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# Cold Start exercise 2023

## 13-14 May

### Technical documentation

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The Cold Start exercise Technical documentation, gives more details on the test organisation, reconciliation guidelines, and proposed testing scenarios. It also provides updates on the actions that customers need to take at this stage of the exercise planning.

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# Preface

## **About this document**

The purpose of this document is to better inform customers about the Cold Start exercise testing scenarios and to give more extensive information about the exercise

## **Intended audience**

Customers invited to the cold start exercise

## **Related documentation**

Cold Start exercise 2023 – Invitation

For additional documentation please see references in chapter 8

## **First edition**

This is the first edition of the document.

## **New Services available for testing**

FINPlus

## **Swift Glossary.**

# 1 Preparing for the Cold Start Exercise

This document was created with the intention to aid the customer in their preparation for the Cold Start exercise.

**FINPlus will be available for testing for customers** and Swift highly encourages the customers to test

**ESMIG services will NOT be available for testing** during Cold Start exercise 2023

- For all Customers are requested to:
  - Make sure that have read the Invitation for the next steps and test constraints
  - Read all the preparation material, which is all available in Knowledge Base 2189844.
  - Assign a mandatory contact person and decide who will be on site during the different phases of the test. Please also make sure that the preparation material (including the Invitation and Technical documentation) is shared with the persons on site during the exercise.
  - Submit their online registration form by 24 April 2023, unlike previously announced, using the swift.com online ordering form: Business Continuity Exercise Registration <sup>1</sup>. Service Managers, if applicable, will automatically receive a copy of the submitted form.
  - Register for operational status notifications to receive text and/or e-mail notifications. This option can be selected on the registration form.
  - Decide which systems will be used and which services will test (with counterparties or service providers). Please refer to KB article 2189844 for the list of services open for testing and to access the published Test Directory KB article 5017662.
  - Consider whether there are any test constraints.
  - Elaborate and discuss their test plan (roles and expected outcome) with their Service Manager, service provider, or counterparties (if applicable).
  - Invite their community if they are a service provider and if they want to. In that case, please make sure that they have received the Invitation. They must submit their online registration form by the agreed deadlines.

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<sup>1</sup> A Swift.com account is requested to perform such action

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- Indicate on their registration form which participant BICs they will test with.
  - If Premium Plus Suite Customers want to sponsor counterparties that SWIFT did not initially invite, then please make sure that they have received the Invitation. They must confirm their participation and submit their registration form by the agreed deadlines.
  - Sanctions Screening (SSS), Transaction Screening (TSS) and Payment Control Services (PCS) will be down during the cold start exercise. For more information, refer to the emergency procedure in the Sanctions Screening Service Description.

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## 2 Testing with counterparties

### 2.1 FINCopy and SWIFTNet copy service provider

Some service providers will test with their community. Details are provided in KB article [2189844](#). For more details of exercising and available pilot services, please check with those service providers directly (note that some pilot services may not be available).

To have a successful test, customers are requested to prepare a common test plan together with their service provider.

For more information on FINCopy, see [Appendix F](#).

For more information on SWIFTNet Copy, see [Appendix G](#).

### 2.2 Testing with sponsored customers

When preparing test scenarios, customers are requested to consider the advantages and disadvantages of testing with their own Logical Terminals (LTs) versus sending test traffic to their counterparties.

Premium Plus suite customers are encouraged to sponsor (some of) their counterparties to participate in this test. It is a unique opportunity to take advantage of this special set-up.

### 2.3 Test Directory

If customers agree for SWIFT to publish their contact details in a Test Directory, indicate this on [the registration form](#)). This will allow potential correspondents to contact each other for testing. This contact information will only be available during the preparation phase and will be deleted when the exercise is completed. This Test Directory is available in KB article [5017662](#), which is updated every Tuesday at 12:00 noon CET as from March 2023.

**Privacy Statement: Please read the article [5017662](#) in order to know more about how SWIFT processes personal data for the purpose of organising the OPC recovery test.**

## 3 Connecting to Swift for the test

### 3.1 SWIFTNet

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**Important** Only registered test SNLs will be allowed to connect to SWIFTNet during the Cold Start Exercise.

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After the Cold Start, customers will be able to access the core SWIFTNet messaging services with the registered SWIFTNet Link (Test SNL IDs) with no changes to network addressing or SNL settings.

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## 3.2 FIN

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**Important** Only registered Test & Training FIN destinations (LTs) will be allowed to access the FIN messaging service during the Cold Start Exercise.

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Customers can register multiple Test & Training destinations from multiple regions. Customers will be able to exchange messages with any of their own BIC8 or with any of the other participating Test & Training BIC8 using the SNLs previously registered with SWIFT for the test.

When customers connect for the first time after the Cold Start, their FIN Interface will automatically synchronise itself with the FIN service, resulting in a successful “Log in/Select” to FIN.

**Note** Alliance Access supports Cold Start by automatically determining which messages do not have a proof of delivery and by queuing these messages for re-sending to the correspondent.

**Note** Alliance Messaging Hub (AMH) detects when a message needs to be re-sent because of a FIN Cold Start.

For more information on Alliance Access, see [Appendix B](#).

For more information on Alliance Messaging Hub (AMH), see [FIN Connectivity Guide AMH Chapter 9.5](#).

## 3.3 Store and forward (Including FINPlus)

Access to the store-and-forward messaging service during the Cold Start Exercise will be restricted to pilot services and pilot queues only.

**Note** Alliance Access supports Cold Start by automatically determining which messages do not have a proof of delivery and by queuing these messages for re-sending to the correspondent.

**Note** Alliance Messaging Hub detects when a message needs to be re-sent because of a store-and-forward Cold Start.

**Note** Ensure that reception of the xsys.005.002 report is properly set-up – See [Appendix B](#).

**Note** For more details on Alliance Access, see [Appendix B](#).

**Note** For more information on AMH, see InterAct FileAct Connectivity Guide Chapter 7.8.



## 4 Testing scenarios overview

### 4.1 Pre-Business Continuity (BC) Weekend test scenarios – Message reconciliation (recommended)

Swift strongly recommends that customers test their reconciliation capabilities **before** the Cold Start Exercise.

To do that please perform the following steps:

- Identify FIN messages to reconcile:  
For this FIN reconciliation scenario, the pre-test replaces the MT 082 of a real Cold Start situation with an MT 066. This MT 066 message has the same format as an MT 082 but does not contain the Cold Start flag (“CS” in field 301). This scenario is an important preparation check for reconciliation testing messages.
- Cold start simulation:  
Two proposed scenarios for FIN and SWIFTNet store-and-forward message reconciliation. These pre-tests enable customers to create an Unsolicited Undelivered Report (MT 082 with CS flag for FIN, or xsys.005.002 for store-and-forward) and practise the Alliance Access reconciliation process.

For detailed scenarios for Alliance users, see [Appendix C](#).

### 4.2 How to ensure a successful non delivery test

To ensure that customers can successfully test the reconciliation of undelivered messages, **Swift suggests two possible test scenarios:**

- sending a continuous flow of messages just before the start of the BC Weekend  
or
- sending a batch of messages just before the start of the BC Weekend.

#### 4.2.1 Simulate a continuous flow of messages (FIN/FINPlus/Store-and-forward)

In this scenario, customers generate a continuous flow of messages or files that will enable them to deal with messages or files delivered to the correspondents, and messages or files that are undelivered or lost. The advantage of such a scenario over the batch-based scenario below is that no one cannot predict which message will have to be re-sent. Therefore, this scenario is closer to reality.

For a simulation of real-life traffic flow for FIN and SWIFTNet, see [Appendix D](#).

#### 4.2.2 Sending batches of messages or files (FIN/FINCopy/Store-and-forward/SWIFTNet Copy)

In this scenario, customers generate a continuous flow of messages or files that will enable them to deal with messages or files delivered to the correspondents, and messages or files that are undelivered or lost. The advantage of such a scenario over

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the batch-based scenario below is that no one cannot predict which message will have to be re-sent. Therefore, this scenario is closer to reality.

For a simulation of real-life traffic flow for FIN and SWIFTNet, see [Appendix D](#).

The Copy scenarios<sup>2</sup> simulate the loss of payments pending authorisation in various parts of the payment authorisation cycle.

For instance:

- Reconciliation of messages for which the payment has already been processed by the Central Institution
- Messages for which the payment has **not** been processed by the Central Institution
- Messages lost in the Cold Start for which the MT 096s or xsys.001s have not reached the Central Institution

For a simulation of real-life traffic flow for FINCopy, see [Appendix F](#).

For a simulation of real-life traffic flow for SWIFTNet Copy, see [Appendix G](#).

