

# DCC User Gateway Interface Design Specification

## Annex - Service Request Definitions 16 – DCC Alerts

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## 16 DCC Alerts

DCC Alerts are unsolicited messages generated by the DCC Data Systems and sent to the DCC Service Users. The recipient is defined within the DCC Alert. See Main Document of this documentation set section 13 for the list of possible DCC Alerts, their triggers and their applicability to SMETS2 or later and / or to SMETS1.

### 16.1 Service Request

Service Requests are not applicable to DCC Alerts, since they are unsolicited messages.

### 16.2 Responses

The Service Response message type for DCC Alerts is specific to them.

The Response XML element of the XSD (see XML Schema – document 3 of this documentation set) defines the structure of the Service Response. For DCC Alerts, the ResponseCode will depend on the DCC Alert type. See section 16.2.1.3 and Main Document of this documentation set section 12.3 for the full list of generic error / response codes.

#### 16.2.1 DCC Alert Message Response

This is the only response type applicable to DCC Alerts. See Main Document of this documentation set section 9.3.3.

Depending on the data included in the DCC Alert, the DCC Alert responses have been divided into multiple types:

1. Power Outage Event
2. Device Status Change Event
3. DSP Schedule Removal
4. Command Failure
5. Firmware Distribution Failure
6. Update HAN Device Log Result
7. Change Of Supplier
8. Device Log Restored
9. PPMID Alert
10. Security Credentials Updated
11. PPMID Removal
12. Quarantined Request
13. Firmware Version Mismatch
14. Dual Band CH Alert
15. S1SP Alert
16. SMETS1CHFirmwareNotification
17. ALCS HCALCS Configuration Change
18. Firmware Upgrade Requested

19. CSP Firmware Delivery Status
20. Comms Hub Alert
21. ECoS Alert
22. Comms Hub Firmware Activation
23. CoS Certificate Alert
24. DUIS Version Mismatch

The following sections describe the format and specific data items of the DCC Alerts and each of their types.

### 16.2.1.1 Format

DCC Alerts are defined in the XSD (see XML Schema – document 3 of this documentation set) DCCAlertMessage DCCAlert XML element.

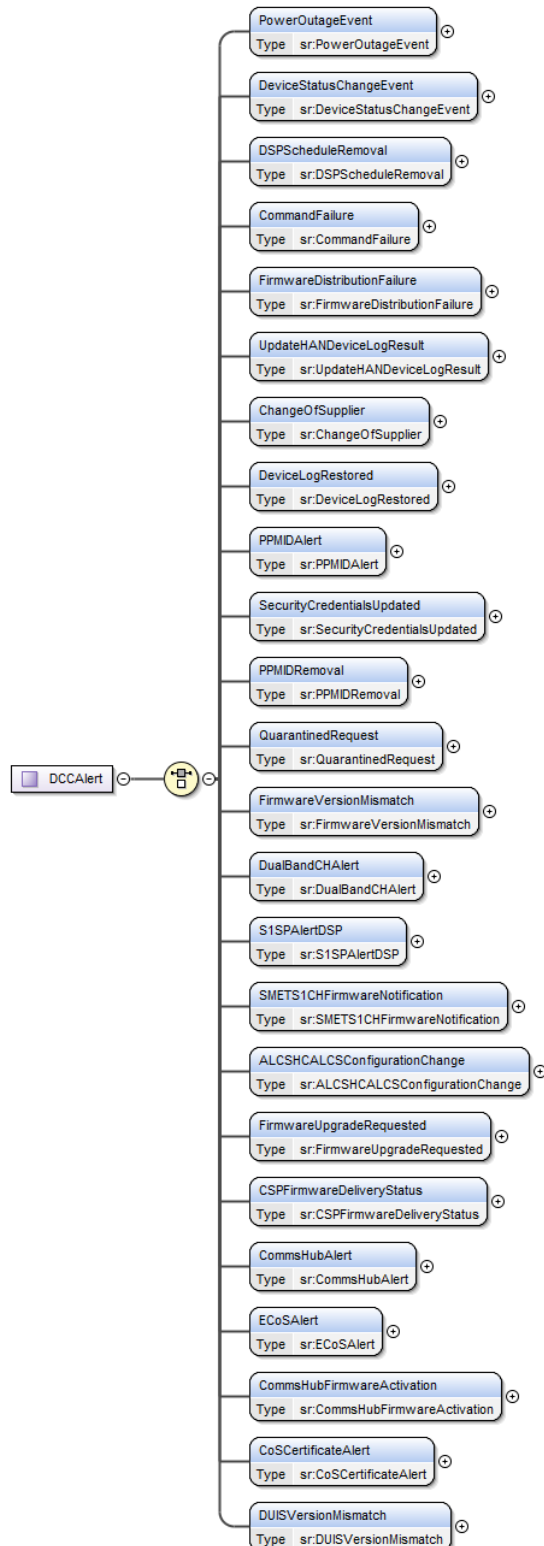


Figure 1 DCC Alert Response Structure

### 16.2.1.2 Specific Data Items

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
PowerOutageEvent	The trigger event indicates that a device power has failed <sup>2</sup>	sr:PowerOutageEvent (see PowerOutageEvent Data Items Definition)	AD1	None	N/A	Non-Sensitive
DeviceStatusChangeEvent	The trigger event indicates that a device has been withdrawn from Inventory or its status has changed	sr:DeviceStatusChangeEvent (see DeviceStatusChangeEvent Data Items Definition)	N1, N2, N8, N9, N16, N28, N29, N44, N45	None	N/A	Non-Sensitive
DSPScheduleRemoval	The trigger event indicates that a DSP Schedule is to be deleted	sr:DSPScheduleRemoval (see DSPScheduleRemoval Data Items Definition)	N4, N5, N6, N17, N37, N40	None	N/A	Non-Sensitive
CommandFailure	The trigger event indicates that a Command has failed	sr:CommandFailure (see CommandFailure Data Items Definition)	N3, N7, N10, N11, N12, N13, N14, N15, N33, N34, N35, N36, N38, N41, N53	None	N/A	Non-Sensitive
FirmwareDistributionFailure	The trigger event indicates that a Firmware Distribution Command to the CSP has failed, at least for some of the Devices	sr:FirmwareDistributionFailure (see FirmwareDistributionFailure Data Items Definition)	N18, N19, N20, N21, N22 and N23	None	N/A	Non-Sensitive
UpdateHANDeviceLogResult	The trigger event indicates if a Command to Update a Communications Hub Whitelist Update (addition ONLY) has succeeded or no response has been received by the DSP.	sr:UpdateHANDeviceLogResult (see UpdateHANDeviceLogResult Data Items Definition)	N24, N25	None	N/A	Non-Sensitive
ChangeOfSupplier	The trigger event indicates if an Update Security Credentials (CoS) has succeeded or has failed the CoS Party Access Control or related processing	sr:ChangeOfSupplier (see ChangeOfSupplier Data Items Definition)	N26, N27	None	N/A	Non-Sensitive
DeviceLogRestored	The trigger event indicates that the CHF or GPF Device Log has been restored	sr:DeviceLogRestored (see DeviceLogRestored Data Items Definition)	N30, N31	None	N/A	Non-Sensitive
PPMIDAlert	The trigger event indicates a Device Alert has been generated by the PPMID Device	sr:PPMIDAlert (see PPMIDAlert Data Items Definition)	N39	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
SecurityCredentialsUpdated	The trigger event indicates success Response from Update Security Credentials where the Remote Party whose certificate has been placed on the Device is not the sender of the Service Request	sr:SecurityCredentialsUpdated (see SecurityCredentialsUpdated Data Items Definition)	N42	None	N/A	Non-Sensitive
PPMIDRemoval	The trigger event indicates success Response from Update HAN Device Log (Removal) where the where the removed Device Type is a PPMID that was joined to Electricity and Gas equipment	sr:PPMIDRemoval (see PPMIDRemoval Data Items Definition)	N43	None	N/A	Non-Sensitive
QuarantinedRequest	The trigger event indicates that the Request has been quarantined, because an Anomaly Detection volume threshold or attribute limit has been breached	sr:QuarantinedRequest (see QuarantinedRequest Data Items Definition)	N46, N47, N48	None	N/A	Non-Sensitive
FirmwareVersionMismatch	N49. The trigger event indicates a mismatch between the Device's Firmware Version in SMI and that returned by the Read Firmware Version Service Request version and that the version returned by the Device matches an entry on the CPL with a status of "Current"  N50. The trigger event indicates there is a mismatch between the Device's Firmware Version in SMI and that returned by the Read Firmware Version Service Request, the Activate Firmware Service Request or the Future Dated Firmware Activation Alert and that the version returned by the Device matches an entry on the CPL	sr:FirmwareVersionMismatch (see FirmwareVersionMismatch Data Items Definition)	N49, N50, N51, N52	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
	<p>with a status of "Removed"</p> <p>N51. The trigger event indicates there is a mismatch between the Device's Firmware Version in SMI and that returned by the Read Firmware Version Service Request, the Activate Firmware Service Request or the Future Dated Firmware Activation Alert and the version returned by the Device doesn't match an entry on the CPL</p> <p>N52. The trigger event indicates there is a mismatch between the GSME's Firmware Version in SMI and that returned by the Read Firmware Version Service Request where the target Device is GPF</p> <p>FirmwareVersionMismatch is introduced in DUIS Version 2.0</p>					
DualBandCHAlert	<p>The trigger event indicates a Device Alert has been generated by the Dual Band CHF Device</p> <p>DualBandCHAlert is introduced in DUIS Version 2.0</p>	<p>sr: DualBandCHAlert (see <a href="#">DualBandCHAlert Data Items Definition</a>)</p>	N54	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
S1SPAlertDSP	<p>The trigger event indicates the SMETS1 Service Provider has returned an S1SPAlert corresponding to a SMETS1 Service Request, which will mean:</p> <ul style="list-style-type: none"> <li>notification or unrecoverable error with the request (N55) or</li> <li>delivery of a UTRN generated by the S1SP (N56)</li> </ul> <p>S1SPAlertDSP is introduced in DUIS Version 3.0</p>	sr:S1SPAlertDSP (see S1SPAlert Data Items Definition)	N55, N56	None	N/A	Non-Sensitive
SMETS1CHFirmwareNotification	<p>Notification of the intention to distribute or outcome of the activation of Firmware update request to a SMETS1 CHF or PPMID.</p> <p>Valid Set: UpdateRequested ActivationSuccessful</p> <p>SMETS1CHFirmwareNotification is introduced in DUIS Version 3.0</p>	sr:SMETS1CHFirmwareNotification (see SMETS1CHFirmwareNotification Data Items Definition)	N57	None	N/A	Non-Sensitive
ALCSHCALCSCConfigurationChange	<p>The trigger event indicates the ESME's ALCS / HCALCS / APC configuration has changed. APCs are applicable only to ESME Devices with GBCS v4.0 or later</p> <p>ALCSHCALCSConfigurationChange is introduced in DUIS Version 3.1, and modified in DUIS v4.0.</p>	sr:ALCSHCALCSConfigurationChange (see ALCSHCALCSConfigurationChange Data Items Definition)	N58	None	N/A	Non-Sensitive
FirmwareUpgradeRequested	<p>This DCC Alert is used to share the list of Devices that have been</p>	sr:FirmwareUpgradeRequested (see FirmwareUpgradeRequested Data Items Definition)	N59	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
	approved by CSPs for firmware update. It is sent to the 'Other Responsible Supplier' of one or more Devices and is currently applicable only to the PPMID. FirmwareUpgradeRequested is introduced in DUIS v5.0					
CSPFirmwareDeliveryStatus	The trigger event indicates a notification has been generated by the CSP in relation to the transfer of a firmware image to a Comms Hub. CSPFirmwareDeliveryStatus is introduced in DUIS v5.0.	sr:CSPFirmwareDeliveryStatus (see CSPFirmwareDeliveryStatus Data Items Definition)	N60, N61	None	N/A	Non-Sensitive
CommsHubAlert	The trigger event indicates a Device Alert has been generated by the Comms Hub. CommsHubAlert Introduced in DUIS v5.0.	sr:CommsHubAlert (see CommsHubAlert Data Items Definition)	N62	None	N/A	Non-Sensitive
ECoSAlert	The trigger event indicates that ECoS Party has generated an ECoS Alert. ECoSAlert is introduced in DUIS v5.1.	sr:ECoSAlert (see ECoSAlert Data Items Definition)	N63	None	N/A	Non-Sensitive
CommsHubFirmwareActivation	The trigger event indicates that a new version of Firmware has been activated on a SMETS2+ Comms Hub. CommsHubFirmwareActivation is introduced in DUIS v5.X.	sr:CommsHubFirmwareActivation (see CommsHubFirmwareActivation Data Items definition)	N64	None	N/A	Non-Sensitive
CoSCertificateAlert	The trigger event indicates that a Device has been installed with an unsupported CoS Certificate in its CoS Trust Anchor Cell.	sr: CoSCertificateAlert	N65	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory for Alert Codes <sup>1</sup>	Default	Units	Sensitivity
DUISVersionMismatch	The trigger event indicates that the DCC Alert or Service Response to be sent to the DCC Service User is not compatible with their DUIS XSD version DUISVersionMismatch is introduced in DUIS Version 2.0	sr:DUISVersionMismatch (see DUISVersionMismatch Data Items Definition)	N999	None	N/A	Non-Sensitive

**Table 1 DCC Alert Service Response Data Items**

<sup>1</sup> N/A for all other DCC Alert Codes

<sup>2</sup> For a limited set of ESMs affected by a particular issue with firmware activation, AD1 power outage alerts will be suppressed for a limited period after such a firmware activation. See section 2.3.12 of the main DUGIDS document for more information

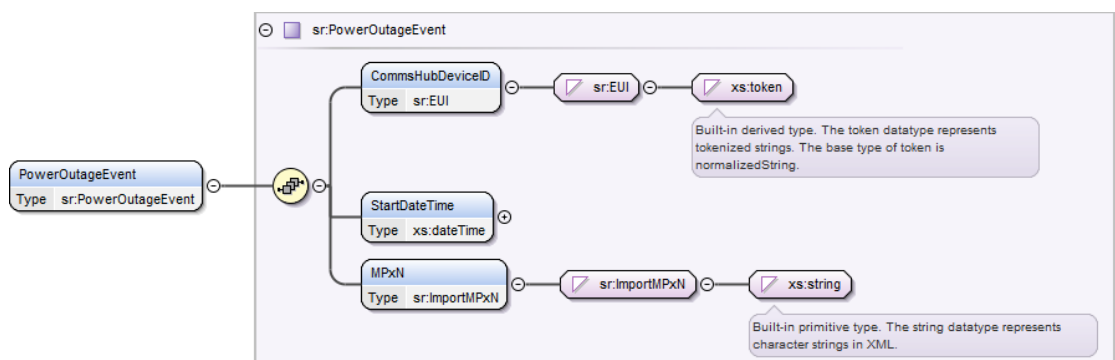
Note that, if the DCC Service User's DUIS schema version doesn't support a DCC Alert or Service Response, the DCC Data Systems will:

1. If the DUIS schema version is 1.0, no DCC Alert will be sent to the DCC Service User
2. If the DUIS schema version is 2.0 or later, DCC Alert N999 DUISVersionMismatch will be sent to the DCC Service User. For incompatible DCC Alerts it will include the DCC Alert Code (as text) of the incompatible DCC Alert and for Service Responses the Service Request Request ID of the incompatible Service Response

### 16.2.1.2.1 PowerOutageEvent

#### PowerOutageEvent Format

DCC Alerts Power Status Change Event is defined in the XSD PowerOutageEvent XML element.



**Figure 2 DCC Alert Response – PowerOutageEvent Structure**

#### PowerOutageEvent Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CommsHubDeviceID	The Device ID of the Communications Hub that reported the Power Outage	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
StartDateTime	The timestamp when the Power Outage started. This value is provided by the CSP	xs:dateTime	Yes	None	UTC Date-Time	Non-Sensitive
MPxN	DCC Alerts sent to User Roles: <ul style="list-style-type: none"> <li>EIS and ENO. The primary import MPAN of the Electricity Smart Meter associated with the Communications Hub Function.</li> <li>GIS and GNO. The MPRN of the Gas Smart Meter associated with the Communications Hub Function.</li> </ul>	Sr:ImportMPxN (Restriction of xs:string (min length = 1, max length = 13))	Yes	None	N/A	Non-Sensitive

Table 2 DCC Alert Service Response – PowerOutageEvent Data Items

#### 16.2.1.2.2 DeviceStatusChangeEvent

DeviceStatusChangeEvent Format

DCC Alerts Device Status Change Event is defined in the XSD DeviceStatusChangeEvent XML element.

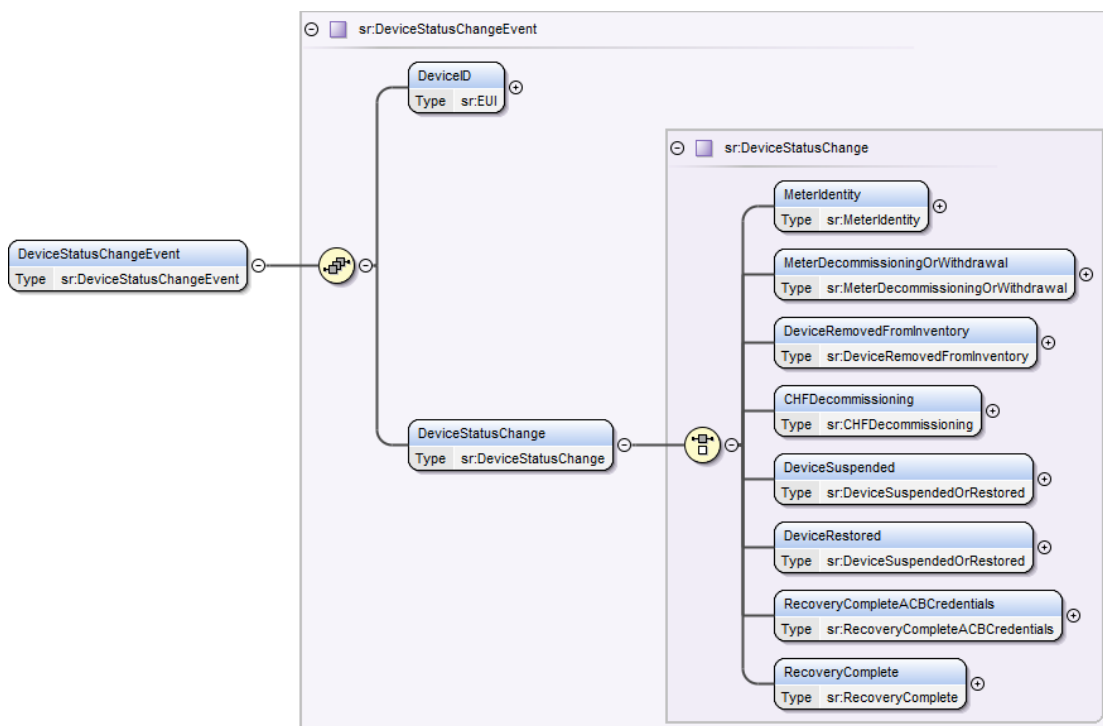


Figure 3 DCC Alert Response – DeviceStatusChangeEvent Structure

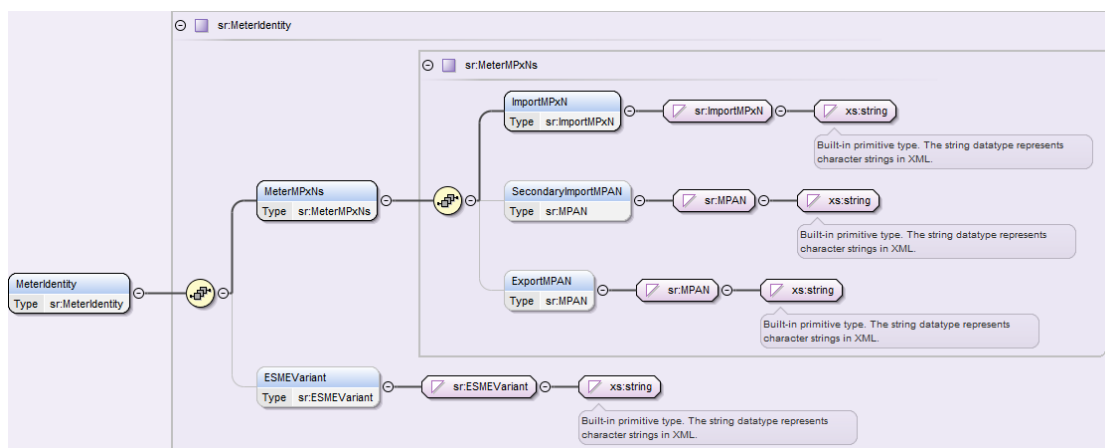


Figure 4 DCC Alert Response – DeviceStatusChangeEvent – MeterIdentity Structure

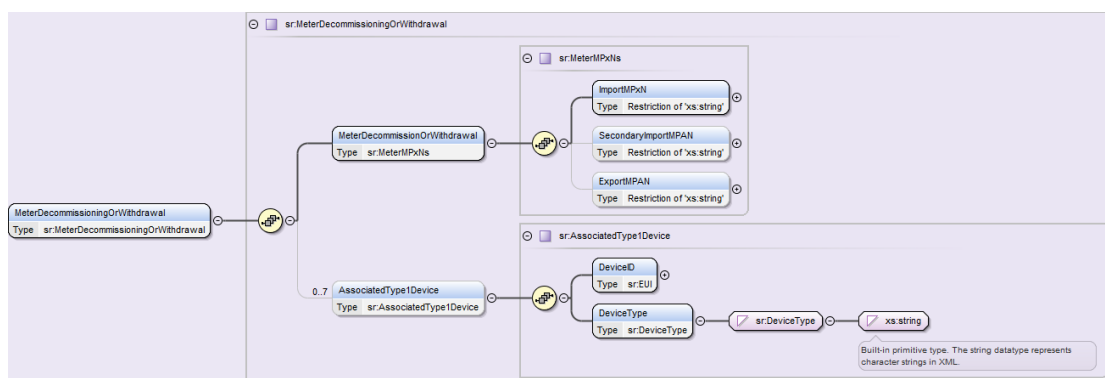


Figure 5 DCC Alert Response – DeviceStatusChangeEvent – MeterDecommissioningOrWithdrawal Structure

