|  |
| --- |
| Schema ReleaseAseXML Schema Working GroupRelease r41 |

May 2021

Draft Release Date: 09/April/2021

Final Release Date: 14/May/2021

Version Control

|  |  |  |
| --- | --- | --- |
| Version | Release date | Changes |
| 0.1 | 14 May 2020 | Creation |
|  |  |  |
|  |  |  |

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# Introduction

Version r41 of the aseXML schema has been developed from r40. 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.

# Change Requests

The proposed changes are listed in the following table.

|  |  |  |
| --- | --- | --- |
| **Item#** | **Change Description** | **Change Type[[1]](#footnote-1)** |
| 1 | PlannedInterruptionNotification (PIN) Enhancements:* Add ServiceOrderID field to PIN transaction
* Update existing ‘ReasonforInter’ field in PIN transaction to add new values to enumeration
* PIN Uses - Configuration
 | New |
| 2 | 7 new fields to be added to Service Orders (SO) | New |
| 3 | New Customer Type Value | Enhancement |

1. Proposed Changes

### PlannedInterruptionNotification (PIN) Enhancements

The PIN is a One Way Notification. The enhancements to the PIN allow the streamlining of existing processes.

#### Add ServiceOrderID field to PIN transaction

A new field in the former transaction must be introduced in order to link Planned Interruption Notices with their associated Service Orders. This field will require a new field to be added to the schema.

The new field is described below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Field**  | **Format**  | **Use**  | **Definition**  |
| *ServiceOrderID*  | VARCHAR (15)  | R  | A defined reference, used for reference and tracking.  Format must exactly match that used in the ServiceOrderRequest (including leading or trailing zeros and spaces).  |

#### PIN Uses – Configuration

The B2B consultation proposes several configuration changes to the uses of several fields in the Planned Interruption Notification transaction. The changes to the fields are described below.

It is preferred that the changes requested for the Planned Interruption Notification are made non-versioned enumerated to be future-configurable. This means if further changes such as the use of fields, or the content of the string values should be able to be updated without a schema change.

|  |  |  |  |
| --- | --- | --- | --- |
|  **Field**  | **Format**  | **Use**  | **Definition**  |
| *ReasonForInter*  | VARCHAR(50)  | M~~O~~ | The reason for planned interruption.  Allowed values: Meter Exchange - Individual Meter Exchange - Rollout Meter Replacement – Family Maintenance Meter Test Meter Fault Investigation Distribution Works Meter Installation – Additional Install Controlled Load Remove Meter Move Meter Meter Reconfiguration Other  |

The Use field is defined in the One Way Notification Process document as correlating to the following:

M = Mandatory (must be provided in all situations).
R = Required (must be provided if this information is available or has changed).
O = Optional (may be provided and should be used if provided).
N = Not required (not required and may be ignored if provided).

**So, the schema changes for PIN are as follows:**

* **Addition of new field ServiceOrderID**
* **Update existing enumeration ‘*ReasonForInter*’ to add new values.**
* **Update the version attribute of PlannedInterruptionNotification from r36 to r41**

### 7 new fields to be added to Service Orders (SO)

The fields to be added to the Service Order Requests and their corresponding Service Orders are described in the table below. As above, these fields should be future-configurable, in that changing them in the future should not require a schema change.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Field** | **Format** | **Definition** | **Metering Service Works Install Meter** | **Metering Service Works Move Meter** | **Metering Service Works Exchange Meter** | **Metering Service Works Remove Meter** | **Metering Service Works Install Controlled Load** | **Metering Service Works Meter Reconfiguration** | **Metering Service Works****Meter Investigation - All****AND Reseal Device andChangeTimeSwitch** |
| *RegClassification*  | VARCHAR(40)  | Use to indicate whether it is customer Initiated and regulatory timeframes apply, or not. * Customer Initiated
* Malfunction
* New Meter Deployment
* Shared Fuse
* Other

