GUIDANCE ON USING THIS MODEL RFP

The purpose of this Model RFP is to support local education agencies (LEAs), Charter Management Organizations (CMOs), Ed-Fi consortia, state education agencies (SEAs), and Regional Education Centers to develop a Request for Proposals (RFP) from vendors to implement the Ed-Fi Solution.

The content of this Model RFP is written as if it were a request from an LEA for an extensive Ed-Fi implementation. LEA users should be able to leverage much of the structure and language from this model RFP to create a reasonable proposal suitable for their project. SEAs and consortia should find the structure and language of this document useful, but may need to make more significant modifications.

All education organizations have procurement and purchasing guidelines of their own, and many have templates that must be followed, so you may want to consult your procurement office before starting any RFP.

Regarding Ed-Fi

The Ed-Fi Data Standard and Implementation Suite were designed to bring together data from Student Information Systems (SISs), assessment systems, learning and content management systems, and other operational systems such as finance, HR, and transportation to provide a more comprehensive view of your school and students. Real-time access to student data can improve decision-making related to student learning by providing an accurate, current, holistic picture of a child's progress. Ed-Fi technology components allow educators to spend less time hunting for data, and more time on curriculum, instructional design, and improving student achievement.

For more information about the Implementation Suite – including the Operational Data Store (ODS) as an "aggregation" platform and linking systems together using Application Program Interfaces (APIs), see http://www.ed-fi.org/tech-docs/.

Regarding the Development of Your Organization's RFP

As you develop your RFP, the most important thing to remember is that your ability to describe the goals for your Ed-Fi project, to gather business requirements from end users, to break down your project into specific deliverables, and to detail technical requirements is directly connected to a vendor's ability to develop a strong proposal and set an accurate price for the work.

As you read through this model RFP, consider how prepared you are to replace example descriptions with the actual description of your project and its goals. Determine how precisely you are able to detail the specifics and where you may need assistance. You may choose to contact the Ed-Fi Alliance at info@ed-fi.org or other technical partners (such as IT vendors already under contract) for assistance, or you may choose to request that the vendors responding to your RFP propose solutions and services to capture the necessary detailed requirements.

Keep in mind that the more you need to reach out to the Ed-Fi Alliance or other technical partners, the more lead time you will need to develop your RFP. Conversely, leaving critical questions to the end of your process or leaning on the responding vendors will increase the costs and introduce the possibly of uncertainty or risk that will likewise increase the cost of your project.

It is usually helpful to host a conference call or provide written answers to vendor questions generated by your RFP. Providing as much clarity as possible to vendors will strengthen their responses and assist you in narrowing and ultimately selecting the right vendor.

Regarding Customization

Connecting a standard Ed-Fi implementation to your unique source systems, populating Ed-Fi with your non-Ed-Fi-standard data elements, or extending Ed-Fi to create new Ed-Fi-based tools or applications will require customization. The level of customization will impact the costs – both in terms of development time and price – of your project. Being clear in your RFP, requiring vendors to be explicit in their proposals, and clarifying assumptions on a call or in FAQs for vendors during the RFP process will result in strong proposals and reasonable costs for your project.

Regarding Scoring Vendor Proposal Responses

Providing details – including required customizations – in your RFP will also assist in your efforts to score vendor proposals. Whether you provide project goals, project deliverables, detailed technical requirements or some combination of the three, the information you provide will become the basis for how you evaluate and quantify the strength of proposals you receive.

You may have prescriptive procurement rules related to the scoring of proposals, so be sure to use the parts of this model RFP that will send the correct signals to the vendor community, best enable you to score vendor proposals (consistent with your procurement rules), and help you select the best vendor for your project.

Tip: *Throughout this document, you'll find text in a box like this one. If you use this document as a starting template, you'll want to remove these boxed Guidance sections throughout before issuing the RFP.*

Tip: *Throughout this document, you'll see the proposal has been written from the perspective of a fictional TBD.EDU. Find-and-replace that in any text you use with your organization's name.*

Table of Contents

I. Cover Page

RFP PROJECT TITLE: TBD.EDU - Ed-Fi TBD Data Project

PURPOSE OF REQUEST FOR PROPOSAL (RFP): TBD.EDU is seeking to identify and select a vendor to assist the agency with the development and implementation of:

    a. A Student Information System that is Ed-Fi certified or that supports and conforms to the Ed-Fi data standard and Application Program Interface (API) and <LEA OR SEA NAME> data exchange requirements <published here>.

    b. An Ed-Fi Dashboard and Early Warning System

    c. An on-premises Ed-Fi Operational Data Store (ODS) and Application Program Interface (API)

    d. A hosted Ed-Fi Operational Data Store (ODS)

    e. Data integration support to a new or existing set of analytical/reporting tools

    f. Other useful, new, and forward-looking solutions that will benefit the Ed-Fi Alliance and the larger Ed-Fi community while reducing costs over time

TIMELINE

- RFP Issued: Day 1
- Vendor Q&A: Day 15
- Vendor Responses Due: Day 30
- Vendor Finalists Selected: Day 45
- References Checked
- Vendor Demonstrations: Day 60
- Vendor Selection: Day 75
- Contract Negotiation
- Contract Signed: Day 105
- Work Start Day: Day 120
- First Quarterly Check-In [*Dates and Milestones based on the Final Project Plan*]
- Second Quarterly Check-In [*Dates and Milestones based on the Final Project Plan*]
- Third Quarterly Check- In [*Dates and Milestones based on the Final Project Plan*]

- Final Delivery and Hand-off:
  - TBD.EDU intends to award a contract to a vendor in time for work to begin in the fall of School Year 1. Once requirements are gathered and production begins, TBD.EDU will work to identify a group of early adopters who will pilot the new Ed-Fi system in the spring of School Year 2, with new districts and state program offices beginning to use the system in the fall of School Year 3.

