



SWIFT Partners

SWIFTReady Label – Trade Finance

Technical Validation Guide

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1 Introduction

SWIFT initiated the SWIFTReady label programme to help application vendors to offer products that are compliant with the business and technical requirements of the financial industry. SWIFTReady labels certify third party applications and middleware products that support solutions, messaging, standards and interfaces supported by SWIFT.

SWIFT has engaged an external service provider (referred hereafter as the Validation Service provider) for performing the Technical Validation of the products applying for a SWIFTReady Application Label.

1.1 Purpose and Scope

The certification of the SWIFTReady Trade Finance label is based on a set of pre-defined qualification criteria which will be validated by means of a technical, functional and customer validation process.

The set of pre-defined qualification criteria for Trade Finance is defined in the SWIFTReady Trade Finance Label Criteria 2009 ([2])

This document focuses on the approach for the technical validation that a vendor application must follow to be certified against SWIFTReady Trade Finance criteria.

1.2 Target Audience

The target audience for this document is application vendors considering the certification of their business application for the SWIFTReady Trade Finance Label. The audience must be familiar with SWIFT from a technical and a business perspective.

1.3 Related Documents

1. SWIFTReady Application Programme Overview (How and Why)
2. SWIFTReady Trade Finance Label Criteria 2009
3. SWIFT for Corporates – Standards MT Message Implementation Guidelines
4. AFT test scenario and validation guides
5. MQSA test scenario and validation guides

All documents are downloadable through www.swift.com.

2 Technical Validation Process

2.1 New Label

2.1.1 Testing for Connectivity and MT Validation

Requirement: The vendor must demonstrate the capacity of their product to support FIN Messaging Standards. The application must be able to connect to Alliance Access either directly via one of the adapters mentioned below or indirectly preferably via one of the SWIFTReady Financial EAI applications.

To prove their support for FIN, the application must be able to connect interactively to Alliance Access interface using the connectivity options listed below:

- WebSphere MQ Series Interface for Alliance (MQSA) **OR**
- WebSphere MQ Host Adapter (MQHA) (Available in Alliance access R6.2)

AND

- Automated File Transfer mode (AFT)

2.1.1.1 Vendor having ITB Connectivity

For the technical validation, the vendor needs to (directly or indirectly) connect to and exchange test messages successfully on the Integration Test Bed [ITB].

Please refer to the MQSA Test Scenario and Validation Guide, AFT Test Scenario and Validation Guide and MQHA Test Scenario and Validation Guide for detailed information.

a. Exchange of SWIFT Messages over ITB

- The vendor must inform SWIFT Partner Management and the Validation Service provider before commencing the test execution on the ITB
- Test on the SWIFT ITB must be completed within the time window allotted to the vendor
- The vendor must generate a minimum of 20 FIN Messages comprising a mix of Category 1xx, 4xx and 7xx as Input Message to SWIFT.
- The sender destination used in the messages is the PIC (Partner Identification Code) that was used by the application provider to install and license Alliance. The receiver destination of messages must be the same PIC. Or simply stated , messages must be sent to the vendor's own PIC
- The vendor application must wrap the SWIFT messages as per the format requirement of Alliance Access (RJE format (or XML v2 format preferred))
- The vendor must connect to SWIFT ITB, send the abovementioned messages and receive SWIFT ACK/NAKs.
- The vendor must inform SWIFT Partner Management and the Validation Service provider about the completion of the test execution.

b. Confirmation of Test Execution & Collection of Evidence Documents

The vendor must forward, after successful exchange of MT test Messages, through email the following test evidences to the Validation Service provider:

- Copy of the MT test Messages in RJE format

- If the application is exchanging files in XML v2 format, a copy of XML v2 format files generated by the business application, i.e. if the connectivity is through MQSA or MQHA
- Screenshots, Log Files, Reports from the application evidencing the processing of SWIFT Messages.
- In addition the following evidences are required for evaluating the connectivity testing
 - **Connectivity through AFT / MQHA**
 - Event Journal Report and Message File from Alliance Access spanning the test execution window
 - **Connectivity through MQSA**
 - Trace Files - SMQSFromMQSeries.TRC and SMQSToMQSeries.TRC
 - **Connectivity through MQHA**
 - Updated checklist, Message Partner Configuration details as explained in the MQHA Technical Validation Document

c. Verification of Test Results

The Validation Service provider will verify the following while performing the technical validation:

