

EMIS Redesign for Longitudinal Data Project Commonly Used Terminology

- **Agent** – liaison between an application and the ZIS. An agent is responsible for sending messages to and receiving messages from the ZIS. For incoming messages, an agent translates the XML message into the data recognized by its application, and applies any changes to the application's data. An agent is also responsible for monitoring changes in the data associated with its application, assembling it into a SIF message, and submitting it to the ZIS.
- **Attribute** – an item associated with an element that describes, modifies, or provides extra information about the element content (think of it as an adjective describing the element).
- **Authentication** - the process of verifying whether someone or something is in fact who or what it declares itself to be.
- **Common Elements** - data elements that are common across multiple data objects.
- **Conceptual Data Model (CDM)** - a map of concepts and their relationships that represents the high-level logical structure of the sets of data, which is independent of any software or data storage structure.
- **Data Collector** - The data collector is located at the regional site and is responsible for collecting data from local SIF-based data sources or non-SIF sources and for managing the reporting processes at the regional site. A web-based administration console lets regional sites and districts control the collection and submission of reports. In addition, all errors based on the processing at ODE will be disseminated down to the data collector for review by the ITC and/or district. Security protocols will be used to determine access to the data collector.
- **Data Model** - a description of the data structure and the way data are organized and used.
- **Data Object** – a logically related set of elements that is exchanged in the zone. Data objects are defined using XML.
- **Element** – a data field representing a defined piece of information.
- **Encryption** - a way of coding information in a message so that if it is intercepted by someone as it travels over a network it cannot be read by the human eye.
- **Event** – type of message that is sent by an agent when information in its associated application is added, changed, or deleted.
- **GUID** – Globally Unique Identifier, a 32-character identifier unique across space and time. Frequently used to uniquely identify each instance of a data object (RefId), resulting in a mechanism for uniquely mapping a specific person, school, etc. in one application with the same entity in another application.
- **Logical Data Model (LDM)** - contains granular details about the relationships between the data elements and the desired flow of data.
- **Message Queues** - persistent storage areas, such as databases or files, where messages reside while waiting to be delivered.
- **Physical Data Model (PDM)** - specifies implementation details which may be features of a particular software application or version.
- **Provide** – to be able to respond to requests for a given data object. There is only one designated provider (default responder) in a zone per object. Providers of an object must be able to supply all mandatory elements within that object
- **Publish** – to send event messages to the zone whenever an event occurs affecting a given data object.
- **Pull Mode**– mode in which an agent functions. An agent in Pull mode polls the ZIS to get any messages waiting for it. Pull mode agents always initiate contact with the ZIS.

EMIS Redesign for Longitudinal Data Project Commonly Used Terminology

- **Push Mode** - mode in which an agent functions. An agent in Push mode allows the ZIS to send messages to it in real time. Initiation of communication is bi-directional between the ZIS and the agent.
- **Regional Site** - For the purpose of the EMIS Redesign project, regional sites include the 23 Information Technology Centers (ITC) and the two independent reporting districts, Columbus and Akron.
- **Report Collector** – The report collector is located at the Ohio Department of Education and is the user interface for the EMIS staff. ODE staff can monitor the data submission process and review the errors generated at the department level. Security protocols will be used to determine access to the report collector.
- **Report Manifest** – a report definition describing the data to be contained in a report.
- **Request** – type of message containing a query for a specific data object.
- **Response** – type of message containing data objects sent in reaction to a request message.
- **Selective Message Blocking (SMB)** - allows an agent to tell the ZIS to suspend delivery of event messages until further notice.
- **SIF Ack** - the acknowledgement message used in every message exchange. The receiver of a message returns the Ack to let the sender know the message was received, or if there was an error.
- **SIF Implementation Specification** - a data standard that describes how preK-12 applications can share data.
- **Student Information System (SIS)** – usually the primary student application in a zone.
- **Subscribe** – to receive event messages (adds, changes, deletes) for a data object and its elements.
- **Synchronize** – a process that agents perform that establishes a common GUID in a zone between applications for each person, school, or other entity. Agents typically synchronize with the SIS agent when they are first installed, and again at the beginning of each school year.
- **Vertical Reporting** – automated reporting using the special case of vertical interoperability identified in the SIF Specification.
- **Vertical Reporting Choreography** –the specific steps followed by agents regarding the movement of data in a vertical implementation.
- **XML** - Extensible Markup Language; a standard language used to describe data. SIF messages are defined using XML.
- **Zone** – a logical collection of applications, agents, and a ZIS that exchange information with each other. Zones can be set up to exchange data at different levels. They are typically established at the district level, and are also frequently set up for each school.
- **Zone Integration Server (ZIS)** – Controls communication between agents. Its primary responsibility is to route messages from agent to agent, and to control which agents can request, provide, publish, and subscribe to which data objects. The ZIS is actually software, not hardware, and may or may not be installed on a dedicated server.