

Addendum #1

District Student Data Warehouse and Dashboard Solution

Issue Date: Thursday, August 19, 2021

Bids Due: Wednesday, September 1, 2021 at 1:00PM

Question	Response
Does Providence require an ODS or can the data sources feed directly into the Data Warehouse?	PPSD desires to avoid point-to-point integration between source systems and the data warehouse. The ODS will play the role of moving operational data between systems and facilitating reporting on real time data.
If Providence requires an ODS, is the expectation that this will be an Ed-Fi ODS?	PPSD desires an Ed-Fi ODS.
Is there any expectation to learn and maintain the district's current ODS moving forward or is the district open to establishing a new ODS, particularly an Ed-Fi ODS?	PPSD's current ODS is built to Ed-Fi standards, but it is currently deployed and maintained on premise. The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one.
If yes to a new Ed-Fi ODS, is the expectation the vendor will deploy and maintain the Ed-Fi infrastructure and ODS as part of this RFP?	Yes.
Is it the expectation that Providence will require access to the ODS and/or Data Warehouse database?	Yes, PPCD requires direct access to all databases.
If yes to requiring access, is this read-only, write, ability to extend the data model, ability to write custom ETL? Please specify the required access if any.	PPSD requires read access, so long as the vendor can provide services work to extend the data model and develop additional ETL pipelines for new data sources as needed. Additionally, PPCD requires write access to temporary databases.
Will the district accept an emailed copy of the proposal rather than a hard copy shipped to the district? Can	By state law, PPCD requires a hard copy proposal submitted in accordance with the

vendors use electronic signatures on required forms?	instructions on page 1 of the RFP. Please leave plenty of time to ensure that the hard copy of the proposal reaches the desk of the procurement office by the deadline. Late submissions will not be considered. Yes, vendors can use electronic signatures on required forms.
To better tailor our demo site to your needs, can we schedule an open “guided lab” session with RFP evaluators to work with our solution engineers to explore the solution in real-time rather than simply providing access to a demo site for users to work through on their own?	Yes, please indicate in your proposal that this is your desired approach and you will be contacted by the evaluation team to schedule a demo.
Does the district intend to keep Tableau separate from the solution? If not, are vendors expected to embed Tableau dashboards in the solution?	PPSD will host dashboards on Tableau Online and connect them to the ODS and/or reports from the data warehouse for reporting. Tableau dashboards do not need to be embedded into vendor-provided dashboards, but the ability to link to the district’s Tableau Online site is desired.
Would the district consider no longer using Tableau if the solution provides access to embedded Microsoft Power BI?	PPSD is open to other visualization solutions for these dashboards; however, PPSD plans to continue to develop custom data dashboards in Tableau Online for central office and school leaders.
Is the vendor expected to load all the data listed in the RFP into the solution? If not, which sources are a priority for the vendor to import into the solution during implementation?	Ultimately, PPSD wants to load all of the data listed into the data warehouse. PPSD would prioritize that the vendor import data listed in sections III.iv.4.a through c, in addition to the WIDA data listed in section III.iv.4d. The remaining data in section III.iv.4d are lower priority.
What is the expected budget for the project?	The district has budgeted approximately \$300,000 in year 1, with additional funding allocated in subsequent years for hosting, maintenance, and continued development.
Regarding the Special Education data, are basic data points adequate (e.g., is the student in a program y/n, which program is the student in)? If so, does this data reside in Skyward? Or, does the district want all of the Special Education data available for dashboards/filtering in the data analytics platform?	The data warehouse should minimally incorporate IEP start and end dates, re-evaluation dates, evaluation statuses, case managers, disabilities, and 504 statuses and types. These data primarily reside in Skyward. An additional system, EasyIEP, contains Medicaid data, but these are not