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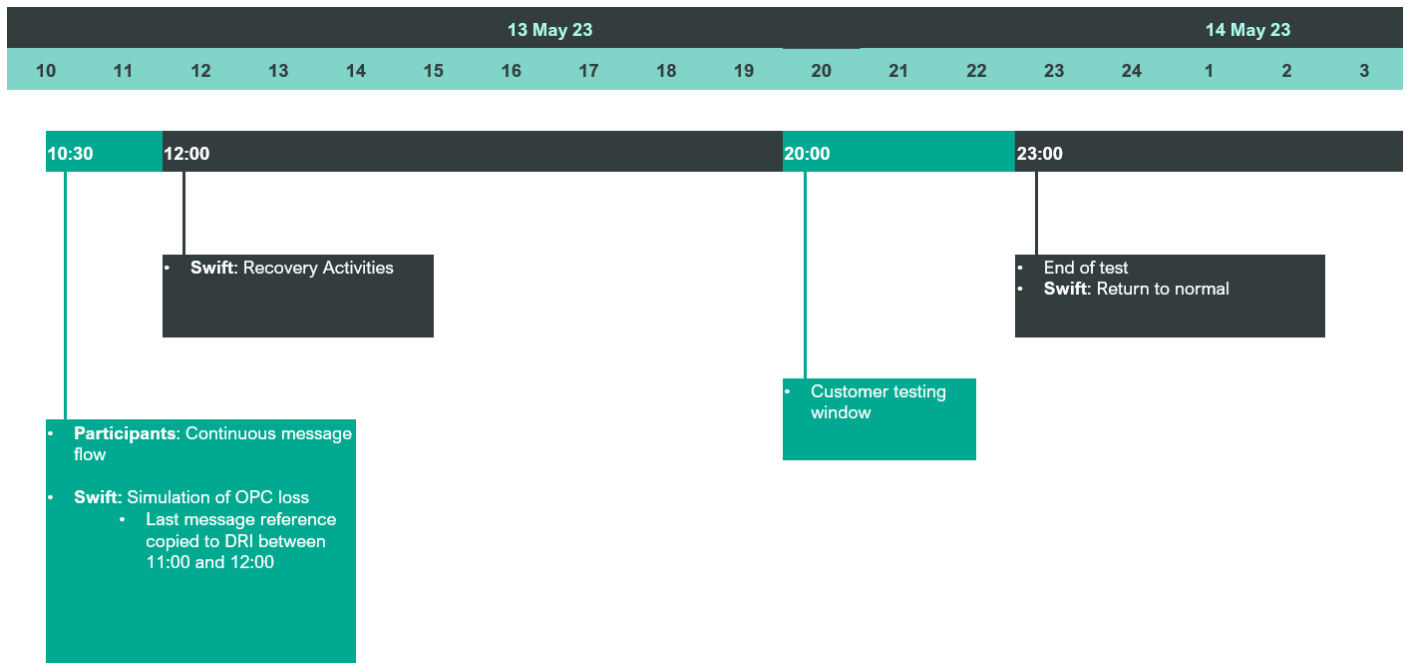
<sup>2</sup>Note that the result of this scenario may vary depending on the processing performed by the service provider.

# 5 Exercise timeline details

This section gives:

1. An overview of the timeline as the one you received in the invitation
2. A step-by-step action list that you are required to perform for participating in the Cold Start exercise.

## 5.1 High-level test timeline (in GMT)



The Cold Start test will take place during the Business Continuity weekend between Saturday 13 May 12.00 GMT and Sunday 14 May 04.00 GMT 2023, covering a window of 16 hours. This is the high-level timeline describing the sequence of events during this weekend.

The exercise will last 16 hours to facilitate a graceful activation of the disaster recovery infrastructure, to allow customers to test, and finally to return to normal operations without impact on the Production environment.

Please see the table below for time zones equivalences

GMT	EST	CET	HKT	Phase Descriptions
10:30	06:30	12:30	18:30	Start continuous message flow
11:00 – 12:00	07:00 – 08:00	13:00 – 14:00	19:00 – 20:00	Last message reference copy available in the DRI
12:00	08:00	14:00	20:00	End continuous message flow and BC weekend start
<b>ca. 20:00</b>	<b>ca. 16:00</b>	<b>ca. 22:00</b>	<b>ca. 04:00</b>	<b>Target for starting the customer testing window</b> The exact timing will be communicated during the exercise
23:00	19:00	01:00	07:00	End of customer testing window The exact timing will be communicated during the exercise
04:00	00:00	06:00	12:00	End of BC weekend

### Test in batches

GMT	Events
Before 11:00	First batch of messages
Between 11:30 and 12:00	Second batch of messages

## 5.2 Step by step actions

The section below describes the step-by-step actions that are required before, during, and after the test, as well as some specific service-related information.

### 5.2.1 Phase 0 – Preparation – Before the BC weekend (until 13 May)

Step	Who	What	When	Details
<b>1</b>	<b>Cust.</b>	Registration	By 24 April 2023	Complete the online registration <b>by 24 April 2023</b> , using this swift.com online ordering form: <a href="#">Business Continuity Exercise Registration</a> .
<b>2</b>	<b>Cust.</b>	Prepare	By 7 May 2023	<ul style="list-style-type: none"> <li>See The Invitation for more details on the next steps to be taken and test constraints. See also <a href="#">Section 2</a>.</li> <li>Consult <a href="#">Appendix A</a> for reconciliation guidelines.</li> <li>Configure Alliance system for automatic reconciliation (see <a href="#">Appendix B</a>).</li> <li>Elaborate a Test Plan (with counterparties or community, when applicable). Premium Plus suite customers can share their test plan with SWIFT which will be reviewed together with a support engineer before the test and customers will be contacted during the testing.</li> <li>Determine the message throughput during the test. Please do not send more than 9,999 messages.</li> <li>Check that <b>no certificates</b> are in their <b>renewal period during the test</b>. It will not be possible to renew certificates during the exercise.</li> <li>Execute the pre-test scenarios See <a href="#">Appendix C</a>.</li> </ul>

- Recommended: set up several scheduled logins during the first hour of the Customer Testing Window (e.g. 20:00, 20:15, 20:30, 20:45).

<b>3</b>	<b>Cust.</b>	<p>Send continuous flow of messages or files ----- <b>OR</b> Send <b>first</b> batch of messages or files</p>	<p>Between 10:30 and 12:00 GMT on Saturday 13 May 2023</p> <p>After close of business on Friday 12 May and before 11:00 GMT on Saturday 13 May 2023</p>	<p><b>Note</b> Any messages or files that are ACKed by SWIFT but not yet delivered to the receiver will be lost.</p> <p>See the <a href="#">Appendixes</a> for scenario-specific details.</p>
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<b>3.1</b>	SWIFT	<p>Last message reference capture</p>	<p>See <a href="#">Operational Status KB Article 2102138</a></p>	<p>Between 11:00 and 11:30 GMT, SWIFT will make the last copy of message reference data to the DRI. <u>The exact timing of the last capture will <b>not</b> be announced in advance by SWIFT but will be communicated later during the BC Weekend by KB article <a href="#">2102138</a>.</u></p>
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<b>4</b>	<b>Cust.</b>	<p>Continuous flow of messages ----- <b>OR</b> Send the <b>second</b> batch of messages or files</p>	<p>Between 11:30 and 12:00 GMT on Saturday 13 May 2023</p> <p>----- Between 11:30 and 12:00 GMT on Saturday 13 May 2023</p>	<p>This is <b>after SWIFT has stopped the capture mechanism.</b></p> <p><b>Note</b> The messages sent after the last capture mechanism, or this second batch of messages, will be lost in the Cold Start. Participants must identify such messages, or this batch, by themselves, process them and send them again with a PDE Indication or PDI Indication.</p>
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<b>5</b>	<b>Cust.</b>	<p>Disable automatic retrieval functionality</p>	<p>Ensure that no retrieval is performed on the interface (because all output sequence numbers are reset to zero). In normal circumstances (not a Cold Start situation), retrievals are issued when a sequence gap is detected. Participants are requested to check with their interface vendor and operational staff.</p> <p><b>Note</b> This requirement would also apply to a real Cold Start event. There is no need for participants to disconnect or log out or stop their systems before the BC Weekend. The system should be kept in the same state as it would normally be in a weekend.</p>
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## 5.2.2 Phase 1 – During the BC weekend (12:00 GMT – 20:00 GMT) – recovery activities

Step	Who	What	When	Details
5.1	SWIFT	Recovery process	Between 12:00–20:00 GMT on Saturday 13 May 2023	SWIFT starts the isolation and controlled shutdown of the OPCs. Then SWIFT starts the restoration and recovery process and prepares the opening of the Cold Start Test environment. (The exact timing will be announced by SWIFT in KB article <a href="#">2102138</a> and e-mail and/or text message notifications to staff on site during the exercise who have registered for operational status notifications on the <a href="#">registration form</a> .)

## 5.2.3 Phase 2 – During the BC weekend (20:00 GMT – 23:00 GMT) – customer testing window

Step	Who	What	When	Details
6	SWIFT/ Cust.	Customer test window	Around 12:00 GMT, closing at 23:00 GMT 13 May 2023	As soon as the network becomes available, which is around 19:00 GMT, all test participants can re-connect. This will however not happen all at the same time, but gradually. (The exact timing will be announced by SWIFT in KB article <a href="#">2102138</a> and e-mail on Saturday and/or text message notifications. See also <a href="#">Section 2</a> .)

