

Code Subsidiary Document

No. 0401:

**Transactional interface for
Trading Parties having a high
volume of Data Transactions**

Change History

Version Number	Date of Issue	Reason For Change	Change Control Reference	Sections Affected
20150511	11 May 2015	For industry consultation		
20150714	14 July 2015	For pre-vendor MAP		
ICP Housekeeping	25 August 2015	Non-material housekeeping changes	ICPAWRC/CP001	All
ICP Quality Assurance	22 September 2015	Clarificatory and syntax changes following review of the texts	ICPAWRC009	2.1.4(b), 2.2.8, 3.1.1(a)
ICP Encryption and Non Repudiation of Message Content	15 September 2015	Encryption and Non Repudiation of Message Content	ICPAWRC006	2.1.5(Figure 1), 2.2.2
20150930	30 September 2015	For post-vendor MAP		As per Quality Assurance and Encryption and Non Repudiation versions
ICP Housekeeping	21 September 2016	Changes to reflect ICP Change Proposal ICPAWRC049	ICPAWRC049	3.1.1 (d)
20160921	21 September 2016	For 20160921		As per ICPAWRC049

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Definitions

Unless expressly stated otherwise, for the purposes of this CSD:

- (a) terms defined in the Wholesale-Retail Code Part 1 (Objectives, Principles and Definitions) shall apply;
- (b) capitalised terms relating to the titles of Data Items or Data Transactions described in CSD 0301 (Data Catalogue) shall have the meaning attributed therein; and
- (c) capitalised terms relating to definitions set out in CSD 0400 (Common interface technical specifications) shall also apply.

1. Introduction

1.1 Purpose and scope

1.1.1 This CSD describes the transactional interface which enables a Trading Party to Transact with the Market Operator at high volumes and also sets out the responsibilities on the Market Operator and a Trading Party wishing to use this interface.

1.1.2 Common interface technical specifications are described in CSD 0400 (Common interface technical specifications).

1.1.3 This CSD should be read in conjunction with:

- (a) CSD 0301 (Data Catalogue); and
- (b) CSD 0400 (Common interface technical specifications).

1.2 Structure of this CSD

1.2.1 The CSD is structured as follows:

- (a) Section 1: Purpose and scope – this section:
- (b) Section 2: Description of the interface - describes the interface in terms of the functions available to Trading Parties and any specific technical requirements that are not contained within CSD 0400 (Common interface technical specifications).
- (c) Section 3: Technical specification and standards – describes the technical specifications specific to this interface.

2. Description of the interface

2.1 Overview

- 2.1.1 The interface is automated, machine-to-machine, with no human interventions.
- 2.1.2 All Data Transactions will be constructed within the Trading Party's own systems in full compliance with CSD 0301 (Data Catalogue).
- 2.1.3 All Data Transactions between Trading Parties and the Market Operator will be submitted inside a "Document" and a Document may contain one or more Data Transactions.
- 2.1.4 The interface will allow Trading Parties to:
- (a) submit multiple Documents, containing multiple Data Transactions to the Market Operator; and
 - (b) schedule automated submissions and retrieve processing results from the Market Operator using a secure data transfer mechanism.
- 2.1.5 Trading Parties will be required to push Documents containing Data Transactions to the Market Operator and retrieve all Market Operator processing results through the same interface.

