MP170 'Firmware updates to Point to Point Alt HAN Devices'

July 2022 Working Group – meeting summary

Attendees

Attendee	Organisation
Mike Fenn	SECAS
David Kemp	SECAS
Bradley Baker	SECAS
Joe Hehir	SECAS
Kev Duddy	SECAS
Joey Manners	SECAS
Robin Seaby	DCC
Sam Manson	DCC
Del Kang	DCC
David Walsh	DCC
Rainer Lischetzki	SECAS
David Jones	AltHANCo
Matthew Davies	AltHANCo
David Steel	British Gas
Julie Brown	British Gas
Alex Hurcombe	EDF Energy
Daniel Davies	ESG Global
Martin Bell	EUA
Patricia Massey	BEAMA
Danish Mahmood	Landis+Gyr
Ralph Baxter	Octopus Energy
Stephen McLaughlin	Scottish Power
Audrey Smith-Keary	SSE - OVO
Shuba Khatun	SSEN
Matthew Alexander	SSEN
Robert Johnstone	Utilita
Kelly Kinsman	WPD

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meeting summary

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Overview

The Smart Energy Code Administrator and Secretariat (SECAS) provided an overview of the impact assessment, some alternative solution options to deliver [MP170 'Firmware updates to Point to Point Alt HAN Devices'](), and the implementation approach options.

Issue

- Without Over-The-Air (OTA) firmware updates to Alternative Home Area Network (Alt HAN) Point to Point (P2P) Devices fixes to defects can only be resolved by onsite exchanges.

- Security defects would not be able to be resolved immediately.

- New innovation and functionality would not be cost effective to develop.

Proposed Solution

- Alt HAN Devices will re-use the SECMP0007 functionality, by joining the Home Area network (HAN) as a Prepayment Meter Interface Device (PPMID) Variant.

- Each Alt HAN Device type (B1, B2, B3 & B4) will be identifiable on the Smart Meter Inventory (SMI).

- Each Alt HAN Device will have its own firmware package.

Impact Assessment summary

- The Data Communications Company (DCC) has provided a cost of £1,081,473 for full implementation.

- Implementation will take ten months.

Possible Solution Option Changes

- Option A – Bridge 4 is a 'sleepy Device' so could use Bridge 3 to orchestrate the firmware download to that Device.

  - Suppliers would only see Bridges 1, 2 and 3 on the SMI, but every property with Bridge 3 will have a Bridge 4 installed.

  - Bridges 1 and 2 will have their own firmware package, Bridges 3 and 4 will be packaged together.

- Option B – To minimise number of Type 1 Devices on the Communications Hub, Bridge 1 would be used to orchestrate the firmware download to all other Alt HAN Devices.

  - Suppliers would only see Bridge 1 on the SMI and have no visibility of other Alt HAN Devices.

  - Suppliers will need to package the firmware correctly, depending on the specific Alt HAN Devices that are on site.

Implementation Approach considerations

- Mass rollout of Alt HAN Devices will be mid-2023 so earliest Release possible is desired.

- All Release options would result in multiple DCC User Interface Specification (DUIS) uplifts in a year.

- DSP resource considered and delivery of 4.1 Communications Hubs seen as risks.

Working Group Discussion

SECAS (KD) presented a summary of the issue and the Proposed Solution that has been developed and used for Impact Assessment by the DCC.

A Working Group member (JB) queried the impact this solution has on attempting to get a firmware image to update the Gas Smart Metering Equipment (GSME). SECAS (RL) confirmed that the GSME has priority so would overwrite an image waiting for the Alt HAN Device and will not be affected by this solution. They noted that the Alt HAN Device, acting as a PPMID, will mirror all priorities the PPMID has. This means that the PPMID and a HAN Connected Auxiliary Load Control Switch (HCALCS) would overwrite each other, so updates would need to be orchestrated by Suppliers in a manner to ensure this doesn't happen.