### Service specific information

<b>Service Specific information</b>	FIN and FINCopy	A Log in/Select can now be performed. If the FIN interface is configured for <b>automatic re-login</b> , then it should be able to re-establish the FIN session seamlessly.
	SWIFTNet (Real-time and store-and-forward) <b>FINPlus</b>	<ol style="list-style-type: none"> <li>1. Connection to the Certificate Authority (CA) cannot be made, which is normal for this test.</li> <li>2. Participants should do a SWIFTNet checkip command to confirm that basic connectivity with SWIFTNet has been established.</li> <li>3. Store-and-forward and <b>FINPlus</b>: Participants should open/acquire their generic queues (BIC8_generic!p for the test and bic8_finplus!pc).</li> </ol>

<b>7</b>	<b>Cust.</b>	Receive Unsolicited Undelivered login reports	After successful login	Receipt of FIN MT 082 (for FIN) or xsys.005.002 (for SWIFTNet store-and-forward( <b>FINPlus</b> )) Unsolicited Undelivered Traffic Report.
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### Service specific information

<b>Service Specific information</b>	FIN	After the successful Log in/Select, SWIFT will deliver an MT 082-UNDELV report that lists all messages that were sent by this LT and were not delivered to its destination up to the Latest Capture Date/Time. This Latest Capture Date/Time will be between 11:00 and 11:30 GMT and will be indicated in the MT 082.
	FINCopy	The sender, the receiver and the Central Institution (CI) all log in when the network is available and will receive an MT 082 for each LT.

<b>Service Specific information</b>	SWIFTNet store-and-forward ( <b>FINPlus</b> )	After successfully reopening their generic queue (BIC8_generic!p and bic8_finplus!pc), participants will get an xsys.005.002 report (in the form of one or more system messages) that SWIFT has automatically generated. This report provides details of store-and-forward traffic that participants have sent, and that SWIFT has positively acknowledged but for which the delivery status to the recipient is uncertain at the time of the Cold Start. This Cold Start time stamp will be indicated in the xsys.005.002 report.
	SWIFTNet Copy	The sender, the receiver, and the CI will receive an xsys.005.002.01 after acquiring their generic queues.
<b>8</b>	<b>Cust.</b> Message Reconciliation	See the <a href="#">Appendixes</a> for message reconciliation guidelines and detailed scenario descriptions.

### 5.2.4 Phase 3 – During BC Weekend (23:00 GMT – 04:00 GMT): end of customer test and return to normal operations

Step	Who	What	When	Details
8.1	SWIFT	End of customer testing	Around 23:00 GMT on 13 May 2023	SWIFT will block the access to the Cold Start environment.
8.2	SWIFT	Reactivation of OPCs and return to normal operation	By 04:00 GMT on 14 May 2023	SWIFT will reactivate its operating centres. The SWIFT systems will then be in the same state as before the BC Weekend. <i>Any messages OR files that were not yet delivered prior to the BC Weekend will now be processed.</i>

### 5.2.5 Phase 4 - After the BC Weekend: check status and feedback

Step	Who	What	When	Details
<b>9</b>	<b>Cust.</b>	<b>Collect evidence</b>		<p>Before re-connecting their test systems, participants are requested to ensure that all necessary evidence for analysing the test results has been collected:</p> <ul style="list-style-type: none"> <li>Alliance Access/Alliance Gateway: Supportinfos <ul style="list-style-type: none"> <li>snl_supportinfo (if only SNL)</li> <li>sag_supportinfo (if SAG+SNL)</li> <li>saa_supportinfo (if SAA or SAE)</li> </ul> </li> <li>AMH: full AMH logs</li> </ul>
				<p><b>Important</b>      <b>All evidence will be lost after the customer testing window.</b></p> <p><b>Avoid logging in any test LTs before collecting all Cold Start Exercise information.</b></p>

<b>10</b>	<b>Cust.</b>	Check status of systems		<p>All systems that were connected to the production environment at the start of the Cold Start Exercise will continue to try connecting to the SWIFT infrastructure during the exercise and will automatically reconnect to the production environment when it becomes active again.</p> <p>Messages or files that were not delivered prior to the BC Weekend will be delivered after the exercise.</p>
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As a precaution, participants are requested to check the status of their production systems after the test period and ensure that all the production flows resumed seamlessly.

As senders, customers should handle the delivery notifications and reconcile all messages and files related to the Cold Start Exercise.

10.1	SWIFT	Feedback Form	Post exercise	SWIFT will send an online Feedback Form to the participants.
11	Cust.	Feedback Form	7 Jun 2023	Complete the Feedback Form and submit to SWIFT. The survey will be closed and will no longer be accessible after this date.
11.1	SWIFT	Archive Articles	June 2023	SWIFT will archive the 2023 exercise preparation KB articles (preparation and test directory)
11.2	SWIFT	Publish external exercise report	June 2023	All participating customers will receive the exercise report.

## 6 Swift support and communication

### 6.1 Before the test

A support case will be created and monitored by Swift support for updates and comments until the exercise date. Customers will receive the case number **about 2 weeks before the exercise**. Please refer to this case number for any contact with SWIFT Support.

**If Premium Plus and Premium Custom customers** have provided a detailed test plan to SWIFT, a Support Engineer will be assigned to them and will be in contact before and during the test until completion of the test plan milestones.

### 6.2 During the test

All questions or issues related to the Cold Start Exercise should be addressed to the Customer Support Centres (CSCs):

CSC EMEA	+31.71.582.2822
CSC Americas	+1.540.825.6056
CSC Asia-Pacific	+852.2.852.8777

If customers call the Customer Support Centre during the test, they will be prompted to enter their pre-defined support case number. By doing this, the call will be routed automatically to the dedicated engineer on site.

Support engineers will update customers about their test results:

- By web ticket – to inform customers that the test was successful.
- By phone– if they notice that the location is not reconnected within 30 minutes after the opening of the test window.



- By all possible means in case of problem management. **Note that it is mandatory to have a contact available during the test.**

KB article [2102138](#) will be regularly updated on 09-14 May 2023 to provide participants with a regular status on the progress of the Cold Start Exercise.

Additionally, if requested on the [Registration Form](#), the customer contacts will receive operational status notifications by e-mail and/or text with details of the progress of the exercise and KB article updates.

## 6.3 After the test

Normal problem management procedures will apply. If there are any problems encountered or outstanding, then our support engineers will follow up with customers.

## 7 Billing

All T&T traffic sent and received in the scope of the Cold Start exercise will be free of charge.

## 8 References and Knowledge Base Articles<sup>3</sup>

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### Knowledge Base Articles:

- [Article 3000616 - Global Cold Start customer information](#)
- [Article 5017896 - Is your institution prepared for a Cold Start?](#)
- [Article 2189844 - Cold Start Community Test – 13 -14 May 2023 - Preparation article](#)  
The Related Information section of this article contains all the recorded presentations:
  - [Article 5020527](#) - Cold Start test 2023 General information session
  - [Article 5020528](#) - Copy Services and Cold Start
  - [Article 5020591](#) - Alliance Access FIN Cold Start Support for users
- [Article 5017662 - Cold Start Exercise - Test Directory](#)
- [Article 5016788 - How to check the DNS configuration](#)
- [Article 2102138 - Cold Start Community Test – 13-14 May 2023 – Operational Status](#)
- [Article 0061344 – What happens if I send an MT 047 on a Saturday before the allowable window starts?](#)
- [Article 5018976 - Early Activation of MT047 \(FIN Delivery Subset Redefinition Request\)](#)

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<sup>3</sup> Note that to access these documents on swift.com, username and password are required

**SWIFT Documentation:**

- [SWIFTNet 7.x System Messages](#)
- [FIN System Messages](#)
- [FIN Service Description](#)
- [SWIFTNet Service Description](#)
- [FINCopy Service Description](#)
- [Alliance Access Configuration Guide](#)
- [Alliance Access Message Management Guide](#)
- [Alliance Entry Configuration Guide](#)
- [Alliance Entry Message Management Guide](#)
- [AMH Configuration Guide](#)

# 9 Appendices

## Appendix A – Reconciliation guidelines

The sections below highlight actions that need to be taken in a Cold Start situation. Customers which do not have Alliance interface, are requested to contact their own vendors documentation.

**Note** Alliance Access supports Cold Start by automatically determining which messages do not have a proof of delivery, and by queuing these messages for re-sending to the correspondent.

**Note** The AMH reference workflows use specific logic to trap the MT 082 and to trigger the Cold Start logic to select the relevant messages that need to be resent. Customers often customise workflows, which may cause this specific logic not to be present.