Not Required when a Distributor is the Recipient of a ServiceOrderRequest. If ‘Other’ is selected, it is Mandatory to provide details in SpecialInstructions.  | O/N  | N  | O/N  | N  | N  | N  | N  |
| *PurposeOfRequest*  | VARCHAR(40)  | Used to clearly indicate the purpose of visit – allowable values  * New connection,
* Additional Meter,
* Part of BTS Temp to Perm,
* Part of supply alteration,
* Bidirectional flows at premises
* Bypassed Customer
* Communications Remove
* Communications Install
* Revenue Protection
* Site Abolishment
* Family Failure
* Fault
* Retailer Led
* None
* Other

Not Required when a Distributor is the Recipient of a ServiceOrderRequest. If ‘None’ or a blank entry or ‘Other’ are selected, it is Mandatory to provide details in SpecialInstructions.  | O/N  | O/N  | O/N  | N  | N  | O/N  | O/N  |
| *CustomerNotificationMethod*  | VARCHAR(40)  | This is the method by which the notice of interruption to the customer is to be delivered. This is used when the Recipient is to issue the notice on behalf of the Initiator. Allowable values are: * Post
* Email
* SMS
* Waiver
* Phone

Not Required when a Distributor is the Recipient of a ServiceOrderRequest. If ‘Email’ is selected, it is Mandatory to provide details in *CustomerNotificationEmail*. If ‘Post’ is selected, it is Mandatory to provide details in *CustomerNotificationAddress*. If ‘Phone’ or ‘SMS’ are selected, it is Mandatory to provide details in *CustomerContactTelephoneNumber.* If ‘Waiver’ is selected, it is Mandatory to populate*CustomerAgreedStartDate*and &*CustomerAgreedEndDate*or*CustomerPreferredDate*  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  |
| *Escalation*  | VARCHAR(40)  | Used to indicate the Service Order is to be prioritised over other Service Orders. Initiator and Recipient must agree the circumstances and indicator to be used. Allowable values are: * Complaint
* Ombudsman
* VIP
* No Supply
* Other

Where “Other” is used ,*SpeciaIlinstructions* should contain a code that is agreed between the Initiator and Recipient e.g. [PRIORITY=abc] If the field is unpopulated, it should be assumed that the escalation level of the transaction is ‘Normal’. Not Required when a Distributor is the Recipient of a ServiceOrderRequest. If ‘Other’ is selected, it is Mandatory to provide details in*SpecialInstructions*.  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  |
| *ExemptionCode*  | VARCHAR(40)  | AEMO assigned malfunction exemption code. Used to communicate the exemption code that the MC has been allocated to the MP. Not Required when a Distributor is the Recipient of a ServiceOrderRequest.  | N  | O/N  | O/N  | N  | N  | N  | N  |
| *CustomerAgreedStartDate*  | DATE  | The earliest date for the provision of the service as agreed between the Initiator and customer. Not Required when a Distributor is the Recipient of a ServiceOrderRequest.  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  |
| *CustomerAgreedEndDate*  | DATE  | The last date for the provision of the service as agreed between the Initiator and customer. Not Required when a Distributor is the Recipient of a ServiceOrderRequest.  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  | O/N  |

To summarise the above table, the aforementioned fields are to be added as Optional fields to the Service Order Request transactions:

**Schema changes required are as follows:**

* **Addition of 5 new fields as enumerated list with allowed values**
* **Addition of 2 new fields as Date type.**
* **Update version attribute for ServiceOrderRequest from r36 to r41**

**Note**: CustomerNotificationAddress is another new element specified in the B2B procedures, but will be just the ***PostalAddress*** of the ***ContactDetail*** ( which is derive from CustomerDetail complex Type). Ie no schema change required.

### New Customer Type Value

The CustomerType field in the Service Order transaction requires a new enumeration so that an Allocate NMI request for a non-contestable unmetered load (NCONUML) can be communicated. This new enumeration is NCONUML.

**Schema changes required are as follows:**

* **Move the existing enumeration form versioned xsd file CustomerDetails\_rXX.xsd to ElectricityEnumerations.xsd**
* **Add the new value NCONUML to existing enumeration ‘CustomerType’**

## Reason for Change

These changes are made in the interests of improving efficiency, reducing costs and ensuring compliance with the National Electricity Objective. These changes were consulted and agreed upon in 2020.

The addition of 8 new fields to the Service Order transaction supports better communication between Initiators and Recipients of transactions by ensuring higher quality of data and automating existing manual processes. Currently this information is being communicated using special instructions in the service order (SO).