	necessary to include in the data warehouse at this time. The analytics platform does not need to accommodate all special education data points.
How is the district managing interventions today? Is the district interested in having interventions embedded within the data analytics platform?	PPSD does not currently have a district-wide business process or data system to track interventions.
How is the district managing student improvement plans today? Is the district interested in having student improvement plans embedded within the data analytics platform?	The district is currently using Naviance to host all student improvement plans.
How is the district managing school improvement plans today? Is the district interested in having school improvement plans embedded within the data analytics platform?	School Improvement plans are written by school and community members and submitted to the Rhode Island Department of Education for any school receiving a one star accountability rating. The PPCSD central office also collects these plans centrally. PPCSD is interested in having plans embedded within the analytics platform, but it is not a requirement.
Are data quality business rules important to the district (i.e., flexible/configurable business rules to identify inaccurate data before it populates the data warehouse)?	Yes, the ETL processes that ingest data from source systems into the ODS, and from the ODS into the data warehouse, should ensure source data conform to expectations.
There is mention of loading e-Learning data into the data analytics platform. Would this include LMS usage data as well? If so, which LMS system(s) is the district utilizing today?	The e-learning platforms are identified in section III.e.iv.4.b as American Reading Company; GreatMinds Eureka Math; McGraw Hill ALEKS; McGraw Hill Illustrative Math; EnVision Math; and College Board Springboard.
What version of Skyward is the district currently using?	5.21.06.00.05
Does the district have a draft data sharing agreement that they can provide for vendors to review?	Here is an illustrative agreement.
For critical incident reports; SAO referral data; hardship and safety transfer records; official graduation cohort memberships... - What is the source system for this data? - How frequently does this data need to be ingested/updated?	An on-premise SQL Server database (with an ACCESS form front-end) is the source system for critical incident reports, SAO referrals, and hardship and safety transfers. The official graduation cohort membership source is a flat file produced by the Rhode

Can the districts provide schema and definitions for the data elements?	Island Department of Education. Critical Incident reports must be up-to-date each 24 hour period to meet federal reporting guidelines. Graduation cohort memberships are updated annually.
How many logins would the district like for the demo account?	One login that can be shared among reviewers is sufficient.
In the Scope of Work, under section b (Deliverables) in subsection i you ask for a "data warehouse that integrates, stores, and reports on comprehensive historical student information, as well as select staff data." Can you please clarify what select staff data the district is interested in housing in the chosen system?	Sections III.e.iv.4.a.ii and III.e.iv.4.a.iv specify Lawson employee records, including staff demographics, certifications, job history, and positions held, as well as Frontline employee attendance records, professional development, and hiring data.
In the Scope of Work, under section e (Data Integrations) in subsection IV.d you ask for ETL exchanges for "Lawson employee records, including staff demographics, certifications, job history, positions held" and "Frontline employee attendance records, professional development, and hiring data." We have two questions related to these requirements: Is it mandatory that Lawson and Frontline employee records be housed in the data warehouse, or can they be stored in the Skyward SIS and accessed that way? If our solution cannot store employee data, does that preclude us from submitting a response?	PPSD desires to store these historical employee data in its data warehouse, not in the student information system. However, vendors unable to meet this requirement are not disqualified.
General: Is Providence seeking a traditional data warehouse through this RFP, or more of an MTSS (multi-tiered system of support) platform?	A data warehouse.
Will Learner Profile be used as the MTSS system in conjunction with the data warehouse that is chosen? Or is the district hoping the data warehouse can serve as an MTSS platform?	PPSD has not articulated requirements in this RFP for an MTSS platform.
How many systems already have Ed-Fi connectors written?	Ed-Fi connectors have been written for Skyward, American Reading Company,, WIDA Access for ELLs, and STAR data.
How is the data uploaded from various systems currently (One Roster, CSV, Ed-Fi API, SFTP)?	Multiple methods are used for ingesting data into both the ODS and the current data warehouse.
Can you provide us an idea about the frequency /interval of data upload to the district system? Hourly,	PPSD desires nightly updates for some sources, including Skyward, Lawson,