Guidelines	FIN	Store-and-forward (FINPlus)	See also
Accessing SWIFT Services	On completion of the Cold Start exercise, impacted users can access SWIFT Main Services in the <b>normal way</b> . If customers are unsure that their interface can automatically synchronise, they are requested to contact their Interface supplier to get confirmation.		Interface vendor documentation
	Impacted customers must disable any automatic retrieval functionality that the detection of missing output sequence numbers triggers. This is to prevent any automatic retrieval requests being sent to SWIFT when gaps are detected in the output sequence number flow (because all output sequence numbers are reset to zero). These automatic retrieval requests fail because there are no pre-Cold Start messages in the system. However, processing these automatic retrieval requests consumes resources in the SWIFT systems. SWIFT charges for such requests as per the current standard SWIFT pricing.		Interface vendor documentation
As “receiver”	Make sure that messages received with a “Possible Duplicate Emission” (PDE) indication are only acted upon <u>once</u> , as per standard processing of PDE.	Make sure that the messages/files received with a “Possible Duplicate Indication” (PDI) are only acted upon <u>once</u> as per standard processing of PDI.	
	Several received messages may be “duplicates” if correspondent were uncertain of the delivery status.	<b>Output channels</b> that were created by the institution must be re-created, except for the generic output channels that SWIFT automatically makes available. Alliance Access will automatically re-create them (in exclusive mode) when the xsys.005.002 is received.	- <a href="#">Alliance Access Documentation</a>  - <a href="#">Alliance Cold Start Support Recorded Presentations</a>
As “sender”		<b>Input channels</b> that were created by the institution must be re-created, except for the generic input channels that SWIFT automatically makes available. Alliance Access will automatically re-create them (in exclusive mode) when the xsys.005.002 is received.	- Interface vendor documentation
	<b>Identify any messages that have been sent, but for which the delivery status to the recipient is uncertain.</b>	<b>Identify any messages or files that have been sent, but for which the delivery status to the recipient is uncertain. This</b>	

Guidelines	FIN	Store-and-forward (FINPlus)	See also
	<p>Customers may need to resend messages for which initially an ACK was received, because these messages may not have been delivered yet to the correspondent at the time of the incident.</p>	<p>also applies to messages and files which were initially acknowledged by SWIFT, because these messages or files may not have been delivered yet at the time of the incident.</p>	
	<p>In order to identify these messages, customers will receive one or several <b>MT 082-UNDELV</b> report(s) for each LT after their first successful Log in/Select to FIN:</p> <ul style="list-style-type: none"> <li>After their first successful Log in and Select to FIN on the Cold Start site, users will receive an MT 082-UNDELV message report with CS flag in field 301 as well as the Latest Capture Date/Time in fields 171 and 175.</li> </ul> <p>The time (T) should be used to identify the messages that need to be retransmitted.</p>	<p>The starting point for the identification of affected traffic is the system message Unsolicited Undelivered Traffic Report (<b>xsys.005.002</b>), with CS tag, which contains information about the situation before the Cold Start.</p> <p>SWIFT generates this report, in the form of one or more system messages, automatically after a Cold Start and makes it available in the user's generic queue of each 8-character BIC (pilot queues for the test).</p> <p>The time (T) mentioned in the report should be used to identify the messages that need to be retransmitted. This time (T) may be different for each BIC.</p>	
	<p>During normal operations, the list of undelivered messages sent by a given LT/8-character BIC together with the Capture Date/Time is regularly safe-stored in the dormant Cold Start site.</p> <p>For the test, the time (T) will be between 11:00 GMT and 11:30 GMT on 13 May 2023. The exact timing will not be announced in advance but communicated later during the BC Weekend (in KB article <a href="#">2102138</a>) <i>Please note that this step takes longer in this exercise than in normal circumstances in order to allow better testing possibilities for the customers. In reality the Unsolicited Undelivered report is replicated more frequently in the DRI.</i></p>		
<p><b>As “sender”</b></p>	<p><b>Resend the identified messages with a PDE Indication</b> (the PDE Indication must contain the Message Input Reference (MIR) of the original transmission if the adopted interface supports this feature).</p> <p>The messages to be resent with “Possible Duplicate Emission” indication are:</p> <ul style="list-style-type: none"> <li>All messages sent at or after the MT 082 Date/Time indicated (last capture) which have been acknowledged by FIN.</li> <li>All messages that are listed in the MT 082-UNDELV report for the LT and which have not yet been delivered to the correspondent.</li> <li>All messages for which the delivery status was unclear - for example, sent to SWIFT but for which a network acknowledgement is still to be received.</li> </ul> <p>There are some <b>exceptions</b>:</p> <ul style="list-style-type: none"> <li>Messages that the sender has sent in the context of a FINCopy service, for which the service administrator has issued instructions not to resend.</li> <li>Messages for which the sender has selected delivery monitoring and for which the sender has received an MT 011 delivery notification</li> </ul>	<p><b>Resend the identified messages or files with a PDI Indication</b> (and if possible, the Msgld and CreationTime of the original transmission).</p> <p>The messages to be resent with “Possible Duplicate Indication” are:</p> <ul style="list-style-type: none"> <li>Messages sent at or after the xsys.005.002 Unsolicited Undelivered Traffic Report Date/Time indicated (last capture) which have been acknowledged by SWIFT.</li> <li>Messages listed in the xsys.005.002 report for the 8-character BIC and which have not yet been delivered to the correspondent.</li> <li>Messages for which the delivery status was unclear – for example, sent to SWIFT but for which a network acknowledgement is still to be received.</li> </ul> <p>There are some <b>exceptions</b>:</p> <ul style="list-style-type: none"> <li>Messages sent in the context of a SWIFTNet Copy service, for which the service administrator gave instructions not to resend.</li> <li>Messages for which the sender has selected the delivery notification option, and for which the sender has received a Delivery Notification from SWIFT indicating a successful delivery to the intended recipient.</li> </ul>	<p><a href="#">FIN Service Description</a></p> <p><a href="#">SWIFTNet Service Description</a></p> <p>Interface vendor documentation</p>

Guidelines	FIN	Store-and-forward (FINPlus)	See also
	<p>from FIN, indicating a successful delivery to the intended recipient.</p> <ul style="list-style-type: none"> <li>Messages for which the sender can be sure that the intended recipient received them successfully (for example, because it has resulted in the sender receiving a message).</li> </ul> <p><u>If there is any reasonable doubt about an exception, then it is always safe to re-send the message with a PDE Indication.</u></p>	<ul style="list-style-type: none"> <li>Messages for which the sender can be sure that the intended recipient received successfully (for example, because it has resulted in the sender receiving a message).</li> </ul> <p><u>If there is any reasonable doubt about an exception, then it is always safe to resend a message with a PDIndication.</u></p>	
	<p>SWIFT recommends that customers validate additional reconciliation scenarios.</p>		<p><a href="#">Appendix F</a> and <a href="#">Appendix G</a>: detailed test scenario.</p>
<p><b>As FINCopy/Y-Copy Central Institution</b></p>	<p>After a Cold Start, members of s market infrastructure will be resending messages for which delivery is uncertain, with a PDE Indication. Central institutions must make sure that their Real Time Gross Settlement (RTGS) application correctly handles these retransmitted messages, taking into account the following factors:</p> <ul style="list-style-type: none"> <li>Some original messages may never have been received by their own RTGS application (MT 096 received).</li> <li>Some original messages may previously have been processed and led to the generation of an MT 097 but without subsequent delivery of the original payment message to the receiver.</li> <li>Some original messages may previously have been processed and led to the generation of an MT 097 with subsequent delivery of the payment message to the receiver.</li> </ul> <p>In some cases, the MT 096 has been received, and the MT 097 has been prepared but is still located in the queues of the interface adopted. The MT 097 will be sent after the Cold Start but SWIFT cannot process it because the original message is lost. In this case, the MT 097 will be rejected. MT 097 messages can never be returned in an MT 082.</p>	<p>After a Cold Start, members of a market infrastructure will be resending messages for which delivery is uncertain, with a PD Indication. Central institutions must make sure that their Real Time Gross Settlement (RTGS) application correctly handles these retransmitted messages, taking into account the following factors:</p> <ul style="list-style-type: none"> <li>Some original messages may never have been received by their own RTGS application (message with copy indicator).</li> <li>Some original messages may previously have been processed and led to the generation of an xsys.001 but without subsequent delivery of the original payment message to the receiver.</li> <li>Some original messages may previously have been processed and led to the generation of an xsys.001 with subsequent delivery of the payment message to the receiver.</li> </ul> <p>In some cases, the copy message has been received and the xsys.001 has been prepared but is still located in the queues of the interface adopted. The xsys.001 will be sent after the Cold Start but SWIFT cannot process it because the original message is lost. In this case, the xsys.001 will be rejected.</p>	<p><a href="#">Copy Services and Cold Start - recorded presentation</a></p>
	<p><u>The sender, the receiver and the Central Institution must communicate to do the reconciliation.</u></p> <p>However, the reconciliation scenario and actions may be different for every Central Institution and must be adapted accordingly.</p>		

## Appendix B – FIN, Store-and-Forward (including FINPlus) reconciliation

### B.1 Alliance Access/Entry users

The Cold Start process is simplified, has a great degree of automation and allows FIN, store-and-forward InterAct and FileAct messages that do not have a proof of delivery to be automatically identified and put in the queue for re-sending to the correspondent. Following a Cold Start, the SWIFT network will have lost knowledge of **non-generic** input and output channels. Alliance Access will automatically send the appropriate system messages to reconfigure the channels at the network level so that messages can flow as quickly as possible.

