

SWXess Maintenance Release

SMR14 Release Guide (Version 2.10)

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1 Introduction

1.1 Purpose and Scope

This document provides all relevant information for SMR14 including functional and technical changes, regulatory impact, relevant documents and artefacts, configuration changes, migration plan and testing activities.

1.2 Structure of this Document

This document contains information relevant to both business audience and technical audience. The target audience of major sections is indicated with pictograms and text. The major sections are given below.

	Audience	Major Sections
命。金	Business and Technical Audience	2 Summary
^		3 Key Dates
		7 Overview of Documents and Artefacts
		8 Migration
		9 Testing Activities During Member Test Phase
血	Business Audience	4 Functional Changes
		6 Regulatory Impact
o [‡]	Technical Audience	5 Technical Changes

1.3 Revision History

Version	Description				
1.00	Initial version				
2.00	Information regarding the following topics added:	nformation regarding the following topics added:			
	- Enhancement to QOD Liquidity Provider Identification via RDI				
	 Documents and Artefacts 				
	- Membertest Migration Schedule				
2.10	Change in section "Key Dates":				
	Participant Trade Reconciliation Report will be implemented with MT2				

1.4 References

Document Reference	Subject
SIX Swiss Exchange messages	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/market-data/news-tools/swiss-exchange-messages.html
Trading Rules	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html
Trading Guides	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/trading-provisions/regulation.html#trading-guides
Forms	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading/participation.html#application-forms
SMR Releases	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/trading.html#swxess-maintenance-releases
MSC Messages	https://secure.six-swiss-exchange.com/member_section/it/messages.html
Interface Specifications, Manuals and Guides	https://secure.six-swiss-exchange.com/member_section/it/manuals.html
Release Documents	https://secure.six-swiss-exchange.com/member_section/it/release_docs.html

1.5 Contact

Market Operations

If you have business related questions, please do not hesitate to contact Market Operations.

Торіс	Service Desk	Phone	Email
Participant Configuration	Member Services	+41 58 399 2473	member.services@six-group.com
Reporting			
Clearing & Settlement			
Billing			
Mistrades and Cancelations	Exchange	+41 58 399 2475	helpdesk.exc@six-group.com
Emergency Deletions	Operations		
Suspensions			
Instrument Reference Data	Static Data Operations	+41 58 399 2490	zulassung@six-group.com

Local Support Centers

If you have technical questions, please do not hesitate to contact your Local Support Center.

Service Desk	Phone	Email
Local Support Center Geneva	+41 58 399 5642	lsg@six-group.com
Local Support Center London	+44 20 7864 4364	Isl@six-group.com
Local Support Center Zurich	+41 58 399 2400	lsz@six-group.com

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Find further contact information in the <u>SIX Swiss Exchange Contact Center</u> of the SIX Swiss Exchange website.

2 Summary



Business and Technical Audience

2.1 Introduction

SIX Swiss Exchange will introduce a new maintenance release of the SWXess trading platform. SWXess Maintenance Release 14 (SMR14) will contain required interface changes for SWXess participants.

SMR14 will be introduced in the Membertest environment in a staged approach. Membertest stage 1 is scheduled for 16 September 2024 and Membertest stage 2 is scheduled for 21 October 2024.

SMR14 is scheduled to go live in the **Production Environment** on **9 December 2024**. There is no contingency date planned.

The key functionality of SMR14 will be released into the Membertest environment in stages as follows:

	3	4.1.1
		4.1.2
	(h)	4.1.3
		5.2
	₩	5.3
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	₽	위 위



Required Interface Changes



Functional Changes



For further information on the stages and the functionalities of SMR14, please refer to section 3.

2.2 SMR14 Matrix Changes vs Interfaces and Services

The table below shows the changes introduced with SMR14 and the impact on interfaces and services.

<u></u>	= business change	Click on the section number to see the business description.
o ^{‡‡}	= technical change	Click on the section number to see the technical description.
	= no change	

			SWXess Interfaces and Services												
Changes	Business Changes only	ОТІ	ζП	IMI	STI	SIX MDDX	RDI	SIX Trading User Interface	Sponsored Access FIX Drop Copy	TRI - Transaction Reporting Interface	TXR - Transaction Reconciliation Report	TRR - Participant Trade Reconciliation Report	ORR - Participant Order Reconciliation Report	Billing Report Interface	SCAP
Change of Behavior for Amending Down Order Quantities	4.1.1														
Automated Suspension of Structured Products via CONNEXOR	4.1.2														
Enhancement to QOD Liquidity Provider Identification via RDI							4.1.3 5.2								
Other Technical Changes												°			

3 Key Dates



Business and Technical Audience

The following table shows the key dates of SMR14 as scheduled at this stage:

