Sole Source Notification
Data Forge Artisan Platform

It is the intent of Washington State to promote open competition and transparency for all contracts for goods and services. In accordance with Department of Enterprise Service (DES) policy #DES-140-00, all intended sole source contracts must be made available for public inspection for a period of not less than fifteen (15) working days before the start date of the contract. This Sole Source Notification satisfies the requirement.

This Sole Source Notification is available at the Office of Superintendent of Public Instruction (OSPI) website and at the Department of Enterprise Services, Washington Electronic Business Solution (WEBS) Procurement website under the following commodity codes: ***208-36****-Data Processing Software, Microcomputer;* ***208-42****-EDI (Electronic Data Interchange) Translator Software, Microcomputer;* ***209-37****-Data Processing Software, Mini/Mainframe Computer;* ***209-43****-EDI (Electronic Data Interchange) Translator Software, Mini/Mainframe Computer;* ***920-03****-Application Service Provider (ASP) (Web Based Hosted);* ***920-07****-Applications Software for Microcomputer Systems: Business, Mathematical/Statistical, Medical, Scientific, etc.;* ***920-24****-Data Conversion Services;* ***920-64****-System Implementation and Engineering Services;* ***920-91****-Training, Computer Based (Software Supported).*

The Office of Superintendent of Public Instruction (OSPI) intends to award a $440,000 sole source contract to MIDAS Education LLC for the period of April-June 2025.

The purpose of this contract is to conduct a Proof of Concept (POC) demonstrating the capabilities of MIDAS Education's Data Forge Artisan platform, an advanced AI-enhanced data analysis and visualization solution designed specifically for educational settings. The Data Forge platform offers innovative, no-code data integration capabilities, enabling users to quickly and seamlessly ingest, relate, and analyze large datasets from disparate sources, including both state-level and district-level education data.

This Proof of Concept aims to validate MIDAS's ability to:

- Efficiently integrate large datasets from OSPI's Comprehensive Education Data and Research System (CEDARS), including student demographics, program membership, enrollment, course-taking, and absences across all public school districts and state-tribal education compact schools for multiple academic years (2011-2025).
- Demonstrate secure, automated, role-based data access and permissions management, ensuring compliance with data privacy standards.
- Enable intuitive, no-code data shaping, querying, and visualization, empowering OSPI personnel without extensive technical expertise to quickly access and derive insights from educational data.

- Leverage MIDAS's AI Assistant, Artisan, to accurately answer complex analytical questions, identify trends and anomalies, draw insightful conclusions, and deliver personalized, role-based recommendations to support educational decision-making.

Successful completion of this Proof of Concept will inform OSPI's future direction regarding data analytics capabilities and potential broader implementation of data systems. This can support OSPI's strategic initiatives and statutory responsibilities, such as those outlined in RCW 28A.230.215(4)(xiv), related to High School and Beyond Plans. This initiative directly addresses the need for scalable, timely, and secure data-driven solutions to enhance educational outcomes statewide.

Consultants contemplating the above requirements shall submit capability statements detailing their ability to meet the state's requirements ***no later than 3:00 pm on April 25, 2025***

Capability statements must address the following state requirements:

- AI-Driven Analytics Without Exposure of Sensitive Data: Capability to securely perform AI-driven analyses without directly ingesting sensitive student-level data into AI or large language models, preserving data privacy in compliance with applicable federal and state regulations (e.g., FERPA).
- No-Code Data Integration and Management: The ability to ingest, relate, and transform an unlimited number of diverse educational datasets without the use of traditional, resource-intensive Extract-Transform-Load (ETL) or coding-based processes. The platform must enable non-technical staff to integrate and manage complex, statewide datasets rapidly and independently.
- Dynamic, Hierarchical Role-Based Data Security: Automated, dynamically adjustable role-based data permissions that adapt in real-time based on changes in staff roles, assignments, or organizational affiliations, ensuring continuous compliance with educational data privacy requirements without extensive manual management.
- Real-Time Data Analysis and Scalability: Proven capability to rapidly and securely ingest large-scale statewide and local district datasets, providing near-real-time analytics and insights at scale. The vendor must demonstrate the technical infrastructure and methods employed to ensure these capabilities.
- Integration of Statewide and Local Educational Data: Ability to seamlessly integrate and analyze both state-reportable data (such as OSPI's Comprehensive Education Data and Research System—CEDARS) and non-reportable, district-specific educational data, ensuring robust analytic capabilities across multiple educational contexts.
- Successful Management of State-Level Educational Data Projects: Demonstrable record of successful completion of complex, statewide data implementation projects involving multiple school districts and education-focused use cases.

In the absence of other qualified sources, and pending approval by the Department of Enterprise Services, it is OSPI's intent to make a sole source award of the contract mentioned above to MIDAS Education LLC.

Although this Sole Source Notification is not an invitation to bid, if you feel your firm is able to provide the goods or services listed above, you may submit a capability statement to:

Kyla Moore
Office of Superintendent of Public Instruction
Email: contracts@k12.wa.us

In accordance with DES Sole Source policy process #PRO-DES-140-00A, the following documents are attached:

- *Attachment 1 – A copy of the Sole Source Contract Filing Justification*
- *Attachment 2 – A copy of the proposed draft sole source contract in significantly final form*

Attachment 1 – Sole Source Contract Filing Justification

Specific Problem or Need

- *What is the business need or problem that requires this contract?*
  OSPI faces significant challenges managing, integrating, and effectively analyzing education data at scale, given the volume, diversity, and complexity of data sources. Current methods for data integration—including traditional Extract-Transform-Load (ETL) processes—are time-consuming, resource-intensive, and require substantial technical expertise. These factors limit OSPI's ability to rapidly deliver actionable insights, timely analytics, and efficient decision-making tools to stakeholders including educators, administrators, and policymakers.

  The Proof of Concept is intended to demonstrate a transformative capability to efficiently integrate, analyze, and visualize both state-reportable and non-reportable education data without extensive coding or significant technical staff intervention.
  The unique approach offered by MIDAS Education's Data Forge platform and its AI assistant, Artisan, resolves these challenges by:
    - Eliminating the complexity of traditional data integration methods through a no-code platform that enables users to easily ingest, connect, and analyze disparate data sources in their native formats.
    - Facilitating rapid data integration and accessibility through automation and intuitive, point-and-click tools, enabling staff without deep technical expertise to independently manipulate and analyze data.
    - Providing timely, actionable insights through AI-driven analytics that proactively identify trends, anomalies, and opportunities for educational improvement.
    - Ensuring rigorous data security and privacy compliance through automated, dynamic, role-based data access controls.

Without this Proof of Concept, OSPI would remain reliant on traditional, slower, more costly data practices, limiting the ability to rapidly leverage data to inform strategic educational improvements at both state and district levels.

Sole Source Criteria

- *Describe the unique features, qualifications, abilities or expertise of the contractor proposed for this sole source contract.*

  MIDAS Education presents a set of distinctive capabilities specifically designed for educational data integration and analysis, which OSPI intends to evaluate and validate through this Proof of Concept. MIDAS claims the following unique capabilities and qualifications:
  - Secure AI-Enhanced Data Analysis (Artisan): MIDAS asserts that its AI assistant, Artisan, can securely provide advanced data analysis without directly loading sensitive educational data into large language models (LLMs), thus ensuring enhanced data privacy and accuracy.
  - No-Code Data Integration (Data Forge): MIDAS's Data Forge platform reportedly enables non-technical users to integrate and relate multiple diverse educational datasets quickly and intuitively, eliminating traditional, resource-intensive Extract-Transform-Load (ETL) processes and the associated high demand on specialized IT resources.
  - Granular and Automated Role-Based Security: MIDAS claims their platform dynamically and automatically manages data access permissions, adjusting roles based on organizational changes, thereby maintaining compliance with educational privacy laws such as FERPA and reducing the administrative burden associated with manual permissions management.
  - Real-Time, Large-Scale Data Management: MIDAS proposes that Data Forge can ingest, relate, and analyze large, diverse datasets rapidly and efficiently, facilitating real-time or near-real-time analytical insights that are critical for timely educational decision-making at the state and local levels.
  - Integration of State and Local Educational Data: MIDAS indicates that their platform can seamlessly integrate state-level (e.g., CEDARS) and local district-level data sources, allowing users to derive comprehensive, contextualized insights.
  - Specific Educational Expertise and Proven State-Level Experience: MIDAS offers specific expertise in education-focused solutions and claims significant experience managing successful enterprise-scale data initiatives within Washington State.

  Through this Proof of Concept, OSPI intends to rigorously evaluate and verify these vendor claims. The unique combination of capabilities described by MIDAS represents a specialized and integrated offering that OSPI has not identified as available through

other providers, making MIDAS uniquely suited to demonstrate these claims through this engagement.

- *What kind of market research did the agency conduct to conclude that alternative sources were inappropriate or unavailable? Provide a narrative description of the agency's due diligence in determining the basis for the sole source contract, including methods used by the agency to conduct a review of available sources such as researching trade publications, industry newsletters and the internet; contacting similar service providers; and reviewing statewide pricing trends and/or agreements.*

  OSPI's evaluated current market offerings through vendor demonstrations, product evaluations, discussions with educational technology specialists, and internal reviews of existing data analytic tools available in the market. Specifically:

  - Internal Evaluations and Vendor Demonstrations: OSPI's data and technology leadership teams have reviewed and participated in demonstrations of multiple analytics and data integration platforms commonly available in the education and broader technology markets.

  - Comparative Analysis of Capabilities: Based on these assessments, OSPI determined that MIDAS Education's Data Forge Artisan platform claims a unique combination of secure AI-driven analytics, no-code integration capability, automated role-based security, and scalable, real-time data management features specifically tailored to K-12 education data needs. OSPI has not identified another vendor offering an equivalent integrated suite of capabilities that directly aligns with OSPI's technical and operational requirements.

  - Educational Sector-Specific Needs: OSPI conducted informal market research by consulting educational technology leaders and other state education agencies through forums and professional networks. This research confirmed that educational-sector-specific solutions offering the combination of features claimed by MIDAS, particularly secure AI analytics without direct exposure of sensitive student data and comprehensive no-code data integration at scale, are currently limited or unavailable from other known vendors.

- *As part of the market research, include a list of statewide contracts review and/or businesses contacted, date of contact, method of contact (telephone, mail, e-mail, other), and documentation demonstrating an explanation of why those businesses could not or would not, under any circumstances, perform the contract; or an explanation of why the agency has determined that no businesses other than the prospective contractor can perform the contract.*

  OSPI reviewed contracts on the statewide list, specifically in the Analytics service category under Cloud Solutions for Washington. Contracts reviewed included CDW Government, CenturyLink, Insight Public Sector, SHI, and Quest.

OSPI also engaged with education leaders both in Washington and nationally to assess available solutions for AI-driven education data integration and analytics. Through these discussions and contract reviews, OSPI found that while various products exist for data visualization, analytics, or reporting, no other vendor offers the specific combination of capabilities claimed by MIDAS Education.

- *Per the Supplier Diversity Policy, DES-090-06: was this purchase included in the agency's forecasted needs report?*
  No.

- *Describe what targeted industry outreach was completed to locate small and/or veteran-owned businesses to meet the agency's need.*
  Given OSPI's determination (as outlined in the next question) that the services required for this Proof of Concept could not be reasonably unbundled due to the critical interdependencies among its core functions, the agency concluded that the integrated nature, specialized technical requirements, and scope of the project inherently limited practical opportunities for participation by smaller or specialized businesses.

  However, the chosen Contractor's WEBS profile indicates they are a majority woman-owned business.

- *What considerations were given to unbundling the goods and/or services in this contract, which would provide opportunities for Washington small, diverse, and/or veteran-owned businesses. Provide a summary of your agency's unbundling analysis for this contract.*
  OSPI evaluated whether the scope of work for this Proof of Concept could reasonably be divided into smaller components to create opportunities for small, diverse, and veteran-owned businesses. However, the essential value of the proposed solution depends significantly on the seamless integration of multiple complex capabilities, including secure AI analytics, no-code data interoperability, dynamic security management, and real-time scalability.

  Breaking this integrated solution into smaller, separate components would not be practical, as it would disrupt the critical interdependencies among these functionalities. Such fragmentation would negatively impact the solution's effectiveness, significantly reduce data privacy and security assurances, increase overall complexity, and potentially lead to higher costs and decreased operational efficiency. Thus, unbundling was determined to be neither practical nor beneficial in this specific context.

  Additionally, the proposed Contractor's WEBS profile indicates they are a majority woman-owned business.

- *Provide a detailed and compelling description that includes quantification of the costs and risks mitigated by contracting with this contractor (i.e. learning curve, follow-up nature).*
  If the vendor claims are validated, contracting with MIDAS Education mitigates costs and risks in several critical areas:

  Reduced Data Integration & Management Costs:
  - Elimination of Traditional ETL Costs: Data Forge's no-code integration capabilities eliminate the need for traditional Extract, Transform, Load (ETL) processes, typically involving substantial engineering resources and costs. Based on OSPI's historical experience, traditional ETL processes for a statewide educational data project routinely exceed $250,000 annually in dedicated staffing, contractor expenses, and associated infrastructure costs.
  - Accelerated Data Onboarding: MIDAS's claimed capability for rapid, automated data ingestion substantially reduces manual labor typically associated with data preparation, cleaning, and integration. This acceleration potentially reduces onboarding timelines by several months, saving approximately $100,000 or more annually in staff hours and contracted labor.

  Increased Efficiency & Reduced Analysis Time:
  - AI-Driven Insights & Automation: MIDAS's Artisan AI assistant proposes automating complex data analysis, significantly reducing analyst time spent on routine manual data querying and reporting. OSPI anticipates potential savings of approximately 0.5 FTE of analytical staff effort annually, valued conservatively at approximately $60,000 or more per year.
  - Reduced IT Dependency for Ad Hoc Reporting: Currently, OSPI analysts rely heavily on IT and data teams for ad hoc reporting and specialized data extracts. MIDAS's no-code platform could reduce ad hoc reporting turnaround time from days to hours, potentially reclaiming hundreds of analyst and IT staff hours annually, with an estimated savings of at least $50,000 annually.

