



SWIFT Certified Applications

Corporate Actions

Technical validation Guide 2018

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1 Preface

1.1 Introduction

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

SWIFT has mandated Wipro (referred here after as the “Validation Service Provider”) for performing the technical validation of the products applying for a SWIFT Certified Application label.

1.2 Purpose and Scope

The certification for the SWIFT Certified Application Corporate Actions label is based on a set of pre-defined qualification criteria that will be validated by means of a technical, functional and customer validation process.

The set of pre-defined qualification criteria is defined in the SWIFT Certified Application Corporate Actions label criteria 2018.

This document focuses on the approach that a vendor application must follow to complete the technical validation certified against SWIFT Certified Application Corporate Actions criteria.

In this document a distinction is made between a **New Application** (vendors who apply for the first time for a specific product release) and an **Application Renewal** (for product releases that already received a SWIFT Certified Application label in the past).

1.3 Target Audience

The target audience for this document is application vendors considering the certification of their business application for the SWIFT Certified Application Corporate Actions label. The audience must be familiar with SWIFT from a technical and a business perspective.

1.4 Related Documents

- 1) [The SWIFT Certified Application programme](#) overview provides a synopsis of the SWIFT Certified Application programme, including the benefits to join for application vendors. It also explains the SWIFT Certified Application validation process, including the technical, functional and customer validation
- 2) [The SWIFT Certified Application Corporate Actions label criteria](#) provide an overview of the criteria that a Corporate Actions application must comply with to be granted with the SWIFT Certified Application label.

2 Technical Validation Process

In this document a distinction is made between new SWIFT Certified Application and label renewal applications in terms of number of criteria verified and tests executed by the vendor. The Technical validation focuses on the message validation, standards support, connectivity to Alliance Interfaces and Market Practice. The remaining label criteria are subject to validation during the functional validation.

The following matrix explains the tests that will be performed by the vendor application.

Label Type	Depth of Testing	Message Validation	Standards Support	Integration with Alliance Interfaces	Market Practice	Reference Data
New label	Comprehensive	✓	✓	✓	✓	✓
Label Renewal	Partial	✓	✓	✓	✓	X

Validation Test Bed

The vendor will need to set up and maintain 'a SWIFT test lab' to develop the required adaptors needed for validation and to perform the qualification tests. The SWIFT lab will include the Alliance Access Interface as the direct connectivity to the Integration Test bed (ITB) (including SWIFTNet Link, VPN Box, RMA security, and HSM box) and the subscription to the FIN messaging services.

The installation and on-going maintenance of this SWIFT lab using a direct ITB connectivity is a pre-requirement for connectivity testing. As an alternative for the vendor to connect directly to the SWIFT ITB, the Validation Service provider (VSP) can provide a 'testing as a service' to integrate financial applications with SWIFT Interfaces via a remote Alliance Access over the SWIFT Integrated Test Bed (ITB) at VSP premises. Additional details can be obtained from the Wipro Testing Services – User Guide. (This is a payable optional service, not included in the standard SWIFT Certified Application subscription fee)

2.1 Integration with Alliance Interfaces

Requirement: The vendor will demonstrate the capability of the product to integrate with SWIFT Alliance Interfaces. When integrating with Alliance Access, support for Release 7.2 is mandated for SWIFT Certified Application label in 2018.

Note: New label criteria applicant vendors and vendors renewing their label application must exchange test messages using AFT or MQHA or SOAP.
SWIFT will only publish information for which evidences have been provided during the technical validation. In case the vendor application supports several of the above adapters, the vendor is required to provide the appropriate evidences for all of them.

2.1.1 Direct Connectivity

[Alliance Access 7.2](#) is the mandatory choice for connectivity. The table below specifies the adaptors and formats. The vendor is required to perform the connectivity testing with any one of the adaptors mentioned below

Label Type	Alliance Access 7.2	
	Adaptor	Format
New and Renewal	AFT	RJE or XML v2
	MQHA	RJE or XML v2
	SOAP	XML v2

The vendor needs to successfully connect to and exchange test messages with the Integration Test Bed (ITB). Vendors can make use of the testing services provided by the Validation Service Provider to connect to the ITB. For more information refer to Wipro Testing Services – User Guide.

The vendor must demonstrate the capability of their product to support FIN protocol and its associated features (example: message validation).

