

SWIFT Certified Application

Collateral Management

Label Criteria 2018

This document explains the criteria required to obtain the SWIFT Certified Application - Collateral Management 2018 label.

26 January 2018

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Preface

Purpose of the document

This document explains the criteria required to obtain the SWIFT Certified Application - Collateral Management 2018 label.

Audience

This document is for the following audience:

- Developers
- Development managers
- Product managers
- SWIFT customers seeking to understand the SWIFT Certified Application Programme or involved in selecting third-party applications.

Related documentation

<u>SWIFT Certified Application Programme Overview</u>

The document provides an overview of the SWIFT Certified Application Programme. It describes the benefits of the programme for SWIFT registered providers that have a software application they want to certify for compatibility with SWIFT Standards, messaging services, and connectivity. This document also describes the application and validation processes that SWIFT uses to check such SWIFT compatibility. SWIFT's certification of an application is not an endorsement, warranty, or guarantee of any application, nor does it guarantee or assure any particular service level or outcome with regard to any certified application.

<u>SWIFT Certified Application Technical Validation Guides</u>

The documents explain in a detailed manner how SWIFT validates the application so that this application becomes SWIFT Certified.

- <u>SWIFT MX Collateral Management</u> documentation
- User Handbook
- Best Practices for the OTC Derivative Collateral Electronic Margin Messaging Process documents market practice and message usage guidelines in the area of Over-the-Counter (OTC) derivatives. This document is published by the Collateral Committee (Standards for the Electronic Exchange of OTC Derivative Margin Calls) of ISDA. It is available at <u>www.isda.org</u> and forms an integral part of the rulebook.

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The Collateral Management Solution

Background

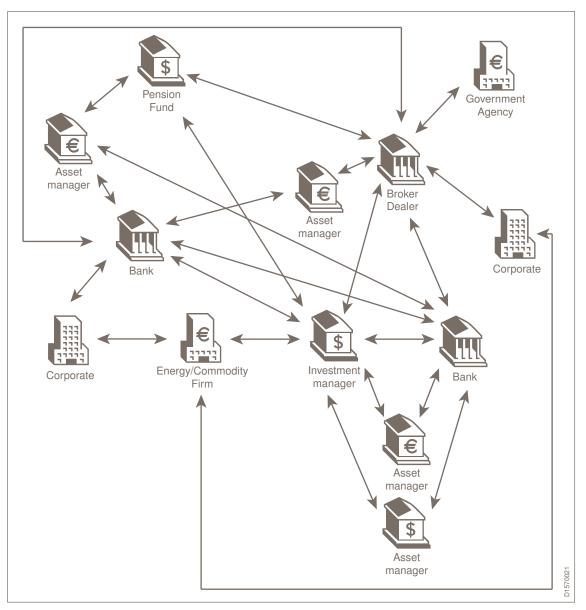
The financial crisis of 2008 and consecutive market disruptions required financial institutions to focus on timely and concise management of counterparty, credit, and other market risks.

Collateral Management operations are currently considered by the financial institutions to be one of the least automated and standardised processes. Due to its close link with risk management, the emphasis on having a scalable, controlled, and automated operational environment is crucial for many financial institutions.

In terms of current trends and practices in the market, financial institutions observe:

- an increased focus on collateralisation
- a heightened risk awareness, demand for operational excellence
- a push for standardisation and automation, accompanied by clear cost consciousness
- a change in the regulatory landscape: increased focus on various risk types by regulators, globally

Collateral Management is a highly procedural activity which is spread across various functions and departments. The Triparty flows are mainly standardised and automated. However, today's market practice in the bilateral collateral management business line is to exchange information through e-mail, phone, and faxes about margin call notices, substitution requests, and interest settlement. These exchanges are based on multiple non-standardised user-defined formats.



Leading market participants are currently working on completing the integration of their risk and collateral management processes with their trading, front-office, and back-office platforms.

The SWIFT Collateral Management solution

The SWIFT Collateral Management solution addresses both the automation of Triparty instructions and the inefficiencies of bilateral collateral management processes. The solution enables financial institutions involved in the collateral management business line to communicate with their counterparties, third-party agents, and clients in a standardised and automated manner. The solution is based on best practice guidelines proposed by the industry bodies such as the International Swaps and Derivatives Association (ISDA).

SWIFT offers a Collateral Management messaging solution targeted at brokers, banks, investment managers, hedge funds, custodians, corporates, service providers, Central Counterparty clearing houses (CCPs), and central banks. The solution covers all major instruments and markets across

multiple asset classes, including over-the-counter (OTC) derivatives, securities financing, fixed income, equities, listed derivatives, commodities, foreign exchanges (FX), and cash.

The Collateral Management solution provides messaging solutions for the following business processes:

- Triparty Collateral Management
- Bilateral Collateral Management
 - margin call process
 - substitution process
 - interest payment process
 - reporting

2

The SWIFT Certified Application - Collateral Management Label

Overview

The SWIFT Certified Application - Collateral Management label is aimed at business applications and middleware that support message creation and comprehension as well as Collateral Management events processing (for example, margin call processes, substitution process, interest payment processing).

The Collateral Management label is granted to business applications that adhere to a specific set of criteria linked to the support of SWIFT MX and MT messages, SWIFT connectivity, and SWIFT functionality.

Elements of the Collateral Management label

The number of elements that the business applications applying for the SWIFT Certified Application Collateral Management label must support depends on whether the application is intended for Bilateral Collateral Management or Triparty Collateral Management or both.

Users are developing additional rules and guidelines that will be included in the next edition of *The Rulebook*. For information about the market practices and message usage guidelines in the OTC derivatives business line, see the *ISDA Collateral Roadmap - Electronic Messaging* published by the ISDA Collateral Committee (Standards for the Electronic Exchange of OTC Derivative Margin Calls). This document is available at <u>www.isda.org</u> and forms an integral part of the rulebook.

| SWIFT Standards | 14 MX Collateral Management messages 5 MT Collateral Instruction messages |
|----------------------------|---|
| SWIFTNet messaging service | FIN, InterAct in store-and-forward mode, and FileAct in store-and- forward mode |
| The Rulebook | Sets out the rules and best practice guidelines applicable to all Collateral Management solution users. |

For Bilateral Collateral Management

For Triparty Collateral Management

| SWIFT Standards | 3 MT Triparty Collateral instructions |
|----------------------------|---|
| SWIFTNet messaging service | FIN and FileAct in store-and-forward mode. |
| The Rulebook | Sets out the rules and best practice guidelines applicable to all Collateral Management solution users. |

For the full list and description of SWIFT MX and MT Collateral Management messages, see <u>SWIFT Incoming and Outgoing Messages</u> on page 10.