SUBMIT PROPOSALS TO TBD.EDU PROJECT LEAD NO LATER THAN 30 DAYS FROM THE RELEASE OF THIS RFP:

Ed-Fi TBD Data Project Lead
TBD.EDU
123 Capitol Street
Anytown, Texas 12345
555-123-4567
Ed-Fi-Project-Lead@tbd.edu

II. Introduction

a. Organizational Background

TBD.EDU is an independent school district in fast-growing Anytown, Texas, educating a diverse population of over 40,000 Pre-K through 12th grade students in over 80 campuses and locations. TBD.EDU is ranked among the top 10 districts in the state in academic performance and provides over 100 programs and extracurricular activities to its community of learners.

TBD.EDU believes that every child should be encouraged and supported to achieve their fullest potential. To that end, TBD.EDU uses its data systems to create a holistic picture of every child's journey through the educational experience. Data cannot tell everything about a child – but complete, timely, accurate information is a powerful tool to support student achievement.

b. Project Purpose

Currently, too many hours are spent at TBD.EDU, in classrooms, offices, and at the district headquarters, manually compiling data from different systems and producing reports focused primarily on compliance rather than supporting instructional improvement. Our data sources are not integrated and TBD.EDU is not able to put the pieces of data together in one place and in a way that enables educators and administrators to see how our students, schools, and districts are doing – and to respond in ways that improve student outcomes.

TBD.EDU seeks assistance from a vendor in the implementation of a Student Information System (SIS) that is Ed-Fi Certified (list of Ed-Fi certified SIS available here: https://techdocs.ed-fi.org/display/EDFICERT/Registry+of+Ed-Fi+Certified+Products or a SIS that technically supports and conforms to the Ed-Fi data standard, API, and <Insert State Department of Education or other agency here> requirements for data exchange, <published here>.

TBD.EDU seeks assistance from a vendor with the development and implementation of the Ed-Fi Operational Data Store (ODS), Dashboards, and Reports. We need help pulling together student data (including unique ID), performance data (including assessment results, courses, and grades), behavior data (including attendance) and postsecondary success indicators (including remediation and credit accumulation), and then reflecting these data back to support quality instruction and campus improvement processes at the

local level, as well as to support school report cards, teacher evaluation, and reporting systems at the state level.

By adopting the Ed-Fi ODS and its associated Application Program Interface (API), TBD.EDU will enable more effective data management and interoperability between systems of record. TBD.EDU intends to place the ODS at the center of its system architecture, receiving transactional data from sources such as the Student Information System (SIS), Special Education system, assessment systems, teacher licensure and class roster systems, and annual feedback reports from higher education. In turn, the ODS will supply data to multiple analytical/reporting applications, dashboards and the TBD.EDU data warehouse. In later phases, TBD.EDU anticipates incorporating additional data in the ODS, such as financial data and data from federal programs.

As part of the integration approach, TBD.EDU will require new applications to adopt the Ed-Fi Data Standard for transmitting data between disparate systems. Over time, this will simplify and standardize the process of extracting, transforming, and loading (ETL) data to and from the ODS. The Ed-Fi Data Standard represents a widely adopted and supported standard that organizes the different types of educational data at an enterprise level. TBD.EDU will begin to require its vendors to support interoperability using the Ed-Fi format, and to use the standard to share data with other educational organizations. This practice will encourage the interoperability of systems used at TBD.EDU, allowing new systems to be adopted and implemented (and older systems retired) much more quickly than is possible today.

c. Project Vision & Goals

GUIDANCE ON PROJECT VISION & GOALS SECTION

Outline the key things your organization hopes to gain from this project. It's okay to keep this section brief. A simple bullet-point list is often sufficient. This helps put some context around the detailed use cases, deliverables, and responsibilities described in the sections that follow. Include specific measures and targets wherever possible.

When complete, the solution will provide classroom teachers, counselors, campus leaders, and district staff with timely, accurate information about the students at TBD.EDU.

The solution will:

- Reduce the time teachers and counselors currently spend manually collecting information
- Provide leading indicators and early warnings to educators at all levels of TBD.EDU to understand which students may need extra help to stay on track
- Provide links between current data and long-term results (e.g., graduate preparedness for college) to ensure our organization is serving its students well

- Reduce the ongoing operational cost of developing and maintaining custom ETL jobs to link information between disparate systems by 20% annually
- Reduce the cost and risk associated with switching district applications such as the SIS

d. Solution Use Cases

GUIDANCE ON SOLUTION USE CASES

It is important to define complete and accurate use cases based on the results of your preliminary requirements gathering process. The use case examples illustrate the type of information that you should include in your RFP, but you will need to replace these example use cases with your actual use cases. For assistance developing use cases, contact the Ed-Fi Alliance at info@ed-fi.org.