See the following article for more details on Alliance Access and what customers need to do in a Cold Start situation:

- KB article [2189844](#), Alliance Cold Start support recorded presentation (KB [article 5020591](#)).

### B.2 Alliance Messaging Hub (AMH) users

AMH supports both FIN and Store-and-Forward Cold Start and Recovery. This feature is enabled by default and requires no additional configuration.

The Cold Start will be automatically detected for both FIN and Store-and-Forward. After the Cold Start processing is done, the affected transactions will be available to users under a dedicated inventory:

**Exceptions > Outgoing > Exception Search > Public Searches > Handle resend.**

See the following documentation for more details on AMH Cold Start:

- [FIN Connectivity Guide AMH Chapter 9.5.](#)
- AMH [InterAct FileAct Connectivity Guide Chapter 7.8.](#)

## Appendix C - Pre-BC Weekend test scenarios - Message reconciliation (recommended)

The following pre-test scenarios are important preparation checks for reconciliation testing.

- For Alliance Access, scenarios C1 and C2 will allow the simulation of a Cold Start with MT 082 (FIN) or an xsys.005.002 (store-and-forward) creation. For further details consult the [Alliance Access System Management Guide](#).
- For AMH users, there is no pre-BC scenario foreseen.

### C.1 – Cold Start Simulation (FIN – for Alliance Access/Entry users)

Step	Detailed Actions
1 <b>Activate Cold Start</b>	Make sure that Cold Start is activated. By default, Cold Start is in activated mode.
2 <b>Include FINCopy service(s)</b>	If customers are using FINCopy services, they are requested to set the “Included in Cold Start” option for those FINCopy services that they want to test; this is an option in the <b>FIN Copy Profile Details</b> window.
3 <b>Send messages before Cold Start time (Do not receive them yet)</b>	Perform a <b>Select FIN Input/Output</b> for the Test & Training LT with <b>only subset System</b> and LT direct queue selected. Send some Test & Training messages simulating a realistic traffic scenario. Note: If participants intend to do redefinition of Test & Training LT’ <b>delivery subset</b> , then MT 047 can be sent any time. However, the change will take place around midnight, customer location time. Please refer to <a href="#">article 61344</a> , <a href="#">5018976</a> and FIN system messages document for more information around MT 047.
4 <b>Send an MT 046 (Undelivered Message Report Request)</b>	For the sending BIC, send an MT 046 with Report type RT and own Logical Terminal Code. Participants are requested to wait until they have received the MT 066. This will help them to know which messages have not been delivered for that LT at the generation time of the report.
5 <b>Select I/O</b>	Select <b>FIN I/O</b> all subsets. Customers will receive messages sent to themselves, plus the MT 011 system message for successful delivery of message to receiver. Note: MT 011 is received if the FIN message was sent with request of delivery notification.
6 <b>Wait FIN Cold Start margin</b>	Wait 15 minutes (default value for “FIN CS Time margin” configuration parameter). This will also leave the time for _TR_REC to reconcile the delivery system messages with the related input messages.
7 <b>Exchange of messages after MT 066 was received</b>	Send some additional Test & Training messages. This will simulate traffic exchange after the MT 066 was received
8 <b>Build the FIN MT 082 from the content of received MT 066</b>	In the <code>&lt;installation directory&gt;\MXS\batch_examples\cold_start</code> folder, participants will find an example of MT 082 report. Update the information in the file with the information from the MT 066 received in step 4: <ul style="list-style-type: none"> <li>Replace the BIC12 in block 1 with BIC12 from block1 of MT 066.</li> <li>Replace date in tag 171 and time in tag 175 with date and time from tags 171 and 175 of MT 066.</li> </ul> <p>Replace all blocks {335...}, {108..} {431..} and {103:} with the ones present in the MT 066. <b>Use RJE format.</b></p>
9 <b>Create a routing rule</b>	<ul style="list-style-type: none"> <li>Clone the active schema</li> <li>If not done yet, then select _TR_REC as a valid routing target for _AI_from_APPLI.</li> <li>And add a new rule in the _AI_from_APPLI queue at the top of the list of the existing routing rules as follows:</li> </ul> <p>Description: Used in Schema: <i>(select the newly cloned schema)</i></p> <p>Condition:</p>

Step	Detailed Actions
	<p>Condition on: Message and function Function Result: Success Message: (Mesg_type = '082') or (Message_identifier like 'xsys.005.002.%')</p> <p>Action: Action on: Source Action: Dispose To <b>_TR_REC</b></p> <p>Activate the newly cloned schema.</p>
<p><b>10 Create a Message Partner to process the MT 082</b></p>	<p>Use Message Partner with</p> <ul style="list-style-type: none"> <li>Connection Method: File TransferData Format: RJEValidation level: <b>No validation</b></li> </ul> <p>Routing option: Route.</p>
<p><b>11 Process the MT 082</b></p>	<p>Run a session for the new Message Partner to process the file containing the MT 082 message. Wait until <b>_TR_REC</b> has finished processing the file (this may take some time depending on the number of messages in the database).</p> <p>Check the result in the event log. An event will be logged for:</p> <ul style="list-style-type: none"> <li>each message that was successfully re-activated;</li> <li>each message that was skipped; each message for which an instance is not present in the database;</li> <li>each message for which the reactivation of the message instance has failed.</li> </ul> <p>Additional to that is logged an event with a summary about MT 082 processing result for used LT(s) in the Cold Start Simulation.</p> <p><b>Note</b> The original instance of messages required to be re-sent are moved to <b>_MP_Recovery</b>.</p>
<p><b>12 Message Recovery</b></p>	<p>Process the messages in the <b>_MP_recovery</b> queue using Message Recovery application of Message Management GUI.</p> <p>Depending on the selected option, the message will be completed or routed to <b>_SI_to_SWIFT</b> queue.</p> <p>If a specific action is needed on rejected messages, a new routing rule is required in <b>_MP_recovery</b> queue, otherwise the message will be disposed by default To Addressee.</p> <ul style="list-style-type: none"> <li>And add a new rule in the <b>_MP_recovery</b> queue at the top of the list of the existing routing rules as follows:</li> </ul> <p>Description: Used in Schema: <i>(select the newly cloned schema in step 9)</i></p> <p>Condition: Condition on: Function Function Result: Failure</p> <p>Action: Action on: Source Action: <i>(Customers are requested to select an action based on their business need)</i></p>
	<p>See the <i>Configuration Guide</i> (<a href="#">Alliance Access</a>   <a href="#">Alliance Entry</a>) for further details.</p>

## C.2 – Cold Start Simulation (Store-and-Forward and FINPlus - for Alliance Access/Entry users)

Step	Detailed Actions
<p><b>1 Activate Cold Start</b></p>	<p>Make sure that Cold Start is activated. By default, Cold Start is in activated mode.</p>
<p><b>2 Send messages before cold start time (Do not receive them yet)</b></p>	<p>Prepare a few store-and-forward InterAct and FileAct messages for pilot services. Some of them should have <b>Notification Requested</b> set to true.</p> <p>Activate the emission profile, but do not open the reception profiles yet.</p>



