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## SECMP0007 'Firmware updates to mandated HAN devices'

16<sup>th</sup> May 2016

### Meeting 2 Minutes

#### Attendees:

Working Group 1 Members	Organisation
Mark Pitchford (SECMP0002 and SECMP0007 Proposer)	Npower
Graham Smith (SECMP0003 Proposer)	Western Power Distribution
Sam Charlton (SECMP0005 Proposer Representative)	EON
Emslie Law (SECMP0006 Proposer)	SSE
Alan Bowman	Chameleon Technology
Andy Knowles (part)	Utilita Energy (teleconference)
Chris Spence	EDF Energy
Marc Bowden	In Home Displays
Paul Riisenberg	In Home Displays
Tim Boyle	Chameleon Technology

Representing	Other attendees
DECC	James Goldsack (part)
	Relve Spread
DCC	Stuart Scott
SECAS	Jill Ashby (Chair)
	Kevin Atkin (Technical Support)
	Urszula Thorpe (Technical Support)
	David Barber (Modifications Lead)
	Sebastian Rattansen (Modifications Support)
	Adam Lattimore (Modifications Support (part))
	Sasha Townsend (Meeting Secretary)

**ACTION WG1\_02\_02:** DECC to feedback WG concerns surrounding EC Notification and discuss potential risks surrounding the implementation of each Modification Proposal.

## 1. SECMP0007: Firmware updates to mandated HAN devices

### 1.1 Actions update

SECAS presented an email from DECC in response to questions raised regarding the appropriate security level for Prepayment Meter Input Devices (PPMID). DECC noted that the Communications-Electronics Security Group (CESG) supported the removal of PPMIDS from the scope of the Commercial Product Assurance (CPA) scheme. This was due to the industry evidence supporting that the PPMID cannot be used to disable a supply even if its security was to be compromised. It was therefore noted that PPMIDs would not need to be CPA certified, and therefore the Working Group would not need to approach the CESG for input at this stage.

It was noted that the post meeting documentation from the workshop held on the 18<sup>th</sup> April 2016 had not been complete when the Modification Proposal was presented to the TSC on 21<sup>st</sup> April 2016. Therefore, a further detailed update will be provided at the next possible TSC meeting. SECAS also advised that further detail will be sent to British Electrotechnical and Allied Manufacturers Association (BEAMA) to seek their view about supporting Over the Air (OTA) firmware updates to PPMID/In-house Device (IHD) in SMETS.

**ACTION WG1\_02\_11:** SECAS to present Business Requirements at the earliest possible TSC meeting to seek views.

### 1.2 WG review of solution design document

The WG discussed the solution design document, as set out below in Table 4:

Solution Design Document	WG View
SECAS sought to clarify that the WG agreed at the workshop that the firmware image size would be limited to 750 kilobytes (kB). It was highlighted that fragmentation would be needed if images are greater than 750kB, and this will cause complexities.	The WG confirmed that the image size should be aligned with existing provisions. It was highlighted that if fragmentation is not included at this stage there may be issues in the future, if fragmentation was needed. It was also noted that there is nothing preventing fragmentation at the moment, as long as the device is built to support it. The WG agreed that there would need to be mechanisms to support fragmentation of images sent to PPMIDs and IHDs.
The WG members were directed to point 4 under the 8.1 "Summary of changes". It was highlighted that IHDs and PPMIDs may communicate with multiple Electricity Smart Metering Equipment (ESME) and Gas Smart Metering Equipment (GSME), meaning multiple Suppliers.	The WG agreed to remove requirement 'b' as this would reduce the possibility of precedence and demonstrate that overriding is not allowed.  It was agreed that 'a' and 'c' will remain as requirements.