The enhancement of the PIN and removal of the MXN will streamline existing processes and link outages to the Service Orders that prompt them.

The NCONUML CustomerType Value is being introduced to facilitate the implementation of Global Settlement.

For further information about this proposal please see the Final Report consultation paper published on AEMO website. Click [here](https://aemo.com.au/en/consultations/current-and-closed-consultations/b2b-procedures-v3-4-consultation) to view these papers.

# 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 substitution
* Schema files affected – is a list of schema files that have been changed in some way for this schema.
1. Impacted items

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Modified types** | **Derived types** | **Versioned types affected** | **Transactions potentially affected** | **Schema files affected** |
|  |  | Events\_r41.xsd,Electricity\_r41.xsd,Common\_r41.xsd,CustomerDetails\_r41.xsd,ServiceOrder\_r41.xsd,OneWayNotification\_r41.xsd | * ServiceOrders
* Metering Service Works
* Re-energisation
* De-energisation
* Special Read
* Miscellaneous
* OneWayNotification
* PlannedInterruptionNotification
 | aseXML\_r41.xsd |
| R41 |  |  |  | Events\_r41.xsd |
| ElectricityServiceOrderDetails - RegClassification, PurposeOfRequest, Escalation, ExemptionCode |  | ElectricityServiceOrderDetails | * ServiceOrders
* Metering Service Works
 | Electricity\_r41.xsd |
| AppointmentDetail – CustomerNotificationMethod, CustomerAgreedStartDate,CustomerAgreedEndDate |  |  | * ServiceOrders
* Re-energisation
* De-energisation
* Special Read
* Miscellaneous
* Metering Service Works
 | Common\_r41.xsd |
| CustomerType |  |  | * ServiceOrders
* Metering Service Works
 | CustomerDetails\_r41.xsd |
| ReasonForInter |  |  | * PlannedInterruptionNotification
 | ElectricityEnumerations.xsd |
| ServiceOrderRequest |  | ServiceOrderRequest | * ServiceOrders
* Metering Service Works
 | ServiceOrder\_41.xsd |
| PlannedInterruptionNotification –ServiceOrderNumber, ReasonForInter |  | PlannedInterruptionNotification | * PlannedInterruptionNotification
 | OneWayNotification\_r41.xsd |

# File Change Summary

The following file changes are implemented to create the r41 schema version

## aseXML

Changed aseXML namespace to urn:aseXML:r41

## Changes

The following changes have been implemented in this draft:

|  |  |  |  |
| --- | --- | --- | --- |
| **Chg #** | **Item #** | **Description of change** | **Filename** |
| 1 |  | * Replace version of schema from r40 to r41
* Rename file to r41 version.
 | aseXML\_r41.xsd |
| 2 |  | * Registration of r41 release
* Rename file to r41 version.
 | Events\_r41.xsd |
| 3 | 2 | * Add new enumeration element ‘CustomerNotificationMethod’ to existing ‘AppointmentDetail’ complex type.
* Add 2 new Date type elements to existing ‘AppointmentDetail’ complex type : CustomerAgreedStartDate, CustomerAgreedEndDate
* Rename file to r41 version.
 | Common\_r41.xsd |
| 4 | 3 | * Remove existing enumeration ‘CustomerType’ -> moved to ElectricityEnumeration.xsd
* Rename file to r41 version.
 | CustomerDetails\_r41.xsd |
| 5 | 2 | * Add 3 new enum elements to existing complex type ‘ElectricityServiceOrderDetails’ element : RegClassification, PurposeOfRequest, Escalation
* Add new String type element to existing complex type ‘ElectricityServiceOrderDetails’ element : ExemptionCode
* Updated the version attribute of ‘ServiceOrderRequest’ from 36 to r41
* Rename file to r41 version
 | Electricity\_r41.xsd |
| 6 | 1,2,3 | * Update existing element ‘ReasonForInter’ enumeration to add new allowed values.
* Add ‘CustomerType’ enumeration
* Update ‘CustomerType’ enumeration to add new allowed value.
* Add new enumerations : RegClassification,