3	<b>Send xsys.004.001 (undelivered message report request)</b>	Using MMA (Message Management Application) send an xsys.004.001 using swift.snf.system!p to retrieve all messages not yet delivered. Specify the <bic8>_generic!p and <bic8>_finplus!pc queue as the delivery queue.
4	<b>Open the &lt;bic8&gt;_generic!p reception queues.</b>	Open the reception queue <bic8>_generic!p and <bic8>_finplus!pc Participants will receive an xsys.005.001 undelivered report. The execution time of the received xsys.005.001 will be used as the execution time in the xsys.005.002.
5	<b>Exchange of messages after reception of xsys.005.001</b>	Send some additional store-and-forward InterAct and FileAct messages. This will simulate the traffic received after the reception of the xsys.005.001.
6	<b>Open the other reception queues</b>	Open all involved reception queues to receive the above Interact and FileAct messages sent to you.
7	<b>Wait until delivery reports are processed</b>	Wait a few minutes to allow the delivery notification (xsys.011) to be reconciled with the input message (could take up the time specified in the <b>Msg reconciliation cycle</b> parameter). Note: xsys.011 is received if the InterAct and FileAct messages were sent with request of delivery notification
8	<b>Build the xsys.005.002</b>	<p>In the &lt;installation directory&gt;\MXS\batch_examples\cold_start folder, customers will find an example of xsys.005.002 report. Update the information in the file with the information from the xsys.005.001 received in step 4:</p> <ul style="list-style-type: none"> <li>• Modify the Receiver DN (SAA:DN) and full name X1 (SAA:X1) tags with own BIC (case sensitive).</li> <li>• Replace the Saa:SnFQueueName and the Doc:ExctnTm tag values with the ones present in the xsys.005.001.</li> <li>• Replace the content of the &lt;Doc:UdlvrdMsgList&gt; with the content of the xsys.005.001. Uncheck "display expanded text" before copying the text.</li> <li>• Update the length of the updated xsys.005.002 with the length of the signature + datapdu.</li> </ul> <p>Update the signature (LAU) or make sure you still get it padded with null characters if no LAU is required.</p>
9	<b>Create a routing rule</b>	<ul style="list-style-type: none"> <li>• Clone the active schema.</li> <li>• If not done yet, select _TR_REC as a valid routing target for _AI_from_APPLI.</li> <li>• And add a new rule in the _AI_from_APPLI queue at the top of the list of the existing routing rules as follows:</li> </ul> <p>Description:</p> <p style="padding-left: 40px;">Used in Schema: (select the newly cloned schema)</p> <p>Condition:</p> <p style="padding-left: 40px;">Condition on: Message and function</p> <p style="padding-left: 40px;">Function Result: Success</p> <p style="padding-left: 40px;">Message: (Mesg_type = '082') or (Message_identifier like 'xsys.005.002'.%)</p> <p>Action:</p> <p style="padding-left: 40px;">Action on: Source</p> <p style="padding-left: 40px;">Action: Dispose To _TR_REC</p> <p>Activate the newly cloned schema.</p>
10	<b>Create a Message Partner to process the xsys.005.002</b>	<p>Define and enable a Message Partner with:</p> <ul style="list-style-type: none"> <li>• Connection Method: File Transfer,</li> <li>• Data Format: XML Version 2 Revision 3 or higher.</li> </ul> <p>Routing option: Route.</p>
11	<b>Process the xsys.005.002</b>	<p>Run a session for the above Message Partner to process the file containing the updated xsys.005.002 and wait for _TR_REC to process it (could take at least the time specified in the <b>Msg reconciliation cycle</b> parameter).</p> <p>Check the result in the event journal. An event will be logged for:</p>

- each message that was successfully re-activated;
- each message that was skipped;
- each message for which an instance is not present in the database;
- each message for which the reactivation of the message instance has failed.

Additional to that is logged an event with a summary about xsys.005.002 processing result for used BIC8 in the Cold Start Simulation.

Note: Original instances of messages required to be re-sent are moved to \_MP\_Recovery.

## 12 Message Recovery

Process the messages in the \_MP\_recovery queue using Message Recovery application of Message Management GUI.

Depending on the selected option, the message will be completed or routed to put in the \_SI\_to\_SWIFTNet queue.

If a specific action is needed on rejected messages then a new routing rule is required in \_MP\_recovery queue, otherwise the message will be disposed by default To Addressee. And add a new rule in the \_MP\_recovery queue at the top of the list of the existing routing rules as follows:

Description:

Used in Schema: (select the newly cloned schema in step 9)

Condition:

Condition on: Function

Function Result: Failure

Action:

Action on: Source

Action: *(Customers are requested to select an action based on their business need)*

See *Configuration Guide* ([Alliance Access](#) | [Alliance Entry](#)) for further details.

## Appendix D - Continuous flow of messages/files

This scenario has been created as a better simulation of a real-traffic day situation for FIN and SWIFTNet.

### D.1 Between 10:30 and 12:00 GMT - Send a continuous flow of messages

Please refer to the KB article [2189844](#) for the list of services open for testing or check with the service provider to see if their service will be available.

Participants need to send a continuous flow of messages between 10:30 and 12:00 GMT.

This flow can be spread over a shorter period, according to the amount of traffic customers intend to send during this simulation (we recommend simulating the flow of one peak business day).

Participants must take into account that SWIFT will do the last message delivery status capture in the DRI **between 11:00 and 11:30 GMT**. The exact timing of the last capture will not be announced in advance by SWIFT but will be communicated later during the BC Weekend via KB article [2102138](#). **Therefore, customers should make sure that they send and receive messages before and after the last capture time.**

#### Service specific information

##### FIN

**1. If participants can use several test destinations:**

SWIFT recommends sending traffic, randomly, to two different destinations:

- One BIC that is logged in (that will receive messages)
- One BIC that is logged out (to simulate undelivered messages)

**2. If participants do not have two test destinations:**

In this case, messages can be sent messages to own BIC ensuring that some messages are received and some not received, depending on the selected delivery subsets.

To reach this situation:

- Check the delivery subsets definition.
- Make sure that the traffic sent towards your own BIC matches at least two different subsets.
- When connecting the LT to the network, be sure to omit one of these subsets from the selection. This will ensure that the participant will not receive the corresponding messages.

Example: If customers use the default delivery subsets SYSTEM, URGENT and NORMAL, then they can send traffic randomly with message priorities URGENT and NORMAL. When connecting the LT, select only the SYSTEM and URGENT delivery subsets. Messages with NORMAL priority will remain undelivered and appear as such in the Cold Start Undelivered Message Report (MT 082).

**Note** If customers intend to do redefinition of Test & Training LT' **delivery subset**, then MT 047 can be sent any time. However, the change will take place around midnight, local time of customer location. Please refer to KB article [61344](#), [5018976](#) and FIN system messages document for more information around MT 047.

##### SWIFTNet Store-and-Forward (and FINPlus)

In this scenario, customers need to send the following traffic:

- store-and-forward InterAct messages
- store-and-forward FileAct messages
- store-and-forward InterAct system messages

SWIFT recommends that customers send traffic, randomly, to two types of recipients:

- The first set of recipients is receiving their messages from the queue (messages are delivered).
- The second set is not connected to their store-and-forward queues (messages remain undelivered).

Customers may also request delivery notifications for some of their traffic in order to skip the messages to be re-sent when they received the related delivery notifications.

If customers are able to send distributed messages, then do so to some recipients that are reading their queues, and to some that are not.

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In all cases, SWIFT recommends that participants rehearse the scenario to ensure the adequacy of their test procedures and that they generate a continuous flow of messages between 10:30 and 12:00 GMT. The flow should contain both messages delivered to the correspondent and messages remaining undelivered.

## D.2 Between 19:00 and 23:00 GMT (testing window) - Message Reconciliation

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Service	Task
FIN	Select the MT 082-UNDELV with CS flag in field 301 and check the Date/Timestamp in field 171/175 (last reference capture time). All messages sent at or after that time, and for which delivery is uncertain, should be resent with a PDE Indication.
SWIFTNet store-and-forward	<p>Select the xsys.005.002 Unsolicited Undelivered report. All messages sent at or after the time indicated in the &lt;Doc:ExctnTm&gt; tag (last reference capture time) should be resent. Identify messages or files that were not yet delivered and send them with a Possible Duplicate Indicator (PDI).</p> <p>If the adopted messaging interface allows it, participants can send some system messages to request different types of reports (for example: xsys.006.001 for InputChannelListRequest).</p> <p>If the system is configured with non-generic channels (input or output), then customers must first recreate them before sending or receiving traffic using them (note that Alliance Access automatically recreates them after the xsys.005.002 reports are received).</p>

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For more details about reconciliation guidelines, see [Appendix A](#).

## Appendix E - Batches of messages or files

As in previous Cold Start Exercises, participants can simulate undelivered messages and messages lost in the Cold Start, using batches of messages/files.

### E.1 Before 11:00 GMT – Send first batch of messages or files: messages acknowledged by SWIFT, delivered and not delivered

This batch should be sent before 11:00 GMT (that is, before the last capture that will occur between 11:00 and 11:30 GMT).

Customers must take into account that SWIFT will do the last message delivery status capture in the DRI **between 11:00 and 11:30 GMT** (the exact timing will **not** be announced in advance by SWIFT but will be communicated later during the BC Weekend in KB article [2102138](#)).

For this first batch SWIFT recommends the following actions:

- Send up to a quarter of their daily traffic, with a minimum of 100 messages or files and up to 9.999 messages maximum.
- Send them either to own BIC **or** to a second BIC **or** to counterparties. Ensure that at least one of the receiving BICs is **not logged in or not selected for Output (to simulate the messages not delivered)**.
- Participants are requested to add a delivery notification to avoid that someone else receives the message when they are using several systems. In this case, for FIN, customers should select for Input/ Output (Send & Receive), specifying only the LTDIR queue for Output.

#### Service-specific information

**FIN** In order to simulate the undelivered messages, customers must set mode to "Input only" when sending messages to themselves (FIN) (or "send" on Alliance Access).  
*The undelivered messages will be listed in the Undelivered Message Report (MT 082) when customers successfully log in to SWIFT during the Cold Start Exercise.*

**SWIFTNet store-and-forward** For this scenario, we recommend that participants send store-and-forward InterAct and FileAct messages.

In order to simulate the undelivered messages, participants must send this batch of messages to two types of recipients:

- The first set of recipients is receiving their messages from the queue (messages are delivered).
- The second set is not connected to their store-and-forward queues (messages remain undelivered)

*The undelivered messages will be listed in the Unsolicited Undelivered Traffic Report (xsys.005.002) when customers successfully open and acquire the generic queue of their sending 8-character BIC (BIC8\_generic!p) during the Cold Start Exercise.*

**Note** By doing this, customers simulate messages and files ACKed and stored in SWIFT with part of the messages delivered and some not yet delivered to the receiver.

