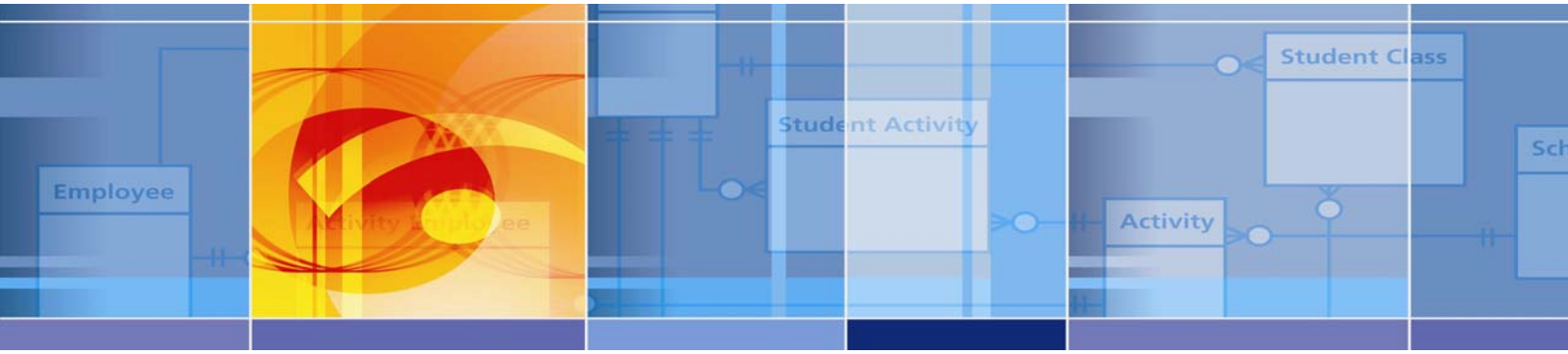

The Optimal Reference Guide:

Requirements for a Request for Proposals for Statewide Identifiers

Extraordinary insight into today's education topics

Glynn D. Ligon, Ph.D., ESP Solutions Group

ESP Solutions Group

Table of Contents

Foreword

The procurement process for a statewide student identifier system requires many significant decisions. This reference guide provides a template for a state education agency to use when crafting a request for proposals. In that process, there are two key alternatives to consider.

1. Does the state want to provide a web-based student locator system to manage the student identifiers?
2. Does the state want to build a SIF-based[1] student locator framework to facilitate automated identifier management?

With the successful statewide implementations of SIF-based student locator frameworks in South Carolina and Wyoming, ESP Solutions Group has demonstrated that the work people must do to assign and verify student identifiers can be automated.

For states with existing but older student identifier systems, there are considerable advancements available now that can justify upgrades. As more states demonstrate the viability of the recommendations contained in a companion ESP Optimal Reference Guide entitled ***"Statewide Student Identifier Systems,"*** most of the identifier systems implemented prior to 2004 become burdensome by comparison.

The section on SIF compliance was based substantially upon the recommended RFP language provided on the SIF web site. ESP has edited some of the wording to match the needs of student locator systems.

[1] SIF and Schools Interoperability Framework are trademarks of the Schools Interoperability Framework Association.

Overview

This guide uses parentheses to offset text that must be provided by the state education agency or sections that the agency can choose to include or delete. Each state will need to edit these contents, customize their requirements, and designate specific dates as appropriate.[2]

- (Statement of purpose)

  (The state of (state name) is requesting proposals for the implementation of a statewide student identifier (and a student locator system). The purpose of the student identifier is to support the collection by the (SEA name) of individual student records in an efficient, timely, and secure process. The data associated with each student through the student identifier will be used for state reporting and be compiled within a database from which federal reporting mandates will be met. The intent of the (SEA name) is to reduce the reporting burden upon schools and districts while returning to them increased value from the data they have collected.

- (Description of state, number of districts, number of schools, number of students)

- (Context of student identifier use or history within the state)

- (Definition of which students will be assigned an identifier and which entities will participate by mandate or choice (e.g., public schools, private schools, early childhood programs, 0-3 special education programs, charter schools, youth facilities, adult programs, technical schools, etc.))

