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MP183 'Post Commissioning Obligations Reporting'

Modification Report

Version 0.2

14 December 2021



Managed by



About this document

This document is a Modification Report. It currently sets out the background, issue, and progression timetable for this modification, along with any relevant discussions, views and conclusions. This document will be updated as this modification progresses.

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1. Summary

This proposal has been raised by Easton Brown from the Data Communications Company (DCC).

The DCC is required to provide several reports on failures in the Smart Metering Equipment Technical Specifications (SMETS) 2+ Post Commissioning process to DCC Users, the Smart Energy Code (SEC) Panel, each Communication Service Provider (CSP), and other Industry Parties. However, some scenarios whereby a Device may be successfully Commissioned could be defined as having failed under the current criteria set out in the SEC.

Failures in the Post Commissioning process are therefore being over-reported to a significant degree, resulting in time and resources being wasted on 'false positive' cases and diverting focus from genuine issues.

This modification seeks to amend the reporting criteria to give a more accurate view of the volumes of securely Commissioned Devices, and to ensure the reports provided are of material benefit to the Parties. This solution is expected to impact Suppliers and the DCC.

2. Issue

What are the current arrangements?

As part of its obligations under SEC Appendix AC 'Inventory, Enrolment and Withdrawal Procedures', the DCC is required to report on failures in the Post Commissioning process for SMETS2+ Devices following their installation. The reporting is partly based on the sending of Service Request Variants (SRVs) to update Device Security Credentials and the subsequent Responses indicating Commands have been Successfully Executed.

The DCC reporting criteria for Post Commissioning Obligations are mandated in SEC Appendix AC section 5. A summary of the current requirements, and therefore the reporting criteria, are as follows:

- DCC User sending 2x SRV 6.17 'Issue Security Credentials' successfully;
- DCC User sending 2x SRV 6.15.2 'Update Security Credentials (Device)' successfully;
- DCC User sending SRV 6.15.1 'Update Security Credentials (Known Remote Party (KRP))' successfully;
- Data Service Provider (DSP) checking that Device is communicating correctly; and
- DSP checking that Recovery Trust Anchor Cell is populated correctly.

As the DCC reporting criteria was created before the DCC Systems had been built, there is currently no provision for reporting Commissioning as Successful when the process deviates from the defined pathway.

What is the issue?

Using the above criteria, the DCC Post Commissioning reports record failures in the process, even though Devices may be communicating correctly and have the correct Security Certificates. This can happen for several reasons, including Responses to Service Reference Variants (SRVs) timing out and Devices returning an 'empty' Execution Status, which counts as a failure under the current criteria. Also, if there is a Change of Supplier (CoS) prior to completion of Post Commissioning Obligations, the Device will continue to be reported as having failed Post Commissioning under the current criteria, despite correct Supplier Certificates being present.

This reporting criteria also fails to reflect design changes which have occurred over the past four years. For example, DCC Users can choose to send an SRV 6.21 'Request Handover of DCC Controlled Device' instead of SRV 6.15.1 if the Network Operator Trust Anchor Cells are populated with DCC credentials instead of Supplier Certificates.

Anomalous behaviour of the DCC User generated commands typically identify a failure rate of around 7%. Checks by the DCC on the actual Certificates populated on Devices revealed that the overall failure rate is around 1%. This reporting is therefore presenting a significantly worse view of the status of Devices Post Commissioning. When this analysis was presented to the Security Sub-Committee (SSC), it advised that the DCC should raise recommendations to improve the reporting and affect this via a SEC modification.

What is the impact this is having?

Due to over-reporting of Post Commissioning failures, DCC Users waste resources investigating Devices which have actually been Commissioned successfully. The CSPs also waste resources investigating and resolving Incidents for Communications Hub Functions (CHF) which are incorrectly seen to have failed Post Commissioning, as SEC Appendix AC section 5.13 mandates that the DCC is required to raise an Incident for every 'failing' CHF.

The inaccuracy of published reporting to SEC Parties, and of SEC Party performance reporting to the SSC, can have a reputational impact on individual Parties and across the Industry. Currently, reported volumes of Devices which fail Post Commissioning breach the Critical National Infrastructure levels for risk to the network. However, the actual number of Devices that are not securely Commissioned falls within tolerance levels.

Impact on consumers

This issue can result in consumers' time being wasted through unnecessary site visits to resolve non-existent faults.

3. Impacts

This section summarises the anticipated impacts that would arise from the implementation of this modification. This will be refined as the solution is developed.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
	Electricity Network Operators		Gas Network Operators
	Other SEC Parties	✓	DCC

Supplier Impact

There is not expected to be any direct impact on Large and Small Suppliers as a result of this modification. However, the Post Commissioning reporting they receive from the DCC will provide greater insight into root causes of process failures, and they may wish to update their internal processes accordingly.

DCC Impact

The DCC is expected to be required to update its Post Commissioning reporting process to ensure its Users are receiving the correct information.

DCC System

This modification is not expected to impact the DCC System.

SEC and subsidiary documents

The following parts of the SEC are expected to be impacted:

- Appendix AC 'Inventory Enrolment and Decommissioning Procedures'

The changes to the SEC will be developed during the Refinement Process once the solution has been developed.

Consumers

There is not expected to be any direct impact on Consumers as a result of this modification. However, improved reporting on Post Commissioning issues should lead to a reduction in unnecessary engineer site visits.

Other industry Codes

This modification has no impact on other industry Codes.

Greenhouse gas emissions

This modification has no impact on greenhouse gas emissions.

4. Assessment of the proposal

Observations on the issue

Prior to raising this modification, the DCC presented its analysis to the SSC. The SSC advised that the DCC should raise recommendations to improve the reporting and affect this via a SEC modification.

SECAS presented the Draft Proposal to the Change Sub-Committee (CSC) on 28 September 2021 for initial comment. The CSC suggested that accuracy of the data being reported should be a key consideration when developing a solution.

SECAS presented a summary of this modification to the Operations Group (OPSG) on 7 December 2021 for comment and to identify any operational concerns arising from amendments to the Post Commissioning reporting. The OPSG noted no concerns and advised it is supportive of the proposed changes.

Appendix 1: Progression timetable

The Draft Proposal was presented to the CSC on 21 December 2021. The CSC agreed this should be converted to a Modification Proposal and progressed to the Refinement Process. The Proposed Solution will be developed with input from the DCC and the SSC.

Timetable	
Event/Action	Date
Draft Proposal raised	17 Sep 2021
Presented to CSC for initial comment	28 Sep 2021
Modification discussed with Operations Group	7 Dec 2021
CSC converts Draft Proposal to Modification Proposal	21 Dec 2021
Modification discussed with SSC	23 Feb 2022
Modification discussed with Working Group	2 Mar 2022
Refinement Consultation	7 – 25 Mar 2022
Modification discussed with Operations Group	7 Apr 2