purchasing entity and the total dollar volume in sales. Reports should be mailed to [MiDeal@michigan.gov](mailto:MiDeal@michigan.gov).

The administrative fee and purchasing activity report are due within 30 calendar days from the last day of each calendar quarter.

**8. Extended Purchasing Program.** This contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at [www.michigan.gov/mideal](http://www.michigan.gov/mideal).

Upon written agreement between the State and Contractor, this contract may also be extended to: (a) other states (including governmental subdivisions and authorized entities) and (b) State of Michigan employees.

If extended, Contractor must supply all Contract Activities at the established Contract prices and terms. The State reserves the right to impose an administrative fee and negotiate additional discounts based on any increased volume generated by such extensions. Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis.

**7. Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.

## **8. Intellectual Property Rights.**

- a. Contractor does not acquire any ownership of any State-owned property including any Intellectual Property Rights or State Data.
- b. Contractor hereby acknowledges that the State is and will be the sole and exclusive owner of all right, title, and interest in the Services and Deliverables and all associated intellectual property rights, if any. Such Services and Deliverables are works made for

hire as defined in Section 101 of the Copyright Act of 1976. To the extent any Services and Deliverables and related intellectual property do not qualify as works made for hire under the Copyright Act, Contractor will, and hereby does, immediately on its creation, assign, transfer and otherwise convey to the State, irrevocably and in perpetuity, throughout the universe, all right, title and interest in and to the Services and Deliverables, including all intellectual property rights therein.

- c. Each party retains the right to retain and use its skill, knowledge, experience, and know-how, including ideas, concepts, processes, methods and techniques, whether developed prior to, independently of, or in the course of performing the services under this Contract.

**9. Assignment.** Contractor may not assign this Contract to any other party without the prior written approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party.

**10. Change of Control.** Contractor will notify the State, within 30 days of any public announcement or otherwise once legally permitted to do so, of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

**11. Acceptance.** Unless otherwise provided in the an Engagement Statement of Work or ordering document, this Section shall control acceptance of all Engagement Services and Engagement Deliverables. Engagement Services and Engagement Deliverables are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"). If the Engagement Services and Engagement Deliverables are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Engagement Services and Engagement Deliverables are accepted, but noted deficiencies must be corrected; or (b) the Engagement Services and Engagement Deliverables are rejected. If the State finds material deficiencies, it may: (i) reject the Engagement Services and Engagement Deliverables without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate a Statement of Work in accordance with **Section 14**, Termination for Cause.

Within 10 Business Days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Engagement Services and Engagement Deliverables, Contractor must cure, at no additional cost, the deficiency and deliver acceptable Engagement Services and Engagement Deliverables to the State. If acceptance with deficiencies or

rejection of the Engagement Services and Engagement Deliverables impacts the content or delivery of other non-completed Engagement Services and Engagement Deliverables, the parties must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the Statement of Work in whole or in part. The State, or a third party identified by the State, may perform the Services and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

- 12. Terms of Payment.** Invoices must conform to the requirements set forth in the Contract Statement of Work. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Services and Deliverables performed as specified in a Statement of Work or ordering document. Invoices must include an itemized statement of all charges. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services and Deliverables purchased under this Contract are for the State's exclusive use. Notwithstanding the foregoing, all prices are exclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Services or Deliverables. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment.

Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

- 13. Stop Work Order.** The State may suspend any or all activities under a Statement of Work or ordering document at any time. The State will provide Contractor a written stop work order detailing the suspension (a "**Stop Work Order**"). Contractor must comply with the Stop Work Order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Statement of Work or ordering document. The State will not pay for Services or Deliverables, Contractor's lost profits, or any additional compensation during a stop work period.

- 14. Termination for Cause.** The State may terminate this Contract, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any State location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court

proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations under this Contract; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately. Contractor must submit all invoices for Services accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due to Contractor for Services accepted by the State under this Contractor; (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Public Interest, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 15**, Termination for Public Interest.

The State will only pay for amounts due to Contractor for Services and Deliverables accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs, and any costs the State incurs to procure the Services and Deliverables from other sources.

**15. Termination for Public Interest.** The State may immediately terminate this Contract, in whole or in part (including the Statement of Work), without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Services immediately. Contractor must submit all invoices for Services accepted by the State within 30 days of the date of termination. Failure to submit an invoice within that timeframe will constitute a waiver by Contractor for any amounts due to Contractor for Services accepted by the State under this Contractor (b) continue to perform the Services in accordance with **Section 16**, Transition Responsibilities. If the State terminates this Contract for public interest, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.

**16. Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Services to the State or its designees. Such transition assistance may include, but is not limited to: (a) continuing to perform the Services at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Services, training, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; (d) transferring title in and delivering to the State, at the State's discretion, all completed or partially completed Deliverables prepared under this Contract as of the Contract termination date; and (e) preparing an accurate accounting from which

the State and Contractor may reconcile all outstanding accounts (collectively, “**Transition Responsibilities**”). This Contract will automatically be extended through the end of the transition period.

- 17. General Indemnification.** Contractor must defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable) of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable); and (d) any acts or omissions of Contractor (or any of Contractor’s employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; and (iii) employ its own counsel. Contractor will not, without the State’s written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

The State is constitutionally prohibited from indemnifying Contractor or any third parties.

- 18. Infringement Remedies.** If, in either party’s opinion, any of the Services or Deliverables supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense: (a) procure for the State the right to continue using the Services or Deliverables, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against 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.

- 19. Disclaimer of Damages and Limitation of Liability.**

- a. The State's Disclaimer of Damages. THE STATE WILL NOT BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES.
- b. The State's Limitation of Liability. IN NO EVENT WILL THE STATE'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES PAYABLE UNDER THIS CONTRACT

## 20. State Data.

- a. Ownership. The State's data ("**State Data**"), which will be treated by Contractor as Confidential Information, includes: (a) User Data; and (b) any other data collected, used, processed, stored, or generated by the State in connection with the Services, including but not limited to (i) personally identifiable information ("**PII**") collected, used, processed, stored, or generated as the result of the Services, including, without limitation, any information that identifies an individual, such as an individual's social security number or other government-issued identification number, date of birth, address, telephone number, biometric data, mother's maiden name, email address, credit card information, or an individual's name in combination with any other of the elements here listed; (ii) personal health information ("**PHI**") collected, used, processed, stored, or generated as the result of the Services, which is defined under the Health Insurance Portability and Accountability Act ("**HIPAA**") and its related rules and regulations; and (iii) CJI Data. State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State. This **Section 20** survives termination or expiration of this Contract.
- b. Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, the Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This Section survives the termination of this Contract.
- c. Discovery. Contractor will immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data. Contractor will notify

the State Project Manager by the fastest means available and also in writing. In no event will Contract provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor will not respond to subpoenas, service of process, FOIA requests, and other legal requests related to the State without first notifying the State and obtaining the State's prior approval of Contractor's proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.

- d. Compromise of State Data. In the event of any act, error or omission, negligence, misconduct, or breach on the part of Contractor that compromises or is suspected to compromise the security, confidentiality, or integrity of State Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable: (a) notify the State as soon as practicable but no later than twenty-four (24) hours of becoming aware of such occurrence; (b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State; (c) perform or take any other actions required to comply with applicable law as a result of the occurrence; (d) pay for any costs associated with the occurrence, including but not limited to any costs incurred by the State in investigating and resolving the occurrence, including reasonable attorney's fees associated with such investigation and resolution; (e) pay for any costs associated with required notification and credit monitoring to affected individuals; and (f) without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence. The parties agree that any damages relating to a breach of this **Section 20** are to be considered direct damages and not consequential damages. This Section survives termination or expiration of this Contract.

**21. Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

- a. Meaning of Confidential Information. For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was or is: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA) by the receiving party; (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation

of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). For purposes of this Contract, in all cases and for all matters, State Data is deemed to be Confidential Information.

- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or the Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or the Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party.

**22. HIPAA Compliance.** Contractor agrees to comply, and ensure its Personnel comply, with the Health Insurance Portability and Accountability Act of 1996 and the regulations promulgated thereunder (“**HIPAA**”) and Subtitle D of the Health Information Technology for Economic and Clinical Health Act, which is Title XIII of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5) and any regulations promulgated thereunder with respect to the privacy and security of “protected health information” (as defined by HIPAA) accessed, created, transmitted, maintained or received by Contractor or its Personnel pursuant to, or in connection with, the performance of Contractor’s or its Personnel’s obligations under this Contract, including but not limited to entering into a Business Associate Agreement if required by law.

**23. Accessibility Requirements.** All deliverables provided electronically by Contractor under this Contract, including but not limited to documents, reports, content, images, video and other media productions (collectively, “**Electronic Deliverables**”), must conform to Level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0 Level AA (“**WCAG 2.0 Level AA**”). For each Electronic Deliverable provided by Contractor under the Contract, Contractor must complete a Product Accessibility Template for WCAG 2.0 Level AA (“**PAT**”) that describes how the Electronic Deliverable meets the WCAG 2.0 Level AA specifications. All “Not Applicable” or “N/A” responses to the specifications, if any, must be fully explained. A description of the evaluation methods used to support WCAG 2.0 Level AA conformance claims, including, if applicable, any third-party testing, must be provided.

- a. Obligation to Maintain Compliance. Throughout the Term of the Contract, at no additional costs to the State, Contractor must:
  - i. promptly respond to and resolve, in a manner acceptable to the State, any complaint the State receives regarding the accessibility of Contractor’s Electronic Deliverables;
  - ii. participate in the State of Michigan Digital Standards Review described below; and
  - iii. at the State’s written request, provide Electronic Deliverables in one or more alternative formats specified by the State and within timeframes specified by the State.
  
- b. State of Michigan Digital Standards Review. Contractor must submit evidence to the State to validate Contractor’s accessibility and compliance with WCAG 2.0 Level AA. Prior to Electronic Deliverables being accepted, posted on-line, or as otherwise required by the State, the State may conduct a Digital Standards Review to assess accessibility and compliance with WCAG 2.0 Level AA. Within 10 business days from Contractor’s receipt of written notification of issues identified from any assessment of accessibility and compliance with WCAG 2.0 Level AA, Contractor must, at its sole cost and expense, remediate all such issues in a manner acceptable to the State. If Contractor is unable to resolve such issues in a manner acceptable to the State, in addition to all other remedies available to the State, the State may terminate this Contract for cause under **Section 14**.
  
- c. Indemnification. Contractor must, without limiting Contractor’s obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys’ fees,

costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State arising out of Contractor's failure to comply with the foregoing accessibility standards.

- d. Non-compliance. Failure to comply with the requirements in this **Section** shall constitute a material breach of this Contract

**24. Data Privacy and Information Security.** Without limiting Contractor's obligation of confidentiality as further described, Contractor is responsible for establishing and maintaining a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to: (a) ensure the security and confidentiality of State Data; (b) protect against any anticipated threats or hazards to the security or integrity of State Data; (c) protect against unauthorized disclosure, access to, or use of State Data; (d) ensure the proper disposal of State Data; and (e) ensure that all employees, agents, and subcontractors of Contractor, if any, comply with all of the foregoing. In no case will the safeguards of Contractor's data privacy and information security program be less stringent than the safeguards used by the State, and Contractor must at all times comply with all applicable State IT policies and standards, which are set forth in the Statement of Work.

**25. Security Accreditation Process.** If determined to be required by the State, Contractor must assist the State, at no additional cost, with development, completion and on-going maintenance of a system security plan (SSP) using the State's automated governance, risk and compliance (GRC) platform, which requires Contractor to submit evidence, upon request from the State, in order to validate Contractor's security controls. On an annual basis, or as otherwise required by the State such as for significant changes, re-assessment of the system's controls will be required to receive and maintain authority to operate (ATO). All identified risks from the SSP will be remediated through a Plan of Action and Milestones (POAM) process with remediation time frames based on the risk level of the identified risk. For all findings associated with the Contractor's solution, at no additional cost, Contractor will be required to create or assist with the creation of State approved POAMs and perform related remediation activities. The State will make any decisions on acceptable risk, Contractor may request risk acceptance, supported by compensating controls, however only the State may formally accept risk. At State's discretion State may accept a State authorized 3rd Party Cloud Verification of current NIST 800-53 standards in lieu of ATO

**26. Tax Information Compliance.** Contractor will comply with all IRS and State of Michigan Department of Treasury requirements if contractor will have access to or host tax information. These requirements include those stated in **Schedule I** and **Schedule J**.

**27. CJIS Compliance.** Contractor shall comply with all Criminal Justice Information Services (CJIS) Security Policy requirements that are communicated to the Contractor in writing, including the FBI CJIS Security Addendum attached as **Schedule G**. Changes required to Contractor's performance due to a change in CJIS requirements shall be subject to **Section 3.c**.

Contractor Personnel who will be subject to State performed background check, as determined by the State, will complete security awareness training within six (6) months of initial assignment and biennially thereafter. The State will provide Contractor with the required

training materials. Documentation of completion of the training will be provided to the State upon request.

The State reserves the right to perform additional background checks on Contractor Personnel as may be required to comply with the CJIS Security Policy.

During the term, Contractor will maintain complete and accurate records relating to its data protection practices and the security of any of the State's Confidential Information, including any backup, disaster recovery or other policies, practices or procedures relating to the State's Confidential Information and any other information relevant to its compliance with this **Section 27**. Contractor shall make all such records, appropriate personnel, and relevant materials available in the event of an audit initiated by the State or the FBI.

Contractor shall comply with all CJIS requirements including, if necessary, entering into an FBI CJIS Security Addendum or other required agreements.

- 28. Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 4 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Financial Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Financial Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Services are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Services in connection with this Contract.

- 29. Warranties and Representations.** Contractor represents and warrants to the State that: (a) It will perform all Services in a professional and workmanlike manner in accordance with best industry standards and practices for similar services, using personnel with the requisite skill, experience and qualifications, and will devote adequate resources to meet its obligations under the Statement of Work; (b) the Services and Deliverables provided by Contractor will not infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (c) it has the full right, power, and authority to enter into this Contract, to grant the rights granted under this Contract, and to perform its contractual obligations; (d) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading; and (e) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under **Section 14**, Termination for Cause.

- 30. Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Services in connection with this Contract.
- 31. Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.
- 32. Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, and Executive Directive [2019-09](#), Vendor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex (as defined in Executive Directive [2019-09](#)), height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this covenant is a material breach of the Contract.
- 33. Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.
- 34. Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.
- 35. Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Services from other sources.
- 36. Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party.

**37. Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Project Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 Business Days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 Business Days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

**38. Media Releases.** News releases (including promotional literature and commercial advertisements) pertaining to the Contract or project to which it relates must not be made without prior written State approval, and then only in accordance with the explicit written instructions of the State.

**39. Offers of Employment.** During the term of this Contract, should Contractor hire an employee of the State who has substantially worked on any project covered by this Contract without prior written consent of the State, the Contractor will be billed for fifty percent (50%) of the employee's annual salary in effect at the time of separation. An individual's response to a broad and general advertisement or solicitation not specifically targeting or intending to target employees of the State shall not be deemed a violation of this Section.

**40. Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.

**41. Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.

**42. Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.

**43. Schedules.** All Schedules that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

<b>Schedule A</b>	Statement of Work
<b>Schedule B</b>	Pricing
<b>Schedule C</b>	Service Level Agreement

**44. Entire Agreement.** This Contract, including the Schedules, constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. In the event of any conflict between the terms of this Contract and those of any Schedules, the following order of precedence governs: (a) first, this Contract; and (b) second, the Schedules. NO TERMS ON CONTRACTOR'S INVOICES, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, OR DOCUMENTATION HEREUNDER EVEN IF ATTACHED TO STATE'S DELIVERY OR PURCHASE ORDER WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

**45. Contract Modification.** This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**"). Notwithstanding the foregoing, no subsequent Statement of Work or Contract Change Notice executed after the Effective Date will be construed to amend this Contract unless it specifically states its intent to do so and cites the section or sections amended

# STATE OF MICHIGAN

## SCHEDULE A STATEMENT OF WORK CONTRACT ACTIVITIES

### Definitions

The following terms have the meanings set forth below. All initial capitalized terms that are not defined below shall have the respective meanings given to them in Section 1 of the Contract Terms and Conditions.

Term	Definition
DTMB	Department of Technology, Management & Budget
MSP	Managed Service Provider
SOM	State of Michigan
SOW	Statement of Work
VMS	Vendor Managed System

### BACKGROUND

This contract is for a single MSP to manage the entire IT staff augmentation process. Once a need is identified, the business area creates a requisition in the vendor's system that defines the skill set of the resource(s) that is needed and the time period for the need. The MSP finds resources from their list of subcontractors, evaluates the proposed resources and provides candidates to the State. The MSP coordinates the interview process, and the State selects the candidate. The Managed Service Provider is responsible for all aspects of the hiring process. The State & MSP will periodically evaluate the unlimited vendor pool.

### SCOPE

This contract is to obtain information technology professional services and provide a vendor managed system for the hiring managers and subcontractors.

The State of Michigan will utilize the staffing Managed Service Provider to secure IT staffing resources, reporting directly to DTMB, for the following:

- Temporary resources, individually or by a group, needed to perform work for DTMB IT. These individuals or groups of resources would be paid hourly for work performed for a specific project, or various projects for a work area
- Deliverable-based engagements where the total cost of the project is equal to or less than \$500,000 and where the State of Michigan directs the day-to-day activities of the resource(s)
- Staff augmentation situations that are specifically exempted from other competitive bidding requirements

### REQUIREMENTS

#### 1. General Requirements

##### 1.1 Vendor Managed System

The Contractor is providing dotStaff as a vendor managed system for the hiring managers and subcontractors. This system will be for submitting the defined skill set of the resource(s) that is needed and the time period for the need.

Knowledge Services will configure the system to fit the State's business needs, including all dotstaff VMS functionality, including new releases.

The general features of the dotStaff™ VMS include but are not limited to the following:

- Requisition management
- Approval workflows
- Alerts & notifications
- PO & funding source tracking
- Integrated financial system
- Skills matching
- Performance tracking
- Records management
- Sourcing management
- Utilization tracking
- Ad hoc reporting
- Resume scoring
- Mobile time, expense, and project
- Reverse Bidding
- Survey Management
- Mobile Case Management
- Compliance Management
- Onboarding & Offboarding
- Time, milestone, & expense management
- Contract management
- Reverse auction competitive bidding
- Project-based services management
- Reporting & business analytics
- Ability to adapt to unique Agency needs
- Credentialing management
- Service quality management
- Dashboards
- Resume comparison
- Candidate rating
- PO burndown
- Electronic Forms
- Route Optimization
- Vendor Scorecard

## 1.2. Training

Any training requirements will be scoped out on the individual requisition. If the resource needs training or certifications, the responsibility is on the subcontractor.

Subcontractors to be responsible for specified trainings on the individual requisitions.

## 2.1. Work Hours

Normal State working hours are 8:00 a.m. to 5:00 p.m. EST, Monday through Friday, with work performed as necessary outside of those hours to meet project deadlines. Overtime must be authorized by the State,

Hours are subject to change at the SOM's discretion. Hours will not always align with State staff hours.

## 2.2. Key Personnel

The Contractor must appoint individuals who will be directly responsible for the day-to-day operations of the Contract ("Key Personnel"). Key Personnel must be specifically assigned to the State account, be knowledgeable on the contractual requirements, and respond to State inquires within 24 hours.

The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Project Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection. The State may require a 30-calendar day training period for replacement personnel.

Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("Unauthorized Removal"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under Termination for Cause in the Standard Terms. It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any

Unauthorized Removal in respect of which the State does not elect to exercise its rights under Termination for Cause, Contractor will issue to the State the corresponding credits set forth below (each, an "Unauthorized Removal Credit"):

(i) For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the credit amount will be \$25,000.00 per individual if Contractor identifies a replacement approved by the State and assigns the replacement to shadow the Key Personnel who is leaving for a period of at least 30 calendar days before the Key Personnel's removal.

(ii) If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 calendar days, in addition to the \$25,000.00 credit specified above, Contractor will credit the State \$833.33 per calendar day for each day of the 30 calendar-day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$25,000.00 maximum per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 calendar days of shadowing will not exceed \$50,000.00 per individual.

Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any fees or other charges payable to Contractor under this Contract.

**Account Managers (2).** Contractor resource who is responsible to serve as the primary contact with regard to all IT staff augmentation. Resource is responsible for the following:

1. Knowledge of Industry trends,
2. Onboarding
3. Contractor's strategic network
4. Point of contact for VMS System on a 24/7 basis

<b>Contractor</b>
<b>Name: Emily Rotary</b> <b>Address: 9800 Crosspoint Boulevard,, Indianapolis, IN 46256</b> <b>Phone: (317) 578-1700</b> <b>Email: EmilyR@knowledgeservices.com</b>

<b>Contractor</b>
<b>Name: Victoria Bice</b> <b>Address: 9800 Crosspoint Boulevard,, Indianapolis, IN 46256</b> <b>Phone: (317) 578-1700</b> <b>Email: VictoriaB@knowledgeservices.com</b>

**Non-Key-Personnel:**

**Contract Administrator.** Contractor resource who is responsible to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

<b>Contractor</b>
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**Name: Scott Wiseman**  
**Address: 9800 Crosspoint Boulevard,,**  
**Indianapolis, IN 46256**  
**Phone: (317) 578-1700**  
**Email: ScottW@knowledgeservices.com**

**Contractor Project Manager.** Contractor resource who is responsible to serve as the primary contact with regard to services who will have the authority to act on behalf of the Contractor in matters pertaining to the implementation services, matters pertaining to the receipt and processing of Support Requests and the Support Services.

**Contractor**

**Name: Jenna Lentz**  
**Address: 9800 Crosspoint Boulevard,,**  
**Indianapolis, IN 46256**  
**Phone: (317) 578-1700**  
**Phone: (602) 680-5568**  
**Email: JennaL@knowledgeservices.com**

**Contractor**

**Name: Damon Grothe**  
**Address: 9800 Crosspoint Boulevard,,**  
**Indianapolis, IN 46256**  
**Phone: (317)806-6116**  
**Email: DamonG@knowledgeservices.com**

**2.3. Disclosure of Subcontractors**

The State and Knowledge Services will manage the list of subcontractors for this outside of the contract.

**2.4. Security**

The Contractor will be subject the following security procedures:

The links below provide information on the State’s Enterprise information technology (IT) policies, standards and procedures which include security policy and procedures, eMichigan web development, and the State Unified Information Technology Environment (SUITE).

Contractors are advised that the State has methods, policies, standards and procedures that have been developed over the years. Contractors are expected to provide proposals that conform to State IT policies and standards. All services and products provided as a result of this RFP must comply with all applicable State IT policies and standards. Contractor is required to review all applicable links provided below and state compliance in their response.

B. Enterprise IT Security Policy, Standards and Procedures (PSP):  
All computer information systems and applications operate in a secure manner and comply with State Enterprise IT Security PSP’s of which the publicly available documents are at:

[https://www.michigan.gov/dtmb/0,5552,7-358-82547\\_56579\\_56755---,00.html](https://www.michigan.gov/dtmb/0,5552,7-358-82547_56579_56755---,00.html)

The State’s security environment includes:

- SOM DTMB Single Login
- SOM DTMB provided SQL security database
- Secured Socket Layers
- SecureID (State Security Standard for external network access and high risk Web systems)

C. IT Strategic Plan:

[https://www.michigan.gov/dtmb/0,5552,7-358-82547\\_56345\\_56351---,00.html](https://www.michigan.gov/dtmb/0,5552,7-358-82547_56345_56351---,00.html)

D. IT Application/Site Standards:

<https://www.michigan.gov/som/0,4669,7-192-86761---,00.html>

E. The State Unified Information Technology Environment (SUITE):

Includes standards for project management, systems engineering, and associated forms and templates – must be followed: <http://www.michigan.gov/suite>

F. \_\_\_\_\_ Verification of current NIST 800-53 standard by State or by State approved 3rd party.

### **Acceptable Use Policy**

To the extent that Contractor has access to the State's computer system, Contractor must comply with the State's Acceptable Use Policy, see

[https://www.michigan.gov/documents/dtmb/1340.00.01\\_Acceptable\\_Use\\_of\\_Information\\_Technology\\_Stand\\_458958\\_7.pdf](https://www.michigan.gov/documents/dtmb/1340.00.01_Acceptable_Use_of_Information_Technology_Stand_458958_7.pdf). All Contractor and Subcontractor(s) Personnel will be required, in writing, to agree to the

State's Acceptable Use Policy before accessing the State's system. The State reserves the right to terminate Contractor's access to the State's system if a violation occurs

### **3. Project Management**

SUITE Documentation

In managing its obligation to meet the below milestones and deliverables, the Contractor is required to utilize the applicable [State Unified Information Technology Environment \(SUITE\)](#) methodologies, or an equivalent methodology.

While applying the SUITE framework through its methodologies is required, SUITE was not designed to add layers of complexity to project execution. There should be no additional costs from the Contractor, since it is expected that they are already following industry best practices which are at least similar to those that form SUITE's foundation.

SUITE's companion templates are used to document project progress or deliverables. In some cases, the Contractor may have in place their own set of templates for similar use. Because SUITE can be tailored to fit specific projects, project teams and State project managers may decide to use the Contractor's provided templates, as long as they demonstrate fulfillment of the SUITE methodologies.

#### **3.1. Project Plan**

The Contractor will carry out this project under the direction and control of the Program Manager. Within 30 calendar days of the Effective Date, the Contractor must submit a project plan to the Program Manager for final approval. The plan must include: (a) the Contractor's organizational chart with names and title of personnel assigned to the project.

#### **3.2. Meetings**

The Contractor must attend the following meetings:

- Kick-off meeting with State of Michigan focused on implementation of the program
- Monthly meetings with Financial Services or the program administration
  - o Including ongoing issues from both the State and Contractor side, VMS issues, process improvements, etc.
- Quarterly program review with DTMB Stakeholders
  - o Including performance to SLA's, industry trends, wage rate updates and customer satisfaction results
- Implementation – Weekly Status Updates
  - o Any other meetings as requested or necessary for a successful implementation

Once the Project Kick-Off meeting has occurred, the Contractor Project Manager will monitor project implementation progress and report on a weekly basis to the State's Project Manager the following:

- Progress to complete milestones, comparing forecasted completion dates to planned and actual completion dates
- Accomplishments during the reporting period, what was worked on and what was completed during the current reporting period
- Indicate current SOM sub-vendors not yet enrolled and SOM sub-vendors enrolled
- Tasks planned for the next reporting period
- Identify any existing issues which are impacting the project and the steps being taken to address those issues
- Identify any new risks and describe progress in mitigating high impact/high probability risks previously identified

The State may request other meetings, as it deems appropriate.

### **3.3. Reporting**

The Contractor must submit, to the requesting individuals the following written reports: The Contractor must explain its reporting capabilities and any reporting that is included in its proposal.

Required Reports:

- Contracts burn report by resource on a weekly basis
  - o Includes current status by resource compared to the original contracted value
  - o Includes an average monthly burn rate
- Contractor must have capability for requested ad-hoc reports based off the State's need.

All reports must be in an editable format. The State may request other reports, as it deems appropriate.

## **4. Ordering**

### **4.1. Authorizing Document**

The appropriate authorizing document for the Contract will be master agreement followed with subsequent purchase orders or delivery orders.

## **5. Invoice and Payment**

### **5.1. Invoice Requirements**

All invoices submitted to the State must include, but are not limited to the following:

- Resource name
- Total invoice price
- Payment terms, including any available prompt payment discount
- State of Michigan PO/DOIT1 number
- Supporting documentation (i.e., Project Milestone Billing Acceptance)
- Hours worked and time period for invoiced hours
- Timesheet stamp (This can include an image of the approved timesheet either attached to the invoice or imaged on the invoice)
- Date
- Description of contract activities
- Unit Price
- Shipping cost (if any)

Holiday pay, and travel expenses will not be paid.

### **5.2. Payment Methods**

The State will make payment for Contract Activities.

In each IT Resource Request DTMB will select or propose a method of compensation that it believes to be in the agency's best interests and /or most reasonable and feasible based on the circumstances under which the services are to be provided. Generally, contracts/work contracts, time and material factors such as the nature of the tasks to be performed, the duration of the project, the expected work products/deliverables, etc., will be taken into consideration in proposing and determining the appropriate method of compensation.

Extended purchasing program volume requirements are not included, unless stated otherwise.

## **6. Liquidated Damages**

Late or improper completion of the Contract Activities will cause loss and damage to the State and it would be impracticable and extremely difficult to fix the actual damage sustained by the State. Therefore, if there is late or improper completion of the Contract Activities for which performance targets and service level credits are not already established in Schedule A, Exhibit B, "Service Level Agreements," the State is entitled to collect liquidated damages, after a formal warning via email has been given and a 30-day cure period, in the amount of \$5,000 and an additional \$100 per day for each day Contractor fails to remedy the late or improper completion of the Work.

## **7 Transition**

Upon termination or expiration of the agreement, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the agreement to continue without interruption or adverse effect, and to facilitate the orderly transfer of the services to the State or its designees. Such transition assistance may include but is not limited to: (a) continuing to perform the services at the established rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable services to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return (in a format specified by the State) to the State all data stored in the solution; and (d) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts.

## **8. ADDITIONAL INFORMATION**

The State reserves the right to purchase any additional services or products from the Contractor during the duration of the Contract.

# STATE OF MICHIGAN

## Schedule A - Exhibit B Service Level Agreements

There are two separate Service Level Agreements (SLA) outlined in the tables below. Table B-1 applies to Contractor's performance. However, Contractor is fully responsible for the performance of itself and its Subcontractors as specified under this SLA. Remedies for failure to meet the SLAs is outlined at the end of this Exhibit.

**Table B-1 – Contractor SLA**

- These SLA's apply to job requirements released under the contract.
- They do not apply to engagements that transition from other contracts.
- These SLA's will be applied to the Contractor based on the performance of their subcontractors.
- The State reserves the right to approve exceptions to the SLA's that will exempt Knowledge Services from financial responsibilities of the SLA.

Performance Standard	Description	Performance Target	Calculation	Frequency
Resume Submittal Response Time	Measures response time from approved posting to delivery of candidate resumes	92%	Average number of requisitions which received first batch review within four business days	Quarterly
Round One Fill Rate	Measures ability to satisfactorily fulfill request with first round of resumes submitted to requestor	92%	Total number of filled positions resulting from the first round of resumes/total number of requisitions filled	Quarterly
Retention Rate	Measures the percentage of resources that leave before the end of their engagement, not at the direction of the State	3% or lower	Number of turnovers leaving before the end of their engagement.	Quarterly
Resource Dismissal	Measures number of resources dismissed due to inadequate resource performance	1% or lower	Number of turnovers (due to inadequate performance)/ total number of resources engaged through end of the quarter including SLA exempt resources	Quarterly

<b>Performance Standard</b>	<b>Description</b>	<b>Performance Target</b>	<b>Calculation</b>	<b>Frequency</b>
<b>Resource Evaluation</b>	<b>For staff augmentation online survey provided after first quarter engagement of resources and annually thereafter and at conclusion of work assignment.</b>	<b>100%</b>	<b>dotStaff resource evaluation report provided</b>	<b>Quarterly</b>
<b>System Availability</b>	<b>VMS is available to hiring managers and subcontractors</b>	<b>99%</b>	<b>Measured 24/7 with exception of announced down times</b>	<b>Monthly</b>
<b>Resource's meeting Technical Criteria</b>	<b>Measures quality of resources submitted to manager.  Resumes need to meet technical requirements.</b>	<b>99% or higher</b>	<b>Number of resumes meeting technical requirements submitted to manager / Total numbers of resumes submitted to manager.</b>	<b>Quarterly</b>
<b>Contractor Satisfaction Survey</b>	<b>State will conduct satisfaction survey to measure agency satisfaction with MSP and VMS performance.</b>	<b>80%</b>	<b>Number of satisfactory responses / total number of responses</b>	<b>At State's discretion</b>
<b>Attrition Rate</b>	<b>Measures resource turnover due to unplanned situations that are not caused by the State of Michigan, excluding inadequate performance, death, serious illness, etc.</b>	<b>5% or lower</b>	<b>Number of unplanned turnovers within the quarter / total number of resources engaged through end of the quarter including SLA exempt resources</b>	<b>Quarterly</b>
<b>Candidates Interviewed</b>	<b>Measures the number of candidates who fulfill interview requests</b>	<b>80%</b>	<b>Number of candidates interviewed/total number of candidates requested for interview</b>	<b>Quarterly</b>
<b>Timely Invoices</b>	<b>Contractor to submit invoices by no later than the 15<sup>th</sup> of the following month the services were provided</b>	<b>95%</b>	<b>Number of invoices submitted after the 15<sup>th</sup></b>	<b>Monthly</b>

Performance Standard	Description	Performance Target	Calculation	Frequency
Candidates fulfilling offers of engagement/failure to start	Measures the number of candidates who start engagements after offer acceptance  Measures false starts	95%	Number of candidates starting engagements/total number of candidates accepting offers of engagement	Quarterly
Retention of current contractors during transition to new contract	Measure the retention of current contractors that will be transitioning to the Knowledge Services contract at the current bill rates.	95%	Number of contractors/the number of contractors that leave due to transition	During transition to this contract
Transition of top subcontractors	MSP to have concluded subcontractor transition on top 10 subcontractors.	10 of State's top subcontractors	Confirmation that top vendors have agreed to transition to new program.	2 Months after implementation begins

#### Remedies for Failure to Meet SLA

Contractor, by itself or through its Subcontractors, will meet or exceed the service levels detailed in the tables above. In the event Contractor or its Subcontractors fail to meet the service levels, Contractor agrees to the following remedies:

Contractor agrees to identify and calculate all credits due for outages, performance failures or failure to meet any service level. All service levels will be computed on the basis detailed in the tables above. The SLAs will be reviewed quarterly by the State and the Contractor to identify any issues that may need immediate attention.

Service Level Credits will be quantified at the end of every 3 monthly invoice periods and the Credit amount will be disclosed to the State within 15 days. Service Level Credits will be issued no later than 30 days after the conclusion of an impacted 3 month period and will be reflected on the then current monthly invoice. Contractor will ensure that all credits due the State are provided automatically without requiring the State to submit a claim or request, and are clearly identified on the credit note to which they are posted (including specifically identifying on the credit note the failure to which the service credit applies.). The escalation of Service Level Credits associated with not meeting Performance Targets will reset for each invoice period (monthly).

	Service Level Performance Target not met. First occurrence in a 3-month period (3	Service Level Performance Target not met. Second occurrence in a 3-month period	Service Level Performance Target not met. Third occurrence in a 3-month period (3	Service Level Performance Target not met. Fourth and any additional occurrence in a 3-month period
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	<b>monthly invoices).</b>	<b>(3 monthly invoices).</b>	<b>monthly invoices)..</b>	<b>(3 monthly invoices).</b>
Amount credited back to the State.	Warning	1% of Vendor Funded MSP Administrative Fee included on monthly invoice	2% of Vendor Funded MSP Administrative Fee included on monthly invoice	3% of Vendor Funded MSP Administrative Fee included on monthly invoice

# STATE OF MICHIGAN

## SCHEDULE B PRICING

This schedule identifies the pricing for this Contract. The rate card below with associated job category does not include the administrative fee. This bill rate identified below is prior to the application of the Contractor's administrative fee.

DTMB Administrative Fee Percentage	1%
Vendor Funded MSP Administrative Fee	0.85%
Number of Subcontractors	Unlimited Vendor Pool

Job Category	Job Title	Skill Level	Bill Rate
Applications	Programmer Analyst	Analyst 1	\$ 53.23
		Analyst 2	\$ 64.86
		Analyst 3	\$ 73.13
		Analyst 4	\$ 81.82
		Analyst 5	\$ 85.50
		Analyst 6	\$ 97.27
	Programmer	Programmer 1	\$ 46.04
		Programmer 2	\$ 55.58
		Programmer 3	\$ 67.72
		Programmer 4	\$ 78.28
		Programmer 5	\$ 83.41

	Programmer 6	\$ 90.61
Software Test Analyst	Analyst 1	\$ 38.74
	Analyst 2	\$ 44.88
	Analyst 3	\$ 53.03
	Analyst 4	\$ 59.95
	Analyst 5	\$ 61.37
Technical Writer	Technical Writer 1	\$ 38.12
	Technical Writer 2	\$ 43.14
	Technical Writer 3	\$ 50.85
Business Analyst	Analyst 1	\$ 46.03
	Analyst 2	\$ 53.77
	Analyst 3	\$ 62.29
	Analyst 4	\$ 71.89
	Analyst 5	\$ 80.11
System Analyst	Analyst 1	\$ 50.36
	Analyst 2	\$ 58.71
	Analyst 3	\$ 63.12
	Analyst 4	\$ 74.09
	Analyst 5	\$ 81.32
	Analyst 6	\$ 91.23
Software Solutions Architect		\$ 93.96
Geographic Information Systems	Geospatial Projects Manager	\$ 95.75
	Analyst	\$ 89.16

		Specialist I	\$ 57.03
		Specialist II	\$ 71.06
		Technician Trainee	\$ 57.14
		Technician I	\$ 57.31
		Technician II	\$ 66.43
		Technician III	\$ 69.11
	Graphic Designer	Graphic Designer 1	\$ 38.44
		Graphic Designer 2	\$ 45.32
	Mobile Specialist	Mobile Specialist 1	\$ 122.02
		Mobile Specialist 2	\$ 145.21
Applications	Web Application Developer	Web Application Developer 1	\$ 58.76
		Web Application Developer 2	\$ 68.65
	Webmaster	Webmaster 1	\$ 52.91
		Webmaster 2	\$ 60.85\$
Cloud	Cloud Administrator		\$ 81.11
	Cloud Architect		\$ 111.33
	Cloud Engineer		\$ 90.00
Customer/Technical Support	Contact Center Agent	Contact Center Agent 1	\$ 24.10
		Contact Center Agent 2	\$ 30.59
		Contact Center Agent 3	\$ 35.30
	Help Desk	Help Desk 1	\$ 32.89
		Help Desk 2	\$ 38.23

		Help Desk 3	\$ 45.14
	Technical Support	Technical Support 1	\$ 41.75
		Technical Support 2	\$ 49.52
		Technical Support 3	\$ 60.35
	Infrastructure Solutions Architect	Infrastructure Solutions Architect 1	\$ 68.44
		Infrastructure Solutions Architect 2	\$ 75.29
		Infrastructure Solutions Architect 3	\$ 87.98
		Infrastructure Solutions Architect 4	\$ 94.34
		Infrastructure Solutions Architect 5	\$ 109.42
	System Administrator	System Administrator 1	\$ 52.13
		System Administrator 2	\$ 62.61
		System Administrator 3	\$ 71.07
Data Management	Database Architect	Database Architect 1	\$ 67.55
		Database Architect 2	\$ 71.94
		Database Architect 3	\$ 76.95
		Database Architect 4	\$ 93.16
		Data Warehouse Architect	Data Warehouse Architect 1
	Data Warehouse Architect 2		\$ 90.44
	Data Warehouse Architect 3		\$ 94.63
	Database Administrator	Database Administrator 1	\$ 56.55
		Database Administrator 2	\$ 70.91
		Database Administrator 3	\$ 79.57
		Database Administrator 4	\$ 84.11