Connectivity Testing

Connectivity test results will be verified as per the checklist provided in the following documents:

- AFT – AFT Test Scenario and Validation Guide
- MQSA – MQSA Test Scenario and Validation Guide
- MQHA – MQHA Test Scenario and Validation Guide

The test result will be analyzed for arriving at the scorecard and recommendation

Message Validation

The Validation Service provider will:

- Verify if the test MT Messages (1xx, 4xx, 7xx) have been exchanged by the vendor over ITB
- Verify through the log files (MQSA Trace File, Alliance Journal Event Journal, Message File) if all the messages are positively acknowledged by SWIFT Network.
- The test messages adhere to the SWIFT format requirement (RJE and /or XML v2 formats)
- Analyze the test result to arrive at the scorecard and recommendation

Qualification Criteria Verified

SI. No	SWIFTReady Label Qualification Criteria			Pass / Fail Status
	Section Ref Number	Label Requirement	Req. No	
1.	3.3	FIN	1	
2.	3.4.1	Alliance Access Integration – SAA R6.2 Support	2	
3.	3.4.1	Alliance Access Integration – MQSA Support	3	
4.	3.4.1	Alliance Access Integration – AFT Support	4	
5.	3.4.1	Alliance Access Integration – MQHA Support	5	
6.	3.5	Standards	6	
7.	3.4	Alliance Access Integration – RJE Format	7	
8.	3.4	Alliance Access Integration – MQSA Format	8	

2.1.1.2 Vendor do not have ITB Connectivity

In case the vendor does not have access to the ITB, he may choose to execute their test messages using a customer test environment or a partner's SWIFTReady Financial EAI.

- When testing occurs through a customer, the customer reference must be provided (Name, telephone, function to cater for customer interview).
- When testing occurs through certified SWIFTReady Financial EAI, the EAI name and testing configuration details must be provided.

Please note that the actual test execution and test evidence collection as described in 2.1.1.1. also apply when testing through a customer and SWIFTReady Financial EAI.

2.2 New Label and Label Renewal

2.2.1 Qualification Testing for SWIFT MT support

Requirement: The vendor must demonstrate the capacity of their product to support the new usage of MT 798 envelope message. MT 798 envelope message was made available in November 2008 in SCORE (Standardized CORporate Environment) for the bank-to-corporate (B2C) and the corporate-to-bank (C2B) usage. The main difference between the bank-to-bank (B2B) use and the C2B use of the message is that in the latter case, the contents of the envelope is highly structured. For additional information the vendor may refer to Section 5 – Trade Standards of SWIFT for Corporates – Standards MT Message Implementation Guidelines [3].

SWIFTReady Trade Finance Label is granted to the trade application that works in a banking back-office context. Hence all messages from the corporate-to-bank (C2B) direction must be treated as inbound flow to the bank. Similarly message from bank-to-corporate (B2C) direction must be treated as outbound message flow from the bank..

The vendor application must support Straight Through Processing and SWIFT usage guidelines. The application must support business workflow for the MT 798 and the related sub-messages in the Bank-to-corporate (B2C) and Corporate-to-bank (C2B) environment.

a. Test Scenarios Planning and Execution

- The vendor application must support generation and processing of the MT 798 envelope message, enveloping Letter of Credit and Guarantee / Standby Letter of Credit transactions
- The test messages must cover the bank-to-corporate and the corporate-to-bank scenarios.
- For facilitating test execution of business work flow scenarios, test scenarios are provided in the Trade Finance MT798 Scenario document attached to this document.
- The vendor must generate one test message each of MT 798 envelope message for all the scenarios specified therein, with the following exceptions:
 - the 5 new Guarantee message types are optional, namely:
 - MT 798<777> Query to extend or pay Guarantee – B2C
 - MT 798<778> Response to extend or pay Guarantee – C2B
 - MT 798<779> Claim for payment of Guarantee information – B2C
 - MT 798<781> Settlement of Guarantee claim for payment and/or charges – B2C
 - MT 798<783> Request for Guarantee Reduction / Release – C2B
 - ability to handle the new field type, 23X (File Identification) is optional
- The Standards MT Message Implementation Guidelines define the “Rules” and “Guidelines” for implementing the MT 798 envelope message under “Usage Details” of the respective message structure.

