

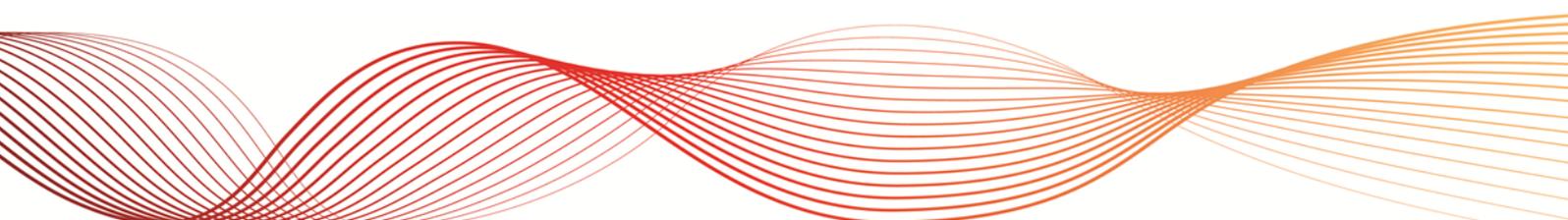
# GUIDE TO B2B VALIDATION MODULE SOFTWARE

COVERS THE SET-UP AND USE OF THE B2B VALIDATION  
MODULE SOFTWARE

Version: 3.02



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# IMPORTANT NOTICE

## **Purpose**

This Guide to B2B Validation Module Software, prepared by the Australian Energy Market Operator (AEMO), provides guidance for B2B Validation Module Software under the National National Electricity Rules (Rules).

## **No reliance or warranty**

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## **Document Identification**

Business custodian: Manager, Metering

IT custodian: Manager, Retail Market Systems

Guide to B2B Validation Module Software

Prepared by: Technical Writers, Market Systems

## **Version history**

Version 3.02 Updated for Power of Choice and Validation Module Software v1.0.26 - Included the transaction parameters for runTest.bat..

Last update: Wednesday, 14 February 2018 10:30

## **Documents made obsolete**

The release of this document changes any previous versions of Guide to B2B Validation Module Software.

## **Further Information**

For further information, please visit AEMO's website [www.aemo.com.au](http://www.aemo.com.au) or contact:

AEMO's Support HubPhone: 1300 AEMO 00 (1300 236 600), Email: [supporthub@aemo.com.au](mailto:supporthub@aemo.com.au)

## **Feedback**

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Support Hub.



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# CHAPTER 1 INTRODUCTION

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## Purpose

Covers the set-up and use of the B2B Validation Module Software

## Audience

This guide is for participants' technical and software development staff, responsible for systems implementing the aseXML standard.

## Assumed Knowledge

This guide assumes you have knowledge of:

- The Java application environment.
- The operating system you are using.
- The **B2B Procedures**.
- How the *B2B e-Hub* operates, see **Guide to MSATS B2B**.
- The Retail Electricity Market extensible mark-up language (XML), see **aseXML Standards**.

## How to use this guide

- This document is written in plain language for easy reading. Where there is a discrepancy between the Rules, NEL or information or a term in this document, the Rules and NEL prevail.
- If there are any inconsistencies between the MSATS Procedures and the B2B Procedures, the MSATS Procedures prevail.
- Diagrams are provided as an overview. In case of ambiguity between a diagram and the text, the text prevails.
- **Text in this format** indicates a resource on **AEMO's website**.
- **Text in this format** indicates a direct link to a section in this guide.
- Glossary terms are capitalised and have the meanings listed against them in the **Guide to MSATS and B2B Terms**.
- *Italicised terms* are defined in the National Electricity Rules. Any rules terms not in this format still have the same meaning.
- Actions to complete in the web portal interface are **bold and dark grey**.
- References to time in:
  - The Retail Electricity Market Procedures (except the B2B Procedures) are to Australian Eastern Standard Time (AEST).
  - The B2B Procedures refer to the local time applicable at the Site where a B2B Transaction relates.
- The expressions **within one Business Day or next Business Day** in the B2B Procedure: Service Order Process mean by 11:59 pm the next Business Day.
- References to currency are to Australian dollars.