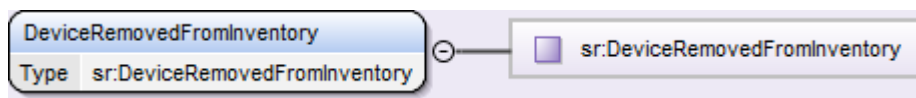


Figure 6 DCC Alert Response – DeviceStatusChangeEvent – DeviceRemovedFromInventory Structure



Figure 7 DCC Alert Response – DeviceStatusChangeEvent – CHFDecommissioning Structure



Figure 8 DCC Alert Response – DeviceStatusChangeEvent – DeviceSuspended Structure



Figure 9 DCC Alert Response – DeviceStatusChangeEvent – DeviceRestored Structure

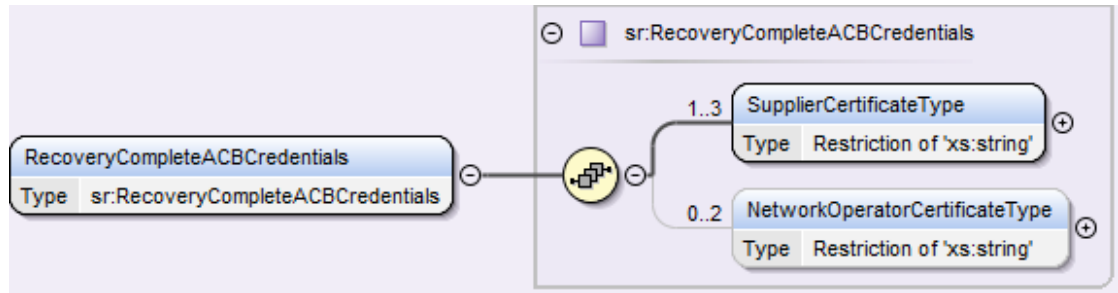


Figure 10 DCC Alert Response – DeviceStatusChangeEvent – RecoveryCompleteACBCredentials Structure



Figure 11 DCC Alert Response – DeviceStatusChangeEvent – RecoveryComplete Structure

#### DeviceStatusChangeEvent Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID which status is changing	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceStatusChange	The type of Device Status Change	sr:DeviceStatusChange (see DeviceStatusChange Data Items Definition)	Yes	None	N/A	Non-Sensitive

Table 3 DCC Alert Service Response – DeviceStatusChangeEvent Data Items

#### DeviceStatusChange Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory <sup>1</sup>	Default	Units	Sensitivity
MeterIdentity	Meter Identity details	sr:MeterIdentity (see MeterIdentity Data Items Definition)	N16: Yes Otherwise: N/A	None	N/A	Non-Sensitive
MeterDecommissioningOrWithdrawal	Device Decommissioning / Withdrawal details	sr:MeterDecommissioningOrWithdrawal (see MeterDecommissioningOrWithdrawal Data Items Definition)	N1, N2: Yes Otherwise: N/A	None	N/A	Non-Sensitive
DeviceRemovedFromInventory	Device in a status of 'pending' for > 36 months has been removed from Inventory	sr:DeviceRemovedFromInventory (empty – included in the XML to describe DCC Alert Type)	N8: Yes Otherwise: N/A	N/A	N/A	Non-Sensitive
CHFDecommissioning	Communications Hub Function Decommissioned	sr:CHFDecommissioning (empty – included in the XML to describe DCC Alert Type)	N9: Yes Otherwise: N/A	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory <sup>1</sup>	Default	Units	Sensitivity
DeviceSuspended	Device Suspended	sr:DeviceSuspendedOrRestored (empty – included in the XML to describe DCC Alert Type)	N28: Yes Otherwise: N/A	None	N/A	Non-Sensitive
DeviceRestored	Device Restored from Suspension	sr:DeviceSuspendedOrRestored (empty – included in the XML to describe DCC Alert Type)	N29: Yes Otherwise: N/A	None	N/A	Non-Sensitive
RecoveryCompleteACBCredentials	SMKI Recovery Procedure is complete - - at least one of the KRP Certificates on the Device has been replaced with an ACB Certificate	sr:RecoveryCompleteACBCredentials (see RecoveryCompleteACBCredentials Data Items Definition)	N44: Yes Otherwise: N/A	None	N/A	Non-Sensitive
RecoveryComplete	SMKI Recovery Procedure is complete - all required Certificates on the Device have been recovered	sr:RecoveryComplete (empty – included in the XML to describe DCC Alert Type)	N45: Yes Otherwise: N/A	None	N/A	Non-Sensitive

**Table 4 DCC Alert Service Response – DeviceStatusChange Data Items**

<sup>1</sup> The DCC Alert will include only one of the Data Items in the choice

**MeterIdentity Data Items Definition**

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
MeterMPxNs	MPxNs associated to the Meter	sr:MeterMPxNs (see MeterMPxNs Data Items Definition)	Yes	None	N/A	Non-Sensitive

ESMEVariant	Electricity Smart Metering Equipment Variant.	sr:ESMEVariant Restriction of xs:string (Enumeration)	DeviceType = ESME: Yes Otherwise: N/A	None	N/A	Non- Sensitive
	Valid set: <ul style="list-style-type: none"> <li>A. Single Element</li> <li>B. Twin Element</li> <li>C. Polyphase</li> <li>AD. Single Element with ALCS</li> <li>BD. Twin Element with ALCS</li> <li>CD. Polyphase with ALCS</li> <li>ADE. Single Element with ALCS and Boost Function</li> <li>BDE. Twin Element with ALCS and Boost Function</li> <li>CDE. Polyphase with ALCS and Boost Function</li> <li>ADF. Single Element with ALCS and APC<sup>1,2</sup></li> <li>BDF. Twin Element with ALCS and APC<sup>1,2</sup></li> <li>CDF. Polyphase with ALCS and APC<sup>1,2</sup></li> <li>ADEF. Single Element with ALCS, Boost Function and APC<sup>1,2</sup></li> <li>BDEF. Twin Element with ALCS, Boost Function and APC<sup>1,2</sup></li> <li>CDEF. Polyphase with ALCS, Boost Function and APC<sup>1,2</sup></li> <li>AF. Single Element with APC<sup>1,2</sup></li> <li>ADG Single Element with ALCS and SAPC<sup>11, 13, 14</sup></li> <li>ADEG. Single Element with ALCS, Boost</li> </ul>					

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
	Function and SAPC <sup>1, 13, 14</sup> <ul style="list-style-type: none"> <li>• AF. Single Element with APC<sup>1, 2</sup></li> <li>• BF. Twin Element with APC<sup>1, 2</sup></li> <li>• CF. Polyphase with APC<sup>1, 2</sup></li> <li>• AEF. Single Element with Boost Function and APC<sup>1, 2</sup></li> <li>• BEF. Twin Element with Boost Function and APC<sup>1, 2</sup></li> <li>• CEF. Polyphase with Boost Function and APC<sup>1, 2</sup></li> <li>• AG. Single Element with SAPC<sup>1, 2</sup></li> <li>• AEG. Single Element with Boost Function and SAPC<sup>1, 2</sup></li> </ul>					

Table 5 DCC Alert Service Response – MeterIdentity Data Items

<sup>1</sup> N/A to Devices prior to GBCS v4.0

<sup>2</sup> This combination cannot be included for a version of DUIS prior to DUIS v4.0, and in such cases invalid items will be omitted, e.g. if the combination in the Inventory is “AG” and the target Service User is recorded by the DCC Data Systems as currently using DUIS v3.0, then just “A” will be returned since G will not be recognised in the DUIS v3.0 XML schema

#### MeterMPxNs Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ImportMPxN	The reference number identifying an Import electricity or a gas metering point	sr:ImportMPxN (Restriction of xs:string (min length = 1, max length = 13))	Yes	None	N/A	Non-Sensitive
SecondaryImportMPAN	The reference number identifying a Twin Element Import electricity secondary metering point	sr:MPAN (Restriction of xs:string (min length = 13, max length = 13))	Twin Element Electricity Smart Meter: No Otherwise: N/A	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ExportMPAN	The reference number identifying an Export electricity metering point	sr:MPAN (Restriction of xs:string (min length = 13, max length = 13))	Export Electricity Smart Meter: No Otherwise: N/A	None	N/A	Non-Sensitive

**Table 6 DCC Alert Service Response – MeterMPxNs Data Items**

MeterDecommissioningOrWithdrawal Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
MeterDecommissionOrWithdrawal	MPxNs associated to the Meter	sr:MeterMPxNs (see MeterMPxNs Data Items Definition)	Yes	None	N/A	Non-Sensitive
AssociatedType1Device	Type 1 devices Associated to the Device being Decommissioned / Withdrawn	sr:AssociatedType1Device (see AssociatedType1Device Data Items Definition)	No <sup>1</sup>	None	N/A	Non-Sensitive

**Table 7 DCC Alert Service Response – DeviceDecommissioningOrWithdrawal Data Items**

<sup>1</sup> All associated Type 1 devices are to be included

AssociatedType1Device Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	Device ID of the Type 1 associated Device	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceType	Device Type of the Type 1 associated device  Valid set: <ul style="list-style-type: none"> <li>HCALCS</li> <li>PPMID</li> </ul>	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A	Non-Sensitive

**Table 8 DCC Alert Service Response – AssociatedType1Device Data Items**

RecoveryCompleteACBCredentials Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
SupplierCertificateType	The type of the Supplier certificate; <ul style="list-style-type: none"> <li>DigitalSigning</li> <li>KeyAgreement</li> <li>KeyAgreementTopUp</li> </ul>	Restriction of xs:string (Enumeration)	Yes <sup>1</sup>	None	N/A	Non-Sensitive
NetworkOperatorCertificateType	The type of the Network Operator certificate; <ul style="list-style-type: none"> <li>DigitalSigning</li> <li>KeyAgreement</li> </ul>	Restriction of xs:string (Enumeration)	No <sup>2</sup>	None	N/A	Non-Sensitive

**Table 9 DCC Alert Service Response – RecoveryCompleteACBCredentials Data Items**

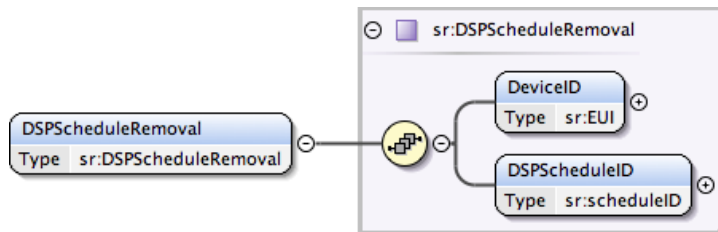
<sup>1</sup> Minimum 1 and maximum 3

<sup>2</sup> Optional. If present, minimum 2 and maximum 2

#### 16.2.1.2.3 DSPScheduleRemoval

DSPScheduleRemoval Format

DCC Alerts DSP Schedule Removal is defined in the XSD DSPScheduleRemoval XML element. There is one DSPScheduleRemoval DCC Alert for each DSP Schedule being removed.



**Figure 12 DCC Alert Response – DSPScheduleRemoval Structure**

DSPScheduleRemoval Data Items Definition

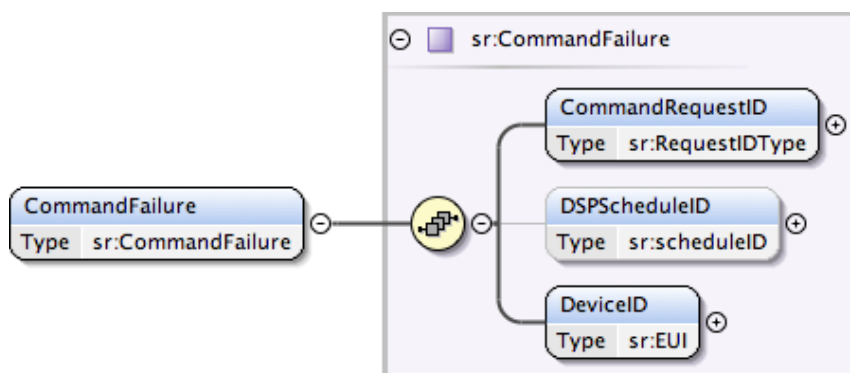
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DSPScheduleID	ID of the DSP Schedule being removed	sr:scheduleID (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceID	The Device ID for which the DSP Schedule is being removed	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive

**Table 10 DCC Alert Service Response – DSPScheduleRemoval Data Items**

#### 16.2.1.2.4 CommandFailure

CommandFailure Format

DCC Alerts CommandFailure is defined in the XSD CommandFailure XML element.



**Figure 13 DCC Alert Response – CommandFailure Structure**

CommandFailure Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CommandRequestID	Request ID of the Command that failed	sr:RequestIDType (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DSPScheduleID	For DSP Scheduled Commands, ID of the DSP Schedule associated to the Command	sr:scheduleID (see Annex section 17)	No <sup>1</sup>	None	N/A	Non-Sensitive
DeviceID	The Device ID for which the Command failed	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive

Table 11 DCC Alert Service Response – CommandFailure Data Items

<sup>1</sup> Only applicable to DSP Scheduled Commands

#### 16.2.1.2.5 FirmwareDistributionFailure Format

FirmwareDistributionFailure Format

DCC Alerts FirmwareDistributionFailure is defined in the XSD FirmwareDistributionFailure XML element.

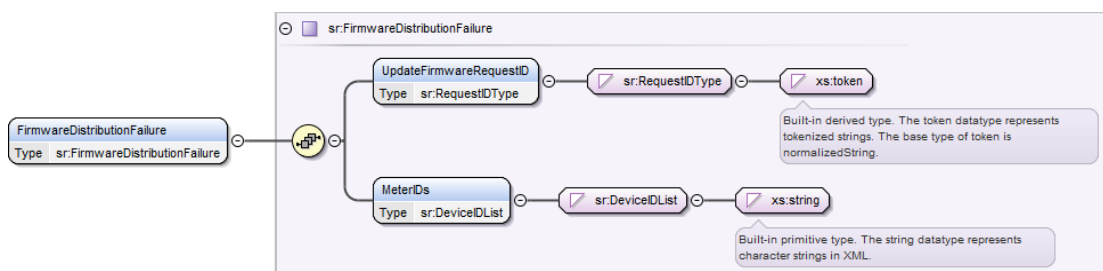


Figure 14 DCC Alert Response – FirmwareDistributionFailure Structure

FirmwareDistributionFailure Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
UpdateFirmwareRequestID	Request ID of the Update Firmware Service Request associated to the Command that failed	sr:RequestIDType (see Annex section 17)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
MeterIDs	<p>Comma separated list of Device IDs (each with the sr:EUI format defined in Annex section 17) that:</p> <ul style="list-style-type: none"> <li>The CSP wasn't able to identify – N19</li> <li>Were included in the Command that failed CSP validation – N18, N20, N21</li> <li>Were included in the Command that failed delivery to the CSP – N22</li> <li>Were included in the Command for which no Validation Response was received from the CSP – N23</li> </ul> <p>Note that although the XML tag is named MeterIDs, some valid Device types are not meters, including CHF, PPMID and HCALCS</p>	<p>sr:DeviceIDList            (Restriction of xs:string            (min length = 23            pattern = “([A-Fa-f0-9]{2}-[A-Fa-f0-9]{2})-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}”))</p>	Yes <sup>1</sup>	None	N/A	Non-Sensitive

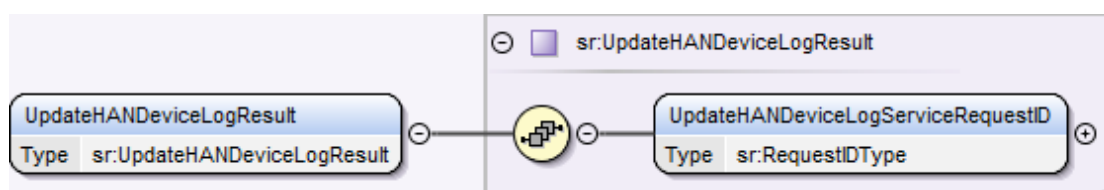
### Table 12 DCC Alert Service Response – FirmwareDistributionFailure Data Items

<sup>1</sup> Minimum of 1 and maximum of 50,000 Device IDs

#### 16.2.1.2.6 UpdateHANDeviceLogResult

## UpdateHANDeviceLogResult Format

DCC Alerts UpdateHANDDeviceLogResult is defined in the XSD UpdateHANDDeviceLogResult XML element.



### Figure 15 DCC Alert Response – UpdateHANDeviceLogResult Structure

## UpdateHANDeviceLogResult Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
UpdateHANServiceRequestID	Request ID of the Update HAN Device Log Service Request. The DCC Alert Code indicates success (N24) or failure (N25)	sr:RequestIDType (see Annex section17)	Yes	None	N/A	Non-Sensitive

### Table 13 DCC Alert Service Response – UpdateHANDeviceLogResult Data Items

### 16.2.1.2.7 ChangeOfSupplier

#### ChangeOfSupplier Format

DCC Alerts ChangeOfSupplier are defined in the XSD ChangeOfSupplier XML element.

