NEMMCO

aseXML Schema Change Request

Document ID	37
Title	High Speed Monitoring (HSM) additions
Change Type	New transactions and supporting types
Date	10 September 2008
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Document Control

Version	Date	Author	Summary of Change
1.0.0	10-Sep-08	Pius Kurian	First draft
1.0.1	30-Sep-08	Pius Kurian	Modified the existing transactions to include changes suggested by ASWG to make the request and response transactions more generic
1.0.2	17-Oct-08	Pius Kurian	In consultation with NEMMCO, VENCorp decided to remove the requirement of multiple monitor requests in a single transaction. The general agreement was that this functionality could be achieved by application implementation. This way the HSM implementation could be consistent across NEMMCO, VENCorp and other TNSPs. The requirements to add "allMonitors" could be implemented without having to significantly modify the schema or making the schema structure ungainly. Since these attributes are optional, major changes are not required for existing Systems.

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Abbreviation	Description
HSM	High Speed Monitoring

1.   Change Proposal

This Change Proposal modifies existing transactions to request triggered data in the High Speed Monitoring System.

This change was necessitated by the requirements from VENCorp to have the ability to request data from the Monitors as follows:

- Triggered data for a single monitor for a specified period in one transaction

- Triggered Data for all meters for a specified period without having to specify the Monitors

- Get Triggered Data for each monitor in separate transactions. Data from different Monitors may not be combined considering the size of the data files and limitations of the B2B messaging systems

1.1.   Description of the proposed change

The proposed changes are listed in the following table.

Item#	Change Description	Change Type[1]
1	Modify Transaction type for HSM: ElectricityHSMMonitorDataRequestData, ElectricityHSMMonitorDataResponseData to cater for the new requirements	Mod

Table 1-1, Proposed Changes

1.1.1   Advantages of this approach

- Existing transactions are used for achieving the desired result

- Minimum changes to the existing schema

- Follows the request response regime and TriggeredDataNotification can be used for sending Data without a request transaction.

1.1.2   Disadvantages of this approach

- Does not have an exclusive transaction defined.

- Compatability and impact on existing Sytems need to be considered

1.2.   Reason for Change

This change is required as VENCorp should be able to request HSMTriggeredData at a regular interval or on an adhoc basis. In current architecture, VENCorp depends on the Monitors to send data using TriggeredDataNotification when an event occurs. If VENCorp did not receive data, the business is not entirely sure that there was no event that generated TriggeredData. It could be due to

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[1] Change Type can be one of
- New
- Enhancement, or
- Bug Fix

a fault or other issues at the source (fault with Monitor or data storage associated with it). SPAusNet believe that the request response regime is good for auditability. Also there is a business need to get this data at the earliest for planning purposes. So it was decided that VENCorp should be able to query the Monitors periodically to ensure that

1. VENCorp gets the information at a regular interval

2. VENCorp knows within reasonable time if there are any issues with the Monitor

3. VENCorp has the ability to request data for a specified interval

The general consensus emerged out of a combined meeting of VENCorp and SPIAusNET Business/IT group is that a periodic request is the best way to handleTriggeredData Reporting and hence the change.

1.3.   Supplied Documents

1.3.1   Business process document

All HSM documention available on request.

1.3.2   Other

1.4.   Baseline Schema

The schema used as a basis for this proposal is **aseXML_r23.xsd**.

2. Approval Proposal

2.1. Proposed Change #1[2]

2.1.1 Draft schema

Please refer to the schema files included with this proposal. The base schema is aseXML r23 and one file has been modified as detailed in the next section.

2.1.2 Change log

The following changes have been implemented in this draft:

Chg #	Item #	Description of change	Filename
1	1	Add a nillable element HSMMonitorIdentities as choice to ElectricityHSMMonitorDataRequestData in ElectricityHighSpeedMonitoring_r24.xsd file	ElectricityHighSpeedMonitoring
	2	Add an optional attribute 'allMonitors' for ElectricityHSMMonitorDataRequestData in ElectricityHighSpeedMonitoring_r24.xsd file	ElectricityHighSpeedMonitoring
	3	Add a nillable element TriggeredData as choice to ElectricityHSMMonitorDataResponseData in ElectricityHighSpeedMonitoring_r24.xsd file	ElectricityHighSpeedMonitoring
2	1	Modify the Enumeration to specify the trasaction types	Enumeration
3	1	Add new include elements for HighSpeedMonitoring and ElectricityHighSpeedMonitoring to schema element	aseXML
4	1	Add new type 'r24' for new schema version	Events

