

Have You “Seen” SIF Lately?

Get ahead of the wave of customer demands to leverage the power of CEDS, RTTA, SLDS, Common Core and more: SIF 3.0!



The ‘new’ SIF 3.0 release standardizes the data transfer between applications conformant with the most comprehensive global data model in the educational domain, providing you with interoperability that will save your customers money and time. Connect one adapter and your application is ready to be integrated into any deployed SIF 3.0 solution allowing your customers to ‘enter data once and use many times’.

The SIF Implementation Specification enables the transfer of data – securely, seamlessly and in real-time – between applications, not only within a school district, but also vertically to regional/state agencies and even further to the federal level. The specification is an open standard, which is independent of system architecture. A SIF-conformant data consumer application will operate equally well doing point-to-point data transfers with cloud-based services or indirect ‘broker’ data transfers within an organizational data center.

SIF is a freely available, open, global standard developed by a Community of professionals who are passionate about improving education!

The ‘new’ SIF 3.0 infrastructure offers three groundbreaking design advances which satisfy long standing requests from SIF developers and implementers:

- **Making the infrastructure independent of the SIF Data Model**

All current data model dependencies have been removed. As a result, the SIF 3.0 infrastructure can carry SIF object data from any SIF release of any locale (US, UK, AU) without change, or for that matter, carry data payloads from any XML data standard that is independent of the infrastructure that transports it.

- **Offer marketplace middleware alternatives to the Message Broker (ZIS) component previously required in SIF Solutions**

This issue has been addressed on two fronts. First, the Zone Integration Server (ZIS)-provided infrastructure functionality has been broken up into a set of multiple, separately implementable Infrastructure Services. These were designed to individually map to common industry technologies such as “Enterprise Service Bus”, “Queue Manager” and “Service Registry”. The SIF 3.0 Zone middleware can still be implemented by a single component, but it no longer has to be. This configuration is referred to as the “Brokered Environment”.

Second, the new SIF 3.0 architecture makes it possible to construct and deploy SIF-Certified solutions in a “Direct Environment” without utilizing any middleware at all! This new SIF infrastructure alternative offers clients a standardized subset of the functionality available in the Brokered Environment, which means they can be deployed into middleware-centric solutions with no recoding or reintegration efforts required.

- **Support industry standard transport platforms**

The SIF 3.0 specification was designed to be conformant with, and leverage the REST transport. In particular, the specification includes paged reads, synchronous IO, URL parameters and support for the primary REST resource design patterns. This allows SIF 3.0 deployed in the data center using the identical technologies that are already present and known to IT personnel. It also makes it easier for vendors to staff SIF projects as REST technology is already familiar to the majority of today’s software developers.

COMPARISON TABLE	SIF	Other Data Initiatives
Data Scope	CEDS data, + SIF objects not covered by CEDS + functional services which encapsulate process behavior	A subset of CEDS data or SIS data only
Data Security	X.509 certificates for authentication, XML filtering, provisioning and ACLs for authorization	Unknown or not included
Data Retrieval	full XQuery capability– leverages existing industry standard	Fixed queries only, or initiative-specific REST ‘get’ extensions
Notifications (Events)	Real-time updates, delete and change notifications	No equivalent
Service Gov & Network Admin Support	Detailed set of defined capabilities for site administration. Allows enforcement of organizational data security policies	Either unknown or retrieval is open and direct, data modification is not supported
Deployed	Yes – in thousands of school districts	Yes, but numbers unclear
Interoperable infrastructure component	Both Direct and Brokered REST configurations	Direct REST only
Compliance Certification Program	Yes - XML allows validity checking of each transfer in an application data exchange (both payload and supporting infrastructure)	None – not clear if even possible
‘Open’ standard	Yes - open Standard process. Releases created by and voted on by members	No – either APIs openly available, use case submittals accepted–but no external standard creation, or, product specific APIs which have been “opened” for others to use

Unsurprisingly, the majority of REST software developers today would rather be given a self-explanatory “hands on” way to quickly exchange data with a defined set of RESTful services, than be required to first sit down and read a specification telling them how to do that. The **SIF 3.0 REST Developer Sandbox (SIF-RS)** is designed to support this approach to software development by providing a step by step method of exploring and building SIF standard based software solutions. To find out more, please visit the SIF-RS webpage: <http://bit.ly/SIF-RS>

The SIF Association relies on volunteer effort to drive the specification and the standard forward. Without the many education ‘champions’ we are proud to have as our members, we would not be able to address the

education needs at ground level. There are numerous benefits of being a SIF Association member, these include:

- Being seen as an industry innovator by contributing to the efforts to advance application interoperability in the educational domain,
- Providing you with early access to developer tools and direct support from Association Staff,
- Providing a forum for face-to-face conversations with potential end user customers about the functionality they are seeking to acquire.

To find out more about SIF Association membership, please visit our website: www.sifassociation.org.

To find out more about the SIF 3.0 Specification, please visit <http://bit.ly/SIF-3-0>

The SIF Association is a unique, non-profit collaboration composed of over 3,200 schools, districts, local authorities, states, US and International Ministries of Education, software vendors and consultants who collectively work to define the rules and regulations for educational software data interoperability.

For the vendor, the SIF facilitates seamless data sharing and reporting between conformant applications without incurring expensive customer-specific development costs. For the end user, the application conformity it provides, allows educational establishments to purchase and deploy best-of-breed solutions easily and seamlessly.

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.

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