SEA Use Case Example:

This Model RFC is from the LEA perspective, but SEAs often have a use-case similar to the following:

> *Ed-Fi State and Federal Reporting Use Case. School report cards and other various state and federal reports require a vast array of student level and other data – including data from higher education. The ODS will support an Ed-Fi reporting system capable of integrating and analyzing these data. An automated reporting system will allow schools and districts to review and certify student-level data before report cards are issued or before aggregated reports are submitted to EDEN/EdFacts.*

More Use Case Examples:

Some additional use-case information and excellent examples can be found in these resources from the Data Quality Campaign:
- *http://dataqualitycampaign.org/resource/infographic-ms-bullens-data-rich-year/*
- *http://dataqualitycampaign.org/resource/mr-mayas-data-rich-year/*

The following Use Cases demonstrate the TBD.EDU's vision for this project and what success will look like. These use cases will be fleshed out in the initial project planning phase.

Use Case 1. Ed-Fi Early Warning System (School Users)

An educator in TBD will be alerted when a student begins to demonstrate – through grades, tests, scores, attendance, or behavior – risk of falling behind. The educator will be able to follow up with the student, his/her parents, other teachers and the principal as appropriate with a targeted response.

Use Case 2. Incoming Student Support System (School Users)

During the summer, educators teaching in the same grade within each school district will review together the historical data for the rising students (including transfers) they will teach in the fall to discuss the students' readiness, gaps in content knowledge foundational to the new year, students showing readiness for advanced content, and attendance and behavior issues. Together the educators will begin a discussion about their incoming students that will continue throughout the school year, enabling them to best support student learning and prepare their students to advance to the next grade by the end of the upcoming school year.

Use Case 3. Roster Verification Use Case (District Users and Technical Staff)

Teacher evaluation requires that educators be matched with their students across courses and sections, reflecting student mobility and attendance, co-teaching, and other complexities. Educators and principals must be able to verify student-teacher links based on which students are enrolled in which sections. The ODS will support roster verification by supplying the necessary student, educator, and course information to the roster system, with the needed unique IDs for each data set.

e. System Context and Architecture

GUIDANCE FOR THE SYSTEM CONTEXT AND ARCHITECTURE SECTION

It is important to provide prospective respondents with a clear picture of your existing systems, and to illustrate how the new Ed-Fi components will connect. It is likely that your vendor will be able to recommend an architecture that best leverages existing systems and supports the Ed-Fi project deliverables.

These examples are not meant to suggest an ideal architecture or how the Ed-Fi deliverables should connect. You will need to replace the example below with an accurate depiction of your actual systems and processes. Accurate and precise information about your current environment in the RFP will strengthen the resulting vendor responses.

The above use cases include data from various data systems. The following diagrams represent the various sources and how TBD.EDU anticipates these systems feeding data to the Ed-Fi ODS and related outputs.

State Reporting Process

WISEdata Collections - Ed-Fi Integration Life-Cycle
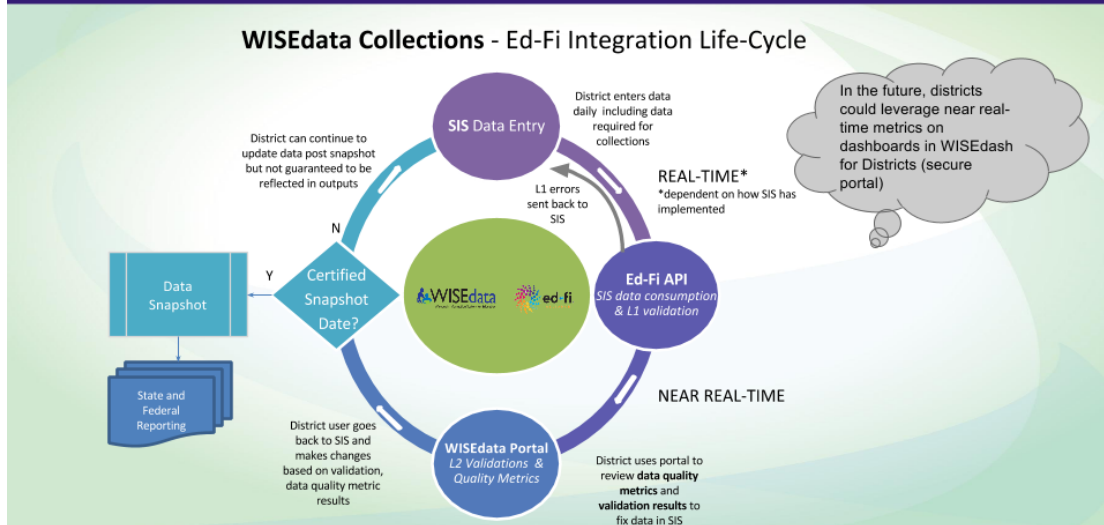
TBD.EDU systems are physically located at the TBD.EDU data center. TBD.EDU applications run on MS Windows Server 2012. TBD.EDU uses MS SQL Server 2014 for databases and .NET 4.5.2 and higher for application development.

The TBD.EDU Student Information System (SIS) receives transactional data nightly from Local Student Information Systems, relying on the Unique Student ID to connect student information. These data include student demographics, grades, attendance, discipline events, courses and sections, teachers, teacher assignment, school information, district information, etc. (see Data Dictionary in Appendix A).

The TBD.EDU Assessments System includes student performance data from state and national assessments, including ACT and College Board assessments (see Data Dictionary in Appendix B). The frequency of the data in the assessment system correspond to the state and national test windows (several times per year, including summer).

