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MP164 'November 2021 SEC Release supporting changes'

Annex A

Legal text – version 1.0

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Where the following changes are already impacted by SECMP0007 'Firmware updates to IHDs and PPMIDs', those changes have been redlined against the approved SECMP0007 legal text.

Schedule 9 'Smart Metering Equipment Technical Specifications 2'

These changes have been redlined against the approved SECMP0007 legal text.

These changes will be applied to the following Smart Metering Equipment Technical Specifications (SMETS)2 Device level versioning:

- Prepayment Interface Device Technical Specification (PPMIDTS) Version 4.4
- HAN Connected Auxiliary Load Control Switch Technical Specification (HCALCSTS) Version 5.1

Amend Section 7.5.2.5 as follows:

7.5.2.5 Activate Firmware

A Command to activate Firmware.

The PPMID shall be capable of installing new Firmware using a mechanism that is robust against failure and loss of data.

The new Firmware shall include version information. Where new Firmware is successfully installed, the PPMID shall be capable of recording the version information of that new Firmware in Firmware Version (7.6.4.1).

Amend Section 8.5.1.8 as follows:

8.5.1.8 Receive Firmware

A Command to receive Firmware.

In executing the Command the HCALCS shall be capable of:

i. only accepting new Firmware from an Authorised and Authenticated source; and
ii. ~~and~~ verifying the Authenticity and integrity of new Firmware before installation.

Appendix AD 'DCC User Interface Specification'

Where the associated change was impacted by the SECMP0007, those changes have been redlined against the approved SECMP0007 legal text and confirmed following the associated header.

The other changes have been redlined against Appendix AD version 4.0.

These changes will be applied to Appendix AD version 5.0

Amend Table 2 'Additional or Alternative Validation Conditions for SMETS1 Devices' as follows:

1.4.6 Additional or Alternative Validation Conditions for SMETS1 Service Requests

In relation to SMETS1 Service Requests, the DCC shall apply the additional or alternative validation in this clause 1.4.6, additionally or as alternatives to the "Specific Validation for this Request" specified in clause 3.8.

Service Reference Variant	Response Code	Applicable to SMETS1 Devices only or Amended conditions for SMETS1 Devices?	Validation Check
1.1.1	E010102	SMETS1 Devices only	If the target Device is a SMETS1 ESME according to the Smart Metering Inventory, the XML element named HybridTariff must not be included in the ElecPriceElementsPrimary element within PriceElement (see 3.8.1.2). For clarity, SMETS1 ESME are not required to support such tariffs.
1.2.1	E010201	SMETS1 Devices only	If the target Device is a SMETS1 ESME according to the Smart Metering Inventory, the XML element named HybridTariff must not be included in the ElecPriceElementsPrimary element within PriceElement (see 3.8.1.2). For clarity, SMETS1 ESME are not required to support such tariffs.
3.3	E030302	SMETS1 Devices only	Check that if the ESMEEventLogType is ALCS then the target Device is not a SMETS1 Device according to the Smart Metering Inventory. For clarity, SMETS1 ESMEs are not required to support such logs.
5.1	E050110	SMETS1 Devices only	Where DeviceID in the Service Request is a SMETS1 Device according to the Smart Metering Inventory, check that the DSPScheduledServiceReferenceVariant is supported for a SMETS1 Device according to clause 3.1.

Service Reference Variant	Response Code	Applicable to SMETS1 Devices only or Amended conditions for SMETS1 Devices?	Validation Check
6.7	E060701	Amended condition for SMETS1 Devices	If the target Device is a SMETS1 GSME according to the Smart Metering Inventory, the XML element named UncontrolledGasFlowRateDecimal must not be included in the Service Request.For clarity, only the XML element named UncontrolledGasFlowRate may be used with SMETS1 devices
6.13	E061305	SMETS1 Devices only	Check that if the LogToRead is ALCSEvent or PowerEvent then the target Device is not a SMETS1 Device according to the Smart Metering Inventory. For clarity, SMETS1 ESME are not required to support such logs.
6.15.1	E061508	SMETS1 Devices only	Check that the role of the User submitting the Service Request and RemotePartyRole align. Specifically if the User's role is ES or GS, the RemotePartyRole must be Supplier. If the User's role is GT or ED, the RemotePartyRole must be NetworkOperator.
8.9	E080901	SMETS1 Devices only	Check that if the target Device is a SMETS1 Device according to the Smart Metering Inventory then the target Device's Device Type is CHF according to the Smart Metering Inventory. For clarity, SMETS1 does not require any other Device Logs be supported.
11.1	W110101	Amended condition for SMETS1 Devices	Invalid conditions listed in this Update Firmware warning may relate to a SMETS1 CHF, a SMETS1 PPMID or a Smart Meter. An additional condition for listing a SMETS1 CHF or a SMETS1 PPMID in the InvalidDeviceIDList is where the DCC User submitting the Update Firmware Service Request is not the Responsible Supplier for the SMETS1 ESME which is connected to the same home area network as the SMETS1 CHF / PPMID. The Response Code description within the InvalidDeviceIDList shall not contain the OtherRequestsInProgressList Update Firmware Warning as this is not applicable for SMETS1 Devices.

Table 2 : Additional or Alternative Validation Conditions for SMETS1 Devices

Amend Table 41 'DCC Alert Codes' as follows:

