**Message Mapping Catalogue (MMC) – Release Note**

Version 4.0: Release Note

09 April 2020

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# Release Note

This release note accompanies but does not form part of Message Mapping Catalogue V4.0 (MMC). It lists all changes made to MMC v4.0 required for November 2020 DCC release.

## Summary of main changes to MMC V4.0

The sections of MMC V4.0 listed in the table below incorporate the principal changes made made based on MMC V3.1.

| **SECTION** | **Section Heading** | **Specific Change Point** |
| --- | --- | --- |
| 1. Introduction   |
|  | 1.1 Document Purpose | No changes made |
|  | 1.2 Document Structure | No changes made |
|  | 1.3 Definitions | New terms added for* BEIS directive – SMETS2 - CRP612
 |
|  | 1.4 Variation of requirements in relation to SMETS1 Responses and SMETS1 Alerts | Changes for * BEIS directive – SMETS2 - CRP612
 |
| 2. Overview of MMC Output Format |
|  | 2.1 Introduction | No changes made |
|  | 2.2 MMC XML Schema | No changes made |
|  | 2.3 Standard notation and data definitions | No changes made |
|  | 2.4 Data Types Shared Across Service Responses |  |
| 3. Header Element of the MMC Output Format |
|  |  | No changes made |
| 4. Body Element of the MMC Output Format |
|  | 4.1 Service Response | No changes made |
|  | 4.2 Device Alerts | Changes for BEIS directive – SMETS2 - CRP612 |
|  | 4.3 Decryption of encrypted GBCS Payload | No changes made |
| 5. Service Response MMC Output Format Definitions |
|  | Applicable sections between:5.1 Update Import Tariff (Primary Element), to 5.13 Restrict Access for Change of Tenancy | No changes made |
|  | 5.14 Clear Event Log | Changes made for BEIS directive – SMETS2 - CRP612* SR 3.3 ClearEventLog
 |
|  | Applicable sections between:5.55 Update Device Configuration (Gas Conversion), to 5.59 Update Device Configuration (Instantaneous Power Threshold) | No changes made |
|  | 5.60 Read Event or Security Log | Changes made for BEIS directive – SMETS2 - CRP612* SR 6.13 ReadEventOrSecurityLog
 |
|  | 5.61 Update Device Configuration (Auxiliary Load Control Description), 5.62 Update Device Configuration (Auxiliary Load Control Scheduler) | No changes made |
|  | 5.63 Update Device Configuration (Auxiliary Controller Scheduler) | Changes made for BEIS directive – SMETS2 - CRP612* New section added for SR6.14.3 UpdateDeviceConfiguration(AuxiliaryControllerScheduler)
 |
|  | 5.64 Update Security Credentials (KRP) | Changes made for BEIS directive – SMETS2 - CRP612* SR 6.15.1 UpdateSecurityCredentials(KRP)
 |
|  | Applicable sections between:5.65 Update Security Credentials (Device), to 5.73 Update Security Credentials (CoS) | No changes made |
|  | 5.74 Retrieve Device Security Credentials (KRP) | Changes made for BEIS directive – SMETS2 - CRP612* SR 6.24.1 RetrieveDeviceSecurityCredentials(KRP)
 |
|  | Applicable sections between:5.75 Retrieve Device Security Credentials (Device), to 5.89 Deactivate Auxiliary Load | No changes made |
|  | 5.90 Read Auxiliary Load Switch Data | Changes made for BEIS directive – SMETS2 - CRP612* SR 7.7 ReadAuxiliaryLoadSwitchData
 |
|  | Applicable sections between:5.91 Reset Auxiliary Load, to 5.94 Set Randomised Offset Limit | No changes made |
|  | 5.96 Set Auxiliary Controller State  | Changes made for BEIS directive – SMETS2 - CRP612* New section added for SR7.13 SetAuxiliaryControllerState
 |
|  | 5.97 Read Auxiliary Controller Configuration Data | Changes made for BEIS directive – SMETS2 - CRP612* New section added for SR7.14 ReadAuxiliaryControllerConfigurationData
 |
|  | 5.98 Read Auxiliary Controller Operational Data | Changes made for BEIS directive – SMETS2 - CRP612* New section added for SR7.15 ReadAuxiliaryControllerOperationalData
 |
|  | 5.99 Limit APC Level | Changes made for BEIS directive – SMETS2 - CRP612* New section added for SR7.16 LimitAPCLevel
 |
|  | Applicable sections between:5.100 Commission Device, to 5.105 Unjoin Service (Non-Critical) | No changes made |
|  | 5.106 Read Device Log | Changes made for SECMOD93SR8.9 ReadDeviceLog |
|  | Applicable sections between:5.107 Update HAN Device Log, to 5.113 Record Network Data (GAS) | No changes made |
| 6. Device Alert MMC Output Format Definitions |
|  | 6.1 Firmware Verification Status (Alert Codes 0x8F1C and 0x8F72) | Changes made for BEIS directive – SMETS2 - CRP612 |
|  | 6.2 Billing Data Log Updated (Alert Code 0x8F0A) | Changes made for BEIS directive – SMETS2 - CRP612 |
|  | 6.3 Supply Outage Restored Device Alerts | Changes made for BEIS directive – SMETS2 - CRP612 |
|  | 6.4 Future-Dated Command Outcome (Device Alerts 0x8F66 and 0x8F67) | Changes made for BEIS directive – SMETS2 - CRP612 |
|  | 6.5 Smart Meter Integrity Issue - Warning (Alert Code 0x81A0) (new section) | Changes made for BEIS directive – SMETS2 - CRP612 |
|  | 6.6 ECS100 Command not supported by Device (Alert Code 0x8F85) | New section added for BEIS directive – SMETS2 - CRP612 |
|  | 6.7 ECS101 Limit APC Level Command Processed (Alert Code 0x8F86) | New section added for BEIS directive – SMETS2 - CRP612 |
|  | 6.8 ECS102 Limit APC Level Ended or Cancelled (Alert Code 0x8F87) | New section added for BEIS directive – SMETS2 - CRP612 |
|  | 6.9 ECS200 Operational Update (Alert Code 0x8F88) | New section added for BEIS directive – SMETS2 - CRP612 |
| Annex   |
|  | Annex A - MMC XML Schema | Changes made for * BEIS directive – SMETS2 - CRP612
* And SECMOD93
 |
|  | PLEASE NOTE: Compatible DUIS Schema | DUIS V4.0 |
| Various  |
|  |  | Corrected formatting. |