Date	Test	Prod	Activity	
3 June 2024	V		Initial Announcement of SMR14 and publication of SMR14 Release Guide and publication of affected SWXess interface specifications	
1 July 2024	V		Publication of updated SMR14 Release Guide and affected SWXess interface specifications	
9 September 2024	Ø	Ø	Confirmation of Start Membertest with publication of updated SMR14 Release Guide and affected SWXess interface specifications (if applicable)	
13/14 September 2024			SMR14 Membertest Migration weekend stage 1	
15 September 2024	$\overline{\checkmark}$		Contingency Day - SMR14 Membertest Migration stage 1	
16 September 2024			SMR14 Membertest stage 1 live date and first trading day includes: - SIX MDDX changes for CO:RE and BME (not related to SWXess)	
25 September 2024	✓		Intraday Recovery Test – On Book Matcher Partition 1 down	
9 October 2024			Intraday Recovery Test – On Book Matcher Partition 2 down	
12 October 2024			Performance Load Test	
18/19 October 2024	V		SMR14 Membertest Migration weekend stage 2	
20 October 2024	V		Contingency Day - SMR14 Membertest Migration stage 2	
21 October 2024	$\overline{\checkmark}$		SMR14 Membertest stage 2 live date and first trading day includes:	
			 Change of Behavior for Amending Down Order Quantities Automated Suspension of Structured Products via CONNEXOR Enhancement to QOD Liquidity Provider Identification via RDI Other Technical Changes 	
13 November 2024	7		Intraday Recovery Test – Both On Book Matcher Partitions down	
20 November 2024	V		Intraday Recovery Test – STI FIX Infrastructure down (Single FIX Gateway Failure and Double FIX Gateway Failure)	
23 November 2024			Performance Load Test	
27 November 2024	\square		Intraday Recovery Test – MDDX Infrastructure down	
4 December 2024	V		Intraday Recovery Test – Contingency	
7/8 December 2024		$\overline{\checkmark}$	SMR14 Production Migration weekend	
9 December 2024		$\overline{\checkmark}$	SMR14 Production live date and first trading day	

4 Functional Changes



Business and Technical Audience

4.1 Trading and Alternative Trading

4.1.1 Change of Behavior for Amending Down Order Quantities

Currently on SIX Swiss Exchange, if the total open quantity of an order is reduced, the order loses its original time priority and is given a new time stamp with a new OrderID. New with SMR14 and at the request of our participants, it will be possible for participants to reduce the total quantity of open orders without this resulting in a loss of time priority in the order book. In cases where this time priority preservation is possible, the OrderID of the order will also remain unchanged.

The following table gives an overview of the new functionality:

	Preservation of time priority is supported, i.e. the order will retain its time priority	Preservation of time priority is NOT supported, i.e. the order will lose time priority
Type of order modification	 Amending quantity down Amending visible quantity down Amending the Minimum Execution Quantity (MEQ) up or down Amending Full Execution Flag (Swiss EBBO LPs over OTI) 	 Amending any other field of the order other than quantity Amending quantity up Amending visible quantity up
Type of order	 Normal Market Orders Normal Limit Orders Iceberg Orders (resting in Central Limit Order book (CLOB) or Quote Driven Market (QDM) SwissAtMid Normal Orders (resting in Mid-Point Order Book (MPOB) SwissAtMid Block Orders (resting in MPOB) SwissAtMid Sweep Orders (resting in CLOB or QDM) Limit Plus Orders (resting both in CLOB and MPOB - active and inactive) Iceberg Plus Orders (resting both in CLOB and MPOB - active and inactive) Swiss EBBO Orders (resting in CLOB) Swiss EBBO LP Orders (resting in the European Best Bid Offer Order Book (EBBO)) Auction Volume Discovery Orders (resting in CLOB) Stop Loss / Stop Limit Orders (unplaced/not triggered) Quotes (resting in QDM) 	 Quote on Demand with Sweep Orders (amending quantity not supported) Quote on Demand non Sweep Orders (amending quantity not supported) Quote on Demand LP Orders (amending quantity not supported)

Even if an order retains its time priority in the order book, this does not necessarily mean it retains its matching priority in that order book. This is due to the different criteria used for matching in the different order books. The following table gives an overview about whether an order's matching priority would be affected by the preservation of time priority:

Matching Priority Is Preserved	 CLOB (price/time priority) - including Plus Orders QDM (price/time priority) QDM with PVM (price/time priority) Unplaced Stop Loss / Stop Limit orders (trigger price/time priority) The above mentioned amended down orders preserve their time priority and also their matching priority because the price of the order does not change.
Matching Priority Could Be Changed	 MPOB (quantity/time) EBBO book (price/quantity/time priority) - only for EBBO LP orders, because only they rest in this order book In order books sorted by quantity/time or price/quantity/time, a decrease in total quantity will still result in a loss of quantity priority.