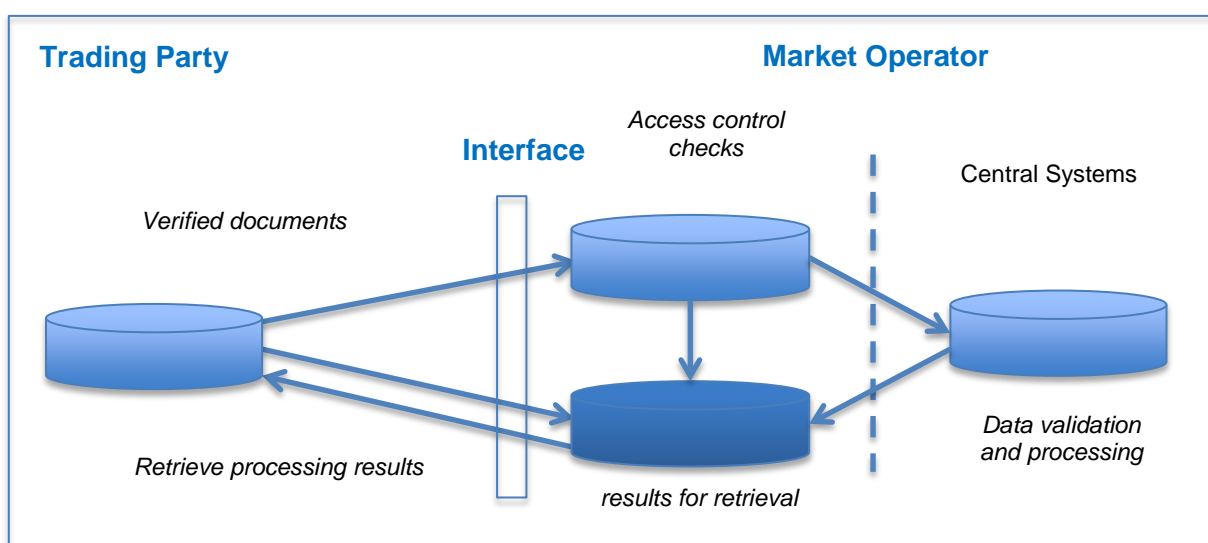


Figure 1: Interface operation concept

2.2 Transaction submission and processing

2.2.1 Before submitting any Data Transactions through the interface, it is the responsibility of Trading Parties to ensure that the following have been applied:

- (a) a unique Data Transaction Reference Number has been generated and populated within each Transaction;
- (b) a unique Document reference number has been generated and populated within each Document; and
- (c) the Data Transactions are in the correct sequence.

2.2.2 Trading Parties will be responsible for pushing Documents containing Data Transactions to the Market Operator.

2.2.3 Upon receipt the Market Operator's Systems will:

- (a) perform a series of access control checks as specified in CSD 0400 (Common interface technical specifications);
- (b) issue a synchronous response confirming receipt of each Document and completion of access control checks; and
- (c) should the process fail, the Market Operator will stop all processing immediately and generate a Processing Status Code along with a meaningful Processing Return Code which will be retrieved by the Trading Party through the interface.

2.2.4 If access control checks are successful, the Central Systems will then process the Data Transaction data and generate a Processing Status Code once all data processing has been successfully completed.

2.2.5 Should any data anomalies be identified, e.g. non-conformance with CSD 0301 (Data Catalogue), all data processing will stop immediately;

- (a) the Market Operator will issue a Processing Status Code and meaningful Processing Return Code for each Transaction submitted; and

- (b) the Trading Party will retrieve the Market Operator response through the interface.

2.2.6 Trading Parties will retrieve all Market Operator responses to Data Transactions submitted through this interface (regardless of the outcome).

2.2.7 Trading Parties will return an acknowledgement of Document and transaction receipt prior to undertaking any further processing within their systems.

2.3 Interface availability and performance

2.3.1 Trading Parties will be able to submit Data Transactions to the Market Operator through the interface during a Business Day and Extended Hours.

2.3.2 The Market Operator will ensure that Trading Party support arrangements will be available during a Business Day and Extended Hours as defined in CSD 0400 (Common interface technical specifications).

2.3.3 The Market Operator's data processing obligations will be limited to within a Business Day. Any Data Transactions that are submitted during Extended Hours may not be processed until the beginning of the next Business Day.

2.3.4 If a Trading Party's Data Transactions are received within a Business Day the Market Operator will undertake the following activities:

- (a) undertake access control checks;
- (b) generate a synchronous response for retrieval by the initiating Trading Party. The response will confirm Document receipt and Processing Status Code with a corresponding Processing Return Code (as appropriate);
- (c) process the data contained within each Data Transaction once access control processing has been successfully completed and the Market Operator will process the data contained within each Data Transaction; and

- (d) upon completion of data processing, generate an asynchronous response for each Data Transaction received. It is the responsibility of Trading Parties to retrieve the Market Operator responses through the interface.

2.3.5 If the Market Operator receives Data Transactions from a Trading Party during Extended Hours, the Market Operator will as a minimum:

- (a) undertake access control checks;
- (b) generate a synchronous response for retrieval by the initiating Trading Party. The response will confirm Document receipt and Processing Status Code with a corresponding Processing Return Code (as appropriate); and
- (c) perform subsequent processing of the data contained within each Data Transaction at the beginning of the next Business Day.