3 SWIFT Certified Application - Collateral Management Criteria 2018

3.1 Certification Requirements

New label

Vendors applying for the SWIFT Certified Application - Collateral Management label for the first time must comply with all criteria as defined in this document.

Label renewal

Vendors that have been granted the SWIFT Certified Application - Collateral Management label in 2017 are required to prove compliance with the Standards Release (SR) 2018 and connectivity through Alliance Access 7.2.

If the vendor has upgraded its application, then SWIFT will request details of the new functionalities that the vendor must demonstrate (for example, new functional validation required).

3.2 Installed Customer Base

Live customer reference

A minimum of one live customer must use the application.

By customer, SWIFT means a distinct financial institution that uses the product to send and receive messages over SWIFTNet.

SWIFT reserves the right to contact the relevant customer to validate the functionality of the application submitted for a SWIFT Certified Application label. A questionnaire is used as the basis for the customer validation. The questionnaire can be in the form of a telephone interview, an e-mail, or a discussion at the customer site. The information provided by the customer is treated as confidential and is not disclosed, unless explicitly agreed with the customer.

| Label requirement | Reference Number 1 | Mandatory |
|--|--------------------|-----------|
| A minimum of one customer must use the business application to validate and implement business flows and | | |

3.3 Standards

ISO 15022-compliant message standards

associated MX and/or MT messages.

Only ISO 15022-compliant message standards are taken into consideration for the SWIFT Certified Application - Collateral Management label in 2018. The application must be able to support all fields and all mandatory and optional code words.

ISO 20022-compliant messages

Although ISO 20022 implementation is not mandatory to receive the 2018 SWIFT Certified Application - Collateral Management label, SWIFT strongly encourages Certified Application providers to plan for ISO 20022 adoption.

Applications that support ISO 20022 must comply with the following:

- ISO 20022 Harmonisation Charter
- ISO 20022 Version and Release Management Best Practices
- Recommendations for Implementation of ISO 20022 Messages Best Practices

Amongst other requirements, this implies that applications must:

- · support the latest or previous version of ISO 20022 messages as available
- align its maintenance cycle with the MX release cycle
- · rely on the message specifications as published on MyStandards

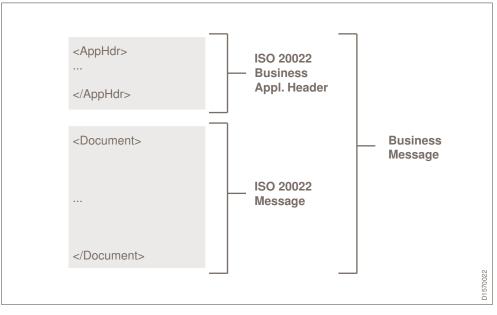
Business Application Header (Bilateral Collateral Management only)

In 2010, ISO introduced a Business Application Header to harmonise the access to operational data and make it easier to implement ISO 20022 messages.

The idea of the Business Application Header is to:

- extract routing and message feature information (such as sender, receiver, possible duplicate, signature, priority) from the business payload
- expose it in a header that can be accessed by business applications and middleware in the same way for all MX messages

The Business Application Header is network-independent and enables intermediate applications to access and update the routing information without having to touch the business payload.



The Busines Application Header is available as an additional XML schema, which comes on top of the business payload. It replaces the application header that is found today in some MX messages.

New ISO 200222 messages and new versions of existing MX messages will progressively require the Business Application Header.

The Business Application Header is published in the ISO 20022 Catalogue of Messages.

| Label requirement | Reference number 3 | Mandatory | | |
|--|--------------------|-----------|--|--|
| The business application must support the ISO 20022 Business Application Header for routing and operational data processing. | | | | |

3.3.1 SWIFT Incoming and Outgoing Messages

Message types

Bilateral Collateral Management

The message types in scope are as follows:

| Process | Message name | Message identifier |
|------------------|---|--------------------|
| Margin Call | MarginCallRequest | colr.003.001.XX |
| | MarginCallResponse | colr.004.001.XX |
| | CollateralManagementCancellationRequest (1) | colr.005.001.XX |
| | CollateralManagementCancellationStatus (1) | colr.006.001.XX |
| | CollateralProposal | colr.007.001.XX |
| | CollateralProposalResponse | colr.008.001.XX |
| | MarginCallDisputeNotification | colr.009.001.XX |
| | CollateralValuationReport | colr.016.001.XX |
| Substitution | CollateralSubstitutionRequest | colr.010.001.XX |
| | CollateralSubstitutionResponse | colr.011.001.XX |
| | CollateralSubstitutionConfirmation | colr.012.001.XX |
| Interest Payment | InterestPaymentRequest | colr.013.001.XX |
| | InterestPaymentResponse | colr.014.001.XX |
| | InterestPaymentStatement | colr.015.001.XX |

(1) This message can also be used to cancel and provide status on the Substitution process.

Securities and cash collateral

To allow for a complete bilateral life cycle, the application/middleware must also be able to send instructions for the actual posting of collateral:

| Process | Message name | Message identifier |
|-----------------------|--|--------------------|
| Securities collateral | Receive Free | MT 540 |
| | Deliver Free | MT 542 |
| | Receive Free Confirmation | MT 544 |
| | Deliver Free Confirmation | MT 546 |
| Cash collateral | General Financial Institution Transfer | MT 202 |

Triparty Collateral Management

| Process | Message name | Message identifier |
|-------------|--|--------------------|
| Instruction | Triparty Collateral Instruction | MT 527 |
| Processing | Triparty Collateral Status and Processing Advice | MT 558 |
| Reporting | Triparty Collateral and Exposure Statement | MT 569 |

Label requirements 4 and 5

| Label requirement | Reference number 4 | Mandatory | | |
|--|--------------------|-----------|--|--|
| For Bilateral | | | | |
| The business application/middleware must support capture and mapping of business data to MT/MX messages. Support for all relevant message types published in the <u>User Handbook</u> is always required. Application software that targets intermediaries must demonstrate support for both incoming and outgoing messages. | | | | |
| Deviation from this rule is allowed, as long as each message is supported at least incoming or outgoing. The vendor must demonstrate that the automation pattern addresses the automation requirements of the targeted customer segment. | | | | |
| For Triparty | | | | |

The business application must support the capture and mapping of business data to MT messages. Support for all relevant message types published in the <u>User Handbook</u> is always required. The vendor must demonstrate that the automation pattern addresses the automation requirements of the targeted customer segment

| La | bel requirement | Reference number 5 | Mandatory | |
|--|----------------------------------|-----------------------------------|-------------------------------------|--|
| The business application must demonstrate that: | | | | |
| It can create incoming and outgoing messages for both parties of the collateral management activity in question (that is, the same message must be created both for "collateral giver" and "collateral taker"). In other words, the business application must be able to handle bilateral communications as well as unilateral communications for the same message type. | | | | |
| • | It can create and understand the | same message type with an updated | d status during the life cycle of a | |

 It can create and understand the same message type with an updated status during the life cycle of a transaction. In other words, the application must be able to create collateral proposal or response messages with an updated status, if required by the business communication, and also be able to link them.