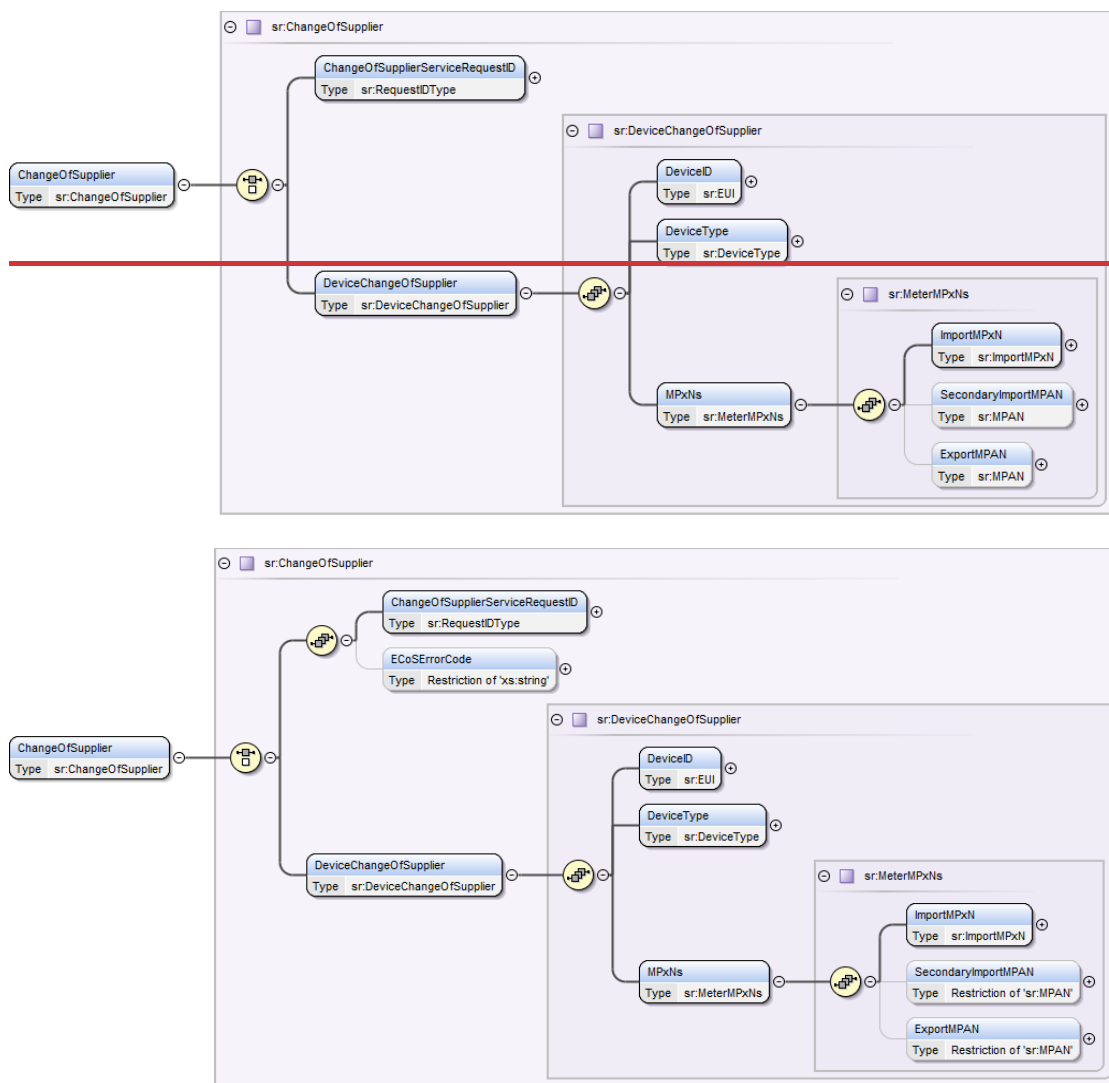


Figure 16 DCC Alert Response – ChangeOfSupplier Structure

ChangeOfSupplier Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ChangeOfSupplierServiceRequestID	Sent to the Update Security Credentials (CoS) sender. Request ID of the Update Security Credentials (CoS) Service Request. The DCC Alert Code (N26) indicates that the request has failed CoS Party Access Control, CoS-specific anti-replay checks, breach of CoS-specific ADT volume, failure of processing by CoS Party, or, for Future Dated Requests, DSP Access Control at the point the Request is to be sent to the CoS Party	sr:RequestIDType (see Annex section 17)	N26: Yes Otherwise: N/A	None	N/A	Non-Sensitive
<u>ECoSErrorCode</u> <sup>1</sup>	<u>An optional element included as part of DCC Alert N26, to provide more information about the cause of the request failure when the Update Security Credentials (CoS) request was not processed successfully by the ECoS Party.</u>	<u>Restriction of xs:string (minLength = 3, maxLength = 3)</u> <u>See Table 15.1 for error codes</u>	<u>N26: Optional</u> <u>Otherwise: N/A</u>	<u>None</u>	<u>N/A</u>	<u>Non-Sensitive</u>
DeviceChangeOfSupplier	Sent to the Old registered Import Supplier for the Device, together with DCC Alert Code N27 to inform them of the Change of Supplier	sr:DeviceChangeOfSupplier (see section DeviceChangeOfSupplier Data Items Definition)	N27: Yes Otherwise: N/A	None	N/A	Non-Sensitive

Table 14 DCC Alert Service Response – ChangeOfSupplier Data Items

<sup>1</sup> only applicable to DUIS 5.2 or later.

DeviceChangeOfSupplier Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID which has changed Supplier	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceType	Device Type that has changed Supplier  Valid set: <ul style="list-style-type: none"> <li>ESME</li> <li>GSME</li> <li>GPF</li> <li>HCALCS</li> </ul>	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
MPxNs	MPxN(s) associated to the Device, i.e. <ul style="list-style-type: none"> <li>MPAN(s) for ESME and HCALCS</li> <li>MPRN for GSME or GPF</li> </ul>	sr:MeterMPxNs (see MeterMPxNs Data Items Definition)	Yes	None	N/A	Non-Sensitive

**Table 15 DCC Alert Service Response – DeviceChangeOfSupplier Data Items**

The following table shows the ECoS error codes that may be carried in the ECoSErrorCode data item in the XML element ChangeOfSupplier.

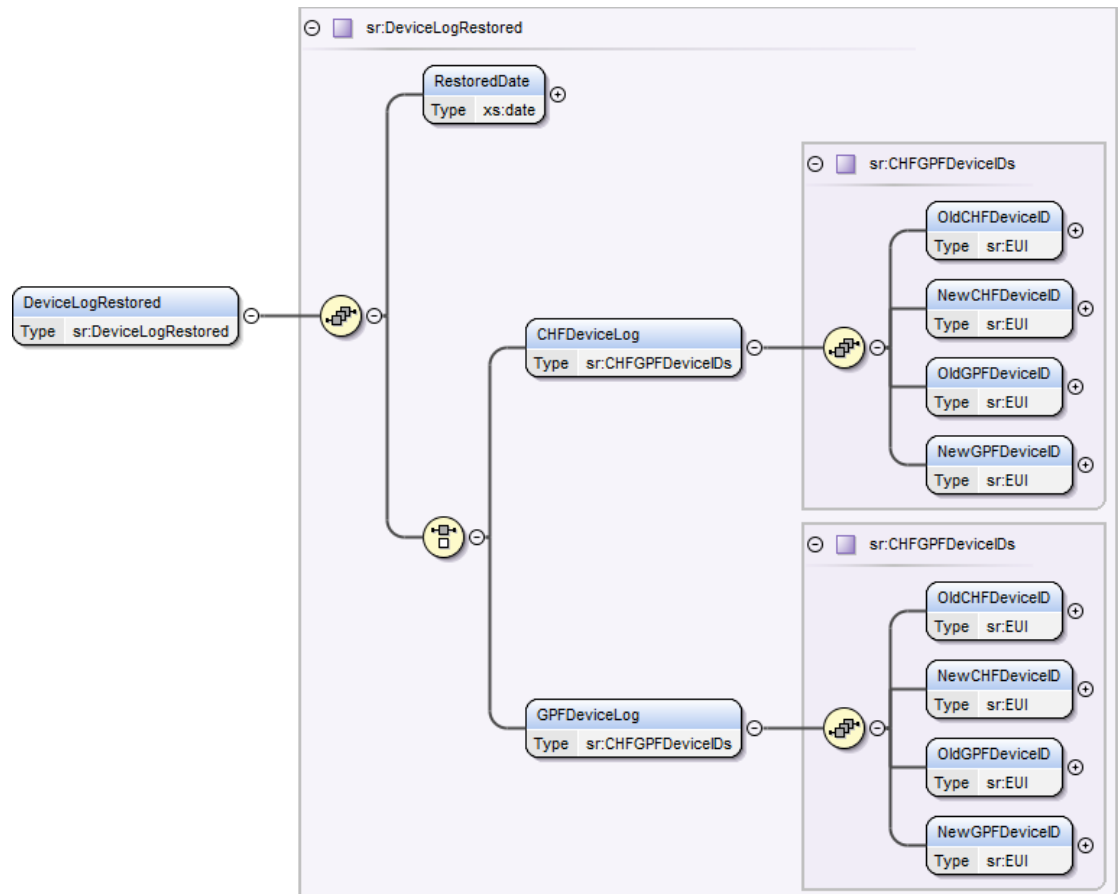
<u>ECoS Error Code for N26 Alert</u>	<u>Meaning</u>
<u>001</u>	<u>ECoS asynchronous processing failure</u>
<u>002</u>	<u>ECoS Anomaly Detection Failure</u>
<u>003</u>	<u>ECoS Anti Replay Failure</u>
<u>004</u>	<u>ECoS does not have the required registration data</u>
<u>005</u>	<u>ECoS registration check failure</u>
<u>006</u>	<u>ECoS message structure validation failure</u>
<u>007</u>	<u>ECoS signature check failure</u>

**Table 15.1 Table of ECoS error codes**

#### 16.2.1.2.8 DeviceLogRestored

DeviceLogRestored Format

DCC Alert DeviceLogRestored is defined in the XSD DeviceLogRestored XML element.



**Figure 17 DCC Alert Response – DeviceLogRestored Structure**

DeviceLogRestored Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RestoredDate	Date when the Device Log was restored	xs:date	Yes	None	N/A	Non-Sensitive
CHFDeviceLog	CHF Device Log restored	sr:CHFGPFDDeviceIDs (see CHFGPFDDeviceIDs Data Items Definition)	N30: Yes Otherwise: N/A	None	N/A	Non-Sensitive
GPFDeviceLog	GPF Device Log restored	sr:CHFGPFDDeviceIDs (see CHFGPFDDeviceIDs Data Items Definition)	N31: Yes Otherwise: N/A	None	N/A	Non-Sensitive

**Table 16 DCC Alert Service Response – DeviceLogRestored Data Items**

CHFGPFDDeviceIDs Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
OldCHFDeviceID	The Device ID of the old CHF from which the Device Log is restored to the new CHF via Service Request 8.12.1	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive

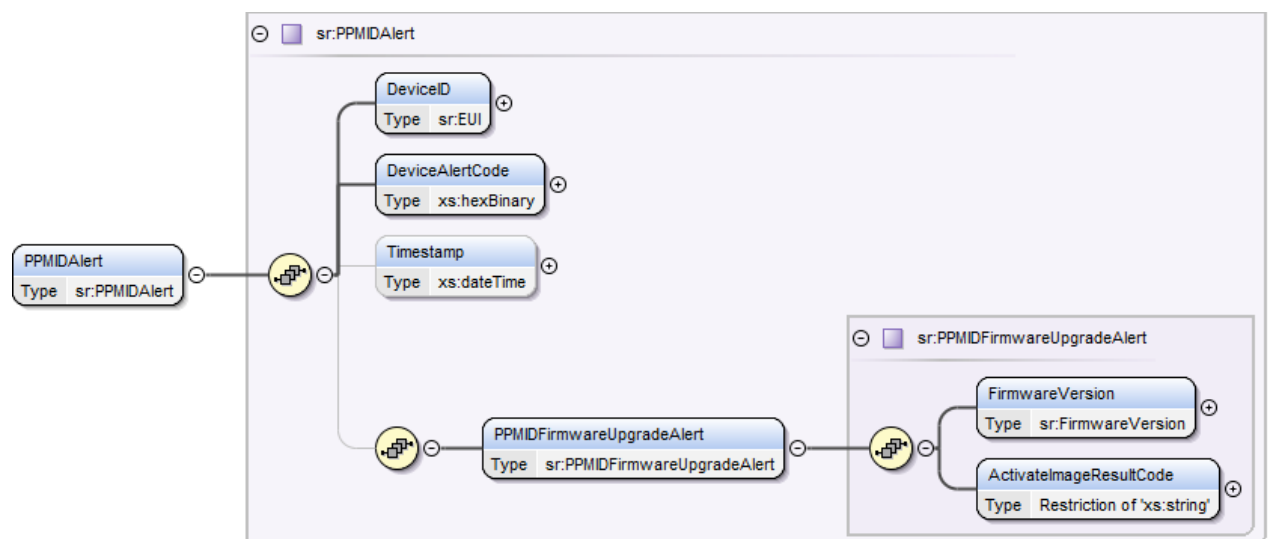
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
NewCHFDeviceID	The Device ID of the new CHF to which the Device Log is restored via Service Request 8.12.1	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
OldGPFDDeviceID	The Device ID of the GPF associated to the old CHF. It is the source from which the Device Log is restored to the new GPF via Service Request 8.12.2	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
NewGPFDDeviceID	The Device ID of the GPF associated to the new CHF. It is the target to which the Device Log is restored to via Service Request 8.12.2	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive

**Table 17 DCC Alert Service Response – CHFGPFDDeviceIDs Data Items**

#### 16.2.1.2.9 PPMIDAlert

PPMIDAlert Format

DCC Alert PPMIDAlert is defined in the XSD PPMIDAlert XML element.



**Figure 18 DCC Alert Response – PPMIDAlert Structure**

PPMIDAlert Data Items Definition

In the following table, the XML elements marked “DCC v5.0 or later” will not be present in the DCC v4.0 or earlier XML schema, so if this DCC Alert is sent to a DCC Service User using DCC v4.0 or earlier, those data items will be omitted.

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID of the PPMID that generated the Device Alert	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceAlertCode	The Alert Code of the Device Alert generated by the PPMID Valid set: <ul style="list-style-type: none"> <li>8F1E</li> <li>8F30</li> <li>8F3D</li> <li>8F3E</li> <li>8F3F</li> <li>8F78</li> <li>8F8B<sup>1</sup></li> </ul>	xs:hexBinary	Yes	None	N/A	Non-Sensitive
TimeStamp <sup>1</sup>	The timestamp at which the event that is responsible for this Device Alert has occurred. This data item is populated only where the Device Alert Code is 8F8B.	xs:dateTime	No	None	N/A	Non-Sensitive
PPMIDFirmwareUpgradeAlert <sup>1</sup>	The Firmware Upgrade Alert sent by a PPMID. This data item is populated only where the Device Alert Code is 8F8B.	sr:PPMIDFirmwareUpgradeAlert (See PPMIDFirmwareUpgradeAlert Data Items Definition)	No	None	N/A	Non-Sensitive

**Table 18 DCC Alert Service Response – PPMIDAlert Data Items**

<sup>1</sup> only applicable to DUIS 5.0 or later.

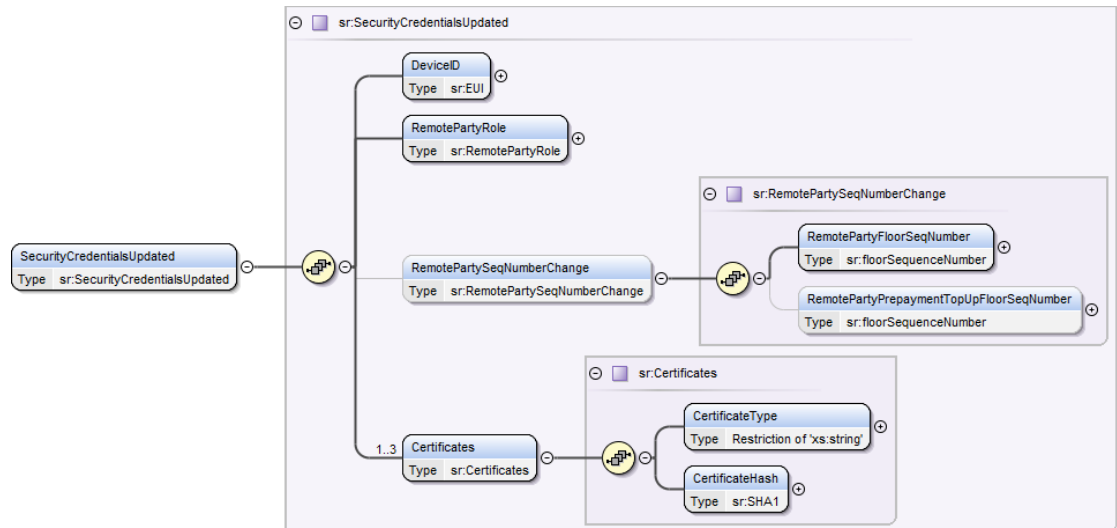
**PPMIDFirmwareUpgradeAlert Data Items Definition**

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
FirmwareVersion	The version of the active firmware in the PPMID	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A	Non-Sensitive
ActivateImageResultCode	The status of firmware activation within a PPMID. Valid set: <ul style="list-style-type: none"> <li>ActivationSuccess</li> <li>ActivationFailure</li> </ul>	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive

**Table 18.1 DCC Alert Service Response – PPMIDFirmwareUpdateAlert Data Items**

**16.2.1.2.10 SecurityCredentialsUpdated**

SecurityCredentialsUpdated Format



**Figure 19 DCC Alert Response –SecurityCredentialsUpdated Structure**

SecurityCredentialsUpdated Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The ID of the Device on which the Security Credentials were updated	sr:EUI (see Annex 17)	Yes	None	N/A	Non-Sensitive
RemotePartyRole	The role which has had its certificate(s) changed on the Device. Only valid value in this context; <ul style="list-style-type: none"> <li>NetworkOperator</li> </ul>	Restriction of xs:token (Enumeration)	Yes	None	N/A	Non-Sensitive
RemotePartySeqNumber Change	Sequence numbers associated with the certificate	sr:RemotePartySeqNumberChange (see RemotePartySeqNumberChange)	No	None	N/A	Non-Sensitive
Certificates	All the Certificates (type and hash) that have been placed on the Device by the Service Request	sr:Certificates (see Certificates Data Items Definition)	Yes <sup>1</sup>	None	N/A	Non-Sensitive

**Table 19 DCC Alert Service Response – SecurityCredentialsUpdated Data Items**

<sup>1</sup> Minimum 1 and maximum 3

RemotePartySeqNumberChange Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RemotePartyFloorSeqNumber	Sequence number for the role. This will be the originator counter of the request by which the Supplier (6.15.1) or ACB (6.21) placed the Network Operator's Certificate on the Device.	sr:floorSequenceNumber (xs:nonNegative Integer)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RemotePartyPrepaymentTopUpFloorSeqNumber	Prepayment Floor sequence number	sr:floorSequenceNumber (xs:nonNegativeInteger)	No	None	N/A	Non-Sensitive