Customers will need to identify these undelivered messages by their own process and send them again with a PDE Indication/PDI Indication.

## E.2 - After 11:30 GMT – Send a second batch of messages or files: Messages lost

This is after SWIFT has stopped the capture mechanism – that is, after 11:30 GMT on Saturday 13 May 2023.

**Note** The exact time stamp will be communicated in the [KBA 2102138](#)

Service-specific information	
FIN	<p>Customers are requested to set mode to "Input only" when sending messages to themselves (FIN) (or "send" on Alliance Access).</p> <p>Participants will receive the ACKs for these messages, but they will not be included in the FIN MT 082 report when they log in to SWIFT during the Cold Start Exercise.</p>
SWIFTNet store-and-forward	<p>Customers are requested to send a batch of messages or files either to their own BIC or to a second BIC or to counterparties.</p> <p>For this scenario, we recommend that customers send store-and-forward InterAct and FileAct messages.</p> <p>In order to simulate the undelivered messages, participants must send this batch of messages to two types of recipients:</p> <ul style="list-style-type: none"> <li>The first set of recipients is receiving their messages from the queue (messages are delivered).</li> <li>The second set is not connected to their store-and-forward queues (messages remain undelivered).</li> </ul> <p><i>The undelivered messages will be listed in the Unsolicited Undelivered Traffic Report (xsys.005.002) when participants successfully open/acquire the pilot generic queue(s) of their sending BIC8 (BIC8_generic!p) during the Cold Start Exercise.</i></p> <p><b>Note</b> This batch will be lost in the Cold Start. Customers need to identify this batch of messages by their own process and send it again with a PDE Indication or PDIndication.</p>

## E.3 Between 19:00 and 23:00 GMT (testing window): Message Reconciliation

Service	Task
FIN	Select the MT 082-UNDELV with CS flag in field 301 and check the Date/Timestamp in field 171/175 (last reference capture time). All messages sent <u>before, at or after</u> that time, and for which delivery is uncertain, should be resent with a PDE Indication.
SWIFTNet store-and-forward	Select the xsys.005.002 Unsolicited Undelivered Traffic Report. All messages sent <u>at or after</u> the time indicated in the <Doc:ExctnTm> tag (last reference capture time) should be resent. Identify messages or files that were not yet delivered and send them with a possible duplicate indication (PDIndication).

For more details about reconciliation guidelines, see [Appendix A](#).

## Appendix F - FINCopy

### Scenario: How to simulate a loss of payment pending authorization

#### F.1 Logistics

The test should be conducted using different Test & Training BICs (minimum three BICs) with up to three batches of future value date payments.

Participants need to ensure to set up a test environment with the different parties involved (Sender/Receiver/Central Institution). Configure the FINCopy service which must be included or excluded in/from Cold Start processing. Please refer to Alliance Access section [FINCopy Services Setup](#) or Alliance Entry section [FINCopy Services Setup](#).

Either the FINCopy Central Institution (CI) manages the test using its own Test & Training BICs, or the CI invites participants to join this test.

Number of parties involved:

- Sender (Payment sender)
- Receiver (Payment receiver)
- Central Institution (CI)

#### **Question: *Could FINCopy payments be impacted by a Cold Start?***

Payments due for settlement on the day itself are unlikely to be impacted by a Cold Start as messages pending authorisation are stored on the FINCopy server for a relatively short time before they are either forwarded to the receiver or rejected if the payment was refused. Of course, this is based on the assumption that the CI manages the payments efficiently.

Payments that are 'future dated value' are stored on the FINCopy server for a longer period of time (that is until they are authorised or rejected on the value date). If a Cold Start happens before a payment is authorised, then the message will be lost. This scenario is designed to simulate such a situation and highlights available information that could help CIs to resolve the situation.

#### F.2 Steps to follow

The sender sends up to three batches of messages. Each batch has 100 or more messages with both same-day and future value dated payments.

---

**Important** Please note that all messages with a pending authorisation when the Cold Start takes place will be lost.

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##### F.2.1 First batch of messages

##### **How to simulate the loss of payment messages stored on the FINCopy server (pending authorisation)**

- 1 Messages should be sent before the capture mechanism is stopped (that is before 11:00 GMT on 13 May 2023 as the last capture will occur between 11:00 and 11:30 GMT).
- 2 The CI server destinations should be logged in for input and output.
- 3 The first batch should contain both same-day payments and future dated value payments (with a value date of Sunday 14 May or Monday 15 May 2023).

- 4 The sender receives the ACKs for all the messages sent.
- 5 The corresponding MT 096s are generated and sent to the CI.
- 6 The CI receives the MT 096s.
- 7 The same-day payment is settled, and the appropriate notification sent to the sender.
- 8 For future dated value payments, these payments will not be settled yet and will be stored on the FINCopy server. (When the CI sends the payment authorisations (MT 097s), they will be rejected due to loss of the original payment messages.)
- 9 Any messages pending authorisation from this batch will appear on the Undelivered Message Report (MT 082) when the sender logs in after the Cold Start.
- 10 The sender should consult the CI for appropriate actions in managing any outstanding payments after the Cold Start.
- 11 The receiver should always check for payments received based on the in-house reconciliation process as well as information from the CI.

In this scenario, the payment sender could send the payment messages again with a PDE Indication, to test the CI's ability to manage duplicate payment requests.

### **F.2.2 Second batch of messages**

**How to simulate the loss of payment messages that are stored on the FINCopy server with the corresponding MT 096s delivered to the CI but pending the CI's authorisation.**

1. Messages should be sent within 15 minutes **after** the capture mechanism is stopped (that is, after 11:30 GMT on 13 May 2023).
2. The second batch should contain future value dated payment messages.
3. The sender receives ACKs for these messages.
4. The CI should stay logged in (for output only) and receive these MT 096s.
5. The original payment messages are queued on the FINCopy server pending authorisation and these messages will be lost during the Cold Start.
6. Any messages from batch 2 that were pending authorisation will not appear on the Undelivered Message Report (MT 082) when the sender logs in after the Cold Start.
7. The sender should use all means possible including the in-house message reconciliation process to check the payment status and identify any missing messages, then consult the CI for appropriate actions.

Again, the payment messages could be re-sent with a PDE Indication in order to test the CI's ability to manage duplicate payment requests.

As soon as the CI has received the MT 096s for the second batch, it should log out from the server destination(s) to prepare for the optional third batch (approximately at 11:45 GMT).

### **F.2.3 Third batch of messages (Optional)**

**How to simulate the loss of payment messages that are stored on the FINCopy server, but the CI has no records of these messages.**

1. Log out the CI server destinations before sending this batch.
2. Around 11:45 GMT the sender can send a third batch of future value dated messages.
3. This batch should be sent after the CI has stopped receiving MT 096s.
4. It is recommended that the sender contacts the CI before sending this batch to ensure that the CI has logged out from the FINCopy server destination(s).
5. The third batch of messages will also be ACKed. The corresponding MT 096s are generated and stored in the FIN queue for the respective FINCopy server destination(s).
6. These MT 096s will be lost in the Cold Start, and so will the payment messages be pending authorisation stored on the FINCopy server.
7. The Undelivered Message Report (MT 082) will not contain details of any messages from this batch.
8. The sender should rely on the in-house message reconciliation process to verify the settlement status, identify any missing messages, then consult the CI for appropriate actions in managing this batch of payments.

The payment sender should re-send the batch with a PDE Indication.



## F.3 Message reconciliation

**Question: How does a Central Institution know if the original FINCopy payment message is lost?**

For a FINCopy service, if the original payment message pending authorisation is lost and the CI sends an MT 097 for that payment, then the CI will first get an ACK for the MT 097 sent and then receive a Delayed NAK (MT 015) with rejection reason X35.

**Question: Is the MT 097 returned in an MT 082?**

No, the MT 097 is not returned in an MT 082.

Who	Check
The sender	<p>Details of any undelivered messages from the first batch will be shown in the MT 082 report.</p> <p><i>The sender should also check the account status at the CI using any available channels (for example, SWIFTWeb Access, interface to access the settlement system provided by the CI, proprietary FIN message that requests account status etc.), and liaise with the CI before taking further actions (for example, resend payment messages with a PDE Indication).</i></p>
The receiver	<p>Any messages stored in the receiver's FIN queue will be lost in the Cold Start.</p> <p><i>In order to identify any payment messages that might have been lost, receivers must carry out their own reconciliation process based on account status information from the CI and their own records.</i></p>
The CI may consider the following actions	<ol style="list-style-type: none"> <li>1. Activate its own process to manage the situation where the original copies of the payments pending authorisation are lost. In this scenario, payments received since 13 May 2023 which were not yet settled are lost in the Cold Start.</li> <li>2. Check and ensure that channels that provide account status information are available and monitor for any account status request from participants.</li> <li>3. Make the following available to participants via established available channels: <ol style="list-style-type: none"> <li>a. Guidelines on how to manage any missing payments</li> <li>b. Account status and payment settlement details (for example, user reference of payments)</li> </ol> </li> <li>4. Send FINCopy service messages MT 028 at regular intervals if the CI decided to suspend the payment settlement service until it is ready to proceed. This helps the CI to check if there are new payments pending authorisation at the FINCopy server and work with the participants concerned.</li> <li>5. Switch the FINCopy service mode to by-pass if it enables the CI to carry out its reconciliation plan.</li> </ol>

For more details, see [Appendix A](#).