[2] For a Microsoft Word version of this Guide, please email Mark Johnson of ESP Solutions Group at mjohnson@espsg.com

General Requirements

- The system must be fully implemented by (date).
- Full implementation is defined as:
    - (Initial assignment of identifiers to all students)
    - (Launching of the on-line locator system that assigns identifiers to new students and verifies previously assigned identifiers)
    - (Provision of documentation to the SEA)
    - (Delivery of required training of SEA staff)
    - (Delivery of required training and/or materials to district and/or school staff)
    - (Acceptance of deliverables by the SEA as specified in the contract)
- A project plan must be created and maintained on a secure web site. Status reports must be posted (weekly, monthly). Tasks completed, problems, issues to be resolved, and other key events must be described.
- The required components are:
    - (Web-based student locator system)
    - (Data dictionary of directory elements, verification elements, and other database elements)
    - (Data access and use policy document ensuring compliance with FERPA and applicable state laws)
    - (Technical documentation of the system)
    - (User documentation for districts and schools)
    - (Training materials and sessions for SEA staff)
    - (Training materials and sessions for district and school staff)
- The system must be installed on SEA hardware and be compliant with all SEA and state technical specifications. Software licenses must be clearly identified along with initial and on-going fees.
- SIF compliant submissions from districts must be accepted. Alternatives such as ASCII files must be available for districts not SIF capable.
- Processes must be practical for both large and small districts regardless of their technical capacities.
- Maintenance and support must be provided for two years after final acceptance of the system. This includes providing as upgrades all enhancements and improvements developed for the basic system for other clients.

Features and Functional Requirements

- The system will assign to every student an identifier that is:
    - **unique** (assigned to only one student),
    - **unchanged** (follows the student throughout the school years),

  - **unduplicated** (only one assigned per student),
  - **undisclosed** (provided only to authorized persons for authorized uses), and
  - **ubiquitous** (used by every SEA database/program).

- The identifiers must have these characteristics.
  - Confidentiality: Allow only authorized education employees with a need to know to access the student identifier (and student locator system) from the local level. Restrict access within the SEA to authorized users. Build permission tables to manage access for view, copy, and edit actions by file and fields within files. (Encrypt the identifier when it is passed to the SEA and stored in state files.)
  - Burden: Impose minimal burden at the school and district level to obtain new identifiers and to verify existing ones. The web-based student locator system must be accessible 24/7. Reporting and managing the use of the statewide student identifier within local files along with an optional locally assigned identifier is acceptable burden for schools and districts.
  - Assignment: Define and manage the pool of valid and available student identifiers at the SEA level. (A subset of identifiers will be allocated to each district for assignment to new students at the level where registration occurs, e.g., school or district.) (A web-based student locator function will be provided for both batch and individual student assignment of identifiers on demand by the school or district.)
  - Timing (State Identifier is Local Identifier): For districts using the state student identifier as their local identifier, assign the identifier at registration and make it available to school staff when local records are being created. If registration occurs at the school, then the school should be enabled to assign the identifier.
  - Timing (Different Local Identifier): For districts not using the state student identifier as their local identifier, assign the identifier at any time before or concurrent with the next state reporting. The SEA should require districts to submit enrollment and exit data for students in a timely manner to ensure the data are available to the next district in which the student enrolls prior to a regular submission period.
  - Verification Level: Verify the student identifier at the time of registration, when parents and students are available to answer questions and provide documents. (The web-based student locator system must be available at this time.)
  - Assignment and Verification Process: Assign and verify identifiers at the time of registration using a statewide reference for finding existing identifiers and a state-approved process for assigning new numbers. (This process will be provided by the web-based student locator system.)
  - Verification Data Elements: Include as many data elements as practical in the verification resource. Define verification elements as directory information. Elements not defined as directory information can be used for matching, but not displayed for the user.
  - Uniqueness: Ensure student identifiers are unique at the state level.
  - Imbedded Information: Do not imbed information in the student identifier.
  - Length: Limit the student identifier to no more than (10) digits.
  - Characters: Use only numerals for the student identifier.
  - Rubric: Use unduplicated, random numbers, no alphabetic or other characters. Use no initial blanks or zeroes or final zeroes. Use no sequence of three or more identical numerals. (Calculate a final check digit that can be used as a final digit or as a separate field.)

- The system will have these components during implementation and/or afterwards.

- Project Management: The activities associated with implementation will be supervised by an SEA and a contractor designated project managers. All aspects of the project will be managed including systems integration, installation, optimization, and training.
- Oversight: The SEA will establish groups to provide advice in the areas of policy, user support, and internal operations.
- Support and Maintenance: The contractor will provide on-going support and maintenance for the contracted period.
- Data Dictionary: Definitions, codes, field characteristics, periodicities of submission, and other standards for data elements within the system will be defined and maintained.
- User Interface: School, district, and state authorized users will interface with the application through browser screens.
- User Authentication: Users will be assigned permissions for each function and for individual records. Access will follow FERPA and applicable state laws.
- Network Interface: The system will communicate through the (Internet) with sufficient capacity to meet the demands of the users.
- Database: The data will be stored in a database using (database management system). Historical changes to a student's record will be maintained.
- Interoperability/Exchanges with Other Databases: The system's database will exchange data with other sources and destinations in both an interoperability mode and an on-demand mode.
- System Reporting: The system will produce audit reports, standard descriptive reports, and basic query reports.
- User Reporting: The system will provide the users with error reports, status reports on matches and assignments, and basic query reports.
- Server: The system will be hosted on a web server within the SEA or at a designated location. A separate database server may be used.
- Matching and Assignment Process: The software application will provide matching of student data to existing records within the database to determine the extent that a new record is unique or a match to an existing record. The system will assign identifiers and maintain their integrity.
- Support: Users of the system will be supported with a help desk and other resources.
- Technical Documentation: The SEA will have all appropriate technical documentation for the system.
- User Guides: Training and user guides will be produced.