SECAS (KD) presented the Impact Assessment summary and noted that there were some considerations on the solution that the Working Group are requested to feed into. The first consideration was whether the *PPMIDVariant* field, which the Alt HAN Devices will use to denote Bridge type, should be made a mandatory field. SECAS (RL) noted that ensuring the *PPMIDVariant* field is actively labelled would vastly improve the data held within the field. Additionally, implementing a one-off data uplift to label the existing PPMIDs accordingly would improve this further. This view was supported by a Working Group member (DD).

Another Working Group member (SM) highlighted that making it a mandatory field would impact on Suppliers, by forcing them to change their internal processes and therefore they did not support this approach. SECAS (RL) noted that Suppliers would need to do make changes anyway to accommodate the existence of Alt HAN Devices. Even if that Supplier were not planning on installing the Alt HAN Devices, it could still become responsible for them in a Change of Supply scenario.

SECAS (KD) highlighted that the existing solution does not cater for changing the *PPMIDVariant* once the Device has been commissioned and asked the Working Group whether this should be changed. A Working Group member (DD) noted that MP125 'Correcting Device Information for the ESME Variant' sought to add this functionality for *ESMEVariant* and this situation would occur with Alt HAN Devices, therefore this would be needed. This view was supported by another Working Group member (JB).

SECAS (KD) continued that there is a need to alter the current solution with two further options under consideration. The Proposer (MD) highlighted that option A was developed due to Bridge 4 being a 'sleepy' Device and would therefore pick up the firmware image from Bridge 3, as they are always installed in pairs. Option B was suggested to reduce the number of type 1 Devices attached to the Communications Hub and would have Bridge 1 orchestrating the firmware delivery for all Alt HAN Devices. They noted that most Alt HAN premises will only have Bridge 1 and Bridge 2 installed.

A Working Group member (DD) questioned what would happen if one Device updated and one failed. SECAS (RL) clarified that the Supplier would only receive a failure response but would not be able to identify which Device failed. The DCC (DW) noted this will place a lot more responsibility on Suppliers, noting that the DCC would not be able assist with identifying Devices on site, nor with packaging up the firmware required for the specific solution. This would have to be managed outside of a DCC solution.

A Working Group member (JB) requested sequence diagrams be provided for the solution options to enable a better representation on the detail of each.

SECAS (KD) presented the Implementation Approach considerations and highlighted how these impacted the Release options.

A Working Group member (DD) noted there should be no concerns about multiple DUIS uplifts in a 12-month period as Suppliers are not mandated to uplift.

The DCC (DK) noted that its preferred option would be November 2024 from a risk perspective, highlighting that the delivery of GBCS v4.1 Communications Hubs could potentially slip and therefore impact earlier Release testing. The DCC (DW) also noted that the scope of testing for the Communications Service Providers (CSPs) was limited to ensuring that the firmware was delivered to the Alt HAN Devices.

A Working Group member (MB) highlighted that there is a current delay with the ongoing work for GBCS v3.2 Communications Hubs which could affect delivery and did not think that February 2024 SEC Release was a realistic target.

A Working Group member (JB) noted that the implementation delay would affect the business case as Devices are due to be rolled out in mid-2023, therefore would support June 2024 as the implementation approach if feasible. Another Working Group member (DS) questioned at what point in the rollout would the business case not support the modification. The Proposer (DJ) confirmed that this would be presented to the Alt HAN Supplier forum on 24 July 2022 for their decision but noted that there is still a benefit if only 200k premises remain to be installed.

A Working Group member (AS) queried whether the outstanding question relating to Commercial Product Assurance (CPA) Certification had been answered. SECAS (KD) confirmed that the Security Sub-Committee (SSC) had agreed that Alt HAN Devices would not need CPA Certification if joining the HAN as a PPMID.

Next Steps

The following actions were recorded from the meeting:

- SECAS to produce sequence diagrams for each solution option; and

- SECAS to request amended Impact Assessment costs.