### Preparation by Central Institutions

Customers should consult their FINCopy Central Institution to:

- Add details of their approach in managing this Cold Start scenario.
- Include any preparation of their test systems for this Cold Start Exercise.

## Appendix G – SWIFTNet Copy

### Scenario: How to simulate a loss of payment messages pending authorisation

#### G.1 Logistics

The test should be conducted using different DNs (minimum three DNs) with up to three batches of future value date payments.

Either the SWIFTNet Copy Central Institution (CI) manages the test using its own DNs, or the CI invites participants to join this test.

Number of parties involved:

- Sender (Payment sender)
- Receiver (Payment receiver)
- Central Institution (CI)

#### **Question: *Could SWIFTNet Copy payments be impacted by a Cold Start?***

Payments due for settlement on the day itself are unlikely to be impacted by a Cold Start as messages pending authorisation are typically queued for a relatively short time before they are either forwarded to the receiver or rejected if the payment was refused. Of course, this is based on the assumption that the CI manages the payments efficiently.

Payments that are 'future dated value' are queued for a longer period of time (that is, until they are authorised or rejected on the value date). If a Cold Start happens before a payment is authorised, then the message will be lost. This scenario is designed to simulate such a situation and highlights available information that could help CIs to resolve the problem.

#### G.2 Steps to follow

The sender sends up to three batches of messages. Each batch has 100 or more messages with both same-day and future value dated payments.

##### **G.2.1 First batch of messages**

##### **How to simulate the loss of queued payment messages (pending authorisation)**

1. Messages should be sent before the capture mechanism is stopped (that is before 11:00 GMT on 13 May 2023 because the last capture will occur between 11:00 and 11:30 GMT).
2. The CI copy destinations should have the output channel open to receive the copied messages.
3. The first batch should contain both same-day payments and future dated value payments (with a value date of <date> or <date>).
4. The sender receives the acknowledgements for all the messages sent.
5. The corresponding copy messages are generated and sent to the CI.
6. The CI receives the copy messages.
7. The same-day payment is settled, and the appropriate notification sent to the sender.
8. For future value dated payments, these payments will not be settled yet and will be queued. (When the CI sends the payment authorisations (xsys.001), these will be rejected due to loss of the original payment messages.)
9. Any messages pending authorisation from this batch will appear on the Unsolicited Undelivered Traffic Report (xsys.005.002.01) when the sender receives the xsys.005.002.01 after the Cold Start.

10. The sender should consult the CI for appropriate actions in managing any outstanding payments after the Cold Start.
11. The receiver should always check for payments received based on the in-house reconciliation process as well as information from the CI.
12. In this scenario, the payment sender could send the payment messages again with a PDIndication, to test the CI's ability to manage duplicate payment requests.

### G.2.2 Second batch of messages

How to simulate the loss of queued payment messages where the copies have been delivered to the CI, but the CI's authorisation is still pending.

1. Messages should be sent within 15 minutes **after** the capture mechanism is stopped (that is, after 11:30 GMT on 13 May 2023).
2. The second batch should contain future value dated payment messages.
3. The sender receives acknowledgements for these messages.
4. The CI should have an output channel open to receive these messages.
5. The original payment messages are queued pending authorisation and these messages will be lost during the Cold Start.
6. Any messages from batch 2 that were pending authorisation will not appear on the Unsolicited Undelivered Traffic Report (xsys.005.002.01) when the sender receives the xsys.005.002.01 after the Cold Start
7. The sender should use all means available, including the in-house message reconciliation process, to check the payment status and identify any missing messages, then consult the CI for appropriate actions.

Again, the payment messages could be re-sent with a PDIndication in order to test the CI's ability to manage duplicate payment requests.

As soon as the CI has received the copy messages for the second batch, it should close all output channels and prepare for the optional third batch (at approximately 11:45 GMT).

### G.2.3 Third batch of messages (optional)

How to simulate the loss of payment messages that are acknowledged by SWIFT but of which the CI has no record.

1. Close the CI output channels before sending this batch.
2. Around 11:45 GMT the sender can send a third batch of future value dated messages.
3. This batch should be sent after the CI has stopped receiving copy messages.
4. It is recommended that the sender contacts the CI before sending this batch to ensure that the CI has closed the relevant input and output channels.
5. The third batch of messages will also be ACKed. The corresponding copy messages are generated and queued for the CI destination(s).
6. These copy messages will be lost in the Cold Start, and so will the queued payment messages that are pending authorisation.
7. The Unsolicited Undelivered Traffic report (xsys.005.02.01) will not contain details of any messages from this batch.
8. The sender should rely on the in-house message reconciliation process to verify the settlement status, identify any missing messages, then consult the CI for appropriate actions in managing this batch of payments.

The payment sender should re-send the batch with a PDI Indication.

## G.3 Message reconciliation

### **Question: How does a CI know if the original payment message is lost?**

For a SWIFTNet Copy service, if the original payment message pending authorisation is lost and the CI sends an xsys.001 for that payment, then the CI will receive a negative acknowledgement.

Who	Check
The sender	<p>Details of any undelivered messages from the first batch will be shown in the xsys.005.002.01 report.</p> <p><i>The sender should also check the account status at the CI using any available channels, and liaise with the CI before taking further actions (for example, resend payment messages with a PDI Indication).</i></p> <p><i>Available channels include SWIFTNet WebAccess, interface to access the settlement system provided by the CI, proprietary messages that requests account status etc.</i></p>
The receiver	<p>Any messages stored in the receiver's queue or the CI's queue will be lost in the Cold Start.</p> <p><i>In order to identify any payment messages that might have been lost, receivers must carry out their own reconciliation process based on account status information from the CI and their own records.</i></p>
The CI may consider the following actions	<ol style="list-style-type: none"> <li>1. Activate its own process to manage the situation where the original copies of the payments pending authorisation are lost. In this scenario, payments received since &lt;date&gt; which were not yet settled are lost in the Cold Start.</li> <li>2. Check and ensure that channels that provide account status information are available and monitor for any account status request from participants.</li> <li>3. Make the following available to participants via established available channels:             <ol style="list-style-type: none"> <li>a. Guidelines on how to manage any missing payments.</li> <li>b. Account status and payment settlement details (for example, user reference of payments)</li> </ol> </li> <li>4. Switch the SWIFTNet copy service mode to by-pass if it enables the CI to carry out its reconciliation plan.</li> </ol>

For more details, see [Appendix A](#).

### **Preparation by CI**

Customers should consult their SWIFTNet Copy Central Institution to:

- Add details of their approach in managing this Cold Start scenario.
- Include any preparation of their test systems for this Cold Start Exercise.

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## Appendix H - gpi

Gpi-enabled pacs.008, pacs009, MT101s, MT103s, MT192s, MT195s, MT196s, MT199s, MT202s, MT202COVs, MT205s, MT205COVs and MT299s can be sent as normal. They will however not be extracted to the Tracker and will be lost when the Tracker service is restored in the production environment.

API calls will encounter a service not available result.

## Appendix I - Glossary

Acronym	Full name
BC	Business Continuity
BIC	Business Identifier Code BIC is an international standard for identification of institutions within the financial services industry.
CI	Central Institution
DRI	Disaster Recovery Infrastructure
HSM	Hardware Security Module A tamper-resistant hardware device within which the user generates and stores its SWIFTNet Public Key Infrastructure private keys. The HSM performs cryptographic operations such as signing the data that is sent over SWIFTNet.
KBA	Knowledge Base Article
LT	Logical Terminal The logical entity through which users send and receive FIN messages.
OPC	Operating centre Swift datacentre
PDE	Possible Duplicate Emission
PDI	Possible Duplicate Indicator
PKI	Public Key Infrastructure
PP	Premium Plus
PPC	Premium Plus Custom
PPCE	Premium Plus for Critical Environments
RMA	Relationship Management Application
SM	Service Manager
SNL	SWIFTNet Link The mandatory software product for access to messaging services over the secure IP network.
SnF	Store-and-Forward A communication or messaging methodology that enables users to exchange traffic by means of a central storage facility. Messages are held temporarily in the central storage facility until the recipient is able to receive them. The correspondents need not to be connected simultaneously to the central storage facility. Examples include the FIN messaging service and standard e-mail services.
TA	Transatlantic
VPN	Virtual Private Network A private network capability that provides the user with dynamic allocation of resources, and a uniform numbering plan over dispersed, geographically independent locations.

For a more complete list of Swift terminology, please visit the [Swift Glossary](#)

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