		Database Administrator 5	\$ 92.66	
Data Protection	Data Protection Administrator		\$ 79.30	
	Data Protection Architect		\$ 103.00	
	Data Protection Engineer		\$ 83.50	
Data Center Technical Support	Senior Data Center Engineer		\$ 91.30	
Governance	IT Governance Analyst		\$ 96.39	
	IT Procurement Analyst		\$ 63.65	
IT Management Services	Business Continuity Analyst		\$ 67.50	
	Business Continuity Planner		\$ 85.00	
	Business Process Reengineering		\$ 98.01	
	Enterprise Architect		\$ 105.59	
	IT Strategist		\$ 106.08	
	IT Auditor	I.T. Auditor 1		\$ 46.71
		I.T. Auditor 2		\$ 51.78
		I.T. Auditor 3		\$ 66.95
		I.T. Auditor 4		\$ 75.02
		I.T. Auditor 5		\$ 79.51
	IT Trainer		\$ 59.46	
	IT Sourcing Consultant	IT Sourcing Consultant 1	\$ 88.20	
	Senior Technical Writer		\$ 57.14	
IT Management Services	IT Sourcing Consultant	IT Sourcing Consultant 2	\$ 99.12\$	

IT Security	IT Security Analyst	IT Security Analyst 1	\$ 54.82
		IT Security Analyst 2	\$ 66.92
		IT Security Analyst 3	\$ 80.65
	IT Security Architect	IT Security Architect 1	\$ 70.60
		IT Security Architect 2	\$ 82.04
	IT Security Auditor		\$ 97.81
Project Management	Program Manager		\$ 114.19
	Project Manager	Project Manager 1	\$ 80.25
		Project Manager 2	\$ 101.51
		Project Manager 3	\$ 108.56
	Project Coordinator		\$ 43.24
Storage	Storage Administrator		\$ 83.30
	Storage Architect		\$ 93.75
	Storage Engineer		\$ 89.23
Telecommunications and Computer Networking	Network Administrator	Network Administrator 1	\$ 49.07
		Network Administrator 2	\$ 54.30
		Network Administrator 3	\$ 63.01
	Network Architect	Network Architect 1	\$ 60.59
		Network Architect 2	\$ 68.01
		Network Architect 3	\$ 85.37
	Network Engineer	Network Engineer 1	\$ 51.77

	Network Engineer 2	\$ 60.66
	Network Engineer 3	\$ 68.03
	Network Engineer 4	\$ 81.50
	Public Safety Consultant	\$ 72.81
	Radio Engineer	\$ 90.99
	Voice/Data Communications Technician	\$ 38.05
	Voice/Data Communications Engineer/Design Specialist	\$ 67.50
	Voice/Data Communications Architect	\$ 82.50

# Job Category Descriptions

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## APPLICATIONS

### 1. Programmer Analyst

- Plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems. Evaluates user request for new or modified program, such as for financial or human resource management systems, clinical research trial results, statistical study of traffic patterns, or analyzing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Formulates plan outlining steps required to develop program, using methodologies such as structured analysis and design or object-oriented development.
- Work involves assisting in analyzing systems outlines to develop programs for computer applications, writing solution programs, documenting the methods and procedures used in program development, and testing and correcting programs. Works under moderate supervision with limited latitude for the use of initiative and independent judgment. Develops block diagrams and machine logic flowcharts to represent operations and data flow for applications.
- Captures requirements using industry standard development frameworks and tools. Designs reports, forms and letters along with computer terminal screen displays to accomplish goals of user request. Reviews screens, reports, forms and letters designs with users. Converts project specifications, using industry standard tools, such as object-oriented tools and code generation, into sequence of detailed instructions and logical steps for coding into language processable by computer, applying knowledge of computer programming techniques and computer languages.
- Enters program codes into computer system. Enters commands into computer to run and test program. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyzes, reviews and alters program to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites program to correct errors. May use computer-aided software tools in each stage of system development. May train users to use program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and test program at user site. May monitor performance of program after implementation. May specialize in developing programs for business or technical applications.

Programmer Analyst 1	
Years of	1 to 3 years of experience in the field or in a related area.

Experience	
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment
Programmer Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Programmer Analyst 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, may lead and direct the work of others, a wide degree of creativity and latitude is expected.

Programmer Analyst 4	
Years of Experience	12-15 years of experience in the field or in a related area.

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, may lead and direct the work of others, a wide degree of creativity and latitude is expected.
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Programmer Analyst 5	
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Years of Experience	Advanced experience in the IT industry and as a programmer analyst.
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Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry.
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Programmer Analyst 6	
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Years of Experience	Advanced experience in the IT industry and as a programmer analyst
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Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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## 2. Programmer

- Converts data from project specifications and statements of problems and procedures to create or modify computer programs. Prepares, or receives detailed specifications to describe sequence of steps that program must follow and input, output, and logical operations involved. Analyzes specifications, applying knowledge of computer capabilities, subject matter, and symbolic logic. Confers with supervisor and representatives of departments concerned with program to resolve questions of program intent, data input, output requirements, and inclusion of internal checks and controls. Converts detailed specifications to language processable by computer. Enters program codes into computer system. Inputs test data into computer. Observes computer monitor screen to interpret program operating codes. Corrects program errors, using methods such as modifying program or altering sequence of program steps. May prepare computer block diagrams and machine logic flowcharts for detailed coding of problems, and provides for the documentation of programming work.

- Writes instructions to guide operating personnel during production runs. Analyzes, reviews, and rewrites programs to increase operating efficiency or to adapt program to new requirements. Compiles and writes documentation of program development and subsequent revisions. May assist computer operator to resolve problems in running computer program. May work with System Analyst to obtain and analyze project specifications. May direct and coordinate work of others to write, test, and modify computer programs. Work involves writing programs to solve problems, documenting the methods and procedures used in program development, and testing and correcting programs. Work involves analyzing system outlines to develop programs for computer applications; writing solution programs; May train others. Works under general supervision with limited latitude for the use of initiative and independent judgment. Analyzes proposed computer applications in terms of equipment requirements and capabilities. Assists in developing solutions to software-related problems. May assist in the generation or installation of systems software.
- Prepares test data. May assist in writing and maintaining functional and technical specifications. Experience in computer programming work. Knowledge of the principles, practices, and techniques of computer programming and systems analysis, of computer operations procedures and systems, and of computer programming languages. Skill in the use of computer equipment. Ability to design programs and systems architecture; to prepare program specifications; to code, test, and debug computer programs; to interpret technical information relating to computer programming and other areas of data processing; and to communicate effectively.

Programmer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Programmer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Programmer 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Programmer 4	
Years of Experience	12-15 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Programmer 5	
Years of Experience	Advanced experience in the IT industry and as a programmer.
Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry.

Programmer 6	
Years of Experience	Advanced experience in the IT industry and as a programmer.

Job Description	Includes descriptions detailed earlier as well as programmer analyst experience in specialized IT technologies which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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### 3. Software Test Analyst

- Develops, publishes, and implements test plans. Writes and maintains test automation. Evaluates, recommends, and implements automated test tools and strategies. Develops, maintains, and upgrades automated test scripts and architectures for application products.

Also writes, implements, and reports status for system test cases for testing. Analyzes test cases and provides regular progress reports. Participates in the testing process through test review and analysis, test witnessing and certification of software.

Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and
	efficiently. Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.

Analyst 2	
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Years of Experience	4-7 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.</p>

Analyst 3	
Years of Experience	7-10 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and</p>

	<p>efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.</p>
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Analyst 4	
Years of Experience	11-14 years of experience in the field.
Job Description	<p>Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently.</p> <p>Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendorprovided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify</p>

	defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.
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Analyst 5	
Years of Experience	15 or more years of experience in the field.
Job Description	Evaluates and tests new or modified software programs and software development procedures used to verify that programs function according to user requirements and conform to establishment guidelines: Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and

efficiently.

Reviews new or modified program, including documentation, diagram, and flow chart, to determine if program will perform according to user request and conform to guidelines. Recommends program improvements or corrections to programmers. Reviews computer operating log to identify program processing errors. Enters instructions into computer to test program for validity of results, accuracy, reliability, and conformance to establishment standards. Observes computer monitor screen during program test to detect error codes or interruption of program and corrects errors. Identifies differences between establishment standards and user applications and suggests modifications to conform to standards. Sets up tests at request of user to locate and correct program operating error following installation of program. Conducts compatibility tests with vendor provided programs. Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. Writes documentation to describe program evaluation, testing, and correction. May evaluate proposed software or software enhancement for feasibility. May develop utility program to test, track, and verify defects in software program. May write programs to create new procedures or modify existing procedures. May train software program users.

#### 4. Technical Writer

- Develops and maintains user and technical documentation and project process documentation for Application Teams. Understands the user's view of applications and /or technology and is able to put procedures in a logical sequence. Provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications. Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document.
- Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. Develop on-line source documentation as appropriate. Maintain documentation libraries and subscription lists. Identify, create, revise, and maintain documentation and templates. Ensure appropriate control access/use of documentation materials. Maintain application and user documentation. Ensure messages and terminology is consistent across all written materials. Research and complete documentation service requests. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Follow quality standards. Ability to work in a team environment. Strong communication skills; both written and spoken.
- Composes technical documents, manuals, bulletins, brochures, publications, training manuals, and special reports. Organizes and coordinates the composition of material and drafting of forms suitable for reproduction. Reviews and edits prepared material and illustrations. Develops and refines material for publication in journals and periodicals. Prepares informational material for release to the mass media. Works with agency staff in the development of formats, graphics, and the layout of publications. Assists agency staff in preparing and refining material for speeches and other public presentations. May research product design, capabilities, and compatibility ranges.
- May oversee the writing, editing, publishing, and distribution of specification documents. May review various resources and prepare analyses or summaries. May train others. Experience in technical writing, journalism, or communications work. Knowledge of the techniques and methods of planning, organizing, and writing various types of materials; of research methodology; and of departmental policies, procedures, and regulations.

Skill in the use of office equipment. Ability to conduct research; to compose, review, illustrate, and edit technical documents, materials, and reports; to communicate effectively; and to train others.

Technical Writer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Technical Writer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Technical Writer 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 5. Business Analyst

- Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Experienced with business process reengineering and identifying new applications of technology to business problems to make business more effective. Familiar with industry standard (including Legacy, Core, and Emerging technologies), business process mapping, and reengineering. Prepares solution options, risk identification, and financial analyses such as cost/benefit, ROI, buy/build, etc. Writes detailed description of user needs, program functions, and steps required to develop or modify computer programs.
- Prepare and document Functional and Technical Specifications for reporting and data warehouse work. Assist with business warehouse/intelligence support and enhancements. Develops RFPs. Assist in deployment and management of end-user reporting tools and platforms. Work with IT and business project teams to understand reporting and data warehousing requirements and propose solutions. Document and provide knowledge transfer to the rest of the Enterprise Reporting Team for all solutions.
- Reviews, analyzes, and evaluates business systems and user needs. Formulates systems to parallel overall business strategies. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Familiar with relational database concepts, and client-server concepts. Relies on limited experience and judgment to plan and accomplish goals. Performs a variety of tasks. Works under general supervision; typically reports to a project manager. A certain degree of creativity and latitude is required.

Business Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Business Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Business Analyst 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Business Analyst 4	
Years of Experience	12-15 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Business Analyst 5	
Years of Experience	16 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 6. System Analyst

- Understands business objectives and problems, identifies alternative solutions, performs studies and cost/benefit analysis of alternatives. Analyzes user requirements, procedures, and problems to automate processing or to improve existing computer system: Confers with personnel of organizational units involved to analyze current operational procedures, identify problems, and learn specific input and output requirements, such as forms of data input, how data is to be summarized, and formats for reports. Writes detailed description of user needs, program functions,

and steps required to develop or modify computer program. Reviews computer system capabilities, specifications, and scheduling limitations to determine if requested program or program change is possible within existing system.

- Studies existing information processing systems to evaluate effectiveness and develops new systems to improve production or specifications as required. Prepares specifications to detail operations to be performed by equipment and computer programs and operations to be performed by personnel in system. Conducts studies pertaining to development of new information systems to meet current and projected needs. Plans and prepares technical reports, memoranda, and instructional manuals as documentation of program development. Upgrades system and corrects errors to maintain system after implementation. May assist computer programmer in resolution of work problems related to project specifications, or programming. May direct and coordinate work of others to develop, test, install, and modify programs.
- Provides technical assistance and support for applications and hardware problems and for information sharing with external entities in a customer service environment. Provides field coordination and planning for the effective use of management information systems. Determines operational, technical, and support requirements for the location, installation, operation, and maintenance of various office equipment and systems. Prepares charts, diagrams, tables, and flowcharts. Details input and output record formats for computer programs. Assists in formulating logical descriptions of problems and devising optimum solutions. Assists in the design, development, and maintenance of various computer applications. May provide support and make recommendations for information technology systems processes associated with software technology planning, development, implementation, system security, and interfaces.
- Graduation from an accredited four-year college or university with major course work in computer science, computer information systems, or management information systems is generally preferred. Knowledge of the limitations and capabilities of computer systems and of the techniques used in the design of non-automated systems, of information technology equipment, of applicable programming languages, of computer hardware and software, of computer operating systems, of writing program code, and of automated mapping. Ability to analyze systems and procedures, to write and revise standards and procedures, to communicate effectively, and to train others.

System Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

System Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with
	considerable latitude for the use of initiative and independent judgment.

System Analyst 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

System Analyst 4	
Years of Experience	10 or more years of experience in the field.
Job Description	Advanced experience in the field.

System Analyst 5	
Years of Experience	12 or more years of experience in the field.
Job Description	Proven experience with complex concepts, practices, and procedures within the IT industry. Relies on advanced experience and judgment to plan and accomplish goals.

System Analyst 6	
Years of Experience	14 or more years of experience in the field.

Experience	
Job Description	Proven experience with complex concepts, practices, and procedures within the IT industry. Relies on advanced experience and judgment to plan and accomplish goals. Works independently and cooperatively with management and stakeholders.

## 7. Software Solutions Architect

Solutions Architect	
Years of Experience	5 or more years of experience in the field.
Job Description	Lead and manage the design, implementation and delivery of system and software architecture designs, strategies and quality assurance plans. Design, prototype, develop and implement to achieve business results for the client. Experienced expert able to lead and deliver solutions using object-oriented, service-oriented architecture, and n-tier architectures. Adopt, develop, and execute a robust software development lifecycle, using industry best practices. Follows both the State and industry best practices for software engineering. Leads in the development of long term technology strategy and planning for the entire organization leveraging existing and acquiring new resources. Leads and actively participates on project teams, clarifying business needs and requirements, performing analysis, design, development, integration, and maintenance of systems across
	the enterprise. Willing and able to engage with other internal organizations to maximize delivery capabilities and provide value to clients. Participates and leads the development of delivery approach, and labor and cost estimates. Manage projects or tasks using the State and industry project delivery methodologies and best practices. Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 8. Geospatial Projects Manager

Geospatial Projects Manager	
Years of Experience	A minimum of three years of professional experience is required in Geographical Information System (GIS), cartography, CADD, or a related field. A minimum of three years of professional experience as a project manager for geospatial projects is required.

Job Description	Lead and direct cross-functional teams to deliver complex geospatial projects within the constraints of schedule, budget and scope. Assess desired outcomes and identify user requirements and needs. Design geospatial solutions, including geodatabase schema, system requirements, system configuration and application functional requirements. Develop and obtain approval of project plans according to accepted practices and procedures. Integrate resources and develop additional resources to facilitate, manage and execute geospatial projects. Facilitate stakeholder communications, project reporting, and project oversight. Manage project closeout and the development of operations and support plans for geospatial data and application maintenance. Provide technical oversight and develop standards for geospatial data and applications.
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### 9. Geographic Information System Analyst

Geographic Information System Analyst	
Years of Experience	A minimum of two years of professional experience is required in GIS, cartography, CADD, or a related field.
Job Description	Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing complex spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

### 10. Geographic Information System Specialist 1

Geographic Information System Specialist	
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Years of Experience	Two (2) years of professional experience is required in GIS, cartography, CADD, or a related field.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites) in addition to performing simple spatial analyses. Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information. Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

### 11. Geographic Information System Specialist 2

Geographic Information System Specialist 2	
Years of Experience	3-4 years of experience in the field or in a related area.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites) in addition to performing simple spatial analyses. Assist in the development of geographic information systems that create, maintain, or leverage geospatial base-map information. Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of

	the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.
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**12. Geographic Information System Technician Trainee**

Geographic Information System Technician Trainee	
Years of Experience	One year of professional experience related to GIS, cartography, CADD, or a related field, or a minimum of six undergraduate credit hours in GIS, cartography or CADD.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata forms and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data.

**13. Geographic Information System Technician I**

Geographic Information System Technician I	
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Years of Experience	A minimum of two (2) years of successful experience at the equivalent of the GIS Trainee level.
Job Description	Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data.

#### 14. Geographic Information System Technician II

Geographic Information System Technician II	
Years of Experience	A minimum of three (3) years of professional experience in GIS, cartography, CADD, or a related field.
Job Description	Perform specialized technical work in support of complex GIS applications. Implement geo-databases, establish recovery plans, and monitor geo-database performance. Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a "consultant" to internal customers during their use, development and quality assessment of spatial databases.

### 15. Geographic Information System Technician III

Geographic Information System Technician III	
Years of Experience	A minimum of four (4) years of professional experience in GIS, cartography, CADD, or a related field.
Job Description	Perform specialized technical work in support of complex GIS applications. Implement geo-databases, establish recovery plans, and monitor geo-database performance. Write programs and develop user interfaces, menus, and macro-level commands to meet user needs in addition to performing simple spatial analyses and producing reports according to customer specifications. Assist in the development of geographic information systems that create, maintain, or leverage geospatial basemap information. Conduct geographic information system (GIS) program activities, utilizing GIS hardware and software to produce maps, spatial databases and thematic data (such as wetlands, road centerlines, cadastre, and historic sites). Create, adjust, correct, convert and distribute base maps and thematic data. Digitize and maintain spatial databases; document procedures, validate data for accuracy and completeness, complete approved metadata and produce maps of the resulting information. Evaluate information and data from outside sources to determine the quality of the data. Act as a “consultant” to internal customers during their use, development and quality assessment of spatial databases.

### 16. Graphic Designer

Graphic Designer 1	
Years of Experience	Less than five years industry experience.
Job Description	Ability to assemble and create images for use with electronic and print publishing. Strong understanding of visual identifies and application of logos and identity marks.

Graphic Designer 2	
Years of Experience	5-7 years industry experience.
Job Description	Advanced experience in the use of various design software and technologies; advanced understanding of electronic design standards and techniques.

### 17. Mobile Specialist

- The Mobile Specialist serves in many capacities, including Developer, Engineer, Technical Architect, and Analyst for Mobile Projects. The Mobile Specialist often guides and mentors the technical team in all phases of the SDLC including requirement validation, detail design, development, and implementation.