3.6.3.4 DCC Alert Codes

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
AD1	Power Outage Event	Power Outage Event received from CSP	Communications Service Provider (CSP) notification of loss of DC power as detected at the Communications Hub in the Consumer Premises for a time equal to or greater than three (3) minutes	IS ED (User ID with User Role IS / ED for an Electricity Smart Meter associated with the Communications Hub Function reporting the Power Outage) GS GT (User ID with User Role GS / GT for a Gas Smart Meter associated to the Communications Hub Function reporting the Power Outage)	SMETS 2+
N1	Electricity Smart Meter Decommission or withdrawal	Decommissioning or withdrawal of an Electricity Smart Meter Device	Upon successful completion of Service Request: • Decommission Device (8.3) • or Service Opt Out (8.5) for an Electricity Smart Meter Device	ED and, if applicable, ES	All
N2	Gas Smart Meter Decommission or withdrawal	Decommissioning or withdrawal of Gas Smart Meter Device	Upon successful completion of Service Request: • Decommission Device (8.3) • or Service Opt Out (8.5) for a Gas Smart Meter Device	GT	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N3	Cancellation of "Future Dated Response Pattern (DSP)" requests because of Change of Tenancy	Cancellation of "Other User" "Future Dated Response Pattern (DSP)" Commands not yet submitted to the Devices in the Electricity or Gas Smart Metering System	Upon successful completion of Service Request Restrict Access for Change of Tenancy (3.2)	All applicable Future Dated (DSP) request senders	All
N4	Schedule removal because of Change of Tenancy	Removal of "Other User" "DCC Scheduled" schedules for Devices in the Electricity or Gas Smart Metering System	Upon successful completion of Service Request Restrict Access for Change of Tenancy (3.2)	All applicable Schedule "owners"	All
N5	Schedule removal because of Device withdrawal	"DCC Scheduled" schedule removal	Upon successful completion of Service Request Service Opt Out for a Device (8.5) For Gas Smart Meter withdrawals, schedule removal are additionally applicable to Gas Proxy Function	All applicable Schedule "owners"	SMETS 2+
N6	Schedule removal because of Device decommission	"DCC Scheduled" schedule removal	Upon successful completion of Service Request Decommission Device for a Device (8.3)	All applicable Schedule "owners"	All
N7	"DSP Scheduled" / "Future Dated Response Pattern (DSP)" access control failure	"DCC Scheduled" / "Future Dated Response Pattern (DSP)" access control failure (Authorisation, Device status, GBCS compatibility check)	"DCC Scheduled" / "Future Dated Response Pattern (DSP)" Command generation access control failure	Schedule "owner" / "Future Dated Response Pattern (DSP) request sender	All
N8	Device removed from Inventory-Pending Status expired	Removal of Device from Inventory	Device in a status of 'Pending' for > 36 months	Original User that requested addition of the Device to the DCC Inventory	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N9	Communications Hub Decommission	Decommission of Communications Hub	Upon successful completion of Service Request Decommission Device for a Communications Hub (8.3)	All Responsible Suppliers for that CH function, other than the IS / GS that instigated the Decommissioning ED GT	All
N10	"Future Dated Response Pattern (Device)" Command time-out	"Future Dated Response Pattern (Device)" Command time-out	"Future Dated Response Pattern (Device)" Command response not received from the device within the Target Response Time from the ExecutionDateTime	"Future Dated Response Pattern (Device)" request sender	SMETS 2+ Device
N11	"DSP Scheduled" / "Future Dated Response Pattern (DSP)" Command time-out	"DCC Scheduled" / "Future Dated Response Pattern (DSP)" Command time-out	"DCC Scheduled" Schedule instance / "Future Dated Response Pattern (DSP)" Command not sent to or response not received from the Device within the Target Response Time from the ExecutionDateTime	Schedule "owner" / "Future Dated Response Pattern (DSP) request sender	All
N12	Failure to deliver Command to Device	Failure to deliver Command to Device	Failure to receive an acknowledgement notification from a CSP or S1SP via the SM WAN for an "On Demand" or "Future Dated" Command	Request sender	All
N13	Failure to receive Response from Device	Failure to receive Response from Device	Failure to receive a response from a Device for an "On Demand" Command or "Future Dated" Command Acknowledgement	Request sender	All
N14	Sequenced Request Failure	Sequenced Request Failure	Previous Command in sequence failed or timed-out	Request sender	All
N15	Sequenced Request received out of order	Sequenced Request received out of order	Preceding Request not received during "Wait Period"	Request sender	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N16	Device Identity Confirmation	Device Identity Confirmation by Responsible Supplier – either first setting (as part of Installation and Commissioning process) or update to previous setting	Upon successful receipt of Service Response Code I0 from Service Request Update HAN Device Log (initial setting) (8.11) OR Upon successful processing of a Service Request 8.4 Update Inventory for an update to MPxN .	ED GT	All
N17	Schedule removal because of CoS	Previous Responsible Supplier "DCC Scheduled" schedule removal	Upon successful completion of Service Request Update Security Credentials (CoS) (6.23)	Previous IS Previous GS	All
N18	Firmware Version / Hash mismatch	Firmware Version / Hash mismatch	Firmware Hash calculated by CSP or S1SP doesn't match Firmware Version	Update Firmware request sender	All
N19	Firmware Distribution Device ID identification failure	Firmware Distribution Device ID identification failure	CSP or S1SP unable to identify Communications Hub Device Id a Firmware Image is to be sent to	Update Firmware request sender	All
N20	Firmware image provided is too large	Firmware image provided is too large	CSP or S1SP unable to process request, because the Firmware Image is too large	Update Firmware request sender	All
N21	Unknown Firmware Version	Unknown Firmware Version	CSP or S1SP unable to process request, because it doesn't recognise the Firmware Version	Update Firmware request sender	All
N22	Failure to deliver Update Firmware Command to CSP	Failure to deliver Update Firmware Command to CSP	Failure to receive an acknowledgement notification from a CSP or S1SP via the SM WAN for an Update Firmware Command	Update Firmware request sender	All
N23	Failure to receive Update Firmware Command Validation response from CSP	Failure to receive Update Firmware Command Validation response from CSP	Failure to receive Update Firmware Command Validation response from CSP	Update Firmware request sender	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N24	Successful Communications Hub Function Whitelist Update	Communications Hub Function Whitelist Update	The DCC has received positive confirmation that the requested addition to the Communications Hub Function's whitelist resulted in establishing communications with the Device	Update HAN Device Log request sender	All
N25	Potentially Unsuccessful Communications Hub Function Whitelist Update	Communications Hub Function Whitelist Update	The DCC has not received positive confirmation that the requested addition to the Communications Hub Function's whitelist resulted in establishing communications with the Device	Update HAN Device Log request sender	All
N26	Update Security Credentials (CoS)– access control failure	Update Security Credentials (CoS)– access control failure	Request has failed CoS Party access control or, for Future Dated Requests, DSP access control at the point the Request is to be sent to the CoS Party	Update Security Credentials (CoS) request sender	All
N27	Device CoS	New Import Supplier for Device	Upon successful completion of Service Request Update Security Credentials (CoS) (6.23)	Previous IS Previous GS	All
N28	Device Suspended	Device Suspended	Suspension of Device	IS GS ED GT	All
N29	Device Restored from Suspension	Device Restored from Suspension	Restoration of Device following Previous Suspension	IS GS ED GT	All
N30	CHF Device Log Restored	CHF Device Log Restored	Upon successful completion of Service Request 8.12.1 Restore HAN Device Log	GS IS All Responsible Suppliers for the CHF, other than the IS / GS that submitted the Request	SMETS 2+

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N31	GPF Device Log Restored	GPF Device Log Restored	Upon successful completion of Service Request 8.12.2 Restore GPF Device Log if the sender is not the GS.	GS IS All Responsible Suppliers for the CHF, other than the IS / GS that submitted the Request	SMETS 2+
N33	Cancellation of Future Dated Response Pattern (DSP) requests because of Device Decommission	Cancellation of all Future Dated Response Pattern (DSP) Services not yet submitted to the Device	Upon successful completion of Service Request 8.3 Decommission Device for a Device	All applicable Future Dated Response Pattern (DSP) Request senders	All
N34	Cancellation of Future Dated Response Pattern (DSP) requests because of CHF Decommission	Cancellation of all Future Dated Response Pattern (DSP) Services not yet submitted to the CHF and its associated GPF	Upon successful completion of Service Request 8.3 Decommission Device for a Device	All applicable Future Dated Response Pattern (DSP) Request senders	All
N35	Cancellation of Future Dated Response Pattern (DSP) requests because of Device Withdrawal	Cancellation of all Future Dated Response Pattern (DSP) Services not yet submitted to the Device	Upon successful completion of Service Request 8.5 Service Opt Out for a Device	All applicable Future Dated Response Pattern (DSP) Request senders	SMETS 2+

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N36	Cancellation of Future Dated Response Pattern (DSP) requests because of CHF Withdrawal	Cancellation of all Future Dated Response Pattern (DSP) Services not yet submitted to the CHF and Devices in its Whitelist	Upon successful completion of Service Request 8.4 Update Inventory for a CHF Withdrawal	All applicable Future Dated Response Pattern (DSP) Request senders	SMETS 2+
N37	Schedule removal because of CHF Withdrawal	"DCC Scheduled" schedule removal for ESME, GSME and GPF in the Whitelist	Upon successful completion of Service Request 8.4 Update Inventory for a CHF Withdrawal	All applicable Schedule "owners"	SMETS 2+
N38	Cancellation of Future Dated Response Pattern (DSP) requests because of CoS	Cancellation of all "Future Dated (DSP)" Services not yet submitted to the Device from the previous Responsible Supplier	Upon successful completion of Service Request 6.23 Update Security Credentials (CoS)	Previous IS Previous GS	All
N39	PPMID Alert	A PPMID Device generates an Alert as defined by GBCS	PPMID Alert received by the DSP Access Control Broker	IS for the Primary Import MPAN in the Smart Metering System GS for the Import MPRN in the Smart Metering System	SMETS 2+
N40	Schedule removal because of Device Suspension	"DSP Scheduled" schedule removal	Suspension of Device	All applicable Schedule "owners"	All
N41	Cancellation of "Future Dated (DSP)" requests because of Device Suspension	Cancellation of all "Future Dated (DSP)" Services not yet submitted to the Device	Suspension of Device	All applicable Future Dated (DSP) Request senders	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N42	Security Credentials updated on the device	Security Credentials updated on Device by Service Request 6.15.1 or 6.21	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	The Remote Party whose certificate has been placed on the Device.	All
N43	PPMID Removal	A PPMID Device has been removed from the HAN via Service Request 8.11	Success Response from Update HAN Device Log (Remove) where the removed Device is a PPMID. DCC Alert is only sent if the PPMID device was joined to both an ESME and the GSME as identified by the Smart Metering Inventory.	All Responsible Suppliers for the CHF, other than the IS / GS that submitted the Service Request	SMETS 2+
N44	Recovery Complete (ACB Credentials)	Recovery is complete and at least one of the KRP Device Security Credentials on the Device has been replaced with those from an ACB Certificate	Recovery is complete and KRP Device Security Credentials on the Device replaced by those from an ACB by the Recovery Process	IS GS	SMETS 2+
N45	Recovery Complete	Recovery is complete and all required Device Security Credentials on the Device have been replaced	Recovery is complete and Device Security Credentials on the Device have been replaced by the Recovery Process	IS GS ED GT	SMETS 2+
N46	Quarantined Request – Anomaly Detection User Threshold Breach	An Anomaly Detection User-specific volume threshold has been exceeded	Request quarantined, because an Anomaly Detection User-specific volume threshold has been exceeded	Service Request / Signed Pre-Command sender	All
N47	Quarantined Request – Anomaly Detection DCC Threshold Breach	An Anomaly Detection DCC system-wide volume threshold has been exceeded	Request quarantined, because an Anomaly Detection DCC system-wide volume threshold has been exceeded	Service Request / Signed Pre-Command sender	All
N48	Quarantined Request – Anomaly Detection Attribute Limits Breach	An Anomaly Detection Attribute Limit has been breached	Request quarantined, because an Anomaly Detection Attribute Limit has been breached	Service Request / Signed Pre-Command sender	SMETS 2+

