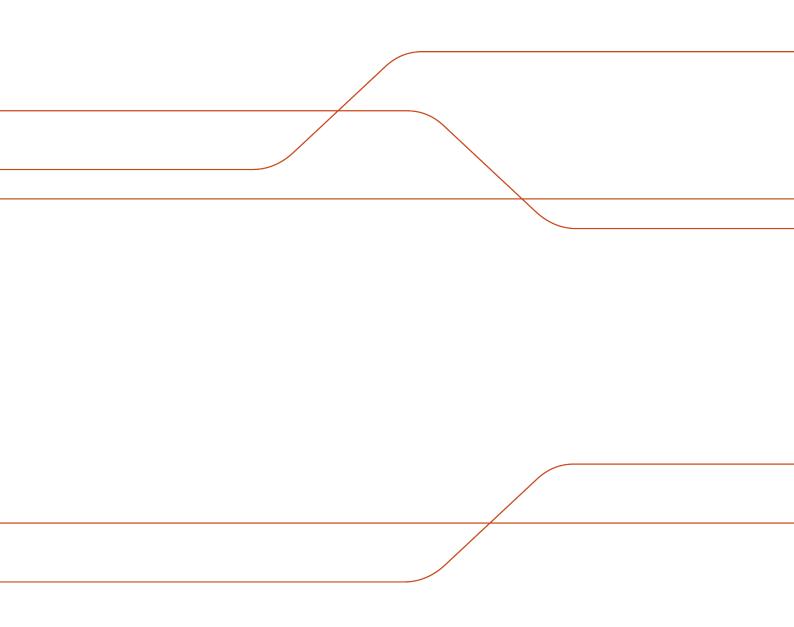


SIX Swiss Exchange Ltd

Directive 2: Technical Connectivity

of 08/06/2017

Effective from: 23/10/2017



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1. Purpose and principle

This Directive contains provisions on the technical connectivity to the exchange system and is based on Clauses 3.4 and 4.7 Rule Book.

2. General

¹ The requirement for all types of connectivity to the SWXess trading platform (the "exchange system") of the Exchange is that the provisions of the Exchange's rules and regulations are complied with and the exchange system is not negatively affected or damaged by the participant connecting to it.

² The participant or application service provider (ASP) must ensure that its business is entitled to connect to the exchange system and carry out the planned activities in accordance with the applicable laws and regulations. The foregoing also applies when the participant is not connected to the exchange system directly but via the technical services of an ASP instead.

3. Definitions and abbreviations

Access infrastructure	Exchange infrastructure, i.e. the interfaces for trading securities and obtaining market data.
ASP	Application Service Provider: the application service provider provides participants and market data recipients with applications for the purposes of technical connectivity to the exchange system.
Connectivity infrastructure	Infrastructure of the participants and ASP for connectivity to the exchange system for the purposes of trading and obtaining market data.

4. Types of connectivity for trading participants

Participants can choose from one of the following types of connectivity.

4.1 Direct connectivity

¹ Technical connectivity of the participant with the exchange system is accomplished via proprietary applications.

² The Exchange may grant on application of a participant the use of the connectivity infrastructure of a third party commissioned by the participant and approved by the Exchange if compliance with the provisions of the Exchange's rules and regulations is also ensured by the third party.

³ The technical connectivity of proprietary applications and the connectivity infrastructure of third parties is the responsibility of the participant. The Exchange may undertake or demand an acceptance run or certification of such proprietary applications and connectivity infrastructure.

⁴ If the proprietary applications or the connectivity infrastructure or leased lines of a third party put the operation of the exchange system at risk, the Exchange may prohibit or suspend the use of such.

4.2 ASP connectivity

4.2.1 Technical layout

The participant's technical link-up to the exchange system using ASP connectivity takes place via the application of an ASP. The participant conducts its transactions via the infrastructure and functions provided by the ASP.

4.2.2 ASP applications

- ¹ At its own responsibility, the ASP selects suitable ASP applications enabling the participant to connect to the exchange system as per the rules and regulations. The Exchange offers no guarantee for the security, availability and performance of these ASP applications.
- ² The ASP is responsible for installing, running and maintaining the ASP applications at its own cost.
- ³ If the ASP applications put at risk, negatively affect or damage the operation of the exchange system, the Exchange may suspend or prohibit the use of such.