  Lower Training & Support Costs:
  - No-Code Usability: The intuitive, AI-assisted interface of MIDAS significantly lowers the required investment in user training and onboarding. OSPI estimates that this reduced training complexity could decrease staff onboarding and training expenses by approximately $20,000 annually, based on previous training engagements.
  - Reduced Ongoing IT Support: MIDAS's easy-to-use, no-code platform empowers users to independently access and analyze data without continuous IT support intervention, thereby substantially reducing ongoing operational support costs. OSPI anticipates this could result in savings of at least $30,000 annually from reduced helpdesk and IT team interventions.

- *Is the agency proposing this sole source contract because of special circumstances such as confidential investigations, copyright restrictions, etc.? If so, please describe.*
  No.

- *Is the agency proposing this sole source contract because of unavoidable, critical time delays or issues that prevented the agency from completing this acquisition using a competitive process? If so, please describe. For example, if time constraints are applicable, identify when the agency was on notice of the need for the goods and/or service, the entity that imposed the constraints, explain the authority of that entity to impose them, and provide the timelines within which work must be accomplished.*
  No.

- *What are the consequences of not having this sole source filing approved? Describe in detail the impact to the agency and to services it provides if this sole source filing is not approved.*
  If this sole source filing is not approved, there will be negative consequences for OSPI, impacting its ability to improve data accessibility, streamline analytics, and support informed decision-making across the education sector. Specific consequences include:
    - Delayed Modernization of OSPI's Data Capabilities: Without this Proof of Concept, OSPI would be unable to evaluate MIDAS's claims of seamless, no-code data integration and AI-enhanced analytics. This delay would prolong OSPI's reliance on inefficient, labor-intensive data management and reporting methods.

    - Missed Opportunity to Improve District and Statewide Data Access: OSPI aims to assess whether MIDAS's Data Forge Artisan platform can enable districts and schools to access and analyze data with minimal IT support. If this Proof of Concept is not conducted, OSPI would lose the opportunity to determine whether this technology could bridge the gap between data availability and actionable insights for educators and administrators.

    - Increased Costs and Resource Strain on IT and Data Teams: OSPI's current approach to data integration and analysis requires extensive IT and data engineering support. Without testing the MIDAS solution, OSPI will continue to face high operational costs associated with data extraction, transformation, and manual reporting, potentially costing the agency hundreds of thousands of dollars annually in staff time and contractor fees.

    - Reduced Ability to Meet Legislative Mandates and Strategic Goals: OSPI is responsible for providing robust data insights under mandates such as RCW 28A.230.215 (High School and Beyond Plans) or RCW 28A.655.210. If this Proof of Concept is not conducted, OSPI may face potential delays in improvements in data-driven decision-making at the district and state levels.

- Loss of Potential Data Security and Privacy Enhancements: MIDAS claims to offer dynamic, role-based access controls that automatically adjust based on user roles, ensuring compliance with data privacy laws such as FERPA. If this filing is not approved, OSPI will not have the opportunity to evaluate whether this automated security model could improve existing data access governance and reduce the risk of unauthorized data exposure.

Reasonableness of Cost

- *Since competition was not used as the means for procurement, how did the agency conclude that the costs, fees, or rates negotiated are fair and reasonable? Please make a comparison with comparable contracts, use the results of a market survey, or employ some other appropriate means calculated to make such a determination.*
  - Comparison to Traditional Data Integration and Analytics Costs: Historically, OSPI and similar agencies have relied on traditional data integration models requiring extensive Extract-Transform-Load (ETL) processes, dedicated data engineering staff, and high-maintenance analytical tools. These efforts often require substantial contractor resources, with costs frequently exceeding $500,000 per year in staffing, training, and software licensing. MIDAS's no-code approach eliminates many of these costs, reducing the need for expensive ETL development and IT support.

  - ETL Reduction: Eliminating traditional ETL processes and reducing data engineering reliance could save OSPI at least $150,000–$200,000 annually in operational costs.

  - Faster Data Access & Insights: AI-driven automation and no-code integration reduce the time spent generating reports and insights, saving significant staff hours valued at $50,000–$75,000 annually.

  - Lower Training & Support Costs: MIDAS's user-friendly, no-code platform minimizes the need for extensive training and IT support, reducing expected training costs by $20,000+ per year.

Attachment 2 – Proposed Draft Sole Source Contract

See next page

CONTRACT FOR SERVICES
Contract No. 20250657

between

SUPERINTENDENT OF PUBLIC INSTRUCTION,
STATE OF WASHINGTON
(hereinafter referred to as Superintendent/OSPI)
Old Capitol Building, PO Box 47200
Olympia, WA 98504-7200

and

MIDAS EDUCATION, LLC
(hereinafter referred to as Contractor)
1423 N. 121st Street
Wauwatosa, WI 53226

Employer Identification #47-5569666
Unified Business Identifier #604-676-014

In consideration of the promises and conditions contained herein, Superintendent and Contractor do mutually agree as follows:

I. DUTIES OF THE CONTRACTOR

I.A. **General Objective.** The general objective of this Contract are as follows:

Conduct a Proof of Concept (POC) demonstrating the capabilities of MIDAS Education's Data Forge Artisan platform, an advanced AI-enhanced data analysis and visualization solution designed specifically for educational settings.

I.B. **Scope of Work.** In order to accomplish the general objective of this Contract, Contractor shall perform the duties outlined in outlined in Attachment B – Proof of Concept Proposal, to the satisfaction of the OSPI Contract Manager.

I.C. **Deliverables.** The Contractor shall provide the deliverables by the dates indicated in Attachment B – Proof of Concept Proposal, by June 30, 2025.

I.D. **Accessibility and Brand Compliance.** All documents, videos, audio records, presentations, or other deliverables required under this Contract shall be produced in format, compliant with the Americans With Disabilities Act and follow the Web Content Accessibility Guidelines (WCAG) 2.0, OSPI's formatting standard specified in Attachment C – OSPI Americans with Disabilities Act Compliance: Graphics and Colors, OSPI's Brand Use Policy, and OSPI's Style Guide, which are hereby incorporated by this reference. In the event that the deliverables are not compliant, OSPI may require Contractor to promptly make modifications that will make the deliverables compliant. Additionally, OSPI shall have the right to modify or copy the deliverables in order to make them accessible and/or compliant.

I.E. **Data Compliance.** OSPI agrees to share student data necessary to accomplish the Scope of Work and Deliverables. Prior to any transfer of data from OSPI to the Contractor, Contractor shall comply with a subsequent Data Sharing Agreement which will set parameters for data use, and identify authorized users who must sign a Statement of Confidentiality and Non-Disclosure.

I.F. **Technology Compliance.** In the event the Contractor has access to OSPI's building, equipment, data, or network, Contractor shall comply with the following policies:

- Contractor shall complete the IT Security Training within ten (10) business days after the contract is effective. OSPI will grant the Contractor access to the Learning Center and assign the course.
- Contractor shall comply with OSPI's Technology Acceptable Use Policy. A signed copy of the policy shall be submitted to the OSPI Contract Manager within ten (10) business days after the contract is effective.
- Contractor shall comply with OSPI's Email Retention Basics and training video. A signed copy of the Email Retention Certificate shall be submitted to the OSPI Contract Manager within ten (10) business days after the contract is effective.
- Contractor shall comply with OSPI's Student Data Confidentiality Policy and Data and Information Handling and Disposal Policy. A signed copy of the policies shall be submitted to the OSPI Contract Manager within ten (10) business days after the contract is effective. Contractor shall also sign and return Statement of Confidentiality and Non-Disclosure, and Certification of Data Destruction, as applicable.

II. PERIOD OF PERFORMANCE

Contractor shall not commence performance, or be entitled to compensation or reimbursement for any services rendered, prior to the occurrence of each of the following conditions: (1) This Contract must be executed by a representative of the Contractor and the Superintendent; (2) Provisions of Chapter 39.26 RCW require the Agency to file this sole source Contract with the Department of Enterprise Services (DES) for approval; no Contract so filed is effective nor shall work commence under it until the fifteenth (15th) working day following the date of filing, subject to DES approval. In the event DES fails to approve the Contract, the Contract shall be null and void; and, (3) Contract Manager must confirm the occurrence of conditions number one (1) and two (2) and notify the Contractor to commence performance.

The schedule of performance of Contractor's duties is as follows subject, however, to the three (3) prior conditions to commencement of performance set forth immediately above:

April 28, 2025, date of approval by DES, or date of execution, whichever is later, through June 30, 2025.

III. INVOICING & PAYMENT

III.A.1. **Compensation Amount.** In consideration of Contractor's satisfactory performance of the duties set forth herein, Superintendent shall compensate Contractor in an amount not to exceed a total of four hundred, forty thousand dollars ($440,000). Payment for satisfactory performance shall not exceed this amount unless the parties mutually agree to a higher amount prior to the commencement of any work, which will cause the maximum payment to be increased.

III.A.2. All expenses necessary to the Contractor's performance of this Contract not specifically mentioned in the Contract shall be borne in full by the Contractor.

III.A.3. **Funding Source**. Funds for the payment of this Contract are provided by state dollars.

III.B.1. **Billing Procedure.** Payment shall be made to the Contractor as follows:

One-time payment is based upon the successful completion of contract duties and an invoice submitted to the OSPI Contract Manager. The invoice will be paid only after approval by the OSPI Contract Manager and Agency Financial Services, OSPI.

III.B.2. **Invoice Requirements.** The invoice shall document to the OSPI Contract Manager's satisfaction a description of the work performed and payment requested. Within approximately thirty (30) calendar days of the OSPI Contract Manager receiving and approving the invoice, payment will be mailed or electronically transferred to the Contractor by Agency Financial Services, OSPI.

The invoice must be emailed to the OSPI Contract Manager and shall include:

- OSPI Contract number
- Contractor name, address, telephone number, and email address for billing issues if someone other than the Contractor's Contract Manager
- Contractor's Federal Tax Identification Number
- Contractor's Statewide Vendor Number
- Description of Services and Deliverables provided
- Date(s) of Service, if applicable
- Invoice amount for each Service or Deliverable, including applicable taxes

Contractor's invoices for payment shall reflect accurate Contract prices. Invoices will not be processed for payment until receipt of a complete invoice as specified herein. OSPI shall have no obligation to pay Contractor for any services that do not comply with this Contract.

III.B.3. **Errors.** If errors are found in the submitted invoice or supporting documents, the OSPI Contract Manager will notify the Contractor. In order to receive payment, it shall be the responsibility of the Contractor to make corrections in a timely manner, resubmit the invoice and/or supporting documentation as requested, and notify the OSPI Contract Manager.

III.B.4. **Final payment.** Final payment shall be made after acceptance by the OSPI Contract Manager if received by within sixty (60) days after the Contract expiration date, unless negotiated with the OSPI Contract Manager and the Fiscal Budget Analyst. There will be no obligation to pay any claims that are submitted sixty-one (61) or more calendar days after the expiration date ("Belated Claims"). Belated Claims will be paid at OSPI's sole discretion, and any such potential payment is contingent upon the availability of funds.

IV. CONTRACT MANAGEMENT

The following shall be the contact person for all communications and billings regarding the performance of this contract. Any changes to this information shall be communicated to the other party in writing as soon as reasonably possible.

Contractor	**OSPI**
Intentionally left blank	Intentionally left blank

V. INCORPORATION OF ATTACHMENTS AND ORDER OF PRECEDENCE

Each of the attachments listed below is by this reference hereby incorporated into this Contract. In the event of an inconsistency in this Contract, the inconsistency shall be resolved by giving precedence in the following order:

- Applicable Federal and state of Washington statutes and regulations
- Special Terms and Conditions as contained in this basic contract instrument
- Attachment A – Contract for Services, General Terms and Conditions
- Attachment B – Proof of Concept Proposal
- Attachment C – OSPI Americans with Disabilities Act Compliance: Graphics and Colors
- Any other provision, term or material incorporated herein by reference or otherwise incorporated.

VI. APPROVAL

This Contract shall be subject to the written approval of the Superintendent's authorized representative and shall not be binding until so approved. The Contract may be altered, amended, or waived only by a written amendment executed by both parties.

We the undersigned agree to the terms of the foregoing Contract.

MIDAS Education, LLC	Superintendent of Public Instruction State of Washington
Signature	Kyla L. Moore, Contracts Administrator
Printed Name	Date
Title	
Date	
Who certifies that he/she is the Contractor identified herein, OR a person duly qualified and authorized to bind the Contractor so identified to the foregoing Agreement.	Approved as to FORM ONLY by the Assistant Attorney General

Attachment A
Contract for Services
GENERAL TERMS AND CONDITIONS,

Definitions. As used throughout this Contract and General Terms and Conditions, the following terms shall have the meaning set forth below:

"Contract" or **"Agreement"** means the entire written agreement between OSPI and the Contractor, including any attachments, exhibits, documents, or materials incorporated by reference. Contract and Agreement may be used interchangeably.

"Contractor" shall mean that firm, provider, organization, individual, or other entity performing service(s) under this Contract, and shall include all employees of the Contractor.

"Services" means all work performed or provided by Contractor pursuant to this Contract.

"Statement of Work" or **"SOW" or "Scope of Work"** means a detailed description of the work activities the Contractor is required to perform under the terms and conditions of this Contract, including the deliverables and timeline.

"Subcontractor" shall mean one not in the employment of the Contractor, who is performing all or part of those services under this Contract under a separate contract with the Contractor. The terms " Subcontractor" and " Subcontractors" means Subcontractor(s) in any tier.

"Superintendent" shall mean the Office of Superintendent of Public Instruction (OSPI) of the State of Washington, any division, section, office, unit or other entity of the Superintendent, or any of the officers or other officials lawfully representing the Superintendent. Superintendent and OSPI may be used interchangeably.

1. **Access to Data.** In compliance with Chapter 39.26 RCW, the Contractor shall provide access to data generated under this Contract to the Superintendent, the Joint Legislative Audit and Review Committee, and the State Auditor at no additional cost. This includes access to all information that supports the findings, conclusions, and recommendations of the Contractor's reports, including computer models and methodology for those models.

2. **Alterations and Amendments.** This Contract may be amended only by mutual agreement of the parties. Such amendments shall not be binding unless they are in writing and signed by personnel authorized to bind each of the parties.

3. **Americans with Disabilities Act (ADA) of 1990, Public Law 101-336, also referred to as the "ADA" 28 CFR Part 35.** The Contractor must comply with the ADA, which provides comprehensive civil rights protection to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications.