Daily, Weekly, Monthly. We assume that there is no real-time data streaming, is this assumption correct?	Frontline, and PowerSchool, in addition to third party applications like American Reading Company, GreatMinds Eureka Math, McGraw Hill ALEKS, McGraw Hill Illustrative Math, EnVision Math, and College Board Springboard. Other sources can be updated less frequently.
Which of the assessment systems are currently in use and which are maintaining historical data?	The third party vendor applications in Section III.e.iv.4.b, as well as Renaissance STAR contain current assessment data. The other assessments identified, such as those in Section III.e.iv.4.c.i and III.e.iv.4.d contain historical data.
With reference to page number 11, point iv. Uploads of other historical data ((list of 16 mentioned sources): We assume that it is a one-time activity. Or will it be an activity to be performed at a regular interval? Do you want a pricing quote for the upload of historical data separately?	Uploading historical data from these sources is a one-time activity; however, new data may be created in these areas and PPSD will need the ability to add them to the data warehouse over time. As the RFP states, "The solution will provide data import features that allow selected district users to map and upload additional data sources into the warehouse to facilitate storage and reporting." Please include the cost of uploading historical data in your proposal.
How many of the mentioned sources are retained for historical data and which are sources are currently in active use.	Active use applications include Skyward, Lawson, Frontline, and PowerSchool, in addition to the third party vendor applications in Section III.e.iv.4.b, as well as Renaissance STAR. The other sources identified, such as those in Sections III.e.iv.4.c.i and III.e.iv.4.d, contain historical data.
Should the dashboard for the student, parent be made available through a web portal?	PPSD has not articulated requirements for a student- or parent-facing dashboard in this RFP.
Are Lawson employee records / Frontline employee attendance records currently integrated with the existing system? How many years of historical data is present?	Lawson and Frontline currently feed into a SQL Server database, but this feed is not actively maintained and historical data are not stored longitudinally.
Who all will be the users of the self-service reporting feature? (We assume they will be power users belonging to the district)	Access to the underlying databases will only be required for a small number of district data staff. Yes, the self-service reporting and data export features should be available to district power users.

How many years of history are stored in the current dev Ed-Fi ODS?	The ODS contains only one year of data. The data warehouse contains historical data as described in the RFP.
How complete is the data coverage in the current dev Ed-Fi ODS?	The current Ed-Fi ODS contains data from Skyward, American Reading Company, WIDA Access for ELLs, and STAR data.
What version of Ed-Fi are you running in your dev environment?	EdFi Suite 3 V5.1
Will all historic data come from the current warehouse or from archived data extracts from source systems or from some other source?	Historical data will come from a variety of sources, including the current data warehouse, but also flat files for sources identified in Section III.e.iv.4.d.
Which of the data sources are most critical to have loaded/operational in the first year?	Ultimately, PPSPD wants to load all of the data listed into the data warehouse. PPSPD would prioritize that the vendor import data listed in sections III.iv.4.a through c, in addition to the WIDA data listed in section III.iv.4d. The remaining data in section III.iv.4d are lower priority.
Would you be supportive of working with your source data vendors to conform to a national data transport standard as opposed to writing custom ETL code per vendor?	Yes, PPSPD would support asking vendors to conform to a national standard; however, if this proves infeasible, custom ETL will be required.
What type of access is needed for trouble-shooting? (email, help desk link, live chat, phone)	Section III.C of the RPF indicates the types of support required.
Does PPSPD have key performance indicators they would like monitored for the SLA?	Total scheduled downtime (in minutes). Total unscheduled downtime (in minutes). Number of support incidents handled. Number of support incidents resolved on initial contact. Aggregated time in minutes to resolve all support incidents not resolved on first contact.
Internet explorer is considered end of life and no longer be supported in 2022. Would Microsoft Edge be a reasonable substitution?	Yes.
There is mention of self-service reporting. Does this mean that users can (1) create access/manage data queries or (2) visualize relationships using data in the warehouse (or both)?	PPSPD is open to a range of vendor proposals for how to fulfill this requirement.
Do you need secure access to dashboards for teachers	No, PPSPD does not currently require

