



ESP Solutions Group

Vertical Reporting in the State Environment: A Short Primer

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Preface

This document introduces the idea of Event-Based, Request-Based, Time-Based, and Manually-Triggered Reporting in the Schools Interoperability Framework (SIF) particularly in relation to state reporting from districts.

This is an initial draft designed to introduce these concepts particularly in relation to State Report Manager (SRM) and Vertical Reporting (VR) implementations at the State level.

Types of Reporting

For the purposes of Vertical Reporting we are defining four types of reporting:

- Event-Based
- Request-Based
- Time-Based
- Manually-Triggered

This document will give a brief description of each of these. Further iterations of this document will go into more detail.

Reporting is defined as data elements that are transported from a lower entity on the organization hierarchy to an entity higher on the organization hierarchy. Additionally that data must have meaning to the receiving entity.

Schools Interoperability Framework (SIF)

This document assumes the reader is familiar with SIF. In the most common reporting model:

- The data resides at its source in the Student Information System (SIS) and a SIF Agent (usually designed by the SIS vendor) sits on top of it, either on the same server or another server with a direct connection.
- There is a Zone for the district and for the State.
- There is a data collection and ETL application that is registered in the District Zone AND the State Zone. It has a SIF agent that can interact

with the SIS Agent. (State Report Manager covers both of these functionalities)

- There is a Vertical Reporting Agent in the state zone that communicates with the SRM and the databases and data stores of the State.

All the examples below assume the above scenario, and assume that the data needed is stored in the SIS. This is not always true but it simplifies explaining the reporting types.

Event-Based Reporting

Event-Based reporting is based on the concept of SIF events.

Agents are designed to track certain changes in the application to which they are connected.

Certain SIF objects are “published” by that Agent. If a data element for that object changes then that Agent publishes a “Change Event” for that object into the Zone. Any other agent in the Zone that is “subscribed” to that object will be sent that newly changed object.

These changes could include a student's class schedule changing, a student leaving the school, or their free/reduced lunch status changing.

In Wyoming we will be collecting student and teacher schedule information, course information, and school/district information using Event-Based Reporting.

Request-Based Reporting

A request-based report is a report generated from a request for certain objects. In this model the SIF Request-Response Model is utilized. For example, an application that requires information on a certain object would query the Zone for that object or objects. The Zone knows which agent is the official provider of that object in that Zone and the Zone Integration Server queries the provider for that object and then delivers it back to the requestor.

The StudentSnapshot (that is used to carry most of the WDE-671 Student Roster data elements) will be collected in Wyoming by the State Report Manager (SRM) requesting StudentSnapshot from the Student Information System (SIS). How often StudentSnapshot is collected will vary from district to district based on each district's needs.

Time-Based Reporting

A time-based report is a report that gets triggered at a particular time, or when a condition is met. This kind of reporting occurs when a report is requested or submitted based on an environmental trigger such as a date or time, assessment results being released, or the year ending.

In Wyoming the end of year report may be collected in this way.

Manually-Triggered Reporting

A manual report is data gathered up, put in a Comma-Separated-Value file (a CSV file) or a spreadsheet, and then upload it to the SRM.

Any district that is not yet SIF-enabled would utilize this model. Those districts would be supplied with three spreadsheet templates that they could use to provide all the collected data via a file upload to the SRM website.

Conclusion

This document is designed to frame a reporting vocabulary for us to talk about reporting and tailoring issues to each district's and the State's needs.

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