4. **Assignment.** Neither this Contract, nor any claim arising under this Contract, shall be transferred or assigned by the Contractor without prior written consent of the Superintendent.

5. **Assurances.** The Superintendent and the Contractor agree that all activity pursuant to this Contract will be in accordance with all applicable current federal, state and local laws, rules and regulations.

6. **Attorney's Fees.** In the event of litigation or other action brought to enforce contract terms, each party agrees to bear its own attorney's fees and costs.

7. **Audit Requirements.** If the Contractor is a Subrecipient of federal awards as defined by the Office of Management and Budget (OMB) CFR, Part 200, Subpart F, and expends seven hundred and fifty thousand dollars ($750,000) or more in federal awards (does not apply to contracts for goods and services) from all federal sources in any fiscal year beginning on or after December 26, 2014, the Contractor shall procure at their expense a single or program-specific audit for that year. The Contractor shall incorporate OMB CFR, Part 200, Subpart F audit requirements into all contracts between the Contractor and its Subcontractors who are Subrecipients of federal awards. The Contractor shall comply with any future amendments to OMB and any successor or replacement Circular or regulation.

8. **Budget Revisions.** Any monetary amount budgeted by the terms of this Contract for various activities and line-item objects of expenditure may be revised without prior written approval of Superintendent, so long as the revision is no more than ten percent (10%) of the original line item amount and the increase in an amount is offset by a decrease in one or more other amounts equal to or greater than the increase. All other budget revisions exceeding ten percent (10%) shall only be made with the prior written approval of the Superintendent.

9. **Certification Regarding Debarment, Suspension, and Ineligibility.** The Contractor certifies that neither it nor its principals are debarred, suspended, proposed for debarment, or voluntarily excluded from participation in transactions by any federal department or agency. The Contractor further certifies that they will ensure that potential subcontractors or any of their principals are not debarred, suspended, proposed for debarment, or voluntarily excluded from participation in covered transactions by any federal department or agency. "Covered transactions" include procurement contracts for goods that are expected to equal or exceed twenty-five thousand dollars ($25,000). Contractor may do so by obtaining a certification statement from the potential subcontractor or subrecipient or by checking online at the System for Award Management (SAM), Excluded Parties List. The Contractor shall immediately notify the Superintendent if, during the term of this contract, Contractor becomes debarred. The Superintendent may immediately terminate this Contract by providing Contractor written notice if Contractor becomes debarred during the term of this Contract.

   The Contractor also certifies that neither it nor its principals are debarred, suspended, or proposed for debarment from participation in transactions by any state department or agency. The Contractor further certifies that they will ensure that potential subcontractors or any of their principals are not debarred, suspended, or proposed for debarment from participation in covered transactions by any state department or agency.

10. **Certification Regarding Lobbying.** The Contractor certifies that Federal-appropriated funds will not be used to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress or an employee of a member of Congress in obtaining any Federal contract, grant or any other award covered by 31 USC 1352. Contractor must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Contractor shall require its subcontractors to certify compliance with this provision.

11. **Certification Regarding Wage Violations.** The Contractor certifies that within three (3) years prior to the date of execution of this Contract, Contractor has not been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of RCW chapters 49.46, 49.48, or 49.52.

    The Contractor further certifies that it will remain in compliance with these requirements during the term of this Contract. Contractor will immediately notify the Superintendent of any finding of a willful violation entered by the Washington Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction entered during the term of this Contract.

12. **Change in Status.** In the event of substantive change in the legal status, organizational structure, or fiscal reporting responsibility of the Contractor, Contractor agrees to notify the Superintendent of the change. Contractor shall provide notice as soon as practicable, but no later than thirty (30) days after such a change takes effect.

13. **Confidentiality.** The Contractor acknowledges that all of the data, material and information which originates from this Contract, and any student assessment data, material and information which will come into its possession in connection with performance under this Contract, consists of confidential data owned by the Superintendent or confidential personally identifiable data subject to the federal Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) or other privacy laws, and that the data must be secured and protected from unauthorized disclosure by the Contractor. The Contractor is wholly responsible for compliance with FERPA requirements.

    The Contractor, therefore, agrees to hold all such material and information in strictest confidence, not to make use thereof other than for the performance of this Contract, to release it only to authorized employees and agents requiring such information and not release or disclose it to any other party. The Contractor agrees to release such information or material only to employees and agents who have signed a written agreement expressly prohibiting disclosure or usages not specifically authorized by this Contract.

14. **Copyright Provisions.** Unless otherwise provided, all Materials produced under this Contract shall be considered "works for hire" as defined by the U.S. Copyright Act and copyright shall be owned by the Superintendent. The Superintendent shall be considered the author of such Materials. If Materials are not considered “works for hire”, Contractor hereby irrevocably assigns all right, title, and interest in Materials, including all intellectual property rights, to the Superintendent effective from the moment of creation of such Materials.

    Materials means all items in any format and includes, but is not limited to, data, reports, documents, pamphlets, advertisements, books, magazines, surveys, studies, computer programs, films, tapes, and/or sound reproductions. Copyright ownership includes the right to patent, register and the ability to transfer these rights.

    Contractor understands that, except where otherwise agreed to in writing or approved by the Superintendent or designee, all original works of authorship produced under this Contract shall carry a Creative Commons Attribution License, version 4.0 or later.

All Materials the Contractor has adapted from others' existing openly licensed resources must be licensed with the least restrictive open license possible that is not in conflict with existing licenses.

For Materials that are delivered under the Contract, but that incorporate pre-existing materials not produced under the Contract, Contractor will license the materials to allow others to translate, reproduce, distribute, prepare derivative works, publicly perform, and publicly display. If the Contractor would like to limit these pre-existing portions of the work to non-commercial use, the Creative Commons Attribution-NonCommercial (preferred) or Creative Commons Attribution-NonCommercial-ShareAlike licenses, version 4.0 or later, are acceptable for these specific sections.

The Contractor warrants and represents that Contractor has all rights and permissions, including intellectual property rights, moral rights and rights of publicity, necessary to apply such a license.

The Contractor shall exert all reasonable effort to advise the Superintendent, at the time of delivery of data furnished under this Contract, of all known or potential invasions of privacy contained therein and of any portion of such document which was not produced in the performance of this Contract. The Superintendent shall receive prompt written notice of each notice or claim of infringement received by the Contractor with respect to any data delivered under this Contract. The Superintendent shall have the right to modify or remove any restrictive markings placed upon the data by the Contractor.

15. **Covenant Against Contingent Fees.** The Contractor warrants that no person or selling agent has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established agent maintained by the Contractor for the purpose of securing business. The Superintendent shall have the right, in the event of breach of this clause by the Contractor, to annul this Contract without liability or, in its discretion, to deduct from the contract price or consideration or recover by other means the full amount of such commission, percentage, brokerage or contingent fees.

16. **Disputes.** In the event that a dispute arises under this Contract, it shall be determined by a Dispute Board in the following manner: (1) The Superintendent shall appoint a member to the Dispute Board; (2) the Contractor shall appoint a member to the Dispute Board; (3) the Superintendent and the Contractor shall jointly appoint a member to the Dispute Board; (4) the Dispute Board shall evaluate the dispute and make a determination of the dispute; and, the determination of the Dispute Board shall be final and binding on the parties hereto.

    As alternatives to the above Dispute Board process: (1) if the dispute is between two or more state agencies, any one of the agencies may request intervention by the Governor, as provided by 43.17.330 RCW, in which event the Governor's process shall control; and, (2) if the dispute is between a non-state agency and another state agency or non-state agency party to this Contract, all the disputing parties may mutually agree to mediation prior to submitting the dispute to a Dispute Board in the event the dispute is not resolved pursuant to mediation within an agreed-upon time period.

17. **Duplicate Payment.** The Superintendent shall not pay the Contractor, if the Contractor has charged or will charge the state of Washington or any other party under any other contract or agreement, for the same services or expenses.

18. **Electronic signature.** Any signature page delivered via fax machine or electronic image scan, receipt acknowledged in each case, shall be binding to the same extent as an original, wet ink signature page. Any Party who delivers such a signature page agrees to later deliver an original counterpart to any Party which requests it.

19. **Entire Agreement.** This Contract contains all the terms and conditions agreed upon by the parties. No other understandings, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or to bind any of the parties hereto.

20. **Ethical Conduct.** Neither the Contractor nor any employee or agent of the Contractor shall participate in the performance of any duty or service in whole or part under this Contract in violation of, or in a manner that violates any provision of the Ethics in Public Service law at Chapter 42.52 RCW, RCW 42.17A.550, RCW 42.17A.555, and 41.06.250 prohibiting the use of public resources for political purposes.

    Contractor represents and warrants that it complies fully with all applicable procurement ethics restrictions including, but not limited to, restrictions against Contractor providing gifts or anything of economic value, directly or indirectly, to the Superintendent's employees.

21. **Governing Law and Venue.** This Contract shall be construed and interpreted in accordance with the laws of the State of Washington and the venue of any action brought hereunder shall be in Superior Court for Thurston County.

22. **Indemnification.** To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the Superintendent and all officials, agents, and employees of the Superintendent, from and against all claims for injuries or death arising out of or resulting from the performance of this Contract. "Claim" as used in this Contract, means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorney's fees, attributable for bodily injury, sickness, disease, or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Additionally, "claims" shall include but not be limited to, assertions that the use or transfer of any software, book, document, report, film, tape or sound reproduction or material of any kind, delivered hereunder, constitutes an infringement of any copyright, patent, trademark, trade name, or otherwise results in an unfair trade practice or in unlawful restraint of competition. Contractor's obligation to indemnify, defend and hold harmless includes any claim by Contractor's agents, employees, representatives, or any subcontractor or its employees.

    Contractor expressly agrees to indemnify, defend, and hold harmless the Superintendent for any and all claims, costs, charges, penalties, demands, losses, liabilities, damages, judgments, or fines out of or incident to Contractor's or subcontractor's performance or failure to perform the Contract. Contractor's obligation to indemnify, defend, or hold harmless the Superintendent shall not be eliminated or reduced by any actual or alleged concurrent negligence by Superintendent or its agents, employees, or officials.

    Contractor waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless Superintendent and its agents, employees, or officials.

23. **Independent Capacity of the Contractor.** The parties intend that an independent Contractor relationship will be created by this Contract. The Contractor and his/her employees or agents performing under this Contract are not employees or agents of the Superintendent. The Contractor will not hold himself/herself out as nor claim to be an officer or employee of the

Superintendent or of the state of Washington by reason hereof, nor will the Contractor make any claim or right, privilege, or benefit which would accrue to such employee under law. Conduct and control of the work will be solely with the Contractor.

24. Insurance.

a. **Worker's Compensation Coverage.** The Contractor shall at all times comply with all applicable worker's compensation, occupational disease, and occupational health and safety laws, statutes, and regulations to the fullest extent applicable. This requirement includes the purchase of industrial insurance coverage for the Contractor's employees, as may now hereafter be required of an "employer" as defined in Title 51 RCW. Such worker's compensation and occupational disease requirements shall include coverage for all employees of the Contractor, and for all employees of any subcontract retained by the Contractor, suffering bodily injury (including death) by accident or disease, which arises out of or in connection with the performance of this Contract. Satisfaction of these requirements shall include, but shall not be limited to:

1) Full participation in any required governmental occupational injury and/or disease insurance program, to the extent participation in such a program is mandatory in any jurisdiction;

2) Purchase worker's compensation and occupational disease insurance benefits to employees in full compliance with all applicable laws, statutes, and regulations, but only to the extent such coverage is not provided under mandatory governmental program in "a" above, and/or;

3) Maintenance of a legally permitted and governmentally approved program of self-insurance for worker's compensation and occupational disease.

Except to the extent prohibited by law, the program of the Contractor's compliance with worker's compensation and occupational disease laws, statutes, and regulations in 1), 2), and 3) above shall provide for a full waiver of rights of subrogation against the Superintendent, its directors, officers, and employees.

If the Contractor, or any subcontractor retained by the Contractor, fails to effect and maintain a program of compliance with applicable worker's compensation and occupational disease laws, statutes, and regulations and the Superintendent incurs fines or is required by law to provide benefits to such employees, to obtain coverage for such employees, the Contractor will indemnify the Superintendent for such fines, payment of benefits to Contractor or subcontractor employees or their heirs or legal representatives, and/or the cost of effecting coverage on behalf of such employees. Any amount owed the Superintendent by the Contractor pursuant to the indemnity may be deducted from any payments owed by the Superintendent to the Contractor for the performance of this Contract.

b. **Automobile Insurance.** In the event that services delivered pursuant to this Contract involve the use of vehicles, owned or operated by the Contractor, automobile liability insurance shall be required. The minimum limit for automobile liability is:

$1,000,000 per accident or occurrence, using a Combined Single Limit for bodily injury and property damage.

c. **Business Automobile Insurance.** In the event that services performed under this Contract involve the use of vehicles or the transportation of clients, automobile liability insurance shall be required. If Contractor-owned personal vehicles are used, a Business Automobile policy covering a minimum Code 2 "owned autos only" must be secured. If the Contractor's employees' vehicles are used, the Contractor must also include under the Business Automobile policy Code 9, coverage for "non-owned autos." The minimum limits for automobile liability is:

$1,000,000 per accident or occurrence, using a Combined Single Limit for bodily injury and property damage.

d. **Public Liability Insurance/General Liability.** The Contractor shall at all times during the term of this Contract, at its cost and expense, carry and maintain general public liability insurance, including contractual liability, against claims for bodily injury, personal injury, death, or property damage occurring or arising out of services provided under this Contract. This insurance shall cover such claims as may be caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or servants. The limits of liability insurance, which may be increased from time to time as deemed necessary by the Superintendent, with the approval of the Contractor (which shall not be unreasonably withheld), shall not be less than as follows:

Each Occurrence	$1,000,000
General Aggregate Limits (other than products-completed operations)	$2,000,000
Products-Completed Operations Limit	$2,000,000
Personal and Advertising Injury Limit	$1,000,000
Fire Damage Limit (any one fire)	$ 50,000
Medical Expense Limit (any one person)	$ 5,000

e. **Additional Insured.** The State of Washington, Office of Superintendent of Public Instruction, shall be specifically named as an additional insured on all policies except for liability insurance on privately-owned vehicles, and all policies shall be primary to any other valid and collectible insurance. The Superintendent may waive this requirement at its discretion. Policies and certificates of insurance shall include the contract reference number.

f. **Proof of Insurance.** Certificates and or evidence satisfactory to the Superintendent confirming the existence, terms and conditions of all insurance required above shall be delivered to the Superintendent within five (5) days of the Contractor's receipt of Authorization to Proceed.

g. **General Insurance Requirements.** Contractor shall, at all times during the term of the Contract and at its cost and expense, buy and maintain insurance of the types and amounts listed above. Failure to buy and maintain the required insurance may result in the termination of the Contract at the Superintendent's option. By requiring insurance herein, Superintendent does not represent that coverage and limits will be adequate to protect Contractor and such coverage and limits shall not limit Contractor's liability under the indemnities and reimbursements granted to the Superintendent in this Contract.