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N49	Firmware Version Updated in the Smart Metering Inventory	Device's Firmware Version updated in the Smart Metering Inventory	Upon successful completion of Service Request 11.2 Read Firmware Version where the target Device is an ESME, GSME, HCALCS, PPMID or CHF ~~or SMETS1 PPMID~~ and the Firmware Version returned by the Device is different from that in the SMI and it matches an entry on the CPL with a status of "Current"	IS GS (Only sent if the IS / GS did not submit the Service Request)	All
N50	Firmware Version no longer valid on the CPL	Device's Firmware Version updated in the Smart Metering Inventory, but Device Status not set to 'Suspended'	Upon successful completion of Service Request 11.2 Read Firmware Version where the target Device is an ESME, GSME, HCALCS, PPMID or CHF ~~or SMETS1 PPMID~~ and the Firmware Version returned by the Device is different from that in the SMI and it matches an entry on the CPL with a status of "Removed" OR Upon completion of Service Request 11.3 Activate Firmware where the Firmware Version returned by the Device is different from that in the SMI and it matches an entry on the CPL with a status of "Removed" OR Future Dated Firmware Activation Alert (Alert Code 0x8F66 or 0x8F67 and Message Code 0x00CA) received by the DCC Systems where the Firmware Version returned by the Device is different from that in the SMI and it matches an entry on the CPL with a status of "Removed" OR PPMID Firmware Activation Alert (Alert Code 0x8F8B) received by the DCC Systems where the Firmware Version returned by the Device is different from that in the SMI and it matches an entry on the CPL with a status of "Removed"	IS GS	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N51	Invalid Firmware Version	Device's Firmware Version is unknown (not in the CPL) Device's Firmware Version not updated in the Smart Metering Inventory	Upon successful completion of Service Request 11.2 Read Firmware Version where the target Device is an ESME, GSME, HCALCS, PPMID or CHF ~~or SMETS1 PPMID~~ and the Firmware Version returned by the Device is different from that in the SMI and it doesn't match an entry on the CPL OR Upon completion of Service Request 11.3 Activate Firmware where the Firmware Version returned by the Device is different from that in the SMI and it doesn't match an entry on the CPL OR Future Dated Firmware Activation Alert (Alert Code 0x8F66 or 0x8F67 and Message Code 0x00CA) received by the DCC Systems where the Firmware Version returned by the Device is different from that in the SMI and it doesn't match an entry on the CPL OR PPMID Firmware Activation Alert (Alert Code 0x8F8B) received by the DCC Systems where the Firmware Version returned by the Device is different from that in the SMI and it doesn't match an entry on the CPL	IS GS	All
N52	GSME Firmware Version Mismatch	GSME's Firmware Version returned by the GPF is different from that in the Smart Metering Inventory	Upon successful completion of Service Request 11.2 Read Firmware Version where the target Device is GPF and the GSME Firmware Version returned by the GPF is different from that in the SMI	GS	All

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N53	Command not delivered to ESME	Receipt by the DCC Access Control Broker of an Alert 0x8F84 - Failure to Deliver Remote Party Message to ESME (as defined by GBCS) from the CHF (Please note that DCC Alert N53 does not replace existing N12 or N13 DCC Alerts from the DCC, which will continue to be produced to confirm the DCC processing of the relevant Service Request. DCC Alert N53 is triggered by the CHF Alert and should be regarded as additional information which may be used by the User to adjust the frequency of requests being sent to the relevant ESME device. It is likely that after receipt of a DCC Alert N53 a User shall receive a subsequent DCC Alert N13 at the end of the Final Retry Period for the Service Request sent if applicable)	Receipt by the DCC Access Control Broker of an Alert from a Communications Hub Function with Alert Code 0x8F84 and Message Code 0x00D5	Request sender	SMETS 2+

N54	Dual Band CH Sub GHz Alert	The DCC Systems receive a Sub GHz Alert	A Sub GHz Alert is received by the DCC Access Control Broker as defined by GBCS section 16.1, being one of:
			• Alerts without specific payload:
			  ○ 0x8F21 (Duty Cycle fallen below Normal-Limited Duty Cycle Threshold)
			  ○ 0x8F22 (Critical Duty Cycle Action Taken)
			  ○ 0x8F23 (Duty Cycle fallen below Limited-Critical
				IS
				GS
					SMETS 2+

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
			Duty Cycle Threshold) ○ 0x8F24 (Regulated Duty Cycle Action Taken) ○ 0x8F25 (Duty Cycle fallen below Critical-Regulated Duty Cycle Threshold) ○ 0x8F27 (Sub GHz Channel Scan initiated) ○ 0x8F29 (Three Lost GSME Searches Failed) ○ 0x8F2B (Sub GHz Channel not changed due to Frequency Agility Parameters) • Alerts with specific payload: ○ 0x8F20 (Limited Duty Cycle Action Taken) ○ 0x8F26 (Sub GHz Channel Changed) ○ 0x8F28 (Sub GHz Channel Scan Request Assessment Outcome) ○ 0x8F2A (Sub GHz Configuration Changed) ○ 0x8F2C (Message Discarded Due to Duty Cycle Management) ○ 0x8F2D (No More Sub GHz Device Capacity)		

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N55	SMETS1 Service Provider Alert	DCC Alert initiated by a SMETS1 Service Provider	The trigger is indicated in the S1SPAlert code provided in the DCC Alert. The payload is delivered in the S1SPAlert format; see section 3.9.15	Service Request sender	SMETS 1
N56	SMETS1 Service Provider Provision of prepayment top-up UTRN	DCC Alert containing a prepayment top-up UTRN provided by a SMETS1 Service Provider	The trigger is a User request for a prepayment top-up. The UTRN is delivered in the S1SPAlert format; see section 3.9.15	Service Request sender	SMETS 1
N57	SMETS1 CHF or SMETS1 PPMID Firmware notification	See clauses **Error! Reference source not found.** and 1.4.7.14.	See clauses **Error! Reference source not found.** and 1.4.7.14.	Gas Supplier for the GSME on the same home area network	SMETS 1
N58	ALCS/HCALCS configuration change	ALCS/HCALCS configuration changed on ESME	Upon successful completion of Service Request 6.14.2 Update Device Configuration (Auxilliary Load Control Scheduler) OR Upon successful completion of Service Request 6.14.1 Update Device Configuration (Auxilliary Load Control Descriptions) OR Upon successful completion of Service Request 6.14.3 Update Device Configuration (Auxiliary Controller Scheduler) OR Future Dated Execution Of Instruction Alert (DLMS COSEM) Alert (Alert Code 0x8F66 and Message Code 0x00CC) corresponding to AuxiliaryLoadControlSwitches Calendar received by the DCC Data Systems	ED	SMETS 2+