**Providing you have the appropriate access rights, the functions discussed in this guide display in the MSATS main menu. Depending on your access rights, the menu items you see may differ. Speak with your company's participant administrator to discuss your access rights.**

## What's in this guide

Chapter 2 About B2B Validation Module Software on page 4 provides an overview of the software, who can use it, the system requirements, how and where to obtain it.

Chapter 3 Implementation on page 7 provides instructions for extracting the software, running the build, and running the sample files, including a list of transaction parameters.

Chapter 4 Validation errors on page 16 contains a list of validation and business rejection errors.

Needing Help on page 17 provides a list of related resources, information about contacting AEMO's Support Hub, and how to provide feedback.

**For details about other MSATS and B2B related guides, see [Guide to Retail Electricity Market Procedures](#).**

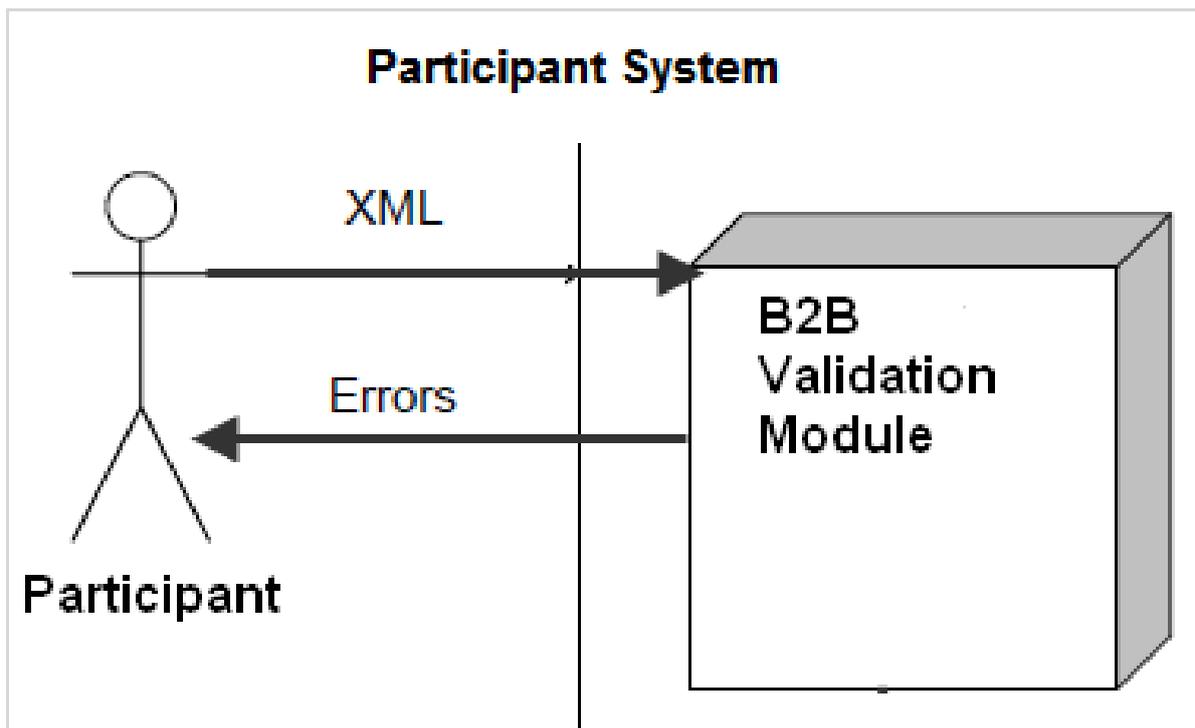
## CHAPTER 2 ABOUT B2B VALIDATION MODULE SOFTWARE

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The B2B Validation Module is a validation application that can be embedded in participants' B2B systems allowing participants to validate an .XML file before it is deployed to the MSATS B2B Hub.

Its purpose is to decrease the amount of invalid .XML files sent to the MSATS B2B Hub.

Figure 1 High-level overview of the B2B Validation Module



### How do you use the B2B Validation Module

You install the B2B Validation Module software locally on your participant systems. It does not require access to the MSATS system.

## Who can use the B2B Validation Module

The software is for participants' technical and software development staff, responsible for developing participant B2B systems implementing the aseXML standard.

