



From the world's largest financial market firms to banks worldwide, IBM offers creative solutions to drive growth and differentiation. IBM Provides various product and service offerings supporting the SWIFT Network. One of these products is IBM WebSphere Business Integrations for Financial Networks which delivers an integration platform for financial applications.

Benefits

- > Quality of message definitions
- > Interoperability in multi-vendor environments
- > Allows skilled resources to work on value-added development
- > Enables the use of non-XML message standards in modern infrastructures



IBM enables standards interoperability

The SWIFT Standards Developer Kit allows IBM to provide enhanced customer service by enabling interoperability with other products in multi-vendor environments.

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Many software vendors have created their own XML representations of the SWIFTNet MT messages in order to support the FIN standard in modern software infrastructures. Instead of developing and maintaining its own SWIFT MT message definitions, IBM will now be using definitions provided by SWIFT as part of the SWIFT Standards Developer Kit (SDK). This approach allows IBM to provide better service to its customers by enabling interoperability with other products in multi-vendor environments. It also lowers internal development and maintenance costs, while freeing skilled developers to work on more strategic, value-added projects.
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Background

IBM is an important provider of SWIFT-enabled integration products, ranging from market-leading Enterprise Application Integration (EAI) to SWIFTNet connectivity products. Providing support for SWIFT MT standards in these products requires significant investment from IBM, in terms of both initial development and the ongoing maintenance required to track the standard as it evolves.

IBM's SWIFT products are built on the company's WebSphere integration suite. WebSphere is a modern platform; its

capabilities are oriented towards the use of XML, which is now the dominant technology for data integration. Using modern integration technology like WebSphere for non-XML formats, such as SWIFT MT messages, can be challenging.

The MT standard is updated annually in response to demands for new functionalities from the financial industry. The changes are published in the SWIFT User Handbook, an online document that describes in detail each of the 247 user-to-user messages that make up the standard. Like other vendors in this market, IBM runs annual maintenance

projects for its MT-enabled products to maintain compatibility with the updated message definitions. Each project involves analyzing the update; specifying, documenting and implementing the required changes to the products' proprietary internal definitions; testing the result; and finally distributing the new definitions to customers. Time-to-market is critical. After all, in order to be able to implement standards changes in their back-office systems ahead of the mandatory deadline, customers need the updated definitions as soon as SWIFT publishes the final update.

To address the combined challenge posed by the MT standard's legacy format and the regular updates, SWIFT has created a library of XML schemas that provide detailed definitions of each MT message (see The SDK MT/XML Schema Library). Message definitions in the form of XML schemas can be consumed directly by XML-oriented platforms, which significantly reduces the time required to implement standards updates. Using schemas to define MTs also means that MT messages can be processed internally as XML, allowing the full range of XML technologies to be used. Moreover, seeing that the schemas are provided by SWIFT - the source of the standard - the highest quality is guaranteed.

The schemas are provided as part of the SWIFT Standards Developer Kit (SDK), a downloadable package of processable standards information. Subscribers to the SDK gain access to the full set of schemas and updates that are published to coincide with standards releases. Sample software that illustrates how to convert a message in native MT format to MT/XML, and from MT/XML to MT, is also provided.

To take advantage of the benefits of the SDK, IBM has therefore chosen to switch from a proprietary approach to MT support to the SDK MT/XML schema library in current and future releases of its primary SWIFT product, WebSphere Business Integration for Financial Networks (WBIFN).

Drivers

There are several reasons why using standards definitions from the SDK are preferable to developing and maintaining proprietary equivalents. The most obvious drivers centre on cost of development and time-to-market. By using off-the-shelf definitions of MTs, IBM is spared the cost and effort of building and maintaining an equivalent proprietary solution, and can get new MT definitions into the hands of customers more quickly.

Another advantage of the SDK is that it allows IBM to continue its product strategy of moving 'up the stack' – that is, investing in product functionalities that offer real business benefits and differentiation, over and above basic standards support. Using the SDK schemas frees up skilled resources who can be allocated to more value-added development projects instead. Moreover, finding engineers with the required skill set to maintain MT-format solutions is not an easy task, whereas, XML skills are relatively plentiful. A solution whereby XML technology is used for both MT and MX messages, and which allows MTs to be implemented without the need for detailed MT knowledge, promises sustained cost reductions and resource flexibility.

Many WebSphere Business Integration for Financial Networks (WBIFN) customers use a variety of middleware products in their IT environments, from IBM as well as from other vendors. System integration would be greatly simplified if these middleware products featured a single XML standard for MT message definitions. As SWIFT, IBM and others adopt the SDK MT/XML Schema Library, it is well on its way to becoming that de facto standard.

IBM champions the SWIFT-provided definitions, as it leads to significant long-term benefits for its customers and for the SWIFT community at large. Particularly as banks continue to implement service-oriented architectures, a process that tends to create complex integration problems, XML-based tools prove they are the natural solution.

It is these long-term advantages, rather than the immediate cost-savings, that IBM sees are the real benefit of the SDK approach. Toni Friedrich, Executive IT-Architect Payment Systems, IBM, at IBM's development centre in Böblingen, Germany adds,

"The strategic advantage of increasing interoperability between the various SWIFT-enabled products in a typical customer's integration landscape is the key long-term driver for IBM to move in this direction."

The SDK MT/XML Schema Library

The MT/XML Schema Library is a complete set of schema definitions for MT messages, and software that demonstrates how to convert messages from an MT format to an XML representation and back.

XML Schema is a W3C (The World Wide Web Consortium) standard to define the structure and content of XML documents.

XML and schema technology is well supported in modern business computing platforms, and is used for XML-validation and transformation from MT to XML. By treating MT messages as XML, all the SDK XML tools can be applied to MT implementation, thereby making the standards development and implementation process simpler and more cost-effective.

Components

MT/XML schemas – define the business content of each message type and a schema that defines the header and trailer elements common to all message types .

MT/XML conversion reference – uses sample Java source code to convert a message in MT format to an XML instance and from an XML instance to a message in MT format.

Solution Overview

The Standards Developer Kit

The machine readable standards information used by IBM will be available to SWIFT customers and partners during 2009, following the completion of a pilot programme currently targeted for the third quarter of 2009. It is one component of SWIFT's Standards Developer Kit, a coherent set of resources aimed at supporting all phases of standards implementation, from analysis, through to design, build, document and test. The Standards Developer Kit includes a machine-readable repository of message meta-data, which can be consumed in a variety of forms.

For more information, please contact your SWIFT account manager or visit www.swift.com.

For more information about IBM's messaging products, please contact your IBM sales representative or visit www.ibm.com/software/integration/wbijn.

Conclusion

The MT/XML schema library is one of several SDK components designed to reduce the need for manual standards update projects for partners and customers. Adam Moulson, Head of Implementation, SWIFT Standards, sums up,

"It is clearly inefficient for the SWIFT community that large numbers of partners and customers independently develop and maintain incompatible implementations of SWIFT and ISO standards. Our aim with the SDK is to reduce the Total Cost of Ownership of SWIFT for the financial industry, by implementing these things once, using standard technology so that the maximum number of stakeholders can benefit."

About SWIFT

SWIFT is a member-owned cooperative that provides the communications platform, products and services to connect over 8,500 banking organisations, securities institutions and corporate customers in more than 200 countries. SWIFT enables its users to exchange automated, standardised financial information securely and reliably, thereby lowering costs, reducing operational risk and eliminating operational inefficiencies. SWIFT also brings the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest.