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Paper Reference:	**SECP_78_1303_15**
Action:	**For Information**

SECMP0007 update

1. Purpose

SECMP0007 'Firmware updates to IHDs and PPMIDs' is undergoing the Refinement Process. We are carrying out the assessment of the areas requested by the Panel; this paper provides an update on the developments on this proposal. Once the revised DCC Impact Assessment is returned and we have ensured all the outstanding questions are resolved we will present the Modification Report to the Panel.

2. Summary of the proposal

What is the issue?

The Smart Metering Implementation Programme (SMIP) technical specifications currently capture Over-The-Air (OTA) firmware updates via the DCC to the Communications Hub, Electricity Smart Metering Equipment (ESME) and Gas Smart Metering Equipment (GSME) only. Requirements for OTA firmware updates to mandated HAN devices are not captured. This modification seeks to provide the capability to update firmware OTA for In-Home Displays (IHDs), Prepayment Meter Interface Devices (PPMIDs), and Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCSs) via the DCC's infrastructure.

What is the solution?

The Proposer has agreed to progress with a combination of two OTA firmware update methods for mandated HAN devices:

OTA method for PPMIDS

A ZigBee OTA delivery mechanism will be used to deliver firmware images to PPMIDs. This method introduces the combined distribution and activation of the firmware updates into one single Service Request. The existing ESME/GSME method for distribution and activation of firmware cannot be utilised as this allows Suppliers and Devices to communicate end-to-end. The Communications Hub

will manage the activation of PPMID firmware. The PPMID will manage the notification to the Service User upon activation of the firmware.

OTA method for HCALCSs

The HCALCS will utilise the existing OTA firmware update procedure used by ESME and GSME. This requires a distinct separation between the distribution and activation of the firmware image. As with ESME and GSME firmware updates, distribution will be carried out via Service Request (SR)11.1 'Update Firmware' and activation via SR11.3 'Activate Firmware', the latter via a GBCS Critical Command.

3. Next steps

There are several areas of assessment outstanding, meaning we cannot yet fully complete the Modification Report. We therefore believe that SECMP0007 should remain in the Refinement Process to allow this assessment to be completed.

Streamlining the solution

Noting the Panel's request for a 'minimum viable product', a Working Group meeting was held in December 2019 to streamline the solution. As a result, several 'nice to have' elements were removed from the solution. This included the removal of standalone IHDs from the proposed solution. Subsequent to the removal of IHDs, a simplified method was suggested that would mean the PPMID would generate the Alert to the Supplier for success/failure of the firmware activation. This would be instead of using the Communications Hub to read the firmware version on the Device and subsequently report this back to the DCC.

DCC Impact Assessment

Following on from the December 2019 Working Group meeting, new business requirements were sent to the DCC in February 2020, for it to proceed with its Impact Assessment. We are working with the DCC to confirm when this will be returned, and an update will be provided in the Panel meeting. We note that the Security Sub-Committee (SSC) and the Technical Architecture and Business Architecture Sub-Committee (TABASC) have both requested to review the assessment once it is returned.

SSC risk assessment

On 26 February, SECAS asked the SSC if it could start its risk assessment before the return of the Impact Assessment. The SSC agreed to start its risk assessment on the proposed solution. SECAS provided the SSC with the updated business requirements and draft legal text on 28 February 2020 for it to reference during its assessment.

4. Recommendations

The Panel is requested to **NOTE** the update on the progress with SECMP0007.

Joe Hehir

SECAS Team

6 March 2020