PurposeOfRequest,  CustomerNotificationMethod Escalation | ElectricityEnumerations.xsd |
| 8 | 1 | * Add ‘ServiceOrderNumber’ to existing complex type ‘PlannedInterruptionNotification’ element.
* Updated the version attribute of ‘PlannedInterruptionNotification’ from 36 to r41
* Rename file to r41 version.
 | OneWayNotification\_r41.xsd |
| 9 | 2 | * Updated the version attribute of ‘ServiceOrderRequest’ from 36 to r41
* Rename file to r41 version
 | ServiceOrder\_r41.xsd |

1. Change Log

### Schema change description

#### aseXml\_r41.xsd

* New file to replace aseXML\_r40.xsd and include the r41 file versions listed below.

<xsd:schema xmlns="urn:aseXML:r41" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" targetNamespace="urn:aseXML:r41" version="r41" xsi:schemaLocation="urn:aseXML:r41 aseXML\_r41.xsd">

<xsd:include schemaLocation="Events\_r41.xsd">

<xsd:include schemaLocation="Electricity\_r41.xsd">

<xsd:include schemaLocation="Common\_r41.xsd">

<xsd:include schemaLocation="CustomerDetails\_r41.xsd">

<xsd:include schemaLocation="ServiceOrder\_r41.xsd">

<xsd:include schemaLocation="OneWayNotification\_r41.xsd">

#### Common\_r41.xsd

* Added new enumeration element to existing ‘AppointmentDetail’ complex type : **CustomerNotificationMethod**.
* Added 2 new Date type elements to existing ‘AppointmentDetail’ complex type : **CustomerAgreedStartDate**, **CustomerAgreedEndDate**
* Rename file to r41 version.

<xsd:complexType name="AppointmentDetail">

<xsd:annotation>

 <xsd:documentation>Schema - Appointments</xsd:documentation>

</xsd:annotation>

 <xsd:sequence>

 <xsd:element name="Reference" type="UniqueIdentifier" minOccurs="0"/>

 <xsd:element name="ScheduledDate" type="xsd:date" minOccurs="0"/>

 <xsd:element name="Preferred" type="AppointmentDateTime" minOccurs="0"/>

 <xsd:element name="CustomerNotificationMethod" type="CustomerNotificationMethod" minOccurs="0"/>

 <xsd:element name="CustomerAgreedStartDate" type="xsd:date" minOccurs="0"/>

 <xsd:element name="CustomerAgreedEndDate" type="xsd:date" minOccurs="0"/

 </xsd:sequence>

</xsd:complexType>

 

#### Events\_r41.xsd

* New file to replace Events\_r40.xsd and include the r41 release identifier as below:

<xsd:simpleType name="r41">

 <xsd:annotation>

 <xsd:documentation>Purpose - Release r41 identifier.</xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="ReleaseIdentifier">

 <xsd:enumeration value="r41"/>

 </xsd:restriction>

</xsd:simpleType>

#### CustomerDetails\_r41.xsd

* Move existing enumeration ‘CustomerType’ to ElectricityEnumeration.xsd

#### Electricity\_r41.xsd

* Added 3 new enumeration list elements to existing complex type ‘ServiceOrderRequestData’ element : RegClassification, PurposeOfRequest, Escalation
* Added new string type element to existing complex type ‘ServiceOrderRequestData’ element : ExemptionCode
* Updated the version attribute of ‘ElectricityServiceOrderDetails’ from 36 to r41
* Rename file to r41 version.

<xsd:complexType name="ElectricityServiceOrderDetails">

<xsd:annotation>

 <xsd:documentation>Purpose - Defines the data type for new connection and meter additions and alterations

 v36.1. WL. Change LifeSupport to be optional field.