as well as administrators? If the user count is higher we may take different strategies than if the user count is lower to contain costs.	teacher-level access to the dashboards.
How many users will the reporting system need to support? With secure PII access? With open aggregated school statistic access?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30). These latter two features will likely involve PII.
What School resources would be available for conveying detailed requirements and user acceptance testing?	Staff members within the Office of Innovation and Accountability will work with the vendor to specify requirements. A small review committee of central office and school-level stakeholders can be convened to support user acceptance testing.
Do you require onsite presence or can the work be done remotely?	PPSD does not require onsite work.
Is there a budget for travel for onsite visits if needed?	Vendors should include any planned travel costs within their pricing proposal.
Is there existing design documentation that can be leveraged?	No, PPSD has not developed wireframes or creative concepts for dashboards nor does it have a desired database architecture, with the exception of the Ed-Fi compliant ODS.
With regards to the existing data warehouse data that has been collected, has it been qa'ed and is it reliable, or will there be a need to go to original systems and reload historical data?	Data currently contained within the district's SQL Server databases have previously been cleaned and verified.
Approximately how many users will be using this platform?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30).
What is the estimated total size of the overall data that needs to be migrated?	The existing data warehouse contains approximately 165 GB of data.
Do all of your databases have an active data	No, not all sources have active data

dictionary?	dictionaries.
Do you have any specific preference for BI/Data Visualization tool (Power BI vs Tableau)?	The district will be utilizing Tableau Online for custom dashboard development.
Which is your preferred hosting service provider (Azure/AWS/Google Cloud)?	PPSD desires the vendor to recommend a hosting provider.
We have more than a decade of experience in providing data warehousing solutions to governmental, private, and non-profit organizations but we do not have any educational institutional (K-12) reference as required in this RFP. Can we still participate in this solicitation?	Respondents must demonstrate prior K-12 experience, per Section II of the RFP.
Is there a budget cap for this project that we need to consider?	The district has budgeted approximately \$300,000 in year 1, with additional funding allocated in subsequent years for hosting, maintenance, and continued development.
Is the district open to utilizing its Tableau server license as part of this Data Warehouse and Dashboard implementation?	PPSD is migrating its Tableau Server installation to Tableau Online. The district is open to leveraging Tableau for this project.
If we propose to use Tableau as a dashboard application with pre-configured dashboards, should we provide new pricing for Tableau Server, or will the district be able to leverage its current Tableau Server license?	PPSD can leverage its current Tableau licenses to share dashboards with central office and school leaders. Per above, note that PPCSD is migrating its Tableau Server installation to Tableau Online.
Is the district seeking dashboards that cover HR and Finance analytics?	No, this is not a requirement.
Given the evolving state of the pandemic, can all work be done remotely, or are there certain activities that the district requires to have on site?	PPSD does not require onsite work.
Is the district open to web-based training for the one-on-one training?	Yes, web-based training can be accommodated.
Regarding the ODS described on page 12, does the district expect to reuse this Ed-Fi ODS as part of the solution?	The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one.
Regarding the historical data that will be migrated from the district's SQL Server data warehouse, does the district envision that data to be migrated to the new data warehouse only or does the district expect that data to go through the ODS as well?	Data from the existing data warehouse may be migrated directly to the new data warehouse.
There may be some limitations of an Ed-Fi ODS to handle some of the employee data the district wishes to	PPSD desires to avoid point-to-point integration between source systems and the