Mobile Specialist 1	
Years of Experience	4 year college degree or equivalent technical study.
Job Description	<ul style="list-style-type: none"> <li>Serves as the Designer, Developer and/or Engineer on Mobile Projects.</li> <li>Meets with end users and technical staff of all types to gather business and system requirements</li> <li>Develops and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects.</li> <li>Develops standards, repeatable processes, and reusable components</li> <li>Assists in project planning, including developing of timelines, composition of technical teams, and leveling of resources.</li> <li>Mentors technical team leads and team members on Department processes and standards to promote consistency and improve productivity.</li> <li>Assists in the development and review of technical deliverables on projects.</li> </ul>

Mobile Specialist 2	
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Years of Experience	4 year college degree or equivalent technical study.
Job Description	<ul style="list-style-type: none"> <li>• Serves as the Lead Architect/Designer/Developer /Engineer on Mobile Projects.</li> <li>• Meets with end users and technical staff of all types to gather business and system requirements.</li> <li>• Proposes comprehensive solutions based on business and technical requirements</li> <li>• Architects, designs, develops, and/or engineers user interface, service tier, data tier components, infrastructure or security for Mobile Projects.</li> <li>• Develops standards, repeatable processes, and reusable components</li> <li>• Leads project planning, including developing of timelines, composition of technical teams, and leveling of resources.</li> <li>• Mentors and manages technical team leads and team members on Department processes and standards to promote consistency and improve productivity.</li> <li>• Leads the development and review of technical deliverables on projects.</li> </ul>

## 18. Web Application Developer

Web Application Developer 1	
Years of Experience	Five years industry experience.
Job Description	Perform specialized programming and technical work for website and Internet development.

Web Application Developer 2	
Years of Experience	5-7 years industry experience.

Job Description	Perform advanced programming and technical development for website and Internet development
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## 19. Webmaster

Webmaster 1	
Years of Experience	Five years industry experience.
Job Description	Experience maintaining multiple websites. Responsibilities include publishing, examining traffic patterns and transactions, and maintaining usability standards.

Webmaster 2	
Years of Experience	More than five years of industry experience.
Job Description	Advanced experience maintaining multiple websites; examining traffic patterns and transactions; testing for multiple platforms; maintaining usability standards and security standards as they relate to the sites; and the ability to coordinate among content managers and developers.

## Cloud

### 20. Cloud Administrator

Cloud Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures cloud environment components.</li> <li>• Ensure all devices are maintained properly. Ensure maintenance activity is scheduled on a regular basis. Performs system upgrades.</li> <li>• Installs cloud-related software programs and applications.</li> <li>• Monitors the performance of cloud services and ensures system efficiencies.</li> </ul>

	<ul style="list-style-type: none"> <li>• Conducts tests to check the efficiency and accuracy of cloud devices.</li> <li>• Troubleshoots cloud devices when issues are reported.</li> </ul>
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## 21. Cloud Architect

Cloud Architect	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Participates in designing, developing and refining the State of Michigan cloud to ensure that it is secure, reliable, and robust. Implements changes to the cloud to increase performance and efficiencies.</li> <li>• Develops and implements detection and disaster recovery activities to test cloud services; participates in detecting, investigating, documenting, and reporting actual or potential cloud environment security violations, intrusions, failures, performance or other issues.</li> <li>• Designs cloud backbone infrastructure, to provide reliable, optimized, high performance cloud services.</li> <li>• Evaluates security products and tests security systems performance; assists in planning, implementing, and testing disaster recovery procedures; participates in making formal risk assessments related to the State of Michigan cloud environment.</li> </ul>

## 22. Cloud Engineer

Cloud Engineer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>•• Designs and implements cloud-based solutions. Assesses existing configurations and makes recommendations based on product specifications. Configures equipment and software to meet business needs, trains others on the solution, and documents the solution for ongoing support. Functions as part of a team on larger projects, or individually provides the services on support visits or smaller projects. Provides technical support and assists with the design of cloud solutions.</li> <li>• Upgrades equipment and software, applies patches, and ensures physical security of data.</li> <li>• Facilitates and leads the engineering process for the State of Michigan cloud environment.</li> <li>• Designs disaster recovery plans for cloud services.</li> <li>• Creates effective cloud strategies, including specific performance reports and metrics.</li> </ul>

	<ul style="list-style-type: none"> <li>Requires experience in the technical services and support field as well as experience in cloud administration (DHCP, DNS, routers, firewall, etc.)</li> </ul> Assists with troubleshooting cloud devices when issues are reported.
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## CUSTOMER/TECHNICAL SUPPORT

### 23. Contact Center Agent

Answers inbound and places outbound calls in a call center with the goal of increasing business, customer satisfaction, and customer retention. Takes care of somewhat complex customer inquiries and problems and non-routine matters than those handled by lower-level Call Center Representatives. Requires a higher degree of skill and ability to explain more complex matters to ensure customer satisfaction and retention, and to sell products and services.

Contact Center Agent 1	
Years of Experience	1 to 5 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Contact Center Agent 2	
Years of Experience	6-11 years of experience in the field or in a related area.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.
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Contact Center Agent 3	
Years of Experience	12 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 24. Help Desk

- Provide technical assistance to computer system users on a variety of issues. Identifies, researches, and resolves technical problems. Responds to telephone calls, email and personnel requests for technical support. Documents, tracks, and monitors the problem to ensure a timely resolution. Has knowledge of commonly used concepts, practices, and procedures within a particular field. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.
- Provide service and preventive maintenance activities on terminals, printers, personal computers, etc. Basic knowledge of electrical/mechanical principles and basic electronics. Read and comprehend technical service manuals and publications. Knowledge of basic mathematics to read and understand various gauges, meters, and measurement devices. Able to diagnose and repair products by replacing worn or broken parts, and making technical adjustments. Makes appropriate use of reference publications and diagnostic aids in resolving technical problems. Strong communication skills.
- Assist in coordination of changes, upgrades and new products, ensuring systems shall operate correctly in current and future environment. Provide accurate and complete answers to general use and administrative environment questions in a timely manner. Implement shared software, such as operating systems, configuration management tools, application and development tools, testing tools, compilers, and code editors. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Ability to work in a team environment.

Help Desk 1	
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Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Help Desk 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Help Desk 3	
Years of Experience	8 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 25. Technical Support

- Maintains, analyzes, troubleshoots, and repairs computer systems, hardware, and computer peripherals. Documents, maintains, upgrades or replaces hardware and software systems. Supports and maintains user account information including rights, security, and systems groups. Performs basic operation, monitoring, installation, trouble shooting, relocations, or maintenance of communications equipment. Identifies and resolves basic communications problems. Prepares or assists in the preparation of service record documentation. Shows awareness of standards and regulatory requirements related to assigned tasks.
- Assists in monitoring and providing assistance on the use and interface of systems, subsystems, and software applications. May be responsible for accessing data from and transferring data to various local, state, or federal databases. May assist in the review and recommendation of the procurement and inventory of information resources hardware or software. May write and update personal computer and mainframe application

programs. Experience in automated data processing systems. Knowledge of the practices, principles, and techniques of computer operations, of information systems, of computer software and hardware, and of information security policies and procedures. Skill in the use and support of personal computers, in the use of applicable programs and systems, and in troubleshooting information systems. Ability to operate information technology systems, to communicate effectively, and to train others.

- Provides assistance in the design, development, and maintenance of various system applications. Provides technical assistance and support for applications and hardware problems. Installs, maintains, moves, and assists in testing and upgrading new and existing hardware/software. Reviews and recommends procurement of information technology equipment. Maintains the necessary security controls over software. Makes presentations and briefings for training sessions. Prepares briefings, reports, and evaluations on system efficiency and utilization. May be responsible for accessing data from and transferring data to various local, state, or federal databases.
- Installs, maintains, moves, and assists in testing and upgrading new and existing hardware and software. Reviews and recommends procurement of information technology equipment. Maintains the necessary security controls over software. Develops procedure manuals. Develops and makes presentations and briefings for training sessions. Prepares briefings, reports, and evaluations on systems efficiency and utilization. May supervise the work of others.

Technical Support 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Technical Support 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Technical Support 3	
Years of Experience	8 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 26. Infrastructure Solutions Architect

- Must be proficient at the techniques that go into the formulation of architectures, including requirements discovery and analysis, application of abstraction, formulation of solution context, solution alternatives identification and assessment, technology selection, and architectural configuration. Extensive understanding and experience in technology areas for Mainframe and Distributed platforms, networking, databases, High Availability/Disaster Recovery, and IT security.
- Ability to work closely with client/application architects, senior managers, and project managers to design and assist with the implementation of the solutions infrastructure related components. Demonstrated ability to work independently and complete assigned project responsibilities under limited supervision. Experience and skills in prevailing industry architecture and engineering methodologies such as ITIL. Knowledge of and experience with a broad range of application servers, web servers, messaging servers, database servers, and related technologies. Able to analyze business requirements and define solutions to address complex business needs. Experience in web infrastructure design and operations including IP, HTTP, HTTPS, FTP, load balancing, clustering, failover, monitoring, diagnostics, performance tuning, etc. Possess high aptitude for problem-solving and trouble-shooting.

Infrastructure Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Infrastructure Architect 2	
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Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Infrastructure Architect 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Infrastructure Architect 4	
Years of Experience	10-12 years of experience.
Job Description	Advanced experience in architecting infrastructure solutions including proven experience with infrastructure integration.

Infrastructure Architect 5	
Years of Experience	12 or more years of experience in the field.

Job Description	Includes descriptions detailed earlier as well as experience in architecting advanced infrastructure solutions which may not be widely used or are new to the industry, including the ability to mentor other staff in the use of the specialty technologies and make recommendations on the use of the specialty technologies and integration within the organization's architecture.
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## 27. System Administrator

- The System Administrator (SA) is responsible for effective provisioning, installation/configuration, operation, and maintenance of computer hardware and software and related infrastructure. This individual participates in technical research and development to enable continuing innovation within the infrastructure. This individual ensures that system hardware, operating systems, software systems, and related procedures adhere to State policies, standards, and guidelines. Responsibilities include systems administration engineering and provisioning, operations and support, maintenance and research and development to ensure continual innovation. Install new / rebuild existing servers and configure hardware, peripherals, services, settings, directories, storage, etc. in accordance with standards and project/operational requirements. Perform daily system monitoring, verifying the integrity and availability of all hardware, server resources, systems and key processes, reviewing system and application logs, and verifying completion of scheduled jobs such as backups. Perform regular security monitoring to identify any possible intrusions. Perform daily backup operations, ensuring all required file systems and system data are successfully backed up to the appropriate media, recovery tapes or disks are created, and media is recycled and sent off site as necessary. Perform regular file archival and purge as necessary. Create, change, and delete user accounts per request. Provide Tier III/other support per request from various constituencies. Investigate and troubleshoot issues. Diagnose and recover from hardware or software failures. Coordinate and communicate with impacted constituencies. Apply OS patches and upgrades on a regular basis, and upgrade administrative tools and utilities. Configure / add new services as necessary. Upgrade and configure system software that supports GIS infrastructure applications or Asset Management applications per project or operational needs. Maintain operational, configuration, or other procedures. Perform periodic performance reporting to support capacity planning. Perform ongoing performance tuning, hardware upgrades, and resource optimization as required. Configure CPU, memory, and disk partitions as required. Maintain data center environmental and monitoring equipment. Apply OS patches and upgrades on a regular basis, and upgrade administrative tools and utilities. Configure / add new services as necessary. Upgrade and configure system software or Asset Management applications per project or operational needs. Maintain operational, configuration, or other procedures. Perform periodic performance reporting to support capacity planning. Perform ongoing performance tuning, hardware upgrades, and resource optimization as required. Configure CPU, memory, and disk partitions as required.

System Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

System Administrator 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

System Administrator 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## DATA MANAGEMENT

### 28. Database Architect

- Designs and builds relational databases. Develops strategies for data acquisitions, archive recovery, and implementation of a database. Must be able to design, develop and manipulate database management systems, data warehouses and multidimensional databases. Requires a depth and breadth of database knowledge that shall help with formal design of relational databases and provides insight into strategic data manipulation. Responsible for making sure an organization's strategic goals are optimized through the use of enterprise data standards. This frequently involves creating and maintaining a centralized registry of metadata. Capable of performing the role of a database administrator, if needed.

Database Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area

Experience	
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Database Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Database Architect 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Architect 4	
Years of Experience	12 or more years of experience in the field

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.
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## 29. Data Warehouse Architect

- Designs, implements and supports data warehousing. Implements business rules via stored procedures, middleware, or other technologies. Defines user interfaces and functional specifications. Responsible for verifying accuracy of data, and the maintenance and support of the data warehouse. Knowledge of data warehouse end-to-end implementation processes, from business requirement logical modeling, physical database design, ETL, end-user tools, database, SQL, performance tuning. Demonstrated problem resolution skills with team of persons, and strong leadership with implementation team Experience in data warehouse design and data modeling (both relational and dimensional) and development and maintenance of multi-dimensional data models. Development experience in implementation of data warehousing utilizing RDBMS. Understanding of data warehouse Metadata concepts, tools and different data warehouse methodologies. Expertise in SQL and proficiency in database tuning techniques. Responsible for the ongoing architecture and design of the data warehouse, data mart, and reporting environments. Develop strategies for flexibility and scalability, and define the future technical architecture direction for the business intelligence reporting physical environment.
- Responsible for proper selection of appropriate hardware, software, tools and system lifecycle techniques for the different components of the end-to-end data warehouse architecture including ETL, metadata, data profiling software, database platform, performance monitoring, reporting and analytic tools. Defining and documenting the technical architecture of the data warehouse, including the physical components and their functionality. Setting or enforcing standards and overall architecture for data warehouse systems. Monitoring the data warehousing industry and assisting in establishing the organization's data warehousing strategy and selection of strategic warehousing tools and techniques. Ensuring compatibility of the different components of the DW architecture and ensuring alignment with broader IT strategies and goals. Ability to educate the project teams on the standards and architecture of each component of the data warehouse architecture. Very strong written and oral communication skills, including some presentation skills.

Data Warehouse Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Data Warehouse	
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Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Data Warehouse Architect 3	
Years of Experience	8 or more years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

### 30. Database Administrator

- Responsible for data analysis and database management. Involved in maintenance, enhancement, designing of data dictionaries, physical and logical database models, and performance tuning. Knowledge of the utilities and production tools used for data storage management to support the Application Team. Coordinates physical changes to computer databases; codes, tests, and implements physical database, applying knowledge of data base management system. Designs logical and physical databases reviews description of changes to database design to understand how changes to be made affect physical data base (how data is stored in terms of physical characteristics, such as location, amount of space, and access method).
- Establishes physical database parameters. Uses structured query language (SQL) to define database objects using database definition language (DDL) and control access to database objects using data control language (DCL). Language descriptions and specifies identifiers of database to database management system or directs others in coding database descriptions. Calculates optimum values for database parameters, such as amount of computer memory to be used by database, following manuals and using calculator. Specifies user access level for each segment of one or more data items, such as insert, replace, retrieve, or delete data. Specifies which users can access data bases and what data can be accessed by user. Tests and corrects errors, and refines changes to database.
- Enters SQL to create production data base. Uses database utility programs and 3<sup>rd</sup> party utilities to monitor database performance, such as distribution of records and amount of available memory. Directs programmers and analysts to make changes to data base management system.

Reviews and corrects programs. Answers user questions. Confers with coworkers to determine impact of data base changes on other systems and staff cost for making changes to data base. Modifies data base programs to increase processing performance, referred to as performance tuning. Workers typically specialize in one or more types of data base management systems. Providing assistance in the planning, development, maintenance, and monitoring of integrated database systems, and ensuring that the conceptual and design phases of new applications are consistent with the structural parameters within the database environment.

- Evaluates users' requests for new data elements and systems, incorporates them into the existing shared data environment, and provides technical assistance. Coordinates the use of data to ensure data integrity and control redundancy, loads databases, and reorganizes as needed. Performs data modeling and prototyping. Performs logical and physical data modeling, designs relational database models, and creates physical data models from logical data models. Performs security recovery procedures. Determines and implements database search strategies and storage requirements. Maintains data dictionary ensuring uniformity of definitions and sets standards for use of data dictionary. Monitors database performance and recommends efficiency improvements. Creates test database environment for applications section, including the creation of necessary libraries and procedures.
- Executes the procedures necessary to save, retrieve, and recover databases from hardware and software failures within established procedures. Assists with determining, implementing, and enhancing standards on database security and with monitoring agency disaster recovery procedures and systems. Assists with the installation of database software and with analyzing, designing, and implementing databases. Assists in benchmarking and threshold testing of databases and with establishing and controlling necessary database security. Assists in the selection of database management software. Experience in computer systems analysis or computer programming work.
- Knowledge of the principles, practices, and techniques of computer programming and systems design; of computer operations, systems, and procedures; of project control and cost estimating techniques; of computer programming languages; of data processing flowcharting techniques; of database structures and theories; and of current database technologies.

Database Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Database Administrator 2	
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Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Database Administrator 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Administrator 4	
Years of Experience	12 - 14 years of experience in the field
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Database Administrator 5	
Years of Experience	15 or more years of experience in the field

Experience	
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## DATA PROTECTION

### 31. Data Protection Administrator

Data Protection Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures various data protection devices simultaneously.</li> <li>• Ensure all devices are maintained properly. Ensure maintenance activity is scheduled on a regular basis. Performs system upgrades.</li> <li>• Installs data protection related software programs and applications.</li> <li>• Monitors the performance of data protection devices and ensures system efficiencies.</li> <li>• Ensure back up of data prior to/during installation/uninstall any software or application.</li> <li>• Conducts tests to check the efficiency and accuracy of data protection devices.</li> </ul>

### 32. Data Protection Architect

Data Protection Architect	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>- Analyzes data needed to determine key requirements to store and access data and communicate that information to management.</li> <li>• Plans and designs data protection systems, both for temporary use and to meet long-term data protection needs.</li> </ul>
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### 33. Data Protection Engineer

Data Protection Engineer	
Analyst	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Facilitates and leads the engineering process for data protection.</li> <li>• Creates effective data protection strategies, including specific performance and data usage reports and metrics.</li> <li>• Designs and implements solutions for data protection and maintenance.</li> <li>• Upgrades software, apply patches, and ensure physical security of data.</li> <li>• Evaluates input and output for systems and overall architecture; identifies and recommends improvements.</li> <li>• Designs disaster recovery plans and enforces backup and archival procedures.</li> </ul>

## DATA CENTER TECHNICAL SUPPORT

### 34. Senior Data Center Engineer

Senior Data Center Engineer	
Analyst	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>•Develop operational and project documentation and provide advice as a Technical Authority. Support data center engineering projects. Supervise staff on site to ensure projects tasks are fully delivered to the correct standards. Support the Data Center Manager to maintain all data center standards, documented procedures, adherence to security policies and audit compliance tasks. Provide technical advice on managing problems within the data center services team. Ensure that the data center is maintained and operational 24/7 by providing daily audits and reports about the performance level of services. Mentor, coach, train and guide other colleagues to deliver quality data center service.</li> </ul>
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## GOVERNANCE

### 35. IT Procurement Analyst

- Considerable knowledge of principles and practices of IT procurement including automated procurement systems and tools, budget monitoring/maintenance, file and records management, statistical report development, and related bookkeeping/governmental accounting/fiscal procedures.
- Effective oral and written communication skills; strong computer skills including a high level of proficiency with MS Office, databases, spreadsheets, and automated financial systems; proven ability to maintain divisional inventory and to establish effective working relationships with both internal and external vendors and personnel.
- Demonstrated ability to analyze data, develop statistical reports, reconcile records, and provide customer service at all levels; significant experience in IT procurement including, but not limited to, software and hardware licenses; experience administering state contracts.
- Degree in information technology, business, a related field, or an equivalent combination of education and/or training/experience; demonstrated competencies in customer service, problem solving, organizational and negotiation skills.

