

STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget 320 S. Walnut Street 2nd Floor Lansing, MI 48933 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 5

to

Contract Number MA22000001445

CONTR	eSchol	eScholar LLC 2429 Military Rd. Niagara Falls NY 14304				≤₽	Variou	S		DTMB
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	jpozzut	:o@escholar.	com			ator	BarronJ1@michigan.gov			
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				CC	ONTRACT	SUMMAR	RY			
Educati	on Uniqu	ue Person Ide	entifier System							
INITIAL EFFECTIVE DATE INITIAL EXPIRATION DATE INITIAL AVAILABLE OPTIONS BEFORE			XPIRATION DATE BEFORE							
	August 30	, 2022	August	29, 202	7		5 - 12	Months		August 29, 2027
		PAYMEN	NT TERMS			DELIVERY TIMEFRAME				
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\$7,873,670.00 \$0.00		0.00		\$7,873,670.00						

DESCRIPTION

Effective 6/25/2025, the parties modify the project schedule, change MiLogin authentication from OAuth to OIDC, add the linked identifer migration services per the attached statements of work.

Further, the parties add the following language to the Contract: "Accessibility Requirements. The State is required to comply with the Americans with Disabilities Act of 1990 (ADA) and has adopted standards and procedures regarding accessibility requirements for websites, applications, content, and electronic documents. Due to a change in the law, the State is required to comply with specific accessibility standards for websites, applications, content and documents. Starting 4/24/2026, throughout the Term, all websites, applications, software, content, and electronic documents, including but not limited to mobile applications, text, images, sounds, videos, controls, animations, links, and documents (including files in the following formats: PDF, word processing, presentation, and spreadsheet), created, provided, or made available by the Contractor under this Contract, must comply with WCAG 2.1 Level AA."

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

Program Managers for Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB	Trina Anderson	517-284-4141	andersont1@michigan.gov
DTMB	Kimberly Crawford	517-241-2368	crawfordk5@michigan.gov

Project ID/Acronym:	PR004672	Date:	05/23/2025	
Controlling Agency:	CEPI	Modification Date:		
Prepared by:	Jenni Moore Raj Razdan	Change Control #:	006-A	

A. General Information

B. Proposed Change Request Description

This document proposes changes to the project scope, budget, and schedule for the Michigan Education Key (Mi-Key) (previously known as Michigan Education Unique Person Identifier) contract between Michigan and eScholar. The changes requested align to the following key areas:

- Hosting of Production Environment: Delay the Production environment standup and configuration to reduce hosting costs. The revised configured Production hosted environment date has moved from November 2024 (per CN 003) to July 2025.
- **Go Live Schedule Changes:** Postpone the project Go Live date of the staffing system from March 2025 (per CN 003) to July 2027.

C. Projected Impact Analysis

Scope Impact

Hosting of Production Environment

Delay the Production environment standup and configuration to reduce hosting costs for the State of Michigan (SOM). The revised date for the standup of the Production hosted environment is July 2025. This is a delay of eight (8) months from the last schedule update of November 2024 (per CN 003).

Go Live Schedule Changes

Postpone the project Go Live date of the staffing system from March 2025 (per CN 003) to July 2027, postponing Project Close Out to August 2027. This change incurs additional implementation support from eScholar resources over the additional twenty-eight (28) months added to the schedule.

Budget Impact

Based on the Scope Impact noted above, the Budget Impact of this Change Request is as follows:

Item	Impact Description	Budget Impact Amount
Hosting of Production Environment	Credit: eight (8) months of hosting	- \$ 40,000.00
	fees	
Go Live Schedule Changes	Debit: twenty-eight (28) months of	\$ 0 (*1)
	additional resource support from	
	eScholar	
	TOTAL	- \$ 40,000.00

*1 The "Additional Resource Support from eScholar" item associated with the Go Live Schedule Changes through Project Close Out (August 2027) is to be provided at no additional cost as this effort is to be conducted under the prepaid Bundled Maintenance & Support Service Pack fees from Contract Schedule B Table 2: "Software, Maintenance & Support, Hosting: Years 1-5".

Schedule Impact

Milestones and Deliverables with revised due dates are highlighted in yellow in the table below. The revised due dates assume that the necessary Mi-Key eScholar Uniq-ID Roadmap Items will be available by the System Go Live of Mi-Key in July 2027 and not before such date.

Milestone and Deliverables	Current Contract Date	Revised Due Date
Staffing (MiEdWorkforce) Integration		
MiLogin Integration (Test and Staging Environments)	July 2024	<mark>June 2026</mark>
Test Environment		
Stand up Test Environment	October 2023	Complete
Configured Test Environment	February 2024	Complete
Data Migration: Staff to Test Environment (*1)	September 2024	n/a
Staging Environment		
Stand up Staging Environment	December 2023	Complete
Configured Staging Environment	February 2024	Complete
Data Migration: Staff to Staging/Pre-Production Environment (*1)	September 2024	<mark>April 2027</mark>
Production Environment		
Stand up Production Environment	November 2024	July 2025
Configured Production Environment	February 2025	August 2025
MiLogin (Security) Integration for Production Environment	n/a	<mark>June 2026</mark>
Data Migration: Staff for Production Environment (*1)	March 2025	July 2027
UID User Guides	February 2024	<mark>n/a (*2)</mark>
UID API Guide/Swagger	February 2024	<mark>n/a (*2)</mark>
Test Plan (*3)	February 2024	September 2025
Test Scripts (*3)	February 2024	October 2025
Training Plan (*4)	February 2024	Complete
Testing and Acceptance		
All Training Materials	September 2024	Complete
Final Test Results (*5)	February 2025	<mark>June 2026</mark>
Final Acceptance (*6)	March 2025	July 2027
System Go Live (*7)	March 2025	July 1, 2027
90-Day Post-Production Warranty Period	April 2025 – June 2025	July 2027 – September 2027

Milestone and Deliverables	Current	Revised
	Contract Date	Due Date
Draduction Support Services	Begins	Begins
Production Support Services	June 2025	<mark>July 2027</mark>
Post Go Live		
Data Migration: Student (tentative)	June 2027	2027 or beyond

*1 Michigan and eScholar agree that a total of three (3) data migration efforts will be performed amongst the Test, Staging, and Pre-Production Environments. Data Migration to Production Environment will be performed only one (1) time.

*2 Uniq-ID[®] documentation (User Guides, API Guide) is updated with every release from eScholar as applicable.

*3 Test Plan and Test Scripts as applicable to eScholar Uniq-ID base product only.

*4 Michigan and eScholar agree that the Training Plan has been completed. Training on new items (APIs, release updates, etc.,) will be provided in the future as applicable.

*5 Final Test Results address UAT for MiEdWorkforce integration with Mi-Key; this does not include test results from MiEdWorkforce UAT testing as conducted by Michigan.

*6 Final Acceptance addresses approval on solution including MiEdWorkforce UAT and completion of Data Migration from MiEdWorkforce to the Production environment.

*7 System Go Live implies MiEdWorkforce full integration with Mi-Key in the Production environment.

D. Approval Information

Role	Name	Signature	Date
CEPI Project Sponsor	Mike McGroarty	Mike McGroarty	6/3/2025
DTMB Project Sponsor	Daniel Teplitsky	Dan Teplitsky	6/2/2025
CEPI Business Owner	Heather Handley	Heather Handley	6/2/2025
DTMB Project Owner	Simon Wang	Simon Wang	5/30/2025
CEPI Product Owner	Shirin Gilmore	Shirin Gilmore	05/28/2025
eScholar Director of Client Services	Marc Hoffmeister	Marc Hoffmeister	06/03/2025
eScholar Senior Project Manager	Jenni Moore	Jennifer Moore	06/03/2025
eScholar Lead Functional Consultant, Lead Technical Consultant	Andrea Hartman	Andrea Hartman	06/03/2025

A. General mornation				
Project ID/Acronym:	PR004672	Date:	06/05/2025	
Controlling Agency:	CEPI	Modification Date:		
Prepared by:	Jenni Moore Raj Razdan	Change Control #:	006-В	

A. General Information

B. Proposed Change Request Description

This document proposes changes to the project scope, budget, and schedule for the Michigan Education Key (Mi-Key) (previously known as Michigan Education Unique Person Identifier) contract between Michigan and eScholar. The changes requested align to the following key areas:

• Security Integration with MiLogin: The contract requires that MiLogin be used to authenticate the Uniq-ID users for Test, Staging and Production environments. CEPI initially selected OAuth as a MiLogin integration protocol for authentication. A considerable amount of time and effort was expended on this integration by eScholar and Michigan teams; however, during these implementation efforts, the MiLogin team deprecated the OAuth use for SOM applications after August 2025. The team is now planning to use cloud-based OpenID Connect (OIDC) for MiLogin integration.

C. Projected Impact Analysis

Scope Impact

Security Integration with MiLogin

MiLogin cloud-based OpenID Connect (OIDC) integration is a new scope item. The project team completed the design and construction based on the OAuth integration mechanism and needs to switch to cloud-based OpenID Connect (OIDC). The change to using OIDC requires additional design, development, testing, and coordination between eScholar and SOM/MiLogin team. The MiLogin OIDC integration will apply to the various project environments per the following timeline table:

Environment	Due Date
Test Environment	June 2026
Staging Environment	June 2026
Production Environment	June 2026

Budget Impact

Based on the Scope Impact noted above, the Budget Impact of this Change Request is as follows:

Item	Impact Description	Budget Impact Amount
Security Integration with MiLogin	Debit: Effort capped at 200 hours at	+ \$37,000.00*
	\$185.00/hour	
	TOTAL	\$ 37,000.00*

* The MiLogin Team is planning to deliver the documentation/code samples to eScholar by the end of calendar year 2025. This item shall be invoiced quarterly for hours worked.

Upon receipt and evaluation of all documentation/code samples from the MiLogin team by the end of calendar year 2025, the need for an additional Change Request (CR) to amend the fixed price noted above for this effort will be evaluated.

Schedule Impact

Milestones and Deliverables with revised due dates are highlighted in yellow in the table below.

Milestone and Deliverables	Current Contract Date	Revised Due Date
Staffing Integration		
MiLogin Integration (Test and Staging Environments)	July 2024	June 2026
Production Environment		
MiLogin (Security) Integration for Production Environment	n/a	June 2026

D. Approval Information

	1		
Role	Name	Signature	Date
CEPI Project Sponsor	Mike McGroarty	Mike McGroarty	6/12/2025
CEPI Project Sponsor	Dan Teplitsky	Dan Teplitsky	6/16/2025
CEPI Business Owner	Heather Handley	Heather Handley	06/10/2025
DTMB Project Owner	Simon Wang	Simon Wang	6/9/2025
CEPI Product Owner	Shirin Gilmore	Shirin Gilmore	06/09/2025
eScholar Director of Client Services	Marc Hoffmeister	Marc Hoffmeister	06/17/2025
eScholar Senior Project Manager	Jenni Moore	Jennifer Moore	06/17/2025
eScholar Lead Functional Consultant, Lead Technical Consultant	Andrea Hartman	Andrea Hartman	06/17/2025

A. General mornation				
Project ID/Acronym:	PR004672	Date:	04/25/2025	
Controlling Agency:	CEPI	Modification Date:		
Prepared by:	Jenni Moore Raj Razdan	Change Control #:	006-C	

A. General Information

B. Proposed Change Request Description

This document proposes changes to the project scope, budget, and schedule for the Michigan Education Key (Mi-Key) (previously known as Michigan Education Unique Person Identifier) contract between Michigan and eScholar. The changes requested align to the following key areas:

• Linked Identifiers (Retired Identifiers (IDs)): Linked Identifiers (Retired Identifiers (IDs)) will be migrated along with associated historical data for all Person types. This includes associating the Retired Identifiers to Master Identifiers per SOM needs. The history records for Retired Identifiers can be imported during or after each integration.

C. Projected Impact Analysis

Scope Impact

Linked Identifiers (Retired IDs)

Linked Identifiers (Retired (Identifiers (IDs)) will be migrated along with associated historical data for all Person types.

Various Business Specification Requirements from the Contract (pages 48-78) address that eScholar's Data Marts can support Retired Identifiers; however, the effort of migrating Retired Identifiers is not part of the existing eScholar process for data migration (per Contract page 41). To accommodate this need, eScholar will design, develop, and perform a custom process for migrating Retired Identifiers to Mi-Key. This is effort not accounted for in eScholar's cost proposal for this contract; additional funding is required as noted in the Budget Impact section below.

eScholar will conduct a design review session with Michigan regarding the design of this custom process for migrating Retired Identifiers to Mi-Key. During this session, a delivery timeline of the custom process to be developed by eScholar will be determined. This timeline will be communicated with Michigan within 10 days after these design discussions conclude. Development by eScholar of the custom process will proceed accordingly.

Budget Impact

Based on the Scope Impact noted above, the Budget Impact of this Change Request is as follows:

Item	Impact Description	Budget Impact Amount
Linked Identifiers (Retired Identifiers	Debit: Effort estimated to require 100	Time & Material
(IDs))	hours at \$185.00/hour	Estimated
		+ \$18,500.00
	\$ 18,500.00	
Good faith: eScholar has a	- \$ 18,500.00	
Net Project Budget I	- 0 -	

Schedule Impact

Based on the Scope Impact noted above, there is no Schedule Impact at this time. The delivery timeline will be communicated to the State after requirement/design discussions are complete.

D. Approval Information						
Role	Role Name Signature					
CEPI Project Sponsor	Mike McGroarty	Malle	5/6/2025			
DTMB Project Sponsor	Daniel Teplitsky	Daniel Teplitsky	5/1/2025			
CEPI Business Owner	Heather Handley	Heather Handley	4/30/2025			
DTMB Project Owner	Simon Wang	Simon Wang	5/1/2025			
CEPI Product Owner	Shirin Gilmore	Shirin Gilmore	04/30/2025			
eScholar Director of Client Services	Marc Hoffmeister	Marc Hoffmeister	05/08/2025			
eScholar Senior Project Manager	Jenni Moore	Jennifer Moore	05/08/2025			
eScholar Lead Functional Consultant, Lead Technical Consultant	Andrea Hartman	Andrea Hartman	05/08/2025			



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

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 4

to

Contract Number MA22000001445

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	VS021	9977							
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Educati	on Uniqu	ue Person Ide	entifier System	CONTRACT	SOMMAN				
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9	\$7,864,8	70.00	\$8,80	00.00			\$7,873,670	00.00	
				DESCRI	PTION				
Effective	e 6/26/2	024, the parti	es add \$8,800.0	00 for the addition	onal EUF	PI Gap 7	6: Multiple Recor	rd AP	I requirement
services	s detaile	d in the attac	hed statement o	of work. All other	^r terms, o	condition	ns, specifications	and	pricing remain
the same. Per contractor, Agency, and DTMB Procurement approval. Remaining Ad Board funding after this									
	4		400.00						

Program Managers for Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB	Trina Anderson	517-284-4141	andersont1@michigan.gov
DTMB	Kimberly Crawford	517-241-2368	crawfordk5@michigan.gov

A. General mormation					
Project ID/Acronym:	PR004672	Date:	05/28/2024		
Controlling Agency:	CEPI	Modification Date:			
Prepared by:	Jenni Moore Raj Razdan	Change Control #:	004		

A. General Information

B. Change Request Description/Justification

This document details changes to the scope and budget of EUPI Gap 76: Multiple Record API for the Michigan Education Unique Person Identifier (EUPI) System contract between Michigan and eScholar. These changes align to the following concepts:

 Addition of requirement for "Multiple Record API – EUPI Gap 76 – Design Specification – Asynchronous/Synchronous – Search by Person"

C. Impact Analysis

Scope Impact

As part of this project's Change Notice 002 signed on 07/25/2023, a Statement of Work ("SOW") regarding EUPI Gap 76: Multiple Record API was agreed upon by both parties with an initial ten (10) requirements and three (3) assumptions.

Detailed team discussions regarding this enhancement were conducted to create the Business Review Document ("BRD") that will drive eScholar's development of the requested enhancement. Details of this BRD can be found in the document itself ("Multiple Record API – EUPI Gap 76 – Design Specification – Asynchronous/Synchronous – Search by Person"). Through these discussions, one (1) new requirement has been added. This requirement reads as follows:

"Solution to allow for OtherLastName to be submitted as an optional field for Search by Person and to be utilized in the matching algorithm."

The addition of this new requirement to the BRD changes the approach and level of effort for development of this enhancement by eScholar.

Schedule Impact

Based on the Scope Impact noted above, there is no Schedule Impact at this time. Future Change Requests will be provided to address changes to schedule regarding the design, development, and delivery of this enhancement as necessary.

Budget Impact

Based on the Scope Impact noted above, the Budget Impact of this Change Control Request is as follows:

ltem	Impact Description	Budget Impact Amount
 BRD: Multiple Record API – EUPI Gap 76 – Design Specification – Asynchronous/Synchronous – Search by Person Addition of new requirement: <i>Solution to allow for OtherLastName to be submitted as an optional field for Search by Person and to be utilized in the matching algorithm.</i>" 	Additional design, development, quality assurance, and documentation work required by eScholar.	+\$8,800.00
	TOTAL	+ \$ 8,800.00



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 3

to Contract Number 22000001445

eSch	olar, LLC	Manager	P ا	Various	MDE	
2429	Military Rd.		lanager			
Niaga	ara Falls, NY 14304	STA	r –			
	a Seto	ΞE	Co Adm	Jarrod Barron	DTMB	
914.7	729.3009		inistrator	inistra (517)	(517) 249-0406	
eseto	@escholar.com	ator		barronj1@michigan.gov		
VS02	19977					

CONTRACT SUMMARY					
EDUCATION UNIQUE PERSON IDENTIFIER SYSTEM					
INITIAL EFFECTIVE DATE	INITIAL EXPIRAT	ION DATE	INITIAL AVAILABLE OPTION	S	EXPIRATION DATE BEFORE
August 30, 2022	August 29,	2027	5 - 1 Year		August 29, 2027
PAYM	IENT TERMS		DELIVERY T	IMEFRA	AME
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MINIMUM DELIVERY REQUIR	EMENTS				
	D	ESCRIPTION O	F CHANGE NOTICE		
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					August 29, 2027
CURRENT VALUE	VALUE OF CHAN	GE NOTICE	ESTIMATED AGGREGA	TE CON	ITRACT VALUE
\$7,864,870.00	\$7,864,870.00 \$0.00 \$7,864,870.00				
DESCRIPTION					
Effective 9/12/2023, the parties update the project schedule and budget per the attached documentation.					

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

Program Managers for Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB	Trina Anderson	517-284-4141	andersont1@michigan.gov
DTMB	Kimberly Crawford	517-241-2368	crawfordk5@michigan.gov

A. General mormation				
Project ID/Acronym:	PR004672	Date:	08/30/2023	
Controlling Agency:	CEPI	Modification Date:		
Prepared by:	Jenni Moore Raj Razdan	Change Control #:	003	

Β. **Change Notice Description/Justification**

This document proposes changes to the project schedule and budget for the Michigan Education Unique Person Identifier (EUPI) System contract between Michigan and eScholar. The changes requested align to the following two concepts:

- Extension of timeline
 - The timeline of this project has a major dependency upon the Go Live date of the MORE System currently in development by Michigan. The MORE System for Staffing Data and EUPI System must go to production at the same time. All integrations including data migration must happen together at this go-live time. The tentative Go Live date for the MORE System is March 2025. However, if MORE Go Live is delayed, integration with Registry of Educational Personnel (REP) as a mitigation could be explored to ensure continued progress of EUPI implementation.
 - o This integration requires completion of additional development of features identified under Change Notice Number 2 to this contract. These additional features address gaps in functionality between Michigan's current processes and the capabilities of the eScholar Uniq-ID[®] v2023 product.
- Staggered integrations
 - Michigan CEPI wants staggered integrations for staff and student systems and associated 0 data.

Dependent upon agreement between Michigan and eScholar, these changes may require a formal Change Control Notice to be processed by SOM procurement.

C. **Projected Impact Analysis**

Scope Impact

No scope changes.

Schedule Impact

Milestone and Deliverables	Current	Revised
Provision onvironments Installation and Configuration of	Contract Date	Due Date
software. and Data Migration		
Test Environment		
Stand up Test Environment*	n/a	October 2023
Validated Configured Test Environment	February 2024	February 2024
Data Migration: Staff to Test Environment*	February 2024	<mark>September 2024</mark>
Training Staging Environment		
Stand up Staging Environment*	n/a	December 2023
Validated Training Configured Staging Environment	February 2024	February 2024
Data Migration: Staff to Staging Environment*	February 2024	September 2024
Production Environment		
Stand up Production Environment*	n/a	November 2024
Validated Configured Production Environment	February 2024	February 2025**
Data Migration: Staff for Production Environment*	September 2024	March 2025**
UID User Guides	February 2024	February 2024
UID API Workflow Guides*	n/a	February 2024
Test Plan	February 2024	February 2024
Test Scripts	February 2024	February 2024
Training Plan	February 2024	February 2024
Testing and Acceptance		
All Training Materials	September 2024	September 2024
Final Test Results	September 2024	February 2025**
Final Acceptance	September 2024	March 2025
System Go Live	September 2024	March 2025
90-Day Post-Production Warranty Period	October 2024 –	April 2025 –
	December 2024	June 2025
Production Support Services	Begins October 2024	Begins June 2025
Post Go Live		
Data Migration: Student* (Tentative)	n/a	<mark>June 2027</mark>

* Asterisk denotes a new deliverable or a portion of an existing item for additional clarification.

** Date accommodates MORE System Go Live.

Definitions:

• "Configured Environment": Configuration and onboarding complete in environment; connected to CEPI Internal Services and MiLogin.

Budget Impact

Based on the Schedule Impact noted above, the Budget Impact of this Change Control Request is as follows:

Item Impact Description		Budget Impact Amount
Staggered Implementations for Environments		
 Staging Environment Delay stand up by 3 months Original schedule: September 2023 New schedule: December 2023 	Credit 3 months of hosting fees	- \$ 15,000.00
 Production Environment Delay stand up by 14 months Original schedule: September 2023 New schedule: November 2024 	Credit 14 months of hosting fees	- \$ 70,000.00
Additional Resource Support from eScholar		
 Extended project timeline and staggered implementation of environments Delay System Go Live by 6 months Original schedule: September 2024 New schedule: March 2025 	Debit for additional resource support	+\$92,500.00
	TOTAL	+ \$ 7,500.00
Good faith: eScholar has chosen to write	e off this additional cost.	- \$ 7,500.00
Net Project Budget Impact of this	Contract Change Notice	-0-

The table below provides detail on the breakdown of the "Additional Resource Support from eScholar" item.

Resource	Hours for 6 Months	Fee for 6 Months
Development and Support Team	260	\$ 48,100.00
Project Management Team	240	\$ 44,400.00
TOTAL	500	\$ 92,500.00

The summation of these items results in no impact to the overall budget of the project based on the assumption that there is no additional change to the timelines for environments readiness and overall

project Go Live presented in this Change Control Request. If there are changes to the timelines, additional discussion is required.



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 2

to Contract Number 22000001445

eScholar, LLC	~ 2	Various	MDE
2429 Military Rd.	rogram Ianage		
Niagra Falls, NY 14304	STA		
Elissa Seto	Adm	Jarrod Barron	DTMB
914.729.3009	ninist	(517) 249-0406	
eseto@escholar.com	rator	barronj1@michigan.gov	
VS0219977			

	CONTRACT SUMMARY				
EDUCATION UNIQUE F	PERSON IDENTIFI	ER SYSTEM			
INITIAL EFFECTIVE DATE	INITIAL EXPIRAT	TION DATE	INITIAL AVAILABLE OPTIONS	6	EXPIRATION DATE BEFORE
August 30, 2022	August 29,	2027	5 - 1 Year		August 29, 2027
PAY	MENT TERMS		DELIVERY TI	MEFRA	ME
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MINIMUM DELIVERY REQU	REMENTS				
	D	ESCRIPTION O	F CHANGE NOTICE		
OPTION LENG	TH OF OPTION	EXTENSION	LENGTH OF EXTENSION		REVISED EXP. DATE
					August 29, 2027
CURRENT VALUE	VALUE OF CHAN	GE NOTICE	ESTIMATED AGGREGAT	E CON	TRACT VALUE
\$6,878,420.00 \$986,450.00 \$7,864,870.00					
DESCRIPTION					
Effective 7/25/2023, the parties add \$986,450.00, \$751,800.00 for the software system enhancement services detailed in the attached statements of work and \$234,650.00 for a support service pack not to exceed 1805 Business Analyst hours to be					

Effective 7/25/2023, the parties add \$986,450.00, \$751,800.00 for the software system enhancement services detailed in the attached statements of work and \$234,650.00 for a support service pack not to exceed 1805 Business Analyst hours to be fulfilled by Permitted Subcontractor Relapath, LLC. In the event the State does not use all 1805 hours, Contractor will provide other services of the equivalent remaining value to the State at the State's option. All other terms, conditions, specifications and pricing remain the same. Per contractor, Agency, DTMB Procurement, and State Administrative Board approval on 7/25/2023.

Remaining Ad Board funding after this contract change notice: \$359,999.99.

Program Managers for Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB	Trina Anderson	517-284-4141	andersont1@michigan.gov
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eScholar Uniq-ID®

Field Level Updates EUPI Gap 30 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to preserve existing data when submission data is missing. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 30: Solution does not update master record at a field level. Fields that are not available by person type during a master record update are not retained. (Ex. If a student record updated a staffing master record, solution does not retain SSN on the master record when person type does not allow for the submission of that field.)

The objectives of the project are to:

• Prevent updates from occurring on Master data when the submission data is blank to ensure a complete person record is maintained.

Identification

ID	Gap Priority
EUPI Gap 30	Critical

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to the 8 Requirements and 5 Assumptions accepted as of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The system shall not overwrite the Master Record with null values from a Submission Record when the field is Optional and is identified as a field that should not update the Master record in this case.	05/25/2023	05/26/2023
2	Each field that shall not update the Master Record when the submission record is null should be clearly defined and identified as a "No Update Field".	05/25/2023	05/26/2023
3	The system shall enable an authorized system administrator to configure all fields that are not updated (No Update Field) through a DBA script.	06/08/2023	06/08/2023
4	An executable script shall be created for MI DBA to perform special case updates when data needs to be overwritten with a null value.	05/25/2023	05/26/2023
5	Submissions with only spaces, blanks, and tabs are to be considered null values and would not overwrite the Master Record.	05/25/2023	05/26/2023
6	Leading and trailing Spaces, blanks, and tabs shall be removed before record is stored.	06/01/2023	05/26/2023
7	If a field is required, it cannot be set as a "No Update Field" and all Master Records shall be updated based on the applied Authoritative Source Rules.	05/25/2023	05/26/2023

Description		Validation Date	Validation Date
If a field is not require Update Field" and Ma updated with non-nul applied Authoritative Field" Rules as descri	05/25/2023	05/26/2023	
Input	Result		
Submission Data is Null/Blank for a No Update Field	Do not update the No Update Field in the Master Record but update all other fields that are NOT No Update Fields with the Submission Record field values.		
Submission Data is NOT Null for a No Update Field	Update the No Update Field and all other fields with the Submission Record field values.		
Submission Data is NOT a No Update Field	Update the Master Record field value with the Submission Record field value.		
	If a field is not require Update Field" and Ma updated with non-nul applied Authoritative Field" Rules as descrift Input Submission Data is Null/Blank for a No Update Field Submission Data is NOT Null for a No Update Field Submission Data is NOT a No Update Field	DescriptionIf a field is not required (Optional) it can be set as a "No Update Field" and Master Records will only be updated with non-null/blank values based on the applied Authoritative Source Rules and the "No Update Field" Rules as described below.InputResultSubmission Data is Null/Blank for a No Update FieldDo not update the No Update Field in the Master Record but update all other fields that are NOT No Update Fields with the Submission Record field values.Submission Data is NOT Null for a No Update FieldUpdate the No Update Field and all other fields with the Submission Record field values.Submission Data is NOT a No Update FieldUpdate the Master Record field values.Submission Data is NOT a No Update FieldUpdate the Master Record field values.Submission Data is NOT a No Update FieldUpdate the Master Record field value with the Submission Record field value.	DescriptionValidation DateIf a field is not required (Optional) it can be set as a "No Update Field" and Master Records will only be updated with non-null/blank values based on the applied Authoritative Source Rules and the "No Update Field" Rules as described below.05/25/2023InputResultSubmission Data is Null/Blank for a No Update FieldDo not update the No Update Field in the Master Record but update all other fields that are NOT No Update Fields with the Submission Record field values.Not Null for a No Update FieldSubmission Data is NOT Null for a No Update FieldUpdate the No Update Field and all other fields with the Submission Record field values.Submission Data is NOT a No Update FieldUpdate the Master Record field value with the Submission Record field values.Submission Data is NOT a No Update FieldUpdate the Master Record field value with the Submission Record field value.

Assumptions

ID	Description
1	There are no special or additional rules for processing by Person Type, Source, Location, or other factors.
2	A field must be identified as Optional in the Assign 3.0 Specification for the No Update Field rule to apply.
3	If a field is not set to be a No Update Field and is later set to be a No Update Field, data will not be updated or altered for data that has already processed. All previous changes are available in the history data.
4	The term null refers to blanks, no value, or spaces.
5	There are no exceptions to the rule. If a field is identified as a No Update Field and is Optional, the Master Record would never be updated with null data from the Submission Record.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$0.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. As the fee for this statement of work is \$0.00, the Contractor does not need to submit an invoice for this effort. The State will provide notification of formal acceptance of all deliverables detailed herein to conclude this effort.



eScholar Uniq-ID®

Authoritative Source Rules EUPI Gap 32 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will implement authoritative source rules across sectors based on timing/age of record. This is documented in the Requirements Traceability Matrix Change Request tab as:

EUPI Gap 32: Authoritative source rules are not highly configurable and do not take into account individuals who may be enrolled in multiple sectors at once. Reliability score cannot be dynamically updated based on age of individual or last update date of identifier. Authoritative source is not based on point in time.

The objectives of the project are to:

- Ensure the appropriate entity that has the authority to update the demographics for the individual is reflected on the master record across multiple education sectors.
- Ensure the appropriate entity across multiple education sectors has the authority to update the demographics of an individual's master record.
- Take into consideration the age of the individual and the last updated date of the master record to determine authority, accounting for an individual moving through the education landscape (student to staff).
- Take into consideration an individual being reported by multiple sectors at the same time.

Identification

ID	Gap Priority
EUPI Gap 32	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 20 Requirements and 13 Assumptions accepted as of 06/15/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The system shall use the standard/existing authoritative source rules built into eScholar Uniq-ID (Step 1) which utilizes a Reliability Score for Submission Record and Master Records with the addition of additional fields and processing as defined below.	06/13/2023	06/15/2023
2	 System to have the ability to configure the following per Source System Last Update Allowance Applicable Age Range X-Factor Score These configurations will be utilized to determine Authoritative Source processing after the standard/existing logic is applied.	06/14/2023	06/15/2023
3	System to have the ability to configure applicable age range values (Applicable Age Range) per Source System to be used as factor in determining if an update can be completed. Each Source System shall have a beginning and ending range. Must be numeric. Example Applicable Age Range for EC source to allow for ages 0-4.	06/14/2023	06/15/2023
4	The system to have the ability to enable/disable the Applicable Age Range criteria per source. Example: The Applicable Age Range criteria is disabled for EC but enabled for K12. In this case this step would be skipped for EC.	06/14/2023	06/15/2023
ID	Description	CEPI Validation Date	eScholar Validation Date
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5	System to have the ability to configure a timeframe for the age of Master Record (Last Update Allowance) per Source System to be used as factor in determining if an update can be completed. Last Update Allowance to be a numeric set value.	06/14/2023	06/15/2023
6	The system to have the ability to enable/disable the Last Update Allowance criteria per source. Example: The Last Update Allowance criteria is disabled for EC but enabled for K12. In this case this step would be skipped for EC.	06/14/2023	06/15/2023
7	System to have the ability to configure an X-factor Score per Source System, in addition to the standard Reliability Score to be used as factor in determining if an update can be completed.	06/14/2023	06/15/2023
8	The system to have the ability to enable/disable the X- Factor Score criteria per source. Example: The X-Factor Score criteria is disabled for EC but enabled for K12. In this case this step would be skipped for EC.	06/14/2023	06/15/2023
9	System to have the ability to calculate the difference between the assignment processing date of the submission record and last update date of master record. This date shall be the date the assignment decision is being made and not necessarily the transaction submission date. For example, a Near Match may have been submitted on 4/1/23 and a decision not processed until 6/9/23. The 6/9/23 date should be used, not the original submission date.	06/14/2023	06/15/2023

ID	Description						CEPI Validation Date	eScholar Validation Date
10	0 System to have the ability to calculate the difference between the Submission Record Date of Birth and the submission processing date (to derive current age of the person) to determine if the Applicable Age Range rule is applied based on Source System of Master Record and Submission Record.				06/14/2023	06/15/2023		
	For example, if the K12 and 18-100 Submission Record processing date is HE, no update	if the Applicable Age Range is 5-26 for 00 for HE, and the difference between the ecord Date of Birth and the submission ate is 17 years old and the Source System ate would be applied.						
11	 System to have the ability to calculate the difference between the Submission Record Source System X- Factor and the Master Record Source System X-Factor to determine if the X-Factor Score Rule is applied. Difference in calculation could be a greater than or less than or a numerical difference. 				ce - ctor r less	06/14/2023	06/15/2023	
	For example, if an incoming record source system = Staffing and the master record source system = K12, if the person is 18 years old, no update shall occur based on X-factor since the X-factor on the master record > that on the submission record.					= 2, if based d >		
	X-Factor rule to l authoritative sou	be applie irce rules	ed conti s.	ingent o	n other			
	cenarios Aaster Source - X Factor)OB Aaster Source - Reliab.	Linear Re 0 0-6 10	50 5-26 20	0 18-100 30	20 18-100 40	¢		
	ource	EC	K12	HE	Staff			
12	System to have t differences in ma Submitting source	he ability aster sou ce Reliab	y to run Irce Reli Sco	rules ba iability So pre.	sed on core vs.		06/14/2023	06/15/2023
	 Master Source Reliability Score <> Submission Source Reliability Score Master Source Reliability Score = Submission Source Reliability Score 				sion on			

ID	Description	CEPI Validation Date	eScholar Validation Date
13	 Based on differences in Master Source and Submission Source, system to apply different rules based on Reliability Score. Master Source reliability score is higher than Submission System Source Master Source reliability score is lower than Submission System Source Master Source reliability score is the same as Submission System Source 	06/14/2023	06/15/2023
14	The Authoritative Source Rules shall be sequential and/or "if / then" with one data point checked at each step. Example: If the Submission Record Source System >= Master Record Source System, then check the Last Update Allowance Rule. Based on that rule (if), then check the Applicable Age Range. Based on that rule (if), then check the X-Factor Score.	06/14/2023	06/15/2023
15	Regardless of the Authoritative Source Rules, the system to update the Master Record SSN with the Submission Record SSN when the Master Record SSN is NULL and the Submission Record contains an SSN Value. No other data would be updated besides the SSN.	06/14/2023	06/15/2023
16	Refer to the Configurations table below for specific rules and examples.	06/14/2023	06/15/2023
17	A new transaction status code must be created to indicate when an update is performed due to the Authoritative Source Rules.	06/14/2023	06/15/2023
18	A new transaction status code must be created to indicate when no update is performed due to the Authoritative Source Rules.	06/14/2023	06/15/2023
19	A database script shall be provided to update the Last Update Allowance, Applicable Age Range, and X- Factor Score values per Source System.	06/14/2023	06/15/2023

		CEPI	eScholar
ID	Description	Validation	Validation
		Date	Date
20	A database script shall be provided to update the status (on/off) of the Last Update Allowance, Applicable Age Range, and X-Factor Score steps per Source System.	06/14/2023	06/15/2023

Criteria / Rules Examples

Master	Record (MR) Source Reliability Score < Submission Record (SR) Reliability	y Score
	** do we assume date os master or both master and submission	Source
urce If N	laster Source System NOT Equal to Submitting Source system	Next
eliability	If Master reliability score < Submitting	Next
date	If Master Last Update date <= 1 year	
в	If Submitting current age (Processing date - Submitting DOB = current age) < Submitting Source DOB Date Range	No Update
actor	If Master Source X factor < Submitting X factor	
actor	If Master Source X factor = Submitting X factor	
ctor	If Master Source X factor > Submitting X factor	
В	If submitting Current age > Submitting Source Date Range	Update
actor	If Master Source X factor < Submitting X factor	
actor	If Master Source X factor = Submitting X factor	
actor	If Master Source X factor > Submitting X factor	
В	If Submitting Current age overlaps Submitting Source Date Range	Compare M &
ctor	If Master Source X factor < Submitting X factor	Update
ctor	If Master Source X factor = Submitting X factor	Update
ctor	If Master Source X factor > Submitting X factor	No Update
В	If Submitting Current age within or = Submitting Source Date Range	Update
ictor	If Master Source X factor < Submitting X factor	
actor	If Master Source X factor = Submitting X factor	
actor	If Master Source X factor > Submitting X factor	
Source I	Master Source System NOT Equal to Submitting Source system	In product
Reliability	If Master reliability score < Submitting	IN product
Update	If Master Last Update date <= 1 year	New
DOB	If Submitting current age (Processing date - Submitting DOB = current age) < Submitting Source DOB Date Range	New
X factor	If Master Source X factor < Submitting X factor	New

Assumptions

ID	Description
1	Some CEPI systems may perform first level authoritative source validations outside of EUPI's authoritative source processing.
2	This requirement is only for assignment.
3	Even if the master record was not updated, the alias and researcher tables will still be updated/inserted.
4	There is a CR for a no update field, the field would never update. This field would not update this process. This should go in the assumptions.
5	Match decision happens through the match engine or a user decision (in a near match resolution).
6	The order of the steps will not be configurable. Order of steps to be determined at design.
7	 The current idea is that the flow would be: Record is submitted with a Source System and matching/assignment processing is completed against the Master Records. A Match Decision is returned including a Match, No Match and Near Match.
8	The Last Updated date is only captured for records that have the authority to update the record and/ or if the user selects to update the master.

