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MP102B 'Power Outage Alerts triggered by an OTA firmware upgrade – enduring solution'

Business requirements – version 0.2

About this document

This document contains the business requirements that support the solution for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The DCC will use this information to provide an assessment of the requirements that help shape the complete solution.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	**Requirement**
1	Under no circumstances should an Over the Air (OTA) firmware update to the Electricity Smart Metering Equipment (ESME) or Communications Hub (CH) currently installed result in a Power Outage Alert (AD1 Alert) being sent to a Network Operator

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

2.1 General

Investigations during the Refinement Process found the scale of the issue affecting existing meters much greater than initially envisaged. This could result in a lengthy lead time for implementation where meter or CH Manufacturers could potentially still produce Devices that cause erroneous Power Outage Alerts (POAs). Therefore, the Working Group agreed that there should be two separate solutions to address the issue;

- MP102A - Technical Specification document changes for meter and CH Manufacturers to abide by for ESMEs or CHs produced after the implementation data, and
- MP102B - an enduring solution for meters and CHs that are installed which comply with the current requirements.

2.2 Requirement 1: Under no circumstances should an Over the Air (OTA) firmware update to the Electricity Smart Metering Equipment (ESME) or Communications Hub (CH) currently installed result in a Power Outage Alert (AD1 Alert) being sent to a Network Operator

ESMEs supply power to the CH utilising the Data Communications Company (DCC) Intimate Communications Hub Interface Specification (ICHIS). In the case of an OTA firmware update, the ESME may potentially cut or drop the DC power to the CH for a duration of up to three minutes or more. Once the duration has reached three minutes a POA in the form of an AD1 Alert will be sent to the relevant Distribution Network Operator (DNO). The DNO will not be able to identify an AD1 Alert as being associated with an event other than a loss of DC power to the CH. As DNOs have a responsibility to their customers to investigate the root cause of the Power Outage Event, this can result unnecessary use of resources such as dispatching a technician to site. The solution should stop erroneous POAs which are produced when power is lost for longer than three minutes as part of an OTA firmware upgrade process.

During the Refinement Process SECAS have been informed by a meter Manufacturer that approximately 1.4 million meters have been produced that could cut the power to the CH for a duration of three minutes or more. There is a possibility that other meter Manufacturers' Devices also act in this way.

3. Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	**Full term**
CH	Communications Hub
DCC	Data Communications Company
DNO	Distribution Network Operator
ESME	Electricity Smart Metering Equipment
ICHIS	Intimate Communications Hub Interface Specification
POA	Power Outage Alert
OTA	Over the Air