Table 2-1 Change Log

2.1.3 Schema change description

Adding support for HSM transactions

2.1.3.1 *ElectricityHighSpeedMonitoring_r24.xsd*

Existing file modified to use NonZeroLentghString type in stead of HSMComtradeTextFile type

Text added is given in bold:

```
<xsd:complexType name="ElectricityHSMMonitorDataRequestData">
        <xsd:complexContent>
                <xsd:extension base="HSMMonitorDataRequestData">
                        <xsd:sequence>
                                <xsd:element name="MonitorIdentity" type="HSMMonitorIdentity"
nillable="true"/>
                                <xsd:element name="StartTime" type="xsd:dateTime"/>
                                <xsd:element name="EndTime" type="xsd:dateTime"/>
                        </xsd:sequence>
                        <xsd:attribute name="dataCategory" use="optional"
default="ContinuousData">
                                <xsd:simpleType>
                                        <xsd:restriction base="xsd:string">
                                                <xsd:enumeration value="ContinuousData"/>
                                                <xsd:enumeration value="TriggeredData"/>
                                        </xsd:restriction>
```

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[2] This section may be repeated if more than one option is considered

```
                                        </xsd:simpleType>
                                    </xsd:attribute>
                            <xsd:attribute name="version" type="r24" default="r24"/>
                            <xsd:attribute name="allMonitors" type="xsd:boolean" use="optional"/>
                        </xsd:extension>
                    </xsd:complexContent>
            </xsd:complexType>
            <xsd:complexType name="ElectricityHSMMonitorDataResponseData">
                    <xsd:complexContent>
                            <xsd:extension base="HSMMonitorDataResponseData">
                                <xsd:sequence>
                                    <xsd:choice>
                                            <xsd:element name="ContinuousData" type="HSMMonitorData"
nillable="true"/>
                                            <xsd:element name="TriggeredData"
type="HSMMonitorData" nillable="true"/>
                                    </xsd:choice>
                                </xsd:sequence>
                                <xsd:attribute name="version" type="r24" default="r24"/>
                            </xsd:extension>
                    </xsd:complexContent>
            </xsd:complexType>
```
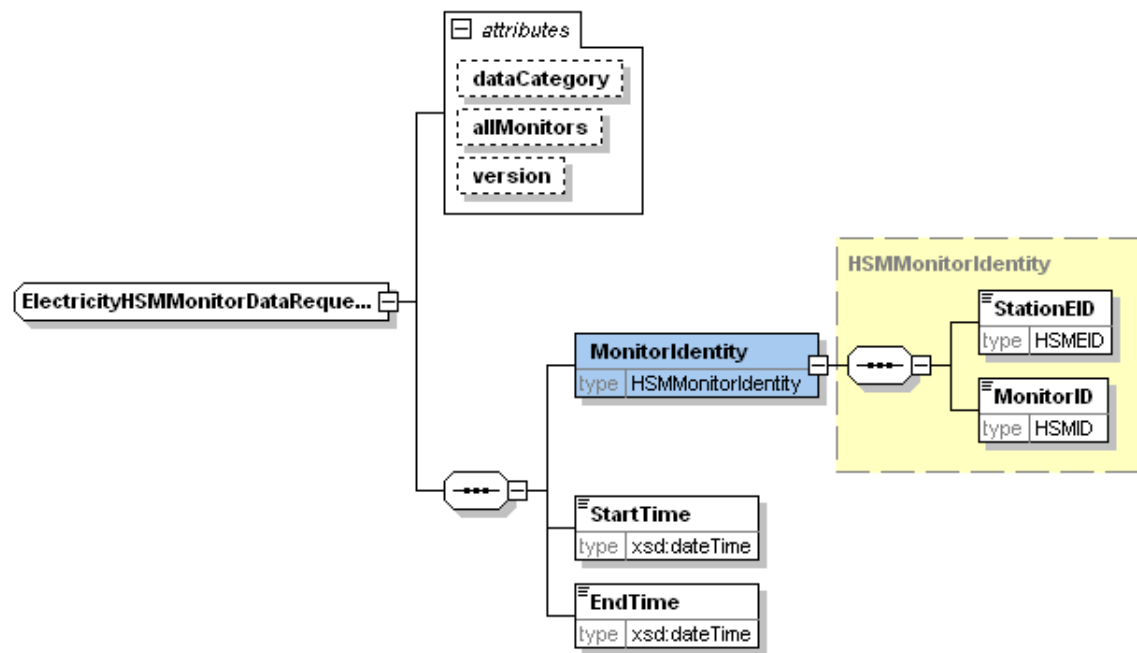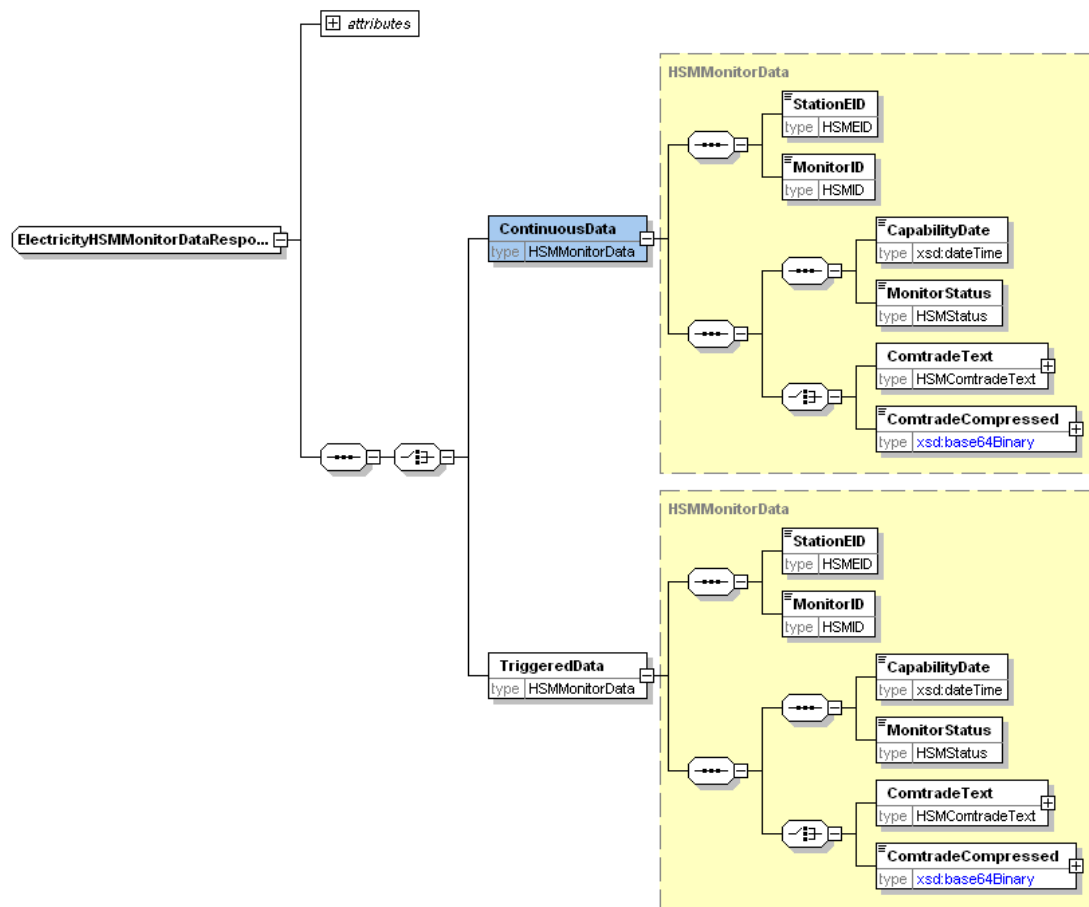