## System requirements

To run the B2B Validation Module Software you need:

- Java SE 8.
- Java JDK 8 available from [Oracle Downloads](#).
- The current version of B2B Validation Module software available from [AEMO's website](#) > Retail and Metering > Market Settlements and Transfer Solutions > Validation Module.

### Validation Module

The B2B Validation Module is a validation application participants can embed in their B2B systems allowing them to validate an XML file before it is deployed to the MSATS B2B Web Portal. Download the latest and previous software and guide below.

[Validation Module Software v1.0.25](#)  
08 Apr 2014 | 7.00 MB (zip)

[Validation Module Software v1.0.24](#)  
11 Oct 2013 | 6.55 MB (zip)

[Guide to Validation Module Software v2.01](#)  
11 Oct 2013 | 1.97 MB (pdf)

- The current B2B aseXML version **Enumerations.xsd** file available from **AEMO's website** > IT Systems > aseXML Standards > aseXML Schemas.

Because the current ASWG aseXML version may differ to the current AEMO B2B aseXML version, you can find the current B2B version in the **MSATS web portal** > **B2B Browser** > **Transforms and Protocol**.

For help see **Guide to MSATS B2B**.

### SCHEMA RELEASE r36

Schema URL - [aseXML\\_r36.xsd](#)

- [Schema Release Notes r36](#)
- [Schema Change Request 60.1](#)

**SCHEMA FILES:** [Complete Set](#)

### SCHEMA RELEASE r35

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## CHAPTER 3 IMPLEMENTATION

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### Extract the software

1. Unzip the **ValidationModule <vn.n>.zip** single zip file to a local folder. The location is passed in as an argument to the batch scripts to invoke the test harness. For details, see [Run the sample files on page 9](#).

For help obtaining the software, see [System requirements on page 5](#).

2. Check the folder contains the following files:

Name	Type
build.bat	MS-DOS Batch File
README.txt	Text Document
runTest.bat	MS-DOS Batch File
runTestType2.bat	MS-DOS Batch File
doc	File Folder
lib	File Folder
META-INF	File Folder
PropertiesFiles	File Folder
samples	File Folder
src	File Folder

3. After you have decompressed the file, familiarise yourself with the contents.  
Table 1 below

Table 1 Validation Module folder structure

folder	Contents
README.txt	Validation Module Read me text file. Contains details about the changes in new versions.
Build.bat	B2B Validation Module build
runTestType2.bat	Batch file used to run the sample application ValidationModuleType2TestHarness.

folder	Contents
	This does the same thing as the ValidationModule except it uses a different Transaction factory method to create the Transaction. In this method the caller does not need to know the internal name of the Transaction Type.
runTest.bat	Batch file used to run the sample application ValidationModuleTestHarness.
src	Source files
Samples	Sample .XML files for testing purposes: <ul style="list-style-type: none"> <li>• SOR_AllocateNMItestFail.xml</li> <li>• SOR_AllocateNMItestPass.xml</li> </ul>
Lib	B2BValidationModule.jar commons-beanutils-1.8.0.jar commons-collections-3.2.1.jar commons-logging-1.1.1.jar relaxngDatatype-1.0.jar resolver.jar serializer.jar xalan.jar xercesImpl.jar xml-apis.jar xsom-20081112.jar
Doc	API documentation
PropertiesFiles	EventMessage.properties ScreenName.properties XPath.properties
Meta-INF	MANIFEST.MF

4. Place the **Enumerations.xsd** in the Validation Module folder.

For help obtaining the **Enumerations.xsd**, see System requirements on page 5.

5. Next, see Run the build on the next page.

## Run the build

To build the B2B Validation Module:

1. Run the **build.bat** script from the command line, for example:

```
runBuild
```

2. The script runs to:
  - a. Compile all the source code in the src folder.
  - b. Create a new B2B Validation Module .JAR file in the lib folder.
3. When the script completes successfully, see [Run the sample files below](#).

## Run the sample files

ValidationModule <vn.n>.zip provides sample files and test batch files. The batch files run from the command line and use the sample XML files as parameters.