pull from Lawson and Frontline. In those cases, is the district open to an ETL process to load the data into the proposed data warehouse?	data warehouse. However, if an Ed-Fi standard does not exist for a data source, PSD is open to an alternative ETL process.
Is the existing PSD Skyward instance hosted in the cloud or on-premises?	It is in the cloud hosted by ISCORP.
Is there a preferred cloud hosting vendor (Azure, AWS, Google) for the new solution?	PSD desires the vendor to recommend a hosting provider.
What is the anticipated budget for the first phase (Award to June 30, 2022)?	The district has budgeted approximately \$300,000 in year 1, with additional funding allocated in subsequent years for hosting, maintenance, and continued development.
Will any non-staff members need access to personalized dashboards (board members, parents, students)?	No, all dashboard users are staff.
Will all data housed within the data warehouse be sourced from another system/database, or will some data be ingested from spreadsheets, stand-alone data files and other types of media?	Section III.iv.4 of the RFP outlines the source systems for desired datasets, which includes some uploads of flat files. This is in addition to Section III.iv.7, which indicates that the solution must include data import features that allow selected district users to map and upload additional data sources into the warehouse to facilitate storage and reporting.
Does PSD anticipate changing source systems during the initial term of this project (award to June 30, 2022)? The RFP references PowerSchool is subject to change, are there other systems subject to change during the initial term? If so, what is the anticipated scheduling of these system changes?	No, PowerSchool is the only source system currently subject to change.
Are data migrations from all third-party vendor applications managed via APIs or similar capabilities, or are some of these data available via spreadsheets/files?	In Section III.iv.4.b, McGraw Hill ALEKS allows for integration via API; all other systems utilize SFTP.
Are historical data for an application in the same location/format as current data or will separate ETLs need to be developed for the historical files?	Operational data from source systems and historical data stored within the district's existing data warehouse are in different formats.
Does PSD plan to continue to use Tableau for reporting or is the district open to other visualization solutions?	PSD is open to other visualization solutions for these dashboards; however, PSD will continue to develop custom data dashboards in Tableau Online for central office and school leaders.

Please clarify how PPSD defines “Access to help desk support professionals to facilitate troubleshooting with reasonable response and resolution times”. What are your expectations regarding the level of support and when do you expect this support to begin?	PPSD requires support to begin after each phase of implementation. Support should be available to address staff questions related to the ODS and data warehouse, as well as the connections between those databases and reporting through the vendor’s dashboards.
The RFP states “the vendor must develop an SLA”, does PPSD expect the vendor SLA to be included as part of the RFP response or is the SLA to be developed post award as part of the project deliverables?	The SLA can be developed post award, but proposals should address the possible contents of the SLA.
(p.9, Section III.e.i, Hosting and Technical Environment) The district requires that the solution be cloud-based. Does the district have a preferred cloud service provider? If so, which provider?	PPSD desires the vendor to recommend a hosting provider.
(p. 10, Section III.e.iii, Access) How many unique users do you envision using the system? How many concurrent users would you expect to access the system at any one given time?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30).
(p. 10, Section III.e.iii, Access) The district states that the solution must accommodate SAML 2.0 for single sign-on compatibility. Question: What systems district plans to integrate with using single sign-on capabilities?	Users should be able to authenticate into the dashboards via single sign-on.
Can you briefly describe what expectations have been set for your existing source system vendors regarding their participation in this overall project? (For example: ensuring access to data handbooks and non-proprietary documentation, development of APIs, helping with data quality issues, etc.)	Vendors have provided access to their APIs, if available, and automated data export methods via SFTP, where applicable. Vendors can answer questions and troubleshoot data quality issues.
Does the district have identified data stewards for each respective data source/system who will be responsible for working with the vendor to validate and answer questions about your data?	Staff members from the Office of Innovation and Accountability will be available to participate in data mapping and they can also identify business owners across the district’s central office for each source system or data type.
Please describe which version of the Ed-Fi standard do your district implementations of Skyward, PowerSchool, Frontline and other systems use presently?	The current Ed-Fi ODS contains data from Skyward, American Reading Company, WIDA Access for ELLs, and STAR data. The ODS runs EdFi Suite 3 V5.1. The integration with Skyward is native, but the

