Schema Release

AseXML Schema Working Group

Release r29

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Document History

Version	Date	Authors	Comments
1.0	12/11/2011	Bevan Cole	Creation

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1. Introduction

Version r29 of the aseXML schema has been developed from r28. This schema release is presented to aseXML Subscribers and Industry Participants for review and to AEMO for approval, in accordance with the ASWG Terms of Reference.

2. Change Requests

The following ASWG Change Requests have been included in this schema release:

CR#	Description
45	Provide two new fields to ElectricityMasterStandingData which will enable participants to record and notify other participants of 'Customer Classification' data (“CustomerClassificationCode” and “ConsumptionThresholdCode”).
46	Gas industry participants that operate in Victoria, Queensland and South Australian have requested a modification to the existing NMIDiscoveryResponse transaction by adding two new fields to the existing NMIDiscoveryResponse transaction. These two new fields will be labelled as “CustomerClassificationCode” and “ConsumptionThresholdCode” with the field attributes/format being “string” and the length defined as 20 for both fields.
47	In MSATS database sequences are used to generate primary keys for some tables. Some of these are also used as identifiers for transactions and other data exchanged between MSATS and participants via aseXML schema. Over the years three of these sequence numbers have grown substantially and may soon exceed the maximum size defined for them in the database. The simple types in aseXML which correspond to these three database sequences are • CATSRequestIdentifier • CATSObjectionIdentifier • MDMActivityIdentifier

These Change Requests are available from the ASWG or the aseXML website (www.aseXML.com) for review by all impacted parties.

3. Impact Summary

This table identifies the files, transactions and versioned types that are changed in this schema, where:

- Modified types - is a full list of types changed in this schema
- Derived types – is a list of any types that are derived from a modified type, and are therefore also modified by default
- Versioned types affected – is a list of all versioned types that will need to have the version attribute updated to use this schema
- Transactions potentially affected – is a list of all transactions that contain a modified type, either directly or via a type sustitution
- Schema files affected – is a list of schema files that have been changed in some way for this schema.

Modified type	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
				aseXML_r28.xsd
				Events_r28.xsd
ElectricityNMIMasterGroup		ElectricityNMIMasterRow ElectricityNMIMasterRowBDT ElectricityCATSChangeRequestNMIMasterRow CATSBulkDataResponse ReplicationNotification ReportResponse	CATSBulkDataResponse ReplicationNotification ReportResponse	ElectricityMaster StandingData.xsd

Modified type	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
ElectricityMasterStanding Data			AmendMeterRouteDetails CATSChangeRequest CATSDataRequest CATSNotification MeterDataHistoryRequest MeterDataMissingNotification MeterDataVerifyRequest MeterDataVerifyResponse MeterReadingReferenceDataResponse MeterReadInputNotification NMIDiscoveryResponse NMIStandingDataResponse NMIStandingDataUpdateNotification ReportResponse ServiceOrderRequest ServiceOrderResponse SpecialReadRequest SpecialReadResponse	ElectricityMaster StandingData.xsd
None	GasStandingDataUpdate	GasStandingData	AccountCreationNotification AmendMeterRouteDetails CATSDataRequest CATSChangeRequest CATSNotification GasMeterNotification NMIDiscoveryResponse	Gas_r29.xsd

Modified type	Derived types	Versioned types affected	Transactions potentially affected	Schema files affected
CATSRequestIdentifier	CATSNewParticipantAccessReportParameters CATSChangeRequestRow ElectricityCATSChangeRequestNMIRoleRow CATSNotificationRow CATSChangeRequestData CATSChangeRequestNotificationData CATSChangeRequestNotificationData CATSObjectionData CATSObjectionNotificationData	ElectricityCATSChangeRequestNMIMasterRow ElectricityCATSChangeRequestNMIDataStreamRow ElectricityCATSChangeRequestNMIMeterRow ElectricityCATSChangeRequestNMIMeterRegisterRow CATSChangeResponseRow CATSObjectionRow CATSObjectionResponseRow CATSChangeRequest CATSNotification CATSObjectionRequest CATSObjectionNotificationData CATSChangeResponse CATSChangeWithdrawal CATSObjectionWithdrawal CATSDataRequest CATSChangeAlert	ReportRequest ReportResponse CATSChangeRequest CATSChangeResponse CATSObjectionRequest CATSObjectionResponse CATSObjectionResponse CATSNotification CATSChangeWithdrawal CATSObjectionWithdrawal CATSDataRequest CATSChangeAlert	CATSTableReplication_r25.xsd CustomerTransfer_r20.xsd
CATSObjectionIdentifier	CATSNotificationRow	CATSObjectionRow CATSObjectionResponseRow CATSObjectionNotificationData CATSObjectionResponse CATSObjectionWithdrawal	CATSObjectionResponse CATSObjectionWithdrawal CATSNotification	CATSTableReplication_r25.xsd CustomerTransfer_r20.xsd
MDMActivityIdentifier		MeterDataResponse	MeterDataResponse	MeterDataManagement_r25.xsd