Contractor shall include all subcontractors as insureds under all required insurance policies, or shall furnish proof of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Contractor's liability or responsibility.

25. Licensing and Accreditation Standards. The Contractor shall comply with all applicable local, state, and federal licensing, accreditation and registration requirements/standards, necessary to the performance of this Contract.

26. Limitation of Authority. Only the Superintendent or the Superintendent's delegate by writing (delegation to be made prior to action) shall have the express, implied, or apparent authority to alter, amend, modify, or waive any clause or condition of this Contract. Furthermore, any alteration, amendment, modification, or waiver or any clause or condition of this Contract is not effective or binding unless made in writing and signed by the Superintendent.

27. Nondiscrimination.

a. **Nondiscrimination Requirement.** During the term of this Contract, the Contractor, including any subcontractor, shall comply with all the federal and state nondiscrimination laws, regulations and policies, which are otherwise applicable to the Superintendent. Accordingly, on the bases enumerated at RCW 49.60.530(3), no person shall, on the ground of sex, race, creed, religion, color, national origin, marital status, families with children, age, veteran or military status, sexual orientation, gender expression, gender identity, disability, or the use of a trained dog guide or service animal, be unlawfully excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any activity performed by the Contractor and its agents under this Contract. In addition, Contractor, including any subcontractor, shall give written notice of this nondiscrimination requirement to any labor organizations with which Contractor, or subcontractor, has a collective bargaining or other agreement.

b. **Obligation to Cooperate.** Contractor, including any subcontractor, shall cooperate and comply with any Washington state agency investigation regarding any allegation that Contractor, including any subcontractor, has engaged in discrimination prohibited by this Contract pursuant to RCW 49.60.530(3).

c. **Default.** Notwithstanding any provision to the contrary, the Superintendent may suspend Contractor, including any subcontractor, upon notice of a failure to participate and cooperate with any state agency investigation into alleged discrimination prohibited by this Contract, pursuant to RCW 49.60.530(3). Any such suspension will remain in place until Superintendent receives notification that Contractor, including any subcontractor, is cooperating with the investigating state agency. In the event Contractor, or subcontractor, is determined to have engaged in discrimination identified at RCW 49.60.530(3), the Superintendent may terminate this Contract in whole or in part, and Contractor, subcontractor, or both, may be referred for debarment as provided in RCW 39.26.200. Contractor or subcontractor may be given a reasonable time in which to cure this noncompliance, including implementing conditions consistent with any court-ordered injunctive relief or settlement agreement.

d. **Remedies for Breach.** Notwithstanding any provision to the contrary, in the event of Contract termination or suspension for engaging in discrimination, Contractor, subcontractor, or both, shall be liable for contract damages as authorized by law including, but not limited to, any cost difference between the original contract and the replacement or cover contract and all administrative costs directly related to the replacement contract, which damages are distinct from any penalties imposed under Chapter 49.60, RCW. The Superintendent shall have the right to deduct from any monies due to Contractor or subcontractor, or that thereafter become due, an amount for damages Contractor or subcontractor will owe the Superintendent for default under this provision.

28. Overpayments. Contractor shall refund to Superintendent the full amount of any overpayment under this Contract within thirty (30) calendar days of written notice. If Contractor fails to make a prompt refund, Superintendent may charge Contractor one percent (1%) per month on the amount due until paid in full.

29. Payments. No payments in advance or in anticipation of services or supplies to be provided under this Contract shall be made by the Superintendent. All payments to the Contractor are conditioned upon (1) Contractor's submission of a properly executed and supported invoice for payment, including such supporting documentation of performance and supporting documentation of costs incurred or paid, or both as is otherwise provided for in the body of this Contract, and (2) Acceptance and certification by the OSPI Contract Manager or designee of satisfactory performance by the Contractor.

Except as otherwise provided in this Contract, (1) All approvable invoices for payment due to the Contractor shall be paid within thirty (30) calendar days of their submission by the Contractor and acceptance and certification by the OSPI Contract Manager or designee, and (2) All expenses necessary to the Contractor's performance of this Contract not specifically mentioned in the Contract shall be borne in full by the Contractor.

30. Public Disclosure. Contractor acknowledges that the Superintendent is subject to the Washington State Public Records Act, Chapter 42.56 RCW, and that this Contract shall be a public record as defined in RCW 42.56. Any specific information that is claimed by the Contractor to be confidential or proprietary must be clearly identified as such by the Contractor. To the extent consistent with chapter 42.56 RCW, the Superintendent shall maintain the confidentiality of all such information marked confidential or proprietary. If a request is made to view the Contractor's information, the Superintendent will notify the Contractor of the request and the date that such records will be released to the requester unless Contractor obtains a court order enjoining that disclosure. If the Contractor fails to obtain the court order enjoining disclosure, the Superintendent will release the requested information on the date specified.

31. Publicity. The Contractor agrees to submit to the Superintendent all advertising and publicity matters relating to this Contract which in the Superintendent's judgment, Superintendent's name can be implied or is specifically mentioned. The Contractor agrees not to publish or use such advertising and publicity matters without the prior written consent of the Superintendent.

32. Registration with Department of Revenue. The Contractor shall complete registration with the Department of Revenue and be responsible for payment of all taxes due on payments made under this Contract.

33. **Records Maintenance.** The Contractor shall maintain all books, records, documents, data and other evidence relating to this Contract and performance of the services described herein, including but not limited to accounting procedures and practices which sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this Contract. Contractor shall retain such records for a period of six years following the date of final payment. At no additional cost, these records, including materials generated under the Contract, shall be subject at all reasonable times to inspection, review or audit by the Superintendent, personnel duly authorized by the Superintendent, the Office of the State Auditor, and federal and state officials so authorized by law, regulation or agreement.

    If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

34. **Right of Inspection.** The Contractor shall provide right of access to its facilities to the Superintendent or any of its officers at all reasonable times, in order to monitor and evaluate performance, compliance, and/or quality assurance under this Contract on behalf of the Superintendent. All inspections and evaluations shall be performed in such a manner that will not unduly interfere with the Contractor's business or work hereunder.

35. **Severability.** The provisions of this Contract are intended to be severable. If any term or provision is illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of the Contract.

36. **Site Security.** While on Superintendent premises, Contractor, its agents, employees, or subcontractors shall conform in all respects with physical, fire or other security policies or regulations.

37. **Subcontracting.** Neither the Contractor nor any subcontractor shall enter into subcontracts for any of the work contemplated under this Contract without obtaining prior written approval of the Superintendent. Contractor is responsible to ensure that all terms, conditions, assurances and certifications set forth in this Contract are included in any and all Subcontracts. In no event shall the existence of the subcontract operate to release or reduce liability of the Contractor to the Superintendent for any breach in the performance of the Contractor's duties. This clause does not include contracts of employment between the Contractor and personnel assigned to work under this Contract.

    If, at any time during the progress of the work, the Superintendent determines in its sole judgment that any subcontractor is incompetent, the Superintendent shall notify the Contractor, and the Contractor shall take immediate steps to terminate the subcontractor's involvement in the work. The rejection or approval by the Superintendent of any subcontractor or the termination of a subcontractor shall not relieve the Contractor of any of its responsibilities under the Contract, nor be the basis for additional charges to the Superintendent.

38. **Subcontractor Payment Reporting.** If a subcontractor is used to is perform all or part of the services under this Contract under a separate contract with the Contractor, this Contract is subject to compliance tracking using the State's business diversity management system, Access Equity (B2Gnow). The Contractor and all Subcontractors shall report and confirm receipt of payments made to the Contractor and each Subcontractor through the Access

Equity system. User guides and documentation related to Contractor and Subcontractor access to and use of Access Equity are provided by the Office of Minority and Women's Business Enterprises in the Access Equity Help Center. The Superintendent reserves the right to withhold payments from the Contractor for non-compliance with this section. For purposes of this section, Subcontractor means any subcontractor working on the Contract, at any tier and regardless of status as certified woman and/or minority business (WMBE) or Non-WMBE. The Contractor shall:

a. Register and enter all required Subcontractor information into Access Equity no later than fifteen (15) days after the Superintendent creates the Contract Record.

b. Complete the required user training (two (2) one- (1-) hour online sessions) no later than twenty (20) days after the Superintendent creates the Contract Record.

c. Report the amount and date of all payments (i) received from the Superintendent, and (ii) paid to Subcontractors, no later than thirty (30) days, issuance of each payment made by the Superintendent to the Contractor, unless otherwise specified in writing by the Superintendent, except that the Contractor shall mark as "Final" and report the final Subcontractor payments) into Access Equity no later than thirty (30) days after the final payment is due the Subcontractor(s) under the Contract, with all payment information entered no later than sixty (60) days after end of fiscal year.

d. Monitor contract payments and respond promptly to any requests or instructions from the Superintendent or system-generated messages to check or provide information in Access Equity.

e. Coordinate with Subcontractors, or Superintendent, when necessary, to resolve promptly any discrepancies between reported and received payments.

f. Require each Subcontractor to: (i) register in Access Equity and complete the required user training; (ii) verify the amount and date of receipt of each payment from the Contractor or a higher tier Subcontractor, if applicable, through Access Equity; (iii) report payments made to any lower tier Subcontractors, if any, in the same manner as specified herein; (iv) respond promptly to any requests or instructions from the Contractor or system-generated messages to check or provide information in Access Equity; and (v) coordinate with Contractor, or Superintendent when necessary, to resolve promptly any discrepancies between reported and received payments.

39. Taxes. All payments accrued on account of payroll taxes, unemployment contributions, any other taxes, insurance or other expenses for the Contractor or its staff shall be the sole responsibility of the Contractor.

40. Technology Security Requirements. The security requirements in this document reflect the applicable requirements of Standard 141.10 of the Office of the Chief Information Officer (OCIO) for the state of Washington, which by this reference are incorporated into this agreement.

The Contractor acknowledges it is required to comply with WaTech OCIO IT Security Policy 141 and OCIO IT Security Standard 141.10, Securing Information Technology Assets. OCIO IT Security Standard 141.10, Securing Information Technology Assets, applies to all Superintendent assets stored as part of a service, application, data, system, portal, module, components or plug-in product(s) that are secured as defined by the WaTech OCIO's IT

Security Policy 141 and OCIO IT Security Standard 141.10, Securing Information Technology Assets.

As part of OCIO IT Security Standard 141.10, a design review checklist and/or other action may be required. These activities will be managed and coordinated between Superintendent and the Contractor. Any related costs to performing these activities shall be at the expense of the Contractor. Any such activities and resulting checklist and/or other products must be shared with the Superintendent's Information Technology Services.

41. **Termination for Convenience.** Except as otherwise provided in this Contract, the Superintendent or Superintendent's Designee may, by ten (10) days written notice, beginning on the second day after the mailing, terminate this Contract in whole or in part. The notice shall specify the date of termination and shall be conclusively deemed to have been delivered to and received by the Contractor as of midnight the second day of mailing in the absence of proof of actual delivery to and receipt by the Contractor. If this Contract is so terminated, the Superintendent shall be liable only for payment required under the terms of the Contract for services rendered or goods delivered prior to the effective date of termination.

42. **Termination for Default**. In the event the Superintendent determines the Contractor has failed to comply with the conditions of this Contract in a timely manner, the Superintendent has the right to suspend or terminate this Contract. The Superintendent shall notify the Contractor in writing of the need to take corrective action. If corrective action is not taken within thirty (30) days, the Contract may be terminated. The Superintendent reserves the right to suspend all or part of the Contract, withhold further payments, or prohibit the Contractor from incurring additional obligations of funds during investigation of the alleged compliance breach and pending corrective action by the Contractor or a decision by the Superintendent to terminate the Contract. In the event of termination, the Contractor shall be liable for damages as authorized by law including, but not limited to, any cost difference between the original Contract and the replacement or cover Contract and all administrative costs directly related to the replacement Contract, e.g., cost of the competitive bidding, mailing, advertising and staff time. The termination shall be deemed to be a "Termination for Convenience" if it is determined that the Contractor: (1) was not in default; or (2) failure to perform was outside of his or her control, fault or negligence. The rights and remedies of the Superintendent provided in this Contract are not exclusive and are in addition to any other rights and remedies provided by law.

43. **Termination Due to Funding Limitations or Contract Renegotiation, Suspension.** In the event funding from state, federal, or other sources is withdrawn, reduced, or limited in any way after the effective date of this Contract and prior to normal completion of this Contract, with the notice specified below and without liability for damages:

    a. At Superintendent's discretion, the Superintendent may give written notice of intent to renegotiate the Contract under the revised funding conditions.

    b. At Superintendent's discretion, the Superintendent may give written notice to Contractor to suspend performance when Superintendent determines there is reasonable likelihood that the funding insufficiency may be resolved in a timeframe that would allow Contractor's performance to be resumed.

(1) During the period of suspension of performance, each party will inform the other of any conditions that may reasonably affect the potential for resumption of performance.

(2) When Superintendent determines that the funding insufficiency is resolved, it will give the Contractor written notice to resume performance, and Contractor shall resume performance.

(3) Upon the receipt of notice under b. (2), if Contractor is unable to resume performance of this Contract or if the Contractor's proposed resumption date is not acceptable to Superintendent and an acceptable date cannot be negotiated, Superintendent may terminate the Contract by giving written notice to the Contractor. The parties agree that the Contract will be terminated retroactive to the date of the notice of suspension. Superintendent shall be liable only for payment in accordance with the terms of this Contract for services rendered prior to the retroactive date of termination.

c. Superintendent may immediately terminate this Contract by providing written notice to the Contractor. The termination shall be effective on the date specified in the termination notice. Superintendent shall be liable only for payment in accordance with the terms of this Contract for services rendered prior to the effective date of termination. No penalty shall accrue to Superintendent in the event the termination option in this section is exercised.

d. For purposes of this section, "written notice" may include email.