2.1.1.1 Alliance Access Integration

- Testing for connectivity to Alliance Access Interface will be verified on the SWIFT Integration Test Bed (ITB) using Alliance Access Release 7.2.
- The vendor should demonstrate the capability of the product to integrate with the Alliance Access with one of the following adaptors:
 - Automated File Transfer mode (AFT)
 - Web Sphere MQ Host Adaptor (MQHA)
 - SOAP Host Adaptor (SOAPHA)

The vendor must connect to SWIFT ITB and receive SWIFT network ACK / NAK notifications and delivery notifications.

The Technical Validation documents for the AFT, MQHA and SOAPHA adaptors are available separately on [swift.com \(Partner section\)](https://swift.com/Partner%20section).

Notes for vendors having ITB connectivity

- The vendor must inform SWIFT Partner Management and the Validation Service provider before starting the test execution through ITB
- The testing on ITB can start any time before the validation window allocated to the vendor. However, the entire testing on the ITB must be completed within the time window allotted to the vendor.
- The vendor application should generate the following outbound Corporate Actions test messages
 - Applications targeting intermediaries (Asset Servicers) such as Global Custodians, must generate 20 test messages (Four test messages each for MT 564, 565, 566, 567 and 568)
 - Applications targeting non-intermediaries (Asset Holders / Investors) must generate 10 MT 565 test messages
- The test messages must be compliant to Standards Release 2018
- The vendor must request for delivery notification
- The vendor application must exchange the SWIFT messages using Alliance Access RJE or XML v2 format
- The sender destination used in the messages is the PIC (Partner Identifier Code) that was used by the application provider to install and license Alliance Access. The receiver destination of messages must be the same PIC. Or simply stated messages should be sent to own vendor PIC.
- The vendor must connect to SWIFT ITB, send MT messages, receive SWIFT ACK/NAK, Delivery Notification and properly reconcile them by updating the status of sent messages
- The vendor must inform SWIFT Partner Management and the Validation Service provider about the completion of the test execution and provide evidence of testing through application event logs, transmitted messages and ACK / NAK received messages.

Notes for vendors testing through Wipro Testing Service

- The vendor must contact the Validation Service provider and agree on the terms for exchanging test messages using their testing service
- The Validation Service provider will assign a branch PIC. This PIC must be used for exchanging test messages i.e. the sender and receiver PIC must be the PIC provided the Validation Service provider.
- The Validation Service provider will configure vendor profiles in their environment and inform the vendor about their access credentials. This service will be available for an agreed period for

testing the connectivity and exchanging test messages. The entire testing on the ITB must be completed within the time window allotted to the vendor.

- The vendor application should generate the following outbound Corporate Actions test messages
 - Applications targeting intermediaries (Asset Servicers) such as Global Custodians, must generate 20 test messages (Four test messages each for MT 564, 565, 566, 567 and 568)
 - Applications targeting non-intermediaries (Asset Holders / Investors) must generate 10 MT 565 test messages
- The test messages must be compliant to Standards Release 2018
- The vendor must request for delivery notification
- The vendor application must exchange the SWIFT messages using Alliance Access RJE or XML v2 format
- The vendor must connect to SWIFT ITB, send MT messages, receive SWIFT ACK/NAK, Delivery Notification and properly reconcile them by updating the status of sent messages
- The vendor must inform SWIFT Partner Management and the Validation Service provider about the completion of the test execution and provide evidence of testing through application event logs, transmitted messages and ACK / NAK received messages.

2.1.2 Confirmation of Test Execution and Evidence Documents

After successful exchange of the test messages, the vendor should send the following test evidences by email to the Validation Service provider:

- A copy of the MT test messages in RJE / XML v2 format generated by the business application
- Application log / Screenshots evidencing the
 - processing of SWIFT messages
 - reconciliation of delivery notifications and Acknowledgements
- Alliance Access Event Journal Report and Message File spanning the test execution window and Message Partner Configuration details

Note: When connected through the Validation Service provider testing services, the Alliance Access logs (Event Journal Report, Message File and Message Partner configuration) will be generated by the Validation Service Provider.

2.1.3 Verification of the Test Results

In order to issue the scorecard and necessary recommendation, the Validation Service provider will analyse the log files, event journal, the screenshots produced by the vendor to ascertain that:

- All messages are positively acknowledged by the SWIFT Network
- Test messages have been exchanged by the vendor over ITB
- Test messages adhere to the SWIFT format (RJE and /or XML v2 format)
- Application is able to reconcile technical messages

2.1.4 Qualification Criteria Verified

Sl. No	SWIFT Certified Application Label Qualification Criteria		Pass / Fail Status
	Section Ref Number	Label Requirement	
1.	3.4	Alliance Access Integration Support – Release 7.2	
2.		Alliance Access Integration – AFT / MQHA/SOAPHA Support	
3.		Alliance Access Integration – RJE / XML v2 Format	
4.	3.5	SWIFT MT Support	
5.	3.6	Standards Release	
6.		Network Validation Rules (MFVR)	

2.2 Standards Support and Market Practice Compliance

Requirement: The vendor application must offer compliance with the global practices for event types within the vendor's product offering. The vendor application must also be capable of supporting variations for a particular market as well. The support for the number of Corporate Action Events and Markets differ between the new label and label renewal.