3.4 Direct Connectivity

Requirements

For direct connectivity, the vendor application must integrate with Alliance Access. A business application that does not connect directly to Alliance cannot be considered for a SWIFT Certified Application label.

The direct connection from the business application to Alliance Access can be achieved using one or more of the Alliance Access adapters:

- MQ Host Adapter (MQHA)
- Automated File Transfer (AFT)
- SOAP Host Adapter

The vendor must develop and test SWIFT application integration using Alliance Access 7.2. Proper support of Alliance Access Release 7.2 is mandatory for the 2018 label.

Mandatory adapters

The SWIFT Certified Application - Collateral Management label requires support for either Automated File Transfer (AFT) or an interactive link with MQ Host Adapter (MQHA) or SOAP for Alliance Access 7.2. The adapters must support the following messaging service and Standards:

| Messaging service | Standards |
|--|-----------|
| InterAct in store-and-forward mode (for Bilateral) | MX |
| FIN (for Bilateral and Triparty) | MT |
| FileAct in store-and-forward mode | Any |

Note If the application supports several of the previously mentioned adapters, then the vendor may provide the appropriate evidence for some or all of them during the technical validation. SWIFT only publishes information for which evidence has been provided.

Local Authentication (LAU)

Local Authentication provides integrity and authentication of messages and files exchanged between Alliance Access and any application that connects through the application interface. Local Authentication requires that the sending entity and Alliance Access use the same key to compute a Local Authentication message/file signature. With the increased number of cyber-attacks on the financial industry, customers will expect message signing with LAU from their application providers.

For more information about LAU, see the <u>Alliance Access Developer Guide</u>.

Note

Although Local Authentication support is not mandatory to receive the 2018 SWIFT Certified Application label, SWIFT strongly encourages SWIFT Certified providers to plan for LAU support.

XMLv2 envelope

To connect to SWIFT through Alliance Access, the standard XMLv2 wrapper must be used. XMLv2 is a generic envelope format that has been made available for most adapters (MQHA, AFT, SOAP, and File Transfer).

| Label requirement | Reference number 6 | Mandatory | | | |
|--|--|-----------------------------------|--|--|--|
| The business application must support the XML envelope format for MT, MX, and Files. | | | | | |
| This envelope format is named XML | This envelope format is named XML version 2, and includes the following information: | | | | |
| • Message | | | | | |
| can be MT, MX, AnyXML, or File | Format exchanged between busines | s application and Alliance Access | | | |
| MessageStatus | MessageStatus | | | | |
| provides the result of Alliance Ac | provides the result of Alliance Access validation processing, including error codes | | | | |
| TransmissionReport | | | | | |
| contains the Transmission Notific | contains the Transmission Notification and the original message | | | | |
| DeliveryReport | DeliveryReport | | | | |
| contains the Delivery Notification | contains the Delivery Notification reconciled with the original message | | | | |
| DeliveryNotification | DeliveryNotification | | | | |
| without the original message but with some reconciliation information | | | | | |

Connectivity summary

| Label requirement | Reference number 7 | Mandatory |
|--|--------------------|-----------|
| The business application must integrate with SWIFT directly through one of the Alliance Access adapters on | | |
| Release 7.2 (referenced in Mandatory adapters on page 12). | | |

3.5 Messaging

The business application must support the following along with their associated features (for example, message validation):

ISO 20022 protocol (for Bilateral)

- ISO 15022 protocol (for Triparty)
- InterAct
- FileAct in store-and-forward mode

| Label requirement | Reference number 8 | Mandatory |
|---|---|-----------|
| , | ion must support both the InterAct in and adhere to the latest release of t book. | |

For Triparty, the business application must support both FIN and FileAct in store-and-forward mode and adhere to the latest release of the <u>SWIFTNet Messaging Operations Guide</u> in the User Handbook.

3.6 Message Validation (Syntax and Semantic)

Any incoming/outgoing message must be validated semantically and syntactically, as per the latest validation rules published in the latest version of the <u>User Handbook</u>.

| Label requirement | Reference number 9 | Mandatory |
|-------------------|---|-----------|
| , 11 | ion must support XML Schema Defini that apply to the label under considera | |

For Triparty, the business application must support ISO 15022 standards validation rules and the rulebooks that apply to the label under consideration.

3.6.1 Standards Release

All changes to existing message types and introduction of new message types must be supported by the application before live release date on the SWIFT network. If new messages are introduced or a significant modification has been made to existing messages, then SWIFT expects the application provider to provide adequate testing time to its customers before these messages go live and ensure continued compliance with the latest SWIFT Standards Release.

| | Label requirement | Reference number 10 | Mandatory |
|---|-------------------|-------------------------------|-----------|
| The business application must support and test new changes to Collateral Management messages before | | al Management messages before | |

the live release date on SWIFT network.

3.7 Collateral Management Rulebook

By subscribing to Collateral Management, each user undertakes to abide by a set of minimum rules. These rules are fully specified in the *Collateral Management Rulebook*, which is available in the <u>Collateral Management Service Description</u>. This Rulebook will be further enhanced during the piloting and future phases of the Collateral Management solution.

The Rulebook provides rules and guidelines for standardised usage of Collateral Management. It complements the messages description provided by SWIFT Standards, and aims to achieve more

consistent business practice among users. SWIFT's publication of such rules and guidelines, and users' compliance with the Rulebook are valuable in a highly populated environment. In this environment, the risk of divergent practices is higher, which is detrimental to both straight-through processing and straight-through reporting.

| Label requirement | Reference number 11 | Mandatory |
|---|---------------------|-----------|
| The business application must demonstrate support for the minimum rules section of the Collateral | | |
| Management Solution Rulebook published in the User Handbook. | | |

3.8 Business Workflows

The business application must demonstrate information processing capabilities, and also basic workflow management capabilities. The application must be able to automate the processing of Collateral Management events using the correct messages. The scenarios shown provide a high-level overview for margin calls, substitution, and interest payment processes. However the applications must be able to support all Collateral Management messages as per the <u>User Handbook</u>.