44. Termination Procedure. Upon termination of this Contract the Superintendent, in addition to other rights provided in this Contract, may require the Contractor to deliver to the Superintendent any property specifically produced or acquired for the performance of such part of this Contract as has been terminated. The provisions of the "Treatment of Assets" clause shall apply in such property transfer.

The Superintendent shall pay to the Contractor the agreed upon price, if separately stated, for completed work and services accepted by the Superintendent and the amount agreed upon by the Contractor and the Superintendent for (a) completed work and services for which no separate price is stated, (b) partially completed work and services, (c) other property or services which are accepted by the Superintendent, and (d) the protection and preservation of the property, unless the termination is for default, in which case the Superintendent shall determine the extent of the liability. Failure to agree with such determination shall be a dispute within the meaning of the "Disputes" clause for this Contract. The Superintendent may withhold from any amounts due to the Contractor such sum as the Superintendent determines to be necessary to protect the Superintendent against potential loss or liability.

The rights and remedies of the Superintendent provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law under this Contract.

After receipt of a notice of termination, and except as otherwise directed by the Superintendent, the Contractor shall:

a. Stop work under this Contract on the date and to the extent specified, in the notice.

b. Place no further orders or subcontractors for materials, services or facilities except as may be necessary for completion of such portion of the work under the Contract that is not terminated;

c. Assign to the Superintendent, in the manner, at the times, and to the extent directed by the Superintendent, all rights, title, and interest of the Contractor under the orders and subcontracts in which case the Superintendent has the right, at its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

d. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Superintendent to the extent the Superintendent may require, which approval or ratification shall be final for all the purposes of this clause;

e. Transfer title to the Superintendent and deliver, in the manner, at the times and to the extent as directed by the Superintendent, any property which, if the Contract had been completed, would have been required to be furnished to the Superintendent;

f. Complete performance of such part of the work not terminated by the Superintendent; and

g. Take such action as may be necessary, or as the Superintendent may direct, for the protection and preservation of the property related to this Contract which, in is in the possession of the Contractor and in which the Superintendent has or may acquire an interest.

45. Treatment of Assets. Except as otherwise provided for in the Contract, the ownership and title to all real property and all personal property purchased by the Contractor in the course of performing this Contract with moneys paid by the Superintendent shall vest in the Superintendent, except for supplies consumed in performing this Contract. The Contractor shall (1) maintain a current inventory of all the real and personal property; (2) label all the property “State of Washington, Superintendent of Public Instruction”; and, (3) surrender property and title to the Superintendent without charge prior to settlement upon completion, termination or cancellation of this Contract.

Any property of the Superintendent furnished to the Contractor shall, unless otherwise provided herein, or approved by the Superintendent, be used only for the performance of the Contract.

The Contractor shall be responsible for any loss or damage to property of the Superintendent which results from the negligence of the Contractor which results from the failure on the part of the Contractor to maintain and administer that property in accordance with sound management practices.

If any property is lost, destroyed, or damaged, the Contractor shall notify the Superintendent and take all reasonable steps to protect the property from further damage.

All reference to the Contractor under this clause shall include Contractor's employees, agents and subcontractors.

46. Waiver. A failure by either party to exercise its rights under this Agreement shall not preclude that party from subsequent exercise of such rights and shall not constitute a waiver of any other rights under this agreement. Waiver of any default or breach shall not be deemed to be a waiver of any subsequent default or breach. Any waiver shall not be construed to be a modification of the terms of this Agreement unless stated to be such in writing and signed by personnel authorized to bind each of the parties.

WASHINGTON OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION (OSPI)

AI-ENHANCED DATA ANALYSIS & VISUALIZATION

PROOF OF CONCEPT PROPOSAL

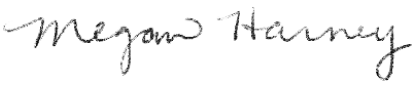
February 24, 2025

Revised March 17, 2025

Table of Contents

I. Company Information and Background

A. Company Information

Company Name	MIDAS Education, LLC
Address (registered)	1423 N. 121st Street, Wauwatosa, WI 53226
Address (mailing)	954 Dove Tail Lane NW, Bainbridge Island, WA 98110
Phone Number	1-877-932-9622
Email Address	inquiries@midaseducation.com
Tax ID #	47-5569666
UBI #	604-676-014
Authorized Signature	 Megan Harney, CEO

B. Company Origin, Philosophy, and Mission

MIDAS Education was established to build competency-based learning solutions. While building learning platforms, the current management team realized that while educators wanted to improve teaching and learning, doing so was nearly impossible without timely, usable data. So the company developed several new products to assist school districts, state agencies, and other educational entities in making data actionable and in enhancing data literacy. All of MIDAS's products are hosted in the Amazon Web Services (AWS) Cloud, which facilitates secure, scalable delivery of our solutions.

MIDAS's Data Forge platform is the first no-code solution to seamlessly connect an unlimited number of disparate data sources without a data warehouse and without requiring costly, time intensive extract-transform-load (ETL) processes. This, coupled with its ability to implement granular security and permissions controls, means that not only can the Data Forge platform replace traditional data warehouses and statewide longitudinal data systems (SLDS); rather, Data Forge can go much further, combining data from state agencies, school districts, early childhood centers, after-school providers, recreation departments, juvenile justice systems, foster care systems, postsecondary institutions, and workforce.

MIDAS is on a mission to help our customers to create truly global P-20 data stores and leverage them to deliver mission critical outcomes, customized by role. We will know we have succeeded when every person in the educational ecosystem can access information in real time to know what is working, what is not, and what to do to help the children in his/her charge.

C. Company Organization and Officers

MIDAS Education is a limited liability company, with membership of the company officers, employees, and investors. MIDAS Education is a women's business entity (WBE).

Chief Executive Officer (CEO), **Megan Harney, Ed.M.,** established MIDAS Education in 2007. She has more than 15 years of experience developing innovative business and technology solutions. She earned her A.B., *cum laude*, and Ed.M. in Technology, Innovation, and Education from Harvard University and developed her passion for improving learning systems while teaching.

Chief Operating Officer **Patrick Leonard** has nearly 40 years of industry experience (sales, marketing, and strategy). Pat is a former English teacher (18 years) and has been an education technology executive for the past 17 years, serving as a VP of Sales, VP of Business Development, Regional Manager for 20 states ($32.4m), and a strategic consultant in the K-12 industry.

Chief Technology Officer **Dr. Jason Brown** has more than 37 years of experience developing cutting-edge technologies for K-12 and higher education. He has served as the Director of Educational Technology at Duquesne University, Senior Software Engineer and Architect at Apple, Pearson, and Parchment as well as CTO at MIND Research Institute. Jason received his B.A. in Computer Science and Math, a Master of Science, and a doctorate in Instructional Technology from Duquesne University.

Chief Strategy Officer **Brent Husson** is an entrepreneur and the president of Nevada Succeeds, a non-profit that develops and implements policies to support systemic reform. Brent serves on a variety of state committees and has played a critical role in building several businesses.

II. MIDAS's Data Forge Platform

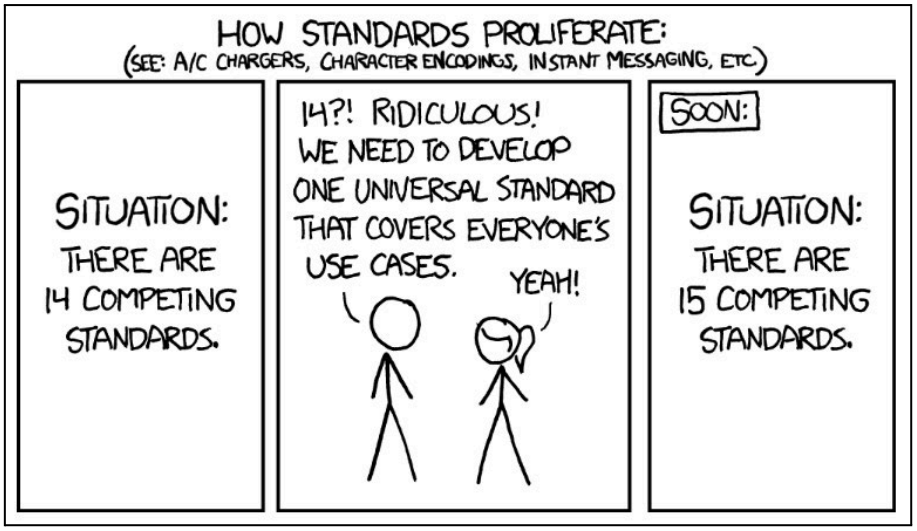
A. An Alternative To Current Data Interoperability Approaches

MIDAS developed Data Forge in response to a significant problem with current approaches to data interoperability among ed tech customers and solution providers. To achieve almost any meaningful educational outcome, data must be accessible and usable, and too often, it is not. The industry–meaning commercial companies but also their customers (school districts and state agencies) and advocacy organizations like the State Educational Technology Directors Association (SETDA) and the Consortium for School Networking (CoSN)–responded by throwing its support behind efforts to create a "common standard" for data exchange.

As a result, several groups developed data-sharing specifications. These include the Schools Interoperability Framework (SIF) (1999), the Ed-Fi Data Standard (2011), and IMS Global's OneRoster (2015), among others[1].

In principle, these specifications ease exchanging data between systems, but in practice, engineers at each entity that wishes to be termed "compliant" spend countless hours formatting data for each protocol. And, once an entity achieves certification, it still must often adapt to other "flavors" of the same standard. In states that use SIF, their modified specifications are rife with "extended elements" that bastardize the original.

Commentary by the XKCD webcomic is spot-on:



[1] The Common Educational Data Standards (CEDS) (2010), which began as an initiative of the National Center for Education Statistics (NCES) is somewhat different because, while it establishes a common language for educational data elements and also provides possible models, it doesn't also provide a testing harness and certify solutions as the others do.

Staying compliant with not just one but potentially many competing standards and their different versions is an effort that has literally bankrupted ed tech companies. After years of working with these interoperability standards and experiencing their shortcomings firsthand, MIDAS concluded that there must be a better way and that it was not to create yet another standard.

Data Forge takes a different approach to interoperability. It accepts data in any format it is available. If a dataset needs to be shaped in a specific way, that can be done by selecting and renaming attributes, defining order, matching structure, etc. after it has been ingested and without writing code. Data Forge's core ability to filter data on the way out means that the data sent can be granularly controlled. We have been told by a district customer that they were unable to share a subset of their data (e.g., one school) via OneRoster; they had to share the entire district's data or none of it. With Data Forge, this is not true.

One might compare our approach to shaping data to translation services offered by the United Nations or European Union; member states deliver speeches in their native language, and translators produce and publish documentation in a variety of official languages. But, as we'll discuss shortly, Data Forge does this in a repeatable, scalable manner.

While it is not the focus of this proposal for a proof of concept, the ability to accept data in any format and shape it for use in various outcomes is incredibly powerful, and it is the reason MIDAS is able to reliably deliver on projects.

Many educational data projects are stymied before they even begin by the inability to get data because it is not properly shaped. For example, a state may have to collect data from numerous districts that use different student information systems, as they have attempted to do in Utah. The Utah legislature has allocated more than $23m to this effort via the Utah Schools Information Management System (USIMS), and according to legislators, state board of education employees, and district personnel, the end result has fallen far short of expectations. The same is true of nearly every other initiative to build a state longitudinal data system (SLDS), including efforts in California, Wyoming, and Oregon.

Data Forge's innovation means that MIDAS and our customers no longer need to rely upon any of the data interoperability standards to share data. But allegiance to one standard or another is pervasive and not worth opposing. If an entity wants to send or receive data using SIF, Ed-Fi, OneRoster, or any other data specification, Data Forge will oblige.

We'll turn now to exactly *how* Data Forge works.

B. No Need for Transformation

Data Forge is unique in its capabilities to seamlessly integrate an unlimited number of disparate data sources. It is a no-code platform that allows users to quickly and easily assemble their related data into a data suite (a collection of data sources but not a data warehouse) for purposes of querying, filtering, visualizing, and now, applying artificial intelligence. A user can also apply permissions and grant data access to other users.

We said earlier that this process obviates the need for costly, time intensive extract-transform-load (ETL) processes. While our approach to data integration mirrors a more modern ELT (extract-load-transform) approach, it goes further in that while ELT simply moves the transformation step from second to third, Data Forge does away with the need for transformation all together. It simplifies ETL or ELT into just EL.

This is not to say that transformation is never desirable; sometimes, it is. It can be useful to normalize data, reformat it, rearrange it, or aggregate it for optimal performance. And it's important to recognize that there is more than one type of data processing that can rightly be called "transformation." In this case, we are talking about "transformation" to mean, very specifically, *relating* disparate data–transforming it from a raw, unstructured, or semi-structured state into a structured one that can be used for data analysis. We'll discuss other types of data processing that can also be termed "transformation" a little later.

Traditionally, relating disparate data involves these steps:

1. **Data Modeling** – This involves designing schemas or relationships between datasets to create a logical structure that makes analysis easier.

2. **Data Harmonization** – The process of aligning data from different sources to a consistent format, making it comparable and combinable.

3. **Data Integration** – Combining data from various sources to create unified datasets for analysis.

4. **Data Wrangling (or Data Munging)** – The process of cleaning and structuring raw data into a usable format.

5. **Semantic Layering** – Adding a semantic layer that defines business rules and relationships, making data easier to query.

While MIDAS can and, on occasion, still does carry out these operations, having built Data Forge means we do not *need* to.

Each of these steps requires engineering talent, and each step presents challenges. Data harmonization and wrangling are often time intensive (and therefore costly) operations, and data

integration, often accomplished through SQL joins, adds significant complexity. This is particularly true when combining multiple multidimensional data sources. The combinatorics creates very large data very quickly, often with unnecessary duplication wherein one must then account for uniqueness in any counting operation.

By removing the constraints of this traditional approach, Data Forge's defining feature is its *speed* to solution. An organization with reasonably well curated data can expect to load 30 or more data sources (files, data from a REST endpoint, data stored in a Google Sheet or Amazon S3, etc.), connect them, and begin generating outcomes in a single day. Using ETL or ELT, this could easily take months.