For all interfaces, participants should continue to use the current methods in place to modify order as follows:

- On the Standard Trading Interface (STI), participants should continue to use the existing messages to modify
 an order. If time priority is preserved for an order amendment, then the OrderID (FIX Tag 37) returned in the
 "Execution Report" (MsgType=8) messagewill be the same value as in the last "Execution Report" (MsgType=8)
 message received for the order.
- On the **OUCH Trading Interface (OTI)**, participants should continue to provide a new *Replacement Order Token* for amendments. If the time priority is preserved for an order amendment, then the field *Order Number* returned in the "Replaced Message" [U] will be the same value as in the last outgoing message received for the order.
- On the Quote Trading Interface (QTI), participants should continue to provide a new Quote Token for amendments. If the time priority is preserved for a quote amendment, then the field Order Reference Number returned in the "Quote Update Message" [U] will be the same value as in the last outgoing message received for the quote. In QTI this is only supported if there is no field amended that (on one or both sides of the quote) does not support preserving time priority. Otherwise Order Reference Number for both sides will change (as today).
- On the **ITCH Market Data Interface (IMI)**, if the time priority is preserved for an order amendment, then the *New Order Number* remains the same as the original *Original Order Number* on the "Order Replace Message" [U].
- On the SIX Multi-Dimensional Data FluX Interface (SIX MDDX), if the time priority is preserved for an order amendment, then the OrderId remains the same as the original OrderId in the "Detailed Order Book Message" [DO].

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Important Note

Attempts to reduce the total quantity of an order whilst at the same time amending any other attributes will always result in a loss of time priority for that order.

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Further Reading

- Standard Trading Interface (STI) Specification Orders and Executions (Version 2.78.0)
- OUCH Trading Interface (OTI) Specification (Version 1.22.0)
- Quote Trading Interface (QTI) Specification (Version 1.14.0)
- ITCH Market Data Interface (IMI) Specification (Version 1.22.0)
- SIX MDDX Interface Specification (Version 1.49.0)

4.1.2 Automated Suspension of Structured Products via CONNEXOR

According to Art. 11 of <u>Directive on Regular Reporting Obligations for Issuers of Equity Securities</u>, <u>Bonds, Conversion Rights, Derivatives and Collective Investment Schemes</u> (DRRO), issuers of listed derivatives must fulfil regular reporting obligations in connection with maintaining listing. Specifically, issuers must report the achievement of a threshold value that might affect the price or valuation of the derivative (e.g. in the case of barrier options). Issuers of derivatives that are terminated early are also obliged to inform the Exchange about the new termination date.

Currently, Market Makers and Liquidity Providers of Structured Products wishing to report and suspend products that have achieved their barrier levels or those that are subject to an early redemption and Active Product Package, must carry out two steps:

- They must report the event via CONNEXOR Events
 This is required to fulfil their reporting obligations and allow an "Official Notice" to be published on the SIX Swiss Exchange website
- They must suspend the products via the Quote Trading Interface (QTI)
 This is required to suspend the products on the SWXess platform and prevent them from further trading. See SMR9.1 Participant Readiness Guide and S

In order to provide for a faster and leaner process, new with SMR14, Market Makers and Liquidity Providers of Structured Products will no longer need to follow this two-step approach, but will only need to report the events to CONNEXOR Events. Once reported the products will then be automatically suspended on the SWXess platform according to the information provided to CONNEXOR. This change will significantly streamline and improve the workflow for our participants.

Please note that the automated suspension functionality applies only to structured products sent to CONNEXOR that are listed on the SIX Exchange. Also note that for Early Redemption events, only those with an effective date within T+2 will trigger the suspension of the product.

There is no change regarding the publication of the suspension of the security concerned in the market data interfaces:

Interface	Message Type	Impacted Fields	Impact
SIX MDDX	Security Status Message [ST]	Trading State	"V" – Suspended
IMI	Orderbook Trading Action Message [H]		

If the Market Maker or Liquidity Provider has erroneously reported the suspension of a listed Structured Product via CONNEXOR, they should contact Exchange Operations (+41 (0)58 399 2475 / helpdesk.exc@six-group.com) to request the resumption of trading.



Important Note

The current functionality to suspend products via QTI has not been decommissioned with this change. This means that it is still possible for participants to suspend a product themselves via QTI. However please note that if a CONNEXOR Event is submitted for the above mentioned case prior to the QTI suspension, then the subsequent QTI message will be rejected (as the security will already have been automatically suspended on behalf of the participant by CONNEXOR). The QTI message would be rejected in this case with a Participant Trading Action Confirmation Message [I] with value "R".