The same colour scheme is used in the MMC documentation to show BEIS directive change:

* BEIS directive – SMETS1- CR1290 - Re-scaling of Gas Flow rate in SRV to match SMETS2

# SECMP093 Implementing IRP511 and CRP535 to support GBCS v3.2 devices (proposal is not YET approved)

## Changes to Service Request 8.9

### Section 5.106.2.1 Specific Header Data Items

Add a new table for GBCSv3.2

GBCS v3.2 or later:

| Data Item | CHF Response  | Non-CHF Response |
| --- | --- | --- |
| GBCSHexadecimalMessageCode | 0x010F, 0x00FE | 0x0013 |
| GBCS Use Case (for reference – not in header) | CCS06, CCS07 | CS07 |
| SupplementaryRemotePartyID | ra:EUI(see clause 2.4.1) | ra:EUI(see clause 2.4.1) Where originator is Unknown Remote Party or the target Device Type is HCALCS |
| SupplementaryRemotePartyCounter  | xs:nonNegativeInteger  | xs:nonNegativeInteger Where originator is Unknown Remote or the target Device Type is HCALCS Party |

Table 232-1 – Read Device Log MMC Output Format Header Data Items – GBCS v3.2

### Section 5.106.2.2 Specific Body Data Items

Adding a new optional data item

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Data Item | Description / Valid Set | Type | Units | Sensitivity |
| DeviceLogEntries | * This is only present if the response code indicates a successful response.
* The element returns a list of DeviceLogEntry items from the Device, which may be empty
 | ra:DeviceLogList of DeviceLogEntry (maxOccurs = unbounded), as set out in Section **Error! Reference source not found.** of this document | N/A | Unencrypted |
| CHFDeviceLog | * If reading the comms hub Device log, this group is returned rather than DeviceLogEntries, which shall include all currently authorised Devices on the ZIGBEE PAN.
 | ra:CHFDeviceLogTypeList of CHFDeviceLogEntry (maxOccurs = 16), as set out in Section **Error! Reference source not found.** of this document | N/A | Unencrypted |
| CHFConnectedDeviceLog | If reading the CHF Device Log and CHF Historic Device Log, this group is returned. These Logs hold details for Devices that can establish Communications Links, or were previously able to (where all terms have their CHTS meaning). | ra:CHFConnectedDeviceLogType  | N/A | Non-Sensitive |

Table 233 : Read Device Log MMC Output Format Body data items

### Adding a new Section 5.106.2.2.3

5.106.2.2.3 CHFConnectedDeviceLogType Data Items

GBCS3.2 or later

| Data Item | Description / Valid Set | Type | Units | Sensitivity |
| --- | --- | --- | --- | --- |
| CHFCurrentConnectedDeviceLogEntry | List of Devices and their Security Details that are currently in the CHF Device Log. | List of CHFConnectedDeviceLogEntry (maxOccurs = 16), as set out in Section 5.101.2.2.4 of this document | N/A | Non-Sensitive |
| CHFHistoricConnectedDeviceLogEntry | List of Devices and their Security Details that are in the CHF Historic Device Log. | List of CHFConnectedDeviceLogEntry (maxOccurs = 16), as set out in Section 5.101.2.2.4 of this document | N/A | Non-Sensitive |

Table 235-1 - CHFConnectedDeviceLogType Data Items

### Adding a new Section 5.106.2.2.4

5.106.2.2.4 CHFConnectedDeviceLogEntry Data Items

| GBCS3.2 or laterData Item | Description / Valid Set | Type | Units | Sensitivity |
| --- | --- | --- | --- | --- |
| DeviceID | The device identifier. | ra:EUI | N/A | Non-Sensitive |
| DeviceSecurityDetails | Where a TC Link Key between the CHF and the Device with this Device ID had been established previously, this field shall contain a Hash of that TC Link Key. Otherwise this field shall contain an empty string. | Restriction of xs:string(maxLength = 16) | N/A | Non-Sensitive |

Table 235-2 - CHFConnectedDeviceLogEntry Data Items

# BEIS directive – SMETS2

## New ESME variants

New terms added to support Auxiliary Controller

* ALCS
* ESME
* Electricity Smart Meter

## New Service Request

* SR6.14.3 UpdateDeviceConfiguration(AuxiliaryControllerScheduler)
* SR 7.13 SetAuxiliaryControllerState
* SR 7.14 ReadAuxiliaryControllerConfigurationData
* SR 7.15 ReadAuxiliaryControllerOperationalData
* SR 7.16 LimitAPCLevel

## Updated Service Request

* SR6.13 ReadEventOrSecurityLog

Reading of ALCS log, the device response format different depend on GBCS version

* SR 6.15.1 UpdateSecurityCredentials(KRP),

supporting new use case CS02g for update the certificate in the LoadController trust anchor cell

* SR 6.24.1 RetrieveDeviceSecurityCredentials(KRP),

supporting new use case CS02a for reading the LoadController RemotePartyRole

* SR 7.7 ReadAuxiliaryLoadSwitchData,

The Data item Description changed length from 22 to 127

## New/updated GBCS Device Alert and DCC alerts

* Table 10 updated to add new alerts

|  |  |  |  |
| --- | --- | --- | --- |
| >= 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 11 updated to add new alerts

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| >= 1.0and 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) or0x00CD (Future Dated Execution Of Instruction Alert - GBZ)GBCS v4.0 or later:0x0124 (Future Dated Update Load Controller Security Credentials Alert) | **Error! Reference source not found.** | No |
| >= 4.0 | 0x8F85 | ECS100 Command not supported by Device | ECS100  | 0x0120 | 0 | No |
| >= 4.0 | 0x8F86 | ECS101 Limit APC [n] Level Command processed | ECS101  | 0x0121 | 0 | No |
| >= 4.0 | 0x8F87 | ECS102 Limit APC [n] Level ended or cancelled | ECS102  | 0x0122 | 0 | No |
| >= 4.0 | 0x8F88 | ECS200 Operational Update | ECS200  | 0x0123 | 0 | No |

* Table 264 updated to add new alerts

|  |  |  |
| --- | --- | --- |
| * **Data Item**
 | **Electricity Alert**  | **Gas Alert** |
| GBCSHexadecimalMessageCode | 0x00CA (Future Dated Firmware Activation Alert),0x00CB (Future Dated Updated Security Credentials Alert),0x00CC (Future Dated Execution Of Instruction Alert (DLMS COSEM)) GBCS v4.0 or later:0x0124 (Future Dated Update Load Controller Security Credentials Alert) | 0x00CA (Future Dated Firmware Activation Alert),0x00CB (Future Dated Updated Security Credentials Alert),0x00CD (Future Dated Execution Of Instruction Alert (GBZ))  |
| GBCS Use Case (for reference - not in header) | N/A | N/A |

Table : Device Alert Future-Dated Command Outcome MMC Output Format Header data items

* New section 6.6 added for ECS100 Command not supported by Device (Alert Code 0x8F85)
* New section 6.7 added for ECS101 Limit APC Level Command Processed (Alert Code 0x8F86)
* New section 6.8 added for ECS102 Limit APC Level Ended or Cancelled (Alert Code 0x8F87)
* New section 6.9 added for ECS200 Operational Update (Alert Code 0x8F88)