Figure 2-1 ElectricityHSMMonitorDataRequestData

Figure 2-2 ElectricityHSMMonitorDataResponseData

2.1.3.2   Enumerations.xsd

Text added is given in bold:

<xsd:simpleType name="r24">
                <xsd:annotation>
                        <xsd:documentation>Purpose - Release r24 identifier</xsd:documentation>
                </xsd:annotation>
                <xsd:restriction base="ReleaseIdentifier">
                        <xsd:enumeration value="r24"/>
                </xsd:restriction>
        </xsd:simpleType>

2.1.3.3   aseXML_r24.xsd

Text added is given in bold:

Add new include elements for **ElectricityHighSpeedMonitoring_r24.xsd** to schema element. Added text is bolded. Deleted text is bolded with strikethrough.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns="urn:aseXML:r24" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
targetNamespace="urn:aseXML:r24">
        <xsd:annotation>
                <xsd:documentation>
Purpose — Top level aseXML schema
```

… unmodified text removed for brevity …

```
</xsd:documentation>
        </xsd:annotation>
        <xsd:include schemaLocation="Events_r23.xsd">
        <xsd:include schemaLocation="Events_r24.xsd">
                <xsd:annotation>
                        <xsd:documentation>
Purpose — Include data types for status reporting
                </xsd:documentation>
                </xsd:annotation>
        </xsd:include>
```

… unmodified text removed for brevity …