ID	Description
9	User selection of not updating the master can be limited by user role via the existing permission.
10	Maintenance tasks such as linking and splitting with update the last update date on the master record.
11	Newly created transaction codes will be included in the Communications Roadmap for notification updates.
12	Transaction Codes are applied and generated for the transactions/submission records. If a "no update" happens, this code is not reflected on the Master Record since no update was applied.
13	This CR does not include any UI / API changes for configuration of the rules, values, or settings. All changes will be completed via a database script.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$255,200.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$225,200.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



eScholar Uniq-ID®

Retired ID Matching EUPI Gap 38 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to accept linked/retired identifiers to be submitted for matching. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 38: Solution does not accept linked/retired identifiers to be submitted for matching.

The objectives of the project are to:

• Enable the ability to accept linked/retired identifiers to be submitted for matching.

Identification

ID	Gap Priority
EUPI Gap 38	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 4 Requirements and 1 Assumption of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
	 A - Return error and primary ID if retired ID is submitted] A1- return error that it's a retired identifier 		
	A2- return error and primary id		
A-1	If a retired identifier is submitted for assignment and is linked / associated to an active Master Record, system to provide an error to submit the Master State Id and return the master State Id.	05/26/2023	05/26/2023
A-2	If a retired identifier is submitted for assignment and is NOT linked / associated to an active Master Record, system to provide an error stating that the Master Identifier is invalid.	05/26/2023	05/26/2023
A-3	If a retired identifier is submitted for searching through algorithm and is linked / associated to an active Master Record, system to provide an error to submit the Master State Id.	05/26/2023	05/26/2023
A-4	If a retired identifier is submitted for searching through algorithm and is NOT linked / associated to an active Master Record, system to provide an error stating that the Master Identifier is invalid.	05/26/2023	05/26/2023

Assumptions

ID	Description
1	Solution is dependent on EUPI Gap 76. Solution to return the associated state ids via the search functionality.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$68,200.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$68,200.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



eScholar Uniq-ID®

Match Override (New ID) EUPI Gap 48 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to permit an authorized user to override a match found in the system when an identifier split will not be possible. An Identifier can be split in the application, but it requires a History Record to perform the split. This request involves requesting a split when no History Record exists. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 48: It is not possible to override a match found. If a record is matched incorrectly, a split must be performed. Note that a split cannot be performed until an ID has a history record.

The objectives of the project are to:

- When an incorrect Match Decision is made, the user should be able to request a new identifier and/or to resolve the issue.
- Solution to provide the ability for an end user to request a UIC if match found is not the correct.

Identification

ID	Gap Priority
EUPI Gap 48	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 9 Requirements and 3 Assumptions accepted as of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The solution shall allow a user to create a new identifier when a Match Decision was generated for the incorrect person (Match Override Request) through API.	06/08/2023	06/08/2023
2	The Solution shall enable the submission of the State ID to override, the reason for the override, the submission / transaction record (Transaction Record) to use, and requestor.	05/26/2023	05/26/2023
3	Solution shall capture comments to track the reason for requesting a new identifier through API allowing up to 250 characters.	06/08/2023	06/08/2023
4	Solution shall retain history for comments, new associated identifier, requested by, and timestamp associated to the original State ID.	05/26/2023	05/26/2023
5	When Match Override is performed, the solution shall retain existing identifier and associated data and create a new identifier for the submission request (Transaction Data).	05/26/2023	05/26/2023
6	New Research ID(s) and Public ID shall be generated when the new Match Override State ID is created.	05/26/2023	05/26/2023
7	The solution shall enable the identification and submission of the specific submission request (Transaction Data) to be used to create the new Match Override State ID. This shall be available via APIs.	06/08/2023	06/08/2023
8	 Solution to provide the ability to generate a new identifier (regardless of history records) when: 1. Submission record positively matches another identifier 2. Submission record does not have the authority to update the master data (hence never generating a history record to be split) 	06/08/2023	06/08/2023

ID	Description	CEPI Validation Date	eScholar Validation Date
9	Match override functionality to be role based	06/08/2023	06/08/2023

Assumptions

ID	Description
1	This request assumes that the Master Record does not have any History Records and the standard Split ID cannot be used to create a new identifier.
2	When a new identifier is requested, the solution will retrieve the next available identifier from the State ID Pool.
3	Match Override Requestor is the service account that initiated the Match Override Request. eScholar does not have access to user information to send a notification to a specific user.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$90,200.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$90,200.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



eScholar Uniq-ID®

Advanced Search Fields EUPI Gap 60 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to search on last name or first name with SQL searches. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 60: Solution does not allow search on all fields within Assign 3.0; only on select fields. Partial demographics cannot be searched. Must include first and last name and/or prefix.

The objectives of the project are to:

- To offer flexibility in searching when the user does not have all of the required details on a person to perform a search.
- To get a count of persons records fitting certain criteria to inform decisions.

Identification

ID	Gap Priority
EUPI Gap 60	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 13 Requirements and 2 Assumptions accepted as of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The system shall enable authorized users to perform advanced searches (Advanced Search) without the requirement of entering both the first name and last name in the search via APIs and the UI.	05/26/2023	05/26/2023
2	 The Advanced Search shall utilize Fuzzy Searching methods, including: Soundex Wildcard Example: Har*man would find Hartman and Hardman Trailing Character "Like" Keep current search functionality (like) Example: Hart% would find Hartman, Hartmann, Hartley, etc Leading Character "Like" Example: %artm would find Hartman, Cartman, Rartmily Contains (Leading and Trailing Like) Example: %dre% would find Andrea, Andre, Dre, Drew 	05/26/2023	05/26/2023
3	The Advanced Search functionality to shall allow for first name and one of the Date of Birth segments to produce results. Example: Last Name and Year can be submitted.	05/26/2023	05/26/2023
4	The Advanced Search functionality to shall allow for last name and one of the Date of Birth segments to produce results. Example: Last Name and Year can be submitted.	05/26/2023	05/26/2023
5	The Advanced Search shall not require Date of Birth if both first and last name are submitted.	05/26/2023	05/26/2023
6	The Advanced Search shall limit results to 2000 at the system level (Results Limit).	06/08/2023	06/08/2023

ID	Description	CEPI Validation Date	eScholar Validation Date
7	Solution to provide a count of results meeting the search criteria, even if the results were limited to the count above requirement.	05/26/2023	05/26/2023
8	The Advanced Search functionality shall enable the user to select "All" for Person Type or to select a specific Person Type.	05/26/2023	05/26/2023
9	The Advanced Search form shall include the following searchable fields. Sex (Gender) (R) o with option set Last Name (R) First Name (R) Middle Name (O) Suffix (O) Date of Birth(R) Date of Birth separated (O) Local Id (O) - remove leading and trailing spaces SSN (O) State Id Location Code (R) o with option set Building Code (R) o with option set Snapshot Year (R) Alternate Last Name (O) Enabled Customer Defined fields Public Facing Identifier	06/08/2023	06/08/2023
10	The Advanced Search functionality shall include the ability to search in Master, History, and Stage through SQL search.	05/26/2023	05/26/2023
11	A permission for viewing the Advanced Search option shall be added to Role Permissions in Security Manager - Role Manager.	05/26/2023	05/26/2023
12	To access the Advanced Search option, the user must be assigned a role with the Advanced Search permission.	05/26/2023	05/26/2023

ID	Description	CEPI Validation Date	eScholar Validation Date
13	When an Advanced Search is performed, the results shall be generated using the search form values and the Results Limit value.	05/26/2023	05/26/2023

Assumptions

ID	Description
1	Results may not be useful if a common name is submitted for a search request.
2	The Advanced Search will not perform Levenshtein Distance searches.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$107,400.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$107,400.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



eScholar Uniq-ID®

Make Required Fields Optional EUPI Gap 74 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to permit required fields within Assign 3.0 to be optional fields at CEPI, such as local ID and School Year. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 74: Assign3.0 Required Fields may be optional fields at CEPI: Local ID, School Year.

The objectives of the project are to:

• Enable specific Assign 3.0 fields (Local ID and School Year) to be made optional when submitting data.

Identification

ID	Gap Priority
EUPI Gap 74	Critical

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 3 Requirements and 7 Assumptions accepted as of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The system shall enable an authorized system administrator to configure the Local ID field to be optional in the Assign 3.0 specification by Person Type via Configuration Manager available via API and UI.	05/25/2023	05/26/2023
2	If a Person Type Assign 3.0 specification is configured to Enabled - Yes for the Local ID field, the submission/request shall be permitted but not required.	05/25/2023	05/26/2023
3	If a Person Type Assign 3.0 specification is configured to Required - No for the Local ID field, the submission/request shall be permitted but not required.	05/25/2023	05/26/2023

Assumptions

ID	Description
1	If no Local ID is provided with a submission, the Alias ID logic cannot be applied, and no Local ID will be stored for the Person Record.
2	 The Local ID configuration options in the Assign 3.0 specification includes: Enable - Yes/No Required - Yes/No
3	CEPI will be responsible for configuring each Assign 3.0 specification (by Person Type) as appropriate for the Local ID field.
4	By default, Local ID is Enabled - Yes and Required - Yes.
5	The Force Near Match - Twins Rule cannot be utilized with the Local ID is not provided.
6	If a Local ID is provided, the Search By File and Assignment Process will initiate the Twins Rule if it is enabled.
7	The School Year field was removed from this CR and will not be included in the LOE or SOW.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$64,600.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$64,600.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



eScholar Uniq-ID®

Multiple Record API EUPI Gap 76 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI
Overview

Description

CEPI has requested an enhancement that will enable the application to process multiple IDs within a single API call. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 76: Solution does not have the ability to process multiple IDs within a single API call. (Multiple ID processing within a singular API is only available through the File Upload API).

The objectives of the project are to:

• Replicate existing functionality of submitting multiple records in one API request.

Identification

ID	Gap Priority
EUPI Gap 76	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 10 Requirements and 3 Assumptions accepted as of 06/08/2023 in this SOW	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	The solution shall enable the ability to submit multiple Person Records within a single API request for the ID Assignment Process and the Search Process.	05/25/2023	05/25/2023
2	Solution to provide a dynamic array based on element being required, optional and the ability to exclude fields that are not utilized. This would have to work for all person types.	05/25/2023	05/25/2023
3	There shall be 4 types of APIs related to this functionality:	05/25/2023	05/26/2023
	 Synchronous Limited Multiple Record Search API: This API shall limit the number of search records that can be submitted at one time and will return a response with detailed results for each record in the array. Synchronous Limited Multiple Record Assignment API: This API shall limit the number assignment records that can be submitted at one time and will return a response with detailed results for each record in the array. Asynchronous Batch Search API: This API will allow multiple records to be submitted in one Search API, but will only return a Batch ID in the response. The purpose of this API is to handle search requests that would be too large for a detailed results response. Asynchronous Batch Assignment API: This API will allow multiple records to be submitted in one Assignment API, but will only return a Batch ID in the response. The purpose of this API is to handle search requests that would be too large for a detailed results response. 		

ID	Description	CEPI Validation Date	eScholar Validation Date
4	Limited Multiple Record APIs (Search and Assignment): The user should be able to send an array of records (multiple records) in a single API call and get a response for each record. The response to include the object for each array.	05/25/2023	05/26/2023
5	Batch API (Search and Assignment): The user should be able to send an array of records (multiple records) in a single API call and get a batch id. This batch ID will be used by the requester to get the results at a future time.	05/25/2023	05/26/2023
6	 The solution shall enable the ability to submit multiple Person Records within a single API request for the following Search and options: Search By Person Master with Matching Engine Master with SQL History with SQL Search By ID Advanced Search Create a new Search Type that emulates the Search by File Match Rules. This has the function like search by file and provide match like decisions.	05/25/2023	05/26/2023
7	An array/list of multiple person records to include a configurable number of transactions (number of identifier type requests) within a singular API request.	05/25/2023	05/25/2023
8	Solution to provide communication/error code if array is longer than the configured transaction limit.	05/25/2023	05/25/2023
9	Solution to provide a batch for each submission. The entirety of the submission is considered a batch.	05/25/2023	05/25/2023
10	Solution to provide 2 types of APIs: One to provide master identifiers with other associated information; another one to only provide batch id.	05/25/2023	05/25/2023

Assumptions

ID	Description
1	CEPI will transform the incoming API call for multiple records to the eScholar Specification.
2	Multiple records will be available for only the APIs that are included in the requirements. Not all APIs will be updated to allow multiple records.
3	Each Person Record in the request shall include the fields / parameters available in the Student Object as described in Appendix A.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$146,800.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$146,800.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.

Appendix A

The "Student" Object is defined as:

```
"Student": {
        "type": "object",
        "properties": {
          "lastName": {
            "type": "string"
          },
          "firstName": {
           "type": "string"
          },
          "middleName": {
           "type": "string"
          },
          "suffix": {
           "type": "string"
          },
          "genderCode": {
           "type": "string"
          },
          "dateOfBirth": {
           "type": "string"
          },
          "localId": {
           "type": "string"
          },
          "previousLastName": {
           "type": "string"
          },
          "active": {
           "type": "boolean"
          },
          "stateStudentId": {
           "type": "string"
          },
          "raceEthnicCode": {
           "type": "string"
          },
          "gradeCode": {
            "type": "string"
          },
          "socialSecurityNumber": {
           "type": "string"
```

```
},
"districtCode": {
 "type": "string"
},
"schoolCode": {
 "type": "string"
},
"resDistrictCode": {
 "type": "string"
},
"schoolYear": {
 "type": "string"
},
"akaName": {
 "type": "string"
},
"firstInoculationDate": {
 "type": "string"
},
"birthCity": {
 "type": "string"
},
"birthState": {
"type": "string"
},
"birthCountry": {
"type": "string"
},
"prevDistrictCode": {
"type": "string"
},
"prevSchoolCode": {
 "type": "string"
},
"motherName": {
"type": "string"
},
"fatherName": {
 "type": "string"
},
"guardianName": {
 "type": "string"
},
"guardianRelationship": {
"type": "string"
},
```

```
"comments": {
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},
"stateIdSerialNumber": {
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"creationBatchNumber": {
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},
"creationTranSerialNumber": {
 "type": "number"
},
"lastTranSerialNumber": {
 "type": "number"
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"sourceCode": {
 "type": "string"
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"cdfRefNumber": {
 "type": "number"
},
"altStudentId": {
 "type": "string"
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"altSourceSisCode": {
 "type": "string"
},
"ethnicityIndicator": {
 "type": "string"
},
"race2Code": {
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"race3Code": {
 "type": "string"
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"race4Code": {
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},
"race5Code": {
 "type": "string"
},
"multiracialIndicator": {
 "type": "integer",
"format": "int64"
},
```

```
"ethnicSubGroup": {
 "type": "string"
},
"mothersMaidenName": {
 "type": "string"
},
"fullName": {
 "type": "string"
},
"birthLocation": {
 "type": "string"
},
"street1": {
 "type": "string"
},
"street2": {
 "type": "string"
},
"city": {
"type": "string"
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"stateCode": {
 "type": "string"
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"zip": {
 "type": "string"
},
"geocode": {
 "type": "string"
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"district": {
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},
"school": {
 "$ref": "#/components/schemas/School"
},
"residencyStatus": {
"type": "string"
},
"residencyExpirationDate": {
"type": "string"
},
"highestDegree": {
 "type": "string"
},
"subjectMatterArea": {
```

```
"type": "string"
},
"degreeProvider": {
 "type": "string"
},
"certificateNumber": {
 "type": "string"
},
"certificateType": {
 "type": "string"
},
"itinerantFlag": {
 "type": "string"
},
"submissionPurpose": {
"type": "string"
},
"personType": {
 "type": "string"
},
"sourceRefreshDate": {
 "type": "string"
},
"multipleActiveEnCount": {
 "type": "integer",
 "format": "int64"
},
"studentCdf": {
 "type": "object",
 "additionalProperties": {
  "type": "string"
 }
},
"createdDate": {
 "type": "string"
},
"createdBy": {
 "type": "integer",
 "format": "int64"
},
"lastUpdateDate": {
 "type": "string"
},
"lastUpdateBy": {
 "type": "integer",
 "format": "int64"
```

```
},
"sourceReliability": {
 "type": "integer",
 "format": "int64"
},
"activeLocationCount": {
 "type": "integer",
 "format": "int64"
},
"pidMatchTransId": {
 "$ref": "#/components/schemas/PidMatchTransId"
},
"locationComment": {
 "type": "string"
},
"createdByEmail": {
 "type": "string"
},
"createdByFirstName": {
 "type": "string"
},
"createdByLastName": {
 "type": "string"
},
"updateByEmail": {
 "type": "string"
},
"updateByFirstName": {
 "type": "string"
},
"updateByLastName": {
 "type": "string"
}
```



eScholar Uniq-ID®

Audit APIs by User EUPI Gap 79 Statement of Work

Services Performed By	Services Performed For
eScholar LLC	Michigan CEPI

Overview

Description

CEPI has requested an enhancement that will enable the application to capture audit information at the user level rather than the service account. Currently the solution audits requests by the user account used for the request. In CEPI's case this will be a service account at the source level. Although individual accounts could be licensed to accommodate this need, CEPI is request that the APIs be updated to include a secondary user to be sent for auditing purposes. This is documented in the Requirements Traceability Matrix, Change Request tab as:

EUPI Gap 79: Audit information will not be captured at the source level. Therefore, CEPI will have to capture who made the changes at a source level.

The objectives of the project are to:

• Audit events based on the user within the CEPI solution(s) to ensure auditing can be traced to a specific person/user rather than a service account.

Identification

ID	Gap Priority
EUPI Gap 79	High

Definitions

Master Record

Refers to the active and current record for a person.

Submission Record

Refers to the record that is submitted for matching purposes via an API, File Upload, or other submission option. This record is used to match against the Master Records.

Project Timeline and Deliverables

Туре	Responsible	Description	Due Date
Task	Michigan	Final Requirements Approved	09/01/2023
Deliverable	eScholar	Deliver solution according to 3 Requirements and 5 Assumptions accepted as of 06/08/2023 in this SOW.	08/31/2024. Date dependent on approval of requirements by 09/01/2023.
Task	Michigan	Project Sign-Off	##/##/#### TBD

Project Details

Requirements

ID	Description	CEPI Validation Date	eScholar Validation Date
1	When an action/event is initiated by via an API, the request object shall allow a Requesting User to be submitted in the request header.	05/26/2023	05/26/2023
2	The Requesting User username shall be logged with the audit record data, in addition to the Service Account.	05/26/2023	05/26/2023
3	The Requesting User parameter/element shall allow up to 150 alphanumeric characters.	05/26/2023	05/26/2023

Assumptions

ID	Description
1	This is not a limitation of the UID system. The system can audit at the individual user level, but you are licensed in a way that CEPI will be using service accounts rather than individual user accounts.
2	CEPI will ensure unique usernames are submitted to eScholar. eScholar will not manage unique usernames.
3	This request only applies to events and actions, not PII "views" of data.
4	Auditing is tracked in two audit tables (AUDIT_ACCESS and AUDIT_ACTIONS). This CR (Change Request) refers only to these two tables. No other tables will be populated or updated for this CR.
5	The Requesting User element/data will not be stored in the Uniq-ID username field as it would not allow for data integrity. This Requesting User will be stored in the audit data.

Project Costs

Туре	Description	Fee
Fixed Fee	Fixed fee for development of solution as detailed herein.	\$19,400.00

Cost Scope & Payment

The statement of work includes the following work areas: Discovery, Clarification, and Prototyping (with CEPI); Design (Internal); Development (Internal); QA (Internal); Documentation Updates (Internal); Training (when applicable) and Enhancement Support. Payment will be made on a firm fixed basis. Contractor may invoice the State \$19,400.00 after the State formally accepts all deliverables detailed herein, adhering to the invoicing provisions in the Contract terms and conditions.



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 1

to Contract Number 22000001445

eScholar, LLC	<	Various	DTMB	
2429 Military Rd.	lanage	ogram		
Niagra Falls, NY 14304				
Elissa Seto	Adn	Jarrod Barron	DTMB	
914.729.3009	ninist	(517) 249-0406		
eseto@escholar.com	rator	^a barronj1@michiga	i.gov	
VS0219977	_			

CONTRACT SUMMARY					
EDUCATION UNIQUE PERSON IDENTIFIER SYSTEM					
INITIAL EFFECTIVE DATE		ON DATE	INITIAL AVAILABLE OPTIONS		EXPIRATION DATE BEFORE
August 30, 2022	August 29, 20)27	1 - 1 Year		August 29, 2027
PAY	MENT TERMS		DELIVERY TIM	EFRA	ME
	ALTERNATE PAYM	ENT OPTION	S	EXT	ENDED PURCHASING
P-Card		□ Oth	er	×Υ	′es □No
MINIMUM DELIVERY REQUIREMENTS					
DESCRIPTION OF CHANGE NOTICE					
OPTION LENG	TH OF OPTION E	XTENSION	LENGTH OF EXTENSION		REVISED EXP. DATE
					August 29, 2027
CURRENT VALUE	VALUE OF CHANGE		ESTIMATED AGGREGATE	CON	TRACT VALUE
\$6,488,420.00	\$390,000.0	0	\$6,878,42	0.00	
DESCRIPTION					
Effective 2/9/2023, the parties add \$390,000.00 for a support service pack not to exceed 3000 Business Analyst hours to be fulfilled by Contractor Relapath, LLC and 486 Project Manager hours to be fulfilled by Contractor. The parties					

Effective 2/9/2023, the parties add \$390,000.00 for a support service pack not to exceed 3000 Business Analyst hours to be fulfilled by Permitted Subcontractor Relapath, LLC and 486 Project Manager hours to be fulfilled by Contractor. The parties remove the statement of work language that had indicated Contractor would not use subcontractors but retain all contractual language requiring the State's preapproval before any additional subcontractors may be deemed Permitted Subcontractors. All other terms, conditions, specifications and pricing remain the same. Per contractor, Agency, DTMB Procurement, and State Administrative Board approval on 1/31/2023.

Remaining Ad Board funding after this contract change notice: \$359,999.99.

Program Managers for Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
DTMB	Trina Anderson	517-284-4141	andersont1@michigan.gov
DTMB	Kimberly Crawford	517-241-2368	crawfordk5@michigan.gov

STATE OF MICHIGAN PROCUREMENT



Department of Technology, Management & Budget 525 W. Allegan Street, Lansing, MI 48909

NOTICE OF CONTRACT

NOTICE OF CONTRACT NO. 171-220000001445

between

THE STATE OF MICHIGAN

and

2429 Military Road, #300 CONTRACTOR Elissa Seto

Niagara Falls, NY 14304

eScholar, LLC

914-729-3009

eseto@escholar.com

VS0219977

rogram anager		Various	CEPI
∖те	d N		
ST/	st ator	Jarrod Barron	DTMB
517-249-0406			
	C Adm	BarronJ1@michigan.gov	

CONTRACT SUMMARY				
DESCRIPTION: Education	Unique Person Identifier	System		
INITIAL EFFECTIVE DATE INITIAL EXPIRATION DATE		INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW	
8/30/2022	8/29/2027	Through 8/29/2032	N/A	N Contraction of the second se
PAYMENT	TERMS	D	ELIVERY TIMEFRAME	
Net 45				
ALTERNATE PAYMENT OPTIONS	6		EXTENDED PU	RCHASING
□ P-card □ F	Payment Request (PRC)	Other	⊠ Yes	🗆 No
MINIMUM DELIVERY REQUIREM	ENTS			
MISCELLANEOUS INFORMATION	1			
New contract established after completing RFP 171-220000002193. Approved by State Administrative Board on 8/30/2022.				
Program Managers: 1. CEPI: Trina Anderson, 517-284-4141, AndersonT1@michigan.gov 2. DTMB: Kimberly Crawford, 517-243-1483, CrawfordK5@michigan.gov				
ESTIMATED CONTRACT VALUE	AT TIME OF EXECUTION			\$6,488,420.00

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Jarrod Barron – IT Category Specialist Name & Title

DTMB – Central Procurement Services Agency

Date

SOFTWARE CONTRACT TERMS

These Terms and Conditions, together with all Schedules (including the Statement(s) of Work), Exhibits and any other applicable attachments or addenda (Collectively this "Contract") are agreed to between the State of Michigan (the "**State**") and eScholar, LLC ("**Contractor**"), a New York limited liability company. This Contract is effective on August 30, 2022 ("**Effective Date**"), and unless terminated, will expire on August 29, 2027 (the "**Term**").

This Contract may be renewed for additional period(s). The cumulative time of all renewal periods may not exceed 5 years. Renewal is at the sole discretion of the State and will automatically extend the Term of this Contract. The State will document its exercise of renewal options via Contract Change Notice.

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

"Acceptance" has the meaning set forth in Section 9.

"Acceptance Tests" means such tests as may be conducted in accordance with Section 9.1 and a Statement of Work to determine whether the Software meets the requirements of this Contract and the Documentation.

"Affiliate" of a Person means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such Person. For purposes of this definition, the term "control" (including the terms "controlled by" and "under common control with") means the direct or indirect ownership of more than fifty percent (50%) of the voting securities of a Person.

"Allegedly Infringing Materials" has the meaning set forth in Section 17.2(b).

"Approved Third Party Components" means all third party components, including Open-Source Components, that are included in or used in connection with the Software and are specifically identified by Contractor in the Contractor's Bid Response or as part of the State's Security Accreditation Process defined in Schedule E – Data Security Schedule.

"Authorized Users" means all Persons authorized by the State to access and use the Software under this Contract, subject to the maximum number of users specified in the applicable Statement of Work.

"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.

"Business Requirements Specification" means the initial specification setting forth the State's business requirements regarding the features and functionality of the Software, as set forth in a Statement of Work.

"Change" has the meaning set forth in Section 2.2.

"Change Notice" has the meaning set forth in Section 2.2(b).

"Change Proposal" has the meaning set forth in Section 2.2(a).

"Change Request" has the meaning set forth in Section 2.2.

"Confidential Information" has the meaning set forth in Section 22.1.

"**Configuration**" means State-specific changes made to the Software without Source Code or structural data model changes occurring.

"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 a Statement of Work.

"Contractor" has the meaning set forth in the preamble.

"Contractor's Bid Response" means the Contractor's proposal submitted in response to the RFP.

"Contractor Hosted" means the Hosted Services are provided by Contractor or one or more of its Permitted Subcontractors.

"Contractor Personnel" means all employees of Contractor or any subcontractors or Permitted Subcontractors involved in the performance of Services hereunder.

"**Contractor Project Manager**" means the individual appointed by Contractor and identified in a Statement of Work to serve as the primary contact with regard to services, to monitor and coordinate the day-to-day activities of this Contract, and to perform other duties as may be further defined in this Contract, including an applicable Statement of Work.

"Customization" means State-specific changes to the Software's underlying Source Code or structural data model changes.

"Deliverables" means the Software, and all other documents and other materials that Contractor 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 a Statement of Work and all Work Product.

"Deposit Material" refers to material required to be deposited pursuant to Section 28.

"**Documentation**" means all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of the Software.

"DTMB" means the Michigan Department of Technology, Management and Budget.

"Effective Date" has the meaning set forth in the preamble.

"Fees" means the fees set forth in the Pricing Schedule attached as Schedule B.

"Financial Audit Period" has the meaning set forth in Section 23.1.

"Harmful Code" means any software, hardware or other technologies, devices or means, the purpose or effect of which is to: (a) permit unauthorized access to, or to destroy, disrupt, disable, encrypt, modify, copy, or otherwise harm or impede in any manner, any (i) computer, software, firmware, data, hardware, system or network, or (ii) any application or function of any of the foregoing or the integrity, use or operation of any data Processed thereby; or (b) prevent the State or any Authorized User from accessing or using the Services as intended by this Contract, and includes any virus, bug, trojan horse, worm, backdoor or other malicious computer code and any time bomb or drop dead device.

"HIPAA" has the meaning set forth in Section 21.1.

"Hosted Services" means the hosting, management and operation of the Operating Environment, Software, other services (including support and subcontracted services), and related resources for remote electronic access

and use by the State and its Authorized Users, including any services and facilities related to disaster recovery obligations.

"**Implementation Plan**" means the schedule included in a Statement of Work setting forth the sequence of events for the performance of Services under a Statement of Work, including the Milestones and Milestone Dates.

"Integration Testing" has the meaning set forth in Section 9.2(a).

"Intellectual Property Rights" means all or any of the following: (a) patents, patent disclosures, and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names, and domain names, together with all of the associated goodwill; (c) copyrights and copyrightable works (including computer programs), mask works and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable law in any jurisdiction throughout the world.

"Key Personnel" means any Contractor Personnel identified as key personnel in the Contract.

"Loss or Losses" means all losses, including but not limited to, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys' fees and the costs of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers.

"Maintenance Release" means any update, upgrade, release or other adaptation or modification of the Software, including any updated Documentation, that Contractor may generally provide to its licensees from time to time during the Term, which may contain, among other things, error corrections, enhancements, improvements or other changes to the user interface, functionality, compatibility, capabilities, performance, efficiency or quality of the Software.

"Milestone" means an event or task described in the Implementation Plan under a Statement of Work that must be completed by the corresponding Milestone Date.

"Milestone Date" means the date by which a particular Milestone must be completed as set forth in the Implementation Plan under a Statement of Work.

"New Version" means any new version of the Software, including any updated Documentation, that the Contractor may from time to time introduce and market generally as a distinct licensed product, as may be indicated by Contractor's designation of a new version number.

"Nonconformity" or "Nonconformities" means any failure or failures of the Software to conform to the requirements of this Contract, including any applicable Documentation.

"Open-Source Components" means any software component that is subject to any open-source copyright license agreement, including any GNU General Public License or GNU Library or Lesser Public License, or other obligation, restriction or license agreement that substantially conforms to the Open Source Definition as prescribed by the Open Source Initiative or otherwise may require disclosure or licensing to any third party of any source code with which such software component is used or compiled.

"Operating Environment" means, collectively, the platform, environment and conditions on, in or under which the Software is intended to be installed and operate, as set forth in a Statement of Work, including such structural, functional and other features, conditions and components as hardware, operating software, system architecture, configuration, computing hardware, ancillary equipment, networking, software, firmware, databases, data, and electronic systems (including database management systems). "**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.

"Permitted Subcontractor" means any third party hired by Contractor to perform Services for the State under this Contract or have access to State Data.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"Pricing Schedule" means the schedule attached as Schedule B.

"Process" means to perform any operation or set of operations on any data, information, material, work, expression or other content, including to (a) collect, receive, input, upload, download, record, reproduce, store, organize, combine, log, catalog, cross-reference, manage, maintain, copy, adapt, alter, translate or make other improvements or derivative works, (b) process, retrieve, output, consult, use, disseminate, transmit, submit, post, transfer, disclose or otherwise provide or make available, or (c) block, erase or destroy. "Processing" and "Processed" have correlative meanings.

"**Representatives**" means a party's employees, officers, directors, partners, shareholders, agents, attorneys, successors and permitted assigns.

"RFP" means the State's request for proposal designed to solicit responses for Services under this Contract.

"Services" means any of the services, including but not limited to, Hosted Services, Contractor is required to or otherwise does provide under this Contract.

"Service Level Agreement" means the schedule attached as Schedule D, setting forth the Support Services Contractor will provide to the State, and the parties' additional rights and obligations with respect thereto.

"Site" means the physical location designated by the State in, or in accordance with, this Contract or a Statement of Work for delivery and installation of the Software.

"**Software**" means Contractor's software as set forth in a Statement of Work, and any Maintenance Releases or New Versions provided to the State and any Customizations or Configurations made by or for the State pursuant to this Contract, and all copies of the foregoing permitted under this Contract.

"Source Code" means the human readable source code of the Software to which it relates, in the programming language in which the Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, the Software.

"**Specifications**" means, for the Software, the specifications collectively set forth in the Business Requirements Specification, Technical Specification, Documentation, RFP, or Contractor's Bid Response, if any, for such Software, or elsewhere in a Statement of Work.

"State" means the State of Michigan.

"State Data" has the meaning set forth in Section 21.1.

"**State Hosted**" means the Hosted Services are not provided by Contractor or one or more of its Permitted Subcontractors.

"State Materials" means all materials and information, including documents, data, know-how, ideas, methodologies, specifications, software, content and technology, in any form or media, directly or indirectly provided or made available to Contractor by or on behalf of the State in connection with this Contract.

"State Program Managers" are the individuals appointed by the State, or their designees, to (a) monitor and coordinate the day-to-day activities of this Contract; (b) co-sign off on Acceptance of the Software and other Deliverables; and (c) perform other duties as may be specified in a Statement of Work Program Managers will be identified in a Statement of Work.

"State Systems" means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

"**Statement of Work**" means any statement of work entered into by the parties and incorporated into this Contract. The initial Statement of Work is attached as **Schedule A**.

"Stop Work Order" has the meaning set forth in Section 15.

"Support Services" means the software maintenance and support services Contractor is required to or otherwise does provide to the State under the Service Level Agreement.

"**Technical Specification**" means, with respect to any Software, the document setting forth the technical specifications for such Software and included in a Statement of Work.

"Term" has the meaning set forth in the preamble.

"Testing Period" has the meaning set forth in Section 9.1(b).

"Transition Period" has the meaning set forth in Section 16.3.

"Transition Responsibilities" has the meaning set forth in Section 16.3.

"Unauthorized Removal" has the meaning set forth in Section 2.5(b).

"Unauthorized Removal Credit" has the meaning set forth in Section 2.5(c).

"User Data" means all data, information and other content of any type and in any format, medium or form, whether audio, visual, digital, screen, GUI or other, that is input, uploaded to, placed into or collected, stored, Processed, generated or output by any device, system or network by or on behalf of the State, including any and all works, inventions, data, analyses and other information and materials resulting from any use of the Software by or on behalf of the State under this Contract, except that User Data does not include the Software or data, information or content, including any GUI, audio, visual or digital or other display or output, that is generated automatically upon executing the Software without additional user input without the inclusion of user derived Information or additional user input.

"**Warranty Period**" means the ninety (90) calendar-day period commencing on the date of the State's Acceptance of the Software and for which Support Services are provided free of charge.

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

"Work Product" means a) all State-specific software deliverables that Contractor is required to, or otherwise does, provide to the State under this Contract which are identified as being owned by the State in a Statement of Work, including but not limited to any of the following: application programming interfaces, computer scripts, macros, and user interfaces; and b) all State-specific non-software deliverables including but not limited to any of the following: reports, project management documents, forms, templates, and other State-specific documents and related materials; together with all ideas, concepts, processes, and methodologies developed in connection with this Contract whether or not embodied in this Contract except for ideas, concepts, processes, and methodologies that are incorporated into the Software unless they fall under the definition of Work Product in a).

2. Duties of Contractor. Contractor will provide Services and Deliverables pursuant to Statement(s) of Work entered into under this Contract. Contractor will provide all Services and Deliverables in a timely, professional manner and in accordance with the terms, conditions, and Specifications set forth in this Contract and the Statement(s) of Work.

2.1 <u>Statement of Work Requirements</u>. No Statement of Work will be effective unless signed by each party's Contract Administrator. The term of each Statement of Work will commence on the parties' full execution of a Statement of Work and terminate when the parties have fully performed their obligations. The terms and conditions of this Contract will apply at all times to any Statements of Work entered into by the parties and incorporated into this Contract. The State will have the right to terminate such Statement of Work as set forth in **Section 16**.

2.2 <u>Change Control Process</u>. 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 2.2**.

(a) As soon as reasonably practicable, and in any case within 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:

- (i) a written description of the proposed Changes to any Services or Deliverables;
- (ii) 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;
- (iii) any additional State Resources Contractor deems necessary to carry out such Changes; and
- (iv) 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.

(b) Within 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

(c) If the parties fail to enter into a Change Notice within 15 Business Days following the State's response to a Change Proposal, the State may, in its discretion:

(i) require Contractor to perform the Services under a Statement of Work without the Change;

- (ii) require Contractor to continue to negotiate a Change Notice;
- (iii) initiate a Dispute Resolution Procedure; or
- (iv) notwithstanding any provision to the contrary in a Statement of Work, terminate this Contract under **Section 16.1**.

(d) 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.

(e) 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.

(f) 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.

2.3 Contractor Personnel.

(a) Contractor is solely 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.