DCC Alert Code	Alert Name	Event	Trigger	DCC Alert Recipient	Device Applicability
N59	Firmware update in progress	DCC Alert indicating that the CSP's checks are passed and the image will be sent to the Comms Hub for processing.	Notification from CSP indicating completion of validation.	All Responsible Suppliers for the Device, other than the IS / GS that submitted the Service Request	SMETS 2+
N60	Failed to deliver Firmware image to Comms Hub	Failed to deliver Firmware image to Comms Hub	Notification from CSP indicating that the image could not be delivered to the Comms Hub.	Update Firmware request sender	SMETS 2+
N61	Firmware image successfully delivered to Comms Hub	Firmware image successfully delivered to Comms Hub	Notification from CSP indicating that the image has been successfully delivered to the Comms Hub.	Update Firmware request sender	SMETS 2+
N62	Comms Hub Alert	A Comms Hub generates a Device Alert as defined by GBCS	An Alert from a Comms Hub is received by the DSP Access Control Broker.	IS GS	SMETS 2+
N999	DUIS Version Mismatch	User's DUIS version is incompatible with the DCC Alert or Service Response to be sent	The DCC Alert or Service Response is not compatible with the DUIS version used by the User	Recipient of the incompatible DCC Alert or Service Response	All

Table 41 : DCC Alert Codes

Amend Section 3.8 'Service Request Definitions' as follows:

3.8.123 Update Firmware

3.8.123.1 Service Description

Service Request Name	UpdateFirmware
Service Reference	11.1
Service Reference Variant	11.1
Eligible Users	Import Supplier (IS) Gas Supplier (GS)
Security Classification	Non Critical

BusinessTargetID - **Device Type applicable to this request**	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request (Only one populated	8 – Non-Device	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement • Response to a Non-Device Service Request Also see Response Section below for details specific to this request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

3.8.123.2 Specific Data Items for this Request

UpdateFirmware Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
FirmwareImage	The Firmware Image corresponding to the Firmware Version This is a base64 encoded version of the GBCS defined Firmware "OTA Upgrade Image". The Firmware Image is the full OTA Upgrade Image as defined in GBCS. Note that this includes not only the Manufacturer Image but also additional signature and OTA Header information. Please see GBCS for details of how to construct the OTA Upgrade Image	Restriction of xs:base64Binary (max Length = 10240000)	Yes	None	N/A
FirmwareVersion	An identifier representing a firmware image that has been approved for release by the User concerned. 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 value must align with the firmware version value listed on the Central Products List (excluding the colon separator between octet values) and the Firmware Hash held on the CPL must match the Manufacturer Image Hash pursuant to clause 6.1(i) of the Service Request Processing Document. For avoidance of doubt, there is no direct comparison made between this FirmwareVersion value to the File Version value contained in the OTA Header (as defined by GBCS).	sr:FirmwareVersion (Restriction of xs:string (minLength=1, maxLength = 8))	Yes	None	N/A

DeviceIDList	Comma separated list of Device IDs. Containing a minimum of 1 and a maximum of 50000 Device IDs, each as defined by sr:EUI	Restriction of xs:string (minLength = 23 maxLength = 1199999 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}-[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 Minimum 1 and Maximum 50,000 Device IDs	None	N/A

Table 254 : UpdateFirmware (sr:UpdateFirmware) data items

3.8.123.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests.

For this Service Request and as an exception, the Authorisation Check associated to E5 allows the Device's SMI Status to be 'Suspended'

Response Code	Response Code Description
E110101	The Firmware Version is not approved. The Firmware version ID does not align with an entry on the Central Products List.
W110101	The Update Firmware Warning contains between one and ~~four~~ five lists of Device IDs for which the validation failed for each DeviceID: • InvalidDeviceIDList . The DeviceID does not exist or the User is not the Meter or HCALCS Import Supplier • NotCommissionedDeviceIDList. The Meter status is not 'Commissioned' or 'Suspended' or the Device is not a Meter or a HCALCS • NotApplicableFirmwareDeviceIDList. The Firmware Version is not applicable to the ~~Meter~~Device • OtherRequestsInProgressList. The Device already has another Firmware update request in progress. • InvalidGBCSVersionList. The CHF associated with the HCALCS Device has a GBCS Version prior to v4.1, or the HCALCS Device currently has a GBCS Version that is prior to v4.1.

E110102	The firmware is not marked as active in the Central Products List and Smart Meter Inventory.
E110103	The DCC Systems calculated Hash value over the Manufacturer Image part of the FirmwareImage provided by the User within the Service Request differs from that held in the CPL for the specified FirmwareVersion.
E110105	The firmware image is not constructed as per the GBCS definition, i.e. the FirmwareImage does not contain both an OTA Header and a Firmware Image concatenated together , or where the Target Device is a SMETS2+ Device, the Length of the base64 encoded version of the GBCS defined Firmware "OTA Upgrade Image" exceeds 1024000.

3.8.123.4 Specific Data Items in the Response

This Service Request synchronous response is defined in the XSD DSPUpdateFirmwareWarning XML element, which contains the list(s) of Device IDs that failed DCC Authorisation / Validation.

The DCC shall return the following data items which are specific to this Service Request for Successful Responses

DSPUpdateFirmwareWarning Definition:

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
InvalidDeviceIDList	Comma separated list of Device IDs for which the User ID is not the Import Supplier or the DeviceIds don't exist. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 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}-[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})"))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
NotCommissionedDeviceIDList	Comma separated list of Device IDs which aren't in a status of "Commissioned" or "Suspended" or the Device is not a Meter or a HCALCS. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
NotApplicableFirmwareDeviceIDList	Comma separated list of Device IDs for which the Firmware is not applicable. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
OtherRequestsInProgressList	Comma separated list of Device IDs for which another Firmware Update request is in progress. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A

InvalidGBCSVersionList	Comma separated list of Device IDs for which either; • the HCALCS DeviceID for which the GBCS Version of the associated CHF is prior to v4.1 • HCALCS Device IDs for which the current GBCS Version is prior to v4.1	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 5 Lists and it could contain all of them	None	N/A

Table 255 : DSPUpdateFirmwareWarning (sr:DSPUpdateFirmwareWarning) data items

3.8.123.5 Additional DCC System Processing

The DCC Systems shall calculate a Hash over the Manufacturer Image part of the FirmwareImage provided by the User within the Service Request and ensure that the Hash calculated matches that held in the CPL for the specified FirmwareVersion. Where the DCC identifies any mismatch in Hash values, a Response Code of E110103 shall be returned to the User.

3.8.124 Read Firmware Version

3.8.124.1 Service Description

Service Request Name	ReadFirmwareVersion			
Service Reference	11.2			
Service Reference Variant	11.2			
Eligible Users	Import Supplier (IS) Export Supplier (ES) Gas Supplier (GS) Registered Supplier Agent (RSA) Electricity Distributor (ED) Gas Transporter (GT) Other User (OU)			
Security Classification	Non Critical			
BusinessTargetID - **Device Type applicable to this request**	Electricity Smart Meter(ESME) Gas Smart Meter (GSME) Gas Proxy Function (GPF) Communications Hub Function (CHF) HAN Connected Auxiliary Load Control Switch (HCALCS) PrePayment Interface Device (PPMID)			
Can be future dated?	DSP			
On Demand?	Yes			
Capable of being DCC Scheduled?	No			
Command Variants applicable to this Request (Only one populated	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)			
Common Header Data Items	See clause 3.4.1.1			
Data Items Specific to this Service Request	See Specific Data Items Below			
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement • Service Response from Device – GBCSPayload • Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this request			
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes			
GBCS Cross Reference	Electricity (ESME) and Communications Hub	Gas	HCALCS	PPMID

GBCS version earlier than v4.1 MessageCode ~~prior to GBCS v4.x~~	0x0059	0x0084	N/A	N/A[1]
GBCS version earlier than v4.1 Use Case ~~prior to GBCS v4.x~~	ECS52	GCS38	N/A	N/A[1]
GBCS ~~v4.x~~v4.1 or later MessageCode	0x0059	0x0084	0x0129	0x0129
GBCS ~~v4.x~~v4.1 or later Use Case	ECS52	GCS38	CS08	CS08

GBCS Commands - Versioning Details		
DCC System creates the following GBCS Commands or Response Codes based on the following combinations,		
Device Type	ESME	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS v1.0 or later	
DEFAULT - No specific XML criteria	ECS52	
Device Type	GSME	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS v1.0 or later	
DEFAULT - No specific XML criteria	GCS38	
Device Type	PPMID	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS version earlier than v4.1	GBCS v4.1 or later
DEFAULT - No specific XML criteria	CS08[1]	CS08
Device Type	HCALCS	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS version earlier than v4.1	GBCS v4.1 or later
DEFAULT - No specific XML criteria	Response Code - E57	CS08

[1] For a SMETS2 PPMID, DCC Systems will create a GBCS Command conforming to GBCS Use Case CS08 regardless of the GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request. The Response Code E57 check is not applicable for this SRV, where the Ttarget Device Type is a PPMID.

