

Message Mapping Catalogue (MMC) – Release Note

Version 4.0: Release Note
09 April 2020

Content

1	Release Note	3
1.1	Summary of main changes to MMC V4.0	3
2	SECMP093 Implementing IRP511 and CRP535 to support GBCS v3.2 devices (proposal is not YET approved)	6
2.1	Changes to Service Request 8.9.....	6
2.1.1	Section 5.106.2.1 Specific Header Data Items	6
2.1.2	Section 5.106.2.2 Specific Body Data Items	6
2.1.3	Adding a new Section 5.106.2.2.3	7
2.1.4	Adding a new Section 5.106.2.2.4.....	7
3	BEIS directive – SMETS2.....	7
3.1	New ESME variants.....	7
3.2	New Service Request	8
3.3	Updated Service Request	8
3.4	New/updated GBCS Device Alert and DCC alerts	8
3.5	Documentation-only Changes due to GBCS use case names changes.....	10
3.6	GBCS Cross reference and compability, Moving to GBCS4	10
3.7	Documentation error identified during the review of CRP612 related chagnes.....	10
4	Schema changes.....	12
5	Known future documentation changes	13
5.1	Inconsistent Units between DUIS/MMC/GBCS and DCC system.....	13
6	Appendix - Scope of the changes	14

1 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.

1.1 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

SECTION	Section Heading	Specific Change Point
		- 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 SECMOD93 SR8.9 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

SECTION	Section Heading	Specific Change Point
	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

2 SECMP093 IMPLEMENTING IRP511 AND CRP535 TO SUPPORT GBCS V3.2 DEVICES (PROPOSAL IS NOT YET APPROVED)

2.1 Changes to Service Request 8.9

2.1.1 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

2.1.2 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:DeviceLog List 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:CHFDeviceLogType List 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

2.1.3 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
CHFCurrentConnecte dDeviceLogEntry	List of Devices and their Security Details that are currently in the CHF Device Log.	List of CHFConnectedDeviceLogE ntry (maxOccurs = 16), as set out in Section 5.101.2.2.4 of this document	N/A	Non- Sensitive
CHFHistoricConnect edDeviceLogEntry	List of Devices and their Security Details that are in the CHF Historic Device Log.	List of CHFConnectedDeviceLogE ntry (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

2.1.4 Adding a new Section 5.106.2.2.4

5.106.2.2.4 CHFConnectedDeviceLogEntry Data Items

Data Item	Description / Valid Set	Type	Units	Sensitivity
DeviceID	The device identifier.	ra:EUI	N/A	Non- Sensitive
DeviceSecurityDet ails	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 h = 16)	N/A	Non- Sensitive

Table 235-2 - CHFConnectedDeviceLogEntry Data Items

3 **BEIS DIRECTIVE – SMETS2**

3.1 New ESME variants

New terms added to support Auxiliary Controller

- ALCS
- ESME
- Electricity Smart Meter

3.2 New Service Request

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

3.3 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

3.4 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

>= 1.0 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)	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:	0x00CA (Future Dated Firmware Activation Alert), 0x00CB (Future Dated Updated Security Credentials Alert), 0x00CD (Future Dated Execution Of Instruction Alert (GBZ))

	0x0124 (Future Dated Update Load Controller Security Credentials Alert)	
GBCS Use Case (for reference - not in header)	N/A	N/A

Table 1 : 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)

3.5 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)

3.6 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

3.7 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

4 **Schema changes**

Embedded HTML shows all the schema change since version 3.1.
All BEIS directive changes are marked up in yellow.



MMC Schema
Comparison 4.0a Vs 3

5 Known future documentation changes

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

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



DRF_Feb_20_v6
updated after DRF - D

6 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 only P&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)	DSP S1SP DCO
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)	DSP S1SP DCO
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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)	DSP S1SP DCO
Document Defect	Inconsistent Units between DUIS/MMC/GBCS and DCC system	Y	N	Y	N	Y (S1SR)	DSP S1SP DCO