- (b) Prior to any Contractor Personnel performing any Services, Contractor will:
 - (i) ensure that such Contractor Personnel have the legal right to work in the United States;
 - upon request, 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; and
 - (iii) upon request, or as otherwise specified in a Statement of Work, perform background checks on all Contractor Personnel prior to their assignment. Contractor must train all Contractor Personnel assigned to this Contract in FERPA regulations and will do so throughout the Term.
 - (iv) Contractor is responsible for all costs associated with the requested background checks. The Contractor represents and warrants that it currently performs background checks that meet the State's requirements as of the Effective Date. Further, the Contractor shall provide an attestation at the request of the State that it continues to and that it has performed the required background checks under this Agreement throughout the Term and will provide details, if requested, regarding what procedures it uses for the background checks. The State, in its sole discretion, may also perform background checks on Contractor Personnel. 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.

(c) 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.

(d) 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.

2.4 <u>Contractor Project Manager</u>. Throughout the Term of this Contract, Contractor must maintain a Contractor employee acceptable to the State to serve as Contractor Project Manager, who will be considered Key Personnel of Contractor. Contractor Project Manager will be identified in a Statement of Work.

- (a) Contractor Project Manager must:
 - (i) have the requisite authority, and necessary skill, experience, and qualifications, to perform in such capacity;
 - (ii) be responsible for overall management and supervision of Contractor's performance under this Contract; and
 - (iii) be the State's primary point of contact for communications with respect to this Contract, including with respect to giving and receiving all day-to-day approvals and consents.

(b) Contractor Project Manager must attend all regularly scheduled meetings as set forth in the Implementation Plan and will otherwise be available as set forth in a Statement of Work.

- (c) Contractor will maintain the same Contractor Project Manager throughout the Term of this Contract, unless:
 - (i) the State requests in writing the removal of Contractor Project Manager;
 - (ii) the State consents in writing to any removal requested by Contractor in writing;
 - (iii) Contractor Project Manager ceases to be employed by Contractor, whether by resignation, involuntary termination or otherwise.

(d) Contractor will promptly replace its Contractor Project Manager on the occurrence of any event set forth in **Section 2.4(c)**. Such replacement will be subject to the State's prior written approval.

2.5 Contractor's Key Personnel.

(a) 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 Program Managers or their designees, 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.

(b) 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 16.1**.

(c) 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 16**, Contractor will issue to the State an amount equal to \$25,000 per individual (each, an "**Unauthorized Removal Credit**").

(d) Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed under **Subsection 2.5(c)** 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.

2.6 <u>Subcontractors</u>. Contractor must obtain prior written approval of the State, which consent may be given or withheld in the State's sole discretion, before engaging any Permitted Subcontractor to provide Services to the State under this Contract. Third parties otherwise retained by Contractor to provide Contractor or other clients of contractor with services are not Permitted Subcontractors, and therefore do not require prior approval by the State. Engagement of any subcontractor or Permitted Subcontractor by Contractor does not relieve Contractor of its representations, warranties or obligations under this Contract. Without limiting the foregoing, Contractor will:

(a) be responsible and liable for the acts and omissions of each such subcontractor (including such Permitted Subcontractor and Permitted Subcontractor's employees who, to the extent providing Services or Deliverables, will be deemed Contractor Personnel) to the same extent as if such acts or omissions were by Contractor or its employees;

(b) name the State a third-party beneficiary under Contractor's Contract with each Permitted Subcontractor with respect to the Services;

(c) be responsible for all fees and expenses payable to, by or on behalf of each Permitted 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

(d) notify the State of the location of the Permitted Subcontractor and indicate if it is located within the continental United States.

3. 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.

If to State:	If to Contractor:
Jarrod Barron	eScholar LLC

Elliott-Larsen Building	2429 Military Road, #300
320 S. Walnut Street	Niagara Falls, NY 14304
Lansing, MI 48933	sales@escholar.com]
BarronJ1@michigan.gov	[877-328-2969
517-249-0406	
	Cc: legal@harriscomputer.com

4. Insurance. Contractor must maintain the minimum insurances identified in the Insurance Schedule attached as **Schedule C**.

5. Software License.

5.1 **Perpetual License** Contractor hereby grants to the State and its Authorized Users a non-exclusive, royalty-free, perpetual, irrevocable right and license to use the Software and Documentation in accordance with the terms and conditions of this Contract, provided that:

(a) The State is prohibited from reverse engineering or decompiling the Software, making derivative works, modifying, adapting or copying the Software except as is expressly permitted by this Contract or required to be permitted by law;

(b) The State is authorized to make copies of the Software for backup, disaster recovery, and archival purposes;

(c) The State is authorized to make copies of the Software to establish a test environment to conduct Acceptance Testing;

(d) Title to and ownership of the Software shall at all times remain with Contractor and/or it's licensors, as applicable; and

(e) Except as expressly agreed in writing, the State is not permitted to sub-license the use of the Software or any accompanying Documentation.

5.2 Reserved.

5.3 **Certification**. To the extent that a License granted to the State is not unlimited, Contractor may request written certification from the State regarding use of the Software for the sole purpose of verifying compliance with this **Section 5.** Such written certification may occur no more than once in any 24 month period during the Term of the Contract. The State will respond to any such request within 45 calendar days of receipt. If the State's use is greater than contracted, Contractor may invoice the State for any unlicensed use (and related support) pursuant to the terms of this Contract at the rates set forth in **Schedule B**, and the unpaid license and support fees shall be payable in accordance with the terms of the Contract. Payment under this provision shall be Contractor's sole and exclusive remedy to cure these issues.

5.4 **State License Grant to Contractor**. The State hereby grants to Contractor a limited, non-exclusive, nontransferable license (i) to use the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos, solely in accordance with the State's specifications, and (ii) to display, reproduce, distribute and transmit in digital form the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos in connection with promotion of the Services as communicated to Contractor by the State. Use of the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos will be specified in the applicable Statement of Work. Contractor is provided a limited license to State Materials for the sole and exclusive purpose of providing the Services.

6. Third Party Components. At least 30 days prior to adding new Third Party Components, Contractor will provide the State with notification information identifying and describing the addition. Throughout the Term, on an annual basis, Contractor will provide updated information identifying and describing any Approved Third Party Components included in the Software.

7. Intellectual Property Rights

7.1 Ownership Rights in Software

- (a) For purposes of this Section 7 only, the term "Software" does not include Customizations.
- (b) Subject to the rights and licenses granted by Contractor in this Contract and the provisions of **Section**

7.1(c):

- (i) Contractor reserves and retains its entire right, title and interest in and to all Intellectual Property Rights arising out of or relating to the Software; and
- (ii) none of the State or Authorized Users acquire any ownership of Intellectual Property Rights in or to the Software or Documentation as a result of this Contract.

(c) As between the State, on the one hand, and Contractor, on the other hand, the State has, reserves and retains, sole and exclusive ownership of all right, title and interest in and to State Materials, User Data, including all Intellectual Property Rights arising therefrom or relating thereto.

7.2 The State is and will be the sole and exclusive owner of all right, title, and interest in and to all Work Product developed exclusively for the State under this Contract, including all Intellectual Property Rights. In furtherance of the foregoing:

(a) Contractor will create all Work Product as work made for hire as defined in Section 101 of the Copyright Act of 1976; and

(b) to the extent any Work Product, or Intellectual Property Rights do not qualify as, or otherwise fails to be, work made for hire, Contractor hereby:

- (i) assigns, transfers, and otherwise conveys to the State, irrevocably and in perpetuity, throughout the universe, all right, title, and interest in and to such Work Product, including all Intellectual Property Rights; and
- (ii) irrevocably waives any and all claims Contractor may now or hereafter have in any jurisdiction to so-called "moral rights" or rights of *droit moral* with respect to the Work Product.

8. Software Implementation.

8.1 <u>Implementation</u>. Contractor will as applicable; deliver, install, configure, integrate, and otherwise provide and make fully operational the Software on or prior to the applicable Milestone Date in accordance with the criteria set forth in a Statement of Work and the Implementation Plan.

8.2 <u>Site Preparation</u>. Unless otherwise set forth in a Statement of Work, Contractor is responsible for ensuring the relevant Operating Environment is set up and in working order to allow Contractor to deliver and install the Software on or prior to the applicable Milestone Date. Contractor will provide the State with such notice as is specified in a Statement of Work, prior to delivery of the Software to give the State sufficient time to prepare for Contractor's delivery and installation of the Software. If the State is responsible for Site preparation, Contractor will provide such assistance as the State requests to complete such preparation on a timely basis.

9. Software Acceptance Testing.

9.1 Acceptance Testing.

(a) Unless otherwise specified in a Statement of Work, upon installation of the Software, or in the case of Contractor Hosted Software, when Contractor notifies the State in writing that the Hosted Services are ready for use

in a production environment, Acceptance Tests will be conducted as set forth in this **Section 9** to ensure the Software conforms to the requirements of this Contract, including the applicable Specifications and Documentation.

(b) All Acceptance Tests will take place at the designated Site(s) in the Operating Environment described in a Statement of Work, commence on the Business Day following installation of the Software, or the receipt by the State of the notification in **Section 9.1(a)**, and be conducted diligently for up to 30 Business Days, or such other period as may be set forth in a Statement of Work (the "**Testing Period**"). Acceptance Tests will be conducted by the party responsible as set forth in a Statement of Work or, if a Statement of Work does not specify, the State, provided that:

- (i) for Acceptance Tests conducted by the State, if requested by the State, Contractor will make suitable Contractor Personnel available to observe or participate in such Acceptance Tests; and
- (ii) for Acceptance Tests conducted by Contractor, the State has the right to observe or participate in all or any part of such Acceptance Tests.

9.2 Contractor is solely responsible for all costs and expenses related to Contractor's performance of, participation in, and observation of Acceptance Testing.

(a) Upon delivery and installation of any application programming interfaces, Configuration or Customizations, or any other applicable Work Product, to the Software under a Statement of Work, additional Acceptance Tests will be performed on the modified Software as a whole to ensure full operability, integration, and compatibility among all elements of the Software ("**Integration Testing**"). Integration Testing is subject to all procedural and other terms and conditions set forth in **Section 9.1**, **Section 9.4**, and **Section 9.5**.

(b) The State may suspend Acceptance Tests and the corresponding Testing Period by written notice to Contractor if the State discovers a material Non-Conformity in the tested Software or part or feature of the Software. In such event, Contractor will immediately, and in any case within 10 Business Days, correct such Non-Conformity, whereupon the Acceptance Tests and Testing Period will resume for the balance of the Testing Period.

9.3 <u>Notices of Completion, Non-Conformities, and Acceptance</u>. Within 15 Business Days following the completion of any Acceptance Tests, including any Integration Testing, the party responsible for conducting the tests will prepare and provide to the other party written notice of the completion of the tests. Such notice must include a report describing in reasonable detail the tests conducted and the results of such tests, including any uncorrected Non-Conformity in the tested Software.

(a) If such notice is provided by either party and identifies any Non-Conformities, the parties' rights, remedies, and obligations will be as set forth in **Section 9.4** and **Section 9.5**.

(b) If such notice is provided by the State, is signed by the State Program Managers or their designees, and identifies no Non-Conformities, such notice constitutes the State's Acceptance of such Software.

(c) If such notice is provided by Contractor and identifies no Non-Conformities, the State will have 30 Business Days to use the Software in the Operating Environment and determine, in the exercise of its sole discretion, whether it is satisfied that the Software contains no Non-Conformities, on the completion of which the State will, as appropriate:

- notify Contractor in writing of Non-Conformities the State has observed in the Software and of the State's non-acceptance thereof, whereupon the parties' rights, remedies and obligations will be as set forth in Section 9.4 and Section 9.5; or
- (ii) provide Contractor with a written notice of its Acceptance of such Software, which must be signed by the State Program Managers or their designees.

9.4 <u>Failure of Acceptance Tests</u>. If Acceptance Tests identify any Non-Conformities, Contractor, at Contractor's sole cost and expense, will remedy all such Non-Conformities and re-deliver the Software, in accordance with the requirements set forth in a Statement of Work. Redelivery will occur as promptly as commercially possible and, in any case, within 30 Business Days following, as applicable, Contractor's:

(a) completion of such Acceptance Tests, in the case of Acceptance Tests conducted by Contractor; or

(b) receipt of the State's notice under **Section 9.1(a)** or **Section 9.3(c)(i)**, identifying any Non-Conformities.

9.5 <u>Repeated Failure of Acceptance Tests</u>. If Acceptance Tests identify any Non-Conformity in the Software after a second or subsequent delivery of the Software, or Contractor fails to re-deliver the Software on a timely basis, the State may, in its sole discretion, by written notice to Contractor:

(a) continue the process set forth in this **Section 9**;

(b) accept the Software as a nonconforming deliverable, in which case the Fees for such Software will be reduced equitably to reflect the value of the Software as received relative to the value of the Software had it conformed; or

(c) deem the failure to be a non-curable material breach of this Contract and a Statement of Work and terminate this Contract for cause in accordance with **Section 16.1**.

9.6 <u>Acceptance</u>. Acceptance ("Acceptance") of the Software (subject, where applicable, to the State's right to Integration Testing) and any Deliverables will occur on the date that is the earliest of the State's delivery of a notice accepting the Software or Deliverables under Section 9.3(b), or Section 9.3(c)(ii).

10. Non-Software Acceptance.

10.1 All other non-Software Services and Deliverables are subject to inspection and testing by the State within 30 calendar days of the State's receipt of them ("State Review Period"), unless otherwise provided in the Statement of Work. If the non-Software Services and 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 non-Software Services and Deliverables are accepted but noted deficiencies must be corrected; or (b) the non-Software Services and Deliverables are rejected. If the State finds material deficiencies, it may: (i) reject the non-Software Services and Deliverables without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with **Section 16.1**, Termination for Cause.

10.2 Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any non-Software Services and Deliverables, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable non-Software Services and Deliverables to the State. If acceptance with deficiencies or rejection of the non-Software Services and Deliverables impacts the content or delivery of other non-completed non-Software Services and Deliverables, the parties' respective Program Managers 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.

10.3 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 order in whole or in part. The State, or a third party identified by the State, may provide the non-Software Services and Deliverables and recover the difference between the cost to cure and the Contract price plus an additional 10% administrative fee.

11. Assignment. Contractor may not assign this Contract to any other party without the prior 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. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.

12. 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.

13. Invoices and Payment.

13.1 Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Services and Deliverables provided as specified in Statement(s) of Work. Invoices must include an itemized statement of all charges.

13.2 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 and 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.

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

13.4 <u>Right of Setoff</u>. 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.

13.5 <u>Taxes</u>. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services or Deliverables purchased under this Contract are for the State's exclusive use. Notwithstanding the foregoing, all Fees 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.

13.6 <u>Pricing/Fee Changes</u>. All Pricing set forth in this Contract will not be increased, except as otherwise expressly provided in this Section.

(a) The Fees will not be increased at any time except for the addition of additional licenses, the fees for which licenses will also remain firm in accordance with the Pricing set forth in the Pricing Schedule.

(b) Excluding federal government charges and terms. Contractor warrants and agrees that each of the Fees, economic or product terms or warranties granted pursuant to this Contract are comparable to or better than the equivalent fees, economic or product term or warranty being offered to any commercial or government customer (including any public educational institution within the State of Michigan) of Contractor. If Contractor enters into any arrangements with another customer of Contractor to provide the products or services, available under this Contract, under more favorable prices, as the prices may be indicated on Contractor's current U.S. and International price list or comparable document, then this Contract will be deemed amended as of the date of such other arrangements to incorporate those more favorable prices, and Contractor will immediately notify the State of such Fee and formally memorialize the new pricing in a Change Notice.

14. Liquidated Damages.

14.1 The parties understand and agree that any liquidated damages (which includes but is not limited to applicable credits) set forth in this Contract are reasonable estimates of the State's damages in accordance with applicable law.

14.2 The parties acknowledge and agree that Contractor could incur liquidated damages for more than one event.

14.3 The assessment of liquidated damages will not constitute a waiver or release of any other remedy the State may have under this Contract for Contractor's breach of this Contract, including without limitation, the State's right to terminate this Contract for cause under **Section 16.1** and the State will be entitled in its discretion to recover actual damages caused by Contractor's failure to perform its obligations under this Contract. However, the State will reduce such actual damages by the amounts of liquidated damages received for the same events causing the actual damages.

14.4 Amounts due the State as liquidated damages may be set off against any Fees payable to Contractor under this Contract, or the State may bill Contractor as a separate item and Contractor will promptly make payments on such bills.

15. Stop Work Order. The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. 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 Contract or delivery order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.

16. Termination, Expiration, Transition. The State may terminate this Contract, the Support Services, or any Statement of Work, in accordance with the following:

16.1 <u>Termination for Cause</u>. In addition to any right of termination set forth elsewhere in this Contract:

(a) The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State:

- (i) endangers the value, integrity, or security of State Systems, State Data, or the State's facilities or personnel;
- (ii) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor;
- (iii) breaches any of its material duties or obligations under this Contract; or
- (iv) fails to cure a breach within 30 days after receiving notice of breach, if in its sole discretion the State has chosen to provide Contractor a cure period.
- (v) Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

(b) If the State terminates this Contract under this **Section 16.1**, the State will issue a termination notice specifying whether Contractor must:

- 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 Contract, or
- (ii) continue to perform for a specified period. If it is later determined that Contractor was not in breach of this Contract, the termination will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 16.2.

(c) The State will only pay for amounts due to Contractor for Services 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. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination. Further, 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 from other sources.

16.2 <u>Termination for Convenience</u>. The State may immediately terminate this Contract in whole or in part, without penalty and for any reason or no reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must:

(a) cease performance immediately. Contractor must submit all invoices for Services completed prior to termination 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 under this Contract, or

(b) continue to perform in accordance with **Section 16.3**. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities to the extent the funds are available. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

16.3 Transition Responsibilities.

(a) 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; the "**Transition Period**"), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract 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:

- (i) continuing to perform the Services at the established Contract rates;
- (ii) taking all reasonable and necessary measures to transition performance of the work, including all applicable Services to the State or the State's designee;
- (iii) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, and comply with Section 22.5 regarding the return or destruction of State Data at the conclusion of the Transition Period; and

(iv) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, the "Transition Responsibilities"). The Term of this Contract is automatically extended through the end of the Transition Period.

(b) Contractor will follow the transition plan attached as **Schedule G** as it pertains to both transition in and transition out activities.

17. Indemnification

17.1 <u>General Indemnification</u>. 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 third party 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 grossly negligent or more culpable acts or omissions, including without limitation recklessness or willful misconduct, of Contractor (or any of Contractor's employees, agents, subcontractors, or by anyone else for whose acts any of them may be liable).

17.2 <u>Indemnification Procedure</u>. 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:

- (a) regular updates on proceeding status;
- (b) participate in the defense of the proceeding, at the State's own expense;
- (c) employ its own counsel at the State's own expense; and to

(d) retain control of the defense, at its own cost and expense, if the State deems necessary. If the State remains a named party, Contractor will not, without the State's prior 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. Any litigation activity on behalf of the State or any of its subdivisions, under this **Section 17**, 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.

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

18. Infringement Remedies.

18.1 The remedies set forth in this Section are in addition to, and not in lieu of, all other remedies that may be available to the State under this Contract or otherwise, including the State's right to be indemnified for such actions.

18.2 If any Software or any component thereof, other than State Materials, is found to be infringing or if any use of any Software or any component thereof is enjoined, threatened to be enjoined or otherwise the subject of an infringement claim, Contractor must, at Contractor's sole cost and expense:

(a) procure for the State the right to continue to use such Software or component thereof to the full extent contemplated by this Contract; or

(b) modify or replace the materials that infringe or are alleged to infringe ("**Allegedly Infringing Materials**") to make the Software and all of its components non-infringing while providing fully equivalent features and functionality.

18.3 If neither of the foregoing is possible notwithstanding Contractor's best efforts, then Contractor may direct the State to cease any use of any materials that have been enjoined or finally adjudicated as infringing, provided that Contractor will:

(a) refund to the State all amounts paid by the State in respect of such Allegedly Infringing Materials and any other aspects of the Software provided under a Statement of Work for the Allegedly Infringing Materials that the State cannot reasonably use as intended under this Contract; and

(b) in any case, at its sole cost and expense, secure the right for the State to continue using the Allegedly Infringing Materials for a transition period of up to 6 months to allow the State to replace the affected features of the Software without disruption.

18.4 If Contractor directs the State to cease using any Software under **Section 18.3**, the State may terminate this Contract for cause under **Section 16.1**.Unless the claim arose against the Software independently of any of the actions specified below, Contractor will have no liability for any claim of infringement arising solely from:

- (a) Contractor's compliance with any designs, specifications, or instructions of the State; or
- (b) modification of the Software by the State without the prior knowledge and approval of Contractor.

19. Disclaimer of Damages and Limitation of Liability.

19.1 <u>Disclaimer of Damages</u>. NEITHER PARTY WILL 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.

19.2 <u>RESERVED.</u>

19.3 Limitation of Liability. IN NO EVENT WILL EITHER PARTY'S AGGREGATE LIABILITY TO THE OTHER PARTY 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 IN THE AGGREGATE THE FOLLOWING AMOUNTS:

(a) AS OF THE EFFECTIVE DATE: \$2 MILLION;

(b) THEREAFTER, EXCEPT FOR THE INITIAL AMOUNTS PAID UNDER THIS AGREEMENT WHICH ARE SUBJECT TO THE FIRST INVOICE, THE AMOUNT OF THE LIMITATION OF LIABILITY WILL CONTINUE TO INCREASE CUMULATIVELY BASED ON THE VALUE OF THE NEXT YEAR PAYMENT REQUIREMENT AS SET OUT IN TABLES 2 AND 3 OF SCHEDULE B UNDER THE STATEMENT OF WORK PLUS ANY OTHER FEES PAID DURING YEAR 2 OR AFTERWARDS THAT ARE NOT COVERED BY TABLES 2 AND 3, EACH AS APPLICABLE.

19.4 Section 19.1 shall not apply to:

(i) Contractor's obligations to indemnify under the terms of this Contract;

(ii) Contractor's obligations related to Section 21.5 of this Contract (Loss or Compromise of State Data); and

- (iii) damages arising from Contractor's gross negligence or intentional misconduct.
- 19.5 Section 19.3 shall not apply to:
 - (i) Contractor's obligations to indemnify under sections 17.1 (b), (c), and (d) of this Contract; and
 - (ii) Damages arising from Contractor's gross negligence or intentional misconduct.

19.6 In relation to Contractor's obligations related to Section 21.5 of this Contract (Loss or Compromise of State Data), the limitation of liability under clause 19.3 (a) shall be \$10 million instead of \$2 million.

20. Disclosure of Litigation, or Other Proceeding. Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving Contractor, a Permitted Subcontractor, or an officer or director of Contractor or Permitted Subcontractor, that arises during the term of the Contract, including:

- (a) a criminal Proceeding;
- (b) a parole or probation Proceeding;
- (c) a Proceeding under the Sarbanes-Oxley Act;
- (d) a civil Proceeding involving:
 - (i) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or
 - (ii) a governmental or public entity's claim or written allegation of fraud; or

(e) a Proceeding involving any license that Contractor is required to possess in order to perform under this Contract.

21. State Data.

21.1 <u>Ownership</u>. 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 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) protected 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) information collected, used, Processed, stored, or generated as the result of the Services that is defined under the Family Educational Rights and Privacy Act ("FERPA") and its related rules and regulations.

21.2 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.

21.3 <u>Contractor Use of State Data</u>. 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, any applicable Statement of Work, and applicable law;

(c) keep and maintain State Data in the continental United States and

(d) not use, sell, rent, transfer, distribute, commercially exploit, 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. Contractor's misuse of State Data may violate state or federal laws, including but not limited to MCL 752.795.

21.4 <u>Discovery</u>. Contractor will immediately notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State's use of the Software and Hosted Services, if applicable. Contractor will notify the State Program Managers or their designees 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, unless otherwise prohibited by law to provide such notification and obtaining such approval. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.

21.5 Loss or Compromise of 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, integrity, or availability 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 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) in the case of PII or PHI, at the State's sole election:

- with approval and assistance from the State, notify the affected individuals who comprise the PII or PHI as soon as practicable but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within 5 calendar days of the occurrence; or
- (ii) reimburse the State for any costs in notifying the affected individuals;

(d) in the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no less than 24 months following the date of notification to such individuals;

(e) perform or take any other actions required to comply with applicable law as a result of the occurrence;

(f) 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;

(g) 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;

(h) be responsible for recreating lost State Data in the manner and on the schedule set by the State without charge to the State; and

(i) provide to the State a detailed plan within 10 calendar days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence. Notification to affected individuals, as described above, must comply with applicable law, be written in plain language, not be tangentially used for any solicitation purposes, and contain, at a minimum: name and contact information of Contractor's representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual; what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor. The State will have the option to review and approve any notification sent to affected individuals prior to its delivery. Notification to any other party, including but not limited to public media outlets, must be reviewed and approved by the State in writing prior to its dissemination.

21.6 The parties agree that any damages relating to a breach of **Section 21.5** are to be considered direct damages and not consequential damages.

22. 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.

22.1 <u>Meaning of Confidential Information</u>. 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: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA);(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.

22.2 <u>Obligation of Confidentiality</u>. 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 the Contractor's subcontractor is permissible where:

(a) the subcontractor is a Permitted Subcontractor;

(b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Permitted Subcontractor's responsibilities; and

(c) Contractor obligates the Permitted Subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any of the Contractor's and Permitted Subcontractor's Representatives may be required to execute a separate agreement to be bound by the provisions of this **Section 22.2**.

22.3 <u>Cooperation to Prevent Disclosure of Confidential Information</u>. 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. Each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

22.4 <u>Remedies for Breach of Obligation of Confidentiality</u>. 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 any Statement of Work corresponding to the breach or threatened breach.

22.5 <u>Surrender of Confidential Information upon Termination</u>. Upon termination or expiration of this Contract or a Statement of Work, in whole or in part, each party must, within 5 Business 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. Upon confirmation from the State, of receipt of all data, Contractor must permanently sanitize or destroy the State's Confidential Information, including State Data, from all media including backups using National Security Agency ("NSA") and/or National Institute of Standards and Technology ("NIST") (NIST Guide for Media Sanitization 800-88) data sanitation methods or as otherwise instructed by the State. If the State determines that the return of any Confidential Information is not feasible or necessary, Contractor must destroy the Confidential Information as specified above. The Contractor must certify the destruction of Confidential Information (including State Data) in writing within 5 Business Days from the date of confirmation from the State.

23. Records Maintenance, Inspection, Examination, and Audit.

23.1 <u>Right of Audit</u>. Pursuant to MCL 18.1470, 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 this Contract through the Term of this 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.

23.2 <u>Right of Inspection</u>. 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 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 this Contract must be paid or refunded within 45 calendar days.

23.3 <u>Application</u>. This **Section 23** applies to Contractor, any Affiliate, and any Permitted Subcontractor that performs Services in connection with this Contract.

24. Support Services. Contractor will provide the State with the Support Services described in the Service Level Agreement attached as **Schedule D** to this Contract. Such Support Services will be provided:

(a) Free of charge during the Warranty Period.

(b) Thereafter, for so long as the State elects to receive Support Services for the Software, in consideration of the State's payment of Fees for such services in accordance with the rates set forth in the Pricing Schedule.

25. Data Security Requirements. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State's Confidential Information that comply with the requirements of the State's data security policies as set forth in **Schedule E** to this Contract.

26. Training. Contractor will provide, at no charge beyond those fees listed in Schedule B, training on all uses of the Software permitted hereunder in accordance with the times, locations and other terms set forth in a Statement of Work. Upon the State's request, Contractor will timely provide training for additional Authorized Users or other additional training on all uses of the Software for which the State requests such training, at such reasonable times and locations and pursuant to such rates and other terms as are set forth in Schedule B.

27. Maintenance Releases; New Versions

27.1 <u>Maintenance Releases</u>. Provided that the State is current on its Fees, during the Term, Contractor will provide the State, at no additional charge, with all Maintenance Releases, each of which will constitute Software and be subject to the terms and conditions of this Contract.

27.2 <u>New Versions</u>. Provided that the State is current on its Fees, during the Term, Contractor will provide the State, at no additional charge, with all New Versions, each of which will constitute Software and be subject to the terms and conditions of this Contract.

27.3 Installation. The State has no obligation to install or use any Maintenance Release or New Versions. If the State wishes to install any Maintenance Release or New Version, the State will have the right to have such Maintenance Release or New Version installed, in the State's discretion, by Contractor or other authorized party as set forth in a Statement of Work. Contractor will provide the State, at no additional charge, adequate Documentation for installation of the Maintenance Release or New Version, which has been developed and tested by Contractor and Acceptance Tested by the State. The State's decision not to install or implement a Maintenance Release or New Version of the Software will not affect its right to receive Support Services throughout the Term of this Contract.

28. Source Code Escrow

28.1 <u>Escrow Contract</u>. The parties may enter into a separate intellectual property escrow agreement. Such escrow agreement will govern all aspects of Source Code escrow and release. The cost of the escrow will be the sole responsibility of the State. The release conditions of the Source Code will be in the escrow agreement.

28.2 <u>Deposit</u>. Within 30 business days of the effective date of the escrow agreement, Contractor will deposit with the escrow agent, pursuant to the procedures of the escrow agreement, the Source Code for the Software, as well as the Documentation and names and contact information for each author or other creator of the Software. Promptly after release of any update, upgrade, patch, bug fix, enhancement, new version, or other revision to the

Software, Contractor will deposit updated Source Code, documentation, names, and contact information with the escrow agent. <u>Verification</u>. At State's request and expense, the escrow agent may at any time verify the Deposit Material, including without limitation by compiling Source Code, comparing it to the Software, and reviewing the completeness and accuracy of any and all material. In the event that the Deposit Material does not conform to the requirements of **Section 28.2** above:

(a) Contractor will promptly deposit conforming Deposit Material; and

(b) Contractor will pay the escrow agent for subsequent verification of the new Deposit Material. Any breach of the provisions of this **Section 28.3** will constitute material breach of this Contract, and no further payments will be due from the State until such breach is cured, in addition to other remedies the State may have.

28.3 <u>Deposit Material License</u>. Contractor hereby grants the State a license to use, reproduce, and create derivative works from the Deposit Material, provided the State may not distribute or sublicense the Deposit Material or make any use of it whatsoever except for such internal use as is necessary to maintain and support the Software. Copies of the Deposit Material created or transferred pursuant to this Contract are licensed, not sold, and the State receives no title to or ownership of any copy or of the Deposit Material itself. The Deposit Material constitutes Confidential Information of Contractor pursuant to **Section 22** (Non-disclosure of Confidential Information) of this Contract (provided no provision of **Section 22.4** calling for return of Confidential Information before termination of this Contract will apply to the Deposit Material).

29. Contractor Representations and Warranties.

29.1 <u>Authority</u>. Contractor represents and warrants to the State that:

(a) It is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

(b) It has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;

(c) The execution of this Contract by its Representative has been duly authorized by all necessary organizational action; and

(d) When executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms.

(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.

29.2 <u>Bid Response</u>. Contractor represents and warrants to the State that:

(a) The prices proposed by Contractor were arrived at independently, without consultation, communication, or agreement with any other Bidder for the purpose of restricting competition; the prices quoted were not knowingly disclosed by Contractor to any other Bidder to the RFP; and no attempt was made by Contractor to induce any other Person to submit or not submit a proposal for the purpose of restricting competition;

(b) All written information furnished to the State by or for Contractor in connection with this Contract, including Contractor's Bid Response, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make the information not misleading;

(c) Contractor is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its departments that was terminated by

the State within the previous 5 years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract; and

(d) If any of the certifications, representations, or disclosures made in Contractor's Bid Response change after contract award, the Contractor is required to report those changes immediately to the Contract Administrator.

29.3 Software Representations and Warranties. Contractor further represents and warrants to the State that:

(a) it is the legal and beneficial owner of the entire right, title and interest in and to the Software, including all Intellectual Property Rights relating thereto, or has the necessary licenses from its licensors;

(b) it has, and throughout the license term, will retain the unconditional and irrevocable right, power and authority to grant and perform the license hereunder;

(c) it has, and throughout the Term and any additional periods during which Contractor does or is required to perform the Services will have, the unconditional and irrevocable right, power and authority, including all permits and licenses required, to provide the Services and grant and perform all rights and licenses granted or required to be granted by it under this Contract;

(d) the Software, and the State's use thereof, is and throughout the license term will be free and clear of all encumbrances, liens and security interests of any kind;

(e) neither its grant of the license, nor its performance under this Contract does or to its knowledge will at any time:

- (i) conflict with or violate any applicable law;
- (ii) require the consent, approval or authorization of any governmental or regulatory authority or other third party; or
- (iii) require the provision of any payment or other consideration to any third party

(f) when used by the State or any Authorized User in accordance with this Contract and the Documentation, the Software, the Hosted Services, if applicable, or Documentation as delivered or installed by Contractor does not or will not:

(i) infringe, misappropriate, or otherwise violate any Intellectual Property Right or other right of any third party; or fail to comply with any applicable law;

(g) as provided by Contractor, the Software and Services do not and will not at any time during the Term contain any:

- (i) Harmful Code; or
- (ii) Third party or Open-Source Components that operate in such a way that it is developed or compiled with or linked to any third party or Open-Source Components, other than Approved Third Party Components specifically described in a Statement of Work.

(h) all Documentation is and will be complete and accurate in all material respects when provided to the State such that at no time during the license term will the Software have any material undocumented feature; and

(i) it will perform all Services in a timely, skillful, professional and workmanlike manner in accordance with commercially reasonable 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 this Contract.

(j) when used in the Operating Environment (or any successor thereto) in accordance with the Documentation, all Software as provided by Contractor, will be fully operable, meet all applicable specifications, and function in all respects, in conformity with this Contract and the Documentation;

(k) Contractor acknowledges that the State cannot indemnify any third parties, including but not limited to any third-party software providers that provide software that will be incorporated in or otherwise used in conjunction with the Services, and that notwithstanding anything to the contrary contained in any third-party software license agreement or end user license agreement, the State will not indemnify any third party software provider for any reason whatsoever;

(I) no Maintenance Release or New Version, when properly installed in accordance with this Contract, will have a material adverse effect on the functionality or operability of the Software.

(m) all Configurations or Customizations made during the Term will be forward-compatible with future Maintenance Releases or New Versions and be fully supported without additional costs.

- (n) If Contractor Hosted:
 - (i) Contractor will not advertise through the Hosted Services (whether with adware, banners, buttons or other forms of online advertising) or link to external web sites that are not approved in writing by the State;
 - the Software and Services will in all material respects conform to and perform in accordance with the Specifications and all requirements of this Contract, including the Availability and Availability Requirement provisions set forth in the Service Level Agreement;
 - (iii) all Specifications are, and will be continually updated and maintained so that they continue to be, current, complete and accurate and so that they do and will continue to fully describe the Hosted Services in all material respects such that at no time during the Term or any additional periods during which Contractor does or is required to perform the Services will the Hosted Services have any material undocumented feature;

(o) During the Term of this Contract, any audit rights contained in any third-party software license agreement or end user license agreement for third-party software incorporated in or otherwise used in conjunction with the Software or with the Hosted Services, if applicable, will apply solely to Contractor or its Permitted Subcontractors. Regardless of anything to the contrary contained in any third-party software license agreement or end user license agreement, third-party software providers will have no audit rights whatsoever against State Systems or networks.

29.4 <u>Disclaimer</u>. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH IN THIS CONTRACT, CONTRACTOR HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, WITH RESPECT TO THIS CONTRACT.

30. Offers of Employment. During the first 12 months of the Contract, should Contractor hire an employee of the State, without prior written consent of the State, who has substantially worked on any project covered by this Contract. The Contractor will be billed for 50% of the employee's annual salary in effect at the time of separation.

31. 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 Permitted Subcontractor that provides Services and Deliverables in connection with this Contract.

32. Compliance with Laws. Contractor, its subcontractors, including Permitted Subcontractors, and their respective Representatives must comply with all laws in connection with this Contract.

33. 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, Contractor 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.

34. Unfair Labor Practice. Under MCL 423.324, the State may void any Contract with a Contractor or Permitted Subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.

35. 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 the Michigan Court of Claims. Complaints against the State must be initiated in Ingham County, Michigan. Contractor waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint an agent in Michigan to receive service of process.

36. Non-Exclusivity. Nothing contained in this Contract is intended nor is to be construed as creating any requirements contract with Contractor, nor does it provide Contractor with a right of first refusal for any future work. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Services from other sources.

37. Force Majeure

37.1 <u>Force Majeure Events</u>. Neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached the Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of the Contract, national or regional emergency, or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a "**Force Majeure Event**"), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

37.2 <u>State Performance; Termination</u>. In the event of a Force Majeure Event affecting Contractor's performance under the Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate the Contract by written notice to Contractor if a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of 5 Business Days or more. Unless the State terminates the Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under the Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

37.3 <u>Exclusions; Non-suspended Obligations</u>. Notwithstanding the foregoing or any other provisions of the Contract or this Schedule:

- (a) in no event will any of the following be considered a Force Majeure Event:
 - shutdowns, disruptions or malfunctions of Hosted Services or any of Contractor's telecommunication or internet services other than as a result of general and widespread internet or telecommunications failures that are not limited to the Hosted Services; or
 - the delay or failure of any Contractor Personnel to perform any obligation of Contractor hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event.