3.8.124.2 Specific Data Items for this Request

ReadFirmwareVersion Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device ID • Date-time in the future that is either <= current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time

Table 256 : ReadFirmwareVersion (sr:ReadFirmwareVersion) data items

3.8.124.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests and clause 3.10.2 for Execution Date Time validation.

For this Service Request and as an exception, the Authorisation Check associated to E5 allows the Device's SMI Status to be 'Suspended'.

3.8.124.4 Additional DCC System Processing

Upon receipt of a Response to this Service Request containing a Firmware Version value:

- if the Target Device Type is ESME, GSME, HCALCS, PPMID or CHF and the Firmware Version returned by the Device matches an entry on the CPL for that Device Model, but is different from that stored in the SMI, the DCC Systems shall update the Firmware Version in the SMI to the value returned by the Device. Note that updating the Firmware Version may also update the Device's GBCS Version in the SMI.
    - If the target Device is CHF, the associated GPF Firmware Version shall also be updated.
    - If the Firmware Version entry on the CPL for that Device Model has a status of "Current" and the Read Firmware Version Service Request was not submitted by the Responsible Supplier, DCC Alert N49 shall be sent to the Responsible Supplier.
    - If the Firmware Version entry on the CPL for that Device Model has a status of "Removed", the SMI Firmware Version shall be updated, but the Device Status shall not be set to 'Suspended'. In this case DCC Alert N50 shall be sent to the Responsible Supplier as a warning.
    - Where the DeviceFirmwareVersion for the specified Device is now the current valid version, and the Device Status was 'Suspended' and the Firmware Version returned by the Device matches an entry on the CPL for that Device Model with a status of "Current", the DCC Systems shall update the Device Status to the status it held immediately prior to its "Suspension" and DCC Alert N29 will be sent to the Responsible Supplier and to the Electricity Distributor or Gas Transporter.

- if the Target Device Type is ESME, GSME, HCALCS, PPMID or CHF and the Firmware Version returned by the Device does not match an entry on the CPL for that Device Model, DCC Alert N51 will be sent to the Responsible Supplier as a warning and the SMI Firmware Version will not be updated.
- if the Target Device Type is GPF and the GSME Firmware Version returned by the GPF is different from that stored in the SMI, DCC Alert N52 will be sent to the Responsible Supplier as a warning and the SMI Firmware Version will not be updated.

3.8.125 Activate Firmware

3.8.125.1 Service Description

Service Request Name	ActivateFirmware		
Service Reference	11.3		
Service Reference Variant	11.3		
Eligible Users	Import Supplier (IS) Gas Supplier (GS)		
Security Classification	Critical		
BusinessTargetID - **Device Type applicable to this request**	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) HAN Connected Auxiliary Load Control Switch (HCALCS)		
Can be future dated?	Device		
On Demand?	Yes		
Capable of being DCC Scheduled?	No		
Command Variants applicable to this Request (Only one populated	For Service Request 4 – Transform For Signed Pre-Commands, choice of: 5 - Send (Critical) 6 - Return for local delivery (Critical) 7 - Send and Return for local delivery (Critical)		
Common Header Data Items	See clause 3.4.1.1		
Data Items Specific to this Service Request	See Specific Data Items Below		
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause3.5 for more details on processing patterns • Acknowledgement • Response to Transform Request - PreCommand Format • Service Response from Device – GBCSPayload • Service Response (from Device) - FutureDatedDeviceAlertMessage • Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this request		
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes		
GBCS Cross Reference	Electricity (ESME)	Gas	Electricity (HCALCS)
GBCS version earlier than v4.1 MessageCode ~~prior to GBCS v4.x~~	0x0012	0x0012	N/A
GBCS version earlier than v4.1 Use Case ~~prior to GBCS v4.x~~	CS06	CS06	N/A
GBCS ~~v4.x~~v4.1 or later MessageCode	0x0012	0x0012	0x0012

GBCS ~~v4.x~~v4.1 or later Use Case	CS06	CS06	CS06

GBCS Commands - Versioning Details		
DCC System creates the following GBCS Commands or Response Codes based on the following combinations,		
Device Type	ESME	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS v1.0 or later	
DEFAULT - No specific XML criteria	CS06	
Device Type	GSME	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS v1.0 or later	
DEFAULT - No specific XML criteria	CS06	
Device Type	HCALCS	
GBCS version that pertains to the Device Model recorded in the SMI for the Business Target Device ID specified in the Service Request	GBCS version earlier than v4.1	GBCS v4.1 or later
Prior to DUIS v5.0: DEFAULT - No specific XML criteria	Response Code - E57	Response Code - E57
DUIS v5.0 or later: DEFAULT - No specific XML criteria	Response Code - E57	CS06

3.8.125.2 Specific Data Items for this Request

ActivateFirmware Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The date and time at which the firmware will be activated • Date-time in the future that is either <= current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	N.A
FirmwareHash	Hash calculated over the Manufacturer Image part of the FirmwareImage as defined by GBCS. The Firmware Hash as held in the CPL and presented in the format XX..XX (64 characters) where each X is one of the characters 0 to 9 or A to F. This data item must align with the value on the CPL (excluding the colon separator between octet values). Note that a hexBinary value of length 32 is defined as 32 octets; an octet is represented as 2 characters.	Restriction of xs:hexBinary (minLength = 32, maxLength = 32)	Yes	None	N/A

Table 257 : ActivateFirmware (sr:ActivateFirmware) data items

3.8.125.3 Specific Validation for this Request

No specific validation is applied for this Request, see clause 3.2.5 for general validation applied to all Requests and clause 3.10.2 for Execution Date Time validation.

3.8.125.4 Additional DCC System Processing

The DCC Systems shall monitor all Responses received to this Service Request.

Where the DCC identifies any Response where the current Firmware Version returned by the Device matches an entry on the CPL for that Device Model and that Firmware Version is different to the value currently held in the Smart Metering Inventory for that Device, an update to the Smart Metering Inventory shall be made by the DCC.

The DCC Systems shall update the DeviceFirmwareVersion data item within the Smart Metering Inventory to record the new DeviceFirmwareVersion value for the specified Device ID received in the Response. Where the DeviceFirmwareVersion for the specified Device is

now the current valid version, and the Device Status was 'Suspended' and the Firmware Version returned by the Device matches an entry on the CPL for that Device Model with a status of "Current" the DCC Systems shall update the Device Status to the status it held immediately prior to its Suspension" and DCC Alert N29 will be sent to the Responsible Supplier and to the Electricity Distributor or Gas Transporter.

If the Firmware Version returned by the Device matches an entry on the CPL for that Device Model with a status of "Removed", the SMI Firmware Version will be updated, but the Device Status will not be set to 'Suspended'. In this case DCC Alert N50 will be sent to the Responsible Supplier as a warning.

Note that if the Firmware Version returned by the Device is invalid (doesn't match an entry on the CPL for that Device Model) DCC Alert N51 will be sent to the Responsible Supplier as a warning and the Smart Metering Inventory Firmware Version will not be updated.