4. File Change Summary

The following file changes are implemented to create the r29 schema version

aseXML_r29.zip

4.1. aseXML_r29

- Changed aseXML namespace to urn:aseXML:r29
- R29 files included:

4.2. Events_r29

- r29 version type added

4.3. ElectricityMasterStandingData.xsd

- Add a simple type definition named "EMSD_CustomerClassificationCode".
  The type definition is a variable length string with maximum length of 20 characters.
- Add a simple type definition named "EMSD_CustomerThresholdCode".
  The type definition is a variable length string with maximum length of 20 characters.
- Add an element named "CustomerClassificationCode" to group "ElectricityNMIMasterGroup".
  The new element can be null and has type "EMSD_CustomerClassificationCode".
- Add an element named "CustomerThresholdCode" to group ElectricityNMIMasterGroup".
  The new element can be null and has type "EMSD_CustomerThresholdCode".
- Add an element named "CustomerClassificationCode" to type "ElectricityMasterStandingData".
  The new element can be null and has type "EMSD_CustomerClassificationCode".
- Add an element named "CustomerThresholdCode" to type " ElectricityMasterStandingData ".
  The new element can be null and has type "EMSD_CustomerThresholdCode".

4.4. Common_r29.xsd

- Add a simple type definition named "CustomerClassificationCode".
  The type definition is a variable length string with maximum length of 20 characters.
- Add a simple type definition named “CustomerThresholdCode".
  The type definition is a variable length string with maximum length of 20 characters.

4.5. Gas_r29.xsd

- Add an element named "CustomerClassificationCode" to group "GasMasterStandingData".
  The new element can be null and has type "CustomerClassificationCode".
- Add an element named "CustomerThresholdCode" to group “GasMasterStandingData".
  The new element can be null and has type "CustomerThresholdCode".
- Change NMIStandingData version to r29

4.6. MeterDataManagement_r29.xsd

- Change the max value from 9999999999 to 999999999999999 (from 10 digits to 15 digits) for simple type MDMActivityIdentifier
- Change the version of attribute of complex type MeterDataResponse from “type=r26, use=required” to “type=r29, use=optional”

4.7. CustomerTransfer_r29.xsd

- Change the max value from 9999999999 to 999999999999999 (from 10 digits to 15 digits) for simple types CATSRequestIdentifier and CATSObjectionIdentifier
- For the following complex types change the version attribute to type=r29, and make use=optional if currently use=required
    - CATSChangeRequest
    - CATSNotification
    - CATSObjectionRequest
    - CATSChangeResponse
    - CATSChangeWithdrawal
    - CATSObjectionWithdrawal
    - CATSDataRequest
    - CATSChangeAlert
    - CATSObjectionNotificationData
    - CATSObjectionResponse
    - CATSObjectionWithdrawal

4.8. CATSTableReplication_r29.xsd

- For the following complex types change the version attribute to type=r29, and make use=optional if currently use=required
    - ElectricityCATSChangeRequestNMIMasterRow
    - ElectricityCATSChangeRequestNMIDataStreamRow
    - ElectricityCATSChangeRequestNMIMeterRow
    - ElectricityCATSChangeRequestNMIMeterRegisterRow
    - CATSChangeResponseRow
    - CATSObjectionRow
    - CATSObjectionResponseRow
    - CATSObjectionRow
    - CATSObjectionResponseRow

5. Schema Manifest

The table below shows the schema files included in this release. Files that have been added, removed or modified for this release are marked.