 </xsd:documentation>

</xsd:annotation>

<xsd:complexContent>

 <xsd:extension base="ServiceOrderRequestData">

 <xsd:sequence>

 <xsd:element name="CustomerConsultationRequired" type="xsd:boolean"/>

 <xsd:element name="InstallationType" type="InstallationType" minOccurs="0"/>

 <xsd:element name="SupplyPhase" type="SupplyPhase" minOccurs="0"/>

 <xsd:element name="AverageDailyLoad" type="AveragedDailyLoad" minOccurs="0"/>

 <xsd:element name="CustomerType" type="CustomerType" minOccurs="0"/>

 <xsd:element name="MeteringType" type="MeteringType" minOccurs="0"/>

 <xsd:element name="OffPeakRequirements" type="SpecialComments" minOccurs="0"/>

 <xsd:element name="MaximumDemand" type="MeterDemand" minOccurs="0"/>

 <xsd:element name="ServiceTime" type="ServiceTimeType" minOccurs="0"/>

 <xsd:element name="SwitchingServiceRequired" type="SwitchingServiceRequired" minOccurs="0"/>

 <xsd:element name="ConfirmedDe-energisation" type="xsd:boolean" minOccurs="0"/>

 <xsd:element name="License" type="License" minOccurs="0"/>

 <xsd:element name="MeterLicense" type="License" minOccurs="0"/>

 <xsd:element name="De-energisationReason" type="De-energisationReason" minOccurs="0"/>

 <xsd:element name="LifeSupport" type="YesNo" minOccurs="0"/>

 <xsd:element name="Co-ordinationRequired" type="YesNo" minOccurs="0"/>

<xsd:element name="RegClassification" type="RegClassification" minOccurs="0"/>

 <xsd:element name="PurposeOfRequest" type="PurposeOfRequest" minOccurs="0"/>

 <xsd:element name="Escalation" type="Escalation" minOccurs="0"/>

 <xsd:element name="ExemptionCode" type="xsd:string" minOccurs="0"/>

 </xsd:sequence>

 <xsd:attribute name="version" type="r41" use="optional" default="r41"/>

 </xsd:extension>

</xsd:complexContent>

</xsd:complexType>



#### ElectricityEnumerations.xsd

* Update existing enumeration ‘ReasonForInter’ to add new allowed values.
* Moved existing enumeration ‘CustomerType’ from CustomerDetails\_rXX.xsd
* Update existing enumeration ‘CustomerType’ to add new allowed value.
* Added new enumeration list elements : RegClassification, PurposeOfRequest, CustomerNotificationMethod and Escalation.

<xsd:simpleType name="CustomerType">

 <xsd:annotation>

 <xsd:documentation>Purpose - Defines a list of valid customer types</xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:enumeration value="Industrial"/>

 <xsd:enumeration value="Commercial"/>

 <xsd:enumeration value="Residential"/>

 <xsd:enumeration value="Farm"/>

 <xsd:enumeration value="Lighting"/>

<xsd:enumeration value="NCONUML"/>

 </xsd:restriction>

 </xsd:simpleType>



 <xsd:simpleType name="ReasonForInter">

 <xsd:annotation>

 <xsd:documentation>

 Purpose - Define the fixed Reasons for interruption

 Version 1.0 additions

 - Meter Exchange - Individual

 - Meter Exchange - Rollout

 - Meter Replacement - Family Maintenance

 - Meter Test

 - Meter Fault Investigation

 - Distribution Works

 - Meter Installation – Additional

 - Install Controlled Load

 - Remove Meter

 - Move Meter

 - Meter Reconfiguration

 - Other

 Version 1.1 update

 - Replace en dash in Meter Replacement - Family Maintenance with proper hyphen due to UTF-8 limitation.

 Version 1.2 update

 - Addition of new enum values as per B2B v3.4 and v3.5 Consultation.

 </xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:maxLength value="50"/>

 <xsd:enumeration value="Meter Exchange - Individual"/>

 <xsd:enumeration value="Meter Exchange - Rollout"/>

 <xsd:enumeration value="Meter Replacement - Family Maintenance"/>

 <xsd:enumeration value="Meter Test"/>

 <xsd:enumeration value="Meter Fault Investigation"/>

 <xsd:enumeration value="Distribution Works"/>

 <xsd:enumeration value="Meter Installation – Additional"/>

 <xsd:enumeration value="Install Controlled Load"/>

 <xsd:enumeration value="Remove Meter"/>

 <xsd:enumeration value="Move Meter"/>

 <xsd:enumeration value="Meter Reconfiguration"/>

 <xsd:enumeration value="Other"/>

 </xsd:restriction>

 </xsd:simpleType>

 

 <xsd:simpleType name="RegClassification">

 <xsd:annotation>

 <xsd:documentation>

 Purpose - Use to indicate whether it is customer Initiated and regulatory timeframes apply, or not.