3.8.126 Update PPMID Firmware

3.8.126.1 Service Description

Service Request Name	UpdatePPMIDFirmware
Service Reference	11.4
Service Reference Variant	11.4
Eligible Users	Import Supplier (IS) Gas Supplier (GS)
Security Classification	Non Critical
BusinessTargetID - **Device Type applicable to this request**	DCC Access Control Broker
Can be future dated?	No
On Demand?	No
Capable of being DCC Scheduled?	No
Command Variants applicable to this Request (Only one populated	8 – Non-Device
Common Header Data Items	See clause 3.4.1.1
Data Items Specific to this Service Request	See Specific Data Items Below
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement • Response to a Non-Device Service Request Also see Response Section below for details specific to this request
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes

GBCS Cross Reference	PPMID
GBCS MessageCode	N/A
GBCS Use Case	N/A

3.8.126.2 Specific Data Items for this Request

UpdateFirmware Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
FirmwareImage	The Firmware Image corresponding to the Firmware Version This is a base64 encoded version of the GBCS defined Firmware "OTA Upgrade Image". The Firmware Image is the full OTA Upgrade Image as defined in GBCS. ~~Note that this includes not only the Manufacturer Image but also additional signature and OTA Header information~~ Note that this includes the Manufacturer Image and the OTA Header information. Please see GBCS for details of how to construct the OTA Upgrade Image	Restriction of xs:base64Binary (max Length = 10240000)	Yes	None	N/A
FirmwareVersion	An identifier representing a firmware image that has been approved for release by the User concerned. 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 value must align with the firmware version value listed on the Central Products List (excluding the colon separator between octet values) and the Firmware Hash held on the CPL must match the Manufacturer Image Hash pursuant to clause 6.1(i) of the Service Request Processing Document. For avoidance of doubt, there is no direct comparison made between this FirmwareVersion value to the File Version value contained in the OTA Header (as defined by GBCS).	sr:FirmwareVersion (Restriction of xs:string (minLength=1, maxLength = 8))	Yes	None	N/A

DeviceIDList	Comma separated list of Device IDs. Containing a minimum of 1 and a maximum of 50000 Device IDs, each as defined by sr:EUI	Restriction of xs:string (minLength = 23 maxLength = 1199999 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}-[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 Minimum 1 and Maximum 50,000 Device IDs	None	N/A

Table ~~258~~257.1 : UpdateFirmware (sr:UpdateFirmware) data items

3.8.126.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests.

For this Service Request and as an exception, the Authorisation Check associated to E5 allows the Device's SMI Status to be 'Suspended'

Response Code	Response Code Description
E110401	The Firmware Version is not approved. The Firmware version ID does not align with an entry on the Central Products List.
W110401	The Update Firmware Warning contains between one and ~~four~~ five lists of Device IDs for which the validation failed for each DeviceID: • InvalidDeviceIDList . The DeviceID does not exist or the User is not the Import Supplier or Gas Supplier for a Meter connected to the same HAN as the PPMID. • NotCommissionedDeviceIDList. The PPMID status is not 'Commissioned' or 'Suspended' or the Device is not a PPMID • NotApplicableFirmwareDeviceIDList. The Firmware Version is not applicable to the PPMID • OtherRequestsInProgressList. The PPMID already has another Firmware update request in progress. • InvalidGBCSVersionList. The CHF associated with the PPMID Device has a GBCS Version prior to v4.1.

E110402	The firmware is not marked as active in the Central Products List and Smart Meter Inventory.
E110403	The DCC Systems calculated Hash value over the Manufacturer Image part of the FirmwareImage provided by the User within the Service Request differs from that held in the CPL for the specified FirmwareVersion.
E110405	The firmware image is not constructed as per the GBCS definition, i.e. the FirmwareImage does not contain both an OTA Header and a Firmware Image concatenated together, or the Length of the base64 encoded version of the GBCS defined Firmware "OTA Upgrade Image" exceeds 1024000.

3.8.126.4 Specific Data Items in the Response

This Service Request synchronous response is defined in the XSD DSPUpdateFirmwareWarning XML element, which contains the list(s) of Device IDs that failed DCC Authorisation / Validation.

The DCC shall return the following data items which are specific to this Service Request for Successful Responses

DSPUpdatePPMIDFirmwareWarning Definition:

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
InvalidDeviceIDList	Comma separated list of Device IDs for which the User ID is not the Import Supplier or Gas Supplier or the DeviceIds don't exist. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 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}-[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})"))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
NotCommissionedDeviceIDList	Comma separated list of Device IDs which aren't in a status of "Commissioned" or "Suspended" or the Device is not a PPMID. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
NotApplicableFirmwareDeviceIDList	Comma separated list of Device IDs for which the Firmware is not applicable. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A
OtherRequestsInProgressList	Comma separated list of Device IDs for which another Firmware Update request is in progress. Containing a minimum of 1 Device ID, each as defined by sr:EUI	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 45 Lists and it could contain all of them	None	N/A

InvalidGBCSVersionList	Comma separated list of Device IDs for which the CHF associated with PPMID device has a GBCS version prior to v4.1	sr:DeviceIDList (Restriction of xs:string (minLength = 23 pattern = as for InvalidDeviceIDList above))	No The Response will contain at least one of the 5 Lists and it could contain all of them	None	N/A

Table ~~259~~257.2 : DSPUpdatePPMIDFirmwareWarning (sr:DSPUpdatePPMIDFirmwareWarning) data items

3.8.126.5 Additional DCC System Processing

The DCC Systems shall calculate a Hash over the Manufacturer Image part of the FirmwareImage provided by the User within the Service Request and ensure that the Hash calculated matches that held in the CPL for the specified FirmwareVersion. Where the DCC identifies any mismatch in Hash values, a Response Code of E110403 shall be returned to the User.

Amend Table 279 'RequestIDType data items' as follows:

PPMID Alert

Specific Data Items for this DCC Alert

PPMIDAlert Data Items Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DeviceID	The Device ID of the PPMID that generated the Alert	sr:EUI	Yes	None	N/A
DeviceAlertCode	The Alert Code of the Alert generated by the PPMID Valid set: • 8F1E • 8F30 • 8F3D • 8F3E • 8F3F • 8F78 • 8F8B	xs:hexBinary	Yes	None	N/A

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
TimeSstamp	The timestamp at which the event that is responsible for this alert has occurred.	xs:dateTime	No	None	N/A
PPMIDFirmware UpgradeAlert	The Firmware Upgrade Alert sent by a PPMID	sr:PPMIDFirmware UpgradeAlert (See PPMIDFirmwareUpgradeAlert Data Items Definition for details)	No	None	N/A

Table 279 : RequestIDType data items

Amend Table 284 'FirmwareVersionMismatch (sr: FirmwareVersionMismatch) data items' as follows:

3.9.13 FirmwareVersionMismatch

3.9.13.1 Specific Data Items for this DCC Alert

FirmwareVersionMismatch Data Items Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DeviceID	The Device ID with a Firmware Version mismatch between the SMI and the Device	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
DeviceType	Device Type of the Device with a Firmware Version mismatch between the SMI and the Device *Valid set:* • *ESME* • *GSME* • *CHF* • *PPMID* • *HCALCS*	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
FirmwareVersion SMI	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
FirmwareVersion Device	N49, N50. The Device's Firmware Version held on the Device and now updated in the SMI post response returned by the Device 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) N51. Firmware Version returned by the Device, which is unknown (it doesn't match an item on the CPL) N52. GSME Firmware Version returned by the GPF	Restriction of xs:string (minLength = 1, maxLength = 8)	Yes	None	N/A

Table 284 : FirmwareVersionMismatch (sr: FirmwareVersionMismatch) data items

Amend Table 296 'ServiceResponseVersionMismatch (sr: ServiceResponseVersionMismatch) data items' as follows:

ServiceResponseVersionMismatch Items Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
RequestID	The Request ID of the Service Request incompatible with the User's DUIS XSD version	sr:RequestIDType (see clause 3.10.1.1)	Yes	None	N/A
ServiceReference	The Service Reference of the Service Request incompatible with the User's DUIS XSD version	xs:string	Yes	None	N/A
ServiceReference Variant	The Service Reference Variant of the Service Request incompatible with the User's DUIS XSD version	xs:string	Yes	None	N/A
ServiceRequestDUISVersion	The DUIS Version of the Service Request incompatible with the User's DUIS XSD version Valid Values; • 1.0 • 2.0 • 3.0 • 3.1 • 4.0 • 5.0	xs:string	Yes	None	N/A

