**MP216 ‘Incorporation of Category 2 Issue Resolution Proposals into the SEC – Batch 9’**

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**Annex B**

**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.

SEC Schedule 8 ‘Great Britain Companion Specification (GBCS) version 4.x’

These changes have been redlined against SEC Schedule 8 version 4.1.

These changes will be applied to the next version of the GBCS v4.x series at the time the modification is implemented. These will also be applied to the next version of any subsequent GBCS series introduced on or before the modification is implemented.

## Amend Section 7.3.8 as follows:

**7.3.8 DLMS Device Requirements Tables**

Table 7.3.8a: Objects tab in embedded file

Table 7.3.8b: Scripts tab in embedded file

Table 7.3.8c: Application Associations tab in embedded file

Table 7.3.8d: Association LN Object Content tab in embedded file

Table 7.3.8e: Security Setup Object Content tab in embedded file

Table 7.3.8f: SAP Assignment Object content tab in embedded file

Table 7.3.8g: Conformance Content tab in embedded file

Table 7.3.8h: End to End Communications tab in embedded file



## Amend Section 11.2.1 as follows:

**11.2.1 Transport of firmware images**

Italicised terms in this Section 11.2.1 shall have the meanings defined in ZigBee Document 09-5264r23.

For ESME, GSME, HCALCS and PPMID firmware image distribution, the ZigBee Over-The-Air (OTA) mechanisms shall be used for transport of the image over the HAN. The ESME / GSME / HCALCS / PPMID firmware image delivered to the Communications Hub shall comply with ZigBee OTA format requirements.

Communications Hub firmware images shall not be transported over the HAN and so ZigBee OTA structures shall not be required.

Every Communications Hub shall be configured to act as the single OTA Server on its HAN.

ESME, GSME, HCALCS and PPMID shall be configured to act as an OTA Client. The ESME, HCALCS and PPMID shall use the ‘*Image Notify’[[1]](#footnote-2) Command* sent by the OTA Server to inform it that a new firmware image is available. The GSME shall use the notification flags mechanism whereby a flag shall be set by the OTA Server to inform it that a new firmware image is available when requested.

The Communications Hub shall:

* as required by CHTS, have the capability to store one GSME OTA Upgrade Image and one ESME OTA Upgrade Image;
* overwrite an ESME / GSME image with a subsequently delivered image for the same Device type unless:
  + - * the subsequently delivered image has Force Replace = 0x00; and
      * the Communications Hub has sent at least one *Image Block Response* *Command* relating to the already stored image but has not received a corresponding *Upgrade End Request* *Command[[2]](#footnote-3)*.

In such circumstances the Communications Hub shall not overwrite the currently stored image; and

* overwrite an HCALCS image with a subsequently delivered HCALCS image regardless of the setting of Force Replace.

The Communications Hub shall make the GSME image available for a minimum of fourteen (14) days and, after this period, replace the GSME image with an image for the PPMID / HCALCS, if one becomes available. If the transfer of a GSME image to the GSME is in progress, the Communications Hub shall only replace this GSME image with an image for the PPMID / HCALCS once the GSME image transfer has completed.

If the Communications Hub has sent at least one Image Block Response Command relating to the stored GSME image but has not received a corresponding Upgrade End Request Command within fourteen (14) days, the CH shall discard the GSME image.

The Communications Hub shall make the PPMID / HCALCS image available for fourteen (14) days unless a new PPMID / HCALCS / GSME image is available.

If an ESME / PPMID / HCALCS / GSME Upgrade Image is discarded or replaced prior to having been successfully transported over the HAN, the Communications Hub shall send an Alert for each target Device Entity Identifier associated with the Upgrade Image File with the Alert Code 0x8F89 as specified in Section 11.7 by setting firmwareVersion to the Upgrade Image File version and transferResponseCode to imageDiscarded.

Whenever the Communications Hub's OTA Server issues an *Upgrade End Response Command* to a GSME, ESME or HCALCS pursuant to this GBCS, the *UpgradeTime* parameter shall have the value 0xFFFFFFFF[[3]](#footnote-4).

Whenever the Communications Hub's OTA Server issues an *Upgrade End Response Command* to a PPMID pursuant to this GBCS, the *UpgradeTime* parameter shall have the value 0x00000000 and the PPMID OTA Client shall activate the Firmware.

The OTA Server shall not issue *Image Block Response Commands* with WAIT\_FOR\_DATA status except where the OTA Server is communicating over a Sub GHz Channel and it is issuing such commands to manage Duty Cycle (with its ZSE meaning).

Contrary to section 6.13 of ZigBee Document 09-5264r23, an ESME, GSME or HCALCS OTA Client shall not activate any Manufacturer Image except as specified in Use Case CS06. An ESME, GSME or HCALCS OTA Client shall not prevent the replacement of an existing Manufacturer Image that it may hold if that Image is not yet activated.

## Amend Section 18.2 as follows:

**18.2 DLMS COSEM Message Templates**

Table 18.2 contains Message Templates for all Use Case with DLMS COSEM payloads. These Message Templates are derived from the Mapping Table, and shall be complied with in the construction and population of all such Messages.



Table 18.2: DLMS COSEM Message Templates

## Amend Section 19.3 as follows:

**19.3 Embedded Use Cases**

Table 19.3 contains the Use Cases that fulfil the interface requirements to cover Commands (and their Responses) and Alerts (where applicable). In addition, it includes ZSE Message Templates.

Note: DLMS COSEM methods that have values which have an impact on the execution of the method (that is, methods with input values that are not integer(0)), the DLMS part of the Mapping Table and the Use Case include two or more rows. One row contains the method, and the subsequent row(s) contain the value(s) to be sent with the method.

A number of Use Cases are also covered in GBCS main body. These are identifiable from the Table of Contents.



Table 19.3: Use Cases

**20 Mapping Table**

Table 20 contains the Mapping Table from which the Use Cases and Message Templates were generated. These tables map between SMETS attributes and methods, SEC Service Requests, Use Cases, DLMS COSEM attributes and methods and ZSE clusters, attributes and commands.

In addition to the Use Cases, certain columns in the Mapping Table are directly referenced from this document.

Please note that in the SMETS required objects tab only rows marked ‘E’ (External to HAN) in column F are fully specified, since those rows relate to Remote Party Messages. Other rows are only specified to the extent that these elements of Remote Party Messages rely on them.



Table 20: Mapping Table

1. See section 6.10.3 of ZigBee Document 09-5264r23 [↑](#footnote-ref-2)
2. As defined in section 6.10 of ZigBee Document 09-5264r23 [↑](#footnote-ref-3)
3. As defined in sections 6.10.10 and 6.8.4 of ZigBee Document 09-5264r23 [↑](#footnote-ref-4)