Further Reading

<u>Directive on Regular Reporting Obligations for Issuers of Equity Securities, Bonds, Conversion Rights,</u>
 <u>Derivatives and Collective Investment Schemes (DRRO)</u>

- Directive on Debt Securities with Specific Structures (of 10 March 2021 / effective since 21 June 2021)
- Quote Trading Interface (QTI) Specification
- SMR9.1 Participant Readiness Guide
- SMR12 Release Guide

4.1.3 Enhancement to QOD Liquidity Provider Identification via RDI

Participants of SIX Swiss Exchange acting as Liquidity Providers (LPs) for Quote on Demand (QOD) require a dedicated QTI or OTI QOD LP user for this purpose. Moreover, a separate configuration must be set up for providing liquidity to the ETF/ETP QOD services as opposed to the Swiss Franc Bond QOD service.

Participants may identify registered LPs for QOD via a dedicated attribute in the Reference Data Interface (RDI):

Object	Attribute	Туре
Party	qodLiquidityProviderFlag	Boolean

New with SMR14, the RDI file will be enhanced so that participants will be able to identify not only if an LP provides liquidity for QOD but also newly the type of QOD Service for which the QOD LPs are registered. Therefore, in addition to the existing attribute above, the following three new attributes will be provided:

Object	Attribute	Туре	
	qodEtfLiquidityProviderFlag		
Party	qodBondLiquidityProviderFlag	Boolean	
	qodEuropeLiquidityProviderFlag		

Please note that it is possible for a QOD LP to be registered for none, one, two, or all three QOD Service Types simultaneously (QOD ETFs/ETPs, QOD Swiss Franc Bonds, ETF/ETP QOD Europe).



Please go to section 5.2 for a detailed technical description.



Further Reading

Reference Data Interface (RDI) Specification (Version 2.45.0)

4.2 Market and Reference Data

There are no changes for Market Data. The changes for Reference Data for SMR14 are already described above in section 2.1.3.

4.3 Billing

Should there be any changes to pricing at SIX Swiss Exchange then these will be communicated in a future version of this Release Guide.

4.4 Other Services

4.4.1 Sponsored Access (SA)

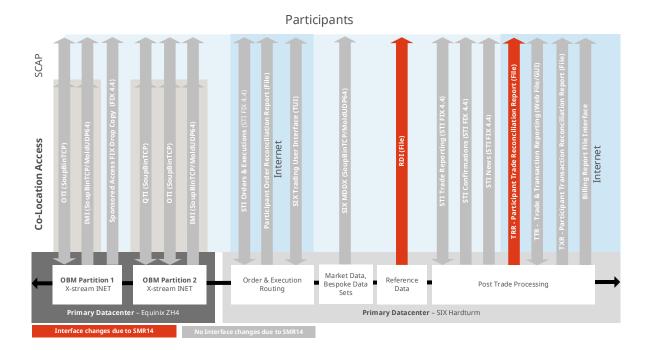
There are no changes for the Sponsored Access Service.

5 Technical Changes

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Technical Audience

5.1 Overview SMR14 Interface Changes



5.2 Enhancement to QOD Liquidity Provider Identification via RDI

The following table shows the impacted object and fields:

Object	Fields	Impact
Party	qodEtfLiquidityProviderFlag	New field
	qodBondLiquidityProviderFlag	New field
	qodEuropeLiquidityProviderFlag	New field



Further Reading

Reference Data Interface (RDI) Specification (Version 2.45.0)

5.3 Other Technical Changes

5.3.1 Participant Trade Reconciliation Report

The following table shows the impacted fields:

Data Fields	Impact
tradingCssiRef	Fields removed due to SIX internal adjustments
gcmCssiRef	
ccpPartyRef	
ccpCssiRef	
publicationDelay	Changed – New Type
auxClearingType	New Field
secomOrderId	Field renamed to externalTradeMessageId



Further Reading

Participant Trade Reconciliation Report Specification (Version 1.53.0)

6 Regulatory Impact



Business Audience

The functional changes introduced with SMR14 may necessitate changes to the trading and reporting rules and regulations. The following Rules, Directives and Guidelines may be affected and if so will be amended accordingly:

- Rules of SIX Swiss Exchange AG
- <u>Directives</u> of SIX Swiss Exchange AG
- Guidelines of SIX Swiss Exchange AG

Updates to the Directives and Guidelines for SMR14 will be communicated by SIX Swiss Exchange message one month before the SMR14 Production go-live at the latest.

7 Overview of Documents and Artefacts



Business and Technical Audience

Please find below the list of all documents and artefacts relevant to SMR14.