	other data are pushed into the ODS using the Ed-Fi Data Import Tool to convert it to Ed-Fi standards.
For each of the contributing systems and data sources outlined on pages 10 & 11, can you provide the approximate sizes of the respective databases you wish to migrate in the data warehouse and reporting/dashboard solution, the approximate number of data elements that you plan to migrate to the new solution, and how many years of historical data you would like?	The existing data warehouse contains approximately 165 GB of data. The oldest data sources include information from school year 2007-08.
The district mentions on p. 12 that it currently has an Ed-Fi-compliant ODS developed in SQL Server hosted internally on a development server. Does the district plan to retire this component?	The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one.
The historical data in the existing data warehouse is referred to as “problematic due to a lack of maintenance over time...” However the RFP suggests that this data from the existing data warehouse be imported into the new data warehouse. Will Providence be cleansing and updating the data prior to migration to the new data warehouse?	Data currently contained within the district’s SQL Server databases have previously been cleaned and verified; however, many of these tables are now out of date. PPSD does not plan to update the existing databases with more recent data, but rather update those in the new solution.
The RFP suggests that there is an existing Ed-Fi compliant ODS on a development server. Does Providence expect the vendor to use the existing or to develop a new replacement ODS?	The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one.
(p. 12, Section III.v, Data dashboards) Does the district prefer the vendor leverage existing district-licensed reporting software/tools in delivering the dashboard and reporting component, or should vendors provide tools and factor those cost to the district in its proposal?	PPSD is open to other visualization solutions for these dashboards; however, PPSD will continue to develop custom data dashboards in Tableau Online for central office and school leaders.
(p. 14, Section VIII. Evaluation of Proposals) How will pricing factor into your evaluation of proposals?	Each proposal will be reviewed and scored against the criteria in the rubric on page 15. The award will be made to the lowest cost, technically acceptable proposal(s).
Is it the district’s intent that the contractor supplements the current Tableau reporting solution only until we transition into the new solution? Or does the district intend to continue to leverage the existing Tableau reporting solution and dashboards once the new solution is in place? Does the agency intend to have two different dashboard solutions?	PPSD is open to other visualization solutions for these dashboards; however, PPSD will continue to develop custom data dashboards in Tableau Online for central office and school leaders.

Please confirm this is a typo and March 2022 was intended instead: "March 2021: Begin relying upon data warehouse for priority data sources, including routine connections to Skyward and selected e-learning vendors, to be determined in collaboration with vendor"	No, this is not a typo.
What are the number of source systems and tables? What are the number of target tables? What is the complexity of the Extract, transform and load (ETL)?	The source systems and files are enumerated in the RFP. The vendor should propose the architecture for the ODS and data warehouse. The complexity of the ETL will depend on the architecture of the proposed solution.
How many years of longitudinal data will need to be stored in the new data warehouse?	The oldest data sources include information from school year 2007-08.
What is required when longitudinal data becomes older than the requirements for the data warehouse? (delete, archive, etc.)	PPSD desires that the data warehouse will store all historical longitudinal data for the named sources from 2007-08 onward.
What is the expected volume/size of data that will be migrated from the current SQL Server data warehouse?	The existing data warehouse contains approximately 165 GB of data. The oldest data sources include information from school year 2007-08.
What is the expected volume/size of data for all expected data sources? What is the size of the largest table to be hosted?	The existing data warehouse contains approximately 165 GB of data. The oldest data sources include information from school year 2007-08.
Are any of the source systems currently situated on premises at PPS, and if so, which ones?	The data outlined in sections III.iv.4.c and d are on premise.
What is the expected user count for each major class of user (administrator, power user, view-only)?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30).
What is the expected user concurrency (defined as users querying the system at the same moment)?	Given the user counts above, not greater than 100.
Does PPSD anticipate a need for a public-facing dashboard within the scope of this project? If so, what is the expected user load for the dashboard (both typical and heavyload periods)?	No.
What is the makeup of your team? How would you	The Office of Innovation and Accountability