```
</xsd:annotation>
        </xsd:include>
        <xsd:include schemaLocation="ElectricityHighSpeedMonitoring_r23.xsd">
        <xsd:include schemaLocation="ElectricityHighSpeedMonitoring_r24.xsd">

                <xsd:annotation>
                        <xsd:documentation>
Purpose — Include Electricity market data types for HSM transactions
```

2.1.4   Impact Summary

This change only impacts HSM users of the B2B. Schema has been modified to minimise the impact on NEMMCO and TNSPs that have already implemented r23.

2.1.5   Developer Test

2.1.5.1   Test Platforms

The new schema has been tested using the following platforms as advised by ASWG:

- o   XMLSpy 2007
- o   MSXML4 SP1
- o   Xerces 1.4.4 and 2.2.1

2.1.5.2   Test Cases

The following sample files have been included:

HSMMonitor_Triggered_Data_Response_r24.xml

HSMMonitorData_Request_All_NMI_r24.xml

HSMMonitorData_Request_Invalid_r24.xml

HSMMonitorData_Request_Triggered_Data_r24.xml

HSMMonitorData_Request_Single_NMI_r24.xml

HSMMonitorData_Response.xml

HSMMonitorData_Response_02.xml

HSMMonitorData_Response_InvalidComtradeText_01.xml

HSMMonitorData_Response_InvalidComtradeText_02.xml

HSMMonitorData_Response_InvalidComtradeText_03.xml

HSMMonitorData_Response_UnrecognisedMonitor.xml

HSMMonitorDataCompressed_Response.xml

HSMMonitors_CapabilityRequest_Nil.xml

HSMMonitors_Response_UnrecognisedMonitor.xml

HSMMonitors_StatusRequest_Nil.xml

HSMMonitorsCapabilities_Request.xml

HSMMonitorsCapabilities_Response.xml

HSMMonitorsStatus_Request.xml

HSMMonitorsStatus_Response.xml

HSMMonitorsStatusAll_Request.xml

HSMTriggeredData_Notification.xml

HSMTriggeredDataCompressed_Notification.xml

HSMTriggeredDataCompressed_Notification_Nil.xml

3. Proposal Assessment

3.1. Test

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

3.1.1 Test Platforms

Supplied samples have been tested using the following parsers:

- o MSXML 4.0 SP1
- o Xerces 1.4.1
- o Xerces 2.2.1
- o XMLSpy 2004

3.1.2 Test Cases

as per section 2.1.5.2

3.1.3 Test Results

All sample file validate OK.

3.2. Conformance Report

The ASWG completes the conformance report validating each proposed new schema file against the published aseXML guidelines.

Schema Filename	Impacted by Item #	Conformance Details
aseXML_r24.xsd	1	Conforms
Electricity_High_speed_monitoring_r24.xsd	1	Conforms
Event_r24.xsd	1	Conforms

Table 3-1, Change Proposal Conformance Details

4.   Issue Register

This section describes any issues that have arisen and any modifications that are made to the original proposal during the Change Process

4.1.   Status of Issues

Issue#	Item#	Description and Discussion	Status[3]	Resolution
1	1	ASWG observed that some elements in the proposed were redundant and the schema and expected results could be achieved by modifying the existing elements	Closed	Modified the existing transactions to include changes suggested by ASWG to make the request and response transactions more generic
2	1	NEMMCO maintained that the proposed schema would invite additional cost to those organizations already implemented r23 whenever they have to adopt a later schema	Open	In consultation with NEMMMCO, VENCorp decided to drop one of its requirements, namely, request data for multiple monitors in one transaction. The current requirements could be implemented by providing two optional attributes to RequestData element.

Table 4-1, Issues list

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[3] Either 'Open' or 'Closed'

5. Resolution

The ASWG votes for endorsement of the options identified in section 2, and the voting results are forwarded to NEMMCO for approval. When 75% of those ASWG members who voted endorse a specific option, this represents an ASWG Recommendation for that option. NEMMCO will not reject an ASWG Recommendation without first consulting with the ASWG.

5.1. ASWG Endorsement

The results of the ASWG vote are as follows:

Date of Vote: ??/??/????

Option	# Votes	% Vote
Option 1 (section 2.1)		
Option 2 (section 2.2)		
Option # (section 2.#)		
Abstained		
Total Members Present		

Table 5-1, ASWG Vote Results