**Table 20 DCC Alert Service Response – RemotePartySeqNumberChange Data Items**

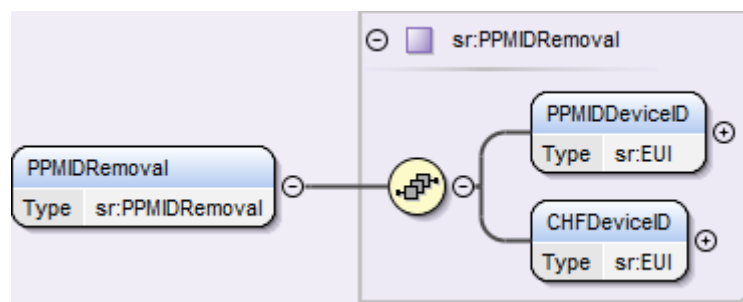
#### Certificates Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CertificateType	The type of the certificate; <ul style="list-style-type: none"> <li>DigitalSigning</li> <li>KeyAgreement</li> <li>KeyAgreementTopUp</li> </ul>	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive
CertificateHash	The hash value of the certificate	sr:SHA1 (xs:base64Binary)	Yes	None	N/A	Non-Sensitive

**Table 21 DCC Alert Service Response – Certificates Data Items**

#### 16.2.1.2.11 PPMIDRemoval

##### PPMIDRemoval Format



**Figure 20 DCC Alert Response – PPMIDRemoval Structure**

##### PPMIDRemoval Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
PPMIDDeviceID	The ID of the PPMID removed from the HAN Device Log	sr:EUI (see Annex 17)	Yes	None	N/A	Non-Sensitive
CHFDeviceID	The ID of the CHF from which HAN Device Log the PPMID has been removed	sr:EUI (see Annex 17)	Yes	None	N/A	Non-Sensitive

**Table 22 DCC Alert Service Response – PPMIDRemoval Data Items**

#### 16.2.1.2.12 QuarantinedRequest

##### QuarantinedRequest Format

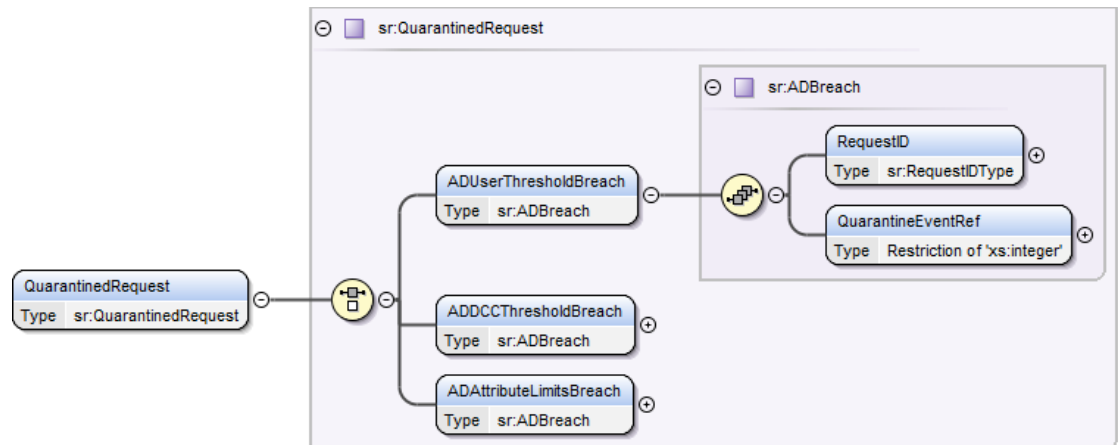


Figure 21 DCC Alert Response – QuarantinedRequest Structure

QuarantinedRequest Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ADUserThresholdBreach	Request quarantined, because an Anomaly Detection User-specific volume threshold has been breached	sr:ADBreach (see ADBreach Data Items Definition)	N46: Yes Otherwise: N/A	None	N/A	Non-Sensitive
ADDCCThresholdBreach	Request quarantined, because an Anomaly Detection DCC system-wide volume threshold has been breached	sr:ADBreach (see ADBreach Data Items Definition)	N47: Yes Otherwise: N/A	None	N/A	Non-Sensitive
ADAttributeLimitsBreach	Request quarantined, because an Anomaly Detection Attribute Limit has been breached	sr:ADBreach (see ADBreach Data Items Definition)	N48: Yes Otherwise: N/A	None	N/A	Non-Sensitive

Table 23 DCC Alert Service Response – QuarantinedRequest Data Items

ADBreach Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RequestID	Request ID of the quarantined Request	sr:RequestIDType (see Annex Section 17)	Yes	None	N/A	Non-Sensitive
QuarantineEventRef	Quarantine event reference generated by the DCC Data Systems for a particular instance of an Anomaly Detection quarantine threshold / attribute limit being exceeded. Note this is not an Incident reference.	Restriction of xs:integer (totalDigits = 20)	Yes	None	N/A	Non-Sensitive

Table 24 DCC Alert Service Response – ADBreach Data Items

#### 16.2.1.2.13 FirmwareVersionMismatch

FirmwareVersionMismatch Format

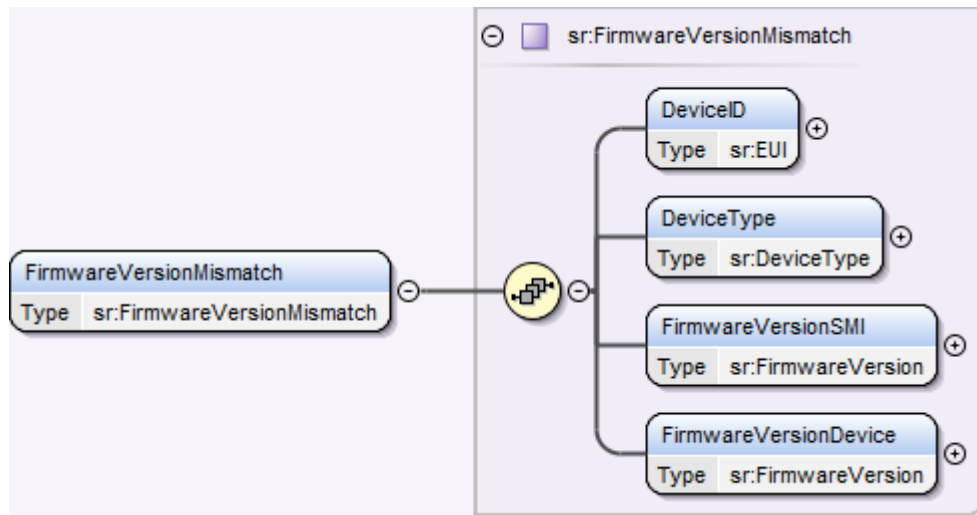


Figure 22 DCC Alert Response – FirmwareVersionMismatch Structure

FirmwareVersionMismatch Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID with a Firmware Version mismatch between the SMI and the Device	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
DeviceType	Device Type of the Device with a Firmware Version mismatch between the SMI and the Device  Valid set: <ul style="list-style-type: none"> <li>ESME</li> <li>GSME</li> <li>CHF</li> <li>PPMID</li> <li>HCALCS</li> </ul>	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A	Non-Sensitive
FirmwareVersionSMI	N49, N50. The Device's Firmware Version in SMI prior to its replacement with the value returned by the Device N51, N52. The Device's Firmware Version in SMI  The Firmware version as held in the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F. This data item matches the value on the CPL (excluding the colon separator between octet values)	Restriction of xs:string (minLength = 1, maxLength = 8)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
FirmwareVersionDevice	<p>N49, N50. The Device's Firmware Version held on the Device and now updated in the SMI post response returned by the Device</p> <p>The Firmware version as held in the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F.</p> <p>This data item matches the value on the CPL (excluding the colon separator between octet values)</p> <p>N51. Firmware Version returned by the Device, which is unknown (it doesn't match an item on the CPL)</p> <p>N52. GSME Firmware Version returned by the GPF</p>	Restriction of xs:string (minLength = 1, maxLength = 8)	Yes	None	N/A	Non-Sensitive

Table 25 DCC Alert Service Response – FirmwareVersionMismatch Data Items

#### 16.2.1.2.14 DualBandCHAlert

DualBandCHAlert Format

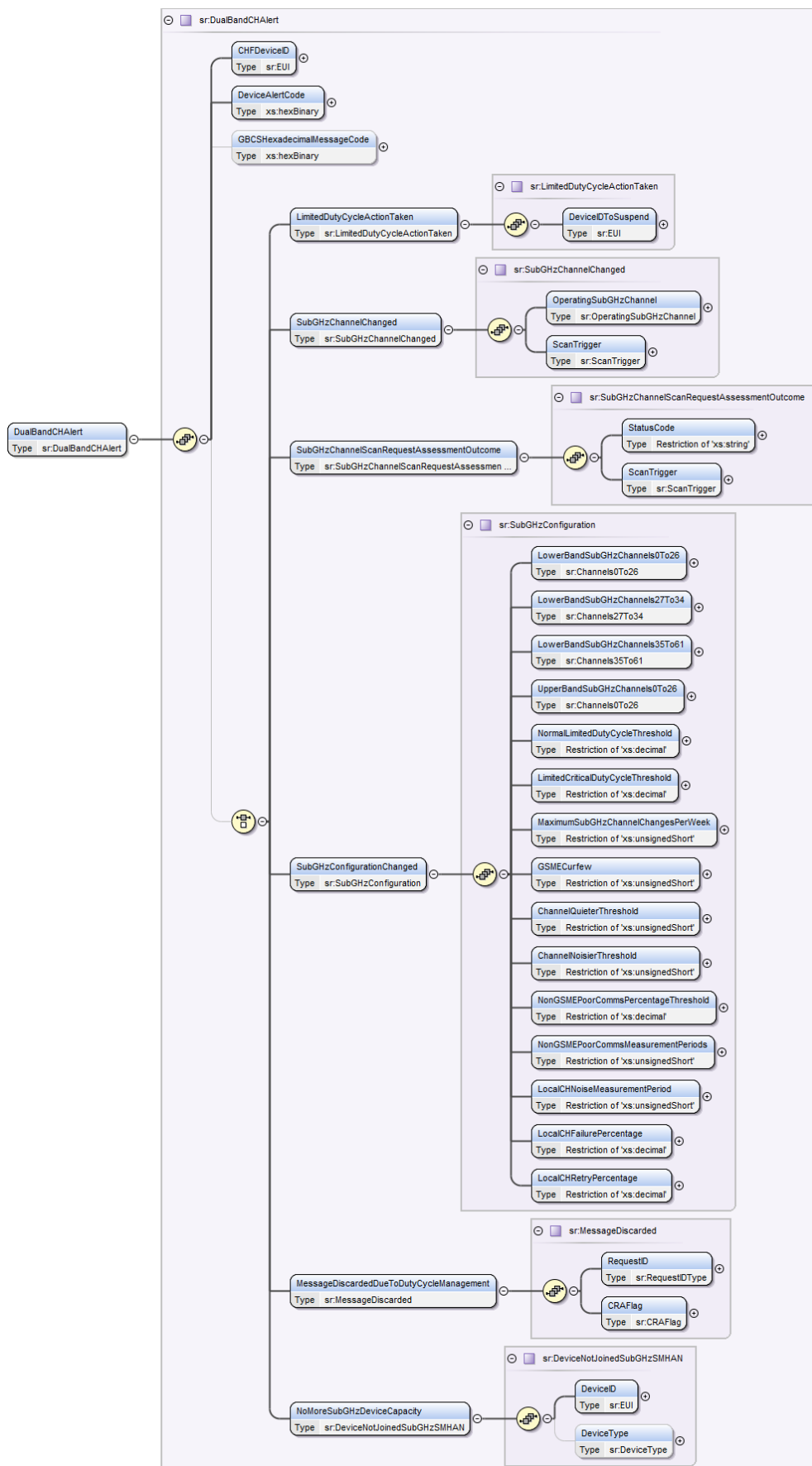


Figure 23 DCC Alert Response – DualBandCHAlert Structure

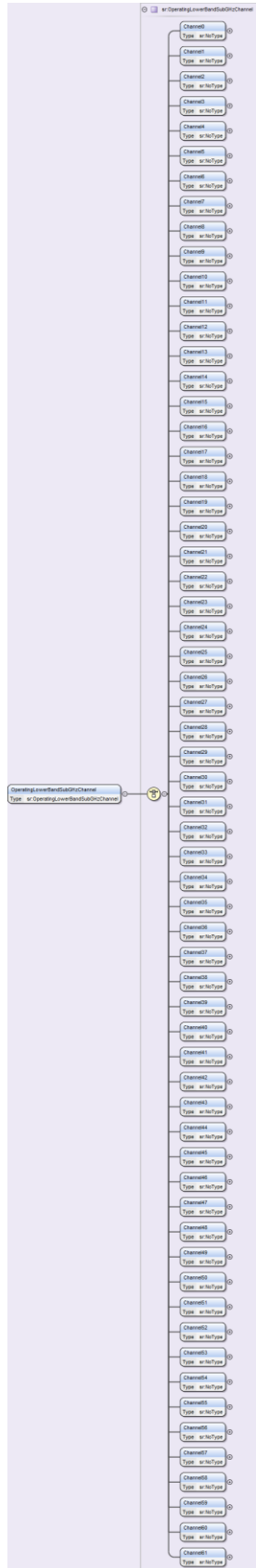


Figure 24 DCC Alert Response DualBandCHAlert - SubGHzChannelChanged – OperatingSubGHzChannel - OperatingLowerBandSubGHzChannel Structure

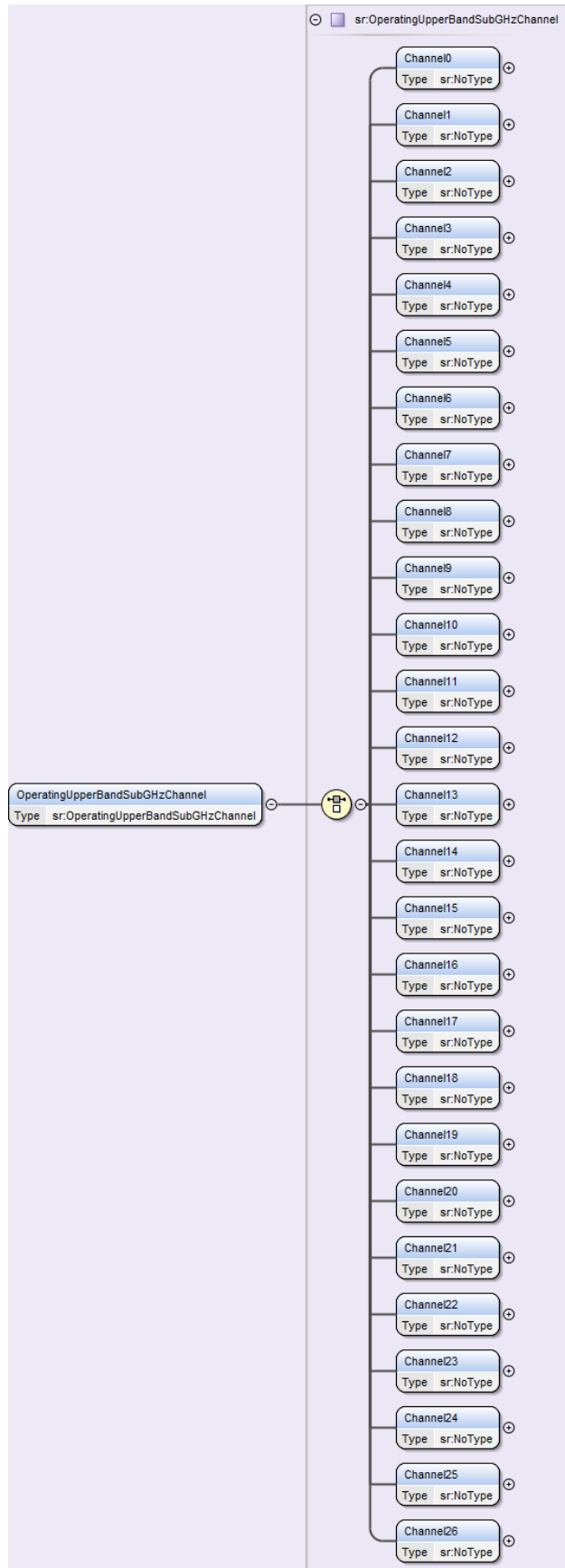


Figure 25 DCC Alert Response – DualBandCHAlert - SubGHzChannelChanged – OperatingUpperBandSubGHzChannel Structure

DualBandCHAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CHFDeviceID	Device ID of the Dual Band CHF that generated the Device Alert	sr:EUI (see Annex Section 17)	Yes	None	N/A	Non-Sensitive
DeviceAlertCode	<p>The Alert Code of the Device Alert generated by the Dual Band CHF. Note – preceding 0x removed as per GBCS definition.</p> <p>Valid set:</p> <ul style="list-style-type: none"> <li>No additional data included within Device Alert: <ul style="list-style-type: none"> <li>8F21</li> <li>8F22</li> <li>8F23</li> <li>8F24</li> <li>8F25</li> <li>8F27</li> <li>8F29</li> <li>8F2B</li> </ul> </li> <li>Additional data included within Device Alert: <ul style="list-style-type: none"> <li>8F20</li> <li>8F26</li> <li>8F28</li> <li>8F2A</li> <li>8F2C</li> <li>8F2D</li> </ul> </li> </ul>	xs:hexBinary	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
GBCSHexadecimalMessageCode	<p>The Message Code corresponding to the GBCS Use Case of those Dual Band CH Device Alerts that include additional data.</p> <p>Valid Set:</p> <ul style="list-style-type: none"> <li>0110. GBCS Use Case DBCH06 Limited Duty Cycle Action Taken Sub GHz Alert -Device Alert 8F20</li> <li>0111. GBC Use Case DBCH07 Sub GHz Sub GHz Channel Changed Sub GHz Alert. Device Alert 8F26</li> <li>0112. GBC Use Case DBCH08 Sub GHz Channel Scan Request Assessment Outcome Sub GHz Alert. Device Alert 8F28</li> <li>0113. DBCH09 Sub GHz Configuration Changed Sub GHz Alert. Device Alert 8F2A</li> <li>0114. DBCH10 Message Discarded Due to Duty Cycle Management Sub GHz Alert. Device Alert 8F2C</li> <li>0115. DBCH11 No More Sub GHz Device Capacity Sub GHz Alert. Device Alert 8F2D</li> </ul>	xs:hexBinary	DeviceAlertCode is 8F20, 8F26, 8F28, 8F2A, 8F2C or 8F2D: Yes Otherwise: N/A	None	N/A	Non-Sensitive
LimitedDutyCycleActionTaken	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case - <b>DBCH06</b>.</p> <p>This event shall occur when the CH measurement of Duty Cycle rises above the Normal-Limited Duty Cycle Threshold</p> <ul style="list-style-type: none"> <li>When this occurs the CHF shall identify the Device for which the largest number of unicast messages have been received on any Sub GHz Channel over the last Duty Cycle Measurement Period and set Device ID within the Device Alert accordingly.</li> </ul>	sr:LimitedDutyCycleActionTaken (see LimitedDutyCycleActionTaken (GBCS Use Case DBCH06) Data Items Definition)	Device Alert = 8F20: Yes Otherwise: N/A	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
SubGHzChannelChange d	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case - <b>DBCH07</b>.</p> <p>The Sub GHz operational channel has changed as a result of a Channel Scan</p>	<p>sr: SubGHzChannel Changed (see <a href="#">SubGHzChannel Changed (GBCS Use Case DBCH07) Data Items DefinitionSubGH zChannelChange d-(GBCS Use Case-DBCH07) Data Items Definition)</a>)</p>	Device Alert = 8F26: Yes Otherwise: N/A	None	N/A	Non- Sensitive
SubGHzChannelScanRe questAssessmentOutcom e	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case - <b>DBCH08</b>.</p> <p>This event shall occur when a Channel Scan is triggered on a Communications Hub (CH).</p> <p>Once the CHF assesses the Channel Scan request generates a Device Alert to notify the result of the assessment to the ACB (DSP Access Control Broker).</p> <p>If any of the checks fails, no further checks are undertaken by the CHF at that point. Note that some of the failures, e.g. HHT connected, will automatically trigger another Channel Scan assessment when that condition is no longer true, e.g. HHT no longer connected to the SMHAN.</p> <p>If all of the checks are passed or scanTrigger is SMHANFormation), the CHF shall set statusCode to ScanRequestAccepted and the CHF will carry out the Channel Scan</p>	<p>sr:SubGHzChann elScanRequestAss essmentOutcom e (see SubGHzChannel ScanRequestAss essmentOutcome (GBCS Use Case DBCH08) Data Items Definition)</p>	Device Alert = 8F28: Yes Otherwise: N/A	None	N/A	Non- Sensitive
SubGHzConfigurationCh anged	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case - <b>DBCH09</b>.</p> <p>The Sub GHz Configuration has changed as a result of a successful GBCS command Use Case DBCH04 (Service Request 6.28 Set CHF Sub GHz Configuration). See Annex 6 section 6.28</p>	<p>sr: SubGHzConfigura tion (see Annex section 6.28)</p>	Device Alert = 8F2A: Yes Otherwise: N/A	None	N/A	Non- Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
MessageDiscardedDueToDutyCycleManagement	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case – <b>DBCH10</b>.</p> <p>This is a notification to the ACB that the CHF has discarded a Remote Party Command to a Sub GHz Non GSME Device due to communications being suspended with that Device.</p> <p>Whenever a CHF is limiting communications to a Sub GHz Non GSME Device, the CHF shall on receipt of any Remote Party Command for that Device notify the ACB (DSP Access Control Broker) that the message has been discarded by the CHF</p>	<p>sr: MessageDiscarded</p> <p>(see MessageDiscardedDueToDutyCycleManagement (GBCS Use Case DBCH10) Data Items Definition)</p>	<p>Device Alert = 8F2C: Yes Otherwise: N/A</p>	None	N/A	Non-Sensitive
NoMoreSubGHzDeviceCapacity	<p>This data item is a decode of the Device Alert details sent to the ACB (DSP Access Control Broker) for GBCS Use Case – <b>DBCH11</b>.</p> <p>This is a notification to the ACB that the CHF has not allowed a Device to join the SMHAN on a Sub GHz Frequency as the CHF has no more capacity at Sub GHz.</p> <p>The event occurs when:</p> <ul style="list-style-type: none"> <li>A Device other than a GSME or HCALCS is added to the CHF Device Log</li> <li>There are already 4 Devices (excluding GSME and HCALCS) that joined the SMHAN on a Sub GHz frequency; and</li> <li>the Device added then attempts to join the SMHAN on a Sub GHz Frequency</li> </ul> <p>the CH shall not allow the Device to join the SMHAN on a Sub GHz Frequency</p>	<p>sr: sr:DeviceNotJoinedSubGHzSMHAN</p> <p>(see :NoMoreSubGHzDeviceCapacity (GBCS Use Case DBCH11) Data Items Definition)</p>	<p>Device Alert = 8F2D: Yes Otherwise: N/A</p>	None	N/A	Non-Sensitive