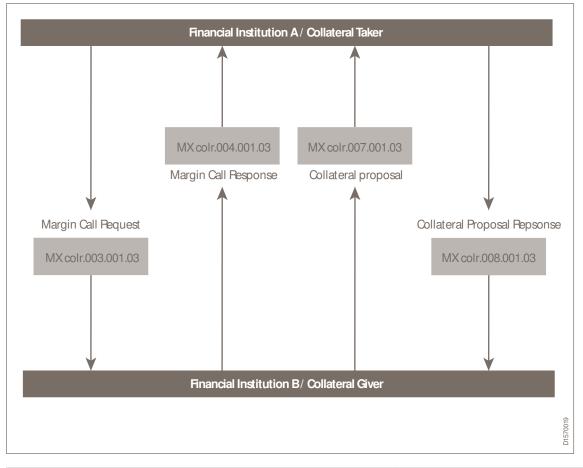
Back-office products must process incoming order status messages in such a way that the information received is used to update the status of the original transaction.

3.8.1 Bilateral Collateral Management Processing Automation

Collateral Management Event 1: Margin Call Process

This process covers the end-to-end processing of margin call: issuance, response, notification of collateral to be moved, and notification of dispute. The margin call information is exchanged when one of the parties is due to deliver a new margin amount to cover exposure on the underlying positions. Exchanged communication does not only cover the required margin amount but also incorporates the information about legal agreement terms, the data elements used to calculate the final margin requirement, the purpose of the margin, the details of respective collateral, and the settlement details.

The collateral management margining process takes place between the "collateral giver" and "collateral taker". The following example is one of the many scenarios that could be applied during the processing of a margin call. The scenario reflects the communication flow between two parties (financial institution A and B), based on the assumption that the margin call is fully agreed at the final stage.



| Label requirement | Reference number 12 | Mandatory |
|---------------------------------------|---|------------------------------------|
| call process as listed in the User Ha | ort all the MXs required for the Collar <u>indbook</u> . Message support implies the MX messages, and validate these me ilebook (when available). | e capacity to capture the business |

The list of current SWIFT MX messages for Collateral Management event 1: Margin call process is as follows:

| Process | Message name | Message identifier |
|-------------|-------------------|--------------------|
| Margin Call | MarginCallRequest | colr.003.001.03 |

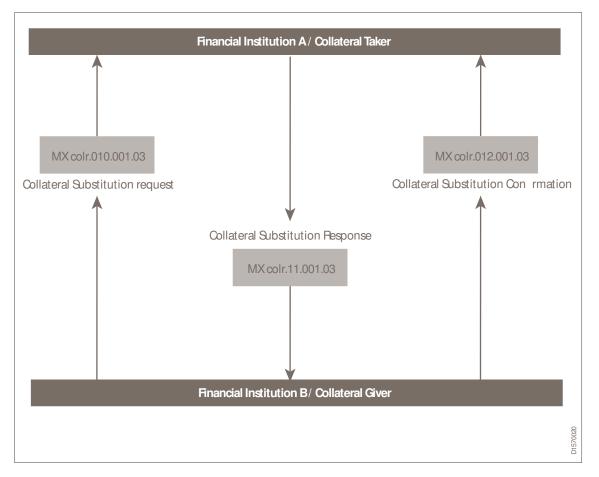
| Process | Message name | Message identifier |
|---------|---|--------------------|
| | MarginCallResponse | colr.004.001.03 |
| | CollateralManagementCancellationRequest (1) | colr.005.001.03 |
| | CollateralManagementCancellationStatus (1) | colr.006.001.03 |
| | CollateralProposal | colr.007.001.03 |
| | CollateralProposalResponse | colr.008.001.03 |
| | MarginCallDisputeNotification | colr.009.001.03 |

(1) This message can also be used to cancel and provide status on the substitution process.

Collateral Management Event 2: Substitution Processing

The substitution process indicates the replacement of one type of settled collateral with an equal value of another collateral type. This process can be performed during the same day or over a period of time. The proposed message flow covers the end to end message exchange starting from the initial request for substitution and expected responses for this message including the confirmation of substitution.

The following diagram shows an example of a substitution process.



Reference number 13

| Label requirement | Reference number 13 | Mandatory |
|--|---|---------------------------------------|
| 2: Substitution process as listed in t | ort all the MX messages required for he <u>User Handbook</u> . Message support rload into MX messages, and validate lution rulebook (when available). | t implies the capacity to capture the |

The list of current SWIFT MX messages for Collateral Management event 2: Substitution process is as follows:

| Process | Message name | Message identifier |
|--------------|-------------------------------|--------------------|
| Substitution | CollateralSubstitutionRequest | colr.010.001.xx |

| Process | Message name | Message identifier |
|---------|---|--------------------|
| | CollateralSubstitutionResponse | colr.011.001.xx |
| | CollateralSubstitutionConfirmation | colr.012.001.xx |
| | CollateralManagementCancellationRequest | colr.005.001.xx |
| | CollateralManagementCancellationStatus | colr.006.001.xx |

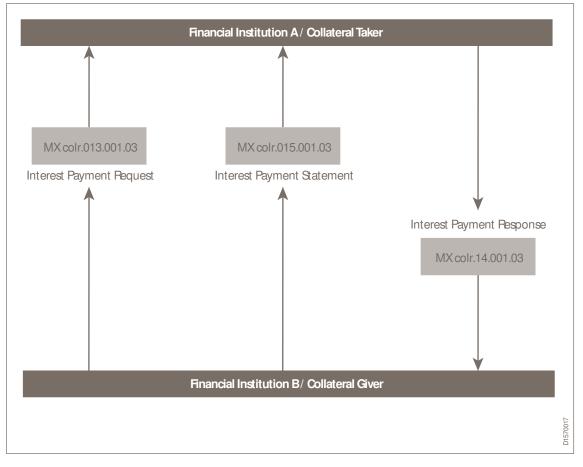
Additional business requirements dependent upon the compliance with reference number 13:

| Label requirement | Reference number 14 | Mandatory |
|---|---------------------|--------------------------------------|
| The business application must perfo required by the underlying transactic | | sage exchange over multiple days, if |

Collateral Management Event 3: Interest Payment Process

As part of the collateral management process, counterparts involved in the margining activity are mandated to exchange the accrued interest on the cash collateral balance at a predefined frequency as described in the legal agreements.