IT Procurement	
Analyst	
Years of Experience	A minimum of four years of experience required in the following areas; IT procurement experience, purchasing of software/hardware, negotiation. A minimum of two years of experience required in problem solving. A minimum of four years of experience in an accounting-related field highly desired.
Job Description	Will be responsible for a wide range of information technology procurements including IT goods and services through a variety of purchasing options; follows procurement guidelines, selects appropriate procurement method, processes and maintains procurement requests and invoices through automated accounting systems; reconciles vendor inquiries and discrepancies; participates in pre-bid conferences as needed. Will also perform administrative and fiscal tasks, accounts payable and receivable, and IT software inventory; will compile financial data and review/analyze for budget formulation; develop and maintain numerous fiscal and/or procurement related spreadsheets; and perform related functions as required.

### 36. IT Governance Analyst

- Works within IT Project Governance to provide oversight, direction and guidance/consultation for IT projects from project request submission through project close-out and post-implementation review. As a governance liaison, works with project managers to ensure all aspects of project management disciplines and ensures compliance with agency specific and State project management and project governance policies, procedures, standards and guidelines have been followed. Reviews and validates project deliverables to ensure information accuracy, thoroughness, completeness and compliance. Ensures all projects have a valid project plan that maintains scope, tasks, schedules, estimates, and status, and that information is accurately disseminated to IT management. Directs corrective actions in any area where performance falls below objectives.
- Assists with the development, promulgation, implementation and regular updates of IT Project Management and Systems Development standards, policies, and guidelines and any other governance policies and procedures needed for the overall IT governance framework. Ensures compliance with all policies and procedures in the execution of technology projects. Monitor the progress of technology projects and provide quick and accurate responses to IT Management as to status, issues and risks of those projects. Serve as liaison between IT management, project managers and SOM. Monitor and support the management of the division's technology portfolio comprised of projects, systems, data and tools. Provide mentoring, coaching, training and on-boarding for project managers in the areas of project management tools, standards, policies, and procedures. Train and mentor new members of the IT Project Governance team as needed.
- Initiate and conduct ongoing and regular IT Policy, Process, Procedure, and Standard reviews to ensure technology and governance best practices are incorporated into the agency's set of procedures and improve business and IT compliance with legislative and regulatory policies which impact IT deliverables. Assist in the preparation of reports and materials for regularly scheduled project and program portfolio reviews with IT CIO, IT Managers and PM's.

IT Governance Analyst	
Years of Experience	10 years of experience in the field
Job Description	Ensure projects have adequate project management and oversight structures and processes that will enable the success of the project. Verifies and validates project status reports. Assists with the training and implementation of new agency and/or COV project policies, standards, guidelines and procedures introduced. Assists with assessment of project management training needs, schedules classes as needed, or provides one on one project consulting. Reviews project documentation
	including project initiation documents such as the project charter, budget, schedule, cost benefit analysis, etc. throughout the project lifecycle until the end of the project including the project closeout report. Recommends approval of documents to AITR and Director. Attends project review and steering committee meetings for all projects for which he or she is governance liaison.

## IT MANAGEMENT SERVICES

### 37. Business Continuity Analyst

Business Continuity Analyst	
Years of Experience	
Job Description	<ul style="list-style-type: none"><li>• Develop, prepare and implement plans to ensure the State of Michigan can continue to operate in case of serious incidents or disasters. (i.e. analyzing organizations and suggesting improvement)</li><li>• Security and risk management professional who develop strategies to return to normal business operations in a timely manner and ensures all data is backed up in case of an emergency or disaster.</li><li>• Includes facilitating trainings.</li><li>• Periodic maintenance tests.</li><li>• Enhancing technical processes to make sure best strategies are being used.</li></ul>

### 38. Business Continuity Planner

Business Continuity Planner	
Years of Experience	5 or more years

Job Description	<p>Provides specialized expertise in business continuity planning, project management and problem analysis and resolution. Participates in major project assignments to: assist business partners in resolving business issues related to work area (business function), recovery planning and recovery plan development / enhancements. Capitalizes on business opportunities to refine processes to mitigate exposure during disruptions of service, and possibly, improve day-to-day operations. Facilitates and coordinates the development of work area (business function) business continuity plans for business units.</p> <p>Responsibilities include, but are not limited to, the following: assist business units with assessment of potential business impact, definition of critical, time-sensitive functions, design, development, and documentation of business continuity plans, recommend recovery strategies and options, and assist with the implementation of recovery solutions, coordinate business continuity plan exercises, develop schedules for training / awareness for business partner associates, coordinate development of business unit schedules for annual business continuity documentation maintenance and update, exercises, and independent review and validation, report the business continuity status of business units to senior management, provide expertise and support to management and business functional areas, as requested, when a disruption occurs.</p>
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### 39. Business Process Reengineering

Business Process Reengineering	
Years of Experience	5 or more years
Job Description	<p>This position applies process improvement and re-engineering methodologies and principles to conduct process modernization projects. Additional duties may include activity and data modeling, developing modern business methods, identifying best practices, and creating and assessing performance measurements. Providing group facilitation, interviewing, training, and provides additional forms of knowledge transfer. Serves as a key coordinator between multiple project teams to ensure enterprise wide integration of re-engineering efforts.</p> <p>Additional Responsibilities: Design workflow for purchasing software, collect and analyze statistics/metrics for software purchases, identify gaps in all associated processes and risks, establish memorandum of understanding (MOU's) where required, maintain SOP's for all processes, and support the client at customer meetings.</p>

#### 40. Enterprise Architect

Enterprise Architect	
Years of Experience	5 or more years
Job Description	<p>This position works across Application Development, Service Delivery and Infrastructure to identify, research, discuss, design, and implement key enterprise architecture standards. Other responsibilities include: Research, design, document, build, and pilot prioritized topics for standards. Manage the list of potential standards and work with the application development management to prioritize efforts. Work closely with Development, Infrastructure, and Service Delivery teams to understand their needs and ensure the best enterprise standard is implemented. Work closely with development teams to pilot and prove out the standard. Drive the identification, development and implementation of key new standards in areas such as: Performance Testing, Security, Event Management, Web UI Framework, .NET Design Standards, Application To Application Communication, Caching, etc. Propose new enterprise standards based on business need, IT need and technology advances. Assist development teams to implement the standards into business applications. Investigate new technology and techniques that should be developed into an agency enterprise architecture standard.</p> <p>Lead key enterprise architectural design projects as necessary. Operate as business savvy technical leader across the organization. Influence development teams to design high-quality technical solutions that fit the Enterprise Architecture and standards. Educate application development managers, developers, and business analyst on State Enterprise Architecture Standards.</p>

#### 41. IT Strategist

IT Strategist	
Years of Experience	5 or more years
Job Description	<p>Supports top management in IT strategy formulation, IT strategic plans execution, strategic process improvements, and communication of IT strategies to all stakeholders. Analyze business performance, industry trends, existing or new regulatory requirements and their impact on IT operations; make recommendations on alternative courses of action, including risk assessment, capital investment, and acquisitions needed to align IT strategy with agency strategic plan. Requires advanced knowledge of strategic planning concepts and frameworks, business issues and concepts, research methodology, general management and financial analysis. Additionally, requires good interaction skills with senior management, with ability to articulate and defend recommendations made.</p>

#### 42. IT Auditor

IT Auditor 1	
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Years of Experience	0-2 years
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 2	
Years of Experience	2-4 years
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on instructions and pre-established guidelines to perform the functions of the job. Works under immediate supervision. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 3	
Years of Experience	4-6 years

Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.
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IT Auditor 4	
Years of	6-8 years
Experience	
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

IT Auditor 5	
Years of	8+ years
Experience	
Job Description	Audits information systems, platforms, and operating procedures in accordance with established corporate standards for efficiency, accuracy and security. Evaluates IT infrastructure in terms of risk to the organization and establishes controls to mitigate loss. Determines and recommends improvements in current risk management controls and implementation of system changes or upgrades. May require a bachelor's degree. Has knowledge of commonly-used concepts, practices, and procedures within a particular field. Relies on preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment. Typically reports to a supervisor or manager.

#### 43. IT Trainer

IT Trainer	
Years of Experience	0-2 years
Job Description	Develop an agency-wide training plan. Coordinate IT strategic planning process to determine the department's training requirements through communications with staff throughout the agency. Identify existing training that meets the requirements and provide a gap analysis of courses to develop in house. Develop curriculum and training plan. Develop evaluation and monitoring methods to ensure quality training. Develop short video training. Produce written documents with clearly organized thoughts using proper English sentence construction, punctuation, and grammar.

#### 44. IT Sourcing Consultant

IT Sourcing Consultant 1	
Years of Experience	5+ years
Job Description	Position requires the ability to work independently as the team leader in the development and execution of sourcing strategies for assigned projects, assisting customers in solving IT business problems. This role will function to lead the sourcing process,
	through creation of the solicitation documents, evaluation of proposals and in execution of agreed upon negotiations strategy with selected suppliers. Leads evaluation and execution of risk mitigation strategies and establishes solid contracts that are in the long-term best interest of the customer. Has responsibility for managing customer expectations for project deliverables through effective and timely communications. Conducts a post-project lessons learned reviews with the customers to promote knowledge transfer and customer satisfaction.

IT Sourcing Consultant 2	
Years of Experience	10+ years

Experience	
Job Description	Position requires a proven ability to lead development and execution of complex sourcing strategies for assigned projects and consulting with customers to solve IT business problems. Conducts meaningful market research and works with business owners to develop sourcing scope, timelines and deliverables. This role will function as the leader of cross-functional teams through the sourcing process, in the evaluation of proposals, conducting and managing the negotiations process with selected suppliers. Has responsibility for proactively managing customer expectations for project deliverables through effective and timely communications to various levels of senior management. Identifies and manages contractual risks and establishes firm contracts that are in the long-term best interest of the customer. Conduct post-project lessons learned reviews with the customers to promote knowledge transfer and customer satisfaction.

#### 45. Senior Technical Writer

Senior Technical Writer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Develops and maintains user and technical documentation and project process documentation for Application Teams. Understands the user's view of applications and /or technology and is able to put procedures in a logical sequence. Provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications. Writes a variety of technical articles, reports, brochures, and/or manuals for documentation for a wide range of uses. May be responsible for coordinating the display of graphics and the production of the document.</li> <li>• Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. Develop on-line source documentation as appropriate. Maintain documentation libraries and subscription lists. Identify, create, revise, and maintain documentation and templates. Ensure appropriate control access/use of documentation materials. Maintain application and user documentation. Ensure messages and terminology is consistent across all written materials. Research and complete documentation service requests. Communicate accurate and useful status updates. Manage and report time spent on all work activities. Follow quality standards. Ability to work in a team environment. Strong communication skills; both written and spoken.</li> <li>• Composes technical documents, manuals, bulletins, brochures, publications, training manuals, and special reports. Organizes and coordinates the composition of material and drafting of forms suitable for reproduction. Reviews and edits prepared material and illustrations. Develops and refines material for publication in journals and periodicals. Prepares informational material for release to the mass media. Works with agency staff in the development of formats, graphics, and the</li> </ul>

	<p>layout of publications. Assists agency staff in preparing and refining material for speeches and other public presentations. May research product design, capabilities, and compatibility ranges.</p> <ul style="list-style-type: none"> <li>• May oversee the writing, editing, publishing, and distribution of specification documents. May review various resources and prepare analyses or summaries. May train others. Experience in technical writing, journalism, or communications work. Knowledge of the techniques and methods of planning, organizing, and writing various types of materials; of research methodology; and of departmental policies, procedures, and regulations. Skill in the use of office equipment. Ability to conduct research; to compose, review, illustrate, and edit technical documents, materials, and reports; to communicate effectively; and to train others.</li> </ul>
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## IT SECURITY

### 46. IT Security Analyst

- Monitor and advise on information security issues related to the systems and workflow at an agency to ensure the internal IT security controls for an agency are appropriate and operating as intended. Coordinate and execute IT security related projects for the agency. Coordinate response to information security incidents. Develop and publish Information Security policies, procedures, standards and guidelines based on knowledge of best practices and compliance with State IT Security policies, standards, and guidelines..
- Conduct campus-wide data classification assessment and security audits and manage remediation plans. Collaborate with IT management, Internal Audit, and SOM to manage security vulnerabilities. Create, manage and maintain user security awareness. Conduct security research and keeps abreast of latest security issues.
- Prepares IT security documentation, including department policies and procedures, agency notifications, Web content, and alerts.

IT Security Analyst 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent
	judgment.

IT Security Analyst 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

IT Security Analyst 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

**47. IT Security Architect**

IT Security Architect 1	
Years of Experience	<p>3+ years of experience in security architecture</p> <p>9+ years of experience in information security</p> <p>9+ years of experience working with computer systems</p> <p>9+ years of experience working with network software and hardware, data or voice as well as experience with open and proprietary software and hardware</p>

Job Description	<p>Establish the target security/infrastructure architecture. Author corresponding requirements, including definition of dependencies on infrastructure consolidation efforts. Define Security/Information Assurance requirements (and dependencies). Specify key architectural aspects of the architecture view, and identify other aspects that need definition. Other duties include researching best practices for reuse, applying State IT Security and industry standards, and defining the transformation approach that transitions the current architecture to the target architecture.</p> <p>Experience working with current and emerging information security technologies and development methodologies. Bachelor's degree in computer science, management information systems, or related field preferred. Good analytical and creative problem solving skills.</p> <p>Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.</p>
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IT Security Architect 2	
Years of Experience	<p>5+ years of experience in security architecture</p> <p>11+ years of experience in information security</p> <p>11+ years of experience working with computer systems</p> <p>11+ years of experience working with network software and hardware, data or voice as well as experience with open and proprietary software and hardware</p>
Job Description	<p>Establish the target security/infrastructure architecture. Author corresponding requirements, including definition of dependencies on infrastructure consolidation efforts. Define Security/Information Assurance requirements (and dependencies). Specify key architectural aspects of the architecture view, and identify other aspects that need definition. Other duties include researching best practices for reuse, applying State IT Security and industry standards, and defining the transformation approach that transitions the current architecture to the target architecture.</p> <p>Experience working with current and emerging information security technologies and development methodologies. Bachelor's degree in computer science, management information systems, or related field preferred. Good analytical and creative problem solving skills.</p> <p>Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.</p>

**48. IT Security Auditor**

IT Security Auditor	
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Years of Experience	15 or more years with IT security and audit experience
Job Description	Advanced knowledge of security standards and progressive experience performing security audits.

## PROJECT MANAGEMENT

### 49. Program Manager

- Responsible for supporting all project delivery work in accordance with required methodology (such as the State of Michigan’s State Unified Information Technology Environment (SUITE) methodology), and following all standard project management industry standards such as PMI’s framework.
- Coordinates and controls the end to end process of capturing all key project artifacts, including but not limited to: business cases, project charters, baselined project schedules, project management plans, change requests, status reports, lessons learned. May require consistent utilization of the State of Michigan’s SUITE methodology and Project Portfolio Management (PPM) tool.
- Raises identified issues and risks to the appropriate senior management level including the Project Management Office (PMO) for action inclusive of description of the issue, comprehensive analysis of options and recommendation for remediation.
- Manages portfolio of projects’ execution to ensure conformity to established budgets, timelines and scope.
- Works with the stakeholders, including the PMO to facilitate project governance effectiveness through weekly status reporting, project/portfolio data, regular governance meetings, etc.

Program Manager 1	
Years of Experience	5+ years of recent experience in managing IT projects (preferably within a government environment)

Job Description	Experience in successfully managing Information Technology (IT) projects (full project life cycle) whose budget was greater than \$10,000,000 (excluding hardware/software costs) and whose timeline was greater than 3 years.. Documented experience in performing Project Management, Quality Management, or other critical functions within complex Information Technology projects (preferably with budgets greater than \$10,000,000 and multi-phase, multiyear implementations). Professional certification in Project Management, such as Project Management Professional (PMP) certification from the Project Management Institute.
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**50. Project Manager**

- Designs, plans, and coordinates work teams. Follows standard project management industry practices such as the PMI's framework. Understands business and technical objectives of a project and works closely with project sponsor. Creates project charter and work plan and tracks budget and schedule progress via appropriate metrics. Establishes project organization and methodologies and defines roles and responsibilities. Documents risks and develops mitigation plans. Manages scope. Creates and implements a communication plan. Builds an effective team, assigns tasks to team members, and evaluates outcomes. Negotiates resources. Communicates to stakeholders and project sponsor. Identifies, tracks, and ensures resolution of issues and removal of barriers. Provides technical support to project team members. Handles complex application features and technical designs. Designs and implements the components required for complex application features. Generally manages a group of applications system analysts. Relies on experience and judgment to plan and accomplish goals. Professional certification is highly desirable.
- May require specific PC, workstation, operating system, application or platform skills. Provides overall direction to the formulation, development, implementation, and delivery of a project. Exercises management responsibility over the achievement of performance, revenue, and profit objectives of a project and its contracts. Ensures that the project plan maintains tasks, schedules, estimates, and status, and disseminates information to team members and customers. Creates a structure and organization for the management of a complex environment with emphasis on quality, productivity, and consistency. Directs corrective actions in any area where performance falls below objectives. Arranges for the assignment of responsibility to other supporting facilities, business areas, and support functions, and monitors their performance. Self-directed and independent. Responsible for the coordination and completion of projects. Oversees all aspects of projects. Sets deadlines, assigns responsibilities, and monitors and summarizes progress of project. Prepares reports for upper management regarding status of project.

Project Manager 1	
Years of Experience	Minimum 2 years of experience as a Project Manager.

Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.
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Project Manager 2	
Years of Experience	Minimum 4 years of experience as a Project Manager.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Project Manager 3	
Years of Experience	Minimum 5 years of experience as a Project Manager.
Job Description	Advanced experience managing programs of projects, complex projects or multiple projects. Demonstrated and advanced understanding of project management methodologies. Relies on experience and judgment to plan and accomplish goals. A significant degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

**51. Project Coordinator**

Project Coordinator	
Years of Experience	Minimum 2 years of experience as a Project Coordinator

Job Description	The Project Coordinator shall provide day-to-day coordination of project tasks. The project coordinator maintains version control and provides administrative support for project management information system. Prior experience of large project administration. Ability to communicate at all levels of an organization and third parties. Experience with similar scale roles and organizations. The project coordinator is task focused. Works under the direction of the project manager and reports to a project manager.
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## STORAGE

### 52. Storage Administrator

Storage Administrator	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Configures various storage devices simultaneously with the help of storage area network. Ensure all devices are maintained properly. Schedules maintenance activity of devices on a regular basis. Performs system upgrades.</li> <li>• Installs storage related software programs and applications.</li> <li>• Monitors the performance of storage devices and ensures that the systems work efficiently.</li> <li>• Ensure that important data is backed up at the time of installing or uninstalling any software program or application.</li> <li>• Conducts tests to check the efficiency and accuracy of storage devices.</li> </ul>

### 53. Storage Architect

Storage Architect	
Years of Experience	

Job Description	<ul style="list-style-type: none"> <li>• Analyzes data needed to determine key requirements to store and access data and communicate that information to management.</li> <li>• Plans and designs storage systems, both for temporary use and to meet long-term data storage needs.</li> </ul>
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#### 54. Storage Engineer

Storage Engineer	
Years of Experience	
Job Description	<ul style="list-style-type: none"> <li>• Facilitates and leads the engineering process for data storage.</li> <li>• Creates effective storage strategies, including specific performance and data usage reports and metrics.</li> <li>• Designs and implements solutions for data storage and maintenance.</li> <li>• Upgrades software, apply patches, and ensure physical security of data.</li> <li>• Evaluates input and output for systems and overall architecture; identifies and recommends improvements.</li> <li>• Designs disaster recovery plans and enforces backup and archival procedures.</li> </ul>

## TELECOMMUNICATIONS AND COMPUTER NETWORKING

#### 55. Network Administrator

- Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures. Coordinate the development, implementation, and maintenance of a local area network or wide area network. Maintains the network's physical and logical structures, including network connections. Maintains network support software, analyzes user support statistics, and recommends appropriate measures. Installs, tests, and maintains network hardware and software. Prepares and analyzes statistics on network utilization and availability. Prepares training courses and provides user support and training in the use of available hardware, software, and utilities. Performs tuning and capacity planning activities to enhance the performance of the network resources.
- Assist in the development, implementation, maintenance, and monitoring of a local area network or wide area network. Works under close supervision with minimal latitude for the use of initiative and independent judgment. Performs procedures for backup, recovery, and archival of files stored on the network. Communicates with vendors, users, management, and network programming staff. Serves as contact for remote network locations to obtain clarification of problems and to identify solutions or corrective actions. Assists in preparing training courses and

providing user support and training in the use of available hardware, software, and utilities. Assists in maintaining the local area network or wide area network, cable and hub installations, and inventories. Conducts product evaluations of upgraded or new hardware and software—identifying strengths, weaknesses, and potential benefits to the agency—and recommends enhancements to network facilities.