(b) no Force Majeure Event modifies or excuses Contractor's obligations under **Sections 21** (State Data), **22** (Non-Disclosure of Confidential Information), or **17** (Indemnification) of the Contract, Disaster Recovery and Backup requirements set forth in the Service Level Agreement, Availability Requirement (if Contractor Hosted) defined in the Service Level Agreement, or any data retention or security requirements under the Contract.

38. 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 Program 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.

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

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. Any right, obligation, or condition that, by its express terms or nature and context is intended to survive, will survive the termination or expiration of this Contract; such rights, obligations, or conditions include, but are not limited to, those related to transition responsibilities; indemnification; disclaimer of damages and limitations of liability; State Data; non-disclosure of Confidential Information; representations and warranties; insurance and bankruptcy.

43. Administrative Fee and Reporting. Contractor must pay an administrative fee of 0.75% on all payments made to Contractor under the Contract for transactions with MiDEAL members, and other states (including governmental subdivisions and authorized entities). Contractor will pay no administrative fee for payments made to the Contractor under the Contract for transactions with the State itself. 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 <u>MiDeal@michigan.gov</u>.

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

44. 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. Upon execution of a Contract Change Notice 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 Services at the established Contract terms and then current prices. 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.

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.

46. HIPAA and FERPA Compliance. The State and Contractor must comply with all obligations under HIPAA and FERPA and their accompanying regulations, including but not limited to entering into a business associate agreement, if reasonably necessary to keep the State and Contractor in compliance with HIPAA.

47. Accessibility Requirements.

47.1 All Software provided by Contractor under this Contract, including associated content and documentation, must conform to WCAG 2.0 Level AA. Contractor must provide a description of conformance with WCAG 2.0 Level AA specifications by providing a completed PAT for each product provided under the Contract. At a minimum, Contractor must comply with the WCAG 2.0 Level AA conformance claims it made to the State, including the level of conformance provided in any PAT. Throughout the Term of the Contract, Contractor must:

(a) maintain compliance with WCAG 2.0 Level AA and meet or exceed the level of conformance provided in its written materials, including the level of conformance provided in each PAT;

(b) comply with plans and timelines approved by the State to achieve conformance in the event of any deficiencies;

(c) ensure that no Maintenance Release, New Version, update or patch, when properly installed in accordance with this Contract, will have any adverse effect on the conformance of Contractor's Software to WCAG 2.0 Level AA;

(d) promptly respond to and resolve any complaint the State receives regarding accessibility of Contractor's Software;

(e) upon the State's written request, provide evidence of compliance with this Section by delivering to the State Contractor's most current PAT for each product provided under the Contract; and

(f) participate in the State of Michigan Digital Standards Review described below.

47.2 <u>State of Michigan Digital Standards Review</u>. Contractor must assist the State, at no additional cost, with development, completion, and on-going maintenance of an accessibility plan, which requires Contractor, upon request from the State, to submit evidence to the State to validate Contractor's accessibility and compliance with WCAG 2.0 Level AA. Prior to the solution going-live and thereafter on an annual basis, or as otherwise required by the State, re-assessment of accessibility pursuant to plans and timelines that are approved in writing by the State.

47.3 <u>Warranty</u>. Contractor warrants that all WCAG 2.0 Level AA conformance claims made by Contractor pursuant to this Contract, including all information provided in any PAT Contractor provides to the State, are true and correct. If the State determines such conformance claims provided by the Contractor represent a higher level of conformance than what is actually provided to the State, Contractor will, at its sole cost and expense, promptly remediate its Software to align with Contractor's stated WCAG 2.0 Level AA conformance claims in accordance with plans and timelines that are approved in writing by 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 16.1**.

47.4 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 its failure to comply with the foregoing accessibility standards.

47.5 Failure to comply with the requirements in this **Section 47** shall constitute a material breach of this Contract.

48. Further Assurances. Each party will, upon the reasonable request of the other party, execute such documents and perform such acts as may be necessary to give full effect to the terms of this Contract.

49. Relationship of the Parties. The relationship between the parties is that of independent contractors. 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. Neither party has authority to contract for nor bind the other party in any manner whatsoever.

50. Headings. The headings in this Contract are for reference only and do not affect the interpretation of this Contract.

51. No Third-party Beneficiaries. This Contract is for the sole benefit of the parties and their respective successors and permitted assigns. Nothing herein, express or implied, is intended to or will confer on any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Contract.

52. Equitable Relief. Each party to this Contract acknowledges and agrees that (a) a breach or threatened breach by such party of any of its obligations under this Contract may give rise to irreparable harm to the other party for which monetary damages would not be an adequate remedy and (b) in the event of a breach or a threatened breach by such party of any such obligations, the other party hereto is, in addition to any and all other rights and remedies that may be available to such party at law, at equity or otherwise in respect of such breach, entitled to equitable relief, including a temporary restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction, without any requirement to post a bond or other security, and without any requirement to prove actual damages or that monetary damages will not afford an adequate remedy. Each party to this Contract agrees that such party will not oppose or otherwise challenge the appropriateness of equitable relief or the entry by a court of competent jurisdiction of an order granting equitable relief, in either case, consistent with the terms of this Section.

53. Effect of Contractor Bankruptcy. All rights and licenses granted by Contractor under this Contract are and will be deemed to be rights and licenses to "intellectual property," and all Software and Deliverables are and will be deemed to be "embodiments" of "intellectual property," for purposes of, and as such terms are used in and interpreted under, Section 365(n) of the United States Bankruptcy Code (the "Code"). If Contractor or its estate becomes subject to any bankruptcy or similar proceeding, the State retains and has the right to fully exercise all rights, licenses, elections, and protections under this Contract, the Code and all other applicable bankruptcy, insolvency, and similar laws with respect to all Software and other Deliverables. Without limiting the generality of the foregoing, Contractor acknowledges and agrees that, if Contractor or its estate will become subject to any bankruptcy or similar proceeding:

(a) all rights and licenses granted to the State under this Contract will continue subject to the terms and conditions of this Contract, and will not be affected, even by Contractor's rejection of this Contract; and

(b) the State will be entitled to a complete duplicate of (or complete access to, as appropriate) all such intellectual property and embodiments of intellectual property comprising or relating to any Software or other Deliverables, and the same, if not already in the State's possession, will be promptly delivered to the State, unless Contractor elects to and does in fact continue to perform all of its obligations under this Contract.

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

Schedule A	Statement of Work
Schedule B	Pricing Schedule
Schedule C	Insurance Schedule
Schedule D	Service Level Agreement
Schedule E	Data Security Requirements
Schedule F	Disaster Recovery Plan
Schedule G	Transition Plan

55. Counterparts. This Contract may be executed in counterparts, each of which will be deemed an original, but all of which together are deemed to be one and the same agreement and will become effective and binding upon the parties as of the Effective Date at such time as all the signatories hereto have signed a counterpart of this Contract. A signed copy of this Contract delivered by facsimile, e-mail or other means of electronic transmission (to which a signed copy is attached) is deemed to have the same legal effect as delivery of an original signed copy of this Contract.

56. Entire Agreement. These Terms and Conditions, including all Statements of Work and other Schedules and Exhibits (again collectively the "Contract") 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, representations and warranties, both written and oral, with respect to such subject matter. In the event of any inconsistency between the statements made in the Terms and Conditions, the Schedules, Exhibits, and a Statement of Work, the following order of precedence governs: (a) first, these Terms and Conditions and (b) second, Schedule E – Data Security Requirements and (c) third, each Statement of Work; and (d) fourth, the remaining Exhibits and Schedules to this Contract. NO TERMS ON CONTRACTOR'S INVOICES, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH 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 OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

SCHEDULE A – STATEMENT OF WORK

1. DEFINITIONS

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

Term	Definition
Alias Id	An alternate or a secondary identifier that is system generated and systematically linked to the main identifier, created specifically for other purposes such as external consumption.
API	Application Programming Interface (API) is a set of definitions and protocols for building and integrating application software.
Authoritative Source of Truth	The process that determines which source of truth among multiple from different educational sectors has the authority to update an individual's identity record.
Burn Process	The process of removing an identifier from the database utilized for matching i.e., the identifier will no longer be available to match to. The identifier is marked as burned but is not physically deleted.
CEDS	Common Education Data Standards (CEDS) is a national education data management initiative whose purpose is to streamline the understanding of data within and across P-20W institutions and sectors (ceds.ed.gov).
CEPI	Center for Educational Performance and Information (CEPI) is the agency responsible for collecting, securely managing, and reporting education data in Michigan (michigan.gov/cepi).
CSV	A comma-separated values (CSV) file is a delimited text file that uses a comma to separate values.
Direct Certification	Direct Certification (DC) is a process conducted by the state and by local education agencies (LEAs) to certify eligible students for free and reduced priced meals without the need for household applications. This process involves matching student demographic data from Department of Health and Human Services (DHHS) to CEPI's student identifier system. Applicable student identifiers are then marked as directly certified within CEPI's MSDS system.
Ed-Fi	The Ed-Fi Data Standard is a set of rules that allow (previously disconnected) educational data systems to connect. The Ed-Fi data standards are a set of education standards created by the Ed-Fi Alliance, a non-profit organization that is dedicated to the development of free standards to improve interoperability within education (ed-fi.org).
FERPA	The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records (studentprivacy.ed.gov/ferpa).
Fuzzy Matching	Fuzzy Matching is a method that provides an improved ability to process word- based matching queries to find matching phrases or sentences from a database. When an exact match is not found for a sentence or phrase, fuzzy matching can be applied.
IHE	Institute of Higher Education (IHEs) are institutions that provide post-high school level education, such as universities or technical colleges.
Lifecycle	The education lifecycle refers to the educational lifecycle of an individual as they progress through one or more educational sectors which can potentially include Early Childhood, PK-12, Postsecondary/IHE, Staffing, and Workforce
Link/Merge	The process of merging one or more unique educational identifiers that exist for one individual.
MILogin	The centralized State of Michigan's Identity Management solution that allows users the ability to access many state services and online systems across multiple state agencies, using a single user id and password.

Matching profiles	The role based process of matching demographics to an identifier within a sector. Matching profiles provide the ability to utilize different attributes for matching purposes based on different education sectors.
MDE	Michigan Department of Education (MDE) oversees public school districts in the state. The department is governed by the State Board of Education (michigan.gov/mde).
MORE	Michigan Online Registry of Educators (MORE) is an in-development system to be administered by MDE/CEPI for the replacement and convergence of the current certification and employment systems.
MSDS	Michigan Student Data System (MSDS) is a system administered by CEPI that collects Early Childhood, PK-12, and Postsecondary data within the system for state and federal reporting.
PIC	Personnel Identification Code (PIC) is the current state assigned unique identifier for educational staff. This identifier integrates with many other systems such as Michigan Online Educator Credential System (MOECS). This identifier is used publicly by credentialed individuals.
PII	Personally Identifiable Information (PII) refers to any data that could potentially identify a specific individual (e.g., name, date of birth)
Power BI	Power BI is an interactive data visualization software product developed by Microsoft with primary focus on business intelligence.
REP	Registry of Educational Personnel (REP) is a system administered by CEPI that collects employment data for educational Personnel. Data are submitted by school districts through REP and are used to produce school personnel reports for the US Department of Education and the state of Michigan. Data collected within the system are also provided to MDE for teacher certification audit.
Resolution Process	The process in which a state user or an external user resolves a potential match of an identity record by either confirming the match or requesting/creating a new identifier. Identifiers enter this process when either multiple positive matches are identified, or a potential match is determined with a lower confidence.
SAS	SAS is a statistical software suite developed by the SAS institute for data management, advanced analytics, multivariate analysis, business integration, and predictive analytics.
SIS	A Student Information System (SIS) is a system used to manage student data.
Sector	The education sector consists of different areas in which instruction, training, or staffing occurs within the educational lifecycle. Sectors include Early Childhood, PK-12, Postsecondary/IHE, Staffing, or Workforce.
SOM	State of Michigan (SOM)
SQL	Structured Query Language (SQL) is a domain specific language used in programming and designed for managing data held in a relational database management system, or for stream processing in a relational data stream management system.
Source of Truth	Determines who can update an identity record within a sector.
Split	The process of splitting an identifier into two or more when one unique identifier is being utilized for multiple individuals.
Threshold	The threshold determines which match scores or confidence levels are considered a no match, requires human intervention (resolution), and match found.
UI	User Interface (UI)

UIC	Unique Identification Code (UIC) is the current state assigned unique identifier for students. This identifier is not shared publicly and is integrated into many different educational systems.
Unmerge	The process of unmerging two identifiers that were previously merged erroneously.
Weight	The importance of a core field/attribute when computing a match score is determined by its weight.
XML	Extensible Markup Language (XML) is a markup language and file format for storing, transmitting, and reconstructing arbitrary data. It defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

2. BACKGROUND

The Michigan Department of Education (MDE) and the Center for Educational Performance and Information (CEPI) seek to procure and implement a person identifier software solution that supports a singular state assigned education unique person identifier for both students and educational staff. This new system will not be an authentication and access management system; rather this system will be used to track the identity of individuals within the education sector over time to aid in state and federal data requirements including outcome measures, teacher certification and State School Aid payments. The proposed solution will support the educational business needs for educational identifiers within the State of Michigan's public education sectors (Early Childhood, PK-12, higher education, and educational staffing). The solution must enable a single master record to be used throughout an individual's education lifecycle as a replacement to the currently used staffing (PIC) and student (UIC) identifier systems. The solution must create/maintain a unique person identifier (master record), enable the creation/management of additional identifiers (e.g., public consumption, researchers) associated to and/or part of the unique identifier record. CEPI is mandated by state law to both ensure there is a unique statewide identifier for students in preschool through grade 12 and postsecondary [MCL 388.1694a(4)(h)(i)], as well as enable the matching of individual teachers with information about their certification and the institutions that prepared and recommended those teachers for state certification [MCL 388.1694a(4)(d)]. To fulfill these requirements, CEPI currently maintains education identifiers within two systems, student and staffing respectfully.

- Each system has disparate solutions for unique id creation/matching/resolution with no linkage between the two systems/identifiers.
- The student identifier system is composed of front end within the PK20 data collection system for identifier administration and XML file-based identifier collections, leveraging the standalone student identifier database. The identifier database is also directly accessed/updated via identifier related services (APIs), direct database access by systems (e.g., Direct Certification), direct access via data query software (e.g., SAS, SQL), database views for limited access functions, and replication of identifier databases for consumption of other systems.
- The staffing identifier system is similar but in a much smaller scale and less integrated within the state's education system ecosystem. The identifier is utilized publicly for the purposes of teacher certification.
- The student and educational staff identifiers are requested from various endpoints at both the state and local level.

The core challenges are how to best move to a person centric, single person master record with an associated identifier, leveraging a new robust identifier system while considering that the student and staffing identifiers are heavily consumed within and outside of the State's systems. The personal data attributes captured in existing systems vary across sectors. Therefore, the solution will need to be flexible to perform matching by varying attributes.

3. PURPOSE

Contractor will provide and implement eScholar Uniq-ID version 2023 as a Contractor Hosted Cloud-based Software Solution and applicable Services.

Contractor will:

- Implement a unique identifier solution,
- Integrate the solution with the State's MORE system, and
- Develop a roadmap for integrating other State systems.

Contractor agrees to provide items on the roadmap. Contractor will collaborate with the State to determine timing, prioritization, features and functionality of roadmap releases.

4. IT ENVIRONMENT RESPONSIBILITIES

Contractor's Solution must reside in multiple environments in conformance with the requirements identified in **Schedule A – Table 1 Business Specification Worksheet.**

For a Contractor Hosted Software Solution:

Definitions:

Facilities – Physical buildings containing Infrastructure and supporting services, including physical access security, power connectivity and generators, HVAC systems, communications connectivity access and safety systems such as fire suppression.

Infrastructure – Hardware, firmware, software, and networks, provided to develop, test, deliver, monitor, manage, and support IT services which are not included under Platform and Application.

Platform – Computing server software components including operating system (OS), middleware (e.g., Java runtime, .NET runtime, integration, etc.), database and other services to host applications.

Application – Software programs which provide functionality for end user and Contractor services.

Storage – Physical data storage devices, usually implemented using virtual partitioning, which store software and data for IT system operations.

Backup – Storage and services that provide online and offline redundant copies of software and data. **Development** - Process of creating, testing and maintaining software components.

Component Matrix	Identify contract components with
	contractor or subcontractor
	name(s), if applicable
Facilities	AWS Hosting facilities
Infrastructure	AWS Infrastructure
Platform	Windows OS, Java, Microsoft
	SQL Server
Application	eScholar Uniq-ID
Storage	AWS S3 Storage
Backup	AWS S3 Storage
Development	n/a

5. ADA COMPLIANCE

The State is required to comply with the Americans with Disabilities Act of 1990 (ADA) and has adopted standards and procedures regarding accessibility requirements for websites and software applications. All websites, applications, software, and associated content and documentation provided by the Contractor as part of the Solution must comply with Level AA of the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines (WCAG) 2.0.

6. USER TYPE AND CAPACITY

Contractor's Solution must meet the expected number of concurrent Users detailed below. Capacity is listed as the Number of Concurrent Users. This is not reflective of the number of transaction events.

Type of User	Access Type	Number of Users*	Number of Concurrent Users
State Employee	Admin, Read & Write Access	10	10
State Employee	Read & Write Access	100	100

State Employee	Read Access	100	100

7. ACCESS CONTROL AND AUTHENTICATION

The Contractor's solution must integrate with the State's IT Identity and Access Management (IAM) environment as described in the State of Michigan Digital Strategy (<u>https://www.milogintp.michigan.gov</u>), which consist of:

- MILogin/Michigan Identity, Credential, and Access Management (MICAM). An enterprise single sign-on and identity management solution based on IBM's Identity and Access Management products including, IBM Security Identity Manager (ISIM), IBM Security Access Manager for Web (ISAM), IBM Tivoli Federated Identity Manager (TFIM), IBM Security Access Manager for Mobile (ISAMM), and IBM DataPower, which enables the State to establish, manage, and authenticate user identities for the State's Information Technology (IT) systems.
- MILogin Identity Federation. Allows federated single sign-on (SSO) for business partners, as well as citizenbased applications.
- MILogin Multi Factor Authentication (MFA, based on system data classification requirements). Required for those applications where data classification is Confidential and Restricted as defined by the 1340.00 Michigan Information Technology Information Security Policy (i.e., the proposed solution must comply with PHI, PCI, CJIS, IRS, and other standards).
- MILogin Identity Proofing Services (based on system data classification requirements). A system that verifies individual's identities before the State allows access to its IT system. This service is based on "life history" or transaction information aggregated from public and proprietary data sources. A leading credit bureau provides this service.

To integrate with the SOM MILogin solution, the Contractor's solution must support OAuth or OpenID interfaces for the SSO purposes.

8. DATA RETENTION AND REMOVAL

Contractor acknowledges and agrees that the Solution will permit the following:

- The State will be able to retain all data for the entire length of the Contract unless otherwise directed by the State.
- The State will be able to delete data, even data that may be stored off-line or in backups.
- The State will be able to retrieve data, even data that may be stored off-line or in backups.
- Contractor will provide data backup, per the Service Level Agreement and Disaster Recovery Plan.

9. END USER AND IT OPERATING ENVIRONMENT

The SOM IT environment includes X86 VMware, IBM Power VM, MS Azure/Hyper-V and Oracle VM, with supporting platforms, enterprise storage, monitoring, and management running in house and in cloud hosting provides.

Contractor must accommodate the latest browser versions (including mobile browsers) as well as some pre-existing browsers. To ensure that users with older browsers are still able to access online services, applications must, at a minimum, display and function correctly in standards-compliant browsers and the state standard browser without the use of special plugins or extensions. The rules used to base the minimum browser requirements include:

- Over 2% of desktop and mobile & tablet site traffic, measured using Michigan.gov sessions statistics and
- The current browser identified and approved as the State of Michigan standard

This information can be found at <u>https://www.michigan.gov/browserstats</u>. Please use the most recent calendar quarter to determine browser statistics. For those desktop and mobile & tablet browsers with over 2% of site traffic, except Internet Explorer which requires support for at minimum version 11, the current browser version as well as the previous two major versions must be supported.

Contractor must support the current and future State standard environment at no additional cost to the State.

10. SOFTWARE

Contractor will implement a solution that complies with the requirements identified in Schedule A – Table 1 Business Specification Worksheet.

Contractor must provide a list of any third party components, and open source component included with or used in connection with the deliverables defined within this Contract. This information must be provided to the State on a quarterly basis and/or if a new third party or open source component is used in the performance of this Contract.

Look and Feel Standards

All software items provided by the Contractor must adhere to the State of Michigan Application/Site standards which can be found at <u>https://www.michigan.gov/standards</u>.

Mobile Responsiveness

If the software will be used on a mobile device as define in Schedule A – Table 1, Business Specification Worksheet, the Software must utilize responsive design practices to ensure the application is accessible via a mobile device.

SOM IT Environment Access

If Contractor must access State environments, it will use one or more of the following methods:

- State provided VDI (Virtual Desktop Infrastructure) where compliant.
- State provided and managed workstation device.
- Contractor owned and managed workstation maintained to all State policies and standards.
- Contractor required interface with State systems which must be maintained in compliance with State policies and standards as set forth in Schedule E Data Security Requirements.
- From locations within the United States and jurisdiction territories.

Third-Party Components

The Solution uses the following third-party components

- Apache Http Server
- Tomcat 9
- Apache ActiveMQ 5
- Swagger
- PostmanJersey
- MyBatis
- Java
- JavaScript
- Bitbucket
- OpenJDK
- Vue JS
- Elasticsearch and Basis Technology Rosette Name Indexer

The Contractor-Hosted scenario will add two third-party components:

- Microsoft Windows Server
- Microsoft SQL Server v2019 DBMS

11. INTEGRATION

Contractor will:

- Integrate the solution with the State's MORE system and
- Develop a roadmap for integrating other State systems.

MORE Integration

Contractor must integrate their solution with the State's MORE system, described below.

The integration must pass acceptance test criteria. Acceptance testing must be performed against a non-production environment with production transaction volume.

Current Technology	Cloud hosted solution using RESTful APIs
Volume of Data	Peak period: 20,000 transactions per hour Expected yearly increase 30%
Format of the input & export files	CSV files, XML files and JSON

Integration Process:

The eScholar Solution includes web services for identifier assignment, near match resolution, searching, and administrative tasks for real-time integration. All features and functions within the eScholar Uniq-ID v2023 user interface have APIs that can be called by a third party system to support UI like functionality. Additionally, Automated File Processing (AFP) mechanisms is available for integrating with the system in a near real-time capacity.

The eScholar Uniq-ID Web Service will allow MORE to communicate with the eScholar Uniq-ID using JSON-based request/response process to GET, PUT, POST and DELETE data. These Web Services will allow the application functionality to be used for assigning or retrieving identifiers, requesting a list of near matches, submitting near match decisions, and searching by student or batch, all in real-time. With the Web Services, the responses will provide MORE with assigned/newly created identifiers and other status information. The return results include the data specific to the request. For example, if the Assignment service is called and a new identifier is assigned, the new Master Record details will be returned. A separate web service is available to retrieve historical information for a specific record.

All of the eScholar Web Services are called by external systems to initiate the integration options. With this model, MORE will call the eScholar Web Services for specific actions such as a new registration or for updating records and the results will be returned to MORE by the eScholar Web Services.

The eScholar Automatic File Processing (AFP) feature will enable integration via a secured file transfer process. Using this feature MORE will be able to publish data files to an AFP Inbox. The eScholar Solution will retrieve those files, process them and then return output files to an Outbox. This process will be automated so that MORE publishes and retrieves files as needed.

Integration Roadmap

Contractor will develop a roadmap for integrating other State systems using analysis conducted during the project, with experience gained by the Contractor consulting team. The roadmap will recommend an integration path for a list of additional State MDE and CEPI systems. The roadmap must include an implementation plan and sequencing of applications.

12. MIGRATION

Contractor must migrate the data identified in the table(s) below. The database may be increased at the time of transition, if required by the State.

Current Lechnology	MS-SQL
Data Format relative to the database	hereased hereased
technology used	
technology used.	
Number of data fields to give Contractor	76 Student related tables, 713 columns for tables.
awareness of the size of the schema.	
	88 Staff related tables, 700 columns for tables.
Volume of Data	There are 1.1 million unique Staff identification numbers.
	There are 9 million unique student identification numbers
	Student data grows approximately 1% monthly
	Student data glows approximately 476 monthly.
	Staff data grows approximately 2.64% monthly.
Database current size.	155 GB student and staff combined data

Migration Process:

The migration process consists of first processing active and current records, then processing historical records. To complete this process the State will extract the active and current records for all the statewide identifiers into the eScholar Assign 3.0 File Format. eScholar can perform this extract for the State as a service. If the State utilizes the eScholar services for this work, additional fees will apply. Contractor will review the file and perform basic validation and premigration testing to identify issues in the data. Once the steps are completed, the State will create a new file for final migration of the data, unless the State has contracted eScholar services for this work.

Once the data issues for the active records have been resolved, if any, Contractor will begin the final Migration Process utilizing the eScholar Uniq-ID Migration Tool (UMT). As part of this migration process, the existing MDE and CEPI data will be imported into the eScholar Uniq-ID Solution using the identifiers assigned previously by MDE and CEPI. All of these identifiers will be inserted into the eScholar Uniq-ID ID Pool and marked as "in use".

Contractor will collaborate with the State to verify the imported active and current data. After the one-for-one insert, the State will conduct a duplicate analysis with the duplicate tool and will resolve any duplicate identifiers. eScholar will train the State how to use the duplicate tool in the Administrator training. If an additional duplicate analysis is required prior to importing the final data, this can be conducted by eScholar as a service.

After a successful migration process for the active and current data, the State will extract the historical records from the legacy system in to the eScholar Assign 3.0 File Format. Contractor will import the historical records for each of the statewide identifiers, as needed.

This process can be completed for all person types at one time or each person type separately. If the same identifier is used across systems, the first instance of the identifier would be inserted into the database and the second instance would be rejected. All rejected records would be processed after the unique identifiers are inserted. As noted above, eScholar could also perform a duplicate analysis prior to the migration process as a service. The best practice for data migration is to complete the migration process, verify data, and then go live. Once the eScholar Uniq-ID system is live, the legacy system should no longer create, retire, split, or assign identifiers. Subsequent data will need to be submitted to the eScholar Uniq-ID for matching and assignment purposes. Any new records that are processed will be assigned an identifier from the eScholar Uniq-ID ID Pool.

13. TRAINING SERVICES

The Contractor must provide administration and end-user training for implementation, go-live support, and transition to customer self-sufficiency.

Training of technology/knowledge is expected by the Contractor to State Business and Technology staff in order to support the system and develop extensions/APIs etc. This may be in the form of formal instructor led training or training materials.

Contractor will provide the State with the training and support it needs to ensure that all of its administrators and end users have the knowledge and skills to administer and use the system effectively. Contractor will deliver training

through a hybrid approach of both on-site and web-based training sessions. Web-based training will also be recorded for on-demand learning. On-site training will be limited to 25 attendees.

Contractor will provide the eScholar Uniq-ID training data set for the training environment. Training data will be loaded into the environments as referenced in SLA Section 4.3 Data Restoration, Resetting Data. Contractor will provide documentation on how to load the data into the training environment.

Administrator Training will be delivered on-site and in person directly to the State system administrators. The Uniq-ID Administrator training session will provide participants with a comprehensive knowledge transfer for the eScholar Uniq-ID. This session will focus on management of the eScholar Uniq-ID and provide the support teams with the skills necessary to implement the application. Participants will understand how the State can configure system properties and how these configurations affect the solution processes. Administrator training participants will also understand how to manage security through roles and permissions. Administrator training will include training on the eScholar Web Services.

Training will be provided through an on-site course with on-going access to all training materials, user documentation, instructional videos, knowledge checks and training surveys through eScholar U and the eScholar Support portal.

End User Training will be delivered in the Train the Trainer method in a hybrid manner, with one session on-site and another session as a recorded web-based session. End User Training will provide the State personnel with a comprehensive understanding of the ID management process and working knowledge of the eScholar Uniq-ID. This training will be delivered on-site. Participants will explore key concepts of managing unique identifiers and the workflow of the ID assignment process. Included in this process is a basic understanding of how the matching engine produces match results and the other system-wide rules that trigger matches. Participants will review data submissions, learn system navigation and leverage the functionality of the tools. The training session will highlight resolving near matches and best practices for making good match decisions.

Contractor will record the web-based training and make it available on an on-demand basis through the Customer Support Module. This will allow end users to access training at times most convenient to them. Other online training materials will also be available.

These training modules cover all end-user aspects of the application and in case the embedded training content is context sensitive. Contractor will update the training modules as the eScholar Uniq-ID application evolves.

An online user manual will cover all administrative, super-user and end-user functions of the Uniq-ID application as well as the most common use cases and processes including, but not limited to, all content requirements listed above.

API Knowledge Sharing: When the State identifies another third-party vendor with which it wants eScholar Uniq-ID to integrate, Contractor can work with the vendor to review the Web Services documentation.

14. TRANSITION RESPONSIBILITIES

Contractor will provide transition services pursuant to the Contract Terms and Schedule G.

15. DOCUMENTATION

Contractor must provide all user manuals, operating manuals, technical manuals, installation guides, data conversion guides, integration documents, system architecture documents, API Specifications and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, technical or other components, features or requirements of the Software. Contractor must develop and submit for State approval complete, accurate, and timely Solution documentation to support all users, and will update any discrepancies, or errors through the life of the contract. The Contractor's user documentation must provide detailed information about all software features and functionality, enabling the State to resolve common questions and issues prior to initiating formal support requests.

The State will have the ability to access documentation in searchable PDF files at the eScholar Support Portal. The library of eScholar Uniq-ID covers all types of users and administrators, including end users, technical administrators, system administrators, and others, and includes:

- Using eScholar Uniq-ID
 - User Guide: Provides detailed descriptions of how to use the application for non-administrators. This includes, but is not limited to, overview information, step-by-step instructions, and screenshots for uploading files, resolving near matches, and fixing errors. Audience: All users as appropriate.
- Data Integrations and Submission
 - Batch File Format: Provides detailed specifications for file submissions via file upload or AFP. This
 document can be provided to vendors who will be submitting data to the system and/or to local
 education agencies to help them prepare files for submission. Audience: All Users
 - Web Services: Provides detailed specifications for file submissions via eScholar Web Services. This document can be provided to vendors who will be submitting data to the system via Web Services. Audience: Developers, technical support, technical administrators, and system administrators as appropriate.
 - Automated File Process (AFP): Provides detailed specifications for file submissions via eScholar Automatic File Processing. This document can be provided to vendors or local education agencies who will be submitting data to the system via Automatic File Processing. Audience: Developers, technical support, technical administrators, and system administrators as appropriate.
- Administering Uniq-ID
 - Administrator Guide: Provides detailed descriptions of how to use the application for administrators. This includes, but is not limited to, overview information, step-by-step instructions, security configuration, matching overview and and screenshots for retiring and splitting identifiers, configuring the system, and scheduling jobs. A URL is also provided to access the Web Services. Audience: Administrators of the application, subject matter experts, support, and testers as appropriate.
 - Configuration Guide: Provides a framework for configuring and managing system settings. It includes all items that are configurable within the application with sections for customers to document their system settings for configuration management. Audience: Administrators of the application as appropriate.
 - Support Environments: List of all supported environments, including server software. Audience: System administrators and technical administrators, as appropriate
- Other
 - Data Mart Synchronization: Provides details on how to synchronize system data to the data marts. The data marts enable integration with external systems.
 - Data Architecture Guide
 - As development of v2023 continues, more content will be added to documentation and additional documentation will be created.
- Release Documentation
 - Release Notes: Provides a listing of all the new features, defect resolutions, and known issues. Audience: All users as appropriate.

16. CONTRACTOR PERSONNEL

Contractor 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.

Contractor
Gary Evans
222 Bloomingdale Road, Suite 107,
White Plains NY 10605
518-203-5587
gevans@harriscomputer.com

17. CONTRACTOR KEY PERSONNEL

Contractor designates the following Key Personnel:

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
Jennifer Moore
222 Bloomingdale Road, Suite 107
White Plains, NY 10605
914-729-3006
jmoore@escholar.com

Contractor Security Officer. Contractor resource who is responsible to respond to State inquiries regarding the security of the Contractor's Solution. This person must have sufficient knowledge of the security of the Contractor Solution and the authority to act on behalf of Contractor in matters pertaining thereto. Contractor must inform the State of any change to this resource.

Contractor	
James Anderson	
222 Bloomingdale Road, Suite 107	
White Plains NY 10605	
914-729-3015	
janderson@escholar.com	

Contractor Lead Functional Consultant.

Contractor Lead Technical Consultant.

Contractor
Andrea Hartman
222 Bloomingdale Road, Suite 107
White Plains NY 10605
914-729-3002
ahartman@escholar.com

Contractor Lead Data Architect.

Contractor	
Nishad Moideen	
222 Bloomingdale Road, Suite 107	
White Plains NY 10605	
914-729-3030	
nmoideen@escholar.com	

Contractor Test Lead.

Contractor
Ruchi Joshi
222 Bloomingdale Road, Suite 107
White Plains, NY 10605
914-729-3034
rubale@escholar.com

18. CONTRACTOR PERSONNEL REQUIREMENTS

Background Checks. Contractor must present certifications evidencing satisfactory Michigan State Police Background checks, ICHAT, and drug tests for all staff identified for assignment to this project. In addition, proposed Contractor personnel will be required to complete and submit an RI-8 Fingerprint Card for the National Crime Information Center (NCIC) Finger Prints, if required by project. Contractor will pay for all costs associated with ensuring their staff meets all requirements.

Offshore Resources. Offshore resources will not be permitted.

Subcontractors. Contractor will not utilize subcontractors.

19. STATE RESOURCES/RESPONSIBILITIES

The State will provide the following resources as part of the implementation and ongoing support of the Solution.

State Contract Administrator. The State Contract Administrator is the individual appointed by the State to (a) administer the terms of this Contract, and (b) approve and execute any Change Notices under this Contract.

State Contract Administrator	
Jarrod Barron	
517-249-0406	
BarronJ1@michigan.gov	

Program Managers. The DTMB and Agency Program Managers (or designee) will jointly approve all Deliverables and day to day activities.

DTMB Program Manager	
Kimberly Crawford	
517-243-1483	
crawfordk5@michigan.gov	

CEPI Program Manager	
Trina Anderson	
517-284-4141	
andersont1@michigan.gov	

20. MEETINGS

At start of the engagement, the Contractor Project Manager must facilitate a project kick off meeting with the support from the State's Project Manager and the identified State resources to review the approach to accomplishing the project, schedule tasks and identify related timing, and identify any risks or issues related to the planned approach. From project kick-off until final acceptance and go-live, Contractor Project Manager must facilitate weekly meetings (or more if determined necessary by the parties) to provide updates on implementation progress. Following go-live, Contractor must facilitate monthly meetings (or more or less if determined necessary by the parties) to ensure ongoing support success.

The Contractor must also attend the following meetings, at a location and time as identified by the state, at no additional cost to the State:

- Requirements Definition
- Steering Meetings (as invited)

21. PROJECT CONTROL & REPORTS

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 the number of hours expended during the past week, and the cumulative total to date for the project. Also, state whether the remaining hours are sufficient to complete the project
- 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
- Indicate the amount of funds expended during the current reporting period, and the cumulative total to date for the project.

All Contractors must submit and enter weekly timesheets into the State of Michigan's Project Portfolio Management tool, Clarity PPM, for approval and reporting. The weekly Clarity PPM timesheet will contain hours worked for assigned project tasks.

22. PROJECT MANAGEMENT

The Contractor Project Manager will be responsible for maintaining a project schedule (or approved alternative) identifying tasks, durations, forecasted dates and resources – both Contractor and State – required to meet the timeframes as agreed to by both parties.

Changes to scope, schedule or cost must be addressed through a formal change request process with the State and the Contractor to ensure understanding, agreement and approval of authorized parties to the change and clearly identify the impact to the overall project.

SUITE Documentation

In managing its obligation to meet the above milestones and deliverables, the Contractor is required to utilize the applicable <u>State Unified Information Technology Environment (SUITE)</u> methodologies, or an equivalent methodology proposed by the Contractor.

SUITE's primary goal is the delivery of on-time, on-budget, quality systems that meet customer expectations. SUITE is based on industry best practices, including those identified in the Project Management Institute's PMBoK and the Capability Maturity Model Integration for Development. It was designed and implemented to standardize methodologies, processes, procedures, training, and tools for project management and systems development lifecycle management. It offers guidance for efficient, effective improvement across multiple process disciplines in the organization, improvements to best practices incorporated from earlier models, and a common, integrated vision of improvement for all project and system related elements.

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, Contractors 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.

Milestones/Deliverables for Implementation

The parties agree to the following implementation schedule. The parties may revise this schedule by mutual agreement.