score your teams experience with: Data, Analytics, Environments, and Governance (scale 1 to 4)? Do you have any Data Scientists or DBAs on staff?	has recently been reconstituted and too few staff members are employed to offer a rating. The district is currently hiring for 4-5 new data-analytic roles, including 1 data engineer, 1 role focused on data governance, and at least 1 role with deep expertise in Tableau dashboard development.
In the RFP it states that you are looking to try and augment your Tableau BI solution. Given the complexity of your data sources and need to communicate different sets of data at different levels of detail to a broad range of stakeholders, is Providence School District open to a solution that would leverage a different BI tool for dashboarding and embedding analytics into public facing web solutions?	PPSD is open to other visualization solutions for these dashboards; however, PPCSD will continue to develop custom data dashboards in Tableau Online for central office and school leaders.
How many total dashboards, analytics, and reports are in scope for the chosen solution?	PPSD desires the vendor to propose the suite of dashboards and reports to be included in this project.
How many users will ultimately use the selected solution and at what frequency (daily, weekly, monthly)?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30). Users will likely use these dashboards and databases daily.
Is Providence Schools open to a secured VPN connection as a means of data exchange?	We are open to this option but would have to fully review the details of the VPN solution.
What are the current system requirements for the resources contained in this RFP? Is there expected growth to these and if so how much?	It is unclear to which resource/s this question is directed. For security reasons, PPCSD cannot provide these details in this document.
What are the current storage requirements and anticipated growth for files and databases? What are the anticipated growth of data and analytics to be hosted in the cloud?	The existing data warehouse contains approximately 165 GB of data.
Will all hosted environments be required to be accessible 24x7? What are the district SLA requirements for the managed resources? What are the Providence Schools requirements/expectations for upgrades and patches at the resource BI tool level?	No, 24x7 accessibility is not necessarily a requirement and the district fully understands the process that would have a system offline for regular upgrades and/or maintenance. The district would expect the vendor to

	communicate all details pertaining to a scheduled downtime event prior to the event itself. Total scheduled downtime (in minutes). Total unscheduled downtime (in minutes). Number of support incidents handled. Number of support incidents resolved on initial contact. Aggregated time in minutes to resolve all support incidents not resolved on first contact.
Does the Providence Public School District have a standard Recovery Point Objective (RPO) and Recovery Time Objective (RTO) that can be used for the basis of an acceptable disaster recovery plan/architecture?	Standard RPO (backups) would be nightly (24 hours) Standard RTO would be 48 hours for the warehouse
Is there expectations that Providence School staff will need direct access to the cloud environment, or will they primarily be consuming analytics dashboards and other information from web browsers? If yes, how many users are expected for this?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30).
Beyond the current level of users, what is the expected growth of analytics dashboards? Please break down based on frequency of accessing information (continuously, daily, weekly or infrequently). Also of these how many do you expect to need the ability to develop and create analytics and data models?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30). Users will likely use these dashboards and databases daily.
Our firm works exclusively with AWS and pricing for EC2 hosting can be greatly reduced if the Providence Schools is open to things like 3 year reserved instances, with partial payment up-front. Are these types of funding commitments viable options when pricing this solution?	Yes.
Would a multi-node environment be needed for development/test/production workflows?	No, this is not required.
Is the current ODS with ed-fi schema functioning optimally so that it can be lifted/shifted, or will there be	PPSD's current ODS is built to Ed-Fi standards, but it is currently deployed and

requirements to rearchitect/reengineer that ODS environment?	maintained on premise. The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one. The current Ed-Fi ODS contains data from Skyward, American Reading Company, WIDA Access for ELLs, and STAR data, so additional connections to the data sources identified in the RFP will be required.
What is the actual database software (MySQL, Oracle, Postgre, etc.)?	The district's current Ed-Fi ODS and data warehouse are SQL Server databases.
Approximately how many individuals would require 1:1 training? What is the scope of the required training (e.g. basic usage of systems vs. training individuals to develop using the BI software)?	Dashboards will need to be accessed by approximately 100 central office and school leadership staff members. Access to the underlying databases will only be required for a small number of district data staff (5-7). The self-service reporting and data export features should be available to district power users (20-30). Users will likely use these dashboards and databases daily.
What ongoing support is needed from the Vendor to support this solution?	The vendor should describe what ongoing support is required for its proposed solution.
Is the historical data expected to be migrated still accessible through the original source systems or is the expectation that it be migrated from the existing data warehouse?	Per the RFP, historical data will come from both the existing data warehouse and individual source systems. There are historical data only available within the district's existing data warehouse and not their original source system.
If two vendors present a joint proposal, is the district amenable to executing separate contracts with the individual vendors?	No, the district would not execute separate contracts. Vendors presenting a joint proposal should identify a primary vendor that the district would contract with directly.
What is the expectation for data that already exists in the Ed-Fi compliant ODS developed in SQL Server hosted internally at the district?	The vendor can either migrate and take on maintenance of the existing ODS or develop a new ODS to replace the existing one.