Example of the Interest payment process:



| Label requirement | Reference number 15 | Mandatory |
|---------------------------------------|--|-------------------------------|
| 3: Interest payment process as listed | ort all the MX messages required for d in the <u>User Handbook</u> . Message su m them into MX messages, and valid ilebook (when available). | pport implies the capacity to |

The list of current SWIFT MX messages for Collateral Management event 3: Interest payment process is as follows:

| Process | Message name | Message identifier |
|------------------|--------------------------|--------------------|
| Interest Payment | InterestPaymentRequest | colr.013.001.xx |
| | InterestPaymentResponse | colr.014.001.xx |
| | InterestPaymentStatement | colr.015.001.xx |

Additional business requirements dependent upon the compliance with reference number 15:

| Label requirement | Reference number 16 | Mandatory |
|-------------------------------------|-------------------------------------|--------------------------------|
| The business application must perfo | rm and monitor the interest payment | message exchange over multiple |

and business application must perform and monitor the interest payment message exchange over multiple days and has the capability to create messages on ad-hoc basis for a certain time frame.

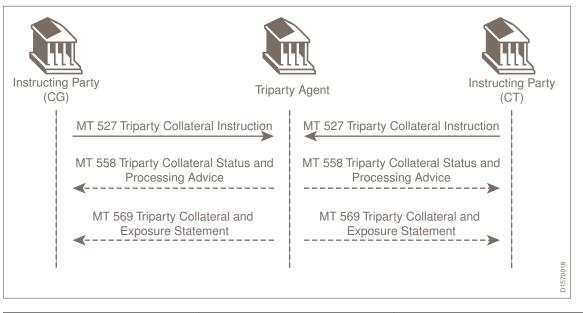
Collateral Management Event 4: Reporting

The SWIFT Collateral Management solution also provides the functionality to communicate proprietary files and reports between counterparties and/or third-party vendors offering services such as portfolio reconciliation.

The SWIFTNet messaging service FileAct caters for this requirement.

| Label requirement | Reference number 17 | Mandatory |
|--|---------------------------------------|------------------------------------|
| The business application must support the FileAct in store-and-forward mode protocol and adhere to the | | node protocol and adhere to the |
| latest release of the SWIFTNet Mes | saging Operations Guide, for Collater | ral Management event 4: Reporting. |

3.8.2 Triparty Collateral Management Processing Automation



| Label requirement | Reference number 18 | Mandatory |
|--------------------------------------|---|------------------------------|
| processes as listed in the User Hand | ort all the MT messages required for <u>dbook</u> . Message support implies the lessages, and validate them against t | capacity to capture business |

| Process | Message name | Message identifier |
|-------------|---------------------------------|--------------------|
| Instruction | Triparty Collateral Instruction | MT527 |

| Process | Message name | Message identifier |
|------------|---|--------------------|
| Processing | Triparty Collateral Status and Processing Advice | MT558 |
| Reporting | Triparty Collateral and Exposure Statement | MT569 |

3.9 User Interface

Whenever relevant, SWIFT expects the business application to offer a Graphical User Interface (GUI).

SWIFT expects the application to offer a graphical interface for enhancements on collateral management events and to allow automation of message correction.

3.9.1 Message Viewer

The business application must be able to browse incoming and outgoing SWIFT messages in a formatted way. In particular, MX and MT messages must be visualised using a user-friendly GUI or web browser that offer business meaningful fields (or a reference to the meaning of an XML tag field code).

| Label requirement | Reference number 19 | Mandatory | |
|------------------------------------|---------------------------------------|-------------------------------|--|
| The business application must supp | ort message visualisation for every m | nessage type requested by the | |

3.9.2 Message Entry

SWIFT Certified Application label.

The Graphical User Interface (GUI) or a web-based browser, if present, must allow a user to input manually any relevant SWIFT message. The message entry tool must cater for some data input validation at message field level - any invalid entry must be flagged, and the user prompted to correct the input.

| Label requirement | Reference number 20 | Mandatory |
|------------------------------------|--------------------------------------|---------------------------------------|
| The business application must supp | ort an entry screen for every messag | e type that is eligible to be sent to |

SWIFT for this label.

3.9.3 Message Repair

The Graphical User Interface (GUI) or the web-based browser, if present, must allow a user to modify manually any relevant SWIFT message.

| Label requirement | Reference number 21 | Mandatory |
|-------------------------------------|----------------------|-----------|
| The business application must provi | de a repair station. | |

3.10 Technical and Business Message Reconciliation

SWIFT validates messages at different levels and provides notification relating to the validation and transmission results of the sent messages. The application must capture these notifications and ensure technical reconciliation, error handling, repair, and retransmission.

| Label requirement | Reference number 22 | Mandatory |
|---|---|-----------|
| The business application must reconcile message with the three different levels of reconciliation mechanisms: | | |
| Interface reconciliation (Information notification) | | |
| Network reconciliation (Transmission notification) | | |
| Counterparty reconciliation | Counterparty reconciliation (Delivery notification) | |

Additional Business reconciliation requirements:

| La | bel requirement | Reference number 23 | Mandatory |
|--|--|---------------------|-----------|
| | The business application must implement and demonstrate the following capabilities for business reconciliation purposes: | | |
| Ability to create a unique transaction ID (for example, margin call ID, substitution ID) and link to consecutive message flows (business responses) in line with the suggested Standards guidelines published in the User Handbook | | | |
| • For bilateral collateral management, the capability to link related InterAct messages (SWIFT MX standards) with files transported through FileAct and display information jointly. Assure that there is synchronisation between unstructured data file in FileAct and structured data in InterAct. | | | |
| Functionality to implement, store, and maintain data elements related to counterparty details (for example, legal name, BIC, servicing agent), legal agreements (for example, legal agreement identifications) | | | |

 Functionality to track and report audit trail end to end on a specific transaction (for example, unique margin call transaction with all linked messages)

3.11 Reference Data Integration

The application must support the directories that are documented in this section.

Optional directories are clearly identified as such.

3.11.1 BIC Directory

Overview

The application must provide access to the BIC Directory (or the eventual replacements of the BIC Directory: BIC Plus or BIC Directory 2018, or Bank Directory Plus) both for message validation and as a look-up function in the message creation and message repair stations.

It is the responsibility of directory subscribers at all times to make sure that they use the latest version of the BIC Directory. As such, SWIFT expects the application to support the BIC Directory monthly update in an efficient manner without disrupting customer operations.