**Table 26 DCC Alert Service Response – DualBandCHAlert Data Items**

LimitedDutyCycleActionTaken (GBCS Use Case DBCH06) Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceIDToSuspend	<p>The Device ID of the Device to be Suspended.</p> <p>This is a decode of the content of the Use Case Specific Additional Content from the Device Alert 0x8F20, message Code 0x0110.</p> <p>1) if 'Device ID' is not that of a GSME, the CH shall send to that Device a Suspend ZCL Messages command with the Suspension Period parameter set to Suspension Period; and</p> <p>2) if 'Device ID' is that of a GSME, in the Suspend ZCL Messages command response to the next Get Suspend ZCL Messages Status command received by the CH from that GSME, the CH shall set the Suspension Period parameter to Suspension Period.</p> <p>For clarity, HAN communications with the specified Device will not be possible for Suspension Period</p>	sr:EUI (see Annex Section 17)	Yes	None	N/A	Non-Sensitive

**Table 27 DCC Alert Service Response – DualBandCHAlert LimitedDutyCycleActionTaken Data Items**

SubGHzChannelChanged (GBCS Use Case DBCH07) Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
OperatingSubGHzChannel	<p>The Sub GHz Channel currently operating on the SMHAN, being one of 0 to 61 in the Lower Band Sub GHz (863 to 876 MHz) frequency range or one of 0 to 26 in the Upper Band Sub GHz (915 to 921 MHz) frequency range.</p> <p>This is a decode of the content of the Use Case Specific Additional Content (value of Operating Sub GHz Channel) from the Device Alert Code 0x8F26, message Code 0x0111.</p>	sr: OperatingSubGHzChannel (see OperatingSubGHzChannel (GBCS Use Case DBCH07) Data Items)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ScanTrigger	<p>Trigger of the Scan that resulted in the change to the operating channel</p> <p>Valid Set:</p> <ul style="list-style-type: none"> <li>▪ RemotePartyCommand</li> <li>▪ GSMERequest</li> <li>▪ GSMEMissedItsCurfew</li> <li>▪ GSMEMissingForTheLastDay</li> <li>▪ CHDetectedMessageFailureProblems</li> <li>▪ CHDetectedMessageRetryProblems</li> <li>▪ SubGHzNon-GSMEDeviceRequest</li> <li>▪ SMHANFormation</li> </ul> <p>This is a decode of the content of the Use Case Specific Additional Content (ScanTrigger) from the Device Alert Code 0x8F26, message Code 0x0111</p>	sr:ScanTrigger (Restriction of xs:string Enumeration)	Yes	None	N/A	Non-Sensitive

**Table 28 DCC Alert Service Response – DualBandCHAlert SubGHzChannelChanged Data Items**

OperatingSubGHzChannel (GBCS Use Case DBCH11) Data Items

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
OperatingLowerBandSubGHzChannel	<p>One of channels 0 to 61 in the Lower Band Sub GHz (863 to 876 MHz) frequency range.</p> <p>This is a decode of the content of the Use Case Specific Additional Content (value of Operating Sub GHz Channel) from the Device Alert Code 0x8F26, message Code 0x0111</p>	sr: ChannelIn863To876MHzRange (Choice of Channel0 sr:NoType to Channel61 sr:NoType)	Operating Channel in 863 to 876 MHz Range: Yes Otherwise: N/A	None	N/A	Non-Sensitive
OperatingUpperBandSubGHzChannel	<p>One of channels 0 to 26 in the Upper Band Sub GHz (915 to 921 MHz) frequency range.</p> <p>This is a decode of the content of the Use Case Specific Additional Content (value of Operating Sub GHz Channel) from the Device Alert Code 0x8F26, message Code 0x0111</p>	sr: ChannelIn915To921MHzRange (Choice of Channel0 sr:NoType to Channel26 sr:NoType)	Operating Channel in 915 to 921 MHz Range: Yes Otherwise: N/A	None	N/A	Non-Sensitive

**Table 29 DCC Alert Service Response – DualBandCHAlert SubGHzChannelChanged OperatingSubGHzChannel Data Items**

SubGHzChannelScanRequestAssessmentOutcome (GBCS Use Case DBCH08) Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
StatusCode	<p>The Status Code resulting from the Channel Scan assessment</p> <p>Valid Set:</p> <ul style="list-style-type: none"> <li>ScanRequestAccepted</li> <li>HHTConnected</li> <li>DutyCycleUsageIsTooHigh</li> <li>JoiningIsCurrentlyPermitted</li> <li>GSMEOTADistributionUnderway</li> <li>TooManyScansToday</li> <li>TooManyCommandsToday</li> <li>TooManyScansThisWeek</li> </ul> <p>This is a decode of the content of the Use Case Specific Additional Content (scanRequestAssessmentOutcomeAndTrigger) from the Device Alert 0x8F28, message Code 0x0112</p>	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive
ScanTrigger	<p>Trigger of the Scan that resulted in the change to the operating channel</p> <p>Valid Set:</p> <ul style="list-style-type: none"> <li>RemotePartyCommand</li> <li>GSMERequest</li> <li>GSMEMissedItsCurfew</li> <li>GSMEMissingForTheLastDay</li> <li>CHDetectedMessageFailureProblems</li> <li>CHDetectedMessageRetryProblems</li> <li>SubGHzNon-GSMEDeviceRequest</li> <li>SMHANFormation</li> </ul> <p>This is a decode of the content of the Use Case Specific Additional Content (scanRequestAssessmentOutcomeAndTrigger) from the Device Alert 0x8F28, message Code 0x0112</p>	sr:ScanTrigger (Restriction of xs:string Enumeration)	Yes	None	N/A	Non-Sensitive

**Table 30 DCC Alert Service Response – DualBandCHAlert  
SubGHzChannelScanRequestAssessmentOutcome Data Items**

MessageDiscardedDueToDutyCycleManagement (GBCS Use Case DBCH10) Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RequestID	The Request ID of the Command being discarded. This is a decode of the content of the Use Case Specific Additional Content (Additional Data') from the Device Alert 0x8F2C, message Code 0x0114.	sr:RequestIDType (see Annex Section 17)	Yes	None	N/A	Non-Sensitive
CRAFlag	GBCS flag that indicates the message type being one of: Command, Response or Alert. This is a decode of the content of the Use Case Specific Additional Content (Additional Data') from the Device Alert 0x8F2C, message Code 0x0114. Valid Set: <ul style="list-style-type: none"> <li>Command</li> <li>Response (N/A to this DCC Alert)</li> <li>Alert (N/A to this DCC Alert)</li> </ul>	sr:CRAFlag Restriction of xs:string (enumeration)	Yes	None	N/A	Non-Sensitive

**Table 31 DCC Alert Service Response – DualBandCHAlert  
MessageDiscardedDueToDutyCycleManagement Data Items**

NoMoreSubGHzDeviceCapacity (GBCS Use Case DBCH11) Data Items Definition

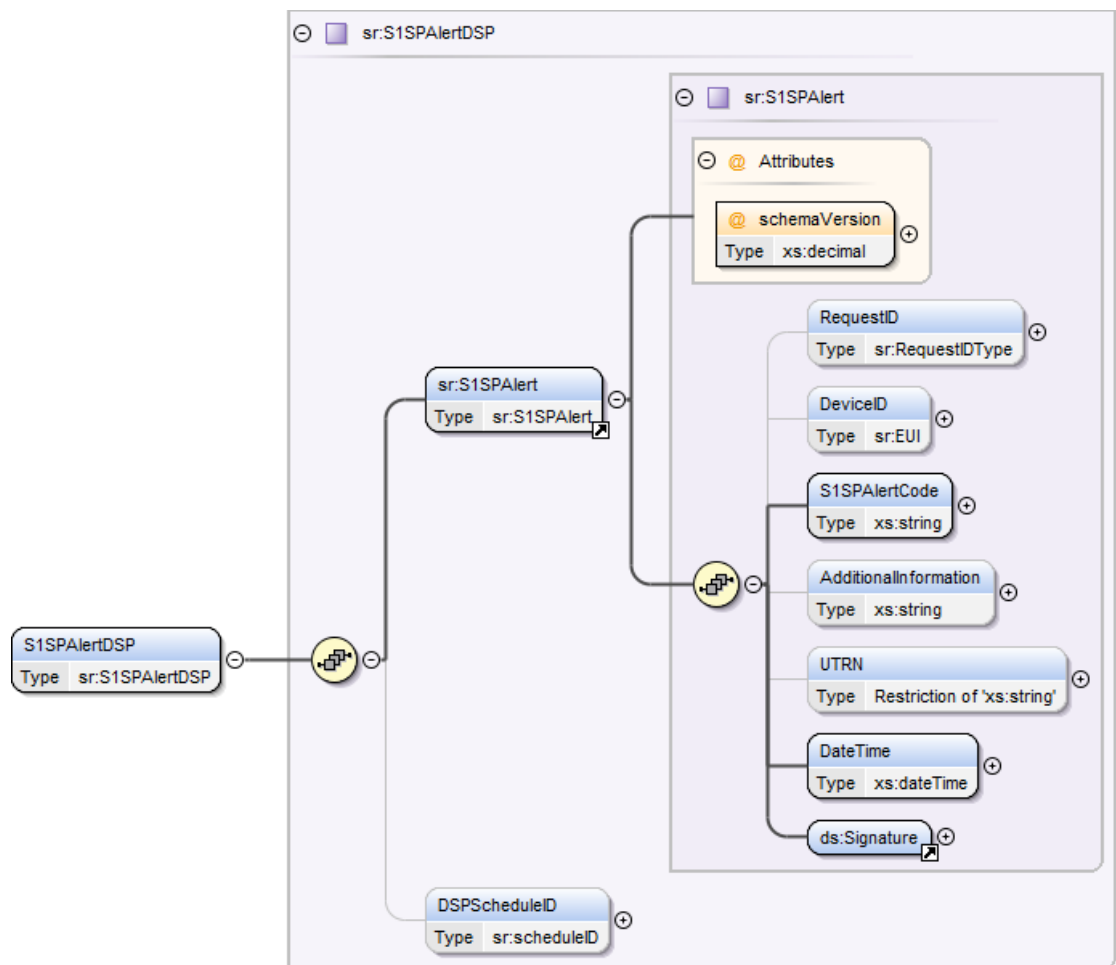
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID of the Device not allowed to join the SMHAN on a Sub GHz frequency. This is a decode of the content of the Use Case Specific Additional Content (otherInfo) from the Device Alert 0x8F2D, message Code 0x0115	sr:EUI (see Annex Section 17)	Yes	None	N/A	Non-Sensitive
DeviceType	The Device Type of the Device not allowed to join the SMHAN on a Sub GHz frequency. This is additional information added by the DCC Data Systems, where the Device ID matches that of a Device on the SMI. Valid Set <sup>1</sup> : <ul style="list-style-type: none"> <li>GSME</li> <li>HCALCS</li> <li>PPMID</li> <li>IHD</li> <li>CAD</li> </ul>	sr:DeviceType (Restriction of xs:string (Enumeration))	No	None	N/A	Non-Sensitive

**Table 32 DCC Alert Service Response – DualBandCHAlert  
NoMoreSubGHzDeviceCapacity Data Items**

<sup>1</sup> Only one of these Device Types is expected to correspond to the Device ID in the Device Alert, since only these Device Types can operate at Sub GHz Frequencies. However the DCC Data Systems will return the Device Type corresponding to the Device ID in SMI, which could also be CHF, GPF or ESME

### 16.2.1.2.15 S1SPAAlertDSP

#### S1SPAAlertDSP Format



**Figure 26 DCC Alert Response – S1SPAAlertDSP Structure**

#### S1SPAAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
S1SPAAlert	The SMETS1 Service Provider reports a Service Request validation error or communications failure with the Device	sr:S1SPAAlert (see <a href="#">S1SPAAlert Data Items Definition</a> )	Yes	None	N/A	Non-Sensitive
DSPScheduleID	For DSP Scheduled Service Requests, ID of the DSP Schedule associated to the Request	sr:scheduleID (see Annex section 17)	No <sup>1</sup>	None	N/A	Non-Sensitive

**Table 33 DCC Alert Service Response – S1SPAAlertDSP Data Items**

<sup>1</sup> Only Applicable to DSP Scheduled Requests

#### S1SPAAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RequestID	N55. The Request ID corresponding to the Request for which the S1SP is reporting an error or notification  N56. The Request ID corresponding to the Request for which the S1SP has generated a prepayment top up UTRN	sr:RequestIDType (see Annex section 17)	No	None	N/A	Non-Sensitive
DeviceID	The Device ID for which the S1SP is communicating an error	sr:EUI (see Annex section 17)	No	None	N/A	Non-Sensitive
S1SPAlertCode	S1SP error code Valid Set: See Main Document section 12.4	xs:string	Yes	None	N/A	Non-Sensitive
AdditionalInformation	Additional Information provided by the S1SP	xs:string	No	None	N/A	Non-Sensitive
UTRN	The Unique Transaction Reference Number which conveys the vend amount securely to the meter to allow it to increment the meter balance on a prepay meter. The UTRN must protect against replay, whether entered locally or sent electronically.	Restriction of xs:string (minLength = 20, maxLength = 20, pattern = "[0-9]{20}")	No	None	N/A	Non-Sensitive
DateTime	Date Time when the S1SP generated the alert	xs:dateTime	Yes	None	N/A	Non-Sensitive
ds:signature	SMETS1 Service Provider Digital Signature (defined in a separate schema). See Main Document XMLDGIS XSD for details on the signature schema	ds:signature	Yes	None	N/A	Non-Sensitive

**Table 34 DCC Alert Service Response – S1SPAlert Data Items**

#### 16.2.1.2.16 SMETS1CHFirmwareNotification

SMETS1CHFirmwareNotification Format

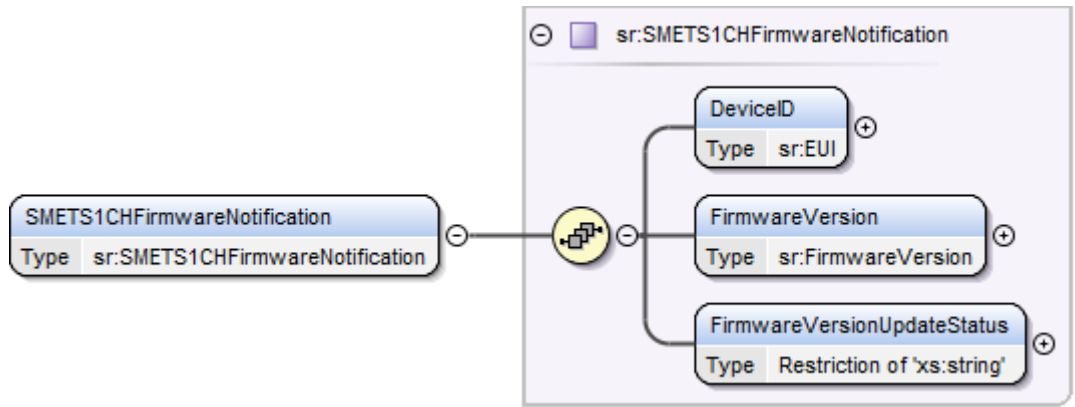


Figure 27 DCC Alert Response – SMETS1CHFirmwareNotification Structure

SMETS1CHFirmwareNotification Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID of the Device for which a Firmware update has been requested or activated. This DCC Alert is applicable only to SMETS1 CHFs and SMETS1 PPMIDs	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
FirmwareVersion	The firmware version of the FirmwareImage included in the corresponding Update Firmware Service Request, as held in the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F	Restriction of xs:string (minLength = 1, maxLength = 8)	Yes	None	N/A	Non-Sensitive
FirmwareVersionUpdateStatus	The outcome of the Firmware update request. Valid Set: <ul style="list-style-type: none"> <li>UpdateRequested</li> <li>ActivationSuccessful</li> </ul>	Restriction of xs:string	Yes	None	N/A	Non-Sensitive

Table 35 DCC Alert Service Response – SMETS1CHFirmwareNotification Data Items

#### 16.2.1.2.17 ALCSHCALCSCConfigurationChange

ALCSHCALCSCConfigurationChange Format

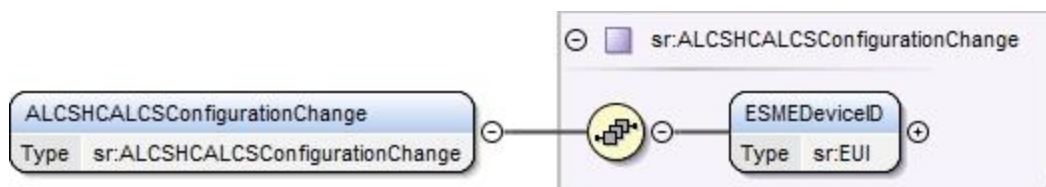


Figure 27.1 DCC Alert Response – ALCSHCALCSCConfigurationChange Structure – DUIS v3.1

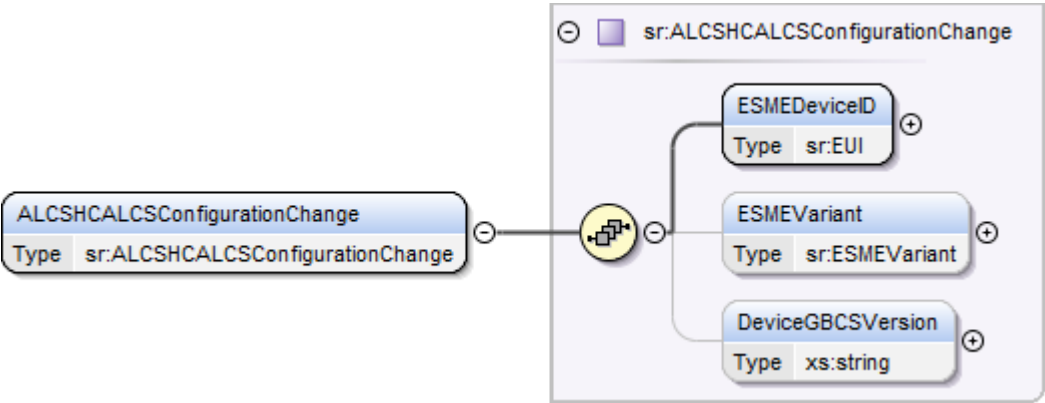


Figure 27.2 DCC Alert Response – ALCSHCALCSConfigurationChange Structure – DUIS v4.0 or later

ALCSHCALCSConfigurationChange Data Items Definition

In the following table, the XML elements marked “(DUIS v4.0 or later)” will not be present in the DUIS v3.1 XML schema, where this DCC Alert was introduced, so if this DCC Alert is sent to a DCC Service User using DUIS v3.1, those data items will be omitted.