- All test messages must adhere to the “Rules” mandatorily. Adherence to “Guidelines” is a recommended practice.
- There are no network validated rules for the MT798 (Proprietary Message), nor the enveloped message within the MT798. Standards Implementation Guide for SWIFT for Corporate has specified certain rules and guidelines while implementing the MT 798 envelope message in the corporate-to-bank and the bank-to-corporate space.
- The SWIFTReady Label applicants must adhere to the network validated rules as specified in the latest SWIFT User Handbook for the enveloped message (e.g. MT700 - Issue of a Documentary Credit), unless otherwise stated in Section 5 – Trade Standards of SWIFT for Corporates – Standards MT Message Implementation Guidelines [3].
- SWIFTReady Label applications must respect the “Rules” and are subjected to verification during technical validation.

b. Confirmation of Test Execution & Collection of Evidence Documents

The vendor must forward to the Service Provider the following through email, as test evidences after successful execution of test messages.

- Copy of the MT 798 envelope messages mentioned in the above scenario
- Sample evidence demonstrating that the application has processed the test messages. This will be done by sending screenshots / log file / application generated reports.

c. File Naming Convention

- The test messages must be packaged using the RJE format
- One file must contain one scenario of the MT 798 envelope message
- The files must bear the name as xxxxSRyy_MT798_nnn.RJE, where “xxxx” representing 4 character code [to be given by the vendor], “yy” representing the Year of Standards Release and “nnn” meaning the test message sequence number for the vendor. For eg. for a file containing test message for scenario number “001” sent by vendor “ABCD” for Standards Release 2009, the file name would be “**ABCD SR09_MT798_001.RJE**”
- The vendor must also send a summary spreadsheet explaining the scenario sequence number and a brief description of the scenario

d. Verification of Test Results

The Validation Service provider will verify the following while performing the technical validation:

Message Validation

The Validation Service provider will verify against the Standards Implementation Guide in respect of:

- Coverage of scenarios
- Message Format Validation Rule of the base message
- Presence of the Mandatory fields in the envelope message
- Presence of the Sub Message Types in the C2B flow
- Presence of Sub Message Types in the B2C flow
- Rules specified in “Usage Details”
- Linkage of Index Message with one mandatory envelope message (Details Message, where applicable)
- Message Index and Total Number of Message in Field 27A
- Cross Reference to Customer Reference Number (Field 21A) or Advising Bank Reference Number (Field 21P) depending on the message set function

- Document Reference Number (where applicable)
- Field 45A / 45B (Description of Goods and/or Services), 46A / 46B (Documents Required), or 47A / 47B (Additional Conditions) are distributed across MT 701 and does not get repeated
- Dates defined as 6!n must be in the form of YYMMDD.
- Dates defined as 8!n must be in the form of YYYYMMDD
- MT 798 envelope message must not exceed 10000 Characters
- Size of Field 77E (Proprietary Message) must not exceed 9,800 characters.

The Validation Service provider will analyze the test result to arrive at the scorecard and recommendation

Qualification Criteria Verified

Sl. No	SWIFTReady Label Qualification Criteria			Pass / Fail Status
	Section Ref Number	Label Requirement	Req. No	
9.	3.5	Standards	9	
10.	3.6	Business Work Flow	10	

2.2.2 Testing Reference Data

Requirement: The vendor must demonstrate the application's capability to validate messages against the BIC and BICPlusIBAN directories. The vendor must use the sample BIC Directory and BICPlusIBAN Directory available on www.swift.com/solutions/messaging/directories.

a. Testing for BIC and BICPlusIBAN Validation

- The test scenario for testing the BIC and BICPlusIBAN are provided in the document attached to this guide
- The test scenarios to be executed in the vendor application will cover:
 - BIC Validation
 - IBAN Structure validation
 - Deriving BIC / Clearing code using BICPlusIBAN Directory
- The test data and sample directory for the testing the BIC / BICPlusIBAN table look-up and validation will be provided to the application vendor before the commencement of the technical validation window.
- The application vendor must input these transactions into their application and perform the reference data validation using the sample directories.

b. Generating SWIFT Messages / Error or Warning Notification

Based on the outcome of the validation with the reference data, the output of the test execution must be captured.