Table 296 : ServiceResponseVersionMismatch (sr: ServiceResponseVersionMismatch) data items

Amend the tables within Sections 3.9.20, 3.9.21 and 3.9.22 as follows:

3.9.20 FirmwareUpgradeRequested

3.9.20.1 Specific Data Items for this DCC Alert

FirmwareUpgradeRequested Data Items Definition

Data Type / Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DeviceType	The type of the Device the Firmware is applicable to. Valid set: • *PPMID*	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A
FirmwareVersion	The firmware version of the Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A

Data Type / Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DeviceList	List of Device IDs that successfully passed validation by DSP and CSP.	sr:DeviceIDList	Yes	None	N/A

Table ~~302~~297b : FirmwareUpgradeRequested Data Items

3.9.21 CSPFirmwareDeliveryStatus

3.9.21.1 Specific Data Items for this DCC Alert

CSPFirmwareDeliveryStatus Data Items Definition

Data Type / Data Item	Description / Allowable values	Type	Mandatory	Default	Units
UpdateFirmwareRequestID	Request ID of the Update Firmware Service Request associated to this Alert	sr:RequestIDType (see clause 3.10.1.1)	Yes	None	N/A
CommsHubDeviceID	The Device ID of the Comms Hub that is the destination for the delivery of the firmware image	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
TargetDeviceID	The ID of the Device the firmware image is targeted at	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
FirmwareVersion	The firmware version of the Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A
TimeStamp	The time at which this status update was recorded by the CSP.	xs:dateTime	Yes	None	N/A
CommsHubTransferStatus	Indicates whether a firmware image has been delivered to a Comms Hub. Valid set: For DCC Alert N61: • *Success ~~(N61)~~* For DCC Alert N60: • *Failure (N60)*	Restriction of xs:string (Enumeration)	Yes	None	N/A

Table ~~303~~297c : CSPFirmwareDeliveryStatus Data Items

3.9.22 CommsHubAlert

3.9.22.1 Specific Data Items for this DCC Alert

CommsHubAlert Data Items Definition

Data Type / Data Item	Description / Allowable values	Type	Mandatory	Default	Units
CommsHubDeviceID	The Device ID of the Comms Hub that generated the Device Alert	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
AlertCode	The Alert Code of the Alert generated by the Comms Hub. Valid set: For Firmware Transfer Alert: • *8F89* • *8F8A*	xs:hexBinary	Yes	None	N/A
TimeStamp	The timestamp at which the event that is responsible for this alert has occurred.	xs:dateTime	No	None	N/A
FirmwareTransferAlert	The 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

Table ~~304~~297d : CommsHubAlert Data Items

FirmwareTransferAlert Data Items Definition

Data Type / Data Item	Description / Allowable values	Type	Mandatory	Default	Units
UpdateFirmwareRequestID	Request ID of the Update Firmware Service Request associated to this Alert	sr:RequestIDType (see clause 3.10.1.1)	~~Yes~~No	None	N/A
OtherDeviceID	The ID of the Device the firmware image is targeted at	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
FirmwareVersion	The firmware version of the transferred or discarded Upgrade Image	sr:FirmwareVersion (Restriction of xs:string)	Yes	None	N/A
TransferResponseCode	Valid set: For Alert Code 0x8F8A: • *FileTransferSuccess* For Alert Code 0x8F89: • *FirmwareImageDiscarded* • *HardwareVersionMismatch* • *FileTransferFailure*	Restriction of xs:string (Enumeration)	Yes	None	N/A

Table ~~305~~297e : FirmwareTransferAlert Data Items

Add the updated DUIS v5.0 XML Schema as follows:

DUIS Schema V5.0.xsd

Field Code Changed

Appendix AF 'Message Mapping Catalogue'

Where the associated change was impacted by the SECMP0007, those changes have been redlined against the approved SECMP0007 legal text and confirmed following the associated header.

The other changes have been redlined against Appendix AF version 4.0.

These changes will be applied to Appendix AF version 5.0.

Amend Table 10 'Device Alert GBCS Message Codes' as follows:

4.2.1 Message codes for Device Alerts

All Device Alerts include both a Message Code within the Header element (see section 3) and an Alert Code within DeviceAlertContent.

Many Device Alerts will share the same common message codes, being either 0x1000 (denoting Critical) or 0x1001 (denoting Non Critical). The Device Alerts that use a specific Message Code instead of such generic codes shall be as defined in GBCS and as listed in Table 10 as set out immediately below.

Device Alerts which use the generic message codes are defined in GBCS and are not listed below.

The MMC Output Format for all Device Alerts which have specific Message Codes shall include additional information within the Payload data item, as set out in Section 4.2.2 of this document. Message Codes shall conform to the "xs:hexBinary" XML type and shall omit any leading "0x" value that would ordinarily appear in the corresponding GBCS code as shown in the table below.

GBCS Version	Message Code	Purpose	Alert Codes
>= 1.0	0x0061	GBCS Use Case ECS68 ESME Critical Sensitive Alert (Billing Data Log)	0x8F0A
>= 1.0	0x0067	GBCS Use Case ECS80 Supply Outage Restore Alert from ESME	0x8F35, 0x8F36, 0x8F37, 0x8F38, 0x8F39, 0x8F3A, 0x8F3B, 0x8F3C
>= 1.0	0x008B	GBCS Use Case GCS53, GSME Push Billing Data Log as an Alert	0x8F0A
>= 1.0	0x00CA	Future Dated Firmware Activation Alert	0x8F66, 0x8F67
>= 1.0	0x00CB	Future Dated Updated Security Credentials Alert	0x8F66, 0x8F67
>= 1.0	0x00CC	Future Dated Execution Of Instruction Alert (DLMS COSEM)	0x8F66, 0x8F67
>= 1.0	0x00CD	Future Dated Execution Of Instruction Alert (GBZ)	0x8F66, 0x8F67
>= 1.0 and modified in 4.1	0x00CE	Firmware Distribution Receipt Alert (ESME/HCALCS)	0x8F72, 0x8F1C

>= 1.0	0x00CF	Firmware Distribution Receipt Alert (GSME)	0x8F72, 0x8F1C
>= 2.0	0x00F0	Meter Integrity Issue Warning Alert - ESME	0x81A0
>= 2.0	0x00F2	Meter Integrity Issue Warning Alert – GSME	0x81A0
>= 1.0	0x1000	Generic Critical Alert	As set out in GBCS
>= 1.0	0x1001	Generic Non Critical Alert	As set out in GBCS
>= 4.0	0x0120	GBCS Use Case ECS100 Command not supported by Device.	0x8F85
>= 4.0	0x0121	GBCS Use Case ECS101 Limit APC [n] Level Command processed	0x8F86
>= 4.0	0x0122	GBCS Use Case ECS102 Limit APC [n] Level ended or cancelled	0x8F87
>= 4.0	0x0123	GBCS Use Case ECS200 Operational Update.	0x8F88
>= 4.0	0x0124	Future Dated Updated Security Credentials Alert (Load Controller only)	0x8F66, 0x8F67

Table 10 : Device Alert GBCS Message Codes

Amend Table 11 'Device Alerts with Additional Payload' as follows:

4.2.2 Payload in Device Alerts

The MMC Message Format for all Device Alerts which contain additional Payload data are as listed in Table 11 as set out immediately below. Where a Device Alert is associated with a specific GBCS Use Case, this is indicated in Table 11.