 Version 1.0 additions

 - Customer Initiated

 - Malfunction

 - New Meter Deployment

 - Shared Fuse

 - Other

 </xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:maxLength value="40"/>

 <xsd:enumeration value="Customer Initiated"/>

 <xsd:enumeration value="Malfunction"/>

 <xsd:enumeration value="New Meter Deployment"/>

 <xsd:enumeration value="Shared Fuse"/>

 <xsd:enumeration value="Other"/>

 </xsd:restriction>

 </xsd:simpleType>



 <xsd:simpleType name="PurposeOfRequest">

 <xsd:annotation>

 <xsd:documentation>

 Purpose - Used to clearly indicate the purpose of visit

 Version 1.0 additions

 - New connection

 - Additional Meter

 - Part of BTS Temp to Perm

 - Part of supply alteration

 - Bidirectional flows at premises

 - Bypassed Customer

 - Communications Remove

 - Communications Install

 - Revenue Protection

 - Site Abolishment

 - Family Failure

 - Fault

 - Retailer Led

 - None

 - Other

 </xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:maxLength value="40"/>

 <xsd:enumeration value="New connection"/>

 <xsd:enumeration value="Additional Meter"/>

 <xsd:enumeration value="Part of BTS Temp to Perm"/>

 <xsd:enumeration value="Part of supply alteration"/>

 <xsd:enumeration value="Bidirectional flows at premises"/>

 <xsd:enumeration value="Bypassed Customer"/>

 <xsd:enumeration value="Communications Remove"/>

 <xsd:enumeration value="Communications Install"/>

 <xsd:enumeration value="Revenue Protection"/>

 <xsd:enumeration value="Site Abolishment"/>

 <xsd:enumeration value="Family Failure"/>

 <xsd:enumeration value="Fault"/>

 <xsd:enumeration value="Retailer Led"/>

 <xsd:enumeration value="None"/>

 <xsd:enumeration value="Other"/>

 </xsd:restriction>

 </xsd:simpleType>



 <xsd:simpleType name="CustomerNotificationMethod">

 <xsd:annotation>

 <xsd:documentation>

 Purpose - Used to clearly indicate the method by which the notice of interruption to the customer is to be delivered.

 Version 1.0 additions

 - Post

 - Email

 - SMS

 - Waiver

 - Phone

 </xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:maxLength value="40"/>

 <xsd:enumeration value="Post"/>

 <xsd:enumeration value="Email"/>

 <xsd:enumeration value="SMS"/>

 <xsd:enumeration value="Waiver"/>

 <xsd:enumeration value="Phone"/>

 </xsd:restriction>

 </xsd:simpleType>



 <xsd:simpleType name="Escalation">

 <xsd:annotation>

 <xsd:documentation>

 Purpose - Used to indicate the Service Order is to be prioritised over other Service Orders.

 Version 1.0 additions

 - Complaint

 - Ombudsman

 - VIP

 - No Supply

 - Other

 </xsd:documentation>

 </xsd:annotation>

 <xsd:restriction base="xsd:string">

 <xsd:maxLength value="40"/>

 <xsd:enumeration value="Complaint"/>

 <xsd:enumeration value="Ombudsman"/>

 <xsd:enumeration value="VIP"/>

 <xsd:enumeration value="No Supply"/>

 <xsd:enumeration value="Other"/>

 </xsd:restriction>

 </xsd:simpleType>

 

#### OneWayNotification\_r41.xsd

* Added ‘ServiceOrderNumber’ to existing complex type ‘PlannedInterruptionNotification’ element.
* Updated the version attribute of ‘PlannedInterruptionNotification’ from 36 to r41
* Rename file to r41 version.