The two batch files for testing are:

1. **runTest.bat**
2. **runTestType2.bat**

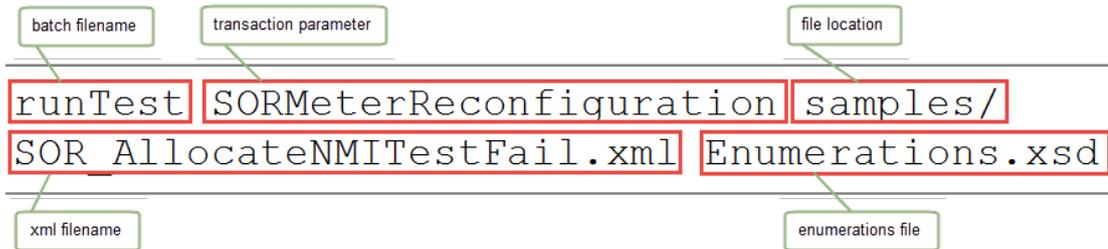
The two Service Order Request sample .XML files are:

1. **SOR\_AllocateNMITestPass.xml**
2. **SOR\_AllocateNMITestFail.xml**

### runTest.bat

1. From the command line, run the runTest.bat using the following three parameters:
  - a. Transaction parameter. For a list of transaction parameters, see [Transaction parameters on page 12](#).
  - b. File location and .XML filename.

- c. Local path to the aseXML enumeration schema file, Enumerations.xsd. For example:



- 2. The software validates the file and if it finds errors displays them. For help, see Figure 2 below.

Figure 2 runTest.bat example

```

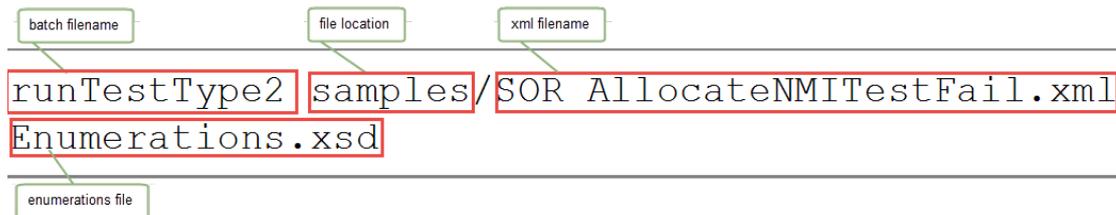
C:\Validation Module>runTest SORMeterReconfiguration samples/SOR_AllocateNMITestFail.xml Enumerations.xsd

C:\Validation Module>java -classpath ".;./lib/B2BValidationModule.jar;./lib/commons-beanutils-1.8.0.jar;./lib/commons-collections-3.2.1.jar;./lib/commons-logging-1.1.1.jar;./lib/resolver.jar;./lib/serializer.jar;./lib/xalan.jar;./lib/xercesImpl.jar;./lib/xml-apis.jar;./lib/relaxngDatatype-1.0.jar;./lib/xsom-20081112.jar" com/capgemini/nemco/b2bh/test/ValidationModuleTestHarness SORMeterReconfiguration samples/SOR_AllocateNMITestFail.xml Enumerations.xsd
Errors found in validation
Error Context      : Transaction/ServiceOrderRequest/ServiceOrder/ServiceOrderType/WorkType
Error Code         : 202
Error Description  : Invalid data.
Error Explanation  : Service Order Type: The value provided, "Allocate NMI", is invalid
Error Severity    : Error
-----
Error Context      : Transaction/ServiceOrderRequest/RequestData/ServiceTime
Error Code         : 201
Error Description  : Data missing.
Error Explanation  : Service Time: The required field is missing
Error Severity    : Error
-----
Error Context      : Transaction/ServiceOrderRequest/ServiceOrder/NMI
Error Code         : 201
Error Description  : Data missing.
Error Explanation  : NMI: The required field is missing
Error Severity    : Error
-----
Error Context      : Transaction/ServiceOrderRequest/ServicePoint/AccessDetails
Error Code         : 201
Error Description  : Data missing.
Error Explanation  : Access Details: The required field is missing
Error Severity    : Error
-----
Error Context      : Transaction/ServiceOrderRequest/AppointmentDetail/ScheduledDate
Error Code         : 201
Error Description  : Data missing.
Error Explanation  : Scheduled Date: The required field is missing
Error Severity    : Error

C:\Validation Module>
    
```