GBCS Version	Alert Code(s)	Description	GBCS Use Case (where applicable)	Message Code	Section detailing XML contents	Applicable to SMETS1 Alerts?
>= 1.0	0x8F0A	Billing Data Log Updated (Electricity)	ECS68 ESME Critical Sensitive Alert (Billing Data Log)	0x0061	6.2	No
>= 1.0	0x8F0A	Billing Data Log Updated (Gas)	GCS53, GSME Push Billing Data Log as an Alert	0x008B	6.2	No
>= 1.0 and modified in 4.1	0x8F1C	Firmware Verification Status (Firmware Distribution Receipt) - Failed	CS05b	0x00CE (Firmware Distribution Receipt Alert (ESME/HCALCS)), 00CF (Firmware Distribution Receipt Alert (GSME))	6.1	Yes

GBCS Version	Alert Code(s)	Description	GBCS Use Case (where applicable)	Message Code	Section detailing XML contents	Applicable to SMETS1 Alerts?
>= 1.0	0x8F35 0x8F36, 0x8F37, 0x8F38, 0x8F39, 0x8F3A , 0x8F3B, 0x8F3C	Supply Outage Restored Alert	ECS80 Supply Outage Restore Alert from ESME	0x0067	6.3	No
>= 1.0 and modified in 4.0	0x8F66	Future-Dated Command Outcome Action Successful	Any GBCS Use Case that supports Future Dated Services.	0x00CA (Future Dated Firmware Activation Alert), 0x00CB (Future Dated Updated Security Credentials Alert), 0x00CC (Future Dated Execution Of Instruction Alert - DLMS COSEM) or 0x00CD (Future Dated Execution Of Instruction Alert - GBZ) GBCS v4.0 or later: 0x0124 (Future Dated Update Load Controller Security Credentials Alert)	6.4	No
>= 1.0	0x8F67	Future-Dated Command Outcome Action Failed	Any GBCS Use Case that supports Future Dated Services.	As for Alert Code 0x8F66	6.4	No

GBCS Version	Alert Code(s)	Description	GBCS Use Case (where applicable)	Message Code	Section detailing XML contents	Applicable to SMETS1 Alerts?
>= 1.0 and modified in 4.1	0x8F72	Firmware Verification Status (Firmware Distribution Receipt) - Successful	CS05b	0x00CE (Firmware Distribution Receipt Alert (ESME/HCALCS)), 00CF (Firmware Distribution Receipt Alert (GSME))	6.1	Yes
>= 2.0	0x81A0	Smart Meter Integrity Issue – Warning	Smart Meter Integrity Issue – Warning from ESME or GSME	0x00F0 (Meter Integrity Issue Warning Alert – ESME) 0x00F2 (Meter Integrity Issue Warning Alert – GSME)	6.5	No
>= 4.0	0x8F85	ECS100 Command not supported by Device	ECS100	0x0120	6.6	No
>= 4.0	0x8F86	ECS101 Limit APC [n] Level Command processed	ECS101	0x0121	6.7	No
>= 4.0	0x8F87	ECS102 Limit APC [n] Level ended or cancelled	ECS102	0x0122	6.8	No
>= 4.0	0x8F88	ECS200 Operational Update	ECS200	0x0123	6.9	No

Table 11 : Device Alerts with Additional Payload

Amend Table 242 'Read Firmware Version MMC Output Format Header data items' as follows:

This change has been drafted against the SECMP0007 legal text

~~GBCS v1.0:~~GBCS version earlier than v4.1:

Data Item	Electricity Response	Gas Response
GBCSHexadecimalMessageCode	0x0059	0x0084
GBCS Use Case	ECS52	GCS38
SupplementaryRemotePartyID	ra:EUI (see clause 2.4.1) Where originator is Unknown Remote Party	
SupplementaryRemotePartyCounter	xs:nonNegativeInteger Where originator is Unknown Remote Party	

Table 242 : Read Firmware Version MMC Output Format Header data items – GBCS version earlier than v4.1

Amend new Table 242 (now 242.1) 'Read Firmware Version MMC Output Format Header data items – GBCS v4.1 or later' as follows:

This change has been drafted against the SECMP0007 legal text

~~GBCS v4.x:~~

~~Data Item~~	~~Electricity Response (ESME)~~	~~Gas Response~~	~~PPMID and HCALCS~~
~~GBCSHexadecimalMessageCode~~	~~0x0059~~	~~0x0084~~	~~0x0129~~
~~GBCS Use Case~~	~~ECS52~~	~~GCS38~~	~~CS08~~
~~SupplementaryRemotePartyID~~	~~ra:EUI~~ ~~(see clause 2.4.1)~~ ~~Where originator is Unknown Remote Party~~		
~~SupplementaryRemotePartyCounter~~	~~xs:nonNegativeInteger~~ ~~Where originator is Unknown Remote Party~~		

~~**Table 242 : Read Firmware Version MMC Output Format Header data items**~~

GBCS v4.1 or later:

Data Item	Electricity Response			Gas Response
DeviceType	ESME/ Communications Hub Function	PPMID	HCALCS	
GBCSHexadecimalMessageCode	0x0059	0x0129	0x0129	0x0084
GBCS Use Case	ECS52	CS08	CS08	GCS38
SupplementaryRemotePartyID	ra:EUI (see clause 2.4.1) Where originator is Unknown Remote Party	ra:EUI (see clause 2.4.1) Originator is always an Unknown Remote Party as Command created by ACB		ra:EUI (see clause 2.4.1) Where originator is Unknown Remote Party
SupplementaryRemotePartyCounter	xs:nonNegative Integer Where originator is	xs:nonNegativeInteger Originator is always an Unknown Remote Party as Command created by ACB		xs:nonNegativ eInteger Where originator is

	Unknown Remote Party		Unknown Remote Party

Table 242.1 : Read Firmware Version MMC Output Format Header data items – GBCS v4.1 or later

Amend Table 244 'Activate Firmware Version MMC Output Format Header data items' as follows:

This change has been drafted against the SECMP0007 legal text

~~GBCS v1.0:~~GBCS version earlier than v4.1:

Data Item	Electricity Response	Gas Response
GBCSHexadecimalMessageCode	0x0012	0x0012
GBCS Use Case	CS06	CS06
Timestamp	xs:dateTime	

Table 244 : Activate Firmware Version MMC Output Format Header data items

Amend new Table 244 (now 244.1) 'Activate Firmware Version MMC Output Format Header data items' as follows:

This change has been drafted against the SECMP0007 legal text

~~GBCS v4.x:~~

~~Data Item~~	~~Electricity Response (ESME)~~	~~Gas Response~~	~~HCALCS~~
~~GBCSHexadecimalMessageCode~~	~~0x0012~~	~~0x0012~~	~~0x0012~~
~~GBCS Use Case~~	~~CS06~~	~~CS06~~	~~CS06~~
~~Timestamp~~	~~xs:dateTime~~		

~~**Table 244 : Activate Firmware Version MMC Output Format Header data items**~~

GBCS v4.1 or later:

Data Item	Electricity Response		Gas Response
DeviceType	ESME	HCALCS	
GBCSHexadecimalMessageCode	0x0012	0x0012	0x0012
GBCS Use Case	CS06	CS06	CS06
Timestamp	xs:dateTime		

Table 244.1 : Activate Firmware Version MMC Output Format Header data items – GBCS v4.1 or later

Add Table 248.1 'Firmware Verification Device Alerts MMC Output Format Header data items – GBCS v4.1 or later' as follows:

6 DEVICE ALERT MMC OUTPUT FORMAT DEFINITIONS

6.1 Firmware Verification Status (Alert Codes 0x8F1C and 0x8F72)

Upon completion of a Firmware verification performed as part of the distribution of Firmware upgrades, the associated Device Alert shall be one of the following:

a) Device Alert with Alert Code 0x8F1C, indicating that the image verification failed; or
b) Device Alert with Alert Code 0x8F72, indicating that the image verification was successful.

The same Payload element is included in the case of Firmware image verification success or failure.

The xml type within the DeviceAlertMessagePayload element is FirmwareVerificationDeviceAlertType. The header and body data items appear as set out immediately below.

6.1.1 Specific Header Data Items

GBCS version earlier than v4.1:

Data Item	Electricity Alert	Gas Alert
GBCSHexadecimalMessageCode	0x00CE	0x00CF
GBCS Use Case	CS05b	CS05b

Table 248 : Firmware Verification Device Alerts MMC Output Format Header data items – GBCS version earlier than v4.1

GBCS v4.1 or later:

Data Item	Electricity Alert		Gas Alert
DeviceType	ESME	HCALCS	
GBCSHexadecimalMessageCode	0x00CE	0x00CE	0x00CF
GBCS Use Case	CS05b	CS05b	CS05b

Table 248.1 : Firmware Verification Device Alerts MMC Output Format Header data items – GBCS v4.1 or later

Add the updated MMC v5.0 XML Schema as follows:

MMC Schema V5.0.xsd

Field Code Changed