C. Relating the Data

So, how *does* Data Forge relate disparate data without following this traditional approach?

Building a data suite begins by loading data into document storage (AWS DynamoDb) in its native format. NoSQL is advantageous because it maintains flexibility and scales more easily when dealing with immense datasets. Modern ELT approaches have adopted this paradigm for the same reasons.

Even so, while ELT models also load and store unstructured data, saving time up front, in most cases, they still require transformation in the data warehouse/lake prior to analysis. Data Forge does not do this.

Instead, when users build data suites, they describe how the disparate data are related to each other

Turning what normally requires some technical knowhow into a point-and-click operation means that now, folks who are not especially technical–they're not the people ssh'ing into remote servers nor do

they have opinions about the virtues of composite versus multiple single-column indexes–can accomplish the same thing as those who write SQL joins for a living. Knowing a little about the structure of the data sources one wishes to connect is helpful but also not required. If the end user does not know how the data are related, Data Forge's "auto configure" operation will attempt to relate the data without the end user's input. [redacted]

[redacted]

Because these operations–[redacted]–happen on the fly, it facilitates dynamic exploration of one's data and the ability to drill down to very detailed views of disaggregated data (and do so quickly). This is in contrast to systems that expose only pre-rolled data. While pre-rolling data makes subsequent access faster, it limits one's ability to drill down to the underlying data since those records are no longer stored with the result; and, it requires knowing what kind of aggregation one wants in advance (and then scheduling engineering resources to design and execute on the plan).

Of course, these operations take time, and one always desires maximum responsiveness. [redacted] The first time a user performs a reduction, the operation may take anywhere from seconds to minutes; however, [redacted] and results can be consistently delivered at the speed of the user's Internet connection [redacted] So, for large datasets that must be readily available, queries can be scheduled to run as soon as the data are updated and the results stored, making them immediately available to end users.

These technologies, taken together, allow organizations to remove their dependency on IT staff to operationalize their data.

D. Moving the Data

We've discussed Data Forge's alternative to traditional ways of relating data, but the data still has to get to DynamoDb. To move the data, [redacted]

[redacted] Again, the salient feature of the Framework is its *speed* to implementation.

[redacted]

TransferAdapters are highly flexible. For example, while TransferAdapters are usually used to process machine readable data in csv, xml, or json format, we have also built Adapters to parse data from PDFs. Some student assessment data are delivered only in PDF format, so in order to make this data usable, in school districts, a human is generally tasked with transcribing data from PDFs into spreadsheets. Not only time consuming, this practice is also subject to error. Applying a [redacted] can complete this task in minutes, with 100% accuracy. It can also do so repeatedly.

Once installed, TransferAdapters can be scheduled to execute on virtually any frequency. MIDAS has Adapters that run nightly, several times per day (e.g., to pick up real-time attendance data), or only a few times per year (e.g., to collect assessment results).

Every time a TranferAdapter runs, [redacted] These steps are critical to cleaning and curating data and to ensuring data integrity.

Of course, it's not necessary to utilize the Framework to get data into DynamoDb. End users can also upload their ad hoc files directly into Data Forge via a drag-and-drop interface in their Web browser.

E. No-Code Transformation

Earlier, we said that we were using transformation specifically to refer to the process of relating disparate data but that other types of data processing might also be covered by this term. Other types of transformation we see frequently we'll refer to as "translating," "calculating," "cleaning," "appending," and "limiting."

In traditional ETL and ELT approaches, these kinds of operations require a programmer to write a script, which means 1) organizations must employ individuals with this skill set, and 2) implementing these transformations requires an entire development lifecycle, including design, development, and QA, with project managers to translate customer needs (a process subject to misinterpretation) and oversee the work. This is why MIDAS strives to accomplish these transformations with as little human intervention as possible.

1. Translating and Calculating

The translation type of transformation usually deals with making data more accessible to end users. For example, race and attendance codes can be opaque, so turning "P" into "Pacific Islander" and "UEPN" into "Unexcused Parent Note" makes the data more accessible to non data analysts when included in visualizations and reports.

The calculating type of transformation, unsurprisingly, calculates values. For example, calculations might be required to determine whether students meet important criteria, such as on-track to graduate or meeting growth targets or chronically absent.

Both translations and calculations can be accomplished using a no-code operation called a [redacted].

This is especially powerful because it enables the user to [redacted] Calculating "on-track to graduate," for example, likely requires the creation of multiple synthetic columns that are dependent on one another. One [redacted] might create a column that determines whether or not the student's grades are high enough, another (or several) to determine the credits earned in each academic year and/or subject area, another to determine attendance rate, and so on. Each of these calculated columns must exist prior to applying [redacted] that checks if the values of each of the columns, collectively, yield an "on track" or "not on track" designation.

2. Cleaning

[redacted] For example, if one knows that data was collected via a form submission, and a school name may have been typed across different survey responses as “West,” “West High,” “West HS,” “WHS,” and “West High School,” [redacted] can replace all of these values with a consistent spelling. Of course, one must know the variations used, but Data Forge can identify these, too. By creating a data suite and then visualizing the data on a dashboard, inconsistencies become glaringly obvious. The end user can then collate the values that need to be replaced [redacted]

This approach applies to all kinds of cleaning tasks–replacing values, changing formats, and so on.

It would be better, of course, to attack the problem at its root by improving data collection, providing end users a drop-down list as opposed to asking them to type their answers. And sometimes, users who care about the quality of their visualizations and analysis do just this.

Using Data Forge visualizations also reveals when records need to be fixed manually. For example, one of our customers was able to review thousands of behavior incidents easily on one dashboard and realized that a small percentage of incidents reported as occurring at one, two, and three o’clock in the morning were incorrectly entered with a.m. instead of p.m. times. The director easily identified the errant records and who had entered them and asked the teachers to make corrections.

3. Appending and Limiting

Other transformations Data Forge facilitates in a no-code fashion deal with structuring and organizing data–tasks that, at least in educational settings, would often otherwise be done by manually manipulating spreadsheets.

Schools must routinely analyze datasets that increase in size (new records of the same type are added). For example, students might take a formative assessment several times per year, and after each testing window, the assessment company delivers results in a new spreadsheet. Using Data Forge, end users can choose to [redacted] We also see this often when schools distribute templates to teachers, ask each one to fill in data for their classes, and then need to combine the sheets for analysis.

Additionally, many educational datasets are so wide as to be unwieldy. Some assessment spreadsheets number in the hundreds and even thousands of columns. These are great for psychometricians but less useful for teachers and assessment directors. Once a user uploads a file into Data Forge, the user can select which attributes are of interest to them. Limiting the data that shows up in the Data Forge interface to a few dozen columns improves usability.

4. Sometimes, You Just Need an Engineer

Occasionally, the desired data format or necessary cleansing is not achievable using [redacted], which while powerful, are still limited in that creating one is a point-and-click operation. There are some goals that still require the flexibility of being able to manipulate multidimensional arrays and apply complex business rules, data validation, and so on. They may require aggregation or many nested conditions.

In these instances, the answer is to put the logic in a [redacted] Generally, MIDAS staff members collect the requirements and write and install the necessary [redacted] but it is also possible to take a customer's script and [redacted]

F. Securing the Data

MIDAS's Data Forge platform is highly secure. All data MIDAS stores is encrypted at rest and encrypted while in-flight between the MIDAS servers and the client's Web browser. The MIDAS infrastructure is physically inaccessible from the public Internet, and all data requests pass through MIDAS's application servers.

Deployed in the Amazon Web Services (AWS) cloud, MIDAS benefits from best available technologies in load balancing, firewalls, threat detection, virtual private networks, data encryption, redundancy, scalability, and recovery. AWS controls facility security and integrity, staffing security, and power and environmental controls. AWS also ensures 24x7x365 availability of hosting services. MIDAS undergoes regular planned intrusion and penetration testing, and access logs are monitored for unusual activity. Since inception, MIDAS has never been subject to a data breach.

[redacted]

While an owner can share data with a specific user in a specific way (e.g., share only data from Lincoln Elementary School with Mrs. Smith), this is not scalable. It would be overwhelming and error prone to ask end user owners to grant data access to potentially large groups of people and to ensure that each has access to only data she or he is allowed to access, which may change if an individual changes school assignment or job role.

MIDAS's [redacted] means that data suites can be [redacted] such that individuals can access only the data with which they are associated (or legally allowed to access). The most common example of this is [redacted]

[redacted] Permission to access data is managed automatically and granted/revoked on a nightly basis when an individual's school, position, teaching assignment, or enrollment record changes. This approach ensures the highest levels of student data privacy and security.

These [redacted] operations need not be limited to a user's role or organization membership. Data may be restricted by virtually any other attribute, so long as that relationship is described in the data. For example, while it is common to restrict access to student data based on an end user's employment in a particular school building, the same mechanism can be used to restrict access based on a coaching relationship, wherein students on the team are designated in a nightly roster update. This use case demonstrates that there is nothing inherently special about a "district," "school," or "class." These are merely specific terms for generic associations. Instead of granting a teacher access to data regarding students she teaches, one might grant her access to all students in second grade because she serves on a grade level team–or to each student assigned to the "blue group" because she is part of a PLC.

In the same way, at the state level, data might be filtered based on the end user's department but also ad hoc teams.

While [redacted] is the only foolproof way to restrict access, owners can also create dashboards and filter them upon sharing with individuals or permission groups to present curated views of the data.

III. MIDAS's AI Assistant–Artisan

While there is significant excitement–and rightly so–about the capabilities of artificial intelligence (AI), there are many companies that are marketing and using AI in an any-and-everything manner. AI is the answer to many things but not everything. MIDAS has been intentional in using AI to add value, and we've determined that value is not in using AI to analyze data (as many companies and education institutions are currently attempting) [redacted]

[redacted] This approach overcomes several fundamental limitations of large language models (LLMs).

A. LLMs Don't Know About Current Events

LLMs derive their power from extensive "training"–extended exposure to vast amounts of data–followed by fine-tuning and reinforcement learning from human feedback (RLHF). This means that there is a point in time after which any LLM ceases to "know" current information. As of this writing, ChatGPT-4o was trained on data up to early 2024. Education data, however, is by and large nothing but current events. Most of it changes (or is expanded) daily, as with transactional data like enrollment, grades, attendance, behavior, and some assessment data.

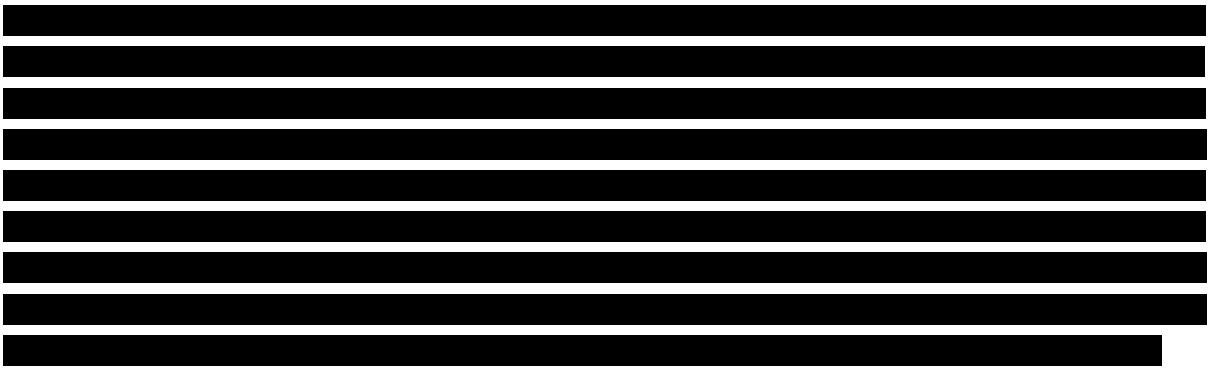
Artisan is designed to analyze highly mutable data [redacted] This usually happens nightly but in some cases more often, as with attendance data (for example, some of our customers record attendance during the 8:00 a.m. hour and refresh their data at 9:00 or 10:00 a.m. so that principals can see that day's attendance and act accordingly).

But wait! "Chat-GPT can now search the Web," you say? It *does* in fact "know" who the current president is? Oh dear. While it's true that models can now retrieve up-to-date information from the Web, there are still data privacy barriers to fetching up-to-date student information, which is not publicly available. We'll discuss that next.

B. Giving LLMs Access To Sensitive Data Is Undesirable

Some customers (superintendents and other public school personnel) have told us that they have uploaded student and staff information into ChatGPT and asked it to analyze the data. Not to put too fine a point on it, but this is a *bad* idea.

When end users create a ChatGPT account, there is no explicit student data privacy agreement; there are only ChatGPT's terms of use, which can change with little advance warning. While ChatGPT today states that it does not use customer data for training purposes, end user license agreements change all the time. Just a little over a year ago, there was significant concern because ChatGPT and other LLMs *were* using private data to train their models, and some companies' private source code and trade secrets were exposed. Now imagine those breaches dealt with student data.



We first heard the term H-AI-H, meaning human-AI-human, from Superintendent Chris Reykdal in November 2023 when he described his preferred approach to adopting AI as one that relies on human discretion rather than surrendering one's judgement to a bot. Although we had not previously heard the term, we adopted it because it perfectly describes our efforts to amplify human capabilities, not replace them.

We believe our approach prioritizes data security and privacy, but let's say you're convinced that ChatGPT (or whatever your favorite LLM) will secure your data. Even then, it would be impractical to ask the LLM to analyze your data directly because of its limited context window.

C. LLMs Are Limited By Their Context Windows

An LLM's context window is the maximum amount of text the model can consider at once when generating a response. The context window is measured in tokens. A single small word is one token. Multisyllabic words require more tokens. Different LLMs have different context window sizes, but ChatGPT-4o-mini's largest context window is 128k tokens.

Humans don't think in tokens, so some quick calculations will make this concrete.

On average, one token is about 0.75 words. This means 128k tokens represents about 96,000 words: the length of a long novel or a comprehensive research paper.

A more apt example for our purposes considers database records.

Assuming an average table size of 20 fields, predominantly int(11) and varchar(45), we might arrive at an average of 10 tokens per field (taking into account field names, delimiters, and varied lengths).

20 fields × 10 tokens = 200 tokens per record.
128,000 tokens ÷ 200 tokens/record ≈ 640 records.