Retrieval functionality during message composition

The BICs contained in the BIC Directory, BIC Plus, and BIC Directory 2018 can be used in various fields of the SWIFT messages. The absence of BICs in these fields is one of the major obstacles to straight-through processing (STP) and causes manual intervention on the recipient side. SWIFT expects vendors to provide an integrated interface within their application to make it possible for users to retrieve and input correctly formatted BICs into the proper fields.

Search functionality

The user must be able to enter a number of search criteria, such as a part of the BIC, bank name, or address, to perform a search, and to get a list of results. From this result window, the user must be able to select the required BICs and copy these into the different bank identifier fields of the message (that is, the transaction).

If the search criteria return no results, then the user must be alerted that no BIC is available. If the user manually enters an invalid BIC, then the application must send an alert notifying the user that this BIC is not valid.

Available format and delivery

Flat file in XML or TXT format.

Delivery

The BIC Directory, BIC Plus, and BIC Directory 2018 are downloadable in a manual or automated manner from the <u>SWIFTRef Portal</u> in full and delta versions. Upon request, they can also be delivered through FileAct.

The BIC Directory, BIC Plus, and BIC Directory 2018 must either be copied into the application repository system or stored in the back office for access by the vendor application through a defined interface.

3.11.2 Bank Directory Plus (Optional)

Content

Bank Directory Plus contains the following information:

- All BIC11s from the BIC Directory (more than 200 countries), from connected and nonconnected financial institutions and corporates active on FIN, FileAct, and/or InterAct.
- LEIs (Legal Entity Identifier) from the endorsed LOUs (Local Operating Units).

Only LEIs that have a corresponding BIC are included.

- Name and address details for most BICs
- FIN service codes
- National clearing codes (160+ countries), including CHIPS, TARGET, and EBA data. For a limited number of countries (10+), national codes are also provided with name and address in local language (for example, China, Japan, Russia).
- Bank hierarchy information
- Country, currency, and holiday information
- Timezone information

Available formats

Flat file in XML or TXT format

Delivery

The Bank Directory Plus is downloadable in a manual or automated manner from the <u>SWIFTRef</u> <u>Portal</u> in full and delta versions. Upon request it can also be delivered through FileAct on a daily or monthly basis.

3.11.3 IBAN Plus (Optional)

Content

The IBAN Plus directory contains the following information:

- IBAN country formats
 - IBAN country prefix
 - IBAN length
 - Bank code length, composition, and position within the IBAN
- Institution name and country
- Institution bank and branch codes in the formats as embedded in IBANs
- · Institution BICs as issued together with the IBANs to the account holders
- Data for the SEPA countries and the non-SEPA countries that adopted the IBAN
- Updates to the file when new IBAN country formats are registered with SWIFT in its capacity as the ISO IBAN registry
- Institution bank and branch codes for which no IBANs have been issued and hence that should not be found in IBANs.

The directory is ideal for accurate derivation of BIC from IBAN, covering 72 IBAN countries (including all SEPA countries). It is also ideal for validating IBANs. The capability to validate IBANs is important as many corporations generate IBANs for their vendors, suppliers, and clients, which in many cases are not the correct IBANs issued by the banks.

Available formats

Flat file in XML or TXT format

Delivery

The IBAN Plus is downloadable in a manual or automated manner from the <u>SWIFTRef Access</u> <u>Point</u> in full and delta versions on a daily and monthly basis. Upon request it can also be delivered through FileAct.

3.11.4 SWIFTRef Business Applications

Introduction

SWIFTRef offers a portfolio of reference data products and services. Data is maintained in a flexible relational database and accessible in a choice of formats and delivery channels matched to business needs.

Purpose

Application vendors are able to access BICs, National bank/Sort codes, IBAN data, payment routing data (including SEPA and other payment systems), Standard Settlement Instructions (SSIs), LEIs, MICs (Market Identification Codes), BRNs (Business Registration Numbers), GIINs (Global Intermediary Identification Numbers), and more. Through SWIFTRef, vendors can ensure that their applications support the most accurate and up-to-date reference and entity data for smooth payments initiation and processing.

Related information

Additional information about SWIFTRef for application vendors is available on <u>swiftref.swift.com/</u> <u>swiftref-business-applications</u>.

4 Marketing and Sales

Requirements

In order to maximise the business value of the SWIFT Certified Application - Collateral Management label, collaboration between SWIFT and the vendor is expected. More specifically, the vendor must provide SWIFT, under a non-disclosure agreement, with the following information:

• A list of customers actively using the application in a SWIFT context

The list must contain the institution name, location, and an overview of the integration scope (domain, features, and sites) for the current and previous year.

- · A list of all customers active in the financial sector
- A product roadmap for 2018 and 2019 containing the plans for further developments, SWIFT support, and new releases
- A complete set of documentation, including feature overview, SWIFT adapters, workflow engine capability, and user manuals

In addition, the vendor must dedicate a page of their web site to describe the SWIFT Certified Application used in a SWIFT context.

A SWIFT MX Collateral Management Message Details

A.1 SWIFT MX Message Name and Description

| Message name | Message description |
|---|--|
| CollateralManagementCancellationRequest | The following parties send this message: |
| | the collateral taker or its collateral manager to the collateral giver or its collateral manager |
| | • the collateral giver or its collateral manager to the collateral taker or its collateral manager |
| | It is used to request the cancellation of the following previously sent messages: |
| | MarginCallRequest message |
| | MarginCallResponse message |
| | CollateralProposal message |
| | CollateralProposalResponse message |
| | MarginCallDisputeNotification message |
| | CollateralSubstitutionRequest message |
| | This message can also be used to cancel and provide status on the Substitution process. |
| CollateralManagementCancellationStatus | The following parties send this message: |
| | the collateral taker or its collateral manager to the collateral giver or its collateral manager |
| | • the collateral giver or its collateral manager to the collateral taker or its collateral manager |
| | This message is used to provide the status of the CollateralManagementCancellationRequest message previously received. |
| | This message can also be used to cancel and provide status on the Substitution process. |
| CollateralProposal | The collateral giver or its collateral manager sends this message to the collateral taker or its collateral manager, to propose the collateral to be delivered. This message is used for both initial collateral proposal and subsequent counter proposals. |
| CollateralProposalResponse | The collateral taker or its collateral manager sends this message to the collateral giver or its collateral manager to either accept or reject the collateral which has been proposed for the margin call. This message applies to both initial and counter proposals. |