Technical Requirements

- The system must be compatible with the SEA's hardware and software environment, including adopted standards. These include:
  - (Operating system)
  - (Server, router, and other hardware components)
  - (Application languages)
  - (Database management system)
  - (Web browsers supported)
  - (Software tools)
  - (Others)

- The system must interface with these other systems.
  - (SEA's single portal for user entry)
  - (SEA's authority and permissions registration process)
  - (Other applications internal to the SEA with which data will be exchanged)

- The system must provide secure and authorized access. An administrative function must provide the SEA with management of users and their permissions. District administrators must be able to submit users for authorization and make changes in user profiles.

- Changes to directory information and other data elements to be collected and/or used for matching and assignment of identifiers must be permitted.

- The system must return an indicator of the probability of the match between a new student's data and an existing student's record. The SEA should be able to select the percent that defines a match or a possible match based upon the number of data elements matched and the closeness of the matches. Alternative spellings and sounds/pronunciations should be considered. The process and rules available within the proposed system should be described clearly in the proposal. The user must be presented these matches and near matches, and their percents, for acceptance or for assignment of a new identifier. This presentation must be an on-line function as well as an option for a downloadable file or a printed report.

- The identifiers must be assigned and maintained by a single, unitary system that is managed by the SEA at a site determined by the SEA.

- All modifications and additions to the database will be time- and date-stamped, and create an audit trail. The audit trail information may include the following:
  - Last school district and user ID to edit a record
  - Date and time of record creation
  - Date and time of last record update
  - Fields that were changed
  - Optional comments for person updating , i.e., reason for change
  - A batch ID to uniquely identify batches submitted to the system (in the event a back-out of the data is necessary), or online entry designation

- The system must be able to process a batch of student records, identify matches with existing records, assign new identifiers as appropriate, and create a report of near matches for review in line with these benchmarks.
  - Batches of up to (number) of student records must be processed successfully.
  - Up to (number) of batches with up to (number) of student records each must be accepted for processing and successfully processed.
  - Processing should run at the rate of 3-10 student records per second.

- (The system must maintain the "ownership" of a student's record by a district or school. Data other than the directory information elements must not be available to any user other than one at the current or past enrolled school or district. A student's current school should not be changed unless the prior school has submitted a withdrawal code for that student. A message indicating the student is still active in another school or district must be displayed or provided in a downloadable or printable report.)

- Back-up systems must provide:
  - Mirror files for transactions
  - Daily full back-up of all files
  - Process for full disaster recovery
  - Compliance with all other SEA standard procedures for back-up systems, storage media, and scheduling
  - A hot site for use within 24 hours in the event of complete loss of the main system

State Acquisition and Requirements

(The SEA will provide text describing all requirements and procedures established by the state for acquisition of this type of system. State requirements for contracting with a state agency will be included.)

Implementation Timeline

- (Date) (RFQ, RFB, RFP, RFI, other process for a proposal) published by the SEA
- (Date) Period for questions and responses
- (Date) Meeting with potential proposers (Mandatory, Optional)
- (Date) Deadline for submission of an intent to propose
- (Date) Publication of responses to questions; modifications to the request for proposals
- (Date and Time) Deadline for receipt of proposals
- (Date) Approximate date for questions to proposers, presentations by proposers
- (Date) Selection of successful proposal; initiation of negotiations and contract agreement
- (Date) Contract award; notification of all proposers
- (Date) Start of project
- (Date) Final specifications agreed to by SEA and contractor
- (Date) Initial installation and testing of system (Provision of sample data by SEA)
- (Date) Pilot use of system by selected districts
- (Date) Acceptance of system by SEA for training

- (Date) Training of SEA staff
- (Date) Training of district and school staff
- (Date) Opening of system for uploads of batch files for initial assignments
- (Date) All students assigned an identifier
- (Date) Final deliverables (documentation, acceptance of system)
- (Date) Warranty and maintenance begin
- (Date) End of maintenance period

Schools Interoperability Framework (SIF)

The proposer should provide the following information as applicable for the student identifier system software application included in the company's proposal.