The following table specifies the list of Corporate Actions that will be tested against the SMPG Corporate Actions Market Practice / Event Interpretation Grid (EIG)

Frequently Used			Most Important		
Corporate Action Events					
REDM	INTR	DVCA	REDM	INTR	DVCA
DVSE	DVOP	RHDI	DVSE	DVOP	RHDI
EXRI	TEND	EXOF	EXRI	TEND	EXOF
BONU	DRIP	PRII	BONU		
CHAN	MRGR	MCAL			
SPLF	EXWA	BIDS			
CONV	BPUT				

A distinction is made between new label and label renewal on the compliance testing.

- New label applicants have to prove their application support for the 20 Corporate Actions listed in the above table as "Frequently Used"
- Renewal label applicants will have to prove their application support for the 10 Corporate Actions listed in the above table as "Most Important".

2.2.1 Testing for Incoming Messages Support

To prove the application's capability to process the incoming messages and generate outbound messages compliant to SMPG guidelines for EIG of the respective markets, the following test will be performed:

- The Validation Service provider will send one MT 564 test message per Corporate Actions Event for the US and GB markets
 - For New label, the test messages will be sent for 20 frequently used Corporate Actions listed in [section 2.2](#) above. A maximum of 40 test messages will be sent.
 - For label Renewal, the test messages will be sent for 10 important Corporate Actions listed in [section 2.2](#) above. A maximum of 20 test messages will be sent.
- All the test messages will be "inward message to application" direction
- Though the test messages will be "valid" as per SWIFT Standards, some of the test messages will have values that violate the Market Practice.
- The application while processing these messages, must fix the errors due to Market Practice and generate the outbound MT 564 test messages

File Naming Convention

- User Header Block (Block 3) will contain a unique reference number in Message User Reference (MUR) for each test message. MUR will consists of MT numerical identification followed by the test message sequence number
- The test messages will have generic test data for Accounts, Dates and ISIN. The vendor can change the values / customise to their application needs. For ease of customisation, the test messages will be sent in a spread sheet format with a facility to convert the output into a single RJE formatted file for all the test messages or individual RJE formatted files for every test message.

- The files will be named as SRyy_Cat564.xls, where “yy” will represent the Year of Standards Release and Cat564 meaning the respective MT Category. For e.g. for a file containing MT 564 for Standards Release 2018, the file name will be “SR18_Cat564.xls”

Processing the provided SWIFT Message Types

The vendor must input the above mentioned files into the application and perform the business validations. For example, the application can reject a message, if the CA event date is less than the processing date. Another example could be that the account is not serviced by the application. The error listing provided by the application must be easily understandable by business users

The vendor application must process the inbound test messages and generate outbound MT 564 test messages.

2.2.2 Confirmation of Test Execution and Evidence Documents

The vendor should send the following test evidences by email to the Validation Service provider:

- Sample evidence demonstrating that the application has processed the test messages. This will be done by sending any or all of the following evidences
 - Screenshots / log file / application generated reports
- Outgoing MT 564 generated by the application

2.2.3 Testing for Outgoing Messages Support

To prove their support to the market practice, the vendor application should generate the following test messages and send by email to the Validation Service provider.

- MT 564 & 566 test message compliant to EIG global grid
- Market Practice Compliance will be verified on:
 - Compliance to the SMPG CA Global Document
 - Compliance to EIG for identified Corporate Actions (MT 564 Testing)
- In addition, the messages must be compliant to the SR 2018 message format validation rules.