The TBD.EDU Data Warehouse includes 10 years of historical data from both the TBD.EDU SIS and Assessment System (see Data Dictionary in Appendix C).

The Higher Education data to be integrated via this project includes student records from two- and four-year in-state public institutions such as enrollment, courses, grades and GPA, credits earned, remediation, persistence, and transfers (see Data Dictionary in Appendix D). The data from higher education are imported annually every September.

III. Scope of Work

a. Deliverables

States, Districts, and the Ed-Fi Alliance all contribute solutions to the Ed-Fi Exchange that may be downloaded by other Ed-Fi Licensees. Ed-Fi Exchange contributions may take the form of extensions to the Ed-Fi Data Standard, the Ed-Fi ODS and API, and Ed-Fi Dashboards in the form of plugins. In addition, conceptual documents such as technical white papers and implementation project overviews may be contributed to assist other licensees planning to leverage Ed-Fi technology.

The goal is to make the Ed-Fi Community greater than the sum of its parts by openly sharing innovations aligned to the Ed-Fi Data Standard. To request full access to the Ed-Fi Exchange, you may Request an Account. Once the Ed-Fi Alliance has verified your status as a licensee, you will receive an e-mail with instructions to log into the site. You will then be able to view additional solution detail, download contributions and contact solution contributors.

Deliverable 1. Final Project Plan

The vendor will engage with TBD.EDU personnel to refine the requirements for the Ed-Fi TBD Data Project.

Based on the user engagement and requirements gathering process, the vendor will produce a Final Project Plan by November XX, 2016. The Final Project Plan will specifically include the following elements:

Deliverable 1.1. Data Mapping

GUIDANCE ON THE DATA MAPPING SECTION

Data Mapping is often one of the first technical and analytical steps in a data integration project. The Ed-Fi Alliance publishes a Data Mapping Template, referenced below – but your organization may already have one aligned with your systems.

Vendors often have existing Ed-Fi integrations. Even in that case, it's still wise to confirm and clarify mappings in case your local use of a system varies from the typical use.

SEA Use Case Note:

The Model RFP text below assumes the mapping will be from a software system or product to an Ed-Fi ODS / API. SEAs, however, typically map their full data collection standards/dictionaries to the Ed-Fi ODS / API instead, since that data collection is the lingua franca of that environment.

Using the Ed-Fi ODS / API v2.1 Mapping Template (https://techdocs.ed-fi.org/pages/viewpage.action?pageId=21987730), the vendor will map the needed data from the relevant TBD.EDU systems, including mapping Extended and introduced TBD.EDU data elements follow authoring guidelines

(https://techdocs.ed-fi.org/display/EFDS20/XSD+Authoring+Guidelines). The vendor will include recommendations for adjusting or improving TBD.EDU data to maximize the benefits of Ed-Fi.

The data mapping deliverable usually takes the form of a Microsoft Excel document or equivalent.

Deliverable 1.2 Solution Design & Architecture

After consulting with TBD.EDU personnel and Ed-Fi Alliance representatives, the vendor will create solution design that best utilizes the Ed-Fi technologies. The vendor will include recommendation for long-term strategic adjustments or improvements to TBD.EDU's systems architecture to maximize the benefits of Ed-Fi.

The solution design and architecture deliverable is usually a PDF document or equivalent containing a set of diagrams (e.g., Visio models) and covering text.

Deliverable 1.3. Project Plan Document

Following a requirements gathering process, the vendor will create a project plan outlining milestones with dates, responsibilities, test plan, and transition plan.

The project plan deliverable is usually a Microsoft Excel or Microsoft Project document. This document is generally a living document updated throughout the project.

Deliverable 1.4. User Acceptance Testing Plan Draft

The vendor will be responsible for creating the initial UAT plan, based on the requirements and detailed system features defined. The vendor and the TBD.EDU team will be co-responsible for updating the UAT plan document during the course of the project as requirements change.

The UAT plan is usually a Microsoft Excel or similar document containing tests, current status, estimated test dates, actual test dates, pass/fail information, and result notes.

Deliverable 2. Ed-Fi ODS / API and Related System Integration Technology

Based on the business requirements, technical requirements, architecture and project plan, the vendor will create mechanisms for transferring data from the TBD.EDU SIS and Data Warehouse to the ODS. The data domains selected for transfer should reflect the priorities of the project plan. As part of the data integration, the vendor will install the Ed-Fi ODS and API in the TBD.EDU development environment as specified in the recommended system architecture.

Deliverable 2.1. Operational Data Store (ODS)

The vendor will implement an Ed-Fi ODS to provide a secure, transactional information store that integrates data from the TBD.EDU SIS, and Data Warehouse, and other identified source systems included in the scope.

Deliverable 2.2. Application Program Interface (API)

The vendor will implement an Ed-Fi ODS API to provide a developer-friendly interface to create, read, and update information stored in an Ed-Fi powered ODS.

Deliverable 2.3. Record Matching

The vendor will develop and implement a system to link student records from higher education with student records from the TBD.EDU SIS and Data Warehouse in the Ed-Fi ODS. The vendor will also recommend the necessary processes and procedures through which the TBD.EDU and higher education will resolve unmatched student records.

Deliverable 3: End-User System and Related Data Quality Technology

Based on the business requirements, technical requirements, architecture, and project plan, the vendor will create develop the tools needed to manage end-user access, ensure data quality necessary to populate the Ed-FI Dashboards, and stand up out-of-the-box Ed-Fi Dashboards and Early Warning System with necessary TBD.EDU data model extensions.