Milestone Event	Associated Milestone Deliverable(s)	Schedule
Project Planning	Project Kick-Off	Contract Execution +
		15 business days

Requirements and	Project Schedule, Final WBS, Validated	Contract Execution +
Design Acceptance	Requirements Matrix, Project Scope	90 business days
	Document, Change Control Plan	_
Provision environments, Installation and Configuration of software, and Data Migration.	Validate Test, Training, and Production environments. Test Plan, Training Plan, UID User Guides, Test Scripts	v2023 Availability* + 90 business days
Testing and Acceptance	All Training Materials, Final Test Results	v2023 Installation + 180
	Final Acceptance, System Go Live	business days
90-Day Post-Production Warranty Period	Included in the cost of Solution.	Final Acceptance
Production Support	Ongoing after Final Acceptance.	Ongoing
Services		

Expected v2023 availability by July 1, 2023, but no later than September 30, 2023 for production. Pre-release or release version of v2023 to be available for the lower environments by November 1, 2022, but no later than December 31, 2022. Pre-release or release version of v2023 will have limited features and functionality.

23. ADDITONAL INFORMATION

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

SCHEDULE A, TABLE 1 – BUSINESS SPECIFICATION WORKSHEET

Business Specification Number	Business Specification	Current Capability	Requires Configuration	Requires Customization	Future Enhancement	Not Available	Contractor must explain how they will deliver the business Specification. Explain the details of any configuration/customization and the impacted risk that may be caused if configured or customized to meet the business specification.
MANDATC	DRY						
1.	Contractor must be able to offer a Commercial off the Shelf (COTS) Solution as an independent application/system, physically installed by SOM, or hosted by the Contractor.	x					We are proposing the eScholar Uniq-ID Solution Version 2023 (eScholar Uniq-ID), a powerful web- based, commercial-off-the-shelf (COTS) solution for assigning and managing unique person identifiers. It provides the most accurate, unique record identification capability available in the education field. eScholar Uniq-ID will be hosted in the AWS Cloud by eScholar.
2.	Solution must integrate into an educational landscape with the issuance and management of unique person identifiers at the state level.	x					eScholar Uniq-ID is a proven solution to issue and manage person IDs at a state level and seamlessly fits into the educational landscape. eScholar Uniq-ID v11 is in production statewide with nine states, including North Carolina, Louisiana, Pennsylvania, and Texas. New York and Maine are currently in the implementation stage and will be fully implemented in 2023.
3.	Solution must support the creation/maintenance of unique person records and associated configurable identifiers that are human and machine consumable and unique across all education sectors. The identity model for the unique education person identifier must be a person-centric model.	x					eScholar Uniq-ID is a comprehensive identity management solution that can assign IDs, match, and link person records across time, geography, and source systems. The eScholar Uniq-ID solution is highly configurable, allowing agencies to implement the solution based on their specific requirements and regulations. The identifiers are randomly assigned and never duplicated. They are also not constructed through an algorithm related to the individual's attributes, which provides greater protection of the individual's privacy. The identifiers are human and machine readable. It is a person-centric model for matching.

4.	Solution must demonstrate the ability to integrate and consume one or more historical education unique person identifiers. Historical education unique person identifiers can consist of active and inactive identifiers as deemed at the time of transition to the new Solution.	x			eScholar Uniq-ID has the ability to integrate and consume one or more historical education unique person identifiers. eScholar has integrated active and historical records for other clients such as Texas Education Agency and Louisiana Department of Education.
5.	Solution must contain a selectable, configurable, robust matching engine (e.g. probabilistic/ fuzzy matching/ Machine Learning (ML))	x			eScholar Uniq-ID utilizes a proven Match Process that blends configurable rules with an embedded matching engine. The combination of the match rules and matching engine make eScholar Uniq- ID the most robust and proven identity system in the education market. The eScholar Uniq-ID match rules are configurable options which layer on top of the matching engine decisions. This includes configurations for forcing a Near Match in specific scenarios, such as the Twins Rule, SSN Same Rule, SSN Different Rule, and others. Additionally, the Lower Near Match Threshold and Upper Near Match Threshold are configurable enabling the State to control the creation of Near Matches. The matching engine is robust using both probabilistic and deterministic matching to determine a match between a new record and an existing record. During the Match Process, eScholar Uniq-ID takes advantage of hundreds of matching techniques, including Soundex, Edit Distance, nicknames, and many others. In addition, the system can understand variations of given names (for example, Jack = John, Bill = William, etc.). Through the matching of millions of records, eScholar continues to refine this process, ensuring that the techniques used provide the greatest possible precision. eScholar Uniq-ID utilizes directory information (First, middle, last names, and alternate last names; birth date; gender) to search for potential matches. The person's social security number can also be used to match records, though this can be unselected and/or masked as a field to match

					with.
					Other fields, such as address, race/ethnicity, and customer-defined fields, can be used to review records and determine matches.
REQUIRED)				
6: Security	Security: Solution to have a front-end interface and back-end datasets in alignment to security standards.				
6.1	Solution to provide a front-end interface and database with FERPA compliant security and audit controls. Both front-end interface and database must comply with state, and other federal laws in the education sector.	x			 eScholar Uniq-ID includes a user-friendly front- end interface and database that are both compliant with FERPA, audit controls, and other laws related to the education sector. Data is encrypted at rest at the database level and in transit. eScholar Uniq-ID utilizes Transport Layer Security (TSL) protection for online activity by users. eScholar Uniq-ID will take advantage of eScholar's proven security architecture to ensure that data in transit is protected via HTTPS (TLS 1.2) or secure FTP. The data will also be encrypted at rest using Microsoft Transparent Data Encryption (TDE). Additionally, actions performed throughout the interface are audited in an audit log where the creation user, creation date, last update user and last update date are recorded at the record level. Auditing includes user decisions such as resolving near matches, retiring identifiers, and changing system configuration.
6.2	Solution to apply and provide alias identifiers or an alternate solution to fit this need.	x			eScholar Uniq-ID includes an Alias ID feature which enables external sources to submit a local, alternate or other identifier for the person. When these Alias IDs are submitted, eScholar Uniq-ID records the identifier linked to the unique identifier. These Alias IDs are not assigned by eScholar Uniq-ID, but can be provided back to source systems as needed.
6.3	Solution to maintain a single continuous record but use a different external/public facing identifier as a person moves from a student to an educational staff member.		x		eScholar will create a process that generates a different public identifier and will populate the existing Alias ID table with this record and will add it to the existing Alternate ID field. The Alternate ID can be used as the public facing identifier by

				t r	he State. There is minimal risk on this equirement since existing tables and fields will be
6.4	Solution to offer a role-based security model for application, database, and other integration components.	x		e s E a s r F a (u L a F a ll a t F a ll r t F a A u U iii v s v F F e a	 Scholar Uniq-ID has a robust, multi-layered accurity model, including Feature Authorization, Data Authorization and Authentication. Feature inthorization is configured by role using the Security Manager component in the system. If a ole does not have access to a feature or privilege, all Users within that role are not able to access the feature. The solution includes nineteen 19) user roles. Some roles are not applicable unless eScholar DirectMatch and eScholar .ocation ID are implemented. A user can be assigned to one or many roles. For Data Authorization, all Users must be assigned to specific locations/organizations. This ocation/organization assignment allows for access to the unique person records associated to hose locations. Users can only edit and upload person records for the location(s) they are assigned to. Some roles allow for multiple ocation assignments. Users with access to nultiple locations can edit and upload for all of hose locations. For Authentication, all users must be provisioned and authorized to access the system. Authentication provisioning requires that each user is assigned to a role. Jsers will be provisioned via the security nitegration with the SOM MILogin solution. Users will be created, updated and deactivated via the SOM MILogin solution. v2023.0.0 to include multiple roles per user profile. Please see SCHEDULE A, TABLE 2 – aschoLAR UNIQ ID ROLES for a list of roles available to the State.

6.5	Solution's UI and database must only view specific data based on user roles.	x			Data authorization to specific users is based upon organization/location access and is defined in a user registration process. The system offers flexible security integration by supporting Web Services, portals, single sign-on, and other means of authentication. A user can be assigned to one or more locations and/or one or more roles.
6.6	Solution to provide/disable access at a database level.	x			eScholar Uniq-ID allows customers to selectively expose and restrict access and data views based on user rules. Typically the eScholar Data Marts are utilized for access at the database level and permissions are controlled within the database. The Data Marts are stored in a separate schema than the application tables and are accessible to authorized users via the VPN Tunnel. The Data Marts are available via standard ODBC connections.
6.7	Solution to selectively expose, mask and restrict access and view to certain data elements key to identity management.	x			Data masking is customizable per field. All data for the masked fields will be restricted based upon location access to the student. For example, if the DOB is a masked field and I do not have access to the location where the person is assigned, the DOB will be masked.
7: Data Integration	Data Integration: Solution to provide interoperability from multiple sources. High level requirements for data integration include the ability to:				
7.1	Solution must demonstrate the ability to interface with existing SOM or external applications through services/APIs or direct database access.	x			eScholar Uniq-ID has the demonstrated ability to interface with other applications through web services. eScholar Uniq-ID allows any authorized application to submit data and integrate with the solution via eScholar Uniq-ID's web service (API), Automated File Processing (AFP), manual entry, and batch upload. The Web Services are designed to allow authorized third-party applications to communicate with the eScholar Uniq-ID with a RESTful simple JSON-based HTTP request/response process to GET, PUT, POST and DELETE data. The eScholar Uniq-ID Web Service is fully documented and in production. Typically, the eScholar Data Marts are utilized for

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				access at the database level and permissions are	
				controlled within the database.	
				v2023.0.0 to provide direct access to live	
				databases and Data Marts.	
7.2	Solution to create new integrations with services/ APIs.	×		 eScholar Uniq-ID supports integration with other applications and services. Customers have the option to enable eScholar Uniq-ID's Web Services. The Web Services are designed to allow authorized third-party applications to communicate with the eScholar Uniq-ID with a RESTful simple JSON-based HTTP request/response process to GET, PUT, POST and DELETE data. These Web Services allow eScholar Uniq-ID system functionality to be used for assigning or retrieving identifiers, requesting a list of near matches, submitting near match decisions, and searching by student or batch, all in real-time. The eScholar Uniq-ID Web Service is fully desumented and in production 	
				New integrations to existing APIs can be configured easily by adding an access token.	
7.3	Solution to create services and APIs in house without additional charge.			eScholar Uniq-ID already offers a fully documented and in-production API with the Web Services. These Web Services allow eScholar Uniq-ID system functionality to be used for assigning or retrieving identifiers, requesting a list of near matches, submitting near match decisions, and searching by student or batch.	
		x		Should the State require additional functionality with the Web Services, they can submit an enhancement request. Over the years, our customers have made numerous enhancement requests that have been built into the product and are available for all customers to benefit. Enhancements and new features available in the new version are largely driven by customer requests. eScholar works with customers closely and the Account Manager schedules regular meetings to check in and make sure the product is continuing to meet the agency's needs. When the	
7.4	Solution to create APIs that are accessible for multiple systems for multiple purposes that can restrict data fields based on user roles/API type.	x			agency identifies a new need, the eScholar team will either identify how the solution can currently address the need or determine that the requirement would be addressed through an enhancement to the system. Should the enhancement be a benefit to other eScholar Uniq- ID customers, the enhancement is made as part of the requesting customer's maintenance and support plan. With eScholar Uniq-ID's Web Services (a type of API), the State has access to many APIs for features within the application A Web Services Role is utilized for the API calls. This role can be restricted to specific privileges within the system. Masking Rules can be applied to restrict data
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7.5	Solution to provide interoperability using educational data standards such as CEDS, and/or for PK12 Ed-FI as applicable for education standards.	x			access by role. The standard format of the identifier created by eScholar Uniq-ID is based on the ISBN 10-digit number logic, which conforms with CEDS and Ed- Ei requirements on length
7.6	Solution to integrate with ongoing, daily data collection systems and provide real-time processing and real-time identifier matching results such as creation of new identifier, identification of possible matches, match found, etc.+	x			eScholar Uniq-ID supports integration with ongoing, daily data integration systems in real- time with the use of the eScholar Web Services. These Web Services are fully documented and in production and allow eScholar Uniq-ID system functionality to be used for assigning and retrieving IDs, requesting a list of near matches, submitting near match decisions, and searching students by external systems.
7.7	Solution to provide real-time manual (UI) search results of identifiers.	x			Real-time manual UI searches are provided in eScholar Uniq-ID with three methods. One is an online search while the second is an online Batch Search. The other is through the Search Web Services.
7.8	Solution to provide batch upload processing to perform creation and matching of education unique person identifiers.	x			eScholar Uniq-ID allows Batch File Upload. This method allows a user to manually upload a file into eScholar Uniq-ID. The file can consist of one or many individual records and must conform to one of the available specifications. The identifiers created or assigned are downloadable from the web interface.
8: System Efficiency	System Efficiency: Solution to maintain efficiency with interoperability. High level business requirements to include the ability to:				

8.1	Solution to support links into multiple systems with access points to the data tables with no degradation in service.	x		eScholar Uniq-ID includes Data Marts for reporting purposes. The Data Marts included are Active Person, Alias IDs, Audit Data, Location Information, Location History, Person History, Retired IDs, and Separated IDs. These Data Marts can be queried as needed for reporting purposes. eScholar Uniq-ID's Web Services also support links into multiple systems, allowing authorized third party applications to search for records with no degradation in service.
8.2	Solution to optimize data loading run times allowing core processes to have multiple concurrent events.	x		As a client-server solution that integrates a load balancer in the architecture, end users do not have to worry about bandwidth or concurrent usage. With the load balancer, the eScholar Uniq- ID Solution has the capability to efficiently distribute network traffic across servers. The client-server model allows the Uniq-ID Solution to partition the workload so that resource heavy tasks are performed in the servers after the client (user computer) initiates requests. Multiple clients can submit concurrent requests through this model. v2023.0.0 to meet or exceed the speed and performance as stated in the response to Businees Requirement 8.3
8.3	Solution to perform matching through requests from application interface (UI) and API type services) with optimized run times.	x		The proposed eScholar Uniq-ID Architecture provided in the response will support the expected load with optimized run times. The Solution can process approximately 17-25 records per second through the matching process. v2023.0.0 to meet or exceed the speed and performance.
9: Identifier Configuration	Identifier Configuration: Solution to support the creation of unique identifiers for students and staff. High level business requirements to include the ability to:			
9.1	Solution to have no limitations on the number of education unique person identifiers that can be generated for new identities and the ability to set	x		Every implementation of eScholar Uniq-ID utilizes an ID Pool that manages all of the unique identifiers available, in use, and/or retired. For the State, this pool will include the existing identifiers

	limitations/requirements on field length of the education unique person identifier.				already assigned in the legacy systems and a pool of available identifiers for newly assigned IDs. The pool system ensures that no ID is ever reused. The pool count can be increased as needed. The standard format of the identifier created by eScholar Uniq-ID is based on the ISBN 10-digit number logic, which conforms with CEDS/Ed-Fi requirements on length. Should the State require a different format, we can explore other options to meet those length requirements.
10: Data Lineage	Data Lineage: Data Lineage through Education Sectors based on a singular identifier. High level data lineage requirements include the ability to:				
10.1	Solution must demonstrate the ability to maintain a master identifier that can map to one or more education identifiers, including a historical identifier crosswalk, and will protect an individual's privacy as they move across education sectors/though their educational lifecycle.	x			eScholar Uniq-ID enables agencies to assign a single identifier to an individual that will be maintained as the person goes through various education related experiences. Additional identifiers, such as Alias IDs, Local IDs, and Alternate IDs can be linked to the unique identifier with the Alias ID feature. The Alias ID table maintains a record of every source system identifier linked to the person and associates it to the single unique identifier for the person. eScholar's solution will provide, maintain, and associate an alternative system generated identifier for public consumption.
10.2	Solution at minimum must be adaptable in alignment to CEDS.	x			Unique IDs created by eScholar Uniq-ID conform to the CEDS model. Valid Values, and Field Display Names are configurable. For example, "Certificate Type" can be collected by Uniq-ID and used to indicate the category of credential the person holes. CEDS certificate type codes are used, but additional values can be configured.
10.3	Solution to allow for identifier attributes to be updated for an individual by multiple parties or processes/ system and provides communication to the individual and/or the reporting entity if their information was updated by an external party.			x	eScholar Uniq-ID currently provides the ability for identifier attributes to be updated by authorized parties, but does not include communication to the reporting entity that the data changed. This feature will be added in the roadmap and is identified as Identifier Notifications in the Roadmap. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.

11: Reporting, Auditing, Data Quality	Reporting/Auditing/Data Quality: Support reporting, auditing, and data quality.				
11.1	Solution must maintain audit/event log that captures events to a person's education unique person identifier and related information including that of the system or user responsible for the event. Consuming systems should have a method of awareness of such events to make adjustments as appropriate. This data needs to be accessible via various data access methods to support other SOM educational systems.	x			eScholar Uniq-ID maintains an application log and audit log. The application log records events such as log in/out, retiring of an identifier, and splitting of an identifier. The audit log collects and maintains information of actionable events, such as Master Record Updates, Login, Property Updates, Assignment Decisions, ID Retirement, Separating Share IDs, and more. The audit log is stored in file system and database tables, and includes the timestamp, user, source, category, event, and value of the event for ID as appropriate.
11.2	Solution provides the ability to configure reports within the system.	x			Within eScholar Uniq-ID, the system provides integrated reports. All reports can be filtered, downloaded, and sorted. The integrated reporting feature allows Administrators to review and download the following reports from the web interface: Alias ID Report; Canceled Record Report, Near Match/Potential Match Report, No History Report, and Submission History Report.
11.3	Solution to perform live metrics.			x	eScholar Uniq-ID does not currently embed live metrics into the Solution. Alternative live metric tools can be utilized externally. eScholar has placed the Live Metrics feature in the Product Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
11.4	Solution to have real-time reporting capabilities with the option for customizable reporting business rules.	x			eScholar Uniq-ID enables reporting capabilities with the availability of Data Marts. The Data Marts included are Active Person, Alias IDs, Audit Data, Location Information, Location History, Person History, Retired IDs, and Separated IDs. These Data Marts can be queried as needed for reporting purposes using the State's own business rules. eScholar Uniq-ID also provides real-time reporting capabilities with Duplicate Search. The Duplicate Search allows Authorized Users to select the parameters that define a duplicate record, name the report, and save the duplicate report results in an ad hoc fashion so

					that they are available for other users to run. Users can run the saved report to review and resolve potential duplicate records. The report results update in real time, as the duplicate records are resolved by Authorized Users. v2023.0.0 to provide live reporting abilities available through both UI and through query tools.
11.5	Solution to provide data linking metrics such as false positives, false negatives, linking confidence indicators, number of twins identified, match statistics, and match counts.	x			eScholar Uniq-ID includes Near Match List, Duplicate Search, Shared ID Search, and Data Marts to meet this requirement. The Near Match List identifies potential matches for the submission record and includes the Match Score and other information about how the Near Match was generated. The Duplicate Search enables authorized users to perform a search to identify potential duplicates where one person has two or more identifiers. This report identifies the number of records returned based on the selected parameters. The Shared ID report enables authorized users to perform a search for potential shared identifiers where two people share the same ID. This report identifies the number of records returned based on the selected parameters. Since the parameters for the Duplicates and Shared IDs are customizable, the metrics are dependent on the search. Additional reporting can be completed with the Data Marts. The Active Student Data Mart will supply information about the Master Record including a match trace. In any of these cases, if a submission record was forced into a Near Match due to a Twins Rule, the match trace will record the information with the submission.
11.6	Solution to compare and capture data quality, reports, and auditing over time and comparison to previous time periods (both individual and aggregate reports).			x	eScholar Uniq-ID includes Data Marts for reporting purposes. The Data Marts included are Active Person, Alias IDs, Audit Data, Location Information, Location History, Person History, Retired IDs, and Separated IDs. These Data Marts can be queried as needed. These Data Marts can be queried based on time periods. To meet the full scope of this requirement, eScholar will add a Comparison Report to the Product Roadmap. Please see SCHEDULE A, FIGURE 1

11.7	Solution to generate reports to capture results of outcomes based on matching threshold and weight configurations for performance tuning.	x		- eSCHOLAR UNIQ ID ROADMAP for more details. Performance tuning is something that all eScholar Uniq-ID customers have done to meet their unique state needs. Performance tuning is an iterative process that looks at various outcomes. The Near Match Report includes data such as the total count of batches and near matches and includes a school filter, a report download link, and a detailed list to drill through by district, building and school. Submitting batches and
				analyzing the data in the Near Match Report can inform how to configure match thresholds and weight configurations for performance tuning.
12: User Interface	Application UI: A standalone application with an interface. High level business requirements to include the ability to:			
12.1	Solution to have a standalone application with an interface for identifier management analysts to perform functions.	x		eScholar Uniq-ID is a standalone application with an intuitive easy to use web-based interface to perform all functions related to identifier management. The interface provides a complete workflow in a user-centric design.
12.2	Solution's UI to have the ability to review all identity history associate with the master record and other source of truth records with restricted access per role based (e.g., access to source of truth records may vary based on user role).	x		eScholar Uniq-ID maintains a master record for each person while maintaining history records for each update. The application also has a Location History Data Mart and Person History Data Mart, which can be queried as needed. Access restriction is managed through the Role Manager feature and also based on the user's location assignment.
				Data restriction is only limited to SSN. However, data masking is configured based on the user's assigned location.
12.3	Solution's UI to have bulk upload and single upload capabilities for creating/identifying an identifier.	x		eScholar Uniq-ID's user interface allows for bulk and single uploads through Batch mode and Manual Entry mode.
12.4	Solution to include reporting/dashboarding/monitoring capabilities to provide metrics/in-process status (including critical system notifications such as critical error notifications) associated with both front-end and back-end processes.	x		The eScholar Uniq-ID application displays a system message when the application is unavailable and also alerts the user when there are issues with the Matching Engine. The system message is configurable by a system administrator.

					v2023.0.0 to provide system notification abilities available through both UI and API.
12.5	Solution to have the ability to provide workflow management including assignment and task notification of identity management maintenance tasks.	x			eScholar Uniq-ID provides a complete workflow for the management and creation of unique IDs. The application automatically assigns tasks to users with permissions to manage near matches. Uniq-ID also has Scheduled Tasks. The system can be configured to automatically cancel pending near matches older than the specified timeframe and send notifications for pending near matches and system outages. Near Match Notifications can alert districts when they have any pending near matches that require attention. The scheduled tasks are flexible and can be scheduled for daily, weekly or monthly processing. v2023.0.0 to provide workflow abilities available through both UI and API. i.e., Duplicate Reports.
13: Release Management	Testing / Release Management/ Maintenance: Solution to provide the ability to test upcoming changes in configuration management environments before being pushed to production including bug fixes.				
13.1	Solution to reside in multiple environments (e.g., Development, QA, UAT, Production) based on determined hosting platform) to test product maintenance events in addition to release management /testing of consuming/integrated systems.	x			We are proposing a solution hosted by eScholar. eScholar Uniq-ID will be hosted on AWS with FedRAMP ATO. Three environments will be provided: Test, Testing, and Production. The State will have access to all three environments' database and data marts via VPN tunnel.
13.2	Solution's application or system administrators to be able to maintain multiple identifier matching profiles (weights/thresholds) within different environments, including production, through application's UI or back- end processes.	x			Multiple identifier profiles can be maintained within different environments. Version 2023 will include the ability to define different person types. Each person type can have a matching profile with its own distinct thresholds and weights.
13.3	Solution UI processes must run independently in comparison to backend processing e.g., If the product's UI is down for bug or upgrades, the product's backend through APIs should not be affected.	x			In Version 2023 the user interface and back end / APIs will be separated. If an upgrade does not have changes to the API or database, the upgrades can be applied without affecting the API/Backend.
14: App Data Access	Application-Wide Data Access: Solution must offer Application-wide data access by maintaining and creating a singular unique identifier that				

	follows an individual over their educational lifecycle.				
14.1	Solution must support identity data lineage across and within education sectors for events such as a person having duplicate records/multiple identifiers while maintaining the relationship to the secondary or tertiary identifier. This data needs to be accessible via various data access methods to support other SOM educational systems.	x			eScholar Uniq-ID supports identity data lineage across time, location, and source system. When a master record is updated, the original data is moved to history and the new data becomes the master data. The application retains all history information for a person. Typically, data is updated when a record is submitted, unless the Authoritative Source feature is enabled. Secondary and tertiary identifiers are stored in a person record as Alias IDs. This data is accessible in eScholar Uniq-ID's Data Marts.
14.2	Solution must offer direct and/or near direct database accessibility to SOM applications/programming.	x			The eScholar Uniq-ID Data Marts are provided to support additional reporting needs such as reporting needs of third party software applications. The Uniq-ID Solution has the ability to publish Master Person Records, Active IDs, Retired IDs, Alias IDs, and Retired Alias IDs to the Uniq-ID Data Mart. v2023.0.0 to provide direct access to live databases and Data Marts within each environment.
14.3	Solution must provide direct database access for State analysts to perform analytics.	x			The eScholar Uniq-ID Data Marts provide the State with access for reporting and analysis on all data associated with Master Person Records, Active IDs, Retired IDs, Alias IDs, and Retired Alias IDs. v2023.0.0 to provide direct access to live databases and Data Marts within each environment.
14.4	Solution to capture API events for monitoring, metrics and investigation into processing issues including capturing single and batch like requests, the requesting system, potential educational entities/users making the request (e.g., API request for new ID from X system by Y educational entity by their system user A). This data needs to be accessible via various data access methods to support other SOM educational systems.	x			All submissions to the system are audited and logged, including API requests. These audit records can be accessed via the Uniq-ID Data Marts, which are available to support other SOM educational systems.

15: Data Linking	Data Linking/Splitting: Solution must maintain a single identifier for an individual by providing capabilities to merge and un-merge unique identifiers. High Level linking/splitting capabilities include the ability to:				
15.1	Solution must support identifier data linking/merging and unlinking/un-merging in real-time.	x			The Uniq-ID Solution provides an easy interface for Administrators to find, research and link/merge and unlink/unmerge identifiers in real-time. In Uniq-ID, when multiple IDs are assigned to the same person, this is known as a Duplicate. When a duplicate is found, a linkage can be created between it and the retained identifier. This makes it possible to integrate historical information that may have been associated to the duplicate. Identifiers generated by the system will not be reused, even if they are determined to have been retired. Records can be split for unlinking/unmerging of records. v2023.0.0 to support identifier data linking/merging and unlinking/unmerging in real- time at the state and education entity administrations through APIs.
15.2	Solution to provide real-time detection of singular identifiers being utilized for multiple students with the ability to split those identifiers.	x			In Uniq-ID, when a single identifier is being utilized for multiple students, this is known as a Shared Identifier. If shared identifiers are found, an Administrator can separate them using an online interface to determine which individual should retain the identifier at issue and which records should be assigned new identifiers. History records can also be assigned to separate identifiers. This is all done in real time.
15.3	Solution to automate the identification and linking of identifiers (merging) based on a set criteria or data range.			x	eScholar Uniq-ID provides a manual search for users to identify potential identifiers issues. Additionally, a Batch Retire process can be utilized which retires known duplicates using data provided in the batch file. eScholar will add an ID Management Automation feature to the Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
16: Matching	Matching: An identity matching engine (e.g. Probabilistic, Fuzzy Matching, Machine Learning				

	(ML)) that can be customizable based on different roles and education sector/Lifecyle.				
16.1	Solution's matching engine must demonstrate the ability to configure matching rules (e.g. Changing weight/thresholds).	x			eScholar Uniq-ID offers many options to configure the matching engine, including configuring matching thresholds and rules. Some of the rules that are available are SSN Same Rule, SSN Different Rule, Twins Rule, Exact Match Rules, and more.
16.2	Solution to have the ability to differentiate the resolution process based on security and roles.	x			eScholar Uniq-ID v2023 has nineteen (19) available roles that have different levels of access to functionality, including resolution options, based on those roles. These roles can be configured through the Security Manager. v2023.0.0 to include Security Manager functionality through APIs.
16.3	Solution to provide real-time identifier matching without creation of new identifiers but receiving results of no match, possible matches, and match found.	x			eScholar Uniq-ID allows users to search real-time without creating new identifiers. The Solution offers three options for searching: online, batch and web services. For online searching, the user can search using basic demographic information, advanced person information, or by identifier. For the batch search, a user can upload a file with many records to perform a search. The Web Services search enables a source system to submit a search. All of these search options will provide results of match, no match or near match. This functionality is helpful when the source of the data should not create new identifiers or if the User is only trying to retrieve an identifier. For example, if the User is trying to match test scores, find missing children, or match higher education data, the search functionality can be used to locate and match without creating new identifiers for the individuals.
16.4	Solution to have the ability update/enter demographic information individually and through bulk processes via multiple file formats such as XML.	x			The multiple file formats accepted are: .txt, .csv, and .zip. The eScholar Web Services accept JSON data.
16.5	Solution to monitor/improve matching algorithms to ensure best matching outcomes, leverage current technology, and align to current education standards in a timely fashion.	x			The eScholar Uniq-ID team is always seeking to improve the solution to improve matching outcomes, leverage current technology and align with current education standards. The eScholar Uniq-ID team builds a product roadmap focused

					on improvements in functionality; creation of new functionality/features; upgrades/changes in technology; creation of case studies; and timelines for client requirements. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
16.6	Solution to match identifiers based on common nicknames.	x			eScholar Uniq-ID uses hundreds of matching techniques, including matching on nicknames. The system can understand variations of given names (for example, Jack = John, Bill = William, etc.).
16.7	Solution to match identifiers based on ethnic names.	x			 eScholar Uniq-ID uses hundreds of matching techniques that include matching on ethnic names and variations of ethnic names. Race and ethnicity and customer-defined fields can be used to review records and determine matches. v2023.0.0 to perform name matching on ethnic names without the identification of a race or ethnicity at a minimum.
16.8	Solution to match identifiers based on common Soundex or Soundex like products (e.g., Metaphone).	х			Soundex is included as one of the hundreds of matching techniques used in Unig-ID.
16.9	Solution to determine attributes to match on based on education sector and/roles.			x	In the version 2023, attributes to match on are available for all users. eScholar has added Matching Attributes feature to the Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
16.10	Solution to be able to search for identifiers based on multiple attributes, leveraging either direct matching or the matching engine.	x			 eScholar Uniq-ID has Exact Match Rule, which bypasses the matching engine if the submitted record passes the Exact Match rule. The Exact Match Rule allows Administrators to define which personal attributes determine an exact match in data. The Exact Match Rule also defines when the system accepts a record as an update, and/or when the system forces the record to the matching engine in cases where the State ID is provided in the file. If the record does not pass the Exact Match Rule, eScholar Uniq-ID will send the record to the matching engine and will force a Near Match/Potential Match.

16.11	Solution to have the option to let administrators (role based) to mark an identifier as burned and exclude the identifier for any future identity matching.	x			The functionality of marking an identifier as burned and excluded is known as Retired IDs in eScholar Uniq-ID. When an identifier is retired, it is removed from the active identifiers table and the retired ID is stored in the Retired Identifier Data Mart. Its corresponding Alias ID is inserted into the Retired Alias ID Data Mart.
16.12	Solution to provide the ability to load and match with external source files with missing limited attributes (Ex. missing DOB).	х			eScholar Uniq-ID can load a match with limited attributes, but certain fields are required for matching, depending on the type of search being done. Basic and Advanced Search requires First and Last Name.
16.13	Solution to have the ability to mark persons as deceased and conditionally exclude from matching.	х			This functionality is met in eScholar Uniq-ID through the Retire ID feature.
17: Authoritative Source	Authoritative Source: The reliable source that can update the master record at a certain point in time (e.g., district A cannot update the demographics of a student whom district B is primary responsible for educating while in High School).				
17.1	Solution to have the ability to identify the appropriate source of truth and authoritative source of truth based on set criteria.	x			eScholar Uniq-ID has the ability to define an authoritative source. The eScholar Uniq-ID Solution enables record-level updates to information based upon a system-wide source system reliability score. Administrators configure and define reliability scores for source systems that are authorized to upload data. The reliability score is used during Match Processing to determine if the incoming record is permitted to update an existing record. Only records meeting the authoritative source criteria will be able to apply updates to the Master Record. By utilizing this functionality, Users can submit data from multiple source systems but only apply changes to the record when the data comes from an authoritative source.
17.2	Solution to have the ability to match two identifiers without updating the master record or source records.	x			Searching functionality in eScholar Uniq-ID allows users to match IDs for an individual without assigning an ID or updating the master record. This functionality is helpful when the source of the data should not create new identifiers or if the User is only trying to retrieve an identifier. Additionally, with a defined authoritative source, only incoming records from an authoritative

					source can make updates to the record or source records.
18: Person Attributes	Person Attributes - Matching and Retention Person attributes are identity attributes that are commonly used to distinguish one person from other (e.g., Name, DOB, SSN). Identity fields may fall into one of the following categories: · Required · Optional · Not collected - Required vs. Optional may be based on educational sector (PK12, IHE, Education Staff)				
18.1	Solution to contain flexibility in adding or removing attributes and option sets (list of valid values) based on roles for matching purposes.			x	eScholar Uniq-ID allows multiple identity attributes to be collected, which can be categorized as enabled/disabled and required/not required. These categories are then applied to all user types and are not further categorized by role. eScholar has added Valid Value Validations to the Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
19: Technology	Technology: Provide industry standard technology solutions & implementation options, adhere to SOM technology requirements				
19.1	Solution must offer secure access/permission control for state/district/school admin users	x			eScholar Uniq-ID v2023 nineteen (19) roles, eleven of which are configurable by an authorized user. These roles provide appropriate access/permission control for different types of users at different locations, including state, district, and school administrator users.
19.2	Technology used must be industry current and Contractor proprietary. Open sourced software must be approved for use by the State.	x			We are proposing eScholar Uniq-ID® version 2023, a proprietary software solution and it is industry current. The current version of eScholar Uniq-ID, v11, is in production with numerous other states. eScholar will obtain approval from the State for all open-sourced software installed for the Solution.
19.3	Technology used must be appropriately licensed (Contractor or public domain)	x			All technology used in the development of eScholar Uniq-ID is appropriately licensed.