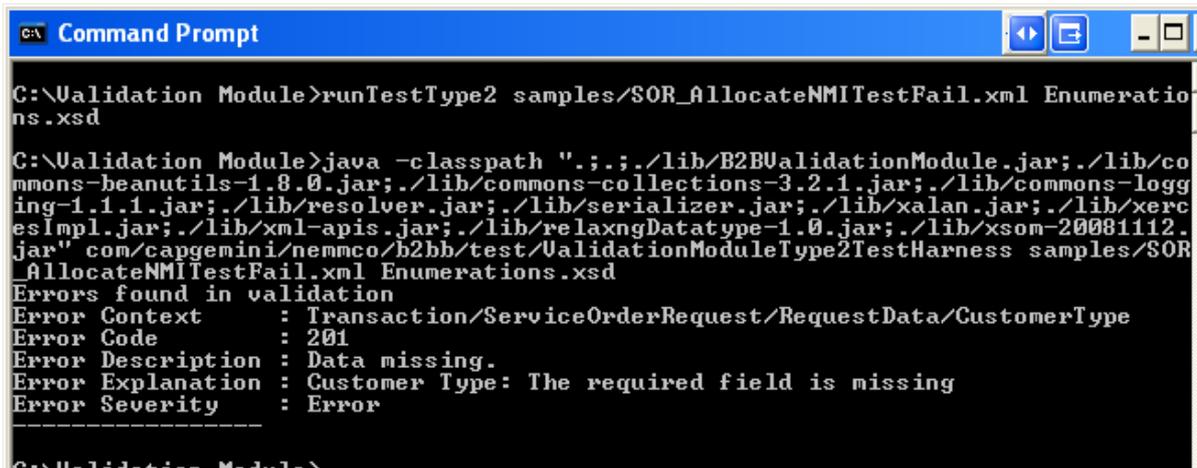
## runTestType2.bat

1. The runTestType2.bat file takes two parameters:
  - a. The file location and .XML file name.
  - b. Local path to the aseXML Enumeration schema file, for example:



2. The software validates the file and if it finds errors displays them. For help, see Figure 3 below and Figure 4 on the next page.

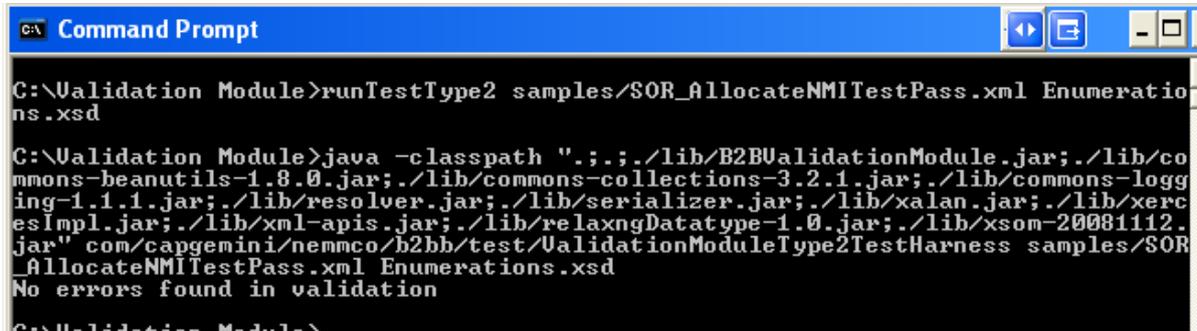
Figure 3 runTestType2.bat example with errors



```
C:\Validation Module>runTestType2 samples/SOR_AllocateNMITestFail.xml Enumerations.xsd

C:\Validation Module>java -classpath ".;./lib/B2BValidationModule.jar;./lib/commons-beanutils-1.8.0.jar;./lib/commons-collections-3.2.1.jar;./lib/commons-logging-1.1.1.jar;./lib/resolver.jar;./lib/serializer.jar;./lib/xalan.jar;./lib/xercesImpl.jar;./lib/xml-apis.jar;./lib/relaxngDatatype-1.0.jar;./lib/xsom-20081112.jar" com/capgemin/nemco/b2bb/test/ValidationModuleType2TestHarness samples/SOR_AllocateNMITestFail.xml Enumerations.xsd
Errors found in validation
Error Context      : Transaction/ServiceOrderRequest/RequestData/CustomerType
Error Code         : 201
Error Description  : Data missing.
Error Explanation  : Customer Type: The required field is missing
Error Severity     : Error
-----
C:\Validation Module>
```