Deliverable 3.1. Role Mapping

The vendor will map the needed end-user roles for anticipated state and local users. The vendor will include recommendations for adjusting or improving TBD.EDU defined end-user roles to maximize the benefits of Ed-Fi (within the permissible limited of TBD.EDU data use policy).

Deliverable 3.2. End User Access Management

The vendor will develop an end-user access management tool to enable TBD.EDU and districts to manage local credentials passed to the TBD.EDU SIS. By relying on local credentials passed to the TBD.EDU SIS, data security will be ensured as the termination of local access will likewise terminate access to the TBD.EDU Ed-Fi Dashboards and other components.

Deliverable 3.3. Data Quality Tool

In order to ensure reliable, high quality data for educators and state reports, the vendor will extend and leverage the TBD.EDU data validation rules engine and develop a Validation Error Report that identifies for Local School Districts validation errors in their submitted data, intended to populate the Ed-Fi ODS. Districts will be able to use the Validation Error Report to correct data issues locally, ensuring that the data moved from the TBD.EDU SIS to the Ed-Fi ODS is accurate, and as a result the data populating the dashboards and other reports will likewise be accurate.

Deliverable 3.4. Ed-Fi Dashboards

The vendor will develop Ed-Fi student performance dashboards – including the Ed-Fi Early Warning Dashboard – that puts real-time, actionable information at the fingertips of educators. The dashboards will include a user interface with metrics that end-users identified as critical to improving student achievement. With this initial development phase, only necessary TBD.EDU data model extensions and the resulting dashboard customizations will be required.

Deliverable 3.5. Report Writer/Report Upload Tool

The vendor will develop an automated uploading tool to enable TBD.EDU to populating state and federal reporting applications with data from the Ed-Fi ODS. The tool will enable TBD.EDU to validate that the upload files meet with the reporting system requirements before submitting data.

Deliverable 4: Validation and Implementation Artifacts

GUIDANCE ON VALIDATION AND IMPLEMENTATION ARTIFACTS SECTION

This section describes important criteria that ensure the vendor solution is conformant with any published Ed-Fi technology standards and methodologies.

The Ed-Fi Alliance has guidelines for certifications available on https://techdocs.ed-fi.org/display/EDFICERT/. Consider referencing those certifications if and as applicable for your project.

The vendor must subject each deliverable to the TBD.EDU acceptance process.

Deliverable 4.1. User Acceptance and Adoption Report

The vendor will demonstrate each deliverable to the advisory committee of technical, administrative and instruction professionals to ensure that each deliverable satisfies the end users requirements developed during the requirements gathering process. The vendor will ensure that the deliverables

meet the requirements of the TBD.EDU User Acceptance Testing (UAT) process, will address end-user challenges, and will support data-driven decision-making and changes to instructional practice.

Deliverable 4.2. User Training and Training Materials

As part of a pilot implementation, the vendor will develop a training curriculum for the project deliverables, meeting with up to 50 TBD.EDU personnel to train. In addition, the 50 TDB.EDU end-users will become early adopters / champions for the new system. These early adopters will provide feedback to the vendor on the deliverables as well as on the training materials. Once trained, TBD.EDU will assume responsibility for training and the maintenance of training materials.

Deliverable 4.3. Deployment to Production

Ed-Fi Solution in Production: Once the advisory committee and early adopters have tested the system the vendor will move the new Ed-Fi system into production and transition day-to-day ownership of the project to TBD.EDU personnel.

Production code will be checked in to the TBD.EDU source control repository and tagged. Deployment scripts will be updated to match the final configuration. Deployment configuration will be documented. The final code and documentation shall constitute the actual deliverable.

Deliverable 4.4. Technical Support

The vendor will continue to provide technical and post-implementation change management support consistent with the terms of the contract through the end of calendar year 2018.

The TBD.EDU technology staff have a help desk, and can perform day-to-day maintenance activities and routine troubleshooting. The vendor will be expected to provide on-call support for major outages, and proactive additional development support for improvements and platform changes (e.g., should TBD.EDU update to a new ODS / API version).

b. Key Vendor Activities

GUIDANCE ON THE KEY VENDOR ACTIVITIES SECTION

The Deliverables section above contains the concrete material and work product the vendor is expected to produce. This Key Vendor Activities section is a compliment to the Deliverables information, describing the major activities and responsibilities for the selected vendor. This is an opportunity to discuss work that doesn't necessarily have a

specific document or deliverable attached, e.g., conducting project status meetings, or configuring the project for continuous integration.

One specific activity worth communicating clearly is your User Acceptance Testing (UAT) process, and how it will be defined for this project. Often, vendors and clients share responsibility for creating and maintaining the UAT plan, but someone at the client will be responsible for executing the plan. In any event, this should be clear.

Key Activity 1. Schedule and Conduct Project Status Meetings

The vendor will be responsible for scheduling and running weekly project status meetings during the course of the project. The Ed-Fi TBD Project Lead will provide a list of essential TBD.EDU attendees.

Key Activity 2. Performance and Load Testing

The vendor will be responsible verifying that the end-to-end solution performs well under expected load and behaves gracefully under heavy, peak load.