## Documentation-only Changes due to GBCS use case names changes

Following Service Requests had documentation only change. This applies where there is no change to the GBCS command or message code, but the GBCS use case names have changed

* 3.3 Clear Event Log; (ECS15c)

## GBCS Cross reference and compability, Moving to GBCS4

All previous mentioned GBCS v3.2, needs now state GBCS v3.2 or later, this change applies to

* Section 3.8.59.1, SR6.7 UpdateDeviceConfiguration(GasFlow)
* Section 5.60.2.1.6, SR6.13 ReadEventOrSecurityLog

## Documentation error identified during the review of CRP612 related chagnes

* Replacement mode rootBySupplier should be removed, Table impacted are
	+ 164.1, Update Security Credentials (KRP) MMC Output Format Header data items - All RemotePartyRoles other than LoadController
	+ 166, ExecutionOutcome Specific Body Data Items
	+ 167, RemotePartySeqNumberChange Specific Body Data Items
	+ 168, ReplacementOutcome Specific Body Data Items
* GBCSHexAlertCode type is hexBinary, so the valid values can not have “0x” in front the hexBinary value
	+ Table 249, Device Alert Firmware Verification Failure and Success MMC Output Format Body data items
	+ Table 254 : Device Alert 0x8F0A Billing Data Log Device Alert MMC Output Format Body data items
	+ Table 261 : Supply Outage Restored Alert MMC Output Format Body data items
	+ Table 265 : Device Alert Future-Dated Command Outcome MMC Output Format Body data items
	+ Table 273 : Device Alert Smart Meter Integrity Issue - Warning MMC Output Format Body data items

# Schema changes

Embedded HTML shows all the schema change since version 3.1.

All BEIS directive changes are marked up in yellow.



# Known future documentation changes

## Inconsistent Units between DUIS/MMC/GBCS and DCC system

Briefed at Feb 2020 DRF, and will progress the change via SECMOD



# Appendix - Scope of the changes

Following items are included in the Spec Uplift for Nov 2020

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Item** | **DUIS Doc** | **DUIS Schema** | **MMC Doc** | **MMC Schema** | **Other Spec** | **DCC System Impacted** |
| SECMOD | SECMP0062 -Traffic Management - Alert Storm Protection Part 2 | Y | Y | N | N | N | DSP  |
| SECMOD | SECMP0067 -Service Request Traffic Management | Y  | N | N | N | N | DSP  |
| SECMOD | SECMP0081 - ‘Alignment of DUIS and CHISM to reflect current DCC Processing |  Y | N | N | N | Y (S1SR) | Document Only |
| SECMOD | SECMP0093 -Implementing IRP511 and CRP535 to support GBCS v3.2 devices | Y | Y | Y | Y | N | DSP onlyP&C |
| SECMOD | SECMP0098 -Incorporation of multiple Issue Resolution Proposals into the SEC - Batch 3 | N | N | N | N | Y (GBCS4, SMETS5, CHTS) | CH |
| BEIS SMETS2 | CRP612 Auxiliary Proportional Controllers (CR1145) | Y | Y | Y | Y | Y (GBCS4, SMETS5, CHTS) | DSP P&C |
| BEIS SMETS1 | CR1045 extending the existing firmware update process to SMETS1 PPMID devices | Y | N | N | N | Y (S1SR) | DSPS1SPDCO |
| Defect Fix | CR1277 Completion of CR1164 Change to Install Code Length in 8.11 | Y | Y | N | N | N | DSP |
| SMETS1 Other | CR1290 Re-scaling of Gas Flow rate in SRV to match SMETS2 | Y | N | N | N | Y (S1SR) | DSPS1SPDCO |

For customer information only, following items in the Nov 2020 SEC release scope, does not require any Spec Uplift

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Item** | **DUIS Doc** | **DUIS Schema** | **MMC Doc** | **MMC Schema** | **Other Spec** | **DCC System Impacted** |
| BEIS SMETS2 | XMLSigning Remote Party Role | N | N | N | N | N | N |

For customer information only, following items were previously communicated are NOT included in the Spec Uplift for Nov 2020, however are included in the future change section of the release note

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source** | **Item** | **DUIS Doc** | **DUIS Schema** | **MMC Doc** | **MMC Schema** | **Other Spec** | **DCC System Impacted** |
| SMETS1 Other  | CR1291 The ability of SMETS1 devices to be DSP scheduled for SRV4.4.3 | Y | Y | N | N | Y (S1SR) | DSPS1SPDCO |
| Document Defect | Inconsistent Units between DUIS/MMC/GBCS and DCC system | Y | N | Y | N | Y (S1SR) | DSPS1SPDCO |