Г

| Message name | Message description | |
|------------------------------------|---|--|
| CollateralSubstitutionRequest | The collateral giver or its collateral manager sends this message to the collateral taker or its collateral manager. It is used to request a substitution of collateral by specifying the collateral to be returned and proposing the new type or types of collateral to be delivered. | |
| | There are cases where the collateral taker can initiate the CollateralSubstitutionRequest message, for example in case of breach in the concentration limit. | |
| CollateralSubstitutionConfirmation | The following parties send this message: | |
| | the collateral taker or its collateral manager to the collateral giver or its collateral manager | |
| | the collateral giver or its collateral manager to the collateral taker or its collateral manager | |
| | This message confirms the collateral delivery. | |
| | The collateral taker only releases the return of collateral when the new piece of collateral is received. The collateral giver sends the collateral taker the notification that the collateral substitution (that is, a new piece or pieces of collateral) has been released. In the event that multiple pieces of collateral are being delivered in place of the collateral due to be returned by the giver, this message must only be generated once all collateral pieces have been agreed between both parties. Then the taker confirms the collateral substitution (that is all pieces have been received) and acknowledges return of collateral. | |
| CollateralSubstitutionResponse | The collateral taker or its collateral manager sends this message to the collateral giver or its collateral manager. This is a response to the CollateralSubstitutionRequest message and the collateral proposed in the substitution request can be accepted or rejected. | |
| CollateralValuationReport | One of the following parties sends this message: | |
| | • the collateral giver, or its collateral manager, to the collateral taker, or its collateral manager | |
| | the collateral taker, or its collateral manager to the collateral giver, or its collateral manager | |
| InterestPaymentRequest | The collateral giver or its collateral manager sends this message to the collateral taker or its collateral manager. It is used to request the payment of interests calculated based on the amount of collateral that has been posted. | |
| InterestPaymentResponse | The collateral taker or its collateral manager sends this message to the collateral giver or its collateral manager. This is a response to the InterestRequestMessage and the amount of interest claimed can be accepted or rejected. | |

| Message name | Message description | |
|-------------------------------|---|--|
| InterestPaymentStatement | The collateral giver or its collateral manager sends this message to the collateral taker or its collateral manager. It is used to report the interest amounts calculated based on the effective posted collateral amount, over a specific period of time agreed by both parties. | |
| MarginCallDisputeNotification | The collateral taker or its collateral manager sends this message to the collateral giver or its collateral manager to acknowledge the notification of the dispute (either full or partial dispute). | |
| MarginCallRequest | The collateral taker or its collateral manager sends this message to the collateral giver or its collateral manager. It is used to request new collateral at the initiation of an exposure or to request additional collateral. | |
| MarginCallResponse | The collateral giver or its collateral manager sends this message to the collateral taker or its collateral manager. This is a response to the MarginCallRequest message. The margin call can be accepted, fully disputed or partially disputed. | |

B SWIFT MT Collateral Management Message Details

B.1 SWIFT MT Message Name and Description

| Message name | Message description |
|--------------|--|
| MT 527 | A trading party sends this message to its triparty agent to instruct the agent to perform a specific action on a collateral management transaction. |
| | An account owner also sends this message to an account servicer where the account servicer manages the account at the triparty agent on behalf of the trading party. |
| | The account owner may be: |
| | a global custodian that manages an account with a triparty agent on behalf of its client |
| | an investment management institution |
| | a broker-dealer that has an account with its custodian |
| | This message is also used to request the cancellation of a previously sent Triparty Collateral Instruction. |
| | The message may also be used to: |
| | re-send a message previously sent (sub-function of the message is DUPL) |
| | provide a third party with a copy of the message for information (sub-function of the message is COPY) |
| | re-send to a third party a copy of the message for information (sub-function of the message is CODU) |
| MT 558 | A triparty agent sends this message after the receipt of a collateral instruction from its client. |
| | In this message, the Sender is the triparty agent and the Receiver is either the collateral taker or the collateral giver or their account servicer. |
| | This message provides valuation results as well as the status of the collateral instruction and the status of the proposed collateral movements (cash and securities). |
| | The message may also be used to: |
| | re-send a message previously sent (sub-function of the message is DUPL) |
| | provide a third party with a copy of the message for information (sub-function of the message is COPY) |
| | re-send to a third party a copy of the message for information (sub-function of the message is CODU) |

| Message name | Message description |
|--------------|--|
| MT 569 | A triparty agent sends this message to both the collateral giver and the collateral taker or to an account servicer, who manages the account at the triparty agent on behalf of a trading party. |
| | This message is sent in the following circumstances: |
| | after all collateral movements have been affected (after settlement-initiated) to show the end (fixed) positions (current status) |
| | or, taking into account all collateral management instructions, including pending initiation and/or initiated |
| | This message is sent to provide the details of the valuation of both the collateral and the exposure. |

C Summary of Label Requirements

C.1 Label Requirements

| Label requirement | Reference number 1 | Mandatory |
|--|--------------------|------------------------------------|
| A minimum of one customer must us associated MX and/or MT messages | 11 | e and implement business flows and |

| Label requirement Reference number 2 Mandatory |
|--|
|--|

For Bilateral

The business application/middleware must support at least two MX messages, one MT message for securities collateral, and one MT message for cash collateral (see <u>SWIFT Incoming and Outgoing Messages</u> on page 10). Message support implies the capacity to capture business payload, transform them into MX/MT messages, and validate them against the SWIFT Standards and dedicated solution rulebook (when available).

For Triparty

The business application/middleware must support all the Triparty MT messages. Message support implies the capacity to capture the business payload, transform the payload into MX/MT messages, and validate these messages against the SWIFT Standards and dedicated solution rulebook (when available).

| Label requirement | Reference number 3 | Mandatory |
|---|--------------------|-----------|
| The business application must support the ISO 20022 Business Application Header for routing and | | |

The business application must support the ISO 20022 Business Application Header for routing and operational data processing.

| Label requirement | Reference number 4 | Mandatory |
|-------------------|--------------------|-----------|
|-------------------|--------------------|-----------|

For Bilateral

The business application/middleware must support capture and mapping of business data to MT/MX messages. Support for all relevant message types published in the <u>User Handbook</u> is always required. Application software that targets intermediaries must demonstrate support for both incoming and outgoing messages.

Deviation from this rule is allowed, as long as each message is supported at least incoming or outgoing. The vendor must demonstrate that the automation pattern addresses the automation requirements of the targeted customer segment.