19.4	Technology used must support a mechanism for quick updates, especially security related, relative to software industry vulnerability categories (e.g. OWASP defined) and remediation speed. Open Web Application Security Project® (OWASP)	x			All technology supports a mechanism for quick updates as needed.
19.5	The Unique Person Identifier must be usable as the Master Person Id for all source systems used by SOM agencies (PIC, Student ID, etc.) and school/district level.	x			The Unique Person Identifier created and managed by eScholar Uniq-ID can be used by all source systems as the Master Person ID at multiple levels (e.g., schools and districts) and by SOM agencies. It is a true person ID system. The proposed license covers all persons (e.g., staff and students) associated with early childhood, PK-12, and postsecondary education.
19.6	The format/data type of Solution supported Unique Person Identifier (UPI) must be SOM customizable (i.e., the form and make up of segments etc.).	x			The displayed format of the identifier is customizable by the Status using the System Properties component.
19.7	Solution built-in ID validating/matching rule engine should be SOM customizable	x			The validation/matching rule engine of eScholar Uniq-ID allows authorized users to make configurations on the system while maintaining the validity and integrity of the matching algorithms. SOM can configure many features and functions including, but not limited to matching thresholds, match rules, data quality settings, valid values, and more.
19.8	Software Application generated errors must be reported in near real-time and addressable (corrected by administrators) in suitable online and/or batch options	x			eScholar Uniq-ID can provide Users with the opportunity to correct the errors found during the Data Validation step if the Fix Errors feature is enabled. This feature can also be disabled and will then cancel records in an error state. If enabled, in the case of a Batch File Upload and Online Entry, the system will prompt the User with descriptive details of the error to help the User resolve the issue. For Web Services, the calls are returned as an error, and the User must correct the issue at the source system and resubmit the data.
19.9	Solution must allow for integration with non-State hosted school student and personnel management systems. (e.g., SIS)	×			eScholar Uniq-ID integrates with third party systems that are not hosted by the state. These third-party systems, including SIS and personnel management systems, can submit data using Web Services and Automatic File Processing (AFP).

				eScholar solution is a cloud hosted vendor solution.
19.10	Solution must integrate with State hosted source data	x		eScholar Uniq-ID integrates with State hosted source data. State hosted systems can submit data using Web Services and Automatic File Processing (AFP) eScholar solution is a cloud hosted vendor solution.
19.11	Contractor must provide an implementation/engagement exit plan that results in SOM always retaining an operational system, with/without further updates from the Contractor (subject to licensing and software update contract terms & conditions).	x		We are proposing a perpetual license to eScholar Uniq-ID, with annual support and maintenance. Please see Schedule G for eScholar's Transition In and Transition Out plan.
19.12	Solution must have built-in functionality to integrate with analytics tools, such as Power BI and SAS.	x		eScholar Uniq-ID includes Data Marts for reporting purposes. The Data Marts included are Active Person, Alias IDs, Audit Data, Location Information, Location History, Person History, Retired IDs, and Separated IDs. These Data Marts can be queried as needed using analytic tools such as Power BI and SAS.
OPTIONAL	_			
20: Data Integration	Data Integration: Solution to provide interoperability from multiple sources. High level requirements for data integration include the ability to:			
20.1	Solution to provide real-time access to security to identity system in conjunction with data collection systems security.	x		eScholar Uniq-ID is able to integrate with existing security models for single sign-on implementation or other methods to access the solution based on Lightweight Directory Access Protocol (LDAP), Active Directory (AD), OAuth, or other standards- based security solution to store user information, credentials, roles, and group associations.
20.2	Solution to provide real-time detection of multiple identifiers for the same person with the ability to link those identifiers that have been detected.	x		eScholar Uniq-ID can identify and manage multiple identifiers for the same person, known as a Duplicate ID. The Review Duplicate ID and Duplicate Queue components allow Administrators to define search criteria, review and research the results, and to retire any duplicate identifiers. The Review Duplicate ID component is session-based and always displays all potential duplicates meeting the search criteria,

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					while the Duplicate Queue component is queue- based and allows Users to remove records from the list. When a User is retiring an identifier within the Uniq-ID Solution via Retire an ID, Review Duplicate ID, or the Duplicate Queue components, the Uniq-ID Solution allows the User to associate the identifier to be retired with an active identifier. This linkage enables the User to merge historical information from the record being retired into the retained Master Record. When an identifier is retired, the User is also required to enter a reason for the retirement and to confirm the retirement. The retirement process is done in real-time.
20.3	Solution APIs to support UI creation within other systems that leverage APIs created through the Identity system (Ex. Student information System through the datahubs).	×			eScholar Uniq-ID comes with a robust set of Web Services to support UI creation within other systems. The third-party software systems, such as student information systems, develop interfaces, which interact with the eScholar Uniq- ID Web Services. All features and functions within the eScholar Uniq-ID v2023 user interface have APIs that can be called by a third party system to support UI creation within other systems. This includes Search, ID Assignment, Near Match Resolution, etc. The identifiers created or assigned are returned to the third-party software via the Uniq-ID Web Services. Additionally, search web services are available to enabled systems to search for records without completing an assignment request.
20.4	Solution to provide transformation and/or data load into a Statewide Longitudinal Data System (SLDS) related products for data use leveraging CEDS standards.	x			eScholar Uniq-ID v11 is a foundational component of several SLDS for many other states, including those leveraging CEDS standards. Typically, the eScholar Uniq-ID Data Marts are used for integration with SLDS, in which their SLDS queries the Uniq-ID Data Mart to ensure the ID assigned to a record is in the Active ID Data Mart. This ensures that all records in the SLDS have an active and accurate ID for longitudinal analysis.
21: System Efficiency	System Efficiency: Solution to maintain efficiency with interoperability. High level business requirements to include the ability to:				
21.1	Solution to manage identifier data merging performance.	x			eScholar Uniq-ID provides a complete workflow for ID management, including the ability to split

	Identifier Configuration, Solution to support the				and merge identities. When a User is retiring an identifier the via Retire an ID, Review Duplicate ID, or the Duplicate Queue features, the eScholar Uniq-ID allows the User to associate the identifier to be retired with an active identifier. This linkage enables the User to merge historical information from the record being retired into the retained Master Record.
Configuration	creation of unique identifiers for students and staff. High level business requirements to include the ability to:				
22.1	Solution to provide encryption and de-encryption of unique Identifiers within database or data use respectfully.	x			Data in eScholar Uniq-ID (i.e., data at rest), including unique identifiers, will be encrypted to protect it from unauthorized access using Microsoft's Transparent Data Encryption (TDE). Data encryption at rest does not apply to data being used for querying and processing.
23.0: Data Lineage	Data Lineage: Data Lineage through Education Sectors based on a singular identifier. High level data lineage requirements include the ability to:				
23.1	Solution to use an Internal database with physical alignment to CEDS standards.	x			eScholar Uniq-ID uses a centralized internal database with many alignments to CEDS. For example, in the "Highest Degree Earned" field, CEDS highest degree codes are used, but additional values can be configured. eScholar Uniq-ID supports the collection of over 50 data fields, including Customer Defined Fields (CDF). Field labels for CDFs and many other fields can be configured, including the field name.
23.2	Solution to maintain data lineage regarding data transformation and reason for transformation.	x			eScholar Uniq-ID maintains all history of modifications of all modifications made to records. This includes actions such as data updates, merging and splitting records. Authorized users can also enter notes on the record. These notes can assist users during Near Match resolution or for details on record merge/split.
23.3	Solution to have the ability to track standardized changes to name and other demographic information based on a specific criterion (Ex. Adoption, marriage, etc.).	x			All changes to names and other record data fields are recorded and tracked.
24: Reporting, Auditing, Data Quality	Reporting/Auditing/Data Quality: Support reporting, auditing, and data quality.				

24.1	Solution to provide a system interface to incorporate live and historical reports and data quality notifications.	×			eScholar Uniq-ID provides reports that provide data quality information such as submission history, pending near matches, and a canceled records report. The Near Match Report can be configured to be sent out to users on a daily, weekly or monthly basis to serve as a notification of pending records. eScholar Uniq-ID also includes Audit Tables and Files that collect and maintain audit information of actionable events. Information collected includes the user information and time stamp for actions such as Master Record Updates, Login, Property Updates, Assignment Decisions, ID Retirement, and Separating Share IDs. eScholar Uniq-ID also maintains a log of system errors.
24.2	Solution to capture metrics from source data to uncover patterns, trends, and anomalies that impact data quality.	x			The Canceled Record Report can help administrators understand which users and/or locations are encountering issues and/or the types of issues they are encountering. This report includes the username, error type and other details to assist in the analysis of data quality issues. Additionally, the Audit Data Mart can be utilized to uncover patterns and trends.
25: User Interface	Application (User Interface (UI)): A standalone application with an interface. High level business requirements to include the ability to:				
25.1	Solution to provide customizable system errors and warnings.	x			eScholar Uniq-ID includes the capabilities for Administrators to configure System Notifications that can trigger email messages to individuals in the cases when there are errors or system issues. Some error messages within the eScholar Uniq-ID interface are customizable as well. This capability will be available through APIs, as well.
25.2	Solution to have search capabilities within the application's UI.	x			The eScholar Uniq-ID UI has an Online Search feature. This search method allows for single person searches within the Uniq-ID Solution interface. The User can enter details of an individual such as first name, last name, date of birth, and gender along with other fields to retrieve potential matches. Within the UI, users can also submit files for Batch Search. This search method allows for the submission of a file with one or many records for searching. After the search is completed, the system returns Matches, No

05.0					Matches and Near Matches to the User. The Batch Search component can be used to search for existing individuals for the purposes of identifying false drop-outs across locations and missing individuals and / or for identifiers to be supplied to other systems.
25.3	visibility for both front and back-end processing.	х			that show the status and next steps of current processes.
25.4	Solution's UI to be customizable.	x			eScholar Uniq-ID's header and footer of the application UI are customizable, so SOM can customize the application with their branding.
25.5	Solution to have customizable dashboard and configurable dashboard portal.			x	In the current version of eScholar Uniq-ID, the dashboard can be filtered to provide a customized experience, but to meet the scope of this requirement eScholar added a Customizable Dashboard feature to the Roadmap. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
25.6	Solution to perform data profiling before data is loaded for matching.	x			 When records are submitted for matching, eScholar Uniq-ID performs a seven step process: 1. Data Submission. 2. File Validation 3. Data Validation 4. Fix Errors (if enabled) 5. ID Assignment 6. Near Match Resolution 7. Output of IDs. In the File Validation step, eScholar Uniq-ID reviews the file to make sure it meets file specifications. If it does not, the file will be rejected. In the Data Validation step, the system validates data at the field level to verify conformance to data requirements and valid value definitions. The valid value definitions can be defined and managed by the State. This includes, for example, the lookup values for Race/Ethnicity and other codes. The Uniq-ID Solution also validates that all of the required values are supplied based upon system and configured requirements. Defining the Valid Values for the fields referenced with "State-defined Valid Values" enables the validation rules for these fields. Values not

					meeting the defined Valid Values will prompt notice of a data validation error.
25.7	Solution to allow internal and external users with role specified access to run customizable reports based on filters.	x			eScholar Uniq-ID offers two ways to run reports. One option is through the integrated reports offered in the application. These reports can be filtered, sorted, and downloaded. The integrated reports offered are: Alias ID Report; Canceled Record Report; Near Match Report; No History Report; Submission History Report. These reports are only available to authorized users of the system. Another option is to run reports off the Data Marts. Since eScholar Uniq-ID is a transactional system, the Uniq-ID Data Marts are provided to support additional reporting needs such as reporting needs of third party software applications. eScholar Uniq-ID has the ability to publish Master Person Records, Active IDs, Retired IDs, Alias IDs, and Retired Alias IDs to the Uniq-ID Data Marts. The State can provide access to these data marts to external users as necessary.
25.8	Solution to have the ability to redirect user from other SOM applications to identity product for further processing.	x			Other applications can redirect to eScholar Uniq- ID, but all users must be authenticated.
25.9	Solution to allow notification to be sent to external user when the status of their request has changed such as the completion of their file processing.	x			eScholar Uniq-ID has a feature that allows notifications to be sent to users for certain tasks. Scheduled tasks can be configured to automatically send notifications for pending near matches and system outages. Near Match Notifications will alert districts when they have any pending near matches that require attention. The scheduled tasks are flexible and can be scheduled for daily, weekly or monthly processing.
26: App Data Access	Application-Wide Data Access: Solution must offer Application-wide data access by maintaining and creating a singular unique identifier that follows an individual over their educational lifecycle.				
26.1	Solution to allow the ability to replicate identifier and related information from the product's database to a replicated database in a near real-time manner for consumption by other state systems.	x			eScholar Uniq-ID's Data Marts can be used to replicate identifier and related information to a replicated database in near real-time. The following Data Marts are available in Uniq-ID: Master Person Records: The Master Person

		1	I I	1	1	
						Records Mart stores all Master Record details including the last modified date of the Master Record.
						Active IDs: The Active ID Mart stores the State ID, creation date, and last update date for all active identifiers in the system.
						Retired/Deactivated IDs: The Retired/Deactivated IDs Mart stores all of the identifiers that were retired, plus the active identifier (if available), and the retirement date.
						Alias IDs: The Alias IDs Mart stores all of the Alias IDs for a person with an active State ID. The Mart includes the Alias ID, source system of the identifier, the State ID, identifier status, creation date, and last update date.
						Retired Alias IDs: The Retired Alias IDs Mart stores all of the Alias IDs for a person with a retired State ID. Like the Alias ID Mart, the Retired Alias ID Mart includes the Alias ID, source system of the identifier, the State ID, identifier status, creation date, and last update date.
26.2	Solution to focus on validating data accuracy and consistency, within/across sources of truth, by allowing users to search upstream and downstream, from source to destination, to discover, correct, and analyze anomalies. The data needs to be accessible via various data access methods to support other SOM educational systems.	x				eScholar Uniq-ID is highly focused on validating data accuracy and consistency and provides users with opportunities to discover, correct, and analyze anomalies. In the seven-step submission process, eScholar Uniq-ID validates the data prior to loading for matching. When any anomalies are identified, eScholar Uniq-ID can provide Users with the opportunity to correct the errors found during the Data Validation step if the Fix Errors feature is enabled. This feature can also be disabled and will then cancel records in an error state. If enabled, in the case of a Batch File Upload and Online Entry, the system will prompt the User with descriptive details of the error to help the User resolve the issue. For Web Services, the calls are returned as an error, and the User must correct the issue at the source system and resubmit the data. In the case of records submitted through the Automatic File

					Processing option, the system cancels all records that generate a data validation issue. A Canceled Records file is returned to the secure server location for each Batch. This file includes information on the specific errors. When a data validation error is corrected, the system returns to the Data Validation step until all discrepancies have been resolved. This feature can be disabled in System Properties so that all data validation issues are canceled.
26.3	Solution to identify an impact of an event such as identifier merging to the consuming system that utilize the identifier.	x			The eScholar Uniq-ID system presents a warning message to users in various stages when a user is retiring/merging an identifier. For example, the Retire an ID page displays a warning message indicating the action will result in a deletion of data. When the user submits a retirement request, the application presents the user with a secondary page which requires a review and confirmation of the request. Once the user clicks the Confirm Retirement button, the application presents a final confirmation pop-up requiring the user to confirm the retirement.
26.4	Solution to provide the ability to flag individuals with similar demographics such as twins. These flagged individuals should not be identified as matches.	x			eScholar Uniq-ID has a configurable match setting called the Twins Rule. This rule will force a Near Match if the Match Result is a Match, the name and district code is the same, but the Local Identifier is different between the Submission Record and Master Record. This can be enabled or disabled by a User in the System Properties component. Individuals can also be flagged as twins using Customer Defined Fields.
26.5	Solution backend database to have the capability for encryption and decryption at a field level.	×			eScholar Uniq-ID encrypts passwords if stored in the application. Due to the nature of matching data, the other fields are not encrypted at the field level. Data in eScholar Uniq-ID (i.e., data at rest), including unique identifiers, will be encrypted to protect it from unauthorized access using Microsoft's Transparent Data Encryption (TDE).
27: Data Linking	Data Linking/Splitting: Solution must maintain a single identifier for an individual by providing capabilities to merge and un-merge unique identifiers. High Level linking/splitting capabilities include the ability to:				

27.1	Solution to automate the identification of records that may need to be split.			x	eScholar Uniq-ID has a Shared ID search feature. If shared identifiers are found, an Administrator can separate them using an online interface to determine which individual should retain the identifier at issue and which records should be assigned new identifiers. Histories can also be assigned to separate identifiers. eScholar has added an ID Management Automation to the Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
27.2	Solution to provide real-time detection of multiple identifiers for the same student with the ability to link those identifiers that have been detected for an entire education sector at a time.	x			When a record is submitted for matching, the Solution will return all potential matches. In the case where there are multiple identifiers for the same person, multiple records will be returned as potential matches. The user reports these identifiers to the system administrator. A system administrator would utilize the Review Duplicates, Duplicate Queue, and/or Retire ID features to identify and resolve the issues. The Review Duplicate ID and Duplicate Queue components allow Administrators to define search criteria, review and research the results, and to retire any duplicate identifiers. The Review Duplicate ID component is session-based and always displays all potential duplicates meeting the search criteria, while the Duplicate Queue component is queue- based and allows Users to remove records from the list. When a User is retiring an identifier within the Uniq-ID Solution via Retire an ID, Review Duplicate ID, or the Duplicate Queue components, the Uniq-ID Solution allows the User to associate the identifier to be retired with an active identifier. This linkage enables the User to merge historical information from the record being retired into the retained Master Record.
28: Matching	Matching: An identity matching engine (e.g. Probabilistic, Fuzzy Matching, Machine Learning (ML)) that can be customizable based on different roles and education sector/Lifecyle.				

28.1	Solution to have the ability to validate a person based on information stored in other databases.	x			Data from other databases can be submitted for matching and validation. These validations can be done through Batch Search, Online Search, and Web Services Search. In some cases, our customers will use Uniq-ID to validate which students can be Directly Certified for free and reduced price lunch.
28.2	Solution to provide the option to capture an acknowledgement from a user or system that the identity event, such as the change of an individual's demographic information, can be supported by official documentation.			x	eScholar has added a Change Verification feature to the Roadmap to meet this requirement. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
29: Authoritative Source	Authoritative Source: The reliable source that can update the master record at a certain point in time (e.g., district A cannot update the demographics of a student whom district B is primary responsible for educating while in High School)				
29.1	Solution to have to ability to create a flag so that consuming systems can be updated based on demographic changes to the identifier.	x			eScholar Uniq-ID records the last updated date for all records. The Data Marts also captures data on the Master Record details, including last updated date, Active IDs, Retired IDs, Alias IDs, and Retired Alias IDs. This data can be used by the external systems to consume data as needed.
29.2	Solution to communicate with authoritative systems when changes occur to the demographic information of the master record.			x	When the Authoritative Source feature is used, the master data is not updated by other sources and would only be updated by the authoritative source. eScholar welcomes the opportunity to discuss this requirement further and will add it to the Roadmap as needed. Please see SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
30: Other	Other: This section contains overarching requirements				
30.1	Product Roadmap: Provide solution vision and roadmap. Outline plans and process including anything new or additional. Contractor should be able to demonstrate how they are continually improving their tools/skills to keep up with changes in the Education Data industry and ever-evolving identity identifier generation and matching technologies. Describe how you ensure your solutions are state of the art and can evolve with future enhanced technologies.	x			The vision of eScholar Uniq-ID is to provide a scalable unique person identification solution that can support daily operations, program evaluation, research, and analysis. The eScholar Uniq-ID team builds a product roadmap focused on improvements in functionality; creation of new functionality/features; and upgrades/changes in technology. In the next major release of eScholar Uniq-ID, the solution is being re-platformed to an API-driven application. The current Roadmap has been provided in this response. Please see

					SCHEDULE A, FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.
31: Technology	Technology: Provide industry standard technology solutions & implementation options, adhere to SOM technology requirements				
31.1	Contractor to provide options for Contractor administered cloud hosting.	x			eScholar Uniq-ID is available as both an SOM- managed, on-premise solution or a Contractor- managed cloud hosted solution. For this proposal, we are proposing a cloud-hosted vendor solution.
31.2	Solution to offer Al/Machine Learning based ID matching algorithm.	x			In eScholar Uniq-ID v2023, we are replatforming the solution and also enhancing the matching engine to include more advanced matching algorithms, including Al/Machine Learning based algorithms. This is identified as Version 2023 on the Roadmap. Please see SCHEDULE A , FIGURE 1 – eSCHOLAR UNIQ ID ROADMAP for more details.

SCHEDULE A, TABLE 2 – eSCHOLAR UNIQ ID ROLES

eScholar Uniq-ID v2023 User Roles Available to the State:
Building Administrator
Building User
Help Desk
Location Administrator
Multiple Locations
Multiple Locations Specific Buildings
Search
Services
Super
System Administrator
System User

SCHEDULE A, FIGURE 1 - eSCHOLAR UNIQ ID ROADMAP

The figure below depicts the eScholar Uniq-ID Roadmap with a timeline of major releases, product goals, themes, features, and fixes. The State features on the roadmap are highlighted by the blue dot.



SCHEDULE B - PRICING

Base Years 1-5	Cost \$
Software, Maintenance & Support	1,231,336
Hosting	1,892,279
Implementation & MORE Integration	205,000
Training & Documentation	35,000
Integration Roadmap	11,100
Base Years Total	\$3,374,715
Option Years 6-10	
Software, Maintenance & Support	875,314
Hosting	2,238,391
Option Years Total	\$3,113,705
TOTAL	¢c 400 400

Table 1: Cost Summary

Table 2: Software, Maintenance & Support, Hosting: Years 1-5

Itemized List of Software	License Type (e.g. perpetual subscription			Cost (\$)			Total	Comments
Items, Support and Hosting Fees	etc.)	Year 1	Year 2	Year 3	Year 4	Year 5		
eScholar Uniq-ID Person ID Bundle including Enterprise License and support through year 5.	 Perpetual License Bundled Maintenance & Support Service Pack from the end of Postproduction Warranty through the fifth anniversary of the successful completion of Acceptance Testing 	\$1,231,336	n/a	n/a	n/a	n/a	\$1,231,336	Enterprise license to assign and maintain unique identifiers in a single Production environment. License covers all intended users as described in this Contract. License also includes the ability for the State to have a single test environment and a single training environment. Fee includes Support for software bug fixes, general release enhancements, updates, new releases of product documentation and Support & Maintenance
Hosting Services	N/A	\$360,000	\$369,000	\$378,225	\$387,681	\$397,373	\$1,892,278	Hosting includes hosting test, training, and production environments. Includes all related services for managing and administering the system. Annual escalation: 2.5%.
Total		\$1,591,336	\$369,000	\$378,225	\$387,681	\$397,373	\$3,123,615	

Table 3: Software, Maintenance & Support, Hosting: Years 6-10

Itemized List of Software Items	License Type (e.g.,			Cost (\$)					
Support and Hosting Fees	perpetual, subscription, etc.)	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Comments	
Uniq-ID Maintenance & Support Services	N/A	\$160,000	\$167,200	\$174,724	\$182,587	\$190,803	\$875,314	Software bug fixes, general release enhancements, updates, new releases of product documentation and Support & Maintenance in accordance with the Service Level Agreement for State Hosted Solutions in Schedule D. Annual Escalation: 4.5%.	
Hosting Services	N/A	\$413,268	\$429,798	\$446,990	\$464,870	\$483,465	\$2,238,390	Hosting includes hosting test, training, and production environments. Includes all related services for managing and administering the system. Annual escalation: 4%.	
Total		\$573,268	\$596,998	\$621,714	\$647,457	\$674,268	\$3,113,705		

Table 4: Implementation & MORE Integration

Itemize all tasks, milestones, deliverables, and costs associated with each phase with complete Implementation Services needed to meet all Mandatory and Required specifications (e.g., configuration, customization, migration, integration, testing, etc.) (the "**Implementation Fees**"). All costs must be firm fixed. Bidder must provide detailed pricing and a payment schedule for the implementation of their product. Implementation Fees will be awarded based on a firm fixed fee. However, for price evaluation purposes, Bidder must provide a detailed breakdown of how Implementation Fees were calculated. **Include separate itemized line(s) for the MORE Integration tasks, milestones, deliverables, and costs**.

Phase	Deliverables	Cost (\$)
Initiation & Discovery	Project Kick-Off	\$0
Initiation & Discovery	Change Control Plan	\$5,000
Design & Plan	Project Schedule and WBS	\$20,000
Design & Plan	Validated Requirements Matrix	\$10,000
Design & Plan	Project Scope Document	\$10,000
Design & Plan	Test Plans	\$10,000
Design & Plan	Training Plan	See table 5
Execute & Deploy	eScholar UID Documentation	See table 5
Execute & Deploy	Validated Test Environment	\$15,000
Execute & Deploy	Validated Training Environment	\$15,000
Execute & Deploy	Validated Production Environment	\$20,000
Execute & Deploy	Test Scripts	\$30,000
Execute & Deploy	Final Data Migration	\$20,000
Execute & Deploy	MORE System Integration	\$20,000
Execute & Deploy	System Go Live	\$0
Close	Final Test Results Report	\$10,000
Close	Final Training Documentation	See table 5
Close	Final Acceptance	\$20,000
Production Support Services	Post-Production Warranty Period (90 Days)	
Production Support Services	Year 2 to 5 Support	
	TOTAL	\$205,000.

Table 5: Training & Documentation

Deliverable	Cost (\$)
Training	\$20,000.
Documentation	\$15,000.
TOTAL	\$35,000.

Table 6: Integration Roadmap

Contractor will develop a roadmap for integrating other State systems using analysis conducted during the project, with experience gained by the Contractor consulting team. The roadmap will recommend an integration path for a list of additional State MDE and CEPI systems. The roadmap must include an implementation plan and sequencing of applications. Itemize all tasks, milestones, deliverables, and costs associated with the process of creating an Integration Roadmap. Please quote the cost of creating the roadmap only. Do not quote the performance of the actual integration or implementation work.

Tasks	Deliverables	Cost (\$)
Conduct Source System Overview (Systems to be	Source System List and other	
integrated)	relevant information	
Conduct Integration Options Knowledge Share (API,	Product documentation	
Batch Upload, AFP)		
Identify System Integration Methods by system	System by integration type matrix	
Identity System integration methods by system	document	
Review Data Mapping/Gap analysis process		
Review the Integration Process		
Review the Integration Tests		
Deliver the Systems Integration Roadmap	Integration Roadmap	\$11 100
Document		φ11,100

Table 7: Rate Card for Future Enhancements

The labor rates in the table below will apply to optional future services purchased during the life of the contract.

Staffing Category	Onsite Hourly Rate (\$)	Offsite Hourly Rate (\$)
Key Personnel		
Project Manager	\$220.	\$185.
Lead Functional Consultant	\$220.	\$185.
Lead Technical Consultant	\$220.	\$185.
Security Officer	\$220.	\$185.
Lead Data Architect	\$220.	\$185.
Test Lead	\$220.	\$185.
Non-Key Personnel		
Service Manager	\$220.	\$185.
Business Analyst Lead	\$220.	\$185.
Business Analyst	\$220.	\$185.
Training Lead	\$220.	\$185.
Trainer	\$220.	\$185.
Scrum Master	\$220.	\$185.
Data Architect	\$220.	\$185.
Lead Developer	\$220.	\$185.
Developer	\$220.	\$185.
Network Engineer	\$220.	\$185.
Technical Writer	\$220.	\$185.

Note: General release enhancements to the eScholar Uniq-ID are included in the Support Fees quoted in Tables 2 & 3. The fees in Table 7 only apply to enhancements made specifically at the direction of the State and/or out of cycle enhancements, in other words outside of Contractor's general release roadmap. The rate card would also apply to other professional services.

Travel and Expenses

The State does not pay for overtime or travel expenses.

Table 8: Optional Software, Maintenance & Support: Years 1-5

Itemized List of	License Type (e.g.,			Cost (\$)			Total	Comments
Software Items, Support and Hosting Fees	perpetual, subscription, etc.)	Year 1	Year 2	Year 3	Year 4	Year 5		
eScholar DirectMatch	Perpetual License	\$170,000	\$70,000	\$73,150	\$76,442	\$79,882	\$469,473	Enterprise perpetual license to eScholar DirectMatch. Up 8 indices (SNAP, TANF, Foster, Medicaid and four other indices selected by the State), eScholar will create the indices and the State will load the indices with the appropriate data. DirectMatch will be deployed on the same Production, Test, Training environments as eScholar Uniq-ID. Includes software bug fixes, general release enhancements, updates, new releases of product documentation and Support & Maintenance in accordance with the Service Level Agreement for State Hosted Solutions in Schedule D. Annual Escalation: 4.5%

Table 9: Optional Software, Maintenance & Support: Years 6-10

Itemized List of	License Type (e.g.			Cost (\$)				
Software Items, Support and Hosting Fees	perpetual, subscription, etc.)	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Comments
eScholar DirectMatch	Perpetual License	\$90,000	\$94,050	\$98,282	\$102,705	\$107,327	\$492,364	Enterprise perpetual license to eScholar DirectMatch. Up 8 indices (SNAP, TANF, Foster, Medicaid and four other indices selected by the State), eScholar will create the indices and the State will load the indices with the appropriate data. DirectMatch will be deployed on the same Production, Test, Training environments as eScholar Uniq-ID. Includes software bug fixes, general release enhancements, updates, new releases of product documentation and Support & Maintenance in accordance with the Service Level Agreement for State Hosted Solutions in Schedule D. Annual Escalation: 4.5%.

SCHEDULE C – INSURANCE REQUIREMENTS

- General Requirements. Contractor, at its sole expense, must maintain the insurance coverage as specified herein for the duration of the Term. Minimum limits may be satisfied by any combination of primary liability, umbrella or excess liability, and self-insurance coverage. To the extent damages are covered by any required insurance, Contractor waives all rights against the State for such damages. Failure to maintain required insurance does not limit this waiver.
- 2. Qualification of Insurers. Except for self-insured coverage, all policies must be written by an insurer with an A.M. Best rating of A- VII or higher unless otherwise approved by DTMB Enterprise Risk Management.
- **3. Primary and Non-Contributory Coverage.** All policies for which the State of Michigan is required to be named as an additional insured must be on a primary and non-contributory basis.
- 4. Claims-Made Coverage. If any required policies provide claims-made coverage, Contractor must:
 - **a.** Maintain coverage and provide evidence of coverage for at least 3 years after the later of the expiration or termination of the Contract or the completion of all its duties under the Contract;
 - **b.** Purchase extended reporting coverage for a minimum of 3 years after completion of work 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.

5. Proof of Insurance.

- a. Insurance certificates showing evidence of coverage as required herein must be submitted to <u>DTMB-RiskManagement@michigan.gov</u> within 10 days of the contract execution date.
- **b.** Renewal insurance certificates must be provided on annual basis or as otherwise commensurate with the effective dates of coverage for any insurance required herein.
- c. Insurance certificates must be in the form of a standard ACORD Insurance Certificate unless otherwise approved by DTMB Enterprise Risk Management.
- **d.** All insurance certificates must clearly identify the Contract Number (e.g., notated under the Description of Operations on an ACORD form).
- e. The State may require additional proofs of insurance or solvency, including but not limited to policy declarations, policy endorsements, policy schedules, self-insured certification/authorization, and balance sheets.
- **f.** In the event any required coverage is cancelled or not renewed, Contractor must provide written notice to DTMB Enterprise Risk Management no later than 5 business days following such cancellation or nonrenewal.
- 6. Subcontractors. Contractor is responsible for ensuring its subcontractors carry and maintain insurance coverage.
- 7. Limits of Coverage & Specific Endorsements.

Required Limits	Additional Requirements			
Commercial Gener	al Liability Insurance			
Minimum Limits:	Contractor must have their policy endorsed to add "the			
\$1,000,000 Each Occurrence	State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents"			
\$1,000,000 Personal & Advertising Injury	as additional insureds using endorsement CG 20 10 11 85, or both CG 20 10 12 19 and CG 20 37 12 19.			
\$1,000,000 Products/Completed Operations				
\$2,000,000 General Aggregate				

Automobile Liability Insurance	
If a motor vehicle is used in relation to the Contractor's performance, the Contractor must have vehicle liability insurance on the motor vehicle for bodily injury and property damage as required by law.	
Workers' Compensation Insurance	
Minimum Limits: Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
Minimum Limits:	
\$500,000 Each Accident	
\$500,000 Each Employee by Disease	
\$500,000 Aggregate Disease	
Privacy and Security Liability (Cyber Liability) Insurance	
Minimum Limits:	Contractor must have their policy cover information
\$1,000,000 Each Occurrence	regulatory defense and penalties, and website media
\$1,000,000 Annual Aggregate	content liability.

8. Non-Waiver. This Schedule C 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.

SCHEDULE D – SERVICE LEVEL AGREEMENT

IF THE SOFTWARE IS CONTRACTOR HOSTED, then the following applies:

1. **Definitions.** For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract Terms and Conditions.

"Actual Uptime" means the total minutes in the Service Period that the Hosted Services are Available.

"Availability" has the meaning set forth in Section Error! Reference source not found..

"Availability Requirement" has the meaning set forth in Section Error! Reference source not found...

"Available" has the meaning set forth in Section Error! Reference source not found..

"Contact List" means a current list of Contractor contacts and telephone numbers set forth in the attached Schedule D – Attachment 1 to this Schedule to enable the State to escalate its Support Requests, including: (a) the first person to contact; and (b) the persons in successively more qualified or experienced positions to provide the support sought.

"Corrective Action Plan" has the meaning set forth in Section 3.9.

"Critical Service Error" has the meaning set forth in Section 2.4.

"Exceptions" has the meaning set forth in Section 2.2.

"High Service Error" has the meaning set forth in Section 2.4.

"Low Service Error" has the meaning set forth in Section 2.4.

"Medium Service Error" has the meaning set forth in Section 2.4.

"Resolve" has the meaning set forth in Section 2.4.

"RPO" or "Recovery Point Objective" means the maximum amount of potential data loss in the event of a disaster.

"RTO" or "Recovery Time Objective" means the maximum period of time to fully restore the Hosted Services in the case of a disaster.

"Scheduled Downtime" has the meaning set forth in Section 2.3.

"Scheduled Uptime" means the total minutes in the Service Period.

"Service Availability Credits" has the meaning set forth in Section Error! Reference source not found..

"Service Error" means any failure of any Hosted Service to be Available or otherwise perform in accordance with this Schedule.

"Service Level Credits" has the meaning set forth in Section 3.8.

"Service Level Failure" means a failure to perform the Software Support Services fully in compliance with the Support Service Level Requirements.

"Service Period" has the meaning set forth in Section 2.1.

"Software Support Services" has the meaning set forth in Section 3.

"State Systems" means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

"Support Hours" means 8 a.m. to 7 p.m. Eastern, Monday – Friday on Business Days . On, up to six data collection deadline days, service will be provided until 11:59 pm for critical service errors upon moving into a production state.

"Support Request" has the meaning set forth in Section 3.5.

"Support Service Level Requirements" has the meaning set forth in Section 3.4.

2. Service Availability and Service Availability Credits.

2.1 Availability Requirement. Contractor will make the Hosted Services and Software Available, as measured over the course of each calendar month during the Term including any exercised Option Years (each such calendar month, a "Service Period"), for at least the percentage of the time detailed in Section 2.6, excluding only the time the Hosted Services are not Available solely as a result of one or more Exceptions (the "Availability Requirement"). "Available" means the Hosted Services and Software are available and operable for access and use by the State and its Authorized Users over the Internet in material conformity with the Contract. "Availability" has a correlative meaning. The Hosted Services and Software are not considered Available in the event of a material performance degradation or inoperability of the Hosted Services and Software, in whole or in part. The Availability Requirement will be calculated for the Service Period as follows: 1. Calculation of Actual Uptime During Support Hours: (Actual Uptime during Support Hours - Total Minutes in Service Period Hosted Services or Software are not Available Due to an Exception) ÷ (Scheduled Uptime - Total Minutes in Service Period Hosted Services or Software are not Available Due to an Exception) x 100 = Support Hours Availability 2. Calculation of Actual Uptime During Non-Support Hours (Non-Support Hours are the hours outside of Support Hours): (Actual Uptime during Non-Support Hours – Total Minutes in Service Period Hosted Services or Software are not Available Due to an Exception) ÷ (Scheduled Uptime - Total Minutes in Service Period Hosted Services or Software are not Available Due to an Exception) x 100 = Non-Support Hours Availability.

2.2 <u>Exceptions.</u> No period of Hosted Services degradation or inoperability will be included in calculating Availability to the extent that such downtime or degradation is due to any of the following ("**Exceptions**"):

(a) Failures of the State's or its Authorized Users' internet connectivity;

Scheduled Downtime as set forth in Section 2.3.

2.3 <u>Scheduled Downtime.</u> Contractor must notify the State as soon as reasonably possible and not less than 30 days in advance of each forthcoming year of all scheduled outages of the Hosted Services or Software in whole or in part ("**Scheduled Downtime**") unless Scheduled Downtime is otherwise agreed to by both parties. In the event Contractor thereafter desires to modify a specific scheduled outage from the list, Contractor must notify the State at least 30 days in advance of the proposed modified date. The State may, at its sole option, accept the proposed date change, reject it, or propose an alternative schedule. All such scheduled outages will: (a) be agreed upon by the parties in advance; (b) last no longer than five (5) hours unless otherwise agreed upon by the parties; and (d) occur no more frequently than once per week without the State's prior approval, and such approval by the State may not be unreasonably withheld or delayed.

2.4 <u>Software Response Time.</u> Software response time, defined as the interval from the time the end user or service sends a transaction to the time a visual or service confirmation of transaction completion is received, must be less than two (2) seconds for 98% of all transactions in Production environment. Unacceptable response times shall be considered to make the Software unavailable and will count against the Availability Requirement.

2.5 <u>Service Availability Reports.</u> By system go live, within thirty (30) days after the end of each Service Period, Contractor will provide to the State a report describing the Availability and other performance of the Hosted Services and Software during that calendar month as compared to the Availability Requirement. The report must be in electronic or such other form as the State may approve in writing and shall include, at a minimum: (a) the actual performance of the Hosted Service
performance has failed in any respect to meet or exceed the Availability Requirement during the reporting period, a description in sufficient detail to inform the State of the cause of such failure and the corrective actions the Contractor has taken and will take to ensure that the Availability Requirement are fully met.

- 2.6 <u>Remedies for Service Availability Failures.</u>
 - (a) If the actual Availability of the Hosted Services and Software is less than the Availability Requirement for any Year 1 Service Period, such failure will constitute a Service Error for which Contractor will issue to the State the following credits ("Service Availability Credits"). (Year 1 starts when Production environment is live):

Availability	Credit of Fees for Availability during Support Hours	Credit of Fees for Availability during Non-Support Hours
≥96%	None	None
<96% but ≥95.0%	\$900	\$200
<95.0% but ≥94.0%	\$1500	\$700
<94.0%	\$4500	\$1000

(b) If the actual Availability of the Hosted Services and Software is less than the Availability Requirement for any Year 2 and beyond Service Period, such failure will constitute a Service Error for which Contractor will issue to the State the following credits on the fees payable for hosting provided during the Service Period ("Service Availability Credits"):

Availability	Credit of Fees for Availability during Support Hours	Credit of Fees during Non-Support Hours
≥99.90%	None	None
<99.90% but ≥99.0%	15%	3%
<99.0% but ≥95.0%	50%	5%
<95.0%	100%	10%

- (c) Any Service Availability Credits due under this **Section 2.6** will be applied in accordance with payment terms of the Contract.
- (d) If the actual Availability of the Hosted Services and Software is less than the Availability Requirement in any two (2) of four (4) consecutive Service Periods, then, in addition to all other remedies available to the State, the State may terminate the Contract on written notice to Contractor in accordance with the Termination section of the Software Contract Terms.
- 3. Support and Maintenance Services. Contractor will provide Hosted Services and Software maintenance and support services (collectively, "Software Support Services") in accordance with the provisions of this Section 3. The Software Support Services are included in the Services, and Contractor may not assess any additional fees, costs or charges for such Software Support Services.
 - 3.1 <u>Support Service Responsibilities.</u> Contractor will:
 - (a) correct all Service Errors in accordance with the Support Service Level Requirements, including by providing defect repair, programming corrections and remedial programming;
 - (b) provide unlimited telephone support during Support Hours;
 - (c) provide access to Contractor's help desk via email at <u>support@escholar.com</u> or via eScholar's support portal 24 hours a day, seven days a week except for during Scheduled Downtime;

- (d) provide online access to technical support bulletins and other user support information and forums, to the full extent Contractor makes such resources available to its other customers; and
- (e) respond to and Resolve Support Requests as specified in this Section 3.