- Assists in maintaining the network's physical and logical structures and in installing and testing hardware and software. Assists in performance tuning and capacity planning activities to enhance the performance of the network resources and in maintaining network support software. Assists in or conducts product evaluations of upgraded or new hardware and software and identifies strengths, weaknesses, and potential benefits to the agency. Assists in maintaining the operating system and security software utilized on the network, including the addition of new users to the network and establishment of rights and privileges. Experience in local or wide area network work. Knowledge of network facilities and data processing techniques; of personal computer hardware and software; of network operating system and security software; and of performance monitoring and capacity management tools.

Network	
Administrator 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Administrator 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network	
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Administrator 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 56. Network Architect

- Participates in designing and developing the network to ensure that it is secure, reliable, and robust; implements and maintains network management servers that assist the agency in managing, monitoring, and securing the network.
- Develops and implements detection activities to test network vulnerability to intrusion by hostile individuals or groups; participates in detecting, investigating, documenting, and reporting actual or potential network security violations, intrusions, or other inappropriate use.
- Designs backbone infrastructure, network facilities, wide area networks, local area network, wireless and telecommunication networks to provide reliable Internet access, remote access to information technology services (ITS), network security, and high performance networking.
- Evaluates security products and tests security systems performance; assists in planning, implementing, and testing disaster recovery procedures; participates in making formal risk assessments related to network security.
- Certification in areas related to network management and security preferred (CNE, MCSE, MSCE+1, CISA, CCNA, CCNP, CCIE, CCSA, CCSE, CCSE-PLUS, Cisco Security Specialist).
- Requires experience in the technical services and support field as well as experience in network administration (DHCP, DNS, routers, firewall, etc.)

Network Architect 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Architect 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network Architect 3	
Years of Experience	8 or more years of experience in the field.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

## 57. Network Engineer

- Responsible for installing networking technologies and supporting networks. Assesses existing network configurations and makes recommendations based on product specifications. Configures equipment and software to meet business needs, trains others on the solution, and documents the solution for ongoing support. Functions as part of a team on larger projects, or individually provides the services on support visits or smaller projects. Provides technical support and assists with the design of network solutions.
- Requires experience in the technical services and support field as well as experience in network administration (DHCP, DNS, routers, firewall, etc.)

Network Engineer 1	
Years of Experience	1 to 3 years of experience in the field or in a related area.

Job Description	Has knowledge of commonly used concepts, practices, and procedures within a particular field. Relies on instructions and preestablished guidelines to perform the functions of the job. Primary job functions do not typically require exercising independent judgment.

Network Engineer 2	
Years of Experience	4-7 years of experience in the field or in a related area.
Job Description	Familiar with standard concepts, practices, and procedures within a particular field. Relies on limited experience and judgment to plan and accomplish goals. A certain degree of creativity and latitude is required. Works under limited supervision with considerable latitude for the use of initiative and independent judgment.

Network Engineer 3	
Years of Experience	8-11 years of experience in the field or in a related area.
Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.

Network Engineer 4	
Years of Experience	12 or more years of experience in the field.

Job Description	Relies on experience and judgment to plan and accomplish goals, independently performs a variety of complicated tasks, a wide degree of creativity and latitude is expected.
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**58. Public Safety Consultant**

Public Safety Communications Consultant	
Years of Experience	Extensive knowledge of public safety communications and enhanced 9-1-1 systems. Knowledge of current 9-1-1 industry trends in technology architecture, microcomputers, networking, and the Internet/Worldwide Web.
Job Description	Performs systems analysis, design, documentation, and implementation of complex public safety communications projects. These projects may include needs analyses, staffing studies, consolidation plans, equipment assessments and planning, budget preparation and forecasting, performance reporting/analysis and other related supporting the operation of public safety answering points and first responders.

**59. Radio Engineer**

Radio Engineer	
Years of Experience	Considerable experience in voice, data and video systems. Training in electronics is required. Advanced technical experience in the design of voice, data, video and wireless/radio systems and services. FCC General Radio Telephone license or Amateur Radio License highly desirable. Certification in public procurement would be desirable. Advanced knowledge of complex communications systems; business management practices and principles.
Job Description	Conducts the review, analysis and design of current and proposed voice, data and video communications, both wire line and wireless, also develop engineering plans and networks for state agencies and institutions. Performs research to develop recommendations for enhancements, expansions and/or consolidations of voice, data and video communications, using wire line and wireless equipment, facilities and services. Engineer system/network migration details toward sharing of integrated services, while laying the foundation of Open System Interconnections. Assist in the coordination, engineering and processing of FCC licenses. Educate and keeps abreast of FCC Land Mobile Radio (LMR) rules, policies, legal rulings and ongoing spectrum issues--analyzes results and impacts.

**60. Voice/Data Communications Technician:**

Years of Experience	1 to 3 years of experience in the field or in a related area.
Job Description	Plans network installations by studying customer orders and technical specifications. Configures and establishes voice and data networks. Verifies service by performing appropriate testing; identifying, correcting, or escalating problems. Documents network by prescribed methodology; recording configuration diagrams and specifications. Maintains network by troubleshooting and repairing outages; testing network procedures; updating documentation.

**61. Voice/Data Communications Engineer/Design Specialist:**

Years of Experience	4 to 7 years of experience in the field or in a related area.
Job Description	Primarily responsible for providing technical expertise, services and solutions for various voice and data services. Provides technical direction and engineering knowledge for activities including planning, designing, configuring, developing, testing, installing and maintaining the communications networks. Ensures that adequate and appropriate planning is provided to direct architects and planners in building communications spaces and media pathways. Provides complex engineering or analytical tasks and activities associated with one or more technical areas.

**62. Voice/Data Communications Architect:**

Years of Experience	8 years or more of experience in the field or in a related area.
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Job Description	Coordinates strategies for defining, deploying, and maintaining the voice communication architecture and its associated network connections and component hardware. Manages initiatives, planning technology roadmaps, and configuring and optimizing all systems and services. Maintains the department's service level standards.
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## **Schedule G**

### **FEDERAL BUREAU OF INVESTIGATION CRIMINAL JUSTICE INFORMATION SERVICES SECURITY ADDENDUM**

The goal of this document is to augment the CJIS Security Policy to ensure adequate security is provided for criminal justice systems while (1) under the control or management of a private entity or (2) connectivity to FBI CJIS Systems has been provided to a private entity (contractor). Adequate security is defined in Office of Management and Budget Circular A- 130 as “security commensurate with the risk and magnitude of harm resulting from the loss, misuse, or unauthorized access to or modification of information.”

The intent of this Security Addendum is to require that the Contractor maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed), as well as with policies and standards established by the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

This Security Addendum identifies the duties and responsibilities with respect to the installation and maintenance of adequate internal controls within the contractual relationship so that the security and integrity of the FBI's information resources are not compromised. The security program shall include consideration of personnel security, site security, system security, and data security, and technical security.

The provisions of this Security Addendum apply to all personnel, systems, networks and support facilities supporting and/or acting on behalf of the government agency.

#### 1.1 Definitions

1.2 Contracting Government Agency (CGA) - the government agency, whether a Criminal Justice Agency or a Noncriminal Justice Agency, which enters into an agreement with a private contractor subject to this Security Addendum.

1.3 Contractor - a private business, organization or individual which has entered into an agreement for the administration of criminal justice with a Criminal Justice Agency or a Noncriminal Justice Agency.

#### 2.1 Responsibilities of the Contracting Government Agency.

2.2 The CGA will ensure that each Contractor employee receives a copy of the Security Addendum and the CJIS Security Policy and executes an acknowledgment of such receipt and the contents of the Security Addendum. The signed acknowledgments shall remain in

the possession of the CGA and available for audit purposes. The acknowledgement may be signed by hand or via digital signature (see glossary for definition of digital signature).

3.1 Responsibilities of the Contractor.

3.2 The Contractor will maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed and all subsequent versions), as well as with policies and standards established by the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

4.1 Security Violations.

4.2 The CGA must report security violations to the CJIS Systems Officer (CSO) and the Director, FBI, along with indications of actions taken by the CGA and Contractor.

4.3 Security violations can justify termination of the appended agreement.

4.4 Upon notification, the FBI reserves the right to:

- a. Investigate or decline to investigate any report of unauthorized use;
- b. Suspend or terminate access and services, including telecommunications links. The FBI will provide the CSO with timely written notice of the suspension. Access and services will be reinstated only after satisfactory assurances have been provided to the FBI by the CGA and Contractor. Upon termination, the Contractor's records containing CHRI must be deleted or returned to the CGA.

5.1 Audit

5.2 The FBI is authorized to perform a final audit of the Contractor's systems after termination of the Security Addendum.

6.1 Scope and Authority

6.2 This Security Addendum does not confer, grant, or authorize any rights, privileges, or obligations on any persons other than the Contractor, CGA, CJA (where applicable), CSA, and FBI.

6.3 The following documents are incorporated by reference and made part of this agreement: (1) the Security Addendum; (2) the NCIC 2000 Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20. The parties are also subject to applicable federal and state laws and regulations.

6.4 The terms set forth in this document do not constitute the sole understanding by and between the parties hereto; rather they augment the provisions of the CJIS Security Policy to provide a minimum basis for the security of the system and contained information and it is understood that there may be terms and conditions of the appended Agreement which impose more stringent requirements upon the Contractor.

6.5 This Security Addendum may only be modified by the FBI, and may not be modified by the parties to the appended Agreement without the consent of the FBI.

6.6 All notices and correspondence shall be forwarded by First Class mail to:

Information Security Officer

Criminal Justice Information Services Division, FBI

1000 Custer Hollow Road

Clarksburg, West Virginia 26306

**FEDERAL BUREAU OF INVESTIGATION  
CRIMINAL JUSTICE INFORMATION SERVICES  
SECURITY ADDENDUM**

**CERTIFICATION**

I hereby certify that I am familiar with the contents of (1) the Security Addendum, including its legal authority and purpose; (2) the NCIC Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20, and agree to be bound by their provisions.

I recognize that criminal history record information and related data, by its very nature, is sensitive and has potential for great harm if misused. I acknowledge that access to criminal history record information and related data is therefore limited to the purpose(s) for which a government agency has entered into the contract incorporating this Security Addendum. I understand that misuse of the system by, among other things: accessing it without authorization; accessing it by exceeding authorization; accessing it for an improper purpose; using, disseminating or re-disseminating information received as a result of this contract for a purpose other than that envisioned by the contract, may subject me to administrative and criminal penalties. I understand that accessing the system for an appropriate purpose and then using, disseminating or re-disseminating the information received for another purpose other than execution of the contract also constitutes misuse. I further understand that the occurrence of misuse does not depend upon whether or not I receive additional compensation for such authorized activity. Such exposure for misuse includes, but is not limited to, suspension or loss of employment and prosecution for state and federal crimes.

\_\_\_\_\_  
Printed Name/Signature of Contractor Employee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name/Signature of Contractor Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Organization and Title of Contractor Representative

## SCHEDULE H

# FEDERAL BUREAU OF INVESTIGATION CRIMINAL JUSTICE INFORMATION SERVICES SECURITY ADDENDUM

The goal of this document is to augment the CJIS Security Policy to ensure adequate security is provided for criminal justice systems while (1) under the control or management of a private entity or (2) connectivity to FBI CJIS Systems has been provided to a private entity (contractor). Adequate security is defined in Office of Management and Budget Circular A-130 as “security commensurate with the risk and magnitude of harm resulting from the loss, misuse, or unauthorized access to or modification of information.”

The intent of this Security Addendum is to require that the Contractor maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed), as well as with policies and standards established by the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

This Security Addendum identifies the duties and responsibilities with respect to the installation and maintenance of adequate internal controls within the contractual relationship so that the security and integrity of the FBI's information resources are not compromised. The security program shall include consideration of personnel security, site security, system security, and data security, and technical security.

The provisions of this Security Addendum apply to all personnel, systems, networks and support facilities supporting and/or acting on behalf of the government agency.

### 1 Definitions

1.1 Contracting Government Agency (CGA) - the government agency, whether a Criminal Justice Agency or a Noncriminal Justice Agency, which enters into an agreement with a private contractor subject to this Security Addendum.

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### 2 Responsibilities of the Contracting Government Agency.

2.1 The CGA will ensure that each Contractor employee receives a copy of the Security Addendum and the CJIS Security Policy and executes an acknowledgment of such receipt and the contents of the Security Addendum. The signed acknowledgments shall remain in the possession of the CGA and available for audit purposes. The acknowledgement may be signed by hand or via digital signature (see glossary for definition of digital signature).

### 3 Responsibilities of the Contractor.

3.1 The Contractor will maintain a security program consistent with federal and state laws, regulations, and standards (including the CJIS Security Policy in effect when the contract is executed and all subsequent versions), as well as with policies and standards established by the

Criminal Justice Information Services (CJIS) Advisory Policy Board (APB).

#### 4 Security Violations.

4.1 The CGA must report security violations to the CJIS Systems Officer (CSO) and the Director, FBI, along with indications of actions taken by the CGA and Contractor.

4.2 Security violations can justify termination of the appended agreement.

4.3 Upon notification, the FBI reserves the right to:

- a. Investigate or decline to investigate any report of unauthorized use;
- b. Suspend or terminate access and services, including telecommunications links. The FBI will provide the CSO with timely written notice of the suspension. Access and services will be reinstated only after satisfactory assurances have been provided to the FBI by the CGA and Contractor. Upon termination, the Contractor's records containing CHRI must be deleted or returned to the CGA.

#### 5 Audit

5.1 The FBI is authorized to perform a final audit of the Contractor's systems after termination of the Security Addendum.

#### 6 Scope and Authority

6.1 This Security Addendum does not confer, grant, or authorize any rights, privileges, or obligations on any persons other than the Contractor, CGA, CJA (where applicable), CSA, and FBI.

6.2 The following documents are incorporated by reference and made part of this agreement: (1) the Security Addendum; (2) the NCIC 2000 Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20. The parties are also subject to applicable federal and state laws and regulations.

6.3 The terms set forth in this document do not constitute the sole understanding by and between the parties hereto; rather they augment the provisions of the CJIS Security Policy to provide a minimum basis for the security of the system and contained information and it is understood that there may be terms and conditions of the appended Agreement which impose more stringent requirements upon the Contractor.

6.4 This Security Addendum may only be modified by the FBI and may not be modified by the parties to the appended Agreement without the consent of the FBI.

6.5 All notices and correspondence shall be forwarded by First Class mail to:

Information Security Officer  
Criminal Justice Information Services Division,  
FBI 1000 Custer Hollow Road  
Clarksburg, West Virginia 26306

**FEDERAL BUREAU OF INVESTIGATION  
CRIMINAL JUSTICE INFORMATION SERVICES  
SECURITY ADDENDUM**

**CERTIFICATION**

I hereby certify that I am familiar with the contents of (1) the Security Addendum, including its legal authority and purpose; (2) the NCIC Operating Manual; (3) the CJIS Security Policy; and (4) Title 28, Code of Federal Regulations, Part 20, and agree to be bound by their provisions.

I recognize that criminal history record information and related data, by its very nature, is sensitive and has potential for great harm if misused. I acknowledge that access to criminal history record information and related data is therefore limited to the purpose(s) for which a government agency has entered into the contract incorporating this Security Addendum. I understand that misuse of the system by, among other things: accessing it without authorization; accessing it by exceeding authorization; accessing it for an improper purpose; using, disseminating or re-disseminating information received as a result of this contract for a purpose other than that envisioned by the contract, may subject me to administrative and criminal penalties. I understand that accessing the system for an appropriate purpose and then using, disseminating or re-disseminating the information received for another purpose other than execution of the contract also constitutes misuse. I further understand that the occurrence of misuse does not depend upon whether or not I receive additional compensation for such authorized activity. Such exposure for misuse includes, but is not limited to, suspension or loss of employment and prosecution for state and federal crimes.

\_\_\_\_\_  
Printed Name/Signature of Contractor Employee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name/Signature of Contractor Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Organization and Title of Contractor Representative

## SCHEDULE I

(also known as Exhibit 7 from IRS pub. 1075)

### **CONTRACT LANGUAGE FOR TECHNOLOGY SERVICES**

#### **I. PERFORMANCE**

In performance of this contract, the contractor agrees to comply with and assume responsibility for compliance by his or her employees with the following requirements:

- (1) All work will be done under the supervision of the contractor or the contractor's employees.
- (2) The contractor and the contractor's employees with access to or who use FTI must meet the background check requirements defined in IRS Publication 1075.
- (3) Any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material will be treated as confidential and will not be divulged or made known in any manner to any person except as may be necessary in the performance of this contract. Disclosure to anyone other than an officer or employee of the contractor will be prohibited.
- (4) All returns and return information will be accounted for upon receipt and properly stored before, during, and after processing. In addition, all related output will be given the same level of protection as required for the source material.
- (5) The contractor certifies that the data processed during the performance of this contract will be completely purged from all data storage components of his or her computer facility, and no output will be retained by the contractor at the time the work is completed. If immediate purging of all data storage components is not possible, the contractor certifies that any IRS data remaining in any storage component will be safeguarded to prevent unauthorized disclosures.
- (6) Any spoilage or any intermediate hard copy printout that may result during the processing of IRS data will be given to the agency or his or her designee. When this is not possible, the contractor will be responsible for the destruction of the spoilage or any intermediate hard copy printouts, and will provide the agency or his or her designee with a statement containing the date of destruction, description of material destroyed, and the method used.
- (7) All computer systems receiving, processing, storing or transmitting FTI must meet the requirements defined in IRS Publication 1075. To meet functional and assurance requirements, the security features of the environment must provide for the managerial, operational, and technical controls. All security features must be available and activated to protect against unauthorized use of and access to Federal Tax Information.
- (8) No work involving Federal Tax Information furnished under this contract will be subcontracted without prior written approval of the IRS.
- (9) The contractor will maintain a list of employees authorized access. Such list will be provided to the agency and, upon request, to the IRS reviewing office.
- (10) The agency will have the right to void the contract if the contractor fails to provide the safeguards described above.
- (11) (Include any additional safeguards that may be appropriate.)