So, ChatGPT-4's largest context window can consider no more than 640 raw records at a time. How many school districts in Washington have fewer than 640 students? What if one wants to transmit student records *and* their grades *and* their attendance? And what if one wants to perform a longitudinal analysis? There are LLMs with larger context windows–up to 2 million–but at this size, they become cost intensive and still have a long way to go in terms of being able to contain the number of records belonging to a single school district, much less a state[2]. When considered in these terms, one quickly sees how ChatGPT (or any LLM) is poorly adapted to actually analyze data. It's great at directing someone (or something like Artisan) to use a tool to do data analysis but not to perform the analysis itself.

Lastly, one further drawback of relying on LLMs without optimizing for planned usage is that when a model's context window is exceeded, it tends to fail silently. LLMs are designed to "forget" or push out older information to make room for new information. This is mostly okay, but if one has an extended conversation with an LLM, one might notice that a constraint provided to the model early in the conversation is no longer enforced later on. This strategy is fine in most cases, but because there is no visual or textual indication when one exceeds the context window, it is left up to the end user to realize that responses may begin to diverge from constraints provided. Or, if one were to upload data into the model for analysis, and the data were too big, the LLM would consider only a portion of it but not tell the end user that it truncated the record set. This is problematic if the user is relying on the model to provide mission-critical analysis.

D. LLMs Hallucinate

Perhaps the most commonly cited LLM misbehavior is that of "hallucination" or the tendency to make up information and assert that it is correct. To be sure, there are humorous examples of this behavior but also deeply problematic ones.

Hallucinations occur due to a combination of LLMs' probabilistic nature and the concept of temperature (or "heat") in generating answers. Because LLMs operate by predicting the next token, they must include some randomness when generating possibilities. Otherwise, responses would be extremely conservative and repetitive. Temperature is the parameter that controls the randomness of models' predictions. More heat equals more randomness and more creativity but also more hallucinations as the model becomes more willing to choose less likely tokens. Turning down the heat will decrease hallucinations but also can make responses feel mechanical.

[2] An LLM with a two million token context window could accept as input around 10,000 student records, without any ancillary data.

Data analysis is one domain in which hallucinations are generally not acceptable. When asking a question that has a numeric answer, there is one right answer, and every time one asks the same question, one expects the same response. But even at low temperatures, LLMs can hallucinate, especially when dealing with hard data. There may be gaps in the data, which can cause the LLM to make up data to answer the question. The model might mimic a pattern from a different context that is not applicable to the one at hand. Or the model might apply general knowledge to a specific case without verifying its factual accuracy.

For all of these reasons, it is best to answer factual and numeric questions directly, [redacted] this eliminates the possibility of hallucinations.

[redacted] to take advantage of advances in what is still a fast evolving technology.

E. General-Purpose LLMs Lack Specificity

The last drawback we'll discuss with regard to using a generally available LLM is that it has exposure to vast amounts of data, not all of it relevant to the analysis at hand. Without direction, an LLM might provide an unfocused response or one that conflicts with the user's organization's values.

[redacted] This allows Artisan's behavior to be tailored to each customer's unique needs.

Given our earlier discussion regarding the limitations of LLMs' context windows, one would be right to wonder how the LLM can consider a corpus of research without forgetting most of what it has been told. In this case, [redacted]

For example, many school districts are now "all in" on the science of reading. Nonetheless, there are still plenty of resources available promoting phonics. Suppose a teacher in such a district consults an AI to get recommendations regarding reading instruction and receives advice promoting instruction in phonics? We seek to avoid such contradictions. [redacted] The last thing a teacher needs is a recommendation to use a resource she can't obtain.

Regarding recommendations, we have also built Artisan to be aware of the user's persona. This means that it knows if the person asking the question is a teacher, a principal, a district administrator, and so on. It has awareness of what these positions generally entail so that

recommendations can be tailored to be maximally useful. This means a teacher will receive advice regarding instructional practices or classroom management strategies, for example, while a district administrator will receive systemic advice.

The job roles mentioned above–teacher, principal, district administrator–are not inherently special. Artisan can be fine tuned to consider the expectations of any job and use those parameters to make relevant suggestions.

While the current proof of concept proposal is focused on student data–specifically demographics, programs, enrollment, course-taking, and absences–in time, we envision that users who manage human resources; finance; transportation; diversity, equity, inclusion, and accessibility (DEIA) initiatives; special education; tribal education; and other areas will also use these tools. When they do, Artisan can be tuned to provide recommendations specific to their domains.

IV. Proof of Concept Scope of Work

A. Capabilities Demonstrated, Deliverables, and Validation

The goal of this proof of concept is to demonstrate the following capabilities.

1 - Ingest and Relate Large Datasets
2 - Shape Data With No Code ([redacted])
3 - Shape Data With Minimal Engineering ([redacted]
4 - Incorporate Ad Hoc Files
5 - Combine State and Local Data
6 - Visualize Data By Building A Dashboard
7 - Answer Analytical Questions Accurately (Artisan)
8 - Identify Trends and Anomalies for Consideration (Artisan)
9 - Draw Reasonable (and Insightful) Conclusions (Artisan)
10 - Make Role-Based Recommendations (Artisan)
11 - Enforce Data Security and Privacy

1. Ingest and Relate Large Datasets

Action

Any eventual implementation of Data Forge at scale will require the ability to ingest and analyze very large datasets. To demonstrate this capability, we will ingest CEDARS data relating to five areas:

- student demographics
- program membership
- enrollment
- course-taking
- absences

OSPI has specified that these datasets shall include all districts (295 public school districts and six state-tribal education compact schools) and all years available (2010-2025). Specific tables and fields shall be enumerated in the contract governing this proof of concept.

Execution Plan

MIDAS will ingest these datasets in their native format and relate them without writing (new) code. The selected data will be extracted (pushed) from CEDARS to an SFTP space by OSPI staff. MIDAS will use a standard SFTP [redacted] to load the data into a data suite. Since all of the data pertains to students, it will most likely be imported into a single data suite, allowing all data to be related.

However, we will ultimately create and manage two data suites–one with 1-2 years worth of data for queries concerning present performance and another with all years' data for longitudinal queries.

Massively large data suites are impractical for targeted questions that relate only to present performance because they require additional compute resources to churn through data that are irrelevant and result in longer wait times for end users.

For each data suite, MIDAS will also set up appropriate [redacted].

Deliverable

1. Two data suites consisting of the selected datasets with all data properly related and [redacted] to enhance performance.

Validation *(link to rubric)*

Entry criteria:

1. Selected data has been delivered to a MIDAS-accessible SFTP space in a machine-readable format.
2. Each dataset shares at least one common attribute with at least one other dataset (e.g., student ID, [redacted]).

Exit criteria:

1. The data suites have been created and contain the selected datasets.
2. Every dataset is related to at least one other dataset.
3. This has been accomplished using only existing MIDAS tools, including [redacted].

2. Shape Data With No Code ([redacted])

Action

Any eventual implementation of Data Forge at scale will enable non-technical staff to shape data as needed to optimize analysis. To demonstrate this capability, MIDAS will create at least one [redacted] of each type supported:

- Sum
- Average
- Percent
- [redacted]
- [redacted]
- [redacted]

Execution Plan

MIDAS will identify an appropriate use of each type of operation and will create each [redacted] MIDAS will use a list of OSPI questions to develop appropriate use cases where relevant.

Deliverable

1. The creation of [redacted], each of which will create synthetic data that is useful because it improves data accessibility, calculates a value, or indicates whether a record meets selected criteria.

Validation *(link to rubric)*

Entry criteria:

1. MIDAS has identified an appropriate use of each type of available operation.

Exit criteria:

1. [redacted] have been created, one of each type, and resulting synthetic data matches the expected output.

3. Shape Data With Minimal Engineering ([redacted])

Action

Any eventual implementation of Data Forge at scale must also be able to aggregate data beyond the operations Mixers provide. To demonstrate this capability, MIDAS will identify an appropriate use case for complex data aggregation and write and install a [redacted] to shape the data as prescribed.

Execution Plan

MIDAS will identify an appropriate data aggregation for execution using a [redacted] An ideal candidate is a past report included in OSPI's Data Portal that can be generated from the CEDARS data MIDAS is given.

MIDAS will document the calculations used to produce the selected fields, write a [redacted] install it, run it, and deliver the resultant file to a data suite. MIDAS will then create a dashboard to visualize the data.

Deliverables

1. A [redacted] that executes the identified data aggregation
2. A dashboard that visualizes the resultant data

Validation *(link to rubric)*

Entry criteria:

1. MIDAS has identified an appropriate data aggregation for execution using a [redacted]
2. MIDAS has defined the calculations used to produce the data aggregation.

Exit criteria:

1. The [redacted] has been written, installed, and run, and the aggregated data matches the report selected from OSPI's Data Portal.
2. The dashboard visualizes the data in the report.

4. Incorporate Ad Hoc Files

Action

In any eventual implementation of Data Forge at scale, end users must be able to incorporate ad hoc files for analysis without engaging an engineer. To demonstrate this capability, MIDAS and OSPI will select at least one ad hoc file from OSPI's Data Portal to incorporate into a data suite containing CEDARS data.

Execution Plan

MIDAS and OSPI will select an appropriate file from the Data Portal, and MIDAS will upload the file into the Data Suite using the Data Forge interface via a Web browser.

Note, Data Forge primarily operates on raw data, not pre-rolled or aggregated data. This is because Data Forge performs the reductions needed to analyze the data. If data is already aggregated, MIDAS cannot perform some operations. For example, if achievement scores are pre-rolled and reported by race and by ELL/non-ELL but not by nested series and the underlying student records are not available, MIDAS cannot calculate the number of ELL students in each race category.

With this understanding, MIDAS will identify one or more files at the appropriate level of granularity. If the only data available has already been aggregated in some manner–by district, for example–it can still be used to demonstrate this capability; however, the reporting entity would then be the district rather than the student.

Deliverables

1. Inclusion of at least one ad hoc file in a data suite that also contains CEDARS data.
2. Data from the selected file will be available for use when performing analysis tasks in capabilities 6-11. Once the file is incorporated into a data suite, Artisan can query, filter, and reduce the new data in relation to the other data already present and perform the same analyses.

Validation *(link to rubric)*

Entry criteria:

1. Identification of a file with the appropriate granularity and at least one common attribute with at least one other file in the target data suite.

Exit criteria:

1. The selected file has been included in a data suite containing CEDARS data and is connected to at least one other file.
2. OSPI is able to visualize and/or query the data in the selected file in capabilities 6-11.

5. Combine State and Local Data

Action

In any eventual implementation of Data Forge at scale, an end user should be able to combine state and local (e.g., district) data to enable the analysis of state-reportable and non-reportable data by authorized personnel. To demonstrate this capability, MIDAS has already obtained agreement from Marysville School District 25 (MSD25, already a MIDAS customer) to share some of their non-reportable data for inclusion in the CEDARS data suite.

Execution Plan

After a CEDARS data suite has been created, MIDAS will supply selected non-reportable data from MSD25, such as local formative assessment data, for inclusion in the data suite. The selected data will be added to the data suite via direct upload through the end user's Web browser. Once the file is uploaded, it will be related to at least one CEDARS file via a common attribute (e.g., student ID).

Deliverables

1. A test user account that can access all state data and MSD25 local data
2. A test user account that can access state-reportable and local data, but with state data limited to students enrolled in MSD25
3. A dashboard that visualizes both state and local data
4. Ability to query Artisan and receive a factual answer to a question requiring knowledge of both state and local data

Validation *(link to rubric)*

Entry criteria:

1. MIDAS has procured MSD25 non-state-reportable data that share a common attribute with CEDARS data (e.g., student ID).

Exit criteria:

1. The selected MSD25 file is included in a data suite containing CEDARS data and is connected to at least one other file.
2. OSPI is able to visualize and/or query the data in the selected file in capabilities 6-11.

6. Visualize Data By Building A Dashboard

Action

In any eventual implementation of Data Forge at scale, end users should be able to easily access standard dashboards and build custom dashboards. To demonstrate this capability, MIDAS will adapt some of our standard dashboards for demographics, enrollment, and attendance to the data available in the CEDARS files provided to us and share them with designated personnel from OSPI.

Execution Plan

Once the data has been ingested and a data suite configured, MIDAS staff will inventory available fields, matching them to fields in our standard dashboards in applicable areas. Staff will load modified versions of our standard dashboards in OSPI's instance and share them with designated personnel. MIDAS and OSPI staff will review how to access and filter the dashboards to answer questions.

Deliverables

1. A set of several dashboards (2-5) delivered by MIDAS.

Validation *(link to rubric)*

Entry criteria:

1. A data suite containing CEDARS data has been fully configured.

Exit criteria:

1. OSPI can access 2-5 dashboards built by MIDAS and understand how to filter them.

7. Answer Analytical Questions Accurately (Artisan)

Action

In any eventual implementation of Data Forge at scale, end users should be able to use Artisan to ask questions of complex datasets and receive accurate answers. To demonstrate this capability, both MIDAS and OSPI will ask questions of Artisan and validate responses using a combination of visualizations, OSPI reports, and manual calculations.

Execution Plan

In order to use Artisan, [redacted]. After MIDAS ingests the CEDARS files into a data suite, staff will [redacted].

OSPI will draft some initial questions, and MIDAS will use these to perform a first-level analysis of the data and undertake any necessary fine tuning.

OSPI will draft additional questions not shared with MIDAS until after they are asked. Answers to these questions will be assessed for their accuracy (additional deliverables may be associated with the same questions to demonstrate capabilities 8-10).

For this capability, the focus is on numerical accuracy. Subsequent capabilities address the ability to draw conclusions and offer insights.

Deliverables

1. Data suite configured for use with Artisan [redacted]
2. Fine tuning of Artisan to answer OSPI's sample questions.
3. Responses to OSPI's additional questions (generated by Artisan when asked)

Validation *(link to rubric)*

Entry criteria:

1. [redacted]
2. OSPI has provided initial questions for fine tuning.

Exit criteria:

1. Answers to analytical questions have been validated against companion visualizations.
2. Selected calculations can be verified manually, comparing results with OSPI reports and using raw data to perform calculations either by using spreadsheet functions or by writing scripts.