Key Activity 3. Integrate with <Insert State Department of Education or other agency here> data collection and data exchange systems

TBD.EDU software development uses a continuous integration build and deployment system for all projects. The vendor will be responsible for integration with the existing environment, which is largely based on TeamCity and Octopus Deploy. Standard configuration information and system access will be provided by the Ed-Fi TBD Project Lead.TBD.EDU requires its SIS solution to seamlessly integrates with the <Insert State Department of Education or other agency here> data collection and data exchange systems whose requirements are <published here>.

Key Activity 4. Enable and Support UAT Activity

The vendor will be responsible for creating and co-responsible for maintaining a User Acceptance Testing (UAT) plan with the Ed-Fi TBD Project Lead. TBD.EDU personnel will be responsible for executing the Plan. The UAT will begin approximately 4 weeks prior to project conclusion, and the vendor will be responsible for ensuring a reasonably stable solution build is available on staging.

Key Activity 5. Conduct End-User Training

The vendor will be responsible for preparing, scheduling, and conducting training for an initial set of end-users.

Key Activity 6. Maintain Solution Documentation

The vendor will be responsible for keeping solution design, deployment, data mapping, and other technical documentation current during the life of the project. The vendor will be expected to maintain code in TBD.EDU's source control repository.

IV. Detailed Requirements

This section outlines the functional and non-functional requirements of the Ed-Fi TBD Project solution. Requirements labeled "Optional" are useful and will count as positives when evaluating RFP responses, but are not strictly required.

Req. No.	Requirement	Optional / Required
REQ-01	Document mappings from the Ed-Fi Operational Data Store (ODS) model to the Dashboards Data Store (DDS) model.	*Required*
REQ-02	Use the default Dashboard Data Requirements document.	*Required*
REQ-03	Captures and show the deltas from a default or existing Dashboard implementation.	*Required*
REQ-04	Dashboards extended following the plugin and extension models.	*Required*
REQ-05	Unit testing is integrated into code changes and extensions.	*Required*
REQ-06	Integration testing from the ETL to Dashboards Data Store is in place to ensure that metrics created are high-quality and accurate.	*Preferred*
REQ-07	The Metric Metadata architecture is extended consistent with the current architecture and practices documented on Ed-Fi TechDocs.	*Preferred*
REQ-08	Performance testing is in place and issues with performance have been diagnosed.	*Preferred*
REQ-09	Dashboard are configured to meet client project needs.	*Optional*
REQ-10	Security claims sets are correctly configured to meet the client project needs and documented.	*Optional*
REQ-11	A continuous integration and efficient deployment environment for the Dashboards is in place.	*Optional*
REQ-12	Metric titles, text and other representations in UI displays accurately represent the actual data calculations and metrics.	*Optional*
Ed-Fi Product Competencies		

Req. No.	Requirement	Optional / Required
REQ-13	Vendor has competency in integrating Student Information Systems with an Ed-Fi ODS / API v2.0	*Required*
REQ-14	Vendor has competency in integrating Student Information Systems using an Ed-Fi ODS Bulk Load API v2.0	*Required*
Design Requirements		
REQ-15	The dashboard must excel at the integration of information.	*Required*
REQ-16	The dashboard must provide the ability to "drill down" on indicator components to provide details and context about individual students that are relevant to the indicator.	*Required*
REQ-17	The dashboard must provide summary information and listings for natural groupings of students (class, school, and district).	*Required*
REQ-18	The dashboard must support varying degrees of "tolerance for complexity" by displaying the same information in different ways since individuals absorb information in different ways.	*Required*
REQ-19	Provide list of supported browsers and operating systems: Browsers: • Chrome • Safari • Internet Explorer OS (including Mobile): • Mac OS X 10.7 and above • Windows 10 and above	*Required*
REQ-20	The dashboard must be responsive. It needs to perform extremely well to allow teachers and other educators to make productive use of their limited time.	*Required*
REQ-21	Educators should be involved in the design of the system and be provided opportunities to validate the design.	*Preferred*
REQ-22	Accountability data mart will provide a subset of data elements from the data warehouse that includes both the Ed-Fi longitudinal data as well as accountability data.	*Required*

Req. No.	Requirement	Optional / Required
REQ-23	The accountability data mart will be designed to support TBD.EDU's data requirements for accountability reporting at the state and federal level.	*Required*
REQ-24	Data warehouse will be designed to support the v.Next transactional architecture and change data capture functionality. It will support any TBD-EDU specific extensions to the ODS for dashboard or accountability data.	*Preferred*
REQ-25	Data that is fragmented across multiple systems today must be logically and intuitively related and accessible with just a few mouse clicks.	*Preferred*
REQ-26	The indicators must be used to quickly focus the user on individuals or groups most needing attention.	*Preferred*
REQ-27	The dashboard will support a user identity management system to provide customized user access to the dashboard.	*Preferred*
REQ-28	The dashboard will be customized to meet stakeholder needs and interests, and it will be designed to provide the necessary data and context to inform common decisions made by each stakeholder group.	*Optional*
REQ-29	Dashboard requirements will be developed based on research into the needs of different stakeholders and the results of focus groups.	*Optional*
REQ-30	The dashboard will comply with the Family Educational Rights and Privacy Act (FERPA) and TBD.EDU student privacy policies.	*Required*
REQ-31	Dashboards will feature an easy-to-use, customizable reporting tool, which will enable users to select, compare, and filter statistics/indicators for each school or District (with privacy protections in compliance with FERPA.	*Optional*
REQ-32	The dashboard must provide the ability to drill down on indicator components to provide details and context about individual students that are relevant to the indicator.	*Optional*
REQ-33	The dashboard must provide summary information and lists for natural groupings of students (class, school, district, state).	*Optional*