<xsd:complexType name="PlannedInterruptionNotification">

 <xsd:sequence>

 <xsd:element name="NMI" type="NMI"/>

<xsd:element name="ServiceOrderNumber" type="UniqueIdentifier" minOccurs="0"/>

 <xsd:element name="StartDate" type="xsd:date"/>

 <xsd:element name="StartTime" type="xsd:time"/>

 <xsd:element name="EndDate" type="xsd:date" minOccurs="0"/>

 <xsd:element name="Duration" type="Duration"/>

 <xsd:element name="ReasonForInter" type=" ReasonForInter" minOccurs="0"/>

 <xsd:element name="Notes" type="NotificationNotes" minOccurs="0"/>

 </xsd:sequence>

 <xsd:attribute name="version" type="r41" use="optional" default="r41"/>

</xsd:complexType>





#### ServiceOrder\_r41.xsd

* Updated the version attribute of ‘ServiceOrderRequest’ from 36 to r41
* Rename file to r41 version

 <xsd:complexType name="ServiceOrderRequest">

 <xsd:annotation>

 <xsd:documentation>

Application - Service Order

TransactionExchange -

TransactionGroup - SORD

Priority - Medium

Purpose - Submit Service Order Request to the Service Provider

 </xsd:documentation>

 </xsd:annotation>

<xsd:sequence>

 <xsd:element name="ServiceOrder" type="ServiceOrderHeader"/>

 <xsd:element name="ServicePoint" type="ServicePoint" minOccurs="0"/>

 <xsd:element name="ContactDetail" type="CustomerDetail" minOccurs="0"/>

 <xsd:element name="CustomerDetail" type="CustomerDetail" minOccurs="0"/>

 <xsd:element name="Co-ordinatingContactDetail" type="CustomerDetail" minOccurs="0"/>

 <xsd:element name="AppointmentDetail" type="AppointmentDetail" minOccurs="0"/>

 <xsd:element name="RequestData" type="ServiceOrderRequestData" minOccurs="0"/>

 <xsd:element name="NotifiedParties" type="NotifiedParties" minOccurs="0"/>

</xsd:sequence>

<xsd:attribute name="version" type="r41" use="optional" default="r41"/>

<xsd:attribute name="actionType" type="ActionType" default="New"/>

 </xsd:complexType>



# 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.

1. Schema Files

|  |  |
| --- | --- |
| File | Modified |
| Acknowledgements\_r15.xsd |  |
| aseXML\_r41.xsd | \* |
| BAR\_r31.xsd |  |
| BulkDataTool\_r33.xsd |  |
| CATSReports\_r39.xsd |  |
| CATSTableReplication\_r35.xsd |  |
| ClientInformation\_r36.xsd |  |
| Common\_r41.xsd | \* |
| CustomerDetails\_r41.xsd | \* |
| CustomerTransfer\_r29.xsd |  |
| ElectricityEnumerations.xsd | \* |
| ElectricityHighSpeedMonitoring\_r2 |  |
| ElectricityMasterStandingData\_r39.xsd |  |
| ElectricityMMS\_r33.xsd |  |
| Electricity\_r41.xsd | \* |
| Enumerations.xsd |  |
| Events\_r41.xsd | \* |
| Faults\_r33.xsd |  |
| GasMarketWholesale\_r34.xsd |  |
| Gas\_r40.xsd |  |
| GasEnumerations.xsd |  |
| Header\_r37.xsd |  |
| HighSpeedMonitoring\_r33.xsd |  |
| HubManagement\_r37.xsd |  |
| MarketWholesale\_r20.xsd |  |
| MDMTReports\_r39.xsd |  |
| MeterDataManagement\_r36.xsd |  |
| NetworkBilling\_r34.xsd |  |
| NMIDataAccess\_r39.xsd |  |
| NOSAssessment\_r38.xsd |  |
| NOSBooking\_r38.xsd |  |
| NOSCommon\_r38.xsd |  |
| NOSEquipment\_r33.xsd |  |
| OneWayNotification\_r41.xsd | \* |
| P2P\_r36.xsd |  |
| Reports\_r39.xsd |  |
| ServiceOrder\_r41.xsd | \* |
| TableReplication\_r33.xsd |  |
| Transactions\_r38.xsd |  |

# Schema Test

## Test

The ASWG ensures that all recommended parsers on relevant platforms can successfully validate the proposed schema.