8. Identify Trends and Anomalies for Consideration (Artisan)

Action

In any eventual implementation of Data Forge at scale, end users should be able to rely on Artisan not just to calculate answers accurately but also to notice trends and anomalies that may suggest further investigation. For example, one would expect a sufficiently capable AI to recognize if students' grades, attendance, assessment scores, or behavior is improving or worsening as well as whether any subgroup is performing significantly better or worse than another.

To demonstrate this capability, OSPI will ask Artisan to identify disproportionalities in a variety of situations and note the responses. To fully assess this capability, OSPI should ask about known and unknown anomalies in the available data.

Execution Plan

While this capability is distinct, demonstrating it can potentially be accomplished with the same or similar questions posed in capability 7. The difference here is that the questions should be scoped to request information that requires the AI to engage in pattern recognition, which is a common type of analysis when considering educational data.

Deliverable

1. Artisan will produce numerical responses to questions about enrollment, course-taking, and absences, breaking down the responses by student subgroups. Subgroups may be based on demographic characteristics or program enrollment or some combination [redacted]. As a result of these calculations, Artisan will identify any disproportionalities.

Validation *(link to rubric)*

Entry criteria:

1. OSPI has provided questions that are anticipated to demonstrate disproportionalities across demographic or program enrollment groups.

Exit criteria:

1. Artisan has identified disproportionalities across subgroups.
2. [redacted]

9. Draw Reasonable (and Insightful) Conclusions (Artisan)

Action

In any eventual implementation of Data Forge at scale, end users should be able to rely on Artisan not just to calculate answers accurately and recognize trends and anomalies but also to draw conclusions about *why* certain trends or anomalies may exist.

To demonstrate this capability OSPI will review conclusions drawn by Artisan to previous questions and assess the fitness of Artisan's conclusions based on generally accepted educational theories. If anything more than general knowledge is desired, [redacted]

Execution Plan

OSPI will draft some initial questions, and MIDAS will use these to perform an analysis of the data.

For this capability, the focus is on the conclusions drawn from the questions, which will be evaluated by OSPI staff for their fitness.

Deliverables

1. Fine tuning of Artisan to answer OSPI's sample questions.
2. Responses to OSPI's additional questions (generated by Artisan when asked)

Validation *(link to rubric)*

Entry criteria:

1. OSPI has provided questions for fine tuning.

Exit criteria:

1. Artisan's conclusions drawn from the questions will be generally observed to be reasonable insofar as general education theory predicts.

10. Make Role-Based Recommendations (Artisan)

Action

In any eventual implementation of Data Forge at scale, Artisan should be cognizant of the persona of the end user. This means that any conclusions, insights, or recommendations should be tailored to that user's role and job function.

Teachers should generally receive observations and advice applicable to the classroom. Principals should receive observations and advice applicable to the management of their schools. District administrators should receive systemic observations and advice, and further, recommendations should relate to their area of influence, if applicable.

End users should also be able to direct Artisan to answer questions for them using another persona; for example, a principal should be able to ask a question about a specific teacher's students and ask Artisan to recommend actions that teacher can take to address any issues.

To demonstrate this capability OSPI will review next steps suggested by Artisan to previous questions and assess fitness of Artisan's next steps in the context of the user's role when the questions were posed.

Execution Plan

OSPI will draft some initial questions, and MIDAS will use these to perform an analysis of the data.

For this capability, the focus is on the next steps suggested from the questions, which will be evaluated by OSPI staff for their fitness based on the role of the individual that proposed the question.

Deliverables

1. Fine tuning of Artisan to answer OSPI's sample questions.
2. Responses to OSPI's questions (generated by Artisan when asked)

Validation *(link to rubric)*

Entry criteria:

1. OSPI has provided a list of personae to test with descriptions of job roles (other than teacher, principal, etc.).

Exit criteria:

1. Artisan's "next step" suggestions will be generally observed to be reasonable considering the role of the user asking the question.

11. Enforce Data Security and Privacy

Action

In any eventual implementation of Data Forge at scale, Data Forge must successfully partition data among users based on roles and responsibilities. For example, [redacted]

To demonstrate this capability, MIDAS will identify some division–perhaps artificial–within the data and some criteria for that division. Appropriate permission groups will be created and the data suite shared with the permission groups along with the necessary filters to enforce the required data visibility for each group of staff.

Execution Plan

MIDAS will identify a way to partition the data, perhaps by district or by school or by grade level. MIDAS will create the required permission groups and apply filters so that different staff will be presented with different views of the data within the data suite, confirmed by visualizations and interaction with Artisan.

Deliverables

1. Desired division of data identified.
2. MIDAS will create permission groups and share the data suite with those permission groups, applying the appropriate filters.
3. MIDAS will assign OSPI test staff to the appropriate permission groups.

Validation *(link to rubric)*

Entry criteria:

1. Data division has been identified, and MIDAS has created corresponding permission groups.
2. The data suite has been shared with the permission groups and filtered accordingly.
3. A dashboard has been created to demonstrate the filtering of data based on permission groups.

Exit criteria:

1. Users from each permission group can access the dashboard and view only the expected data.
2. Users from each permission group can ask the same questions of Artisan and receive answers (numeric, as well as insights and recommendations) with respect to only the data they are authorized to access.

B. Capabilities Not Demonstrated

We have attempted to thoroughly outline capabilities that we can demonstrate presently with Data Forge and Artisan. However, there are other capabilities that may occur to users that we have not yet implemented in the toolset. We note here those items that are already on our roadmap for future development but that will not be included in this proof of concept.

1. [redacted] One might expect Artisan to generate a dashboard or formatted report to present its results. It will, but it does not yet.

2. Many questions that educators might ask Artisan would be useful [redacted] We envision a teacher asking questions such as:

    a. What were my top reported behavior incidents last week, and what classroom management strategies might I adopt to address them?
    b. Which of my students are struggling the most with the current unit in math, and what resources might I use to help them?

    If individual teachers are asking these questions (or administrators are asking the questions on the teachers' behalf), [redacted]

    However, we have not yet implemented [redacted]. We will.

3. Lastly, when sharing a data suite, users sometimes wish to restrict not only the rows of data shared but also which attributes (e.g., field-level restrictions). Presently, this is not available, but we are working to implement more robust data controls. Although it requires more effort, one can presently restrict access to attributes by creating [redacted]

C. Timeline

Time is of the essence. This proof of concept will begin upon execution of a contract, ideally by April 15, 2025, and all capabilities will be demonstrated and validated no later than June 30, 2025.

D. Security

We have discussed data privacy and security at length throughout this proposal. Please refer to sections II.F. and III.B. in particular.

E. Measuring Success

The following rubric is intended to outline measurable KPIs for specific outcomes that are verifiable. We have identified performance goals and metrics necessary to consider this proof of concept a success, meaning the project demonstrates that it is feasible to use Data Forge to manage large datasets and that the capabilities that would be required for a larger, more complex implementation have been validated.

To be sure, some of the rubric items are not quantitative; there is no way to quantify whether or not recommendations or next steps are “reasonable,” so this is left to OSPI’s judgement but nonetheless important to include in any evaluative effort.

Other success indicators are subjective. For example, ease of use is largely based on one’s opinion and personal preferences. Similarly, the impact of using AI tools and whether or not their use enhances decision-making will be difficult to measure, but there are proxies. Individuals might be asked to determine whether the AI suggested something they would not have otherwise thought of. They might also be asked if their use of the tools saved them time. We did not include these on the rubric, but we strive to be collaborative in all our projects and look forward to discussing these goals with OSPI leadership.

F. Rubric

We have provided a rubric to track whether entry and exit criteria for each capability are met.

Cap #	Entry / Exit	Criteria	Yes	No
1 - Ingest and Relate Large Datasets				
1	Entry	Selected data has been delivered to a MIDAS-accessible SFTP space in a machine-readable format.		
1	Entry	Each dataset shares at least one common attribute with at least one other dataset.		
1	Exit	The data suites have been created and contain the selected datasets.		
1	Exit	Every dataset is related to at least one other dataset.		
1	Exit	This has been accomplished using only existing MIDAS tools, including [redacted].		
2 - Shape Data With No Code ([redacted])				
2	Entry	OSPI has designated at least one staff member to learn how to create a [redacted]		
2	Entry	OSPI and MIDAS have identified an appropriate use of each type of available operation.		
2	Exit	[redacted] have been created, one of each type, and resulting synthetic data matches the expected output.		
3 - Shape Data With Minimal Engineering ([redacted]				
3	Entry	OSPI has identified an appropriate data aggregation for execution using a [redacted]		
3	Entry	OSPI has defined the calculations used to produce the data aggregation.		
3	Exit	The [redacted] has been written, installed, and run, and the aggregated data matches the report selected from OSPI's Data Portal.		
3	Exit	The dashboard visualizes the data in the report.		

Cap #	Entry / Exit	Criteria	Yes	No
		4 - Incorporate Ad Hoc Files		
4	Entry	Identification of a file with the appropriate granularity and at least one common attribute with at least one other file in the target data suite.		
4	Exit	The selected file has been included in a data suite containing CEDARS data and is connected to at least one other file.		
4	Exit	OSPI is able to visualize and/or query the data in the selected file in capabilities 6-11.		
		5 - Combine State and Local Data		
5	Entry	MIDAS has procured MSD25 non-state-reportable data that share a common attribute with CEDARS data.		
5	Exit	The selected MSD25 file is included in a data suite containing CEDARS data and is connected to at least one other file.		
5	Exit	OSPI is able to visualize and/or query the data in the selected file in capabilities 6-11.		
		6 - Visualize Data By Building A Dashboard		
6	Entry	A data suite containing CEDARS data has been fully configured.		
6	Exit	OSPI can access 2-5 dashboards built by MIDAS and understand how to filter them.		
		7 - Answer Analytical Questions Accurately (Artisan)		
7	Entry	[redacted]		
7	Entry	OSPI has provided initial questions for fine tuning.		
7	Exit	Answers to analytical questions have been validated against companion visualizations.		
7	Exit	Selected calculations can be verified manually, comparing results with OSPI reports and using raw data to perform calculations either by using spreadsheet functions or by writing scripts.		
		8 - Identify Trends and Anomalies for Consideration (Artisan)		

Cap #	Entry / Exit	Criteria	Yes	No
8	Entry	OSPI has provided questions that are anticipated to demonstrate disproportionalities across demographic or program enrollment groups.		
8	Exit	Artisan has identified disproportionalities across subgroups.		
8	Exit	[redacted]		
		9 - Draw Reasonable (and Insightful) Conclusions (Artisan)		
9	Entry	OSPI has provided questions for fine tuning.		
9	Exit	Artisan's conclusions drawn from the questions will be generally observed to be reasonable insofar as general education theory predicts.		
		10 - Make Role-Based Recommendations (Artisan)		
10	Entry	OSPI has provided a list of personae to test with descriptions of job roles		
10	Exit	Artisan's "next step" suggestions will be generally observed to be reasonable considering the role of the user asking the question.		
		11 - Enforce Data Security and Privacy		
11	Entry	Data division has been identified, and MIDAS has created corresponding permission groups.		
11	Entry	The data suite has been shared with the permission groups and filtered accordingly.		
11	Entry	A dashboard has been created to demonstrate the filtering of data based on permission groups.		
11	Exit	Users from each permission group can access the dashboard and view only the expected data.		
11	Exit	Users from each permission group can ask the same questions of Artisan and receive answers (numeric, as well as insights and recommendations) with respect to only the data they are authorized to access.		

V. Cost

Total Cost: $440,000

March - April

Work Item	Cost
Provision an instance of the MIDAS platform	$180,000
- Provision EC2 instances for application and data processing tasks	
- Provision space in AWS S3 Storage for intermediate data storage	
- Provision secure FTP space for data transfer	
- Provision read/write throughput in DynamoDB for Data Suite storage	
- [redacted]	
- Provision RDS instance capacity for OSPI Application instance	
- Provision backup processes to OSPI Application Data	
- Provision application instance hostname and DNS routing	
- [redacted]	

April - May

Work Item	Cost
Set up [redacted]s) to ingest CEDARS data	$25,000
Configure two data suites–one for current and one for longitudinal data	$25,000
Configure [redacted]	$20,000
[redacted]	$25,000
Fine tune Artisan with OSPI's provided questions.	$50,000
[redacted]	$25,000

Ongoing

Work Item	Cost
Professional Development & Consulting	$90,000
- Configuring Data Suites	
- Creating [redacted]	
- Configuring Automation	
- Adding Ad Hoc Files	
- Sharing and Filtering Data Suites	
- Creating Dashboard Visualizations	
- Filtering Dashboards	
- Sharing Curated Dashboards	
- Interacting with Artisan	
- Ongoing consulting regarding expected outcomes and desired feature development	

Graphics & Colors: OSPI Americans with Disabilities Act (ADA) Compliance

Many people with low vision do not see web pages the same as others. Some see only small portions of a computer display at one time. Others cannot see text or images that are too small. Still, others can only see website content if it appears in specific colors.

For these reasons, many people with low vision use specific color and font settings when they access the Internet.

For example, some people with low vision need to use high-contrast settings, such as bold white or yellow letters on a black background. Others need just the opposite – bold black text on a white or yellow background. And, many must use softer, more subtle color combinations.

Tips for Graphic Creation that is Accessible

- Provide good contrast. Be especially careful with light shades of gray, orange, and yellow.
- Use True Text whenever possible. You can see True Text (TT) next to the font selection in most programs.
- Avoid all caps. All caps can be difficult to read and can be read incorrectly by screen readers.
- Use adequate font size. The size can vary depending on the font chosen, but 10 point is usually the minimum.
- Make sure links are recognizable.
- Differentiate links in the body of the page with underline or bold. Links should clearly tell the user where the link will take them (no "click here" links).
- Don't convey content with color alone. Users often can't distinguish or may override page colors.

Resources for Web Accessibility

- Color code finder. Upload a photo to find the different color codes.
- Color contrast checker. Enter color codes to find out which foreground and background combination is accessible.

Accessible Color Guidance

The colors below are OSPI's main brand colors and associated codes. They are displayed with text and background color in ADA compliance.

OSPI's cream and charcoal colors should be used in designs instead of white and black.

- Charcoal color code: #40403d
- Cream color code: #f7f5eb

Preferred

#40403d	#f7f5eb

Optional

#0d5761	#8cb5ab

Washington Office of Superintendent of
PUBLIC INSTRUCTION