## II. CRIMINAL/CIVIL SANCTIONS

(1) Each officer or employee of any person to whom returns or return information is or may be disclosed will be notified in writing by such person that returns or return information disclosed to such officer or employee can be used only for a purpose and to the extent authorized herein, and that further disclosure of any such returns or return information for a purpose or to an extent unauthorized herein constitutes a felony punishable upon conviction by a fine of as much as \$5,000 or imprisonment for as long as 5 years, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized further disclosure of returns or return information may also result in an award of civil damages against the officer or employee in an amount not less than \$1,000 with respect to each instance of unauthorized disclosure. These penalties are prescribed by IRCs 7213 and 7431 and set forth at 26 CFR 301.6103(n)-1.

(2) Each officer or employee of any person to whom returns or return information is or may be disclosed shall be notified in writing by such person that any return or return information made available in any format shall be used only for the purpose of carrying out the provisions of this contract. Information contained in such material shall be treated as confidential and shall not be divulged or made known in any manner to any person except as may be necessary in the performance of the contract. Inspection by or disclosure to anyone without an official need-to-know constitutes a criminal misdemeanor punishable upon conviction by a fine of as much as \$1,000 or imprisonment for as long as 1 year, or both, together with the costs of prosecution. Such person shall also notify each such officer and employee that any such unauthorized inspection or disclosure of returns or return information may also result in an award of civil damages against the officer or employee [United States for Federal employees] in an amount equal to the sum of the greater of \$1,000 for each act of unauthorized inspection or disclosure with respect to which such defendant is found liable or the sum of the actual damages sustained by the plaintiff as a result of such unauthorized inspection or disclosure plus in the case of a willful inspection or disclosure which is the result of gross negligence, punitive damages, plus the costs of the action. These penalties are prescribed by IRC 7213A and 7431 and set forth at 26 CFR 301.6103(n)-1.

(3) Additionally, it is incumbent upon the contractor to inform its officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a(i)(1), which is made applicable to contractors by 5 U.S.C. 552a(m)(1), provides that any officer or employee of a contractor, who by virtue of his/her employment or official position, has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.

(4) Granting a contractor access to FTI must be preceded by certifying that each individual understands the agency's security policy and procedures for safeguarding IRS information. Contractors must maintain their authorization to access FTI through annual recertification. The initial certification and recertification must be documented and placed in the agency's files for review. As part of the certification and at least annually afterwards, contractors must be advised of the provisions of IRCs 7431, 7213, and 7213A (see *Exhibit 4, Sanctions for Unauthorized Disclosure*, and *Exhibit 5, Civil Damages for Unauthorized Disclosure*). The training provided before the initial certification and annually thereafter must also cover the incident response policy and procedure for reporting unauthorized disclosures and data breaches. (See Section 10) For both the initial certification and the annual certification, the contractor must sign, either with ink or electronic signature, a confidentiality statement certifying their understanding of the security requirements.

### **III. INSPECTION**

The IRS and the Agency, with 24 hour notice, shall have the right to send its inspectors into the offices and plants of the contractor to inspect facilities and operations performing any work with FTI under this contract for compliance with requirements defined in IRS Publication 1075. The IRS' right of inspection shall include the use of manual and/or automated scanning tools to perform compliance and vulnerability assessments of information technology (IT) assets that access, store, process or transmit FTI. On the basis of such inspection, corrective actions may be required in cases where the contractor is found to be noncompliant with contract safeguards.

## SCHEDULE J

### **SAFEGUARD REQUIREMENTS OF CONFIDENTIAL TAX DATA**

This section sets forth the safeguard requirements for handling, storage, and processing of confidential tax information for a Contractor and their subcontractor(s) and is incorporated as an integral part of the Contract. It will facilitate administration and enforcement of the laws of the State of Michigan in a manner consistent with the applicable statutes, regulations, published rules and procedures or written communication.

#### **I. Authority**

Authority for the Michigan Department of Treasury to require that this section be included in the Contract is contained in 1941 PA 122, as amended, MCL 205.28(1)(f), which subjects current or former contractors to the same restrictions and penalties imposed upon department employees regarding the treatment of confidential information. A private contractor or its employees are strictly prohibited from disclosing taxpayer information to a third party. The prohibition against disclosure does not bar an employee of a private contractor with whom the State of Michigan (State) contracts that processes tax returns or payments pursuant to the Contract from having access to confidential information that is reasonably required for the processing or collection of amounts due this State. Private contractors and any subcontractors will follow Treasury guidelines for Authorized representatives.

#### **II. Confidentiality**

It is agreed that all information exchanged under this section will be kept confidential in accordance with the confidentiality provisions contained in the Revenue Act, MCL 205.28(1)(f) which states in part;

“Except as otherwise provided in this subdivision, an employee, authorized representative, or former employee or authorized representative of the department or anyone connected with the department will not divulge any facts or information obtained in connection with the administration of a tax or information or parameters that would enable a person to ascertain the audit selection or processing criteria of the department for a tax administered by the department.”

Confidential information obtained under this contract will not be disclosed except as required by state law, or in the proper administration of applicable laws, promulgated rules and procedures. In the event, confidentiality statutes are amended, Treasury will notify Contractor of any changes. No employee, agent, authorized representative or legal representative of Contractor will disclose any information obtained by virtue of this section to any other division within their company or any other governmental agency, department or unit within such governmental agency whether local, state, federal or foreign, department or unit within such governmental agency, or any unauthorized third party. No tax returns or tax return information accessed by Contractor will be

duplicated or disseminated within or outside the company without the written approval of the Contract Compliance Inspector. Tax returns and tax return information remain the property of Treasury.

Contractor may use a taxpayer's name, address and Social Security number or employer identification number to the extent necessary in connection with the processing and mailing of forms for any report or return required in the administration of any tax in the performance of the Contract. The use of the Social Security number must be in accordance with the state Social Security Number Privacy Act 454 of 2004, as amended.

Confidential information obtained under this agreement will not be disclosed in part of a report or document that is subject to FOIA.

The penalties for violating the confidentiality provisions of the Revenue Act are contained in, MCL 205.28(2) and MCL 205.27(4). MCL 205.28(2) states:

“A person who violates subsection (1)(e), (1)(f), (4) or (5) is guilty of a felony, punishable by a fine of not more than \$5,000.00, or imprisonment for not more than 5 years, or both, together with the costs of prosecution. In addition, if the offense is committed by an employee of this state, the person will be dismissed from office or discharged from employment upon conviction.”

MCL 205.27(4) states:

A person who is not in violation pursuant to subsection (2), but who knowingly violates any other provision of this act, or of any statute administered under this act, is guilty of a misdemeanor, punishable by a fine of not more than \$1,000.00, or imprisonment for not more than 1 year, or both.

Information received by Treasury from the U.S. Internal Revenue Service, pursuant to section 6103(d) of the Internal Revenue Code or any other federal agency will not be subject to the exchange.

### **III. Procedure for Security**

Contractor will safeguard any tax return information obtained under the Contract as follows:

- A. Access to the tax returns and tax return information will be allowed only to those authorized employees and officials of Contractor who need the information to perform their official duties in connection with the uses of the information authorized in this Contract.
- B. Any records created from tax returns and tax return information will be stored in an area that is physically safe from access by unauthorized persons during duty hours and locked in a secure area during non-duty hours, or when not in use.

- C. Any records matched and any records created by the match will be processed under the immediate supervision and control of authorized personnel in a manner in which will protect the confidentiality of the records, and in such a way that unauthorized persons cannot retrieve any such records by means of a computer, remote terminal or other means.
- D. All personnel who will have access to the tax returns and tax return information and to any records created by the tax return information will be advised annually of the confidential nature of the information, the safeguards required to protect the information and the civil and criminal sanctions for noncompliance contained in MCL 205.28 (2) and MCL 205.27(4) and will sign confidentiality certifications.
- E. All confidential information, electronic and paper, will be secured from unauthorized access and with access limited to designated personnel only. State tax return information will not be commingled with other information. All Michigan tax returns and return information will be marked as follows: **CONFIDENTIAL - DO NOT DISCLOSE - MICHIGAN TREASURY TAX RETURN INFORMATION**
- F. Treasury, Office of Privacy and Security or Contract Compliance Inspector may make onsite inspections or make other provisions to ensure that adequate safeguards are being maintained by the Contractor.
- G. The Treasury Office of Privacy and Security may monitor compliance of systems security requirements during the lifetime of the Contract or any extension.
- H. Contractor will also adopt policies and procedures to ensure that information contained in their respective records and obtained from Treasury and taxpayers will be used solely as stipulated in the Contract.

#### **IV. Computer System Security of Tax Data**

The identification of confidential tax records and defining security controls are intended to protect Treasury tax return information from unlawful disclosure, modification, destruction of information and unauthorized secondary uses.

Computer system security and physical security of tax data stored and processed by Contractor must be in compliance with the following security guidelines and standards established by Treasury. These guidelines apply to any computer system developed by Contractor, either through its own systems staff, or through a contractor, subcontractor or vendor):

##### **A. Controlled Access Protection**

All computer systems processing, storing and transmitting Michigan tax information must have computer access protection controls. These security standards are delineated in the National Institute of Standards and Technology (NIST) Special Publications number 800-53 “Recommended Security Controls for the Federal Information Systems” at <http://csrc.nist.gov/publications/PubsSPs.html>. To meet these standards, the operating security features of the system must have the following minimum requirements: a security policy, accountability, assurance, and documentation.

- 1) **Security Policy** – A security policy is a written document describing the system in terms of categories of data processed, users allowed access and access rules between the users and the data. Additionally, it describes procedures to prevent unauthorized access by clearing all protected information on objects before they are allocated or reallocated out of or into the system. Further protection must be provided where the computer system contains information for more than one program/project, office, or Agency and that personnel do not have authorization to see all information on the system.
- 2) **Accountability** – Computer systems processing Michigan tax information must be secured from unauthorized access. All security features must be available (audit trails, identification and authentication) and activated to prevent unauthorized users from indiscriminately accessing Michigan tax information. Everyone who accesses computer systems containing Michigan tax information is accountable. Access controls must be maintained to ensure that unauthorized access does not go undetected. Computer programmers and contractors who have a need to access databases, and are authorized under the law, must be held accountable for the work performed on the system. The use of passwords and access control measures must be in place to identify who accessed protected information and limit that access to persons with a need to know.

**a) On-line Access** –Users will be limited to any Treasury on-line functions, by limiting access through functional processing controls and organization restrictions.

Any employee granted access privileges through the Contractor’s Security Administrator will be approved for access and viewing rights to Treasury on-line systems by the Department of Treasury, Office of Privacy and Security.

**b) Operating Features of System Security**

Contractor must meet the following levels of protection with respect to tax return information. Individual user accountability must be ensured through user identification number and password.

- i. Access rights to confidential tax information must be secured through appropriate levels of authorization.

- ii. An audit trail must be maintained of accesses made to confidential information.
- iii. All confidential and protected information must be cleared from a system before it is used for other purposes not related to the enforcement, collection or exchange of data not covered by this section or by an addendum to this Contract.
- iv. Hard copies made of confidential tax return information must be labeled as confidential information.
- v. Confidential Treasury tax information will be blocked or coded as confidential on system.
- vi. Any computer system in which Michigan tax return information resides must systematically notify all users upon log-in of the following disclosure penalties for improperly accessing or making an authorized disclosure of Michigan tax return information:

**NOTICE TO EMPLOYEES AND AUTHORIZED REPRESENTATIVES**

This system contains Michigan Department of Treasury tax return information. **DO NOT DISCLOSE OR DISCUSS MICHIGAN RELATED TAX RETURN INFORMATION** with unauthorized individuals. The Revenue Act at MCL 205.28(1)(f) prohibits such disclosure.

**MICHIGAN PENALTIES**

A person making a willful unauthorized disclosure or inspection (browsing) of tax return information may be charged with the following Michigan penalties:

- Criminal penalties up to \$5,000 and/or imprisonment for 5 years, plus costs and dismissal from employment if it is found that a current or former employee or authorized representative has made an unauthorized disclosure of a tax return or tax return information or divulged audit selection or processing parameters. [MCL 205.28(2)]
- A misdemeanor, punishable by a fine of not more than \$1,000.00, or imprisonment for not more than 1 year, or both if the person is not in violation pursuant to MCL 205.27(2), but who knowingly violates any other provision of this act, or of any statute administered under this act.

This statement is subject to modification. A confidentiality statement, subject to modification, will be sent as needed by the Security Administrator to all employees, contractors, and legal representatives of Contractor.

- 3) **Assurance** – Contractor must ensure that all access controls and other security features are implemented and are working when installed on their computer system. Significant enhancements or other changes to a security system must follow the process of review, independent testing, and installation assurance. The security system must be tested at least annually to assure it is functioning correctly. All anomalies must be corrected immediately.
  - a) The Contractor must initiate corrective action for all non-conformities as soon as detected and immediately advise the Contract Compliance Inspector. Notice of the corrective action must be provided to the Contract Compliance Inspector. All non-conformities must be reported to the Contract Compliance Inspector with the following:
    - a. Duration of non-conformity/interruption
    - b. Reason for non-conformity/interruption
    - c. Resolution.
  - b) All non-conformities to the specifications/tasks of the Contract must be corrected within four (4) hours. The State recognizes there will be instances when adherence to this time frame will not be possible. However, the State will only tolerate this on an exception basis. To request an exception to this time frame, the Contractor must submit a detailed project plan to address the non-conformity within four (4) hours to the Contract Compliance Inspector for approval.
- 4) **Documentation** – Design and test documentation must be readily available to the state. The developer or manufacturer should initially explain the security mechanisms, how they are implemented and their adequacy (limitations). This information should be passed on to the security officer or supervisor. Test documentation should describe how and what mechanisms were tested and the results. If recognized organizations/tests/standards are used, then a document to that effect will suffice. For example, a system that has been tested and certified as meeting certain criteria may have a document stating this fact, without detailed tests/results of information. Contractor, however, must ensure the documentation covers the exact system and that it includes the specific computer system used by Contractor.

Additionally, documentation must include a security administrator's guide. The security administrator's guide is addressed to the System's Administrator and Security Officer and

will describe the protection mechanisms provided by the security system, guidelines on their use and how they interact. This document will present cautions about security functions and describe privileges that should be controlled when running a secure system. The document will be secured and locked at all times with access rights only by the Systems Administrator and Security Officer.

**Note:** When a security system is designed or purchased for a specific computer or computer system, the security mechanisms must be reviewed by the State to ensure that needed security parameters are met. An independent test should be implemented on the specific computer or computer system to ensure that the security system meets the security parameters within this contract and developed with the computer system. The test may be arranged by the developer but must be done by an independent organization. Contractor must assign responsible individuals (Security Officers) with knowledge of information technology and applications to oversee the testing process. These individuals must be familiar with technical controls used to protect the system from unauthorized entry.

Finally, contingency and backup plans must be in place to ensure protection of Michigan tax information.

## **V. Electronic Transmission of Michigan Tax Information**

The two acceptable methods of transmitting Michigan tax information over telecommunications devices are encryption and using guided media. Encryption involves altering data objects in a way that the objects become unreadable until deciphered with the appropriate software at the intended destination. Guided media involves transmission of data over twisted pair cable, coaxial cable or end to end fiber optics which are typically used in secure computer networks like the state's Local Area Network (LAN), telephone systems, and television distribution.

Cryptography standards have been adopted by the IRS and can be used to provide guidance for encryption, message authentication codes or digital signatures and digital signatures with or without an associated certification infrastructure. For further information, see IRS Publication 1075 at the IRS web site.

Unencrypted cable circuits of fiber optics are an acceptable alternative for transmitting Michigan tax information. Adequate measures must be taken to ensure that circuits are maintained on cable and not converted to unencrypted radio or microwave transmission. Additional precautions should be taken to protect the cable, i.e., burying the cable underground or in walls or floors and providing access controls to cable vaults, rooms and switching centers.

### **A. Remote Access**

Accessing databases containing Michigan tax information from a remote location – that is, a location not directly connected to the Local Area Network (LAN) will require adequate safeguards to prevent unauthorized entry.

For remote access, the contractor is required to use an identification security card that requires

both PIN and card in possession. The State identified and approved methods for remote vendor access are as follows:

- SecureID through VPN – State provided SecureID token and VPN software in order to access State of Michigan resources. Appropriate Acceptable Use policies and signoffs are required
- Follow-the Sun SecureID – Vendor is provided with VPN software and a SOM technical resource coordinates with the DTMB Client Service Center to provide secure ID code access to specific State of Michigan resources. Appropriate Acceptable Use Policies and signoffs are required.

#### **B. Portable Computer Devices**

Any entrusted confidential information collected or accessed during this Contract must be encrypted when stored on all storage devices and media. This includes, but not limited to, disk drives for servers and workstations, and portable memory media (PDAs, RAM drives, memory sticks, etc.).

### **VI. Record Keeping Requirements for Information Received**

Each Contractor, requesting and receiving information will keep an accurate accounting of the information received. The audit trail will be required which will include the following information:

- a. Taxpayer's name
- b. Identification number
- c. Information requested
- d. Purpose of disclosure request
- e. Date information received
- f. Name of Division and employee making request
- g. Name of other employees who may have had access
- h. Date destroyed
- i. Method of destruction

The Contractor will adopt and implement formal procedures to:

- Ensure proper handling of tax returns and tax return information;
- Secure and safeguard information from unauthorized use; and
- Ensure appropriate destruction of information and materials retrieved from Treasury.

#### **A. Electronic Media**

Contractor will keep an inventory of magnetic and electronic media received under the Contract.

Contractor must ensure that the removal of tapes and disks and paper documents containing Michigan tax return information from any storage area is properly recorded on charge-out records. Contractor is accountable for missing tapes, disks, and paper documents.

**B. Recordkeeping Requirements of Disclosure Made to State Auditors**

When disclosures are made by Contractor to State Auditors, these requirements pertain only in instances where the Auditor General’s staff extracts Michigan tax returns or tax information for further review and inclusion in their work papers. Contractor must identify the hard copies of tax records or if the tax information is provided by magnetic tape format or through other electronic means, the identification will contain the approximate number of taxpayer’s records, the date of inspection, the best possible description of the records and the name of the Auditor(s) making the inspection.

The Disclosure Officer must be notified, in writing, of any audits done by auditors, internal or otherwise, of Contractor that would involve review of Treasury processing parameters.

**VII. Contract Services**

To the extent the Contractor employs an independent agency, consultant, or agent to process confidential information which includes Michigan tax return information; the Contractor will notify the Treasury Disclosure Officer before the execution of any such agreement. Each agreement will include in the agreement the following recommended safeguard provisions:

- A. The identification of confidential tax records and defining security controls are intended to protect Treasury tax return information from unlawful disclosure, modification, destruction of information and unauthorized secondary uses.

Definition of Treasury Tax Return Information as defined in Revenue Administrative Bulletin (RAB) 1989-39:

Taxpayer’s identity, address, the source or amount of his/her income, payments, receipts, deductions, exemptions, credits, assets, liabilities, net worth, tax liability, tax withheld, deficiencies, over assessments, or tax payments whether the taxpayer’s return was, is being or will be examined or subject to their investigation or processing, or any other data, received by, recorded by, prepared by, furnished to or collected by the agency with respect to a return or with respect to the determination of the existence, or liability (or the amount thereof) of any person under the tax laws administered by the Department, or related statutes of the state for any tax, penalty, interest, fine, forfeiture, or other imposition or offense. The term “tax return information” also includes any and all account numbers assigned for identification purposes.

- B. An acknowledgment that a taxpayer has filed a return is known as a “fact of filing” and may not be disclosed. All tax return data made available in any format will be used only for the

purpose of carrying out the provisions of the Contract between Contractor and the subcontractor. Information contained in such material will be treated as confidential and will not be divulged or made known in any manner to any person except as may be necessary in the performance of the Contract between Contractor and the subcontractor. In addition, all related output will be given the same level of protection as required for the source material.

