SIF Implementation Specification 2.4

Content Catalog

A way to search for content that resides in multiple content repositories and return one catalog of those resources.

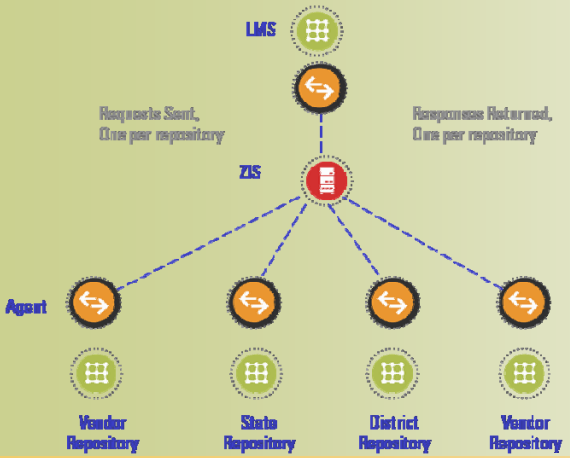
Before SIF Implementation Specification 2.4

There were many different applications and presentation layers to access content, including multiple publishers, content repositories and different view formats, and there was no easy way to search across heterogeneous sources and media. In addition, consistent tagging of metadata was a challenge.

What is It?

The Content Catalog is an object that allows educators and curriculum designers to communicate their specific resource needs to the providers of instructional content. These requests can be in the form of searching by learning standard, assessments or any type of content. The Content Catalog enables these multiple content repositories that may be using different APIs to interact with applications using the SIF Specifications.

What is the Impact?



As a result of using the Content Catalog, many benefits are realized including:

* Eases searching
* Provides education specific metadata for K-12
* Requests for instructional content in multiple ways
* Aligns to learning standards
* Allows the teacher or instructional application to provide students with resources from multiple and formerly stove-piped sources

Zone Services

A way in which customized operations, transactions and database views will be provided with this SIF Zone.

Before SIF Implementation Specification 2.4

Prior to the SIF Implementation Specification 2.4, the SIF Zone allowed applications to interoperate by exchanging messages conformant with the SIF Data Model. While this represented a powerful way to unify remote applications, Zone Services add the following capabilities:

- Customized Operations in addition to create, read, update and delete operations on SIF Data Objects.
- Transaction Support for stateful educational processes like Locate Student.
- Data Base Views to encapsulate the details of the SIF Data Model.

What is It?

Zone Services are the way in which these capabilities will initially be provided within the SIF Zone. The underlying SIF Infrastructure is being extended in SIF Implementation Specification 2.4 to support the following Zone Services:

- Student Record Exchange (either point to point or through a 3rd party broker)
- Assessment Scoring
- Student Locator
- Staff Locator

What is the Impact?

As a result, clients will be able to communicate with these Zone Services over the same wire that other clients communicate with object providers, and they will operate in much the same way. The normal message functionality of the Zone will apply to the new message types including:

- Data security (via data encryption, authentication and specific administrator authorization)
- Loose coupling between sending and receiving application (a SIF Zone Service need never know its subscribers)
- Guaranteed message delivery or failure notification
- Guaranteed correct packet ordering on reception
- Automatic service discovery
- Content based routing
- All data exchanges map back to the underlying SIF Data Model

Differences between a Data Object and a Zone Service

Data Object	Zone Service
SIF Data Elements are adjectives describing the object	Operations are verbs that describe the actions a service can perform
Models an entity (ex: student)	Models a process (ex: Locate student)
Stateless data	Stateful behavior
Single fixed CRUD Interface	Customized Interface
Single owner (provider) per object per context within a Zone	Multiple Zone Services may supply or change a given object (usually by implementing calls to the Object Provider)
Allows applications to synchronize their data sets	Allows applications to interact at a deeper level
Multiple applications besides the object provider can publish change events for a given SIF Object	Only the default Service Provider can publish notifications for the service

Data Model - New Elements

New elements added to the SIF Implementation Specification 2.4 Data Model to meet the evolving needs of the schools, states, vendors and government agencies.

Before SIF Implementation Specification 2.4

The SIF Implementation Specification has a robust data model. This data model defines specific entities in the pK-12 environment as data objects to be shared between applications. The SIF Association and its members strive to constantly add to and modify the data model to better meet the needs of the education community.

What is It?

The SIF Implementation Specification Data Model gathered specific requests from state departments of education, LEAs and from vendors. These needs were necessary for data reporting, greater interoperability between applications and access to data.

What is the Impact?

The following areas had changes in the SIF Implementation Specification 2.4 Data Model:

- Instructional Services
- Student Record Exchange
- Assessment
- Special Programs
- Student Information Systems
- Metadata

About the SIF Association®

The SIF Association is a unique, non-profit collaboration composed of over 3,200 schools, districts, states, US and International Ministries of Education, software vendors and consultants who collectively define the rules and regulations for educational software data interoperability. The SIF Implementation Specification enables diverse applications to interact and share data efficiently, reliably, and securely regardless of the platform hosting those applications. The SIF Association has united these education technology end users and providers in an unprecedented effort to give teachers more time to do what they do best: teach. For further information, visit http://www.sifassociation.org

SIF Association