File names	Added	Removed	Modified
Acknowledgements_r15.xsd			
aseXML_r29.xsd			Yes
BAR_r15.xsd			
BulkDataTool_r15.xsd			
CATSReports_r28.xsd			
CATSTableReplication_r29.xsd			Yes
ClientInformation_r15.xsd			
Common_r29.xsd			Yes
CustomerDetails_r19.xsd			
CustomerTransfer_r29.xsd			Yes
Electricity_r25.xsd			
ElectricityHighSpeedMonitoring_r26.xsd			
ElectricityMMS_r28.xsd			
ElectricityMasterStandingData.xsd			Yes
Enumerations.xsd			
Events_r29.xsd			Yes
Faults_r15.xsd			
Gas_r29.xsd			Yes
GasMarketWholesale_r20.xsd			
Header_r28.xsd			
HighSpeedMonitoring_r26.xsd			
MarketWholesale_r20.xsd			
MDMTReport_r15.xsd			
MeterDataManagement_r29.xsd			Yes
NetworkBilling_r15.xsd			
NMIDataAccess_r17.xsd			
NOSAssessment_r28.xsd			
NOSBooking_r28.xsd			
NOSCommon_r28.xsd			
NOSEquipment_r18.xsd			
OneWayNotification_r25.xsd			
Reports_r22.xsd			
ServiceOrder_r17.xsd			
TableReplication_r15.xsd			
Transactions_r28.xsd			
No of files added	0		
No of files removed		0	
No of files modified			8
Total No of files			35

6. Schema Test

6.1. Test Platforms[1]

The new schema has been tested using the following platforms:

- XMLSpy 2012 (XMLSpy 2010 was unavailable)
- MSXML6
- Xerces 2.2.1 and 2.9.1

6.2. Test Cases – Change Related

Included below are the sample XML messages and test results from the various parsers:

XML Samples Tested	Expected validation failures[2]	Sample XML files	Sample Test Results
21	2	AseXML_r29_change_examples.zip	asexml_r29_change_example_test_results.zip

All transactions listed below were confirmed to be valid XML samples with the expected exceptions of:

- NMIStandingDataResponse_Gas_r29_Invalid_lessThanOneChar.xml
- NMIStandingDataResponse_Gas_r29_Invalid_MoreThan20Char.xml

Change Request 45:
catsm_energyap_5054_CustClass_r29.xml
catsm_energyapbatch_2501_CustClass_r29.xml
catsm_wbaympa_C1_NMI_DATA_CustClass_r29.xml
catsm_ReplicationNotificationAddress_r29.xml
catsm_NMIStandingDataResponse_r29.xml

Change Request 46:
AccCreationNotification_Gas_r29.xml
AmendMeterRouteDetails(SiteAccess)_Gas_r29.xml
CATSChangeRequest_Gas_r29.xml
CATSDataRequest_Gas_r29.xml
CatsNotification_Gas_r29.xml
CATSObjectionNotification_Gas_r29.xml
MeterNotificationMeterFix_Gas_r29.xml
NMIStandingDataResponse_Gas_r29.xml
NMIStandingDataResponse_Gas_r29_Invalid_lessThanOneChar.xml
NMIStandingDataResponse_Gas_r29_Invalid_MoreThan20Char.xml

Change Request 47:
CATSNotification_r29.xml
DataRequest_r29.xml
MeterDataResponseConsumption_r29.xml

[1] The schema did not pass validation test on Xerces 1.4.4. However ASWG is considering upgrading test platforms to later versions of Xerces, MSXML and XMLSPY.
[2] Some test cases are used to demonstrate that the XSD validation will reject an XML message.

ReplicationNotificationCATSChangeResponse_r29.xml
ReportRequestNewParticipantAccess_r29.xml
ReportResponseChangeManagement_r29.xml

6.3. Test Cases – Regression Test Set

The table below outlines the test sets used for regression testing.

Market Segment	XML Samples Tested	Samples updated to conform with the new release	Expected validation failures[3]	Sample XML files	Test Results (for all parsers)
NEM B2B	51	0	0	NEM_B2B.zip	NEM_B2B_results.zip
NEM MSATS	68	15	0	NEM_MSATS.zip	NEM_MSATS_Results.zip
New Wholesale	29	0	2	NEW_WholeSale.zip	New_Wholesale_Results.z
SA WA Gas	17	17	0	SA_WA_Gas.zip	SA_WA_GAS_Results.zip
Vic Gas	62	36	0	VIC_Gas.zip	VIS_GAS_Results.zip

7. ASWG Endorsement

The ASWG votes for endorsement of the schema, with the included aseXML Change Requests, and the voting results are forwarded to AEMO for approval. When 75% of those ASWG members who voted endorse a schema, this represents an ASWG Recommendation for that schema. AEMO will not reject an ASWG Recommendation without first consulting with the ASWG.

The results of the ASWG vote for the final schema to be released are as follows:

Date of Vote: 21/10/2011

Option	# Votes	% Vote
For	3	100%
Against		
Abstained		
Total Members Present	3	100%

[3] Some test cases are used to demonstrate that the XSD validation will reject an XML message.

8. AEMO Approval

The schema approval and approval date are identified below

Status	Date	Authorised by
Approved – The schema has been approved by AEMO and is formally released for use		