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
ESMEDeviceID	The Device ID of the ESME for which the ALCS / HCALCS configuration has changed	sr:EUI (see Annex 17)	Yes	None	N/A	Non-Sensitive

ESMEVariant (DUI v4.0 or later)	<p>The ESME Variant of the ESME (or SAPC) for which the Auxiliary Controller configuration has changed. This data is provided in order that the recipient can determine the type of Auxiliary Controller functionality that the Device can support.</p> <p>Valid set (note that all possible combinations in the XML enumeration are listed here, but the DCC Alert would be triggered only for a combination including an Auxiliary Controller, i.e. at least one of D, F or G):</p> <ul style="list-style-type: none"> <li>▪ A. Single Element</li> <li>▪ B. Twin Element</li> <li>▪ C. Polyphase</li> <li>▪ AD. Single Element with ALCS</li> <li>▪ BD. Twin Element with ALCS</li> <li>▪ CD. Polyphase with ALCS</li> <li>▪ ADE. Single Element with ALCS and Boost Function</li> <li>▪ BDE. Twin Element with ALCS and Boost Function</li> <li>▪ CDE. Polyphase with ALCS and Boost Function</li> <li>▪ ADF. Single Element with ALCS and APC<sup>1</sup></li> <li>▪ BDF. Twin Element with ALCS and APC<sup>1</sup></li> <li>▪ CDF. Polyphase with ALCS and APC<sup>1</sup></li> <li>▪ ADEF. Single Element with ALCS, Boost Function and APC<sup>1</sup></li> <li>▪ BDEF. Twin Element with ALCS, Boost Function and APC<sup>1</sup></li> <li>▪ CDEF. Polyphase with ALCS, Boost Function and APC<sup>1</sup></li> <li>▪ ADG. Single Element with ALCS and SAPC<sup>1</sup></li> <li>▪ BDG. Twin Element with ALCS and SAPC<sup>1</sup></li> <li>▪ CDG. Polyphase with ALCS and SAPC<sup>1</sup></li> <li>▪ ADEG. Single Element with ALCS, Boost Function and SAPC<sup>1</sup></li> <li>▪ BDEG. Twin Element with ALCS, Boost Function and SAPC<sup>1</sup></li> <li>▪ CDEG. Polyphase with ALCS, Boost Function and SAPC<sup>1</sup></li> <li>▪ AF. Single Element with APC<sup>1</sup></li> <li>▪ BF. Twin Element with APC<sup>1</sup></li> <li>▪ CF. Polyphase with APC<sup>1</sup></li> <li>▪ AEF. Single Element with Boost Function and APC<sup>1</sup></li> <li>▪ BEF. Twin Element with Boost Function and APC<sup>1</sup></li> <li>▪ CEF. Polyphase with Boost Function and APC<sup>1</sup></li> <li>▪ AG. Single Element with SAPC<sup>1</sup></li> <li>▪ BG. Twin Element with SAPC<sup>1</sup></li> <li>▪ CG. Polyphase with SAPC<sup>1</sup></li> <li>▪ AEG. Single Element with Boost Function and SAPC<sup>1</sup></li> <li>▪ BEG. Twin Element with Boost Function and SAPC<sup>1</sup></li> <li>▪ CEG. Polyphase with Boost Function and SAPC<sup>1</sup></li> </ul>	sr:ESMEVariant Restriction of xs:string (Enumeration)	No	None	N/A	Non-Sensitive
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Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceGBCSVersion (DUI v4.0 or later)	The operational version of GBCS of the ESME (or SAPC) for which the Auxiliary Controller configuration has changed. This data is provided in order that the recipient can determine which Service Requests related to Auxiliary Controller functionality will be appropriate for the Device. Valid set: GBCS version number valid on the CPL, for example 4.0.	xs:string	No	None	N/A	Non-Sensitive

Table 35.1 DCC Alert Service Response – ALCSHCALCSCConfigurationChange Data Items

<sup>1</sup> N/A to Devices prior to GBCS v4.0

#### 16.2.1.2.18 FirmwareUpgradeRequested

FirmwareUpgradeRequested Format

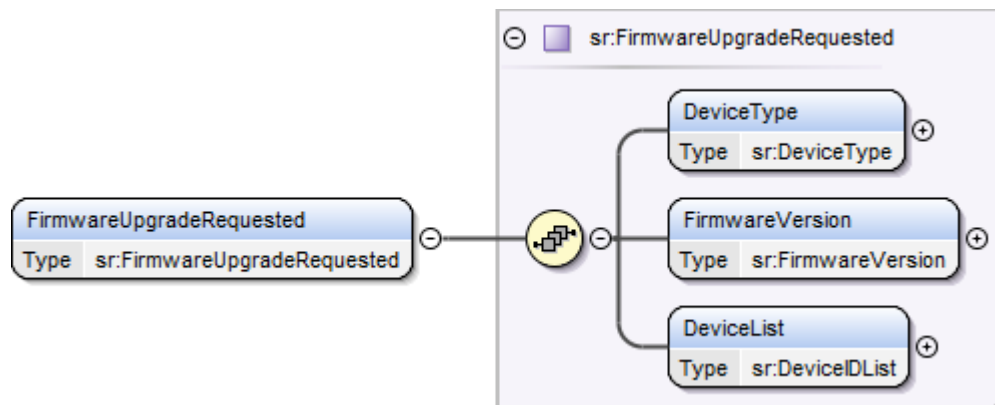


Figure 27.3 DCC Alert Response – FirmwareUpgradeRequested Structure

FirmwareUpgradeRequested Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceType	The type of the Device the Firmware is applicable to. Valid set: PPMID	sr:DeviceType	Yes	None	N/A	Non-Sensitive
FirmwareVersion	The firmware version of the transferred Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A	Non-Sensitive

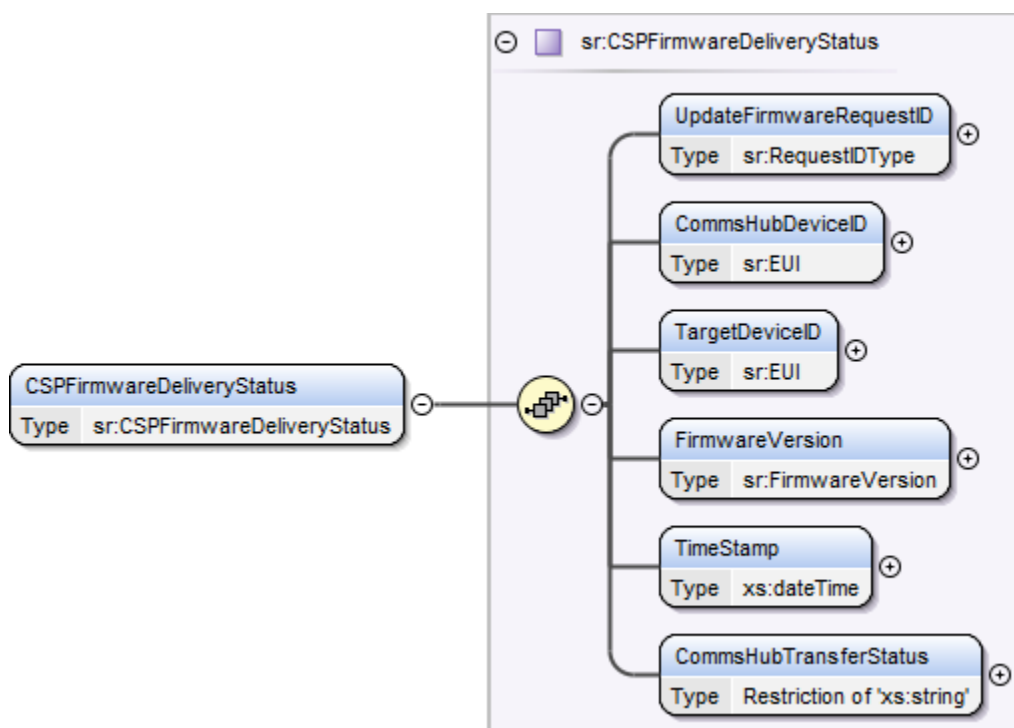
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceList	List of Device IDs that successfully passed validation by DSP and CSP. Populated if a firmware distribution status is received from a CSP	sr:DeviceIDList (Restriction of xs:string (min length = 23 pattern = "[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2}-[A-Fa-f0-9]{2})")	Yes <sup>1</sup>	None	N/A	Non-Sensitive

### Table 35.2 DCC Alert Service Response – FirmwareUpgradeRequested Data Items

<sup>1</sup> Minimum of 1 and maximum of 50,000 Device IDs

#### 16.2.1.2.19 CSPFirmwareDeliveryStatus

## CSPFirmwareDeliveryStatusFormat



### Figure 27.4 DCC Alert CSPFirmwareDeliveryStatus –Alert Structure

## CSPFirmwareDeliveryStatus Data Items Definition

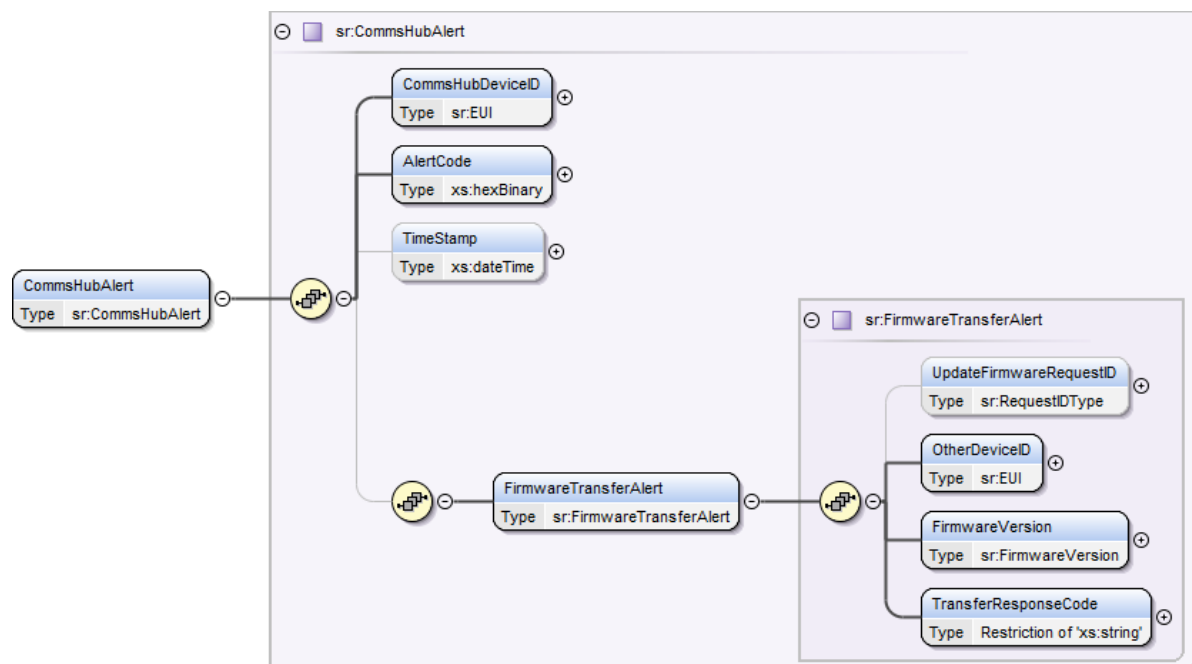
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
UpdateFirmwareRequestID	Request ID of the Update Firmware Service Request associated to this DCC Alert	sr:RequestIDType (see Annex section17)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CommsHubDeviceID	The Device ID of the Comms Hub that generated the Device Alert	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
TargetDeviceID	The ID of the Device the firmware image is targeted at	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
FirmwareVersion	The firmware version of the transferred or discarded Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A	Non-Sensitive
TimeStamp	The timestamp at which the event that is responsible for this DCC Alert has occurred.	xs:dateTime	Yes	None	N/A	Non-Sensitive
CommsHubTransferStatus	Indicates whether a firmware image has been delivered to a Comms Hub. Valid set For DCC Alert N61: <ul style="list-style-type: none"> <li>Success</li> </ul> For DCC Alert N60: <ul style="list-style-type: none"> <li>Failure</li> </ul>	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive

### Table 35.3 DCC Alert Service Response – CSPFirmwareDeliveryStatus Data Items

#### 16.2.1.2.20 CommsHubAlert

## CommsHubAlert Format



### Figure 27.5 DCC Alert Response – CommsHubAlert Structure

## CommsHubAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
CommsHubDeviceID	The Device ID of the Comms Hub that generated the Device Alert	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
AlertCode	The Device Alert Code generated by the Comms Hub. Valid set: For Firmware Transfer Alert: To indicate successful delivery to the target Device: <ul style="list-style-type: none"> <li>8F8A</li> </ul> To indicate delivery to the target Device failed: <ul style="list-style-type: none"> <li>8F89</li> </ul>	xs:hexBinary	Yes	None	N/A	Non-Sensitive
TimeStamp	The timestamp at which the event that is responsible for this Device Alert has occurred.	xs:dateTime	No	None	N/A	Non-Sensitive
FirmwareTransferAlert	The Device Alert sent by a Comms Hub to report transfer status of a firmware image to the target Device. Only to report a firmware distribution status.	sr:FirmwareTransferAlert (See FirmwareTransferAlert Data Items Definition for details)	No	None	N/A	Non-Sensitive

**Table 35.4 DCC Alert Service Response – CommsHubAlert Data Items**

FirmwareTransferAlert Data Items Definition

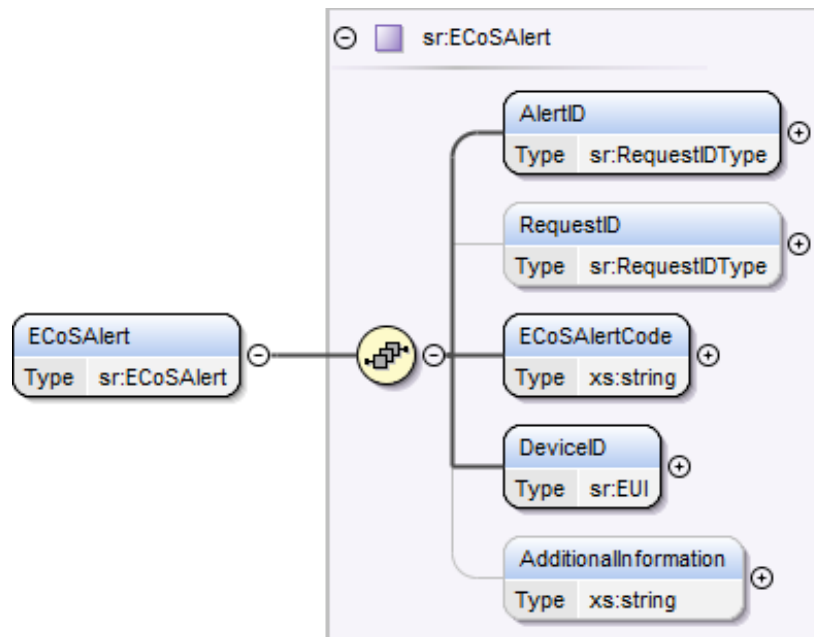
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
UpdateFirmwareRequestID	Request ID of the Update Firmware Service Request associated to this Alert If there is no tracking in progress when DSP receives the Comms Hub alert then this element will not be present	sr:RequestIDType (see Annex section 17)	No	None	N/A	Non-Sensitive
OtherDeviceID	The ID of the Device the firmware image is targeted at	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
FirmwareVersion	The firmware version of the transferred or discarded Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A	Non-Sensitive

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
TransferResponseCode	Valid set: For Alert Code 0x8F8A: <ul style="list-style-type: none"> <li>FileTransferSuccess</li> </ul> For Alert Code 0x8F89: <ul style="list-style-type: none"> <li>FirmwareImageDiscarded</li> <li>HardwareVersionMismatch</li> <li>FileTransferFailure</li> </ul>	Restriction of xs:string (Enumeration)	Yes	None	N/A	Non-Sensitive

**Table 35.5 DCC Alert Service Response – FirmwareTransferAlert Data Items**

#### 16.2.1.2.21 ECoS Alert

ECoSAlert format



**Figure 27.6 DCC Alert Response – ECoSAlert Structure**

ECoSAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
Alert ID	A unique identifier associated to this ECoS Alert (comprising Business Originator = ECoS Party, Business Target = Service User, Originator Counter generated by ECoS Party)	sr:RequestIDType (see Annex section17)	Yes	None	N/A	Non-Sensitive

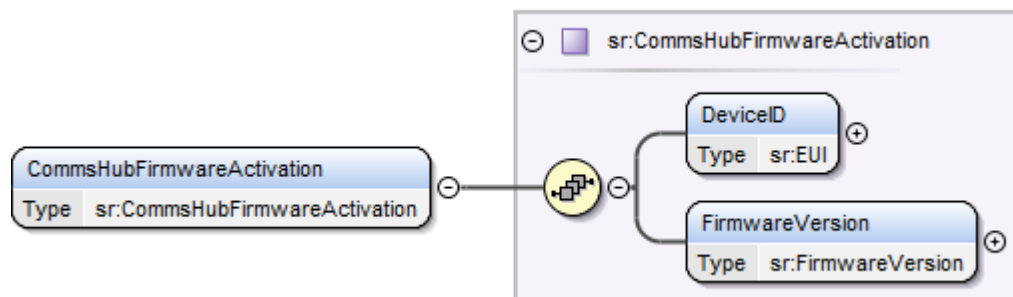
Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RequestID	The identifier of the Service Request sent to ECoS Party, about which the ECoS Alert is created.	sr:RequestIDType (see Annex section 17)	No <sup>1</sup>	None	N/A	Non-Sensitive
ECoSAlertCode	The code sent by the ECoS Party to describe the nature of the ECoS Alert being notified. Valid Set: defined in main document section 12.5	xs:string	Yes	None	N/A	Non-Sensitive
DeviceID	The Device ID associated with the ECoS Alert	sr:EUI	Yes	None	N/A	Non-Sensitive
AdditionalInformation	Additional Information provided by the ECoS Party	xs:string (max 250 characters)	No	None	N/A	Non-Sensitive

Table 35.6 DCC Alert Service Response – ECoSAlert Data Items

<sup>1</sup> Mandatory when the ECoS Alert relates to a CoS Service Request, however it is possible for the ECoS Party to generate an ECoS Alert which does not relate to a specific Service Request.