<u>3.2</u> <u>Service Monitoring and Management.</u> Contractor will deploy software tools designed to continuously monitor and manage the Hosted Services and Software to optimize Availability that meets or exceeds the Availability Requirement. Contractor will engage with the monitoring and management tools during Support Hours. Such engagement includes:

- (a) proactively monitoring all Hosted Service functions, servers, firewall and other components of Hosted Service security;
- (b) if such monitoring identifies, or Contractor otherwise becomes aware of, any circumstance that is reasonably likely to threaten the Availability of the Hosted Service, taking all necessary and reasonable remedial measures to promptly eliminate such threat and ensure full Availability; and
- (c) if Contractor receives knowledge that the Hosted Service or any Hosted Service function or component is not Available (including by written notice from the State pursuant to the procedures set forth herein):
 - confirming (or disconfirming) the outage by a direct check of the associated facility or facilities;
 - (ii) If Contractor's facility check in accordance with clause (i) above confirms a Hosted Service outage in whole or in part: (A) notifying the State in writing pursuant to the procedures set forth herein that an outage has occurred, providing such details as may be available, including a Contractor trouble ticket number, if appropriate, and time of outage; and (B) working all problems causing and caused by the outage until they are Resolved as Critical Service Errors in accordance with the Support Request Classification set forth in Section 3.5 and 3.6, or, if determined to be an internet provider problem, open a trouble ticket with the internet provider; or, if determined to be the Hosting Provider, open a trouble ticket with the hosting provider and
 - (iii) Notifying the State that Contractor has fully corrected the outage and any related problems, along with any pertinent findings or action taken to close the trouble ticket.

<u>3.3</u> <u>Service Maintenance.</u> Contractor will maintain the Hosted Services and Software to optimize Availability that meets or exceeds the Availability Requirement. Such maintenance services include providing to the State and its Authorized Users:

- (a) all updates, bug fixes, enhancements, Maintenance Releases, New Versions and other improvements to the Hosted Services and Software, including the Software, that Contractor provides at no additional charge to its other similarly situated customers; provided that Contractor shall consult with the State and is required to receive State approval prior to modifying or upgrading Hosted Services and Software, including Maintenance Releases and New Versions of Software; and
- (b) all such services and repairs as are required to maintain the Hosted Services and Software or are ancillary, necessary or otherwise related to the State's or its Authorized Users' access to or use of the Hosted Services and Software, so that the Hosted Services and Software operate properly in accordance with the Contract and this Schedule.

<u>3.4</u> <u>Support Service Level Requirements.</u> Contractor will correct all Service Errors and respond to and Resolve all Support Requests in accordance with the required times and other terms and conditions set forth in this **Section 3.4** (**"Support Service Level Requirements**"), and the Contract.

3.5 <u>Support Requests.</u> The State will classify its requests for Service Error corrections in accordance with the descriptions set forth in the chart below (each a "**Support Request**"). The State will notify Contractor of Support Requests by email, telephone or such other means as the parties may hereafter agree to in writing.

Support Request Classification	Description: Any Service Error Comprising or Causing any of the Following Events or Effects
Critical Service Error	 Issue affecting entire system or single critical production function;

	 System down or operating in materially degraded state; Data integrity at risk; Declared a Critical Support Request by the State; or Widespread access interruptions
High Service Error	 Primary component failure that materially impairs its performance; or Data entry or access is materially impaired on a limited basis
Medium Service Error	 Hosted Services and Software is operating with minor issues that can be addressed with an acceptable (as determined by the State) temporary work around.
Low Service Error	Request for assistance, information, or services that are routine in nature.

3.6 Response and Resolution Time Service Levels. The following will be applicable once the system, including lower environments and training, are productional and available to end users: Response and Resolution times will be measured from the time Contractor receives a Support Request until the respective times Contractor has (i) responded to, in the case of response time and (ii) Resolved such Support Request, in the case of Resolution time. "**Resolve**" (including "**Resolved**", "**Resolution**" and correlative capitalized terms) means that, as to any Service Error, Contractor has provided the State the corresponding Service Error correction and the State has confirmed such correction and its acceptance thereof. Contractor will respond to and Resolve all Service Errors within the following times based on the severity of the Service Error:

Support Request Classification	Service Level Metric (Required Response Time)	Service Level Metric (Required Resolution Time)	Service Level Credits (For Failure to Respond to any Support Request Within the Corresponding Response Time)	Service Level Credits (For Failure to Resolve any Support Request Within the Corresponding Required Resolution Time)
Critical Service Error	For Support Requests entered into the Contractor's support portal or emailed to support@escholar.com, Contractor shall acknowledge receipt of a Support Request within fifteen (15) minutes.	Contractor shall Resolve the Support Request as soon as practicable and no later than two (2) Support Hours after Contractor's receipt of the Support Request. If the Contractor Resolves the Critical Service Error Support Request by way of a work-around accepted in writing by the State, the support classification assessment will be reduced to a High Service Error.	Three percent (3%) of the hosting fees for the month in which the initial Service Level Failure begins and three percent (3%) of such monthly hosting fees for each additional hour or portion thereof that the corresponding Service Error is not responded to within the required response time.	Three percent (3%) of the hosting fees for the month in which the initial Service Level Failure begins and three percent (3%) of such monthly hosting fees for the first additional hour or portion thereof that the corresponding Service Error remains un- Resolved, which amount will thereafter double for each additional one- hour increment.

High Service	For Support Requests	Contractor shall	Two percent (2%) of	Two percent (2%) of
Error	entered into the	Resolve the Support	the hosting fees for the	the hosting fees for
	Contractor's support	Request as soon as	month in which the	the month in which
	portal or emailed to	practicable and no	initial Service Level	the initial Service
	support@escholar.com,	later than two (2)	Failure begins and two	Level Failure begins
	Contractor shall	Business Days after	percent (2%) of such	and two percent
	acknowledge receipt of	Contractor's receipt	monthly hosting fees	(2%) of such
	a Support Request or,	of the Support	for each additional	monthly hosting fees
	where applicable, the	Request unless the	hour or portion thereof	for the first additional
	State's written	State agrees in	that the corresponding	hour or portion
	acceptance of a Critical	writing to or, where	Service Error is not	thereof that the
	Service Error Work-	applicable, the	responded to within the	corresponding
	around, within one (1)	State's written	required response	Service Error
	nour.	Critical Service	ume.	Posolvod which
		Frror work-around		amount will
				thereafter double for
		The Contractor may		each additional one-
		Resolve a High		hour increment.
		Service Error by		
		way of a work-		
		around if accepted		
		in writing by the		
		State or in a general		
		release patch if		
		accepted in writing		
		by the State.		
		A High Service		
		Error which the		
		Contractor intends		
		to		
		Resolve via a		
		general release		
		patch will be		
		considered to be		
		rtesolved on a		
		annery Dasis II uite		
		patch occurs within		
		the agreed		
		timeframe and		
		actually Resolves		
		the problem.		

Marallana		O	N1/A	N1/A
ivieaium Service Error	For Support Requests	Contractor shall Resolve the Support	N/A	IN/A
	Contractor's support	Request as soon as		
	portal or emailed to	practicable and no		
	support@escholar.com.	later than ten (10)		
	Contractor shall	Business Davs after		
	acknowledge receipt of	Contractor's receipt		
	the Support Request	of the Support		
	within three (3) hours.	Request.		
		The Contractor may		
		Resolve a Medium		
		Service Error by		
		way of a work-		
		around if accepted		
		In writing by the		
		state of in a general		
		accepted in writing		
		by the State		
		by the otate.		
		A Medium Service		
		Error which the		
		Contractor intends		
		to		
		Resolve via a		
		general release		
		patch will be		
		considered to be		
		Resolved on a		
		timely basis if the		
		general release		
		patch occurs within		
		time agreed		
		actually Receives		
		the problem		
I ow Service	For Support Requests	Contractor shall	N/A	N/A
Error	entered into the	Resolve the Support	· · ·	
	Contractor's support	Request as soon as		
	portal or emailed to	practicable and no		
	support@escholar.com,	later than ten (10)		
	Contractor shall	Business Days after		
	acknowledge receipt of	Contractor's receipt		
	the Support Request	of the Support		
	within two (2) Business	Request, or as		
	Days.	otherwise agreed to		
		in writing by the		
		parties.		

<u>3.7</u> <u>Escalation.</u> With respect to any Critical Service Error Support Request, until such Support Request is Resolved, Contractor will escalate that Support Request within sixty (60) minutes of the receipt of such Support Request by the appropriate Contractor support personnel, including, as applicable, the Contractor Project Manager and Contractor's management or engineering personnel, as appropriate.

3.8 <u>Support Service Level Credits.</u> Failure to achieve any of the Support Service Level Requirements for Critical and High Service Errors will constitute a Service Level Failure for which Contractor will issue to the State the corresponding service credits set forth in **Section 3.1** ("**Service Level Credits**") in accordance with payment terms set forth in the Contract.

3.9 <u>Corrective Action Plan.</u> If two or more Critical Service Errors occur in any thirty (30) day period during (a) the Term or (b) any additional periods during which Contractor does or is required to perform any Hosted

Services, Contractor will promptly investigate the root causes of these Service Errors and provide to the State within five (5) Business Days of its receipt of notice of the second such Support Request an analysis of such root causes and a proposed written corrective action plan for the State's review, comment and approval, which, subject to and upon the State's written approval, shall be a part of, and by this reference is incorporated in, the Contract as the parties' corrective action plan (the "**Corrective Action Plan**"). The Corrective Action Plan must include, at a minimum: (a) Contractor's commitment to the State to devote the appropriate time, skilled personnel, systems support and equipment and other resources necessary to Resolve and prevent any further occurrences of the Service Errors giving rise to such Support Requests; (b) a strategy for developing any programming, software updates, fixes, patches, etc. necessary to remedy, and prevent any further occurrences of, such Service Errors; and (c) time frames for implementing the Corrective Action Plan. There will be no additional charge for Contractor's preparation or implementation of the Corrective Action Plan in the time frames and manner set forth therein.

4. Data Storage, Backup, Restoration and Disaster Recovery. Contractor must maintain or cause to be maintained backup redundancy and disaster avoidance and recovery procedures designed to safeguard State Data and the State's other Confidential Information, Contractor's Processing capability and the availability of the Hosted Services and Software, in each case throughout the Term and at all times in connection with its actual or required performance of the Services hereunder. All backed up State Data shall be located in the continental United States. The force majeure provisions of this Contract do not limit Contractor's obligations under this section. Data Storage. Contractor will provide sufficient storage capacity to meet the needs of the State at no additional cost.

4.2 <u>Data Backup.</u> Contractor will conduct, or cause to be conducted, daily back-ups of State Data and perform, or cause to be performed, other periodic offline back-ups of State Data on at least a weekly basis and store and retain such back-ups as specified in **Schedule F**. Contractor must, within five (5) Business Days of the State's request, provide the State, without charge and without any conditions or contingencies whatsoever (including but not limited to the payment of any fees due to Contractor), an extract of State Data in the format specified by the State.

4.3 <u>Data Restoration</u>. Resetting Data and Restoring Data may be applicable to each of the training, test and production environments in different circumstances:

<u>Resetting Data</u>: The process of resetting data involves truncating data in the tables so that the system is an initial clean slate with no person data. This involves two steps: running SQL scripts to reset the appropriate tables and secondly re-loading data in the Assign 3.0 File Format. eScholar will provide the full instructions, SQL scripts, and demonstration data to support this process. The State can perform these steps as needed or can request assistance from eScholar up to 3 times per year at no additional cost (this is covered by Software Support). This process would typically be applicable to the Training environment in between training sessions when fresh data is required.

<u>Restoring Data</u>: The process of restoring data involves using a database backup and restoring it. This could be a backup from Production that is restored to Test or any other backup and restore that is needed. There are no instructions or scripts available for this and will require eScholar to complete the steps. eScholar will perform up to 6 restores per year at no additional cost (this is covered by Software Support). Any additional restores will be billed at \$2,000 per restore. This process would typically be applied to the Test environment from a Production backup to create scenarios for testing.

If the resetting data or data restoration is required due to the actions or inactions of the Contractor or its subcontractors, Contractor will promptly notify the State and complete actions required to restore service to normal production operation. If requested, Contractor will restore data from a backup upon written notice from the State. Contractor will restore the data within one (1) Business Day of the State's request or sooner if declared a Critical Support Request. Contractor will provide data restorations, required due to actions or inactions of the Contractor or its subcontractors not taken at the direction of the State, at Contractor's sole cost and expense.

4.4 <u>Disaster Recovery.</u> Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will maintain and operate a backup and disaster recovery plan to achieve a Recovery Point Objective (RPO). In the case where the system does not have to move to another AWS region, the contractor will restore the system to a point in time that both parties agree to. Recovery Time Objective (RTO): The estimated time to execute this plan would be 2 hours. In the case where the system must move to another AWS region, then the contractor would stand up new machines in the region, restore the application database to a point in time both parties agree to. The estimated time to execute this plan would be 5 hours. Contractor's current DR Plan, revision history, and any reports or summaries relating to past testing of or pursuant to the DR Plan are attached as **Schedule F**. Contractor will actively test, review and update the DR Plan on at least an annual basis using industry best practices as guidance. Contractor will provide the State with copies of all such updates to the Plan within fifteen

(15) days of its adoption by Contractor. All updates to the DR Plan are subject to the requirements of this **Section 4**; and provide the State with copies of all reports resulting from any testing of or pursuant to the DR Plan promptly after Contractor's receipt or preparation. If Contractor fails to reinstate all material Hosted Services and Software within the periods of time set forth in the DR Plan, the State may, in addition to any other remedies available under this Contract, in its sole discretion, immediately terminate this Contract as a non-curable default.

SCHEDULE D – ATTACHMENT 1 – CONTACT LIST

As part of eScholar Support and Maintenance and the project implementation, authorized staff from MDE and CEPI will have access to eScholar's Help Desk (aka Service Desk) through phone and email. Most technical issues can be resolved through our Help Desk. Issues that need to be escalated will be directed by the Help Desk. Issues are supported by the software engineers when necessary.

First line of contact:

- eScholar Help Desk, led by Nick Chouloute:
- Phone: 877-328-2969
- Email: <u>support@escholar.com</u>
- Portal: https://support.escholar.com/

When any support request arises, sending an email to the Help Desk at support@escholar.com should always be the first line of contact, as this will ensure proper logging of the support issue and ensure that it is addressed and escalated as efficiently as possible. Depending on the issue, the other persons who may successively provide support as an issue is escalated may include one or more of the following:

- Andrea Hartman, Product Director, eScholar Uniq-ID; Contractor Functional Lead and Contractor Technical Lead: 914-729-3001
- James Anderson, Senior IT Manager/Database Administrator; Contractor Security Lead: 914-729-3015
- Nishad Moideen: Development Manager, eScholar Uniq-ID; Contract Data Lead: 914-729-3030

SCHEDULE E – DATA SECURITY REQUIREMENTS

1. **Definitions.** For purposes of this Schedule, the following terms have the meanings set forth below. All initial capitalized terms in this Schedule that are not defined in this **Schedule** shall have the respective meanings given to them in the Contract.

"Contractor Security Officer" has the meaning set forth in Section 2 of this Schedule.

"FedRAMP" means the Federal Risk and Authorization Management Program, which is a federally approved risk management program that provides a standardized approach for assessing and monitoring the security of cloud products and services.

"FISMA" means The Federal Information Security Modernization Act of 2014 (Pub.L. No. 113-283 (Dec. 18, 2014.).

"Hosting Provider" means any Permitted Subcontractor that is providing any or all of the Hosted Services under this Contract.

"NIST" means the National Institute of Standards and Technology.

"PCI" means the Payment Card Industry.

"PSP" or "PSPs" means the State's IT Policies, Standards and Procedures.

"SSAE" means Statement on Standards for Attestation Engagements.

"Security Accreditation Process" has the meaning set forth in Section 6 of this Schedule

2. Security Officer. Contractor will appoint a Contractor employee to respond to the State's inquiries regarding the security of the Hosted Services who has sufficient knowledge of the security of the Hosted Services and the authority to act on behalf of Contractor in matters pertaining thereto ("Contractor Security Officer").

3. Contractor Responsibilities. 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 the State Data;
- (b) protect against any anticipated threats or hazards to the security or integrity of the State Data;
- (c) protect against unauthorized disclosure, access to, or use of the State Data;
- (d) ensure the proper disposal of any State Data in Contractor's or its subcontractor's possession; and
- (e) ensure that all Contractor Representatives comply with the foregoing.

The State has established Information Technology (IT) PSPs to protect IT resources under the authority outlined in the overarching State 1305.00 Enterprise IT Policy. 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 public and non-public State IT policies and standards, of which the publicly available ones are at https://www.michigan.gov/dtmb/0.5552,7-358-82547_56579_56755---,00.html.

This responsibility also extends to all service providers and subcontractors with access to State Data or an ability to impact the contracted solution. Contractor responsibilities are determined from the PSPs based on the services being provided to the State, the type of IT solution, and the applicable laws and regulations.

4. Acceptable Use Policy. To the extent that Contractor has access to the State's IT environment, 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_Standard_458 958_7.pdf. All Contractor Personnel will be required, in writing, to agree to the State's Acceptable Use Policy before accessing State systems. The State reserves the right to terminate Contractor's and/or subcontractor(s) or any Contractor Personnel's access to State systems if the State determines a violation has occurred.

5. Protection of State's Information. Throughout the Term and at all times in connection with its actual or required performance of the Services, Contractor will:

5.1 If Hosted Services are provided by a Hosting Provider, ensure each Hosting Provider maintains FedRAMP authorization for all Hosted Services environments throughout the Term, and in the event a Hosting Provider is unable to maintain FedRAMP authorization, the State, at its sole discretion, may either a) require the Contractor to move the Software and State Data to an alternative Hosting Provider selected and approved by the State at Contractor's sole cost and expense without any increase in Fees, or b) immediately terminate this Contract for cause pursuant to **Section 15.1** of the Contract;

5.2 for Hosted Services provided by the Contractor, maintain either a FedRAMP authorization or an annual SSAE 18 SOC 2 Type II audit based on State required NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs.

5.3 ensure that the Software and State Data is securely stored, hosted, supported, administered, accessed, and backed up in the continental United States, and the data center(s) in which the data resides minimally meet Uptime Institute Tier 3 standards (<u>www.uptimeinstitute.com</u>), or its equivalent;

5.4 maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State Data that complies with the requirements of the State's data security policies as set forth in this Contract, and must, at a minimum, remain compliant with FISMA and NIST Special Publication 800-53 MOD Controls using identified controls and minimum values as established in applicable State PSPs;

5.5 provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, encryption, transfer, commingling or processing of such information that ensure a level of security appropriate to the risks presented by the processing of State Data and the nature of such State Data, consistent with best industry practice and applicable standards (including, but not limited to, compliance with FISMA, NIST, CMS, IRS, FBI, SSA, HIPAA, FERPA and PCI requirements as applicable);

5.6 take all reasonable measures to:

(a) secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "malicious actors" and others who may seek, without authorization, to destroy, disrupt, damage, encrypt, modify, copy, access or otherwise use Hosted Services or the information found therein; and

(b) prevent (i) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (ii) State Data from being commingled with or contaminated by the data of other customers or their users of the Services; and (iii) unauthorized access to any of the State Data;

5.7 ensure that State Data is encrypted in transit and at rest using FIPS validated AES encryption modules and a key size of 128 bits or higher;

5.8 ensure the Hosted Services support Identity Federation/Single Sign-on (SSO) capabilities using Security Assertion Markup Language (SAML), Open Authentication (OAuth) or comparable State approved mechanisms;

5.9 ensure the Hosted Services implements NIST compliant multi-factor authentication for privileged/administrative and other identified access.

6. Security Accreditation Process. Throughout the Term, Contractor will assist the State, at no additional cost, with its Security Accreditation Process, which includes the 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 within two weeks of the State's request. 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 and required evidence 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, perform related remediation activities, and provide evidence of compliance. 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. Failure to comply with this section will be deemed a material breach of the Contract.

7. Unauthorized Access. Contractor may not access, and must not permit any access to, State systems, in whole or in part, whether through the Hosted Services or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State systems must be solely in accordance with the Contract and this Schedule, and in no case exceed the scope of the State's authorization pursuant to this Section. All State-authorized connectivity or attempted connectivity to State systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in the Contract as the same may be supplemented or amended by the State and provided to Contractor from time to time.

8. Security Audits.

8.1 During the Term, Contractor will maintain complete and accurate records of its data protection practices, IT security controls, and the security logs relating to State Data, including but not limited to any backup, disaster recovery or other policies, practices or procedures relating to the State Data and any other information relevant to its compliance with this Contract.

8.2 Without limiting any other audit rights of the State, the State has the right to review Contractor's data privacy and information security program prior to the commencement of Services and from time to time during the term of this Contract. The State, at its own expense, is entitled to perform, or to have performed, an on-site audit of Contractor's data privacy and information security program. If the State chooses to perform an on-site audit, Contractor will, make all such records, appropriate personnel and relevant materials available during normal business hours for inspection and audit by the State or an independent data security expert that is reasonably acceptable to Contractor, provided that the State: (i) gives Contractor at least five (5) Business Days prior notice of any such audit; (ii) undertakes such audit no more than once per calendar year, except for good cause shown; and (iii) conducts or causes to be conducted such audit in a manner designed to minimize disruption of Contractor's normal business operations and that complies with the terms and conditions of all data confidentiality, ownership, privacy, security and restricted use provisions of the Contract. The State may, but is not obligated to, perform such security audits, which shall, at the State's option and request, include penetration and security tests, of any and all Hosted Services and their housing facilities and operating environments.

8.3 During the Term, Contractor will, when requested by the State, provide a copy of Contractor's and Hosting Provider's FedRAMP System Security Plan(s) or SOC 2 Type 2 report(s) to the State within two weeks

of the State's request. The System Security Plan and SSAE audit reports will be recognized as Contractor's Confidential Information.

8.4 With respect to State Data, Contractor must implement any required safeguards as identified by the State or by any audit of Contractor's data privacy and information security program.

8.5 The State reserves the right, at its sole election, to immediately terminate this Contract or a Statement of Work without limitation and without liability if the State determines that Contractor fails or has failed to meet its obligations under this **Section 8**.

9. Application Scanning. During the Term, Contractor must, at its sole cost and expense, scan all Contractor provided applications, and must analyze, remediate and validate all vulnerabilities identified by the scans as required by the State Secure Web Application and other applicable PSPs.

Contractor's application scanning and remediation must include each of the following types of scans and activities:

9.1 Dynamic Application Security Testing (DAST) – Scanning interactive application for vulnerabilities, analysis, remediation, and validation (may include Interactive Application Security Testing (IAST).

(a) Contractor must either a) grant the State the right to dynamically scan a deployed version of the Software; or b) in lieu of the State performing the scan, Contractor must dynamically scan a deployed version of the Software using a State approved application scanning tool, and provide the State with a vulnerabilities assessment after Contractor has completed such scan. These scans and assessments i) must be completed and provided to the State quarterly (dates to be provided by the State) and for each major release; and ii) scans must be completed in a non-production environment with verifiable matching source code and supporting infrastructure configurations or the actual production environment.

9.2 Static Application Security Testing (SAST) - Scanning source code for vulnerabilities, analysis, remediation, and validation.

(a) For Contractor provided applications, Contractor, at its sole expense, must provide resources to complete static application source code scanning, including the analysis, remediation and validation of vulnerabilities identified by application source code scans. These scans must be completed for all source code initially, for all updated source code, and for all source code for each major release and Contractor must provide the State with a vulnerability assessment after Contractor has completed the required scans.

9.3 Software Composition Analysis (SCA) – Third Party and/or Open Source Scanning for vulnerabilities, analysis, remediation, and validation.

(a) For Software that includes third party and open source software, all included third party and open source software must be documented and the source supplier must be monitored by the Contractor for notification of identified vulnerabilities and remediation. SCA scans may be included as part of SAST and DAST scanning or employ the use of an SCA tool to meet the scanning requirements. These scans must be completed for all third party and open source software initially, for all updated third party and open source software, and for all third party and open source software in each major release and Contractor must provide the State with a vulnerability assessment after Contractor has completed the required scans if not provided as part of SAST and/or DAST reporting.

9.4 In addition, application scanning and remediation may include the following types of scans and activities if required by regulatory or industry requirements, data classification or otherwise identified by the State.

(a) If provided as part of the solution, all native mobile application software must meet these scanning requirements including any interaction with an application programing interface (API).

(b) Penetration Testing – Simulated attack on the application and infrastructure to identify security weaknesses.

10. Infrastructure Scanning.

10.1 For Hosted Services, Contractor must ensure the infrastructure and applications are scanned using an approved scanning tool (Qualys, Tenable, or other PCI Approved Vulnerability Scanning Tool) at least monthly and provide the scan's assessments to the State in a format that is specified by the State and used to track the remediation. Contractor will ensure the remediation of issues identified in the scan according to the remediation time requirements documented in the State's PSPs.

11. Nonexclusive Remedy for Security Breach.

11.1 Any failure of the Services to meet the requirements of this Schedule with respect to the security of any State Data or other Confidential Information of the State, including any related backup, disaster recovery or other policies, practices or procedures, is a material breach of the Contract for which the State, at its option, may terminate the Contract immediately upon written notice to Contractor without any notice or cure period, and Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination.

SCHEDULE E, ATTACHMENT 1 – FEDERAL EDUCATIONAL RIGHTS AND PRIVACY ACT

FERPA Compliance. Contractor must comply with the Family Educational Rights and Privacy Act (FERPA), and any related rules and regulations, including but not limited to 34 C.F.R. Part 99. In addition, Contractor must obligate its Permitted Subcontractor(s), in writing, to the requirements of Schedule E - Data Security Requirements, including this Schedule E, Attachment 1 – Federal Educational Rights and Privacy Act.

SCHEDULE F – DISASTER RECOVERY PLAN

The parties agree to this preliminary Disaster Recovery Plan with intent to modify it as needed during the Contract.

1. About this Document

1.1. Overview

The purpose of this document is to record the contingency and disaster recovery scenarios for eScholar UID® for the MDE-CEPI eScholar Uniq-ID® (EUID) implementation.

1.2. Deliverable Acceptance Criteria

eScholar and MDE-CEPI will complete and verify all parameters and information within the CP. eScholar will update the document and submit to MDE-CEPI for acceptance.

1.3. Document Assumptions

The assumptions below apply to this document:

- This document is a draft and will be updated during implementation.
- MDE-CEPI will provide contact and other information for their roles in the plan and will collaborate with eScholar to finalize the document.

1.4. Definitions

Disaster. Any unplanned interruption of the application or services that causes a complete loss of access to and use of EUID lasting over 24 hours. If the outage impacts a sub-set of users, but does not impact all users, it is not considered to be a disaster. Some possible examples are:

- Natural disasters, such as fire, flood, earthquake, or other natural disaster;
- Complete power outage;
- Complete network outage; and
- Terrorist act affecting Vendor's data center

2. Introduction and Purpose

Information systems are vital to eScholar's mission/business functions; therefore, it is critical that services provided by eScholar UID® (EUID) can operate effectively without excessive interruption. This Contingency Plan (CP) establishes comprehensive procedures to recover EUID quickly and effectively following a service disruption.

One of the goals of a Contingency Plan is to establish procedures and mechanisms that obviate the need to resort to performing IT functions using manual methods. If manual methods are the only alternative; however, every effort must be made to continue IT functions and processes manually.

The nature of unprecedented disruptions can create confusion, and often predisposes an otherwise competent IT staff towards less efficient practices. In order to maintain a normal level of efficiency, it is important to decrease realtime process engineering by documenting notification and activation guidelines and procedures, recovery guidelines and procedures, and reconstitution guidelines and procedures prior to the occurrence of a disruption. During the notification/activation phase, appropriate personnel are apprised of current conditions and damage assessment begins. During the recovery phase, appropriate personnel take a course of action to recover the EUID components to a site other than the one that experienced the disruption. In the final, reconstitution phase, actions are taken to restore IT system processing capabilities to normal operations.

2.1. Information System Name and Identifier

Unique IdentifierInformation System NameInformation System AbbreviationEUIDeScholar UID®UID

This CP applies to EUID which has a unique identifier as noted in Table 1.

2.2. Scope

This CP has been developed for **EUID** which is classified as a **Moderate** impact system, in accordance with National Institute of Standards and Technology 800-53 r5.. NIST 800-53 r5 provides guidelines on determining potential impact to organizational operations and assets, and individuals through a formula that examines three security objectives: confidentiality, integrity, and availability. The procedures in this CP have been developed for a **Moderate** impact system and are designed to recover **EUID** within **24 hours**.

This CP does not apply to the following situations:

- **Overall recovery and continuity of mission/business operations.** The Business Continuity Plan (BCP) addresses continuity of business operations outside of the scope of this document.
- **Emergency evacuation of personnel.** The Emergency Evacuation Procedure in the Staff Handbook addresses employee evacuation.

2.3. Assumptions

The following assumptions have been made about UID:

- Amazon has responsibilities for controls in the Production and Pre-Production environments, including Uninterrupted Power Supply, uptime, etc.
- Current backups of the application software and data are intact and available at Amazon S3.
- Key personnel have been identified and are trained annually in their roles
- Key personnel are available to activate the CP
- Amazon defines circumstances that can inhibit recovery and reconstitution to a known state

3. Concept of Operation

This section provides details about EUID, an overview of the three phases of the CP (Activation and Notification, Recovery, and Reconstitution), and a description of the roles and responsibilities of key personnel during contingency operations.

3.1. System Description

eScholar Uniq-ID[®] solution is a powerful unique person identifier software solution that creates, assigns and manages unique person identifiers for both students and educational staff. It ensures unique identification across time, location, and source system, so as individuals move through their education and career trajectories they have a single unique identifier that links their data, ensures quality and validity with state and federal reporting requirements, and supports the overall business needs of SOM. The EUID application is architected in a tiered format and includes the tiers described below. Please also refer to the eScholar Uniq-ID[®] Environment diagram below.



Web Tier: This tier handles consists of Apache web server and VueJS web application.

Application Tier: This tier consists of multiple application servers that host the eScholar Uniq-ID application. They utilize Tomcat, 4 cores and 16GB of ram. The application tier hosts the web services/APIs for the eScholar Uniq-ID application.

Database Tier: The database tier consists of a database server and a matching engine cluster. The database server will utilize Microsoft SQL Server, while the matching engine will include 3 clustered servers.

Backups: Backups are performed on a nightly basis, while transaction logs are backed up every 15 minutes.

3.2. Recovery & Reconstitution Phases

This plan has been developed to recover and reconstitute EUID using a three-phased approach. The approach ensures that system recovery and reconstitution efforts are performed in a methodical sequence to maximize the effectiveness of the recovery and reconstitution efforts and minimize system outage time due to errors and omissions. The three system recovery phases consist of activation and notification, recovery, and reconstitution.

3.3. Activation and Notification Phase

Activation of the CP occurs after a disruption, outage, or disaster that may reasonably extend beyond the RTO established for a system. The outage event may result in severe damage to the facility that houses the system, severe damage or loss of equipment, or other damage that typically results in long-term loss.

Once the CP is activated, the information system stakeholders are notified of a possible long-term outage, and a thorough outage assessment is performed for the information system, in this case EUID. Information from the outage assessment is analyzed and may be used to modify recovery procedures specific to the cause of the outage.

During this phase, Contingency Plan Coordinators will assess the situation to determine the severity of outage and it will be determined if reconstitution at an alternate site is needed.

3.4. Recovery Phase

The Recovery phase details the activities and procedures for recovery of the affected system. Activities and procedures are written at a level such that an appropriately skilled technician can recover the system without intimate system knowledge. This phase includes notification and awareness escalation procedures for communication of recovery status to system stakeholders.

3.5. Reconstitution

The Reconstitution phase defines the actions taken to test and validate system capability and functionality at the original or new permanent location. This phase consists of two major activities: validating data and operational functionality followed by deactivation of the plan.

During validation, the system is tested and validated as operational prior to returning system operation to its normal state. Validation procedures include functionality or regression testing, concurrent processing, and/or data validation. The system is declared recovered and operational upon successful completion of validation testing.

Deactivation includes activities to notify users of system operational status. This phase also addresses recovery effort documentation, activity log finalization, incorporation of lessons learned into plan updates, and readying resources for any future events.

3.6. Data Backup Readiness Information

EUID Data Backup Details			
Responsible	James Anderson		
Backup type and frequency	Daily Full, incremental (every 15 minutes)		
Retention Period	<i>30 Days</i>		
Time of backup	Full (3am EST), Incremental (every 15 minutes)		
Stored off-site?	Yes		
Rotation period for off-site storage 2 Weeks			
Stored onsite? Amazon S3 Facility for EUID .			
EUID Application Backup Details			
Responsible	James Anderson		
Backup type and frequency	Daily		
Time of Backup	3 AM		
Stored off-site?	Yes		
Environments	For all environments; TEST, PROD, Training		
What is backed up	Software Configuration - config files and config table information		
Rotation period for off-site storage	2 Weeks		
Stored onsite?	Amazon S3 Facility for EUID .		

3.6.1. Back Up and Restore Scenarios

The following steps would be used if there is a data corruption issue:

- Disable the eScholar Uniq-ID application so that users cannot log in or otherwise process data.
- Back up current tables.
- Restore data to a point in time, determined based upon the issue in collaboration with MDE-CEPI.
- Resolve issues with the data, including inserting identifiers assigned to return the system (including datamarts) to the current state.
- Enable the eScholar Uniq-ID application

Application Restore

For each server the following steps would occur to restore a server

- Build new server from an image
- Install operating system
- Install UID and application components Apache, Tomcat, Java
- Install UID application back to current version (would include any patches)
- Restore configuration from backup

3.7. Site Readiness Information

Alternate facilities can be instantiated if necessary.

Designation	Site Name	Site Type	Address
Primary Site	Amazon Cloud US East (Ohio) us- east-2	Host	Northeast region of the United States
Alternate Site	Amazon Cloud US East (Virginia) us-east-1	Host	Northeast region of the United States

3.8. Roles and Responsibilities

eScholar establishes multiple roles and responsibilities for responding to outages, disruptions, and disasters for EUID. Amazon also has their own processes. eScholar individuals who are assigned roles for recovery operations collectively make up the Contingency Plan Team and are trained annually in their duties. Disaster Recovery Team (DRT) members are chosen based on their skills and knowledge.

The Contingency Plan Team consists of personnel who have been selected to perform the roles and responsibilities described in the sections that follow. All team leads are considered key personnel.

3.9. Contingency Planning Director (CPD)

The Contingency Planning Director (CPD) is a member of senior management and owns the responsibility for all facets of contingency and disaster recovery planning and execution.

The CPD performs the following duties:

- Makes the decision on whether or not to activate the CP
- Provides the initial notification to activate the CP
- Reviews and approves the CP
- Reviews and approves the Business Impact Analysis (BIA)
- Notifies the Contingency Plan Team leads and members as necessary
- Advises other Contingency Plan Team leads and members as appropriate
- Issues a recovery declaration statement after the system has returned to normal operations
- Designates key personnel

3.10. Contingency Planning Coordinator

The CPC performs the following duties:

- Develops and documents the CP under direction of the CPD
- Uses the BIA to prioritize recovery of components
- Updates the CP annually
- Ensures that annual CP training is conducted
- Annually test CP plan with State of Michigan Data into a new environment that would be destroyed after review, using Michigan Data Destruction Policy, as applicable
- Distributes copies of the plan to team members
- Authorizes travel and housing arrangements for team members
- Manages and monitors the overall recovery process
- Leads the contingency response effort once the plan has been activated
- Advises the Procurement and Logistics Coordinator on whether to order new equipment
- Receives updates and status reports from team members
- Sends out communications about the recovery
- Advises the CPD on status as necessary
- Designates key personnel
- Procures new equipment and supplies as necessary
- Prepares, coordinates, and obtains approval for all procurement requests
- Authorizes purchases up to \$5000 for recovery operations. NOTE: any hosting changes will not be charged back. These additional costs are included in the hosting fees.
- Ensures that equipment and supplies are delivered to locations
- Coordinates deliveries
- Updates the CPC with status
- Works with the CPC to provide transportation for staff as needed
- Ensures details of administering emergency funds expenditures are known.
- Processes requests for payment of all invoices related to the incident
- Arranging for travel and lodging of staff to the alternate site as needed
- Procures telephone equipment and leased lines as needed
- Procures alternate communications for teams as needed.