Figure 4 runTestType2.bat example without errors



```

C:\Validation Module>runTestType2 samples\SOR_AllocateNMITestPass.xml Enumerations.xsd

C:\Validation Module>java -classpath ".;./lib/B2BValidationModule.jar;./lib/commons-beanutils-1.8.0.jar;./lib/commons-collections-3.2.1.jar;./lib/commons-logging-1.1.1.jar;./lib/resolver.jar;./lib/serializer.jar;./lib/xalan.jar;./lib/xercesImpl.jar;./lib/xml-apis.jar;./lib/relaxngDatatype-1.0.jar;./lib/xsom-20081112.jar" com/capgemini/nemco/b2bb/test/ValidationModuleType2TestHarness samples\SOR_AllocateNMITestPass.xml Enumerations.xsd
No errors found in validation
    
```

## Transaction parameters

This is a list of transaction types and the parameter required for running runTest.bat

Transaction	Work type	work subtype	Parameter
RemoteServiceRequest	Remote Service Request		RemoteServiceRequest
RemoteServiceResponse	Remote Service Response		RemoteServiceResponse
ServiceOrderRequest	De-energisation	Disconnect at Pillar-Box Pit Or Pole-Top	SORDeenergisation
ServiceOrderRequest	De-energisation	Local Meter Disconnection	SORDeenergisationLocMetDisconn
ServiceOrderRequest	De-energisation	Recipient Discretion	SORDeenergisationRecDiscr
ServiceOrderRequest	De-energisation	Remote	SORDeenergisationRemote
ServiceOrderRequest	De-energisation	Remove Fuse	SORDeenergisationRemoveFuse
ServiceOrderRequest	Metering Service Works	Change Timeswitch Settings	SORMetServWrksChgTSwitch
ServiceOrderRequest	Metering	Exchange Meter	SORMetServWrksExchangeMeter

Transaction	Work type	work subtype	Parameter
	Service Works		
ServiceOrderRequest	Metering Service Works	Install Controlled Load	SORMetServWrksInstallCLoad
ServiceOrderRequest	Metering Service Works	Install Meter	SORMetServWrksInstallMeter
ServiceOrderRequest	Metering Service Works	Meter Investigation-Inspect	SORMetServWrksInvInspect
ServiceOrderRequest	Metering Service Works	Meter Investigation-Test	SORMetServWrksInvTest
ServiceOrderRequest	Metering Service Works	Meter Reconfiguration	SORMetServWrksMeterReconfig
ServiceOrderRequest	Metering Service Works	Move Meter	SORMetServWrksMoveMeter
ServiceOrderRequest	Metering Service Works	Remove Meter	SORMetServWrksRemoveMeter
ServiceOrderRequest	Metering Service Works	Reseal Device	SORMetServWrksReseal
ServiceOrderRequest	Miscellaneous		SORMiscellaneous
ServiceOrderRequest	Re-energisation	After Disconnection For Non-Payment	SORReenergisationAftDisconn
ServiceOrderRequest	Re-energisation	Move-in	SORReenergisationMoveIn
ServiceOrderRequest	Re-energisation	New Reading Required	SORReenergisationNewRead
ServiceOrderRequest	Re-energisation	Physical Visit	SORReenergisationPhyVisit
ServiceOrderRequest	Re-energisation	Recipient Discretion	SORReenergisationRecDiscr