Solution Design Document	WG View
<p>The WG were asked to confirm the below requirements:</p> <ul style="list-style-type: none"> <li>a) When the DCC has successfully processed a Service Request for an image's distribution;</li> <li>b) When the image on the Communications Hub is overwritten, or not retrieved from the Communications Hub and discarded (see later about other firmware upgrades taking priority e.g. those for Smart Meters); and</li> <li>c) A short time after the firmware upgrade was due to have activated on the PPMID or the IHD to confirm firmware Version on the Device.</li> </ul>	
<p>The WG members were directed to point 10 under the 8.1 "Summary of changes" and were asked if local firmware upgrades should be banned.</p>	<p>It was highlighted that the continuation of local firmware upgrades could cause unreliable information being stored in the inventory. It was also suggested that keeping local upgrades could weaken the case to get the Modification Proposal approved for implementation. SECAS proposed that banning local upgrades will ensure a reliable process and clear records of firmware.</p> <p>The WG discussed the option of using local upgrades as a backup to OTA upgrades. The DCC suggested there should be a trust mode in place to update the inventory. Members discussed the option to create governance surrounding this but it was highlighted that this will involve added costs.</p> <p>The WG also questioned why it should be banned if it does not pose a security risk. It was highlighted that the upgrade cannot be blocked if it is carried out locally.</p> <p>It was agreed to ban local firmware upgrades via Hand Held Terminals (HHT) in order to progress the Modification Proposal's refinement. The Chair, however, noted that the question about whether this is the right decision can be asked in the Consultation.</p>
<p>The DCC were asked to confirm if the DCC response to the 'Send PPMID / IHD Firmware' Service Request would be subject to the same service levels as other DCC non-Device Alerts.</p>	<p>The DCC noted that the alerts have been grouped but as it is a DCC-only command alerts cannot be grouped for multiple parties. SECAS advised that there will be different grouped alerts for each party, but that there would be too many alerts to send individually.</p>

Solution Design Document	WG View
	<p>The WG questioned the need for the alerts and it was highlighted that there may be multiple Suppliers for each PPMID / IHD.</p> <p>The DCC suggested delaying the time constraints of the alerts in order to stagger them and reduce the load. The WG agreed that they did not want to clutter the channels and the alerts should be individual. They also proposed a Service Level Agreement as part of the Impact Assessment.</p>
The WG members were directed to page 13 of the solution design document and the three questions listed.	It was agreed that the WG would read the solution design document and make any suggestions by the next WG meeting.
The WG members were directed to page 15 of the solution design document. It was highlighted that the SEC lacks provisions on the responsibilities for interoperability of the Smart Metering System (SMS). The WG were asked to consider whether the existing liability limitations, loss recovery provisions and dispute resolution procedures are sufficient with regard to this Modification Proposal.	<p>It was noted that SEC Section F sets out the responsibilities of the Responsible Supplier in relation to the SMS they are responsible for. These responsibilities do not extend to other SMS at the same premises.</p> <p>SECAS proposed drafting scenarios for extending Suppliers' responsibilities for enduring interoperability of Devices forming part of SMS they are not responsible for in the same premises.</p> <p>The WG agreed to collate their ideas and discuss this at the next WG meeting.</p>
The WG members were directed to page 15 of the design note. It was noted that considerations need to be made as to whether consumers should be given the option to refuse a firmware upgrade on IHDs and PPMIDs.	The Chair highlighted that this can and will be asked in the Consultation and feedback from industry provided in the Modification Report.

**Table 4: SECMP0007 solution design document review**

### 1.3 Next steps

SECAS will prepare a number of high level scenarios reflecting new Supplier responsibilities for discussion at the next WG meeting. The DCC asked that the ambiguity around liabilities be clarified before they are asked by the WG to start a Preliminary Assessment. It was noted though that the liabilities issues were between Suppliers, so there should not be anything affecting the ability to start the Preliminary Assessment, which will be requested once any necessary updates are applied to the solution design document.

**ACTION WG1\_02\_12:** SECAS to prepare high level liability scenarios for discussions at next WG meeting.

**ACTION WG1\_02\_13:** SECAS to update the solution design document and send to the DCC to carry out the Preliminary Assessment.