3.11. Outage and Damage Assessment Lead (ODAL)

The ODAL performs the following duties:

- Determines if there has been loss of life or injuries
- Assesses the extent of damage to the facilities and the information systems
- Estimates the time to recover operations
- Determines accessibility to facility, building, offices, and work areas
- Assesses the need for and adequacy of physical security/guards
- Advises the Security Coordinator that physical security/guards are required
- Identifies salvageable hardware
- Maintains a log/record of all salvageable equipment
- Supports the cleanup of the data center following an incident
- Develops and maintains a Damage Assessment Plan
- Estimates levels of outside assistance required
- Reports updates, status, and recommendations to the CPC
- Designates key personnel

3.12. Network and Hardware DRT

The Network and Hardware DRT performs the following duties:

- Installs hardware and connects power
- Runs cables and wiring as necessary
- Makes arrangements to move salvageable hardware to other locations as necessary
- Ensures electrical panels are operational
- Ensures that fire suppression system is operational
- Communicates with hardware vendors as needed (Appendix B)
- Creates log of missing and required hardware
- Advises the PLC if new hardware should be purchased
- Connects network cables
- Connects wireless access points

3.13. Software DRT

The software DRT performs the following duties:

- Installs software on all systems at alternate site
- Performs live migrations to alternate site prior to predictable disasters and outages
- Installs servers
- Communicate with software vendors as needed (Appendix B)
- Advises the PLC if new software needs to be purchased
- Creates log of software installation problems
- Restore systems from most current backup media
- Maintains current system software configuration information in an off-site storage facility

3.14. Security Coordinator

The Security Coordinator performs the following duties:

- Provides training for employees in facility emergency procedures and measures
- Provides physical security, access control, and safety measures to support recovery effort
- Cordons off the facility including offices to restrict unauthorized access
- Coordinates with the building management and the CPC for authorized personnel access
- Coordinates and manages additional physical security/guards as needed
- Acts as a liaison with emergency personnel, such as fire and police departments
- Provides assistance to officials in investigating the damaged facility/site
- Ensures that data room/center at alternate site has locks (access controls) on the doors

• Coordinates and secures the transportation of files, reports, and equipment in coordination with the CPC.

3.15. Plan Distribution and Availability

During a disaster situation, the availability of the Contingency Plan is essential to the success of the restoration efforts. The Contingency Plan Team has immediate access to the plan upon notification of an emergency. The Contingency Plan Coordinator ensures that a copy of the most current version of the Contingency Plan is available to all key personnel.

3.16. Line of Succession/Alternates Roles

In order to preserve the continuity of operations, individuals designated as key personnel have been assigned an individual who can assume the key personnel's position if the key personnel is not able to perform their duties. Alternate key personnel are named in a line of succession and are notified and trained to assume their alternate role, should the need arise. The line of succession for key personnel can be found below in this document.

System operations team is responsible for:

- Maintaining the application and all of its components.
- Day to day operations of the components of the EUID application.
- Managing system backups and restoration.

System manager is responsible for:

- Ensuring the resources are available to the system operations team to carry out their duties.
- Managing application deployments and the functionality of the EUID application as a whole.

Product manager is responsible for:

• Providing external notification of any disruptions of service external to the application.

4. Activation and Notification

The activation and notification phase defines initial actions taken once a EUID disruption has been detected or appears to be imminent. This phase includes activities to notify recovery personnel, conduct an outage assessment, and activate the CP.

At the completion of the Activation and Notification Phase, key EUID CP staff will be prepared to perform recovery measures to restore system functions.

4.1. Activation Criteria and Procedure

The **EUID** CP may be activated if one or more of the following criteria are met:

- 1. Critical **EUID** components supporting the system will be unavailable for more than 24 hours, depending on the nature of the disruption.
- 2. The facility housing **EUID** is damaged and may not be available within **24 hours.**
- 3. Other criteria as necessary.

This plan addresses and plans for two outage types: 1) minor system failures and 2) major system failures. Full contingency plan implementation may not be required for all disruptions.

The core Activation Procedures are listed below. For a full list of activities, refer to Appendix K.

- 1. Perform Notification Procedures
- 2. Conduct a Disaster Recovery Outage Assessment Report (DROAR)
- 3. Classify the outage
- 4. Initiate Recovery and Reconstitution Procedures (as necessary)
- 5. Provide an update as described in the Notification Procedures

After obtaining the DROAR from the DRT, the CP Coordinator will contact the CP Director to activate the contingency plan. Although the DRT will make the initial determination of 'minor' vs. 'major' system failure, the CP Director is responsible for formal activation of the plan; therefore, to ensure recovery operations can begin as quickly as possible, it is important for the CP Coordinator, CP Director, and DRT(s) personnel to be familiar with the CP activation criteria.

4.2. Notification Procedures

As noted in the eScholar Disaster Recovery Communication Plan (DRCP), the Disaster DRT (DRT) will initiate and coordinate the appropriate communication plans including:

- 1. Communicate disaster and level to all staff and any action steps they need to take
- 2. Communication to customers about any interruptions in service and expected time of recovery. The communication will include points of failure, recovery steps, and loss of data if there is any data loss.
- 3. Contact any key contacts as appropriate to notify them of disaster
- 4. Provide periodic status updates on the restoration of systems and facility functionality, including information on the type (minor or major) of outage.

Internal Communications

- If a disaster event takes place during business hours, the Contingency Plan Director (or Contingency Plan Coordinator) will send an email to all staff explaining the disaster event and action steps staff need to take.
- If a disaster event takes place outside business hours, Contingency Plan Director (or Contingency Plan Coordinator) will initiate the phone tree with a message explaining the disaster category and action steps staff need to take.
- Disaster recovery website and hotline to be activated and updated periodically with status and additional action steps as required.

External Communications

- If a disaster event results in customer service interruptions, customers will be notified by their eScholar Account Manager immediately with the reason for the interruption, how this event may affect them, and estimated time of recovery if known. Periodic updates (every 60 minutes; or sooner if a significant change occurs) should be provided until service is restored.
- Identify and communicate with Key Customer Contacts that need to be notified about the disaster.

Contact information for key personnel and other key contacts are located below in this document.

4.3. Outage Assessment

Following notification, a thorough outage assessment is necessary to determine the extent of the disruption, any damage, and expected recovery time. This outage assessment is conducted by the Outage and Damage Assessment Lead (ODAL) using the Disaster Recovery Outage Assessment Report (DROAR) template in Appendix J. Outage assessment results are provided to the Contingency Planning Coordinator to assist in the coordination of the recovery effort.

The purpose of this assessment is to gain relevant information and to determine the best strategies for recovering the system. At a minimum, the following information should be captured in the DROAR:

- Cause of the system disruption, including type, scope, location, and time of disruption
- Discover what events were occurring after the last backup/incremental and failure points
- Determine available options for recovery of transactions
- Whether the system outage is localized (this system only) or widespread
- The location of failing components and those users without service
- The impact of the disruption or components damaged
- The functional status of all system components (e.g., fully functional, partially functional, nonfunctional)
- The potential for additional disruption or system damage
- Identification of a single point of failure (if possible)
- Items to be replaced (e.g., hardware, software, firmware, supporting materials)
- Anticipated downtime of the system (e.g., longer than two days)
- Classify disruption as 'minor system failure' or 'major system failure'.

5. Recovery

The recovery phase provides formal recovery operations that begin after the CP has been activated, outage assessments have been completed (if possible), personnel have been notified, and appropriate teams have been mobilized. Recovery phase activities focus on implementing recovery strategies to restore system capabilities, repair damage, and resume operational capabilities at the original or an alternate location. At the completion of the recovery phase, **EUID** will be functional and capable of performing the functions identified in the Concept of Operation portion of the plan.

5.1. Sequence of Recovery Operations

When recovering **EUID**, the recovery procedures should follow a logical order based on priorities. The RTO is the overall length of time **EUID's** components can be in the recovery phase of the contingency operations before negatively impacting the mission or business processes.

The following activities occur during recovery of **EUID**:

- 1. Identify recovery location (if not at original location)
- 2. Identify required resources to perform recovery procedures
- 3. Retrieve backup and system installation media
- 4. Recover hardware and operating system (if required)
- 5. Recover system from backup and system installation media
- 6. Implement transaction recovery for systems that are transaction-based.

5.2. Recovery Procedures

Recovery procedures are outlined per team and must be executed in the sequence presented to maintain an efficient recovery effort. Each procedure should be executed in the sequence it is presented to maintain efficient operations. Specific procedures for recovering key system components are documented in Appendix K. In the event the system needs to be brought up at another site, additional resources will likely be needed to bring up the system at the new location while concurrently recovering the system at the original location. Refer to Appendix A for contact information of appropriate recovery personnel.

5.3. IT Infrastructure

[Note: If the IT infrastructure that supports the system has not been damaged or is functioning properly, proceed to the Recovery - Software section below.]

- The CP Coordinator will contact DRT personnel to monitor recovery status, as appropriate.
- The Network and Hardware DRT is responsible for recovering the IT infrastructure
- DRT personnel should refer to their standard operating procedures for recovery of all IT components; this includes reinstalling hardware and software that serves as the system's platform.
- DRT personnel should contact all vendors to provide additional support, as needed.
- The Network and Hardware DRT is also primarily responsible for obtaining and restoring data from backup facilities to assist in the restoration of all components; the Network and Hardware DRT may also work in conjunction with the Software DRT to ensure seamless recovery.
- The CP Coordinator contacts the CP Director to provide periodic updates on recovery operations as they are received from the Network and Hardware DRT.
- The DRT contacts the CP Coordinator upon recovery of EUID network and hardware components. If the system software has also failed, proceed to Recovery Software section below to continue recovery operations.

5.4. Software

The Software DRT is responsible for the Software recovery activities described below. The following activities should take place during the recovery of the system:

- The CP Coordinator should coordinate with the Software DRT to monitor the status of overall system recovery activities.
- The Software DRT conducts all necessary activities to restore the system software (to the current software version and configuration for the state) and data, as appropriate; the Software DRT may also work in conjunction with the Network and Hardware DRT to ensure seamless recovery.
- In certain circumstances, the Software DRT may need the assistance of the System Developers. The CP Coordinator should help facilitate this coordination, as needed.
- The CP Coordinator contacts the CP Director to provide periodic updates on recovery operations as they are received from the Software DRT.
- The CP Coordinator contacts the CP Director upon the recovery of the system software, and recovery operations move into the resumption phase when the system is operating under normal conditions.

5.5. Recovery Escalation Notices/Awareness

Notifications during recovery include problem escalation to leadership and status awareness to system owners and users. This section describes the procedures for handling escalation notices that define and describe the events, thresholds, or other types of triggers that may require additional action.

- Each DRT Lead should update the CP Coordinator with status information.
- If progress is delayed or will take longer than estimated, the CP Coordinator should be updated immediately.
- If the system cannot be restored in the estimated timeframe, the CP Coordinator should notify the CP Director.

6. Reconstitution

Reconstitution is the process by which recovery activities are completed and normal system operations are resumed. A determination must be made whether the system has undergone significant change and will require reassessment and reauthorization. The phase consists of two major activities: (1) validating successful reconstitution and (2) deactivation of the plan.

6.1. Data Validation Testing

Validation data testing is the process of testing and validating data to ensure that data or databases have been recovered completely at the permanent location. For complete details on this process, refer to Appendix D- System Validation Test Plan.

6.2. Functional Validation Testing

Functionality testing is a process for verifying that all system functionality has been tested, and the system is ready to return to normal operations. For complete details on this process, refer to Appendix D - System Validation Test Plan.

6.3. Recovery Declaration

Upon successfully completing testing and validation, the EUID Product Manager with a coordinated effort with the State will formally declare recovery efforts complete, and that EUID is in normal operations. EUID business and technical POCs will be notified of the declaration by the CP Coordinator. The recovery declaration statement notifies the CP/DRT and executive management that EUID has returned to normal operations.

6.4. User Notification

After the recovery declaration statement is made, notifications are sent to users and customers. Notifications to customers are made in accordance with predetermined notification procedures. Refer to the Notification Procedures section for notification information.

6.5. Cleanup

Cleanup is the process of cleaning up or dismantling any temporary recovery locations, restocking supplies used, returning manuals or other documentation to their original locations, and readying the system for a possible future contingency event. SOM Technical Standard 1340.00.110.04 Secure Disposal of Installed and Removable Digital Media Standard must be followed. Once the data destruction is complete proof must be provided that data destruction was done in accordance with SOM Standard, as applicable.

6.6. Backing up Restored Systems

As soon as reasonable following recovery, the Hosted System must be fully backed up and a new copy of the current operational system stored for future recovery efforts. This full backup is then kept with other system backups. The procedures for conducting a full system backup are:

- The Software DRT should verify the backup is scheduled to be performed at the designated time on a nightly basis.
- After the first full backup is scheduled to occur, the Software DRT Lead should confirm that the full back completed successfully.
- The Software DRT Lead should notify the CP Coordinator of the status of the backup.

6.7. Event Documentation

It is important that all recovery events be well-documented, including actions taken and problems encountered during the recovery and reconstitution effort. Information on lessons learned must be included in the annual update to the CP. It is the responsibility of each CP team or person to document their actions during the recovery event.

Role Name	Documentation Responsibility
CP Coordinator	Activity log
QA Manager	Functionality and data testing results
CP Coordinator	Lessons learned
CP Coordinator	After Action Report

7. Contingency Plan Testing

Contingency Plan operational tests of EUID are performed annually. A Contingency Plan Test Report is documented after each annual test. A template for the Contingency Plan Test Report is found in Appendix E - Contingency Test Plan Report.

8. Contingency Plan Training

The Contingency Plan and Policy are reviewed annually by the Uniq-ID development team and the State team.

Appendix A - Key Personnel and Team Member Contact List

Role	Name	Email
Contingency Plan Director	John Pozzuto	Jpozzuto@escholar.com
Alternate Contingency Plan Director	James Anderson	Janderson@escholar.com
Contingency Plan Coordinator	Andrea Hartman	ahartman@escholar.com
Alternate Contingency Plan Coordinator	James Anderson	Janderson@escholar.com
Outage and Damage Assessment Lead	James Anderson	janderson@escholar.com
Alternate Outage and Damage Assessment Lead	Nishad Moideen	Nmoideen@escholar.com

Appendix B - Vendor/Key Contact List

Vendor	Product or Service License #, Contract #, Account #, or SLA	Phone
Amazon	Amazon Account # TBD	Primary: 301-939-1130 Alternate: 301-939-1000
MDE-CEPI	Sign on Integration	Primary: TBD - Identified During Project Kick-Off / Project Planning Alternate:

Appendix C - Alternate Storage Site Information

Site Information	Site Details
Address of alternate storage facility (ASF)	Amazon S3
Distance from primary facility	Amazon doesn't provide the exact locations of their facilities
Is alternate storage facility owned by the organization or is a third-party storage provider?	Owned by Amazon for UID
Points of contact at alternate storage location	Same as primary
Delivery schedule and procedures for packaging media for delivery to alternate storage facility	Delivery schedule remains the same as to the primary site. Data will be synced across the availability zones.
Procedures for retrieving media from the alternate storage facility	Only authorized eScholar employees are able to contact the ASF.
Names and contact information for those persons authorized to retrieve media	James Anderson, Wolf Boehme, John Pozzuto
Potential accessibility problems to the alternate storage site in the event of a widespread disruption or disaster (e.g. roads that might be closed, anticipate traffic)	None, site is accessed remotely
Mitigation steps to access alternate storage site in the event of a widespread disruption or disaster	N/A site is accessed remotely
Types of data located at alternate storage site, including databases, application software, operating systems, and other critical information system software	Database and documentation backups, Code/Application

Appendix D - System Validation Test Plan

Procedure	Expected Results	Actual Results	Successful?	Performed by
Accesses EUID through the MDE-CEPI				
login portal (portal).				
Log into the portal with a valid set of test				
credentials. Enters a valid Username and				
Password, and submit the request.				
Click on EUID link	User is navigated to default Home page for the user			
	role accessing.			
Execute EUID Search for a Student	The search results show up for that student			
Access System Property Page	Validate access to system property page			
Logout of EUID	User is returned to the portal.			
API TEST	Run Person Search API			
Run system security scan	No known high priority bugs reported.			
Run system Performance scan	Performance statistics verified against approved			
	metrics			

Appendix E - Contingency Plan Test Report

This section to be completed during project implementation

Test Information	Description
Name of Test	
System Name	
Date of Test	
Team Test Lead and Point of	
Contact	
Location Where Conducted	
Participants	
Components	
Assumptions	
Objectives	Assess effectiveness of system recovery at alternate site
	Assess effectiveness of coordination among DRTs
	Assess systems functionality using alternate equipment
	Assess performance of alternate equipment
	Restore data and/or to determine place of data loss
	• Plan for restoration and failure.
	Assess effectiveness of procedures
	Assess effectiveness of notification procedures
Methodology	

Activities and Results (Action,	
Expected Results, Actual	
Results)	
Post Test Action Items	
Lessons Learned and Analysis	
of Test	
Recommended Changes to	
Contingency Plan Based on	
Test Outcomes	

Appendix F - Hardware and Software Inventory

Environments

Environment	Type of Server	Specs
Production	Web Server	Windows Server; 4GB RAM; 2 Cores; 40GB Storage
Production	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
Production	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
Production	DB Server	Windows Server; SQL Server 19; 32 GB RAM; 16 Cores; 200 GB Storage
TEST	Web Server	Windows Server; 4GB RAM; 2 Cores; 40GB Storage
TEST	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
TEST	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
TEST	DB Server	Windows Server; SQL Server 19; 32 GB RAM; 16 Cores; 200 GB Storage
Training	Web Server	Windows Server; 4GB RAM; 2 Cores; 40GB Storage
Training	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
Training	Application Server	Windows Server; 16GB RAM; 4 Cores; 100GB Storage
Training	DB Server	Windows Server; SQL Server 19; 32 GB RAM; 8 Cores; 200 GB Storage
Clustered	Matching Engine Cluster	Windows Server; SQL Server 19; 32 GB RAM; 16 Cores; 200 GB Storage
Clustered	Matching Engine Cluster	Windows Server; SQL Server 19; 32 GB RAM; 8 Cores; 200 GB Storage
Clustered	Matching Engine Cluster	Windows Server; SQL Server 19; 32 GB RAM; 8 Cores; 200 GB Storage

<u>Software</u>

This section to be finalized during project implementation, including version numbers and additional software as needed.

Draft List of Server Software:

- Apache Http Server
- Tomcat 9
- Apache ActiveMQ 5
- Java

- JavaScript
- Bitbucket
- OpenJDK
- Elasticsearch and Basis Technology Rosette Name Indexer
- Microsoft Windows Server
- Microsoft SQL Server v2019
Appendix G - System Interconnections

This section to be completed during project implementation.

CSP IP Address and Interface	External Organization Name and IP Address of System	External Point of Contact and Phone Number	Connection Security (IPSec VPN, SSL, Certificates, Secure File Transfer etc.)	Data Direction (incoming, outgoing, or both)	Information Being Transmitted	Ports or Circuit #
TBD	TBD	TBD	TBD	TBD	TBD	

This is outlined in the SSP.

Appendix H - Test and Maintenance Schedule

The EUID CP must be tested annually or whenever there is a signification change to the application. The schedule

for CP Testing will be as follows:

- Initial CP Testing TBD (based on project go live)
- Annual CP Testing TBD (based on project go live)
- Other CP Testing as significant changes are made to the application.

Appendix I - Business Impact Analysis

As part of the CP and DR planning process, the CP team conducted a BIA for EUID Version 11 which included, but was not limited to an assessment of threats, functions/processes, recovery time objectives and impacts. *The information contained in this document is for reference purposes only and the EUID BIA should be considered the authoritative source of content related to details in this section. eScholar will conduct a new BIA with the State after Version 2023 is available.*

Related Business Units

Dept/Unit Name	Core Responsibilities	Manager	Contributors
EUID Product Team	Product Management and	Andrea	
(Business)	Business Analysis	Hartman	
EUID Product Team	Development	Nishad	
(Development)		Moideen	
EUID Product Team (Quality Assurance)	Quality Assurance/Testing	Ruchi Joshi	
IT	Technical Services and Management	James Anderson	John Pozzuto
Client Services	Support, Account Management, Customer Education	Marc Hoffmeister	Nick Chouloute, Mary Obermeier, Pamela Demarest
Sales & Marketing	Sales, Marketing, PR	Elissa Seto	Sierra Renfro

Threats

The table depicts the threats most likely to impact the Amazon Web Services hosting environment and components of UID. The table below includes only High and Medium threats, please refer to the EUID BIA for a complete list of possible threats.

Event	High	Medium
Air Conditioning Failure		Х
Bomb Threats		Х
Chemical Spills / HazMat		Х
Communications Loss		Х
Data Destruction	Х	Х
Fire	Х	
Power Loss / Outage		
Sabotage / Terrorism	Х	
Weather / Storms / Hurricanes		

Appendix J - Disaster Recover Outage Assessment Report

The following report is to be used by the DRT(s) to assist during the outage assessment of the system failure.

DR OUTAGE ASSESSMENT REPORT				
DRT:				
Event Information				
Date:	Time of Disruption:			
Location:	Type of Event:			
Impact to System:	Facility Damage:			
Personnel Injuries:	Disruption Classification ('Minor' or 'N	Major')		
System Information				
POC:	Estimated Length of Disruption:			
Impact on Components:				
Component Resources Affected:				
Type of Damage to Resource:				
Estimated Equipment Needs:				
Recovery Information:				
Suggested Recovery Strategy:				
Activation of Contingency Plan Reco	mmended (Y) (N)			
CP Coordinator Signature Date/Time				
CP Director Signature Date/Time				

Appendix K - Action Item Checklist

Task	Completed	Completed By
APPLICATION DISRUPTION-INITIAL NOTIFICATION	(✓)	
The CP Coordinator contacts the Recovery to monitor the status of overall outage as	sessment activiti	les
Designate a workspace for the DRT members to complete the assessment and collaborate.		
Ensure the key personal and contact information in Appendix A and B are readily available for the DRT.		
Distribute the Disaster Recover Outage Assessment Report (DROAR) form to the appropriate DRT members.		
For equipment that Amazon hosts/maintains:		
Determine whether or not the vendor should be contacted to service any affected equipment.		
Determine the status of the data stored at eScholar and Amazon and whether data backups need to be retrieved from offsite storage.		
Based on outage assessment findings, be prepared to recommend either partial or full activation of the CP.		
Provide a completed DROAR to the CP Coordinator and brief the CP Coordinator on the overall system outage assessment findings, including a recommendation on the outage type (minor or major).		
Classify the outage as minor or major.		
Work with the appropriate DRT members to determine the estimated time to repair/replace or reconstruct major elements of the system.		
APPLICATION OUTAGE ASSESSMENT PROCEDURES	(✓)	
Complete a DROAR.		
Check the cause of the system disruption, including type, scope, location, and time of disruption.		
Check whether the outage is localized (this system only) or widespread.		
Check the location of failing components and those users without service.		
Check the impact of the disruption or components damaged.		
Check the functional status of all system components.		
Check the potential for additional disruption or system damage.		
Check the Identification of a single point of failure (if possible).		
Check Items to be replaced (e.g., hardware, software, firmware, supporting materials).		

Check anticipated downtime of the system.		
Classify disruption as 'minor system failure' or 'major system failure'.		
MINOR APPLICATION FAILURE	Completed	
Recovery and Resumption Procedures	(✓)	
The Recovery and Recovery Support Teams contact the CP Coordinator to provide an estimated recovery time and begin repair of the components (i.e., the databases, servers, infrastructure or the system software).		
The CP Coordinator notifies all system users that the 'minor system failure' is being recovered and will be functioning under normal conditions within the estimated recovery period. An alert will be sent on the status of the system and expected recovery time.		
The minor system failure is recovered, and situation is closed.		
MAJOR APPLICATION FAILURE	Completed	
Notification/Activation Procedures	(✓)	
The CP Coordinator reviews the DROAR and contacts the CP Director to formally activate the contingency plan.		
Are secondary processing procedures required? If yes, refer to Appendix G.		
The CP Coordinator notifies all system users that the 'major system failure' is being recovered and will be functioning under normal conditions within the estimated recovery period. An alert will be sent on the status of the system and expected recovery time.		
The CP Coordinator contacts the DRT to begin monitoring the status of overall recovery and resumption activities.		
Recovery Procedures - Building and Facility Services	(✓)	
The DRT coordinates with the Building and Facility Services and/or Amazon to obtain an estimated time that the building will been cleared for reentry.		
The DRT provides updates to the CP Coordinator on the status of the building's reopening.		
The CP Coordinator provides the CP Director with periodic updates regarding the reopening of the building and the restoration of facilities services.		
Recovery Procedures - IT Infrastructure	(✓)	
The Network and Hardware DRT contacts all necessary vendors to provide additional support as needed.		
The Network and Hardware DRT also obtains and restores data from backup facilities to assist in the restoration of all components.		
The CP Coordinator contacts the CP Director to provide periodic updates on recovery operations as they are received from the Network and Hardware DRT.		

The CP Coordinator contacts the CP Director upon the recovery of the IT		
infrastructure, and recovery operations move into the resumption phase if the		
system is operating under normal conditions.		
Recovery Procedures - System Software	(✓)	
The CP Coordinator contacts the Systems Support DRT to begin monitoring the		
status of overall recovery and resumption activities.		
The Software DRT conducts all necessary activities to restore the system software		
and data.		
The CP Coordinator contacts the CP Director to provide periodic updates on		
recovery operations as they are received from the Software DRT		
The CP Coordinator contacts the CP Director upon the recovery of the system		
software, and contingency operations move into the resumption phase if the		
system is operating under normal conditions.		
RESUMPTION PROCEDURES	(✓)	
DRT personnel test all recovered components and system software.		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly.		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly.		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly. DRT returns all materials, plans, and equipment used during recovery and testing		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly. DRT returns all materials, plans, and equipment used during recovery and testing back to storage.		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly. DRT returns all materials, plans, and equipment used during recovery and testing back to storage.		
DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly. DRT returns all materials, plans, and equipment used during recovery and testing back to storage. All sensitive material is destroyed or properly returned to safe storage.		
 DRT personnel test all recovered components and system software. The CP Coordinator notifies the CP Director that the system has been tested and is functioning properly. DRT returns all materials, plans, and equipment used during recovery and testing back to storage. All sensitive material is destroyed or properly returned to safe storage. DRT personnel assisting other offices, conclude their activities and report back to 		
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SCHEDULE G - TRANSITION PLAN

The parties agree to this preliminary Transition Plan with intent to modify it as needed during the Contract.

Introduction

A Transition Plan is a comprehensive list of constraints, dependencies, objectives, roles, tasks, and other important details for the transition in and transition out of the eScholar Uniq-ID Solution. It covers both transition in and transition out details and is essential to a successful project implementation.

System Description

[State] seeks to implement a statewide unique person identifier solution to enable tracking and analysis of person records across time, location, and source. The identifier will remain with the person throughout the individual's education lifecycle for students in preschool through grade 12 and postsecondary and teachers. eScholar Uniq-ID[®] Version 2023 has been selected for assigning unique identifiers to staff and students.

Assumptions, Constraints and Dependencies

The assumptions, constraints, and dependencies identified for the eScholar Uniq-ID [State] project are listed below.

Туре	Description
Assumption: [Subject Matter Experts / Project Team] Availability	The appropriate staff from the State and eScholar will be available to complete the tasks necessary for the project.
Constraint: Time	
Dependency: Testing	
[add more as needed]	

Risks

Identify all risks to the Plan. (To be completed by [STATE] / eScholar during implementation)

Risk Details	Risk Scale	Mitigation Strategy
Source systems have not completed successful extracts in correct file specifications.		
Source systems have not completed technical work to consume files returned by the system.		
[add more as needed]		

The Risk Matrix below organizes the risks into a coherent prioritized list.

	Negligible	Marginal	Critical
Certain	High	High	Extreme
Likely	Moderate	High	High
Possible	Low	Moderate	High
Unlikely	Low	Low	Moderate

Using the rating system in the Risk Matrix you could assign two values to each risk and come up with a risk total. You could use numbers or some other measuring system if you wish.

Transition Communications

Communication during the implementation and transition phases is critical to success of the project as it keeps enables stakeholder awareness and engagement, provides insights to roadblocks and decisions, enables a structured process for feedback, and supports acceptance of the project.

eScholar typically uses on-site and video conferencing, phone calls, emails, and project status reports to communicate project information.

The communication plan will set the communications framework for this project and will serve as a guide throughout the life of the project. The Project Manager will be responsible for managing updates if communication requirements change.

The Project Manager will use the communication plan in conjunction with other approved management plans, which comprise the Project Management Plan, to guide both project execution and project control.

The table below provides guidance on communications.

What	Who/Target	Purpose	Details
Initiation Meeting	All stakeholders	Gather information for Initiation Plan	When: Before Project Start Date Frequency: 1x Type: On-site or Remote
Distribute Project Initiation Plan	All stakeholders	Distribute Plan to alert stakeholders of project scope and to gain buy in.	When: Before Kick Off Meeting Frequency: 1x Type: Email
Project Kick Off	All stakeholders	Communicate plans and stakeholder roles /responsibilities. Encourage communication among stakeholders.	When: At or near Project Start Date Frequency: 1x Type: On-site or Remote
Status Reports	All stakeholders and Project Office	Update stakeholders on progress of the project.	When: Throughout Project Frequency: Weekly or Bi-Weekly Type: On-site or Remote
Team Meetings	Entire Project Team. Individual meetings for sub-teams, technical team, and Functional teams as appropriate.	To review detailed plans (tasks, assignments, and action items).	When: Throughout Project Frequency: Weekly or Bi-Weekly Type: On-site or Remote
Sponsor Meetings	Sponsor(s) and Project Manager	Update Sponsor(s) on status and discuss critical issues. Seek approval for changes to Project Plan.	When: Throughout Project Frequency: Monthly or TBD Type: On-site or Remote
Post Project Review	Project Office, Project Manager, key stakeholders, and sponsor(s).	Identify improvement plans, lessons learned, what worked and what could have gone better. Review accomplishments.	When: End of Project or end of major phase Frequency: 1x Type: On-site or Remote

What	Who/Target	Purpose	Details
Quarterly Project Review	Project Office, Project Manager, and key stakeholders.	Review overall health of the project and highlight areas that need action.	When: Quarterly depending on size and criticality of the project. Frequency: Quarterly Type: On-site or Remote
Project Management Site	ALL Project Team Members.	Central location to house Status Reports, meeting minutes, Project description, and Project Plan.	When: Update as necessary. Frequency: As needed Type: Email or Online
Periodic Demos and Target Presentations	Specific Focus Groups or End Users.	To gain input from special groups and keep them abreast of the Project's status.	When: Once product has enough to "show". As you complete critical phases or make major enhancements. Type: On-site or Remote
Other	To be determined by the Project Team	General communications	When: As needed

Transition Planning

Roles and Responsibilities for Planning and Transition

The following personnel will be members of the transition planning team with the listed roles and responsibilities.

Name	Department / Company	Role	Responsibility
John Pozzuto	eScholar	Executive Sponsor	
Jennifer Moore	eScholar	Project Manager	
Andrea Hartman	eScholar	Functional Lead	Subject Matter Expertise
Andrea Hartman	eScholar	Technical Lead	
James Anderson	eScholar	Security Officer	
[TBD]	eScholar	Trainer	
Nishad Moideen	eScholar	Data Architect Lead	
Ruchi Joshi	eScholar	Test / Quality Assurance Lead	
[TBD]	[State]	Sponsor	
[TBD]	[State]	Project Manager	
[TBD]	[State]	Functional Lead	
[TBD]	[State]	Technical Lead	
[TBD]	[State]	Security Lead	

Business Planning

Provide an overview of process or policy changes and link to the Change Management Plan as necessary.

The following business processes will be impacted by the transition and that impact will be addressed asfollows:

Business Process	How Addressed
Existing legacy systems	Data Migration Planning and Execution. Import all existing unique identifiers and historical data.
Source Systems	Data Integration Planning and Execution. For each source system submitting data to the Solution, an integration plan should be created. The sources can integrate via File Upload, Web Services, Automatic File Processing or Online Entry. Each source can implement with the option(s) most appropriate for the vendor.

Security Integration	Determine security integration methodologies.
Other	Clarify other business processes that may impact eScholar Uniq-ID.
[add more as needed]	

Environments / Hardware / Software

The [State] implementation will be hosted by eScholar on Amazon Web Services (AWS) and utilize the following environments:

Environment	Details
	The purpose of this environment is for training and knowledge transfer purposes.
Training	[State] to load training data.
	[add specs when finalized for State]
	The purpose of this environment is for user acceptance testing of eScholar Uniq-ID functionality and for security and data integration testing.
UAT/Test	Date may be overwritten with production data periodically to assist with testing.
	[add specs when finalized for State]
	The purpose of this environment is for production purposes.
Production	[add specs when finalized for State] See recommended Solution Architecture for specifications.

System/Solution Integration

The {State] implementation will enable integrations with source / vendor systems and security providers. All integrations navigate through a proven integration process which includes a system overview, integration method knowledge share, integration method selection, development, testing and final integration. These steps are repeatable with adjustments made based upon the source / third-party vendor capabilities.

The table below lists all systems that will be integrated for the project.

Vendor/Source	Details	Integration Type
Student Information System	Source system to develop extract or code for web services integration.	[Web Services File Upload AFP Online]
Other Source System	Source system to develop extract or code for web services integration.	[Web Services File Upload AFP Online]
Legacy Identifier System	[State] to develop extracts in the eScholar File Format.	One-time purpose for importing legacy data
[add more as needed]		

Training

Refer to the complete Training Plan for specific details. [add link for specific project]

Documentation

The documentation listed below will be provided as part of the implementation:

- User Guide
- Administrator Guide
- Web Services Guide
- File Specification
- Automatic File Processing Guide
- Technical Guide
- Configuration Guide
- Field Masking Guide
- Data Mart Synchronization Guide
- Supported Environments document
- Architecture Diagram

Major Milestones

Task	Туре	Date	Resources	Responsible	Success Criteria
Provide overall planning and coordination for the implementation	IN		[State]/ eScholar	[State] / eScholar	Successful installation
Identify and assign personnel for the implementation team	IN		[State] / eScholar	[State]	Successful installation
Identify application manager	IN		[State]	[State]	Application manager for [State] identified
Ensure that all manuals applicable to the implementation effort are available.	IN		[State]/ eScholar	eScholar	Documents are delivered on or before planned date.
Perform Configuration Planning	IN		[State]/ eScholar	[State]	Configuration details overview completed
Review Assign 3.0 Specification	IN		[State]/ eScholar	[State]	Assign 3 overview completed
Acquire hardware or software. See Supported Environments document and Architecture Diagram	IN		[State]	[State]	Required hardware and software available for installation
Perform Data Migration Planning	IN		[State]/ eScholar	[State] / eScholar	Data Migration Plan documented
Perform Security Integration Planning	IN		[State]/ eScholar	[State]/eScholar	Security Integration Plan documented
Perform Source Integration Planning	IN		[State]/ eScholar	[State] / eScholar	Source System Plan documented
Provide Valid Values and Locations. See Lookup Values document.	IN		[State]	[State]	Files provided to eScholar
Develop extracts for data migration.	IN		[State]	[State]	File(s) provided to eScholar
Develop extracts or code for source integration.	IN		[State]/ Vendors	[State]	File(s) provided to eScholar
Develop security integration methods.	IN		eScholar	eScholar	Success tests of integration
Schedule Pre-Installation Meeting	IN		[State]/ eScholar	[State]	Environment prepared for software installation
Install and configure eScholar Uniq-ID®	IN		[State]/ eScholar	eScholar	Successful installation (repeats for each environment)

Task	Туре	Date	Resources	Responsible	Success Criteria
Ensuring that all prerequisites have been fulfilled before the implementation date	IN		[State]/ eScholar	[State] / eScholar	Environment prepared for software installation
Perform Data Migration - Active Records	IN		eScholar	eScholar	Import active records, test, validate and adjust. Import is completed successfully
Perform Data Migration - History Records	IN		eScholar	eScholar	Import active records, test, validate and adjust. Import is completed successfully
Perform Data Review (as needed)	IN		[State]/ eScholar	[State] / eScholar	TBD
Identify appropriate personnel to receive training	IN		[State] / eScholar	[State] / eScholar	Personnel identified prior to training dates
Create user accounts	IN		[State] / eScholar	[State]	User Accounts created
Develop and document a backup procedure/plan	IN		[State]	[State]	Backup procedure plan completed
Perform Data Migration Planning	OUT		[State]/ eScholar	[State] / eScholar	Data Migration Plan documented
Perform Data Migration - Active and History Records	OUT		eScholar	eScholar	Import active and inactive records, test, validate and adjust. Import is completed successfully
Install and Configure UID Software on [State]/New Vendor servers	OUT		[State] / New Vendor, eScholar	[State/New Vendor]	Successful installation for each environment
Perform Transition Training	OUT		eScholar	eScholar	Training Completed
Discuss Lessons Learned	OUT		[State] / eScholar	[State] / eScholar	Lessons learned documented
Confirm Access to Current Environments	OUT		SOM, New Vendor	[State]	Access confirmed
[add more as needed]	OUT		[TBD]		
Handover and Acceptance	OUT		[State] / eScholar	[State] / eScholar	Obtain Approval signatures

Transition Acceptance

Acceptance Criteria	Status
Have all the deliverables been accepted by the [State]?	
Have all installations been completed as defined?	
Have the requirements been verified with User Acceptance Testing?	
Has the documentation been delivered to, and accepted by the [State]?	
Has training and knowledge transfer been completed?	
Have the lessons learned been documented?	
[add more as needed]	

Approvals

Role	Name & Title	Signature	Date