For Triparty

The business application must support the capture and mapping of business data to MT messages. Support for all relevant message types published in the <u>User Handbook</u> is always required. The vendor must demonstrate that the automation pattern addresses the automation requirements of the targeted customer segment

| L | abel requirement | Reference number 5 | Mandatory |
|---|---|--------------------|-----------|
| Т | The business application must demonstrate that: | | |
| • | It can create incoming and outgoing messages for both parties of the collateral management activity in question (that is, the same message must be created both for "collateral giver" and "collateral taker"). In other words, the business application must be able to handle bilateral communications as well as | | |

 It can create and understand the same message type with an updated status during the life cycle of a transaction. In other words, the application must be able to create collateral proposal or response messages with an updated status, if required by the business communication, and also be able to link them.

unilateral communications for the same message type.

| Label requirement | Reference number 6 | Mandatory | |
|---|---|-----------|--|
| The business application must supp | The business application must support the XML envelope format for MT, MX, and Files. | | |
| This envelope format is named XML | This envelope format is named XML version 2, and includes the following information: | | |
| • Message | | | |
| can be MT, MX, Any XML, or File | can be MT, MX, Any XML, or File Format exchanged between business application and Alliance Access | | |
| MessageStatus | | | |
| provides the result of Alliance Access validation processing, including error codes | | | |
| TransmissionReport | | | |
| contains the Transmission Notification and the original message | | | |
| DeliveryReport | | | |
| contains the Delivery Notification reconciled with the original message | | | |
| DeliveryNotification | DeliveryNotification | | |
| without the original message but with some reconciliation information | | | |

| Label requirement Reference number 7 Mandatory | Label requirement | Reference number 7 | Mandatory |
|--|-------------------|--------------------|-----------|
|--|-------------------|--------------------|-----------|

The business application must integrate with SWIFT directly through one of the Alliance Access adapters on Release 7.2 (referenced in <u>Mandatory adapters</u> on page 12).

| Label requirement | Reference number 8 | Mandatory |
|-------------------|---|-----------|
| , 11 | ion must support both the InterAct in s and adhere to the latest release of t pook. | |

For Triparty, the business application must support both FIN and FileAct in store-and-forward mode and adhere to the latest release of the <u>SWIFTNet Messaging Operations Guide</u> in the User Handbook.

| Label requirement | Reference number 9 | Mandatory |
|-------------------|--------------------|-----------|
|-------------------|--------------------|-----------|

For Bilateral, the business application must support XML Schema Definition (XSD), extended XML Validation rules, and the rulebooks that apply to the label under consideration.

For Triparty, the business application must support ISO 15022 standards validation rules and the rulebooks that apply to the label under consideration.

| Label requirement | Reference number 10 | Mandatory |
|-------------------|---------------------|-----------|
|-------------------|---------------------|-----------|

The business application must support and test new changes to Collateral Management messages before the live release date on SWIFT network.

| Label requirement | Reference number 11 | Mandatory |
|---|---------------------|-----------|
| The business application must demonstrate support for the minimum rules section of the Collateral | | |
| Management Solution Rulebook published in the User Handbook. | | |

| Label requirement | Reference number 12 | Mandatory |
|---------------------------------------|--|------------------------------------|
| call process as listed in the User Ha | port all the MXs required for the Collar andbook. Message support implies the MX messages, and validate these me ulebook (when available). | e capacity to capture the business |

Reference number 13

| Label requirement | Reference number 13 | Mandatory |
|--|---|---------------------------------------|
| 2: Substitution process as listed in the | ort all the MX messages required for he <u>User Handbook</u> . Message support rload into MX messages, and validate lution rulebook (when available). | t implies the capacity to capture the |

| Label requirement | Reference number 14 | Mandatory |
|---|---------------------------------------|--------------------------------------|
| The business application must performed by the underlying transaction | orm and monitor the substitution mess | sage exchange over multiple days, if |

| Label requirement | Reference number 15 | Mandatory |
|--------------------------------------|--|-------------------------------|
| 3: Interest payment process as liste | ort all the MX messages required for d in the <u>User Handbook</u> . Message su m them into MX messages, and valid ilebook (when available). | pport implies the capacity to |

| Label requirement | Reference number 16 | Mandatory |
|--|---|---|
| The business application must perform and monitor the interest payment message exchange over multiple days and has the capability to create messages on ad-hoc basis for a certain time frame. | | |
| Label requirement | Reference number 17 | Mandatory |
| The business application must support the FileAct in store-and-forward mode protocol and adhere to the latest release of the <u>SWIFTNet Messaging Operations Guide</u> , for Collateral Management event 4: Reporting. | | |
| Label requirement | Reference number 18 | Mandatory |
| The business application must support all the MT messages required for the Triparty Collateral Management processes as listed in the <u>User Handbook</u> . Message support implies the capacity to capture business payloads, transform them into MT messages, and validate them against the SWIFT Standards and dedicated solution rulebook (when available). | | |
| Label requirement | Reference number 19 | Mandatory |
| The business application must support message visualisation for every message type requested by the SWIFT Certified Application label. | | |
| Label requirement | Reference number 20 | Mandatory |
| The business application must support an entry screen for every message type that is eligible to be sent to SWIFT for this label. | | |
| | ort an entry screen for every messag | e type that is eligible to be sent to |
| | ort an entry screen for every messag Reference number 21 | e type that is eligible to be sent to Mandatory |
| SWIFT for this label. | Reference number 21 | |
| SWIFT for this label. | Reference number 21 | |
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| SWIFT for this label. Label requirement The business application must provi Label requirement The business application must recommechanisms: | Reference number 21 de a repair station. Reference number 22 ncile message with the three different ion notification) | Mandatory |

Additional Business reconciliation requirements:

| Label requirement | Reference number 23 | Mandatory |
|--|---------------------|-----------|
| The business application must implement and demonstrate the following capabilities for business reconciliation purposes: | | |
| • Ability to create a unique transaction ID (for example, margin call ID, substitution ID) and link to consecutive message flows (business responses) in line with the suggested Standards guidelines published in the User Handbook | | |
| • For bilateral collateral management, the capability to link related InterAct messages (SWIFT MX standards) with files transported through FileAct and display information jointly. Assure that there is synchronisation between unstructured data file in FileAct and structured data in InterAct. | | |
| Functionality to implement, store, and maintain data elements related to counterparty details (for example, legal name, BIC, servicing agent), legal agreements (for example, legal agreement identifications) | | |
| Functionality to track and report audit trail end to end on a specific transaction (for example, unique margin call transaction with all linked messages) | | |

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