#### 16.2.1.2.22 CommsHubFirmwareActivation

CommsHubFirmwareActivation format

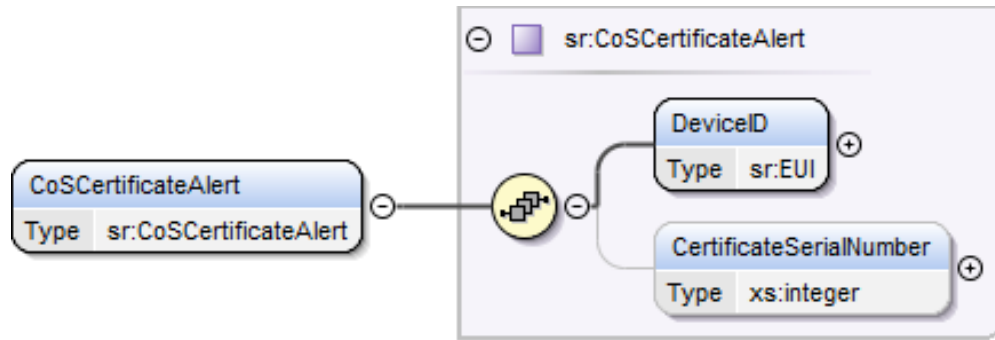


CommsHubFirmwareActivation Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The Device ID of the Device for which a new Firmware Image has been activated.	sr:EUI (see Annex section 17)	Yes	None	N/A	Non-Sensitive
FirmwareVersion	The version of the Firmware Image activated on the Device.	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A	Non-Sensitive

#### 16.2.1.2.23 CoS Certificate Alert

CoSCertificateAlert format



**Figure 27.7 DCC Alert Response – CoSCertificateAlert Structure**

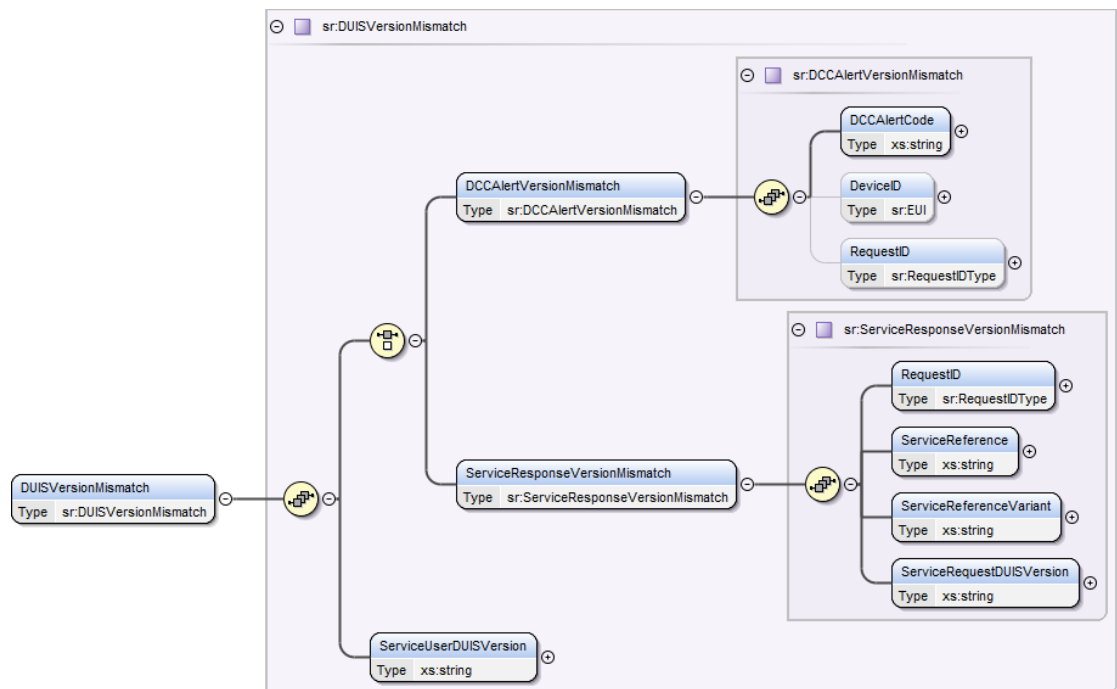
CoSCertificateAlert Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DeviceID	The EUI 64 ID of the Device	sr:EUI	Yes	None	N/A	Non-Sensitive
CertificateSerialNumber	The serial number of the Certificate placed in the CoS Trust Anchor Cell of the Device	xs:integer	No	None	N/A	Non-Sensitive

**Table 35.6 DCC Alert Service Response – CoSCertificateAlert Data Items**

#### 16.2.1.2.24 DUISVersionMismatch

DUISVersionMismatch Format



**Figure 28 DCC Alert Response – DUISVersionMismatch Structure**

DUISVersionMismatch Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DCCAlertVersionMismatch	The DCC Alert generated by the DCC Data Systems is not compatible with the DUIS version used by the DCC Service User	sr:DCCAlertVersionMismatch (see DCCAlertVersionMismatch Data Items Definition)	No <sup>1</sup>	None	N/A	Non-Sensitive
ServiceResponseVersionMismatch	The Service Response is not compatible with the DUIS version used by the DCC Service User	sr:ServiceResponseVersionMismatch (see ServiceResponseVersionMismatch Data Items Definition)	No <sup>1</sup>	None	N/A	Non-Sensitive
ServiceUserDUISVersion	The DUIS Version currently used by the DCC Service User, according to the DCC Data Systems. This will be set to the same value as the Response schema Version	xs:string	Yes	None	N/A	Non-Sensitive

**Table 36 DCC Alert Service Response – DUISVersionMismatch Data Items**

<sup>1</sup> The DCC Alert will include only one of the Data Items in the choice

DCCAlertVersionMismatch Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
DCCAlertCode	<p>The DCC Alert Code incompatible with the DCC Service User's DUIS XSD version</p> <p>SMETS1: If carrying an S1SP Alert, in addition (separated by colons) the S1SP Alert Code and, where present, the UTRN or the AdditionalInformation contained within the S1SPAlert that is unable to be delivered</p> <p>SMETS2: If reporting information regarding PPMID firmware updates requested (DCC Alert N59), in addition (separated by colons) the firmware version of the Update Firmware Request.</p> <p>SMETS2: If reporting a CSP firmware delivery notification (DCC Alert N60 or N61), in addition (separated by a colon) the firmware version of the Update Firmware Request.</p> <p>SMETS2: If carrying a Comms Hub firmware delivery notification (DCC Alert N62), in addition (separated by colons) the firmware version of the Update Firmware Request and the outcome of the transfer from Comms Hub to target device, expressed as the code from the GBCS alert (i.e. 0, 1, 2 or 3).</p> <p>If carrying an ECoS Alert (DCC Alert N63), in addition (separated by colons) the ECoS Alert Code and, where present, Additional Information contained within the ECoS Alert that is unable to be delivered.</p> <p>If carrying a Comms Hub Firmware Activation Alert (DCC Alert N64), in addition (separated by colons) the active firmware version of the Comms Hub.</p> <p>If carrying a CoS Certificate Alert (DCC Alert N65) in addition (separated by colons) the Certificate serial number.</p>	xs:string	Yes	None	N/A	Non-Sensitive
DeviceID	The Device ID corresponding to the incompatible DCC Alert, if applicable	sr:EUI (see Annex section 17)	No	None	N/A	Non-Sensitive
RequestID	The Request ID corresponding to the incompatible DCC Alert, if applicable	sr:RequestIDType (see Annex section 17)	No	None	N/A	Non-Sensitive

**Table 37 DCC Alert Service Response – DUISVersionMismatch  
DCCAlertVersionMismatch Data Items**

ServiceResponseVersionMismatch Data Items Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units	Sensitivity
RequestID	The Request ID of the Service Request incompatible with the DCC Service User's DUIS XSD version	sr:RequestIDType (see Annex section17)	Yes	None	N/A	Non-Sensitive
ServiceReference	The Service Reference of the Service Request incompatible with the DCC Service User's DUIS XSD version	xs:string	Yes	None	N/A	Non-Sensitive
ServiceReferenceVariant	The Service Reference Variant of the Service Request incompatible with the DCC Service User's DUIS XSD version	xs:string	Yes	None	N/A	Non-Sensitive
ServiceRequestDUISVersion	The DUIS Version of the Service Request incompatible with the DCC Service User's DUIS XSD version, e.g.: <ul style="list-style-type: none"> <li>1.0</li> <li>2.0</li> <li>3.0</li> <li>3.1</li> <li>4.0</li> <li>5.0</li> </ul>	xs:string	Yes	None	N/A	Non-Sensitive

**Table 38 DCC Alert Service Response – DUISVersionMismatch  
ServiceResponseVersionMismatch Data Items**

### 16.2.1.3 Relationship between DCC Alert Codes and Response Codes

DCC Alert			Response Codes
DUIS XSD Version	Modified in DUIS Versions	Code	
>= 1.0	N/A	AD1	I0
>= 1.0	N/A	N1	I0
>= 1.0	N/A	N2	I0
>= 1.0	N/A	N3	I0
>= 1.0	N/A	N4	I0
>= 1.0	N/A	N5	I0
>= 1.0	N/A	N6	I0
>= 1.0	N/A	N7	E1, E2, E3, E4, E5, E19, E56, E57, E1007, E060502
>= 1.0	N/A	N8	I0
>= 1.0	N/A	N9	I0
>= 1.0	N/A	N10	E30
>= 1.0	N/A	N11	E31
>= 1.0	N/A	N12	E20
>= 1.0	N/A	N13	E21
>= 1.0	N/A	N14	E43, E46, E47

DCC Alert			Response Codes
DUIS XSD Version	Modified in DUIS Versions	Code	
>= 1.0	N/A	N15	E44
>= 1.0	4.0	N16	I0
>= 1.0	N/A	N17	I0
>= 1.0	N/A	N18	I0
>= 1.0	N/A	N19	I0
>= 1.0	N/A	N20	I0
>= 1.0	N/A	N21	I0
>= 1.0	N/A	N22	E20
>= 1.0	N/A	N23	E21
>= 1.0	N/A	N24	I0
>= 1.0	N/A	N25	I0
>= 1.0	<del>N/A</del> 5.2	N26	E1, E2, E3, E4, E5, E19, E65, E66, E67, E68, E69, E70, E71, E100, E1007, E062303, E062304, E062305, E062306
>= 1.0	N/A	N27	I0
>= 1.0	N/A	N28	I0
>= 1.0	N/A	N29	I0
>= 1.0	N/A	N30	I0
>= 1.0	N/A	N31	I0
>= 1.0	N/A	N33	I0
>= 1.0	N/A	N34	I0
>= 1.0	N/A	N35	I0
>= 1.0	N/A	N36	I0
>= 1.0	N/A	N37	I0
>= 1.0	N/A	N38	I0
>= 1.0	5.0	N39	I0
>= 1.0	N/A	N40	I0
>= 1.0	N/A	N41	I0
>= 1.0	N/A	N42	I0
>= 1.0	N/A	N43	I0
>= 1.0	N/A	N44	I0
>= 1.0	N/A	N45	I0
>= 2.0	N/A	N46	I0
>= 2.0	N/A	N47	I0
>= 2.0	N/A	N48	I0
>= 2.0	N/A	N49	I0

DCC Alert			Response Codes
DUIS XSD Version	Modified in DUIS Versions	Code	
>= 2.0	N/A	N50	I0
>= 2.0	N/A	N51	I0
>= 2.0	N/A	N52	I0
>= 2.0	N/A	N53	E58
>= 2.0	N/A	N54	I0 <sup>1</sup> , E59 <sup>2</sup>
>= 3.0	N/A	N55	I0, E62
>= 3.0	N/A	N56	I0
>= 3.0	N/A	N57	I0
>= 3.1	4.0	N58	I0
>= 5.0	N/A	N59	I0
>= 5.0	N/A	N60	I0
>= 5.0	N/A	N61	I0
>= 5.0	N/A	N62	I0
>= 5.1	N/A	N63	I0 <sup>3</sup>
>= 5.1	N/A	N64	I0
>= 5.1	N/A	N65	I0
>= 2.0	N/A	N999	I0

Table 39 Relationship between DCC Alert Codes and Response Codes

<sup>1</sup> Applicable to Device Alerts 0x8F21, 08F23, 0x8F25, 0x8F26, 0x8F27, 0x8F28, 0x8F2A

<sup>2</sup> Applicable to Device Alerts 0x8F20, 08F22, 0x8F24, 0x8F29, 0x8F2B, 0x8F2C, 0x8F2D

<sup>3</sup> the payload of the alert will include the ECoS Alert code as defined in the main document

#### 16.2.1.4 DCC Alert Samples

##### 16.2.1.4.1 Power Outage

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>AD1</DCCAlertCode>
  <DCCAlert>
    <PowerOutageEvent>
      <CommsHubDeviceID>88-00-AA-BB-CC-DD-EE-FF</CommsHubDeviceID>
      <StartDateTime>2014-09-10T07:05:03.00</StartDateTime>
      <MPxN>311234567890</MPxN>
    </PowerOutageEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 29 Sample Power Outage DCC Alert Response Format

#### 16.2.1.4.2 Meter Identity

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N16</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <MeterIdentity>
          <MeterMPxNs>
            <ImportMPxN>1234567890123</ImportMPxN>
          </MeterMPxNs>
          <ESMEVariant>A</ESMEVariant>
        </MeterIdentity>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 30 Sample Meter Identity DCC Alert Response Format

#### 16.2.1.4.3 Meter Decommissioning Or Withdrawal

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N1</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <MeterDecommissioningOrWithdrawal>
          <MeterDecommissionOrWithdrawal>
            <ImportMPxN>1234567890</ImportMPxN>
          </MeterDecommissionOrWithdrawal>
        </MeterDecommissioningOrWithdrawal>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 31 Sample Meter Decommissioning Or Withdrawal DCC Alert Response Format

#### 16.2.1.4.4 Device Removed From Inventory

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N8</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <DeviceRemovedFromInventory/>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 32 Sample Device Removed From Inventory DCC Alert Response Format

#### 16.2.1.4.5 CHF Decommissioning

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N9</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <CHFDecommissioning/>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 33 Sample CHF Decommissioning DCC Alert Response Format

#### 16.2.1.4.6 Device Suspended

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N28</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <DeviceSuspended/>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 34 Sample Device Suspended DCC Alert Response Format

#### 16.2.1.4.7 Device Restored

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N29</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <DeviceRestored/>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 35 Sample Device Restored DCC Alert Response Format

#### 16.2.1.4.8 Recovery Complete (ACB Credentials)

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N44</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <RecoveryCompleteACBCredentials>
          <SupplierCertificateType>DigitalSigning</SupplierCertificateType>
        </RecoveryCompleteACBCredentials>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 36 Sample Recovery Complete (ACB Credentials) DCC Alert Response Format

#### 16.2.1.4.9 Recovery Complete

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N45</DCCAlertCode>
  <DCCAlert>
    <DeviceStatusChangeEvent>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceStatusChange>
        <RecoveryComplete/>
      </DeviceStatusChange>
    </DeviceStatusChangeEvent>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 37 Sample Recovery Complete DCC Alert Response Format

#### 16.2.1.4.10 DSP Schedule Removal

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N4</DCCAlertCode>
  <DCCAlert>
    <DSPScheduleRemoval>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DSPScheduleID>500</DSPScheduleID>
    </DSPScheduleRemoval>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 38 Sample DSP Schedule Removal DCC Alert Response Format

#### 16.2.1.4.11 Command Failure

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N3</DCCAlertCode>
  <DCCAlert>
    <CommandFailure>
      <CommandRequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:50</CommandRequestID>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
    </CommandFailure>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 39 Sample Command Failure DCC Alert Response Format**

#### 16.2.1.4.12 Firmware Distribution Failure

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N18</DCCAlertCode>
  <DCCAlert>
    <FirmwareDistributionFailure>
      <UpdateFirmwareRequestID>11-22-33-44-55-66-77-88:11-DB-33-44-55-66-77-88:10</UpdateFirmwareRequestID>
      <MeterIDs>2F-3D-4E-5A-6B-7C-76-87,34-16-5E-4A-5B-6C-76-87</MeterIDs>
    </FirmwareDistributionFailure>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 40 Sample Firmware Distribution Failure DCC Alert Response Format**

#### 16.2.1.4.13 Update HAN Device Log Result

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N24</DCCAlertCode>
  <DCCAlert>
    <UpdateHANDeviceLogResult>
      <UpdateHANDeviceLogServiceRequestID>11-22-33-44-55-66-77-88:11-DB-33-44-55-66-77-88:100</UpdateHANDeviceLogServiceRequestID>
    </UpdateHANDeviceLogResult>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 41 Sample Update HAN Device Log Result DCC Alert Response Format**

#### 16.2.1.4.14 Change Of Supplier Result

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N27</DCCAlertCode>
  <DCCAlert>
    <ChangeOfSupplier>
      <DeviceChangeOfSupplier>
        <DeviceID>17-26-33-44-55-66-77-88</DeviceID>
        <DeviceType>ESME</DeviceType>
        <MPxNs>
          <ImportMPxN>1234567890123</ImportMPxN>
        </MPxNs>
      </DeviceChangeOfSupplier>
    </ChangeOfSupplier>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 42 Sample Change Of Supplier DCC Alert Response Format (N27)**

An optional additional data item introduced in DUIS v5.2, applicable only to N26, will be omitted for DUIS v5.1 or earlier. An example is shown for DUIS v5.2 where there is an ECoS error, and how it would appear in a response for an earlier DUIS version.

```
<DCCAlertMessage>
  <DCCAlertCode>N26</DCCAlertCode>
  <DCCAlert>
    <ChangeOfSupplier>
      <ChangeOfSupplierServiceRequestID>12-00-AA-BB-CC-DD-EE-FF:11-22-33-44-55-66-77-
88:50</ChangeOfSupplierServiceRequestID>
    </ChangeOfSupplier>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 42** ~~Figure 42.1~~ **Sample Change Of Supplier DCC Alert Response Format (N26) –  
DUIS v5.1 or earlier**

```
<DCCAlertMessage>
  <DCCAlertCode>N26</DCCAlertCode>
  <DCCAlert>
    <ChangeOfSupplier>
      <ChangeOfSupplierServiceRequestID>12-00-AA-BB-CC-DD-EE-FF:11-22-33-44-55-66-77-
88:50</ChangeOfSupplierServiceRequestID>
      <ECoSErrorCode>001</ECoSErrorCode>
    </ChangeOfSupplier>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 42** ~~Figure 42.2~~ **Sample Change Of Supplier DCC Alert Response Format (N26) –  
DUIS v5.2 or later**

#### 16.2.1.4.15 Device Log Restored

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N30</DCCAlertCode>
  <DCCAlert>
    <DeviceLogRestored>
      <RestoredDate>2015-01-20</RestoredDate>
      <CHFDeviceLog>
        <OldCHFDeviceID>21-00-AA-BB-CC-DD-EE-FF</OldCHFDeviceID>
        <NewCHFDeviceID>22-50-AA-BB-CC-DD-EE-FF</NewCHFDeviceID>
        <OldGPFDeviceID>23-00-AA-BB-CC-DD-EE-FF</OldGPFDeviceID>
        <NewGPFDeviceID>24-51-AA-BB-CC-DD-EE-FF</NewGPFDeviceID>
      </CHFDeviceLog>
    </DeviceLogRestored>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 43 Sample Device Log Restored DCC Alert Response Format**