- For the search resulting in positive result, SWIFT messages must be generated in RJE format
- For the search resulting in negative result, the screenshot displaying the warning / error notification.

c. Confirmation of Test Execution & Collection of Evidence Documents

After successful execution of the test scenario for BIC and BICPlusIBAN reference data validation, the vendor must forward, the following test evidences to the Validation Service provider through email:

- Sample evidence demonstrating that the application has processed the BIC and BICPlusIBAN reference data validation. This will be done by sending screenshots or log file.
- The application output [SWIFT test messages in RJE format or Error report].

d. Verification of Test Results

The Validation Service provider will

- validate the vendor output against the expected results

Analyze the test result to arrive at the scorecard and recommendation

e. Qualification Criteria Verified

Sl. No	SWIFTReady Label Qualification Criteria			Pass / Fail Status
	Section Ref Number	Label Requirement	Req. No	
11.	3.7	Information Services Integration (BICPlusIBAN)	11	
12.	3.7.1	BIC Directory	12	
13.	3.7.3	BICPlusIBAN Directory	13	

3 List of Appendices

3.1 Appendix 1 - FAQ

: (To be updated Later)

3.2 Appendix 2 – Glossary of Terminology

Abbreviation	Description
ACK	The term that is often used in communication protocols to acknowledge that one party has correctly received the information sent by another party. Issuance of an ACK does not indicate that the issuer accepts the business content of the information that it has acknowledged.
AFT	Automated File Transfer – Automated batch input and output session - A file transfer connection method used to transfer batch messages on the supported format between Alliance Access and Message Partner
B2B	Bank-to-bank
B2C	Bank-to-corporate
BIC	Bank Identifier Code – A code that is used in automated processing. This code unambiguously identifies a financial institution, or an entity within a financial institution. The ISO 9362 standard specifies the elements and the structure of a BIC. A BIC consists of either eight (BIC8) or 11 (BIC11) contiguous characters. These characters comprise either the first three, or all four, of the following components: bank code, country code, location code, and branch code. The International Organization for Standardization has designated SWIFT as the BIC registration authority.
BICPlusIBAN	The comprehensive SWIFT database that combines the information from the BIC Directory with the national clearing codes of some 60 countries. The BICPlusIBAN Directory enables the customer to automatically derive the beneficiary's BIC from the IBAN.
C2B	Corporate-to-bank
FIN	/messaging application/ The financial messaging application, which together with the General Purpose Application, makes up the FIN service. /messaging service/ The Messaging service that enables the secure and reliable exchange of Standards MT messages in store-and-forward mode. User-to-user, user-to-SWIFT, and SWIFT-to-user messages are sent and received within the FIN service (that is, within both the General Purpose Application and the FIN application).
ITB	Integrated Test Bed - A network domain that vendors and developers use to test applications or interfaces before deployment on the SWIFT's production network.
MFVR	Message Format Validation Rule – The document that provides complete information about the validation procedures that the SWIFT network applies to the text part (block 4) of FIN user-to-user messages.
Middleware	An item of technical software that enables data to be exchanged among different systems with standard communication components and tools for formatting, mapping, and processing.
MQHA	MQ Host Adapter – The MQ Host Adapter supports applications that communicate with Alliance Gateway through WebSphere MQ queues. To send and receive messages, these applications invoke the WebSphere MQ API. All such messages are consistent with both the WebSphere MQ and the Alliance Gateway syntax. Applications can communicate with the Alliance Gateway MQ Host Adapter over different queue managers. Alliance Gateway offers such platform independence for applications provided by the MQ Host Adapter.

Abbreviation	Description
MQSA	MQSeries Adapter for Alliance Access – In the scope of Alliance Access, an add-on that exchanges SWIFT messages between Alliance Access and back-office applications over IBM WebSphere MQ.
MT	message type – The portfolio of traditional 'tag:value' message types for use on the SWIFT network.
MUR	message user reference – A free-format field in the optional user header of FIN messages. It enables senders to add information of up to 16 characters.
NAK	Negative Acknowledgement - The rejection of a message input to a Messaging service. An error code indicates the reason for the rejection.
RJE	Remote Job Entry - The format used for batch input and output of messages in ST200 RJE format.
SCORE	Standardised CORporate Environment – SCORE enables corporates to use SWIFT's single, secure, and reliable messaging platform to access the services that their financial institutions can provide (for example, cash management services). Standardised Corporate Environment is based on a closed user group that caters for financial messaging between corporates and financial institutions. Once registered to use Standardised Corporate Environment, a financial institution can interact with any corporate that is also registered in the closed user group. Conversely, a corporate registered in the closed user group can interact with any financial institution that is a member of Standardised Corporate Environment.
SR	standards release – The set of Standards changes that SWIFT introduces on a yearly basis.