



FCR – Communication Requirements

General communication requirements

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Table of contents

Introduction	3
1 Real time communication using SCADA to SCADA	3
1.1 Introduction	3
1.2 Process	3
1.3 IT solution (standard solution)	4
1.4 Responsibilities	4
1.5 Actions in case of deviation from the standard solutions	5
2 Connection to the real-time communication platform	5
2.1 Introduction	5
2.2 Technical requirements	5
3 XML message	6
3.1 Introduction	6
3.2 Technical requirements	6

Introduction

This document describes the communication requirements for the FCR services. It is complementary to the T&C BSP FCR and needs to be read in compliance with the T&C BSP FCR.

For the FCR service, different types of communication are required between BSP and Elia:

- SCADA to SCADA connection (for delivery points DP_{SU} and DP_{PG} and for the communication between Elia and the BSP), as described in Chapter 1.
- Connection to the real-time communication platform (for Real-time communication of individual assets belonging to a virtual delivery point), as described in Chapter 2.
- XML messages used in the framework of the availability test as described in Chapter 3.

1 Real time communication using SCADA to SCADA

1.1 Introduction

The data as described in annex 10.C (“Real-time communication”) of the T&C BSP is transmitted from the BSP to Elia via the SCADA to SCADA connection.

This chapter describes the technical requirements for the SCADA to SCADA connection.

1.2 Process

For the correct and effective functioning of the FCR services, the FCR processes require:

- A secure and redundant communication channel between Elia and the BSP via a communication protocol determined by Elia.
- The BSP to continually guarantee and maintain in real time the accuracy of the information sent to ELIA.
- In the event of ELIA wanting to improve certain procedures and/or real time exchanges, the BSP guarantees to apply the new procedures proposed by ELIA within a reasonable time period.

1.3 IT solution (standard solution)

Based on the importance of the FCR service, in terms of a technical solution Elia requests the following:

- The physical connection must be implemented on a leased line and a secured VPN.
- The TASE2/ICCP software of the BSP must be in conformity with the IEC 60870-6 TASE2 standard. Version 2000 of TASE2/ICCP (IEC 60870-6) is required. Elia will define the TASE2/ICCP connection as initiator. The BSP must define the connection as responder.
- In case the system of the BSP does not support this protocol then the BSP must install a protocol convertor. A change of protocol may only be done after coordination and mutual agreement between the Elia and the BSP.
- The entire real-time communication system and its processes must be redundant. This means separated physical communication links and separated UPS (with an autonomy of at least 8 hours) per physical link.
- All data points (included aggregated data points) sent by the BSP must contain a timestamp (precision at least 1 second) and a quality bit (valid, invalid, manual)
- It is advisable to define a bidirectional link in TASE2/ICCP instead of defining 2 unidirectional links. However if the ICCP/TASE2 provider is not able to provide the bidirectional link, 2 unidirectional links are acceptable.
- Before starting the configuration, Elia will draft a proposal of the “ICCP bilateral agreement”: this is a document of all the detailed technical parameters of the TASE2/ICCP link.
- For accelerating the setup of the TASE2/ICCP connection and for analyzing the availability of the connection during operation Elia will send in real-time a fast changing measurement (triangle or sawtooth signal) to the partner. This signal must be read by the partner at least every 10 seconds and it must be made available again (loop back) to allow Elia to read the signal in real-time.
- It is advisable that the partner generates another fast changing measurement that Elia can loop back to the partner. Our experience is that it can be helpful for troubleshooting during operation.
- New partners must sign up in time since depending on the provider of the TASE2/ICCP software it could take 3 months to configure it on both systems to achieve a stable communication channel.

1.4 Responsibilities

With regard to the level of quality and reliability that the process demands, Elia and the BSP share responsibilities, for the purpose of:

- Setting up dedicated physical links between their own systems;
- Deploying all available means to ensure duplication of the system throughout the communication chain;

- Deploying all available means to ensure the reliability of their own systems.
- The BSP should assure a minimum availability of 95% for the real-time data transfer on monthly basis.

1.5 Actions in case of deviation from the standard solutions

The following measures are required in case of problems with the standard solutions:

- based on the controls introduced, the parties will contact their respective contact persons to report the existence of a problem;
- the parties make every effort to collaborate on solving the problem and making the standard solution (see section 1.3) operational again as fast as possible.

2 Connection to the real-time communication platform

2.1 Introduction

The active power measurement (DP_{measured}) for individual assets belonging to a virtual delivery point are transmitted to the Real-Time Communication Platform every 2 seconds. In case the active power measurement remains constant, a refresh value needs to be sent every 5 minutes.

2.2 Technical requirements

The technical requirements are described in the following documents:

- “The technical guide for gateway management“: this document can be found [here](#).
- “The explanatory note gateway management“: this document can be found [here](#).

3 XML message

3.1 Introduction

In order to trigger an availability test, Elia notifies the BSP by an electronic message as specified in annex 11.G (“communication requirements”) of the T&C BSP FCR. For this electronic message, an XML data format is required. The BSP should be able to receive the XML message and be able to understand its content.

3.2 Technical requirements

The XML communication is used to communicate to the BSP the availability test signal. The following document can be used:

The technical guide ATP can be found [here](#).