- C. The subcontractor will certify that the data processed during the performance of the Contract between Contractor and the subcontractor will be completely purged from all data storage components of the subcontractor's computer facility, and no output will be retained by the subcontractor at the time the work is completed.
- D. Destruction of tax data, including any spoilage or any intermediate hard copy printout which may result during the processing of Michigan tax return information, will be documented with a statement containing the date of destruction, description of material destroyed, and the method used. Destruction parameters must meet the standards of Section IX, Disposal of Tax Information, of this agreement.
- E. Computer system security and physical security of tax data stored and processed by the subcontractor must be in compliance with security guidelines and standards established by this contract. See section VI (Record Keeping Requirements for Information Received in Paper Format) for more details.
- F. The Contractor will be responsible for maintaining a list of employees authorized to access Michigan tax return information and will provide a copy of such list to Treasury.
- G. No work involving information furnished under the contract will be subcontracted without the specific approval of Treasury. Contractor and approved subcontractors handling Michigan tax return information will be required to sign the *Vendor, Contractor or Subcontractor Confidentiality Agreement* provided by Treasury, (Form 3337, see Attachment A). The original agreements will be returned to the Disclosure Officer for the Department of Treasury and a copy sent to the Contract Compliance Inspector.

### **VIII. Transport of Tax Information**

In the event, it is necessary to transport confidential tax return information the Contractor is responsible for holding the carrier responsible for safeguarding the records. The Contractor must obtain a signed *Vendor, Contractor or Subcontractor Confidentiality Agreement* (Form 3337, see Attachment A) for each carrier employee who has access to Michigan tax return information. The original agreements will be returned to the Department of Treasury, Disclosure Officer and a copy sent to the Contract Compliance Inspector.

If it is necessary to transfer records and responsibility for transport to a third carrier due to a mishap during transportation, the Contractor is responsible for ensuring safeguard standards remain enforce. This type of incident will be documented in accordance with the incident reporting guidelines in procedure PT-03253, "Incident Reporting and Handling".

Any such incidents must be reported to the Contract Administrator immediately.

### **IX. Disposal of Tax Information**

Materials furnished to Contractor, such as tax returns, remittance vouchers, W-2 reports, correspondence, computer printouts, carbon paper, notes, memorandums and work papers will be destroyed by burning, mulching, pulverizing or shredding. If shredded, destroy paper using cross cut shredders which produce particles that are 1 mm x 5mm (0.04in x 0.2 in.) in size (or smaller).

Data tracks should be overwritten or reformatted a minimum of three times or running a magnetic strip over entire area of disk at least three (3) times to remove or destroy data on the disk media Electronic data residing on any computer systems must be purged based on Treasury's retention schedule.

Contractor and its subcontractor(s) will retain all confidential tax information received by Treasury only for the period of time required for any processing relating to the official duties and then will destroy the records. Any confidential tax information that must be kept to meet evidentiary requirements must be kept in a secured, locked area and properly labeled as confidential return information. See Procedure for Security (Section III of this agreement) for more details.

### **X. Security Responsibility**

Contractor will designate a security person who will ensure that each individual having access to confidential tax information or to any system which processes Michigan tax return information is appropriately screened, trained and executes a *Vendor, Contractor or Subcontractor Confidentiality Agreement* (Form 3337, see Attachment A to this Schedule) before gaining access or transaction rights to any process and computer system containing Treasury tax return information.

Each Contractor or their subcontractor(s) employees' access and transaction rights will be reviewed periodically to ensure that there is a need to know Treasury tax return information displayed in any media.

Michigan tax return information will be made available only to individuals authorized by the Contract. Contractor will maintain a list of persons authorized to request and receive information and will update the list as necessary. A copy of the list must be furnished to the Michigan Department of Treasury Disclosure Officer and Contract Compliance Inspector.

### **XI. Security Breach Notification**

The Contractor is required to report to Treasury, on Form 4000, Incident Reporting (Attachment B to this Schedule) any use or disclosure of confidential information, whether suspected or actual,

**immediately** after becoming aware of the misuse or disclosure. The Contractor may substitute its internal form for Form 4000 if all pertinent information is included.

The Contractor agrees to immediately contain the breach if it is determined ongoing.

Treasury has the right to terminate the Contract when a breach has occurred, and the Contractor cannot demonstrate proper safeguards were in place to avert a breach. Treasury must approve Contractor's resolution to the breach.

### **XIII. Certification of Compliance**

The Contractor will fully protect State Tax Information (STI) entrusted to them. Each Contractor or subcontractor who will have access to STI must read and sign a confidentiality agreement. This contract requires that all information obtained from the Michigan Department of Treasury under the Revenue Act, PA 122 of 1941, MCL 205.28 (1)(f) be kept confidential. In the event of a security breach involving STI in the possession of the Contractor, the Contractor agrees to provide full cooperation to conduct a thorough security review. The review will validate compliancy with the Contract, and state laws and regulations.

If, as a result of the Contractor's failure to perform as agreed, the State is challenged by a governmental authority or third party as to its conformity to or compliance with State, Federal and local statutes, regulations, ordinances or instructions; the Contractor will be liable for the cost associated with loss of conformity or compliance.

The Contractor understands the cost reflects violation fines identified by the Michigan Social Security Number Privacy Act, 454 of 2004 and the Michigan Identity Theft Protection Act, Act 452 of 2004 as amended.

### **XI. Effective Date**

These Safeguard requirements will be reviewed whenever the Contract modifications include specifications or processes that affect tax data.

Attachment A  
Form 3337

## Vendor, Contractor or Subcontractor Confidentiality Agreement

The Revenue Act, Public Act 122 of 1941, MCL 205.28(1)(f), the City Income Tax Act, Public Act 284 of 1964, MCL 141.674(1), and Internal Revenue Code (IRC) 6103(d), make all information acquired in administering taxes confidential. The Acts and IRC hold a vendor, contractor or subcontractor and their employees who sell a product or provide a service to the Michigan Department of Treasury, or who access Treasury data, to the strict confidentiality provisions of the Acts and IRC. Confidential tax information includes, but is not limited to, information obtained in connection with the administration of a tax or information or parameters that would enable a person to ascertain the audit selection or processing criteria of the Michigan Department of Treasury for a tax administered by the department.

**INSTRUCTIONS.** Read this entire form before you sign it. If you do not complete this agreement, you will be denied access to Michigan Department of Treasury and federal tax information. After you and your witness sign and date this form, keep a copy for your records. Send the original to the address listed below.

Company Name and Address (Street or RR#, City, State, ZIP Code)		Last Name	First Name
		Driver License Number/Passport Number	Telephone Number
State of Michigan Department	Division	Subcontractor Name if Product/Service Furnished to Contractor	
Describe here or in a separate attachment the product or service being provided to the State of Michigan Agency (Required).			

**Confidentiality Provisions. It is illegal to reveal or browse, except as authorized:**

- \ All tax return information obtained in connection with the administration of a tax. This includes information from a tax return or audit and any information about the selection of a return for audit, assessment or collection, or parameters or tolerances for processing returns.
- \ All Michigan Department of Treasury or federal tax returns or tax return information made available, including information marked "Official Use Only". Tax returns or tax return information shall not be divulged or made known in any manner to any person except as may be needed to perform official duties. Access to Treasury or federal tax information, in paper or electronic form, is allowed on a **need-to-know** basis only. Before you disclose returns or return information to other employees in your organization, they must be authorized by Michigan Department of Treasury to receive the information to perform their official duties.
- \ Confidential information shall not be disclosed by a department employee to confirm information made public by another party or source which is part of any public record. 1999 AC, R 2005.1004(1).

**Violating confidentiality laws is a felony, with penalties**

**as described: Michigan Penalties**

**MCL 205.28(1)(f) provides that you may not willfully disclose or browse any Michigan tax return or information contained in a return.** Browsing is defined as examining a return or return information acquired without authorization and without a **need to know** the information to perform official duties. Violators are guilty of a **felony** and subject to **fines of \$5,000 or imprisonment for five years, or both.** State employees will be discharged from state service upon conviction.

Any person who violates any other provision of the Revenue Act, MCL 205.1, et seq., or any statute administered under the Revenue Act, will be guilty of a misdemeanor and **fined \$1,000 or imprisonment for one year, or both,** MCL 205.27(4).

**City Penalties**

MCL 141.674(2) provides that any person divulging confidential City Tax information is guilty of a misdemeanor and subject to a fine not exceeding \$500 or imprisonment for a period not exceeding 90 days, or both, for each offense.

**Federal Penalties**

If you willfully disclose federal tax returns or tax return information to a third party, you are guilty of a **felony with a fine of \$5,000 or imprisonment for five years, or both, plus prosecution costs** according to the Internal Revenue Code (IRC) §7213, 26 USC 7213.

In addition, inspecting, browsing or looking at a federal tax return or tax return information without authorization is a **felony violation of IRC §7213A** subjecting the violator to a **\$1,000 fine or imprisonment for one year, or both, plus prosecution costs.** Taxpayers affected by violations of §7213A must be notified by the government and may bring a civil action against the federal government and the violator within two years of the violation. Civil damages are the **greater of \$1,000 or actual damages** incurred by the taxpayer, plus the costs associated with bringing the action, 26 USC 7431.

Failure to comply with this confidentiality agreement may jeopardize your employer's contract with the Michigan Department of Treasury.

**Certification**

By signing this Agreement, I certify that I have read the above confidentiality provisions and understand that failure to comply is a felony.

Print name of employee signing this agreement	Signature of person named above	Date signed
Print Witness Name (Required)	Signature of Witness (Required)	Date signed

Submit your form to the following address: Office of Privacy and Security/  
Disclosure Unit Michigan  
Department of Treasury  
430 W. Allegan Street  
Lansing, MI 48922

Questions, contact the **Office of Privacy and Security** by telephone, **517-636-4239**; fax, **517-636-5340**; or email: **Treas\_Disclosure@michigan.gov**

## Attachment B Form 4000

Michigan Department of Treasury  
4000 (Rev. 05-14)

Reset Form

### Incident Report

**INSTRUCTIONS:** Complete Parts 1 and 2 and immediately submit Initial Report to the Office of Privacy and Security. After incident resolution, submit Final Report (Parts 1, 2 and 3) to the Office of Privacy and Security. Refer to Procedure PT-03253, Incident Reporting and Handling.

PART 1: A. CONTACT INFORMATION (Reporting Entity)			
Full Name (Last, First, Middle Initial)		Division/Office	
Telephone Number	Fax Number	E-Mail Address	
B. CONTACT INFORMATION (Affected Entity)			
Full Name (Last, First, Middle Initial)		Division/Office	
Telephone Number	Fax Number	E-Mail Address	
PART 2: INCIDENT INFORMATION			
Whose information was involved in the incident?			
<input type="checkbox"/> Treasury <input type="checkbox"/> Federal Tax Information <input type="checkbox"/> Other State Agency, specify _____ <input type="checkbox"/> Other _____			
Incident Category (select all that apply)			
<input type="checkbox"/> Passwords Shared/Stolen	<input type="checkbox"/> Computer Virus/Spam	<input type="checkbox"/> Paper Archives Compromised	
<input type="checkbox"/> Misrouted Communications	<input type="checkbox"/> Data Destruction/Deletion	<input type="checkbox"/> Safe/Lockbox/other Compromise	
<input type="checkbox"/> Unauthorized Access	<input type="checkbox"/> Backups Missing or Stolen	<input type="checkbox"/> Delivery of Documents Lost	
<input type="checkbox"/> Fraudulent Actions	<input type="checkbox"/> Hacking of Networks/Systems	<input type="checkbox"/> Inappropriate Destruction Paper	
<input type="checkbox"/> Lost/Stolen Information/Data	<input type="checkbox"/> Improperly Secured Sys/Web	<input type="checkbox"/> Inappropriate Destruction Media	
<input type="checkbox"/> Lost/Stolen Cash/Checks	<input type="checkbox"/> Circumvention of Security Protocols	<input type="checkbox"/> Lost/Stolen Equipment	
<input type="checkbox"/> Inappropriate Building Access	<input type="checkbox"/> _____	<input type="checkbox"/> _____	
Incident Affects			
<input type="checkbox"/> Financial Information/Resources	<input type="checkbox"/> Personal Information (SSN, Driver License No. Financial information)	<input type="checkbox"/> Unauthorized/Unlawful Activity	
<input type="checkbox"/> Confidential/Sensitive Information	<input type="checkbox"/> Human Resources (threat)	<input type="checkbox"/> Other _____	
Date Incident Occurred	Time Incident Occurred	Date Incident Discovered	Time Incident Discovered
Incident Location		Number of Individuals Affected	
Involved Parties/Entities		Does this involve personal information (first and last name along with a SSN, driver license number, or credit/debit card account number)?	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of Initial Report			
Description of Incident			

PART 1: CONTACT INFORMATION (Affected Entity)			
Full Name (Last, First, Middle Initial)		Division/Office	
PART 3: INCIDENT RESOLUTION			
Notification issued to affected individuals? <input type="checkbox"/> Yes <input type="checkbox"/> No	How many notifications were sent?	Breach Notification Method? <input type="checkbox"/> E-mail <input type="checkbox"/> Telephone <input type="checkbox"/> US Mail <input type="checkbox"/> Web	
Who was notified?		Date notification was issued	
Incident Cost <input type="checkbox"/> Check if incident costs are less than \$250. If \$250 or more, complete the detailed summary of costs below.			
<u>Manhours:</u> Treasury \$ _____ DTMB-OES \$ _____ DTMB-Treasury Agency Services \$ _____		<u>Other:</u> Postage \$ _____ Credit Monitoring Service \$ _____ _____ \$ _____ <b>Total Cost of Incident \$ _____</b>	
Action Taken			
Incident Impact			
Post Incident Recommendations			
PART 4: REPORT PREPARER INFORMATION			
Final Report Prepared By:	Date Prepared	Preparer Title	Preparer's Telephone Number
Preparer Signature			Date
OFFICE OF PRIVACY AND SECURITY USE ONLY			
Administrator, Office of Privacy and Security Signature			Date

## Federal Provisions Addendum

This addendum applies to purchases that will be paid for in whole or in part with funds obtained from the federal government. The provisions below are required, and the language is not negotiable. If any provision below conflicts with the State's terms and conditions, including any attachments, schedules, or exhibits to the State's Contract, the provisions below take priority to the extent a provision is required by federal law; otherwise, the order of precedence set forth in the Contract applies. Hyperlinks are provided for convenience only; broken hyperlinks will not relieve Contractor from compliance with the law.

### 1. Equal Employment Opportunity

If this Contract is a "**federally assisted construction contract**" as defined in [41 CFR Part 60-1.3](#), and except as otherwise may be provided under [41 CFR Part 60](#), then during performance of this Contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of [Executive Order 11246](#) of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by [Executive Order 11246](#) of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in [Executive Order 11246](#) of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in [Executive Order 11246](#) of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of [Executive Order 11246](#) of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal

opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

## **2. Davis-Bacon Act (Prevailing Wage)**

If this Contract is a **prime construction contracts** in excess of \$2,000, the Contractor (and its Subcontractors) must comply with the Davis-Bacon Act ([40 USC 3141-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"), and during performance of this Contract the Contractor agrees as follows:

- (1) All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29C.F.R. pt. 5 as may be applicable. The contractor shall comply with 40 U.S.C. 3141-3144, and 3146-3148 and the requirements of 29 C.F.R. pt. 5 as applicable.
- (2) Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.
- (3) Additionally, contractors are required to pay wages not less than once a week.

## **3. Copeland "Anti-Kickback" Act**

If this Contract is a contract for construction or repair work in excess of \$2,000 where the Davis-Bacon Act applies, the Contractor must comply with the Copeland "Anti-Kickback" Act ([40 USC 3145](#)), as supplemented by Department of Labor regulations ([29 CFR Part 3](#), "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"), which prohibits the Contractor and subrecipients from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled, and during performance of this Contract the Contractor agrees as follows:

- (1) Contractor. The Contractor shall comply with 18 U.S.C. §874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference

into this contract.

- (2) Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA or the applicable federal awarding agency may by appropriate instructions require, and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.
- (3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and Subcontractor as provided in 29 C.F.R. § 5.12.

#### 4. Contract Work Hours and Safety Standards Act

If the Contract is **in excess of \$100,000** and **involves the employment of mechanics or laborers**, the Contractor must comply with [40 USC 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)), as applicable, and during performance of this Contract the Contractor agrees as follows:

- (1) Overtime requirements. No Contractor or Subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. The State shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or Subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
- (4) Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the

clauses set forth in paragraphs (1) through (4) of this section.

#### **5. Rights to Inventions Made Under a Contract or Agreement**

If the Contract is funded by a federal “funding agreement” as defined under [37 CFR §401.2 \(a\)](#) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

#### **6. Clean Air Act and the Federal Water Pollution Control Act**

If this Contract is **in excess of \$150,000**, the Contractor must comply with all applicable standards, orders, and regulations issued under the Clean Air Act ([42 USC 7401-7671g](#)) and the Federal Water Pollution Control Act ([33 USC 1251-1387](#)), and during performance of this Contract the Contractor agrees as follows:

##### Clean Air Act

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

##### Federal Water Pollution Control Act

1. The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The Contractor agrees to report each violation to the State and understands and agrees that the State will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency or the applicable federal awarding agency, and the appropriate Environmental Protection Agency Regional Office.
3. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA or the applicable federal awarding agency.

## 7. Debarment and Suspension

A “contract award” (see [2 CFR 180.220](#)) must not be made to parties listed on the government-wide exclusions in the [System for Award Management](#) (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement [Executive Orders 12549 \(51 FR 6370; February 21, 1986\)](#) and [12689 \(54 FR 34131; August 18, 1989\)](#), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than [Executive Order 12549](#).

- (1) This Contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Contractor is required to verify that none of the Contractor’s principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- (2) The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- (3) This certification is a material representation of fact relied upon by the State. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- (4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

## 8. Byrd Anti-Lobbying Amendment

Contractors who apply or bid for an award of **\$100,000 or more** shall file the required certification in Exhibit 1 – Byrd Anti-Lobbying Certification below. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

## 9. Procurement of Recovered Materials

Under [2 CFR 200.322](#), Contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

- (1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—
  - a. Competitively within a timeframe providing for compliance with the contract

performance schedule;

- b. Meeting contract performance requirements; or
- c. At a reasonable price.

- (2) Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
- (3) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

#### **10. Additional FEMA Contract Provisions.**

The following provisions apply to purchases that will be paid for in whole or in part with funds obtained from the Federal Emergency Management Agency (FEMA):

- (1) Access to Records. The following access to records requirements apply to this contract:
  - a. The Contractor agrees to provide the State, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
  - b. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
  - c. The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.
  - d. In compliance with the Disaster Recovery Act of 2018, the State and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.
- (2) Changes.

See the provisions regarding modifications or change notice in the Contract Terms.
- (3) DHS Seal, Logo, And Flags

The Contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.
- (4) Compliance with Federal Law, Regulations, and Executive Orders

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The Contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

(5) No Obligation by Federal Government

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the State, Contractor, or any other party pertaining to any matter resulting from the Contract.”

(6) Program Fraud and False or Fraudulent Statements or Related Acts

The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor’s actions pertaining to this contract.

### Exhibit 1 - Byrd Anti-Lobbying Certification

Contractor must complete this certification if the purchase will be paid for in whole or in part with funds obtained from the federal government and the purchase is greater than \$100,000.

#### APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

##### Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.