Transaction	Work type	work subtype	Parameter
ServiceOrderRequest	Re-energisation	Remote	SORReenergisation
ServiceOrderRequest	Re-energisation	Retrospective Move-in	SORReenergisationRetroMoveIn
ServiceOrderRequest	Special Read	Check Read	SORSpecialReadCheck
ServiceOrderRequest	Special Read	Final Read	SORSpecialReadFinal
ServiceOrderRequest	Special Read		SORSpecialRead
ServiceOrderRequest	Supply Service Works	Allocate NMI	SORAllocateNMI
ServiceOrderRequest	Supply Service Works	Establish Permanent Supply	SORNewConnection
ServiceOrderRequest	Supply Service Works	Establish Temporary In Permanent	SORNewConnectionTempPmt
ServiceOrderRequest	Supply Service Works	Establish Temporary Supply	SORNewConnectionTemp
ServiceOrderRequest	Supply Service Works	Supply Abolishment	SORSupplyAbolishment
ServiceOrderRequest	Supply Service Works	Supply Alteration	SORSupplyAlteration
ServiceOrderRequest	Supply Service Works	Tariff Change	SORTariffChange
ServiceOrderRequest	Supply Service Works	Temporary Isolation	SORTempIsolation
ServiceOrderRequest	Supply Service Works	Temporary Isolation-Group Supply	SORTempIsolationGrp
ServiceOrderRequestCancel	Service Order Request Cancel		SORCancel

Transaction	Work type	work subtype	Parameter
SiteAccessNotification	Site Access Notification		SiteAccessNotification
SiteAccessRequest	Site Access Request		SiteAccessRequest
SiteAddressNotification	Site Address Notification		SiteAddressNotification
SOAppointmentNotification	Service Order Appointment Notification		SOAppointmentNotification
SORResponse	Service Order Response		SORResponse

## CHAPTER 4 VALIDATION ERRORS

This table contains a list of validation and business rejection errors.

Table 2 Validation and business rejection errors

Code	Error
0	Accept
1	Not well formed
2	Schema validation failure
3	Transaction not supported within Transaction Group
4	Transaction version not supported
5	Uncompression failure
6	Message too big, exceeds 1MB
7	Header mismatch
8	Incorrect market
9	Unknown Transaction Group
201	Required field missing
202	Invalid: length, date or time, one way dependency, date in past, role assignment (check ordering and values). Value is not numeric.
1910	The Service Order Subtype, does not match the Service Order Type
1954	Scheduled date is greater than 100 calendar days in the future

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### Related resources

**aseXML Schemas** , schema releases, xsd files, release notes, and schema change requests.

You can find resources on AEMO's website: [www.aemo.com.au](http://www.aemo.com.au).

**aseXML Standards**, links to guidelines, schemas, change process, sample files, and white papers.

**B2B Mapping to aseXML**, provides an understanding of the connection between aseXML and the B2B Procedures.

**B2B Procedures**, the Business to Business (B2B) Procedures prescribe the content of, the processes for, and the information to be provided to support, B2B Communication.

**Guide to MSATS and B2B Terms**, defines the terms in the electricity retail market.

**Guide to MSATS B2B**, provides information about the interactive and batch B2B-eHub functions available in the Market Settlement and Transfer System (MSATS).

**Guide to Retail Electricity Market Procedures**, provides a list of procedures and supporting documents to assist *Market Participants* in understanding the overall MSATS framework.

**Oracle Downloads**, JRE and JDK downloads:  
<http://www.oracle.com/technetwork/java/javase/downloads/index.html>.

## AEMO's Support Hub

### Contacting AEMO's Support Hub

IT assistance is requested through one of the following methods:

- Phone: 1300 AEMO 00 (1300 236 600)

For non-urgent issues, normal coverage is 8:00 AM to 6:00 PM on weekdays, Australian Eastern Standard Time (AEST).

- Email: [supporthub@aemo.com.au](mailto:supporthub@aemo.com.au)

**AEMO recommends participants call AEMO's Support Hub for all urgent issues, whether or not you have logged a call in the Customer Portal.**

### Information to provide

Please provide the following information when requesting IT assistance from AEMO:

- Your name
- company name
- Participant ID
- System or application name
- Environment: production or pre-production
- Problem description
- Screenshots

For AEMO software-related issues please also provide:

- Version of software
- Properties or log files
- Replication Manager support dump and instance name (if Data Interchange problem)

## Feedback

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Support Hub.



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