2.3.6 Each Market Operator response will contain:

- (a) the initiating unique Data Transaction Reference Number;
- (b) the Processing Status Code; and
- (c) Processing Return Codes where a Data Transaction has failed to process.

2.3.7 As set out in the Market Terms, the Market Operator shall process all data it receives within one (1) Business Day. Where the Market Operator deems that Data Transactions have been submitted beyond the end of the Business Day, data processing will not commence until the beginning of the next Business Day.

2.3.8 Under certain circumstances, the Market Operator may be able to complete all processing during the same Business Day. However, the Market Operator is not required to do so.

2.3.9 The Market Operator may also issue unsolicited notifications to Trading Parties i.e. notifications which are not in response to a corresponding Data Transaction

from that Trading Party. All such notifications must also be collected and processed by Trading Parties, and upon collection Trading Parties shall confirm to the Market Operator that these notifications have been retrieved for processing.

2.3.10 Should the interface become unavailable during a Business Day or Extended Hours this may be as a result of one of the following:

- (a) a Trading Party system issue requiring further internal investigation;
- (b) a planned outage for which the Trading Party will have been notified in advance by the Market Operator; or
- (c) an unplanned outage or disruption notified to all affected Trading Parties by the Market Operator as set out in CSD 0006 (Trading Party Administration and Notification Processes).

2.3.11 Where the interface is unavailable during Business Hours and/or Extended Hours for reasons other than those listed in 2.3.810 above of this CSD, then the Trading Party will first check the Market Operator’s service management dashboard and then (if necessary) raise a service management incident as described in CSD 0406 (Service Management Interface).

2.4 Interaction summary

2.4.1 Table 1 summarises the Interactions between Trading Parties and the Market Operator through the interface.

Interaction	From	To	Delivery via interface	Delivery pattern
Submit Document(s) containing multiple Data Transactions	Trading Party	Market Operator	Yes	Push service (pushed by Trading Party)
Document access control checks and processing status	Market Operator	Trading Party	Yes	Synchronous response from the Market Operator Pull service (pulled by

Interaction	From	To	Delivery via interface	Delivery pattern
				Trading Party)
Data Transaction processing checks	Market Operator	Trading Party	Yes	Asynchronous response from the Market Operator Pull service (pulled by Trading Party)
Confirmation Data Transaction results received	Trading Party	Market Operator	Yes	Push-service (pushed by Trading Party)

Table 1: Summary of Interactions

3. Technical requirements

3.1 Requirements specific to this CSD

3.1.1 The interface will support the technical standards as set out in CSD 0400 (Common interface technical specifications) in addition to requirements specific to this interface and detailed within this section;

- (a) the interface will allow Trading Parties to submit Data Transactions and retrieve subsequent data processing responses using a secure data transfer mechanism. It is the responsibility of Trading Parties to retrieve and process all Market Operator responses in a logical sequence irrespective of the outcome.
- (b) Trading Parties and the Market Operator will monitor all Interactions to ensure there are no unfulfilled Data Transactions.
- (c) Trading Parties will confirm to the Market Operator that responses have been collected for processing;
 - (i) Trading Parties will send an asynchronous confirmation of receipt which will include the unique Data Transaction Reference Number; and
 - (ii) the Market Operator will store all confirmations of receipt received from Trading Parties to ensure that a chronological processing history is recorded and that any outstanding actions, for example a Trading Party failing to process an error response and subsequently attempting to resubmit an unresolved Data Transaction, can be identified.
- (d) should any unfulfilled Data Transactions be identified, these should be investigated and a service management incident should be raised as described in CSD 0406 (Service Management Interface).
- (e) the affected Trading Party will notify the Market Operator of any suspected incident, and vice versa.

- (f) The interface will be subject to additional security protections to protect both the interface and the Central Systems from any attempted anomalous activity. In order for the Market Operator to establish Anomaly Detection measures, each Trading Party intending to use the interface will be required to provide the Market Operator with an indicative threshold value based on a normal daily peak volume of Data Transactions. The process that Trading Parties will follow is described in CSD 0006 (Trading Party Administration and Notification Processes).
- (g) The interface will allow multiple Documents to be submitted through the interface containing multiple Data Transactions which may be of the same or different types as set out in CSD 0301 (Data Catalogue).