### Test Platforms

 Supplied samples have been tested using the following parsers:

* XMLSpy
* MSXML6
* Xerces 2.9.1
* Xerces 2.2.1
* Schema comparison (r40 - r41)

### Test Cases

* NOTE: Sample filenames have been modified, where they contained a space in the name, as these failed Xerces validation

### Test Process

1. Obtain a copy of the 5 existing regression test suite XML files
	* nem\_samples\_r40.zip
	* nem\_wholesale\_samples\_r40.zip
	* nemb2b\_samples\_r40.zip
	* sawa\_samples\_r40.zip
	* vicgas\_samples\_r40.zip
2. Obtain a copy of the new R41 test suite XML files
3. Unzip all test XML files a folder
4. Replace “xmlns:ase="urn:aseXML:r40” with “xmlns:ase="urn:aseXML:r41”
5. Replace “xsi:schemaLocation="urn:aseXML:r40 [http://www.nemmco.com.au/aseXML/schemas/r40/aseXMLr40.xsd](http://www.nemmco.com.au/aseXML/schemas/r39/aseXMLr39.xsd)” with “xsi:schemaLocation="urn:aseXML:r41 S:/aseXML\_r41.xsd”
6. Check every single test XML file individually to detect variances in the above xsi:schemaLocation approach, e.g. hardcoded “O:/<filename>” instances and other occurrences not picked up by the standard search/replace above need to be manually fixed. It would be good if a single search/replace could be used for this step, and the test XML files had consistent headers.
7. Run the test process using the 4 supported XML Toolkits.
8. Check output log for any successful parse results, as well as expected or unexpected errors.

### Test Results

All OK on all Test Platforms, see section 6.1.1

* All valid test files passed with no parse error.

### Character Classification

Pattern restriction is enforced by regular expressions in some places in aseXML schema. That makes knowing the precise set of classification of characters important. It is particularly important in the testing process. In some quick tests using simple Pattern class in JAVA – not fully fledged JAVA parsers – some differences vis-à-vis XML Spy were reported. These tests were performed to validate the data stored in database against aseXML type definitions. Some characters that were treated differently between JAVA Pattern class and XML Spy were $ + |. XML Spy accepted them as punctuation characters but JAVA Pattern class rejected. Note, these three characters are only a few examples of difference, not an exhaustive list. As explained below, further investigations revealed that XML Spy is correct as per the XML standard.

The XML standards depend upon Unicode specifications for the purpose of this classification. The complete list of classification of Unicode characters in various classes can be found at <http://www.unicode.org/>.

To download the classification for any particular version of classification, start from directory listing at <http://www.unicode.org/Public> and traverse down the tree of the concerned version to download the zip (usually named ucd.zip) which contains all the documents for that version. The zip for version 6.2.0 resides at <http://www.unicode.org/Public/6.2.0/ucd/>. The document in this zip, usually named UnicodeData.txt, contains entire classification of all Unicode characters, having a line per Unicode character, with semi-colon delimited fields in each line. Explanation of fields can be found in the documentation in the zip (UCD.html). To view this UnicodeData.txt document conveniently, start Excel and open the document. While opening the document Excel will ask for information about the file contents. In response specify the document to be semicolon delimited with each column of the document being text. The column C of the Excel spreadsheet specifies the character classification. Note, while opening the file in Excel if each column is not specified to be text then Excel may format some information incorrectly.

The classification of the extended ASCII characters for version 6.2.0 of Unicode is provided here in an Excel spreadsheet :

 

The classifications starting with L signify letters, starting with N signify digits, starting with P signify punctuations, starting with S signify symbols and those starting with C signify control characters. Note, the spread sheet does not contain all the fields (columns) from the UnicodeData.txt file.

# ASWG Endorsement

With a quorum established the ASWG voted to endorse schema r41, with the included aseXML Change Requests. The voting results are forwarded to AEMO for approval. When 75% of those ASWG members vote to endorse a schema it 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: 14/05/2021

|  |  |  |
| --- | --- | --- |
| **Option** | **# Votes** | **% Vote** |
| For | 4 | 100% |
| Against | 0 | 0% |
| Abstained | 0 | 0% |
| Total Members Present | 4 | 100% |

# 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 |  |  |

1. Change Type can be one of

New

Enhancement, or

Bug Fix [↑](#footnote-ref-1)