All items can be downloaded from the Member Section **Manuals** or **Downloads** pages at:

https://secure.six-swiss-exchange.com/member_section/it/manuals.html

https://secure.six-swiss-exchange.com/member_section/it/downloads.html

Status	Date	Subject	Reference
General			
Updated for SMR14	01.07.2024	SMR14 Release Guide (Version 2.00)	This document
Unchanged	22.03.2024	SWXess Business Recovery Guide (Version 8.10)	SWX-RECV-MAN-GUID-810
Updated		IT Related Frequently Asked Questions (FAQ) and Known Issues	See <u>Member Section</u>
SIX Trading Us	ser Interface (TU	1)	
Unchanged	11.09.2023	SIX Trading User Interface - User Manual (Version 2.00)	SIX-TRD-UI-MAN-200
Direct Trading	Interfaces (OTI,	QTI, IMI)	
Updated for SMR14	22.05.2024	OUCH Trading Interface (OTI) Specification (Version 1.22.0)	SSX-OTI-TRD-SPEC-1.22.0
Updated for SMR14	22.05.2024	Quote Trading Interface (QTI) Specification (Version 1.14.0)	SSX-QTI-TRD-SPEC-1.14.0
Updated for SMR14	22.05.2024	ITCH Market Data Interface (IMI) Specification (Version 1.22.0)	SSX-IMI-TRD-SPEC-1.22.0
Standard Trad	ing Interface (ST	1)	
Updated for SMR14	17.05.2024	Standard Trading Interface (STI) Specification - Orders and Executions (Version 2.78.0)	SWX-SPEC-STI-PRE-2.78.0
Unchanged	15.01.2024	Standard Trading Interface (STI) Specification - Confirmations (Version 2.34.0)	SWX-SPEC-STI-CONF-2.34.0
Unchanged	15.01.2024	Standard Trading Interface (STI) Specification - Session Layer (Version 2.8.0)	SWX-SPEC-STI-SES-2.8.0
Unchanged	15.05.2023	Standard Trading Interface (STI) Specification - News (Version 2.11.0)	SWX-SPEC-STI-NEWS-2.11.0
Unchanged	26.05.2023	Standard Trading Interface (STI) Specification - Trade Reporting (Version 4.26.0)	SWX-SPEC-STI-TCRI-4.26.0
Unchanged	07.02.2024	Standard Trading Interface (STI) FIX 4.4 Repository (Version 13.0.1)	see Member Section <u>Downloads page</u>
Reference Dat	a Interface (RDI)		
Updated for SMR14	10.06.2024	Reference Data Interface (RDI) Specification (Version 2.45.0)	SWX-VCA-SPEC-RDI-2.45.0

Status	Date	Subject	Reference		
SIX MDDX					
Updated for SMR14	22.05.2024	SIX MDDX Interface Specification (Version 1.49.0)	SSX-MDDX-SPEC-1.49.0		
Trade and Trai	nsaction Reporti	ng (TTR)			
Updated for SMR14	10.06.2024	Transaction Reporting Interface Specification (TRI - CH Style) (Version 4.22.0)	SER-TRX-INT-CH-4.22.0		
Unchanged	21.07.2023	Transaction Reporting Interface (TRI - CH) Validation Concept and Error Codes (Version1.4.0)	SER-TRX-EER-CH-140		
Unchanged	21.07.2023	Transaction Reporting Interface Specification (TRI - EU Style) (Version 1.15.0)	SER-TRX-INT-EU-1.15.0		
Transaction Re	econciliation Rep	ort (TXR)			
Unchanged	15.01.2024	Participant Transaction Reconciliation Report Specification (Version 1.9.0)	SSX-SWXS-SPEC-TXR-1.9.0		
Trade Reconci	liation Report (TF	R)			
Updated for SMR14	10.06.2024	Participant Trade Reconciliation Report Specification (Version 1.53.0)	SSX-SWXS-SPEC-TRR-1.53.0		
Order Reconci	liation Report (O	RR)			
Unchanged	12.01.2024	Participant Order Reconciliation Report Specification (Version 1.32.0)	SSX-SWXS-SPEC-ORR-1.32.0		
Billing Report					
Unchanged	08.01.2024	Billing Report File (BRI) Interface Specification (Version 1.37.0)	SWX-SPC-BRI-1.37.0		
Sponsored Acc	ess Service				
Unchanged	09.05.2023	Sponsored Access FIX Drop Copy Interface Specification (Version 1.42.0)	SSX-SA-FDC-SPEC-1.42.0		
Unchanged	16.04.2020	Sponsored Access File Interface (SFI) Specification (Version 1.7.0)	SSX-SA-SFI-SPEC-1.7.0		
Buyback Program					
Unchanged	27.04.2020	BPS Reporting Application Interface Specification (Version 1.8.0)	see Member Section BPS Downloads page		

8 Migration



Business and Technical Audience

8.1 Migration Concept

The central SWXess infrastructure and all associated interfaces will be upgraded to SMR14 using a staged approach for the Membertest environment. The upgrade of the Production environment will take place over a single migration weekend. The SMR14 changes will become active on the Monday after the migration weekend.