Req. No.	Requirement	Optional / Required
REQ-34	The dashboard must support various levels of tolerance for complexity by displaying the same information in different ways.	*Optional*
REQ-35	The dashboard should allow for personalization to view components consistent with TBD.EDU accessibility/ assistive technologies policies.	*Required*
REQ-36	The dashboard must be quick. It needs to perform extremely well to allow teachers to make productive use of limited time.	*Required*
REQ-37	Individual student dashboard with profile pages supporting metrics appropriate for elementary, middle and high school levels	*Required*
Metric Requirements		
REQ-38	Teacher/specialist tabular views contextualizing performance for appropriate students	*Required*
REQ-39	School and district rollups of the student metrics with comparison against school and district goals	*Required*

V. Change Management

GUIDANCE ON THE CHANGE MANAGEMENT SECTION

Consider adding a change management section to your RFP. If your organization has an established set of change management practices, replace the sample information below with your organization's information. If you don't have a change management process you should have the vendor define one as part of their initial activity.

The example text below contains areas of general interest on technology projects.

The vendor must agree to participate in change management in partnership with TBD.EDU. The vendor will be responsible for instituting a process to communicate, assess, monitor, and control all changes to system resources and processes involved in the project.

The change management process should encompass:

- **New or Significantly Changed Requirements**. A process to handle changes to the project requirements, including new data and new extensions.
- **Additional or Removal of Deliverables**. A process to note major changes in scope.

- **Schedule or Timeline Extensions**. A process to formalize and communicate schedule changes. The initial phase of this project will result in a project plan. Major deviations to that project plan should be noted.
- **Contract Amendment Proposals**. A process to propose necessary contract changes to reflect new requirements beyond the original project scope.

All changes will require the approval of the TBD.EDU project lead. Changes with a potential or actual increase in cost will require the approval of the TBD.EDU contract managers.

VI. Proposal Submission Information

GUIDANCE ON THE PROPOSAL SUBMISSION INFORMATION SECTION

Vendors invest time and resources in preparing a proposal to submit. Likewise, reviewing and evaluating submitted proposals – as well as preparing and hosting a conference call for vendors – will be important, but time consuming. Placing expectations on what you want from vendors will allow everyone to focus on what is most important – and spare unnecessary time and effort on everyone's part.

The detail below suggests items you might consider in defining the proposal submission information for your RFP. Consider whether you wish to impose page limits, request supporting documentation and references, and how you want the proposals to be submitted: paper (including number of copies) and/or electronic.

a. General Guidance

Respondents should review and agree to the Terms and Conditions section of this document before responding. TBD.EDU is not liable for any cost incurred by proposers in replying to this RFP.

b. Response Form & Format

The following is a suggested outline, respondents may elect to use their own. Responses are not to exceed 75 pages in any case.

- Table of Contents
- Executive Summary
- Proposed Solution
    - Overall Solution Design
    - Project Use Cases
- Project Plan *(including tasks, schedule, resources)*
- Identified or Assumed Risks, Mitigation Plans
- Vendor Experience and Expertise
    - Specific Expertise, if any, Implementing Ed-Fi Solutions

- Estimated Costs *(including travel & expenses)*
- Appendices
    - Key Personnel Resumes
    - References
    - Technical Graphics

Responses may be submitted in electronic form to:

Ed-Fi-Project-Lead@tbd.edu
Subject: RFP Response for Ed-Fi TBD Project

Responses submitted in electronic form must be submitted in PDF or Microsoft Word.

Responses may, alternately, be submitted via hard copy to:

Ed-Fi TBD Data Project Lead
TBD.EDU
123 Capitol Street
Anytown, Texas 12345
555-123-4567

Responses made via hard copy must contain three full proposal copies.

c. Response Deadline

Responses must be received on or before October XX, 2016.

VII.   Evaluation Criteria

The following are the evaluation criteria TBD.EDU plans to use to select a response.

- Quality of Proposal *(5 pts.)*
- Use Case #1 Solution *(10 pts.)*
- Use Case #2 Solution *(10 pts.)*
- Use Case #3 Solution *(10 pts.)*
- Use Case #4 Solution *(10 pts.)*
- Technical Requirements *(25 pts.)*
- Project Plan *(25 pts.)*
- Risks Assessment *(5 pts.)*
- Vendor Experience *(20 pts.)*
- Ed-Fi Vendor Competencies *(20 pts.)*
- Vendor Expertise *(20 pts.)*
- Ed-Fi Product Certificates *(20 pts.)*
- Costs *(20 pts.)*

The criteria above provide a general framework and the points noted indicate the relative importance of each criterion. The evaluation criteria will inform the selection committee's decision but is not a substitute for judgment.

VIII.   Terms and Conditions

TBD.EDU reserves the right to accept or reject any and all responses to this RFP. This RFP in no way asserts or guarantees that TBD.EDU will make any purchases for services or goods.

Offers shall be kept in confidence during the negotiation and evaluation process, however, all documentation may be open for public inspection after a contract is awarded.

Upon review of the statements of qualifications received, TBD.EDU may invite firm(s) to be interviewed and/or present qualifications before the selection committee and other project stakeholders before making final selection. TBD.EDU reserves the right to negotiate any and all terms of any proposal with one or more selected vendors and to negotiate additional terms as determined to be in the best interest of TBD.EDU.