#### 16.2.1.4.16 PPMID Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows.

Additional data items introduced in DUIS v5.0 will be omitted for DUIS v4.0 or earlier. An example is shown of each.

```
<DCCAlertMessage>
  <DCCAlertCode>N39</DCCAlertCode>
  <DCCAlert>
    <PPMIDAlert>
      <DeviceID>13-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceAlertCode>8F30</DeviceAlertCode>
    </PPMIDAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 44 Sample PPMID Alert DCC Alert Response Format**

```
<DCCAlertMessage>
  <DCCAlertCode>N39</DCCAlertCode>
  <DCCAlert>
    <PPMIDAlert>
      <DeviceID>13-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceAlertCode>8F8B</DeviceAlertCode>
      <TimeStamp>2020-09-10T07:05:03.00</TimeStamp>
      <PPMIDFirmwareUpgradeAlert>
        <FirmwareVersion>11A0EEFF</FirmwareVersion>
        <ActivateImageResultCode>ActivationSuccess</ActivateImageResultCode>
      </PPMIDFirmwareUpgradeAlert>
    </PPMIDAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 44.1 Sample PPMID Alert Response Format for Firmware Upgrade Notification – DUIS v5.0 or later**

#### 16.2.1.4.17 Security Credentials Updated Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N42</DCCAlertCode>
  <DCCAlert>
    <SecurityCredentialsUpdated>
      <DeviceID>13-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <RemotePartyRole>NetworkOperator</RemotePartyRole>
      <RemotePartySeqNumberChange>
        <RemotePartyFloorSeqNumber>10000</RemotePartyFloorSeqNumber>
      </RemotePartySeqNumberChange>
      <Certificates>
        <CertificateType>DigitalSigning</CertificateType>
        <CertificateHash>ZGVmYXVsdA==</CertificateHash>
      </Certificates>
    </SecurityCredentialsUpdated>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 45 Sample Security Credentials Updated Alert DCC Alert Response Format**

#### 16.2.1.4.18 PPMIDRemoval Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N43</DCCAlertCode>
  <DCCAlert>
    <PPMIDRemoval>
      <PPMIDDeviceID>13-00-AA-BB-CC-DD-EE-FF</PPMIDDeviceID>
      <CHFDeviceID>17-24-AA-BB-CC-DD-EE-FF</CHFDeviceID>
    </PPMIDRemoval>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 46 Sample PPMIDRemoval Alert DCC Alert Response Format

#### 16.2.1.4.19 QuarantinedRequest Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N46</DCCAlertCode>
  <DCCAlert>
    <QuarantinedRequest>
      <ADUserThresholdBreach>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:50</RequestID>
        <QuarantineEventRef>123</QuarantineEventRef>
      </ADUserThresholdBreach>
    </QuarantinedRequest>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 47 Sample QuarantinedRequest Alert DCC Alert Response Format

#### 16.2.1.4.20 FirmwareVersionMismatch Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N49</DCCAlertCode>
  <DCCAlert>
    <FirmwareVersionMismatch>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <DeviceType>ESME</DeviceType>
      <FirmwareVersionSMI>1100EEFF</FirmwareVersionSMI>
      <FirmwareVersionDevice>11A0EEFF</FirmwareVersionDevice>
    </FirmwareVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 48 Sample FirmwareVersionMismatch DCC Alert Response Format

#### 16.2.1.4.21 DualBandCHAlert - no additional data Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F21</DeviceAlertCode>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 49 Sample DualBandCHAlert (no additional data) DCC Alert Response Format

#### 16.2.1.4.22 DualBandCHAlert – LimitedDutyCycleActionTaken Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F20</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0110</GBCSHexadecimalMessageCode>
      <LimitedDutyCycleActionTaken>
        <DeviceIDToSuspend>19-03-AA-BB-CC-DD-EE-FF</DeviceIDToSuspend>
      </LimitedDutyCycleActionTaken>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 50 Sample DualBandCHAlert (LimitedDutyCycleActionTaken) DCC Alert Response Format**

#### 16.2.1.4.23 DualBandCHAlert – SubGHzChannelChanged Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F26</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0111</GBCSHexadecimalMessageCode>
      <SubGHzChannelChanged>
        <OperatingSubGHzChannel>
          <OperatingLowerBandSubGHzChannel>
            <Channel45/>
          </OperatingLowerBandSubGHzChannel>
        </OperatingSubGHzChannel>
        <ScanTrigger>GSMERequest</ScanTrigger>
      </SubGHzChannelChanged>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 51 Sample DualBandCHAlert (SubGHzChannelChanged) DCC Alert Response Format**

#### 16.2.1.4.24 DualBandCHAlert – SubGHzChannelScanRequestAssessmentOutcome Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F28</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0112</GBCSHexadecimalMessageCode>
      <SubGHzChannelScanRequestAssessmentOutcome>
        <StatusCode>ScanRequestAccepted</StatusCode>
        <ScanTrigger>RemotePartyCommand</ScanTrigger>
      </SubGHzChannelScanRequestAssessmentOutcome>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 52 Sample DualBandCHAlert (SubGHzChannelScanRequestAssessmentOutcome) DCC Alert Response Format**

#### 16.2.1.4.25 DualBandCHAlert – SubGHzConfigurationChanged Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F2A</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0113</GBCSHexadecimalMessageCode>
      <SubGHzConfigurationChanged>
        <LowerBandSubGHzChannels0To26>
          <Channel0/>
          <Channel7/>
        </LowerBandSubGHzChannels0To26>
        <LowerBandSubGHzChannels27To34>
          <Channel28/>
          <Channel30/>
        </LowerBandSubGHzChannels27To34>
        <LowerBandSubGHzChannels35To61>
          <Channel37/>
          <Channel38/>
        </LowerBandSubGHzChannels35To61>
        <UpperBandSubGHzChannels0To26>
          <Channel3/>
          <Channel9/>
        </UpperBandSubGHzChannels0To26>
        <NormalLimitedDutyCycleThreshold>1.7</NormalLimitedDutyCycleThreshold>
        <LimitedCriticalDutyCycleThreshold>2.1</LimitedCriticalDutyCycleThreshold>
        <MaximumSubGHzChannelChangesPerWeek>3</MaximumSubGHzChannelChangesPerWeek>
        <GSMECurfew>3</GSMECurfew>
        <ChannelQuieterThreshold>10</ChannelQuieterThreshold>
        <ChannelNoisierThreshold>12</ChannelNoisierThreshold>
        <NonGSMEPoorCommsPercentageThreshold>15.00</NonGSMEPoorCommsPercentageThreshold>
        <NonGSMEPoorCommsMeasurementPeriods>75</NonGSMEPoorCommsMeasurementPeriods>
        <LocalCHNoiseMeasurementPeriod>65</LocalCHNoiseMeasurementPeriod>
        <LocalCHFFailurePercentage>12.00</LocalCHFFailurePercentage>
        <LocalCHRetryPercentage>15.3</LocalCHRetryPercentage>
      </SubGHzConfigurationChanged>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 53 Sample DualBandCHAlert (SubGHzConfigurationChanged) DCC Alert Response Format**

#### 16.2.1.4.26 DualBandCHAlert – MessageDiscardedDueToDutyCycleManagement Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F2C</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0114</GBCSHexadecimalMessageCode>
      <MessageDiscardedDueToDutyCycleManagement>
        <RequestID>11-22-33-44-55-66-77-88:34-25-7A-BB-CC-DD-EE-FF:50</RequestID>
        <CRAFlag>Command</CRAFlag>
      </MessageDiscardedDueToDutyCycleManagement>
    </DualBandCHAlert>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 54 Sample DualBandCHAlert (MessageDiscardedDueToDutyCycleManagement) DCC Alert Response Format**

#### 16.2.1.4.27 DualBandCHAlert – NoMoreSubGHzDeviceCapacity Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N54</DCCAlertCode>
  <DCCAlert>
    <DualBandCHAlert>
      <CHFDeviceID>99-00-AA-BB-CC-DD-EE-FF</CHFDeviceID>
      <DeviceAlertCode>8F2D</DeviceAlertCode>
      <GBCSHexadecimalMessageCode>0115</GBCSHexadecimalMessageCode>
      <NoMoreSubGHzDeviceCapacity>
        <DeviceID>19-03-AA-BB-CC-DD-EE-FF</DeviceID>
        <DeviceType>PPMID</DeviceType>
        </NoMoreSubGHzDeviceCapacity>
      </DualBandCHAlert>
    </DCCAlert>
  </DCCAlertMessage>
```

**Figure 55 Sample DualBandCHAlert (NoMoreSubGHzDeviceCapacity) DCC Alert Response Format**

#### 16.2.1.4.28 S1SPAlert Alert – Validation Error

A sample DCC Alert is given in Annex Introduction Appendix 4.

An S1SP Alert is conveyed in a DCC Alert with DCC Alert Code N55 or N56. The following is an example of specific information for a DCC Alert which is an N55 S1SP Alert conveying a validation error:

```
<DCCAlertMessage>
  <DCCAlertCode>N55</DCCAlertCode>
  <DCCAlert>
    <S1SPAlertDSP>
      <S1SPAlert>
        <RequestID>11-22-33-44-55-66-77-88:34-25-7A-BB-CC-DD-EE-FF:50</RequestID>
        <DeviceID>34-25-7A-BB-CC-DD-EE-FF</DeviceID>
        <SMETS1AlertCode>S1VE1</SMETS1AlertCode>
        <DateTime>2017-08-01T02:05:00.00Z</DateTime>
        <Signature xmlns="http://www.w3.org/2000/09/xmldsig#">
          <SignedInfo>
            <CanonicalizationMethod>
              Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
            <SignatureMethod>
              Algorithm="http://www.w3.org/2001/04/xmldsig-more#ecdsa-sha256" />
            <Reference URI="">
              <Transforms>
                <Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature" />
              </Transforms>
              <DigestMethod>
                Algorithm="http://www.w3.org/2001/04/xmldsig#sha256" />
              <DigestValue>ZGVmYXVsdA==</DigestValue>
            </Reference>
          </SignedInfo>
          <SignatureValue>ZGVmYXVsdA==</SignatureValue>
        </Signature>
        <KeyInfo>
          <X509Data>
            <X509IssuerSerial>
              <X509IssuerName>CN=S1SP,OU=SMETS1,O=S1SP,L=london,ST=england,C=uk</X509IssuerName>
              <X509SerialNumber>7432112348</X509SerialNumber>
            </X509IssuerSerial>
          </X509Data>
        </KeyInfo>
      </S1SPAlert>
    </S1SPAlertDSP>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 56 Sample S1SPAlert DCC Alert Response Format – Validation Error**

#### 16.2.1.4.29 SMETS1CHFirmwareNotification Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N57</DCCAlertCode>
  <DCCAlert>
    <SMETS1CHFirmwareNotification>
      <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      <FirmwareVersion>1100EEFF</FirmwareVersionSMI>
      <FirmwareVersionUpdateStatus>UpdateRequested</FirmwareVersionUpdateStatus>
    </SMETS1CHFirmwareNotification>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 57 Sample SMETS1CHFirmwareNotification DCC Alert Response Format

#### 16.2.1.4.30 ALCSHCALCSConfigurationChange

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as in the following examples.

This structure was introduced in DUIS v3.1 and additional data items were introduced in DUIS v4.0. An example is shown of each.

```
<DCCAlertMessage>
  <DCCAlertCode>N58</DCCAlertCode>
  <DCCAlert>
    <ALCSHCALCSConfigurationChange>
      <ESMEDeviceID>99-00-AA-BB-CC-DD-EE-FF</ESMEDeviceID>
    </ALCSHCALCSConfigurationChange>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 57.1 Sample ALCSHCALCSConfigurationChange DCC Alert Response Format – DUIS v3.1

```
<DCCAlertMessage>
  <DCCAlertCode>N58</DCCAlertCode>
  <DCCAlert>
    <ALCSHCALCSConfigurationChange>
      <ESMEDeviceID>99-00-AA-BB-CC-DD-EE-FF</ESMEDeviceID>
      <ESMEVariant>AF</ESMEVariant>
      <DeviceGBCSVersion>4.0</DeviceGBCSVersion>
    </ALCSHCALCSConfigurationChange>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 57.2 Sample ALCSHCALCSConfigurationChange DCC Alert Response Format – DUIS v4.0 or later

#### 16.2.1.4.31 FirmwareUpgradeRequested Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N59</DCCAlertCode>
  <DCCAlert>
    <FirmwareUpgradeRequested>
      <DeviceType>PPMID</DeviceType>
      <FirmwareVersion>11A0EEFF</FirmwareVersion>
      <DeviceList>2F-3D-4E-5A-6B-7C-76-87,34-16-5E-4A-5B-6C-76-87</DeviceList>
    </FirmwareUpgradeRequested>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.3~~ Sample FirmwareUpgradeRequested DCC Alert Response Format

#### 16.2.1.4.32 CSPFirmwareDeliveryStatus Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N61</DCCAlertCode>
  <DCCAlert>
    <CSPFirmwareDeliveryStatus>
      <UpdateFirmwareRequestID>11-22-33-44-55-66-77-88:11-DB-33-44-55-66-77-88:10</UpdateFirmwareRequestID>
      <CommsHubDeviceID>11-00-AA-BB-CC-DD-EE-FF</CommsHubDeviceID>
      <TargetDeviceID>13-00-AA-BB-CC-DD-EE-FF</TargetDeviceID>
      <FirmwareVersion>11A0EEFF</FirmwareVersion>
      <TimeStamp>2020-09-10T07:05:03.00</TimeStamp>
      <CommsHubTransferStatus>Success</CommsHubTransferStatus>
    </CSPFirmwareDeliveryStatus>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.4~~ Sample CSPFirmwareDeliveryStatus DCC Alert Response Format

#### 16.2.1.4.33 CommsHubAlert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N62</DCCAlertCode>
  <DCCAlert>
    <CommsHubAlert>
      <CommsHubDeviceID>13-00-AA-BB-CC-DD-EE-FF</CommsHubDeviceID>
      <AlertCode>8F89</AlertCode>
      <TimeStamp>2020-09-10T07:05:03.00</TimeStamp>
      <FirmwareTransferAlert>
        <OtherDeviceID>11-00-AA-BB-CC-DD-EE-FF</OtherDeviceID>
        <FirmwareVersion>11A0EEFF</FirmwareVersion>
        <TransferResponseCode>FileTransferFailed</TransferResponseCode>
      </FirmwareTransferAlert>
    </CommsHubAlert>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.5~~ Sample CommsHubAlert DCC Alert Response Format

#### 16.2.1.4.34 ECoSAlert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N63</DCCAlertCode>
  <DCCAlert>
    <ECoSAlert>
      <AlertID>21-22-33-44-55-66-77-88:34-25-7A-BB-CC-DD-EE-FF:60</AlertID>
      <RequestID>34-25-7A-BB-CC-DD-EE-FF:99-88-77-66-55-66-77-88:50</RequestID>
      <ECoSAlertCode>EN01</ECoSAlertCode>
      <DeviceID>99-88-77-66-55-66-77-88</DeviceID>
    </ECoSAlert>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.6~~ Sample ECoSAlert DCC Alert Response Format

#### 16.2.1.4.35 CommsHubFirmwareActivation Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N64</DCCAlertCode>
  <DCCAlert>
    <CommsHubFirmwareActivation>
      <DeviceID>2F-3D-4E-5A-6B-7C-76-87</DeviceID>
      <FirmwareVersion>11A0EEFF</FirmwareVersion>
    </CommsHubFirmwareActivation>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.3~~ Sample CommsHubFirmwareActivation DCC Alert Response Format

#### 16.2.1.4.36 CoSCertificate Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N65</DCCAlertCode>
  <DCCAlert>
    <CoSCertificateAlert>
      <DeviceID>99-88-77-66-55-66-77-88</DeviceID>
      <CertificateSerialNumber>7432112348</CertificateSerialNumber>
    </CoSCertificateAlert>
  </DCCAlert>
</DCCAlertMessage>
```

[Figure 57](#)~~Figure 57.7~~ Sample CoS Certificate Alert DCC Alert Response Format

#### 16.2.1.4.37 DUISVersionMismatch Alert

A sample DCC Alert is given in Annex Introduction Appendix 4. The specific information for this DCC Alert is as follows:

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N49</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>2.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 58 Sample DUISVersionMismatch DCC Alert Response Format

The following sample shows a DCC Alert N999 where the undeliverable item is an N55 'Device Commissioned' S1SP Alert:

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N55:S1MC1:1234567890123</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:1</RequestID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>2.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 59 Sample DCC Alert N999 Response Format With S1SP Alert

The following sample shows a DCC Alert N999 where the undeliverable item is a DCC Alert N59:

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N59:1100EEFF</DCCAlertCode>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:1</RequestID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>3.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

Figure 59.1 Sample DCC Alert N999 Response Format With N59 Information

The following sample shows a DCC Alert N999 where the undeliverable item is a DCC Alert N60 (note that N61 would follow the same pattern):

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N60:1100EEFF</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:1</RequestID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>3.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 59** **Figure 59.2 Sample DCC Alert N999 Response Format With N60 Information**

The following sample shows a DCC Alert N999 where the undeliverable item is a DCC Alert N62:

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N62:1100EEFF:1</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:1</RequestID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>3.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 59** **Figure 59.3 Sample DCC Alert N999 Response Format With N62 Information**  
The following sample shows a DCC Alert N999 where the undeliverable item is an N63 'ECoS Alert':

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N63:EN01</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
        <RequestID>11-22-33-44-55-66-77-88:99-00-AA-BB-CC-DD-EE-FF:1</RequestID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>2.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 59** **Figure 59.4 Sample DCC Alert N999 Response Format With N63 Information**

The following sample shows a DCC Alert N999 where the undeliverable item is an N64 'Comms Hub Firmware Alert':

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N64:1100EEFF</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>3.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 59** **Figure 59.5 Sample DCC Alert N999 Response Format with N64 Information**

The following sample shows a DCC Alert N999 where the undeliverable item is an N65 'CoS Certificate Alert':

```
<DCCAlertMessage>
  <DCCAlertCode>N999</DCCAlertCode>
  <DCCAlert>
    <DUISVersionMismatch>
      <DCCAlertVersionMismatch>
        <DCCAlertCode>N65:7432112348</DCCAlertCode>
        <DeviceID>99-00-AA-BB-CC-DD-EE-FF</DeviceID>
      </DCCAlertVersionMismatch>
      <ServiceUserDUISVersion>2.0</ServiceUserDUISVersion>
    </DUISVersionMismatch>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 59** **Figure 59.6 Sample DCC Alert N999 Response Format With CoS Certificate Alert**

## 16.2.2 Throttling of DCC Alerts

The sending of DCC Alerts to DCC Service Users may be limited by throttling. See DUGIDS main document section 2.12 for a description of the throttling of Alerts.

The following is a sample of the body of a DCC Alert (in this case a power outage alert) where the sending of DCC Alerts to a DCC Service User has been reduced by throttling.

```
<DCCAlertMessage>
  <DCCAlertCode>AD1</DCCAlertCode>
  <ThrottledAlertSequenceId>97311</ThrottledAlertSequenceId>
  <ThrottledAlertCount>499</ThrottledAlertCount>
  <DCCAlert>
    <PowerOutageEvent>
      <CommsHubDeviceID>88-00-AA-BB-CC-DD-EE-FF</CommsHubDeviceID>
      <StartDateTime>2014-09-10T07:05:03.00</StartDateTime>
      <MPxN>311234567890</MPxN>
    </PowerOutageEvent>
  </DCCAlert>
</DCCAlertMessage>
```

**Figure 60 Sample DCC Alert – With Throttling**