The upgrade to SMR14 requires the migration of transactional data as well as participant and instrument reference data. In addition, the migration to SMR14 requires configuration changes. SIX Swiss Exchange will ensure that the technical and business upgrade and the migration impact on participants, ISVs, ASPs as well as data vendors is as minimal as possible.

The business and technical migration concepts and approaches are currently being evaluated. SIX Swiss Exchange will publish further details about the migration to SMR14 in an update of this Release Guide in advance of the start of Membertest stage 1.



Required Action

Participants, ISVs and ASPs will need to upgrade their trading applications and other infrastructure on the Membertest stage 1 and during Production Migration weekends.

8.2 Business Migration

8.2.1 Transactional Data

8.2.1.1 Orders

All order books will be migrated to SMR14 during the migration by SIX Swiss Exchange. As a result of the migration, no active orders will be deleted from the order books and participants do not have to take any action in this regard.

8.2.1.2 On- and Off Order Book Trades

The on order book and off order book trades will be migrated to SMR14 during the migration and therefore no post-trade processing restrictions apply.

On the Monday after the migration, it will be possible to correct and cancel on order book trades which were executed or reported on the day before the migration by contacting Exchange Operations (helpdesk.exc@six-group.com / +41 58 399 2475). Countertrades for trades executed on the day before the migration may also be carried out either by Exchange Operations or by participants themselves.

On the Monday after the migration, SIX Swiss Exchange may on request correct and cancel off order book trades which were executed or reported on the day before the migration on behalf of participants. It will also be possible for participants to correct and cancel these off order book trades themselves. Countertrades for off book trades executed on the day before the migration may be carried out either by Exchange Operations or by participants themselves.

Unmatched two-sided trade reports from before the migration will match against two-sided trade report legs entered after the migration. The same behavior applies to Delivery Reports.

8.2.1.3 Delayed Publication of Off Order Book Trades and Off Exchange Trades

Off order book and off exchange trades which have been reported before the migration and are subject to delayed publication according to Annex C: Delayed Publication of <u>Directive 3: Trading</u> will be published via Market Data Interfaces as usual after the migrations if applicable.

8.2.1.4 Transaction Reports

The Transaction Reports will be migrated to SMR14 during the migration and therefore no post-trade processing restrictions apply.

8.3 SWXess Migration Weekends

8.3.1 Main Activities

The main activities during the migration weekends will be:

SIX Swiss Exchange:

- Upgrade of trading platform to SMR14

Participants, Data Vendors, ISVs and ASPs

- Update Member Own Applications (MOAs (if required))
- Verify connectivity and log in after upgrade (strongly recommended)

During the platform migration weekends, SIX Swiss Exchange will inform participants about the current status via System Status in the Member Section.

8.3.2 Membertest Migration Schedule

Please find below an overview of the Membertest migration schedule for the rollout of functionality over both Membertest stage 1 and Membertest stage 2.

On Saturdays and Sundays, your Local Support Center will be available between 10:00 and 16:00 CEST.

8.3.2.1 Membertest Stage 1 (Interface Changes)

Date	Time (CEST)	Activity
Fri 13 September 2024	All day	Upgrade SWXess Trading Platform to include SMR14 Membertest stage 1 functionality.
	Approx. 16:30	Confirmation will be published on the system status page in the Member Section (and MSC Alert for Subscribers) that the upgrade has been completed.
	Following confirmation until 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.
Sat 14 September 2024	11:00 – 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.
Sun 15 September 2024	All day	Contingency Day. SWXess systems are closed, SCAP is available
Mon 16 September 2024	As from 06:00	First trading day on SMR14 in Membertest environment (M01) with stage 1 functionality.

8.3.2.2 Membertest Stage 2 (Functional & Interface Changes)

Date	Time (CEST)	Activity
Fri 18 October 2024 All day Upgrade SWXess Trading functionality.		Upgrade SWXess Trading Platform to include SMR14 Membertest stage 2 functionality.
	Approx. 16:30	Confirmation will be published on the system status page in the Member Section (and MSC Alert for Subscribers) that the upgrade has been completed.
	Following confirmation until 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.
Sat 19 October 2024	11:00 – 20:00	SWXess systems are running, connectivity is possible, however markets are closed and orders/quotes will be rejected.
Sun 20 October 2024	All day	Contingency Day. SWXess systems are closed, SCAP is available
Mon 21 October 2024	As from 06:00	First trading day on SMR14 in Membertest environment (M01) with stage 2 functionality.

8.3.3 Production Migration Schedule

To be published in a future version of the Release Guide.