Test Message for MT 564

- New label applicants must create 200 test messages covering the twenty frequently used Corporate Action Events for 10 markets of their choice
- Renewal label applicants must create 60 test messages covering ten most important Corporate Action Events for 6 markets of their choice. The Corporate Action Events are listed in [section 2.2](#)
- The outbound message generated for US and GB market as per [section 2.2.1](#) can be used to provide evidence for this testing
- There must be a minimum of one test message per Corporate Action Event, per market

Test Messages for MT 566

- Both new as well as label renewal applicants must submit one test message per market for the Corporate Actions events listed as “Most Important” in [section 2.2](#)
- The new label applicants must submit 100 test messages covering 10 markets while the renewal label applicants will submit 60 test messages covering 6 markets.
- There must be a minimum of one test message per Corporate Action Event, per market

File Naming Conventions

The vendor must send the test evidences with the following file features to the Validation Service provider:

- The file must be in RJE Format and must contain MT 564 and MT 566 test messages only

- All the test messages must be sent in a single file. The test messages must be separated by “\$” as delimiter. There must not be any delimiter at the end of the file.
- The file size should be less than 1 MB and split the files, in case the size exceeds the above limit.
- The file name must not exceed 35 characters and must contain the following US-ASCII encoded characters (A – Z, a – z, 0 – 9, “_”) only
- The file must be named as **xxxx_SR18_MT56x.txt** where “**xxxx**” represents the 4 character vendor name. For example, test message file sent by vendor ABCD will bear the name as “ABCD_SR18_MT56x.txt”.

2.2.4 Confirmation of Test Execution & Evidence Documents

- The vendor must send the following test evidences by email to the Validation Service provider:
 - MT 564 and MT 566 test messages in RJE format as described above
 - Screenshots or Log File or Report from the application evidencing the processing of SWIFT messages. In case of Screenshot, it is sufficient to send for one transaction per message type.

2.2.5 Verification of the Test Results

The Validation Service provider will verify the coverage and validate the test messages for compliance with Standards Release 2018, Market Practice compliance as per SMPG Corporate Actions Market Practice, Event Interpretation Grid (EIG) to build the scorecard and recommendation.

2.2.6 Qualification Criteria Verified

Sl. No	SWIFT Certified Application Label Qualification Criteria		Pass / Fail Status
	Section Ref Number	Label Requirement	
7.	3.5	Standards	
8.	3.6	Message Validation	
9.		Standards Release	
10.		Network Validated Rules (MFVR)	
11.	3.7	Compliance to SMPG/EIG documents	

2.3 Message Validation and MX Standards Support

A specific version of the Corporate Actions ISO 20022 messages (starting with announcement messages), designed for DTCC and its participants in the United States, has been introduced. Although implementation of ISO 20022 messages is optional, SWIFT strongly recommends to plan and prove compliance to ISO 20022 message adoption.

3 Summary of Technical Validation

Test Activity		Label NEW	Label RENEWAL
Message Validation	Outgoing	Asset Services: MT 564, 565, 566, 567 and 568	Asset Services MT 564,566,567 and 568
		Asset Holders/Investors: MT 565	NA
	Incoming	Asset Services: MT 564, 565, 566,567 and 568	Asset Services: MT 564,566,567 and 568
		Asset Holders/Investors: MT 564, 566,567 and 568	Asset Holders/Investors: MT 564,566,567 and 568
Standards	Standards Release	SR 2018	
	Market Practice	SMPG Corporate Actions Market Practice, Event Interpretation Grid (EIG)	
	Optional Messages	Verified only on specific request by the vendor	
Connectivity	Alliance Access 7.2	MQHA or AFT or SOAPHA	
	Message format	RJE or XML v2	

4 FAQ

1. According to the EIG some events are not applicable in markets selected by us. How do we cover such events?

If a specific Corporate Action is not applicable in one or more of the markets covered by you, you have to exclude those events/ markets and execute the test messages for the remaining markets.

2. Can we provide more than one test message to cover an event type – market combination?

We do not recommend this practice. It would be best to provide only one test message covering an event type – market combination. Messages should be provided covering all event type – market combinations as specified in Technical Validation Guide. Even if you provide multiple messages for a particular event type – market combination, only one valid test message would be treated for the final evaluation.

3. Can we send test message covering event type – market combination other than the one specified in Technical Validation Guide?

Not recommended for label technical validation. Such combinations would be ignored for evaluation purpose.

4. Our application does not support all markets / event types in the list specified in Technical Validation Guide. Can we get an exemption for the same?

You need to take up with SWIFT for any exemption.

5. We are not clear on some of the interpretations in the SMPG guidelines. For example, as per the EIG, ZA Market does not support CAEV with CAMV RHTS/CHOS. However against RHTS / VOLU, it is left blank (meaning follows Global Grid) and also a remark is present stating “EXRI is used in our Market”. Does that mean RHTS - VOLU is not supported in ZA?

EIG implementation is based on the Rules. Definition/ comments provided are for information purpose. If the CAMV column is blank, then the concerned market will follow the Global Grid.

***** End of Document *****