



SIF Implementation Specification 2.7

A Migration Release

A SIF 3 migration release is different than a SIF 2.x minor release in that it breaks backwards compatibility with earlier versions. SIF US 2.7 incorporates important version 3 structural changes moving the data model towards compatibility with both the SIF 2.x and SIF 3 infrastructures. This document contains a summary of the new changes and describes how to leverage them to create an incremental and smooth migration path providing benefits at each step in the process while retaining compatibility with the SIF 2.x infrastructure.

Using the SIF US 2.7 data model to define the payloads carried by the SIF 3 infrastructure (and reaping the associated benefits) is straightforward, but considered experimental at this time, although sites interested in doing so are encouraged to provide feedback which will be used to prove and enable this migration approach.

Universal RefId Usage

One of the most developer requested features over the years has been to add a unique identifier field to the format of every object type. However changing the existing object structure to incorporate a new root level attribute has been a breaking change impossible to introduce under SIF's policies defining what is possible in a minor release. SIF 3's strong REST underpinnings have completely changed this conversation, as without an identified unique key for each item in a collection the REST design pattern cannot function. In order to move SIF 2.7 over the SIF 3 infrastructure, these long sought after SIF object identifiers (RefIds) have been universally added to every supported object type.

This is a well understood and bounded breaking change. The benefits of improved referential integrity are well known and the expected break is limited to a single situation which has a known solution. Applications already deal with new unexpected data fields added during the normal minor release process. The typical agent SHOULD consume only the data it understands from any incoming object. While this can be achieved several ways depending on the tools employed, logically it makes the most sense to design message reception logic which detects and processes only a list of (simple) XPath's corresponding to XML elements of interest for every supported object type. The result of this approach is an agent which only consumes only the subset of elements it needs in an arriving object, regardless of any other elements which are contained there as well. This sort of pre-SIF 2.7 agent will continue to function, unchanged even if a RefId is added to an

object by an agent conformant with SIF 2.7 or greater. This however solves only one of several interoperability use cases..

A second problem arises when a SIF 2.7 or greater agent receives one of the impacted objects from a pre SIF 2.7 agent. Now a mandatory field (the RefId) is missing and MUST be generated by the message recipient. Where the recipient is the SIF 2.7 object provider (the majority of cases) this is expected to work quite well; especially as it conforms to the SIF 3.0 infrastructure requirement that only the object provider may assign the RefId.

The final case is where the SIF 2.7 agent recipient is not the object provider and receives a change request (create, modify or delete) which does not have a RefId. In that situation the agent may query for the object utilizing other (ideally unique) keys, storing the RefId returned if the object provider is SIF 2.7 or above. Either way, the optimum strategy for a SIF 2.7 agent receiving impacted SIF objects SHOULD be to first match by RefId and then by any xs:unique keys before concluding the received is a different object.

Backports

Another clear benefit of installing SIF 2.7 components is their support for new and updated object types that reflect their SIF 3 counterparts, providing new functionality and easing future transitional steps. The SIF 2.7 release includes an updated version of the SIF 3 Assessment objects and the groundbreaking set of Identity Management objects.

The North American Technical Board may choose to create an additional SIF 2.x migration release based upon the SIF 3 infrastructure in the future, in order to provide existing SIF 2.x adopters with the enhanced functionality contained in the new infrastructure and in the ongoing data model work. The SIF 2.7 release then represents the first major step on the path to SIF 3.0 functionality.

Certification

The SIF Association has released a SIF 2.7 Certification Suite that certifies application conformance with the combination of the SIF US 2.7 data model release and the SIF 2.x infrastructure. Specific areas of the earlier SIF 2.x infrastructure that were incompatible with the SIF 3 infrastructure have been deprecated and will not be tested. These include Zone Services, the SOAP Transport, and Bundled Events.