8.3.4 Connectivity Testing Checklist During Migration

On the migration weekend, after the SWXess trading platform upgrade has been completed, the SWXess interfaces will be available for testing according to the schedule in section 8.3.2 and 8.3.3 as shown in the following table:

Interface	Available via	Status	Recommended Testing Activities
SCAP	-	Fully available: SCAP network and VPN tunnel connectivity reestablished	Test network is up Test VPN tunnel status is up (e.g. ping 146.109.99.254
Co-Location Access (P01 only)	-	Fully available: Network connectivity established	Test Co-Location Access network status is up
STI	SCAP	Available without business functionality: Session management test can be performed Application messages are rejected (closed for input) No morning snapshots are sent and therefore no open orders can be seen. Morning Snapshot will only be available on Monday morning	Test network connectivity of your SenderCompIDs (IP/Port) Test login
RDI	SCAP	Fully available: Reference data can be downloaded. The date of the file is 20240916 (Stage 1) / 20241021 (Stage 2)	Download RDI Files Process RDI files
IMI	SCAP and Co- Location Access (P01 only)	Available without market updates: User Logins enabled Heartbeat messages are sent UDP re-requester available Reference Data available	Test network connectivity Test login Test set-up and reception of messages

Interface	Available via	Status	Recommended Testing Activities
ОТІ	SCAP and Co- Location Access (P01 only)	Available without business functionality: User login enabled Application messages are rejected Error "R" (the order is not allowed at this time)	Test network connectivity Test login
QΤΙ	SCAP and Co- Location Access (P01 only)	Available without business functionality: User logins enabled Application messages are rejected Error "R" (quote not allowed at this time)	Test network connectivity Test login
SIX MDDX	SCAP	Available without market updates: User logins enabled Heartbeat messages are sent	Test network connectivity Test login

9 Testing Activities During Member Test Phase

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Technical Audience

9.1 Scope of Member Test Phase

SIX Swiss Exchange strongly recommends that all Participants, Independent Software Vendors (ISVs), Application Service Providers (ASPs) and data vendors perform the following actions during the Member Test phase:

- Test Member Own Applications (MOAs) and verify that they are in-line with the latest SMR14 interface specifications, including full loop test with clearing and settlement as well as transaction reporting upload and download according to the new specifications. Please make sure that you test your business processes and back office workflows.
- Participate in the scheduled tests organized by SIX Swiss Exchange:
 - SWXess Intraday Recovery Tests
 - Performance Load Tests
 - Background Load Tests

Please contact Member Services (<u>member.services@six-group.com</u> / +41 58 399 2473) if you require assistance with testing in the Membertest environment.

9.2 Clearing and Settlement During Member Test Phase

The SIX SIS link for Clearing and Settlement is available during the Member Test phase except during Performance Load Tests and Background Load Tests. We recommend running full loop tests as soon as possible with your MOAs and back office systems.

9.3 Trading Hours and Availability

The trading hours and the availability of the Membertest environment remain unchanged for the SMR14 Member Test phase. Please refer to the following links for details:

Environment calendar	https://www.six-group.com/en/products-services/the-swiss-stock-exchange/market-data/news-tools/environment-calendar.html
Trading hours	https://www.six-group.com/dam/download/the-swiss-stock-exchange/trading/trading-provisions/trading-hours/trading-hours-membertest.pdf

9.4 Load Tests

9.4.1 Performance Load Tests

During the SMR14 Member Test phase, SIX Swiss Exchange will hold Performance Load Tests in the Membertest environment on the dates given in the table below.

Date	Time (CEST)	Load Generated	
12.10.2024	10:00 to 15:00	The detailed load pattern will be published in a separate MSC Message before each test.	Add to calendar
23.11.2024	10:00 to 15:00	The detailed load pattern will be published in a separate MSC Message before each test.	Add to calendar

You are invited to participate in the tests to verify your applications under high load. You are allowed to generate limited transaction load. No registration is required. You are kindly requested to leave your market data clients running and connected during the Performance Load Test, even if you do not participate in the test.

9.4.2 Background Load Tests

SIX Swiss Exchange will hold Background Load Tests each Tuesday and Thursday evening from 18:00 to 20:00 CEST using the following load distribution:

Time (CEST)	QPS Load	OTPS Load	FTPS Load
18:00 to 20:00	4000	500	250

You are invited to participate and allowed to generate own transaction load up to your test capacity.

The SIX SIS link for Clearing and Settlement is not available during Performance Load Tests and Background Load Tests.

9.5 SWXess Intraday Recovery Tests

9.5.1 Activities

We have scheduled recovery tests on the dates given in the table below. During these tests, you have the possibility to verify the behavior of your applications during a recovery.

Date	Time (CET)	Activity	
25.09.2024	14:00-17:00	Intraday Recovery Test – On Book Matcher partition 1 down	Add to calendar
09.10.2024	14:00-17:00	Intraday Recovery Test - On Book Matcher partition 2 down	Add to calendar
13.11.2024	14:00-17:00	Intraday Recovery Test - Both On Book Matcher Partitions down	Add to calendar
20.11.2024	09:30-12:00 14:00-17:00	Intraday Recovery Test - STI FIX Infrastructure down: Single Fix Gateway Failure and Double FIX Gateway Failure	Add to calendar
27.11.2024	14:00-17:00	Intraday Recovery Test - MDDX Infrastructure down	Add to calendar
04.12.2024	14:00-17:00	Intraday Recovery Test - Contingency date	Add to calendar



Hint

You can download all calendar entries mentioned above here (zip file):

https://www.six-group.com/dam/download/market-data/news/environment-calendar/ical/six-swiss-exchange-smr14-activities.zip



Further Reading

For full details on the testing activities, please refer to the document "SWXess Business Recovery Guide for Participants" (version 8.10) in the Member Section.

https://secure.six-swiss-exchange.com/member_section/it/manuals.html

9.5.2 Information During Intraday Recovery Tests

For system status during the upgrade, please visit the **Membertest status page** in the Member Section. https://secure.six-swiss-exchange.com/member_section/system_status_test.html

If you wish to receive **MSC Alerts by SMS or email regarding the recovery**, please subscribe to priority "**3- Low**" alerts on the "My Subscriptions" page in the Member Section at:

https://secure.six-swiss-exchange.com/member_section/user_subs_admin.html

Appendix A Known Issues

Open known issues will be published and tracked in the <u>SIX Member Section</u> as they arise.



Further Reading

IT Related Frequently Asked Questions (FAQ) and Known Issues

Appendix B Terms and Abbreviations

Term/Abbreviation	Explanation
APP	Active Product Package for Leverage Products
ASP	Application Service Provider
BME	Bolsas y Mercados Españoles
BPS	Buyback, Price Stabilization, Sales during Buyback Program
BRI	Billing Report File Interface
CLOB	Central Limit Order Book
CO:RE	Repo Trading Solutions (CO:RE Trading Platform)
CSD	Central Security Depository
EBBO	European Best Bid and Offer
ESMA	European Securities and Markets Authority
ETF	Exchange Traded Funds
ETP	Exchange Traded Products
FDC	Sponsored Access – FIX Drop Copy Interface
FIX	Financial Information eXchange Protocol
FMIA	Financial Markets Infrastructure Act
FMIO	Financial Markets Infrastructure Ordinance
FoK	Order with validity Fill or Kill
FTPS	FIX Transactions (orders) per Second (STI)
IMI	ITCH Market Data Interface
ISV	Independent Software Vendor
IoC	Order with validity Immediate or Cancel
ISP	Independent Service Provider
MEQ	Minimum Execution Quantity
MIC	Market Identifier Code
MiFID	Markets in Financial Instrument Directive
MiFIR	Markets in Financial Instruments Regulation
MMT	Market Model Typology
MOA	Member Own Application
МРОВ	Mid-Point Order Book (SwissAtMid)
MTF	Multilateral Trading Facility as defined by FMIA
OBM	On Book Matcher
OHS	Organized Trading Facility as defined by FMIA
ORR	Order Reconciliation Report
OTI	OUCH Trading Interface

Term/Abbreviation	Explanation
OTPS	OUCH Transactions (orders) per Second (OTI)
PBBO	Primary Best Bid and Offer of the displayed Central Limit Order Book of the primary exchange
QDM	Quote Driven Market
QOD	Quote on Demand trading service
QPS	Quotes per Second (QTI)
QTI	Quote Trading Interface
RDI	Reference Data Interface
RSP	Routing Service Provider
RTS	Regulatory Technical Standard
SA	Sponsored Access
SCAP	SIX Common Access Portal
SEB	Swiss EBBO
SFI	Sponsored Access File Interface
SIX MDDX	SIX MDDX Multi-Dimensional Data fluX™ interface
SMP	Self-Match Prevention
SMR	SWXess Maintenance Release
STI	Standard Trading Interface
Swiss EBBO	Swiss EBBO trading service
SwissAtMid	SIX Swiss Exchange at Midpoint trading service
SWXess	Name of the SIX Swiss Exchange trading platform
TAL	Trading-At-Last
TRI	Transaction Reporting Interface
TRR	Trade Reconciliation Report
TTR	Trade and Transaction Reporting
TXR	Transaction Reconciliation Report
UI	User Interface
XOFF	Market Identifier Code for Off Exchange Transactions – Listed Instruments
XQMH	Market Identifier Code for SIX Swiss Exchange AG – Structured Products
XQOD	Market Identifier Code for SIX Swiss Exchange AG – Quote on Demand
XSEB	Market Identifier Code for SIX Swiss Exchange AG – Swiss EBBO
X-stream INET	Name of NASDAQ OMX platform
XSWM	Market Identifier Code for SIX Swiss Exchange AG – SwissAtMid
XSWX	Market Identifier Code for SIX Swiss Exchange AG

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