5. Connectivity of application service providers (ASP)

5.1 Technical layout

- ¹ Technical connectivity of an ASP with the exchange system is accomplished via the ASP's proprietary applications.
- ² The Exchange may, on application from an ASP, grant the use of the connectivity infrastructure of a third party commissioned by the ASP and approved by the Exchange if compliance with the provisions of the Exchange's rules and regulations is also ensured by the third party.
- ³ The technical connectivity of ASP applications and the connectivity infrastructure of third parties is the responsibility of the ASP. The Exchange may undertake or demand an acceptance run or certification of ASP applications or the connectivity infrastructure of third parties.
- ⁴ If the ASP applications or the connectivity infrastructure or leased lines of a third party put at risk, negatively affect or damage the operation of the exchange system, the Exchange may prohibit or suspend the use of such.
- ⁵ The ASP is not entitled to trade on the Exchange.

5.2 ASP applications

- ¹ At its own responsibility, the ASP selects suitable ASP applications enabling the participant to connect to the exchange system as per the rules and regulations. The Exchange offers no guarantee for the security, availability and performance of these ASP applications.
- ² The ASP is responsible for installing, running and maintaining the ASP applications at its own cost.
- ³ If the ASP applications put at risk, negatively affect or damage the operation of the exchange system, the Exchange may suspend or prohibit the use of such.

6. Interfaces

6.1 Trading

Participants may choose from several interfaces by which to connect to trading. These alternatives are described here. Participants select the interface that is most suitable for them and recognise that not all interfaces offer the same functionality. The participant themselves is responsible for choosing the correct interface.

6.1.1 Standard Trading Interface (STI)

The Standard Trading Interface (STI) enables participants to access the orderbook as well as trading without pre-trade transparency and reporting functions. It supports the entry of orders and trade reports and receives execution confirmations for further processing.

6.1.2 OUCH Trading Interface (OTI)

The OUCH Trading Interface (OTI) enables participants and liquidity providers direct access to the orderbook. It supports the entry of orders and receives execution confirmations for further processing.

6.1.3 Quote Trading Interface (QTI)

The Quote Trading Interface (QTI) enables market makers and liquidity providers direct access to the orderbook. It supports the entry of quotes and receives execution confirmations for further processing.

6.2 Market information

6.2.1 Reference Data Interface (RDI)

- ¹ The Reference Data Interface (RDI) enables participants, ASPs and market data recipients to obtain reference data.
- ² For the use and further transmission of reference data, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG. Details are specified in the "Market Information" Directive.

6.2.2 Market Data Interface (MDI) and ITCH Market Data Interface (IMI)

- ¹ The Market Data Interface (MDI) and ITCH Market Data Interface (IMI) enable participants, ASPs and market data recipients to obtain realtime market information.
- ² For the use and further transmission of market information, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG. Details are specified in the "Market Information" Directive.

6.2.3 SIX MDDX Multi-Dimensional Data fluX™ Interface (SIX MDDX)

- 1 The SIX MDDX Multi-Dimensional Data fluX $^{\rm IM}$ Interface (SIX MDDX) enables participants and market data recipients to obtain realtime market information.
- ² For the use and further transmission of market information, a corresponding agreement (Data Distribution Agreement) must be additionally concluded with SIX Exfeed AG. Details are specified in the "Market Information" Directive.

7. Further provisions

7.1 Outsourcing to third parties

If the Exchange commissions third parties with the execution of its tasks, its liability shall be limited to the diligent selection and instruction of the third party it commissions.

7.2 Personnel

Every participant and ASP is obliged to have qualified personnel available in adequate numbers at all times during trading hours as well as during maintenance and further development work also outside of trading hours, and to ensure that they can be reached via telephone in order to ensure the proper running of the systems and to take appropriate action upon the instructions of the Exchange, especially in the event of technical malfunctions.

7.3 Right to information

The Exchange may require participants or ASPs to provide information or submit documents at any time if such information or documents are required in connection with connectivity to the exchange system or to prevent or rectify technical malfunctions.

Resolution of the Participants & Surveillance Committee of the Regulatory Board of 8 June 2017; in effect since 23 October 2017.