Respondents discovering or suspecting an error in the specifications in this RFP are asked to note it as part of their response.

Respondents or their authorized representatives are expected to fully inform themselves as to all conditions, requirements, and specifications before submitting qualifications responses. Failure to do so will be at the respondents' own risk.

TBD.EDU is under no obligation to conduct negotiations with any or all responders. TBD.EDU further reserves the right to conduct discussions with a subset of responders only.

Any clarifications or interpretations of this RFP that materially affect or change its requirements will be included in an addendum and issued to each prospective respondent. Interpretations or clarifications in any other form, including oral statements, will not be binding on the TBD.EDU and should not be relied on in preparing responses.

Immediately following the due date, all qualified proposals will be reviewed by the project lead and shared with appropriate TBD.EDU staff.

IX.   Glossary

Application Program Interface (API). A software program that enables interactions with other software programs. The Ed-Fi API provides a developer-friendly interface to create, read, and update information stored in an Ed-Fi powered ODS (see "Operational Data Store").

Architecture. A conceptual model that defines the structure, behavior and connections of information technology systems.

Business Requirements. Requirements for software developers that define how the software or systems will be used by end users or specific end user needs.

Customization. Connecting a standard Ed-Fi implementation to your unique source systems, populating Ed-Fi with your non-Ed-Fi-standards data elements, or extending Ed-Fi to create new Ed-Fi-based tools or applications will require customization.

Data Elements. The most basic unit of data, including name, definition, permissible values and set of attributes.

Data Mapping. A process to analyze the relationship between data elements in two separate systems. This is the first step in migrating or integrating data sets.

Data Quality Tool. Tools to assist in the verification of data reliability, accuracy, completeness and consistency, as well as identify deficiencies of data quality.

Data Warehouse. A central repository for all or significant parts of the data collected by a school, district or state that can support reports, dashboards, and (longitudinal) analysis.

Dashboards. Ed-Fi Dashboards provide a starting point for developing student performance dashboards that puts real-time, actionable information at the fingertips of educators. It includes a user interface with metrics that educators identified as critical to improving student achievement.

Data Standard. The widely-adopted, CEDS-aligned, open-source Ed-Fi Data Standard serves as the foundation for enabling interoperability among secure data systems and contains a Unifying Data Model designed to capture the meaning and inherent structure in the most important information in the K–12 education enterprise.

Deliverables. a product or service developed for a client.

Development or Dev. Environment. A software and hardware environment in which new software is developed.

Early Warning System. A system that uses readily available school data to identify students who are at risk of not graduating from or dropping out of high school, or otherwise falling of track and being at risk of not achieving an education goal.

Ed-Fi Alliance. An organization dedicated to working with state and local partners to implement the Ed-Fi Solution in order to boost student learning and teacher effectiveness. You can contact the Ed-Fi Alliance at [info@ed-fi.org.](mailto:info@ed-fi.org)

Ed-Fi Certifications. Indication that vendors have demonstrated that the products they develop adhere to Ed-Fi standards and guidelines

Ed-Fi Solution. An open source data standard and implementation suite designed to bring together data from student information systems, learning and content management systems, and other operational systems such as finance, HR, and transportation to provide a more comprehensive view of your school and students.

Ed-Fi Tools. Tools to aid developers implementing the technical components of the Suite. Specifically, the online Ed-Fi Validation Tool helps users streamline the testing process by verifying exchanges are working correctly.

Ed-Fi Vendor Competencies. to help education agencies assess whether a vendor possesses the skills necessary to perform high-quality, robust implementations of the Ed-Fi Solution.

End User. A person who ultimately will use the system or tool you are developing. End users can be internal (within your agency) or external (e.g., a teacher in the classroom or parent).

End User Access Management. A process for creating and managing access to data systems.

Enterprise Level. Agency- or organization-wide perspectives, solutions, and systems.

Extracting, Transforming, and Loading (ETL). A process through which data are extracted from one system, made compatible with another system, then placing the transformed data into the second system.

Interoperability. The ability of one system to work with another system without human intervention.

Operational Data Store (ODS). provides a secure, transactional information store that integrates data from multiple source systems and applications.

Production or Prod. Environment. A software and hardware environment in which new software is released to end users.

Professional Learning Community (PLC). An extended environment to enable communications and collaboration among education professionals, especially across multiple schools or districts.

Request for Proposals (RFP). A solicitation made by agencies or organizations as part of a process to procure goods or services from experts in the vendor community.

Role Mapping. A process to defining end users by type that corresponds to a level of access to a system.

Student Information System (SIS). An information management solution used to collect, track and report student level data.

Technical Requirements. Requirements for software developers that define how the software or systems are to be built.

Test Environment. A software and hardware environment in which new software is tested.

Use Cases. A use case describes how an end user interacts with a data system to accomplish a defined goal (see "end user").

User Acceptance Testing. A process that allows software in development to be tested in real world conditions by real world end users.

Appendix A. SIS Data Dictionary

Appendix B. Assessments System Data Dictionary

This can be inline in your RFP or a reference to an external document.

Appendix C. Data Warehouse System Data Dictionary

This can be inline in your RFP or a reference to an external document.

Appendix D. Higher Education Outcomes File Data Dictionary.

This can be inline in your RFP or a reference to an external document.