Where appropriate, identify the SIF Specifications Version in your responses.

SIF Certification is desired for all software applications. However, you may propose SIF compliant applications that are not yet certified if you specify the date by which certification is anticipated. Certification of all applicable objects to the Version (1.5) specifications at the time of implementation is desired.

Provide the following information in your proposal.

- Schools Interoperability Framework (SIF) Involvement

  SIF Certification
  - List SIF Certified applications that will be provided by your company as part of this proposal that are posted on the SIF Certification Registry at: http://www.opengroup.org/sif/cert/register.html).
  - List applications that will be provided by your company as part of this proposal that are not SIF Certified but that have SIF compliant agents available. When do you intend to have these applications SIF Certified?
  - For each SIF Certified application, please supply a copy of the Conformance Statement Questionnaire that you completed as part of your Certification Application.
  - For each application that has a SIF compliant agent but is not yet SIF Certified, provide a description of each agent's functionality in complete detail. Include descriptions of the SIF objects that are currently compliant. Identify SIF objects that will be made compliant as part of this proposal.

  SIF Experience
  - Describe any specific work your company has done for other school-, district- or state-level SIF implementations. (A comprehensive, confidential list of clients may be requested if your company is chosen for further consideration.) For each site described in this proposal, provide the following information:

- List the schools, districts, and/or states in which your application is deployed.
- Provide the scope, timeline, and brief history of each project.
- Describe the role your organization played in implementation and support.
- Describe the functions(s) supported by your application(s) (i.e., subscriber, provider, etc.).
- What is the duration of your company's involvement in the installation?
- List other agent vendors involved in the project.
- List the SIF data objects shared within the project and the applications with which data are being shared. Indicate if the data transmissions involve interoperability or scheduled exchanges.
- Name the zone integration server(s) used.
- Provide customer contacts (references) for each project.

- Agent Costs
  - Are costs for your agent(s) included in the costs for your software or are they separate costs?
  - How are upgrades to your agent(s) priced?
  - Describe installation support and its cost.
  - Describe on-going support and its cost.
  - Are upgrades included in software maintenance or an annual service agreement?

- Zone Integration Server (ZIS)
  - Does your company provide or market a Zone Integration Server (ZIS)? **(If not, proceed to the next section.)**
  - Identify the version(s) of the SIF Specification that the ZIS supports.
  - List all schools and/or districts in which the ZIS is currently implemented.
  - Provide a list of references from these implementations that we can contact.
  - Does your proposal include the cost of the ZIS and implementation?
  - What is the cost for upgrades?
  - What are the costs for training and support for the ZIS?
  - Describe the training and support provided (documentation, phone support, etc.).
  - What additional software needs to be installed and operational in order for your ZIS to run properly?

- SIF Participation
  - Provide your original date of SIF membership.
  - List leadership positions held by staff in your organization as part of the SIF organization, including working groups.
  - List SIF working groups in which your company actively participates and staff hours of company involvement in each working group.
  - List any and all SIF activities in which you have participated, including Developers Camps, Connect-a-Thons, conference and trade show demonstrations, and quarterly and annual meetings.

- SIF Support
  - Will your company assist the state in using SIF to interface your application with other internal and external legacy information systems used by the state?
  - What specific training, support, and development assistance will be provided?

About ESP Solutions Group

ESP Solutions Group provides its clients with *Extraordinary Insight*™ into K-12 education data systems and psychometrics. Our team is comprised of industry experts who pioneered the concept of "data driven decision making" in the 1970's and now help optimize the management of our clients' state and local education agencies.

ESP personnel have advised all 52 state education agencies as well as the U.S. Department of Education on the practice of K-12 school data management. We are regarded as leading experts in understanding the data and technology implications of the **No Child Left Behind Act (NCLB)**, **Performance Based Data Management Initiative (PBDMI** and **EDEN)**, and the **Schools Interoperability Framework (SIF).**

Dozens of state education agencies have hired ESP to design and build their statewide student record collection systems, federal reporting systems, student identifier systems, data dictionaries, evaluation/assessment programs and data management/analysis systems.
To learn how ESP can give your agency *Extraordinary Insight*™ into your K-12 education data, contact Mark Johnson, Chief Operating Officer at toll free (888) 828-6480 x107 or mjohnson@espsg.com.

This document is part of *The Optimal Reference Guide* Series, designed to help education data decision makers analyze, manage, and share data in the 21st Century.

(512) 458-8364
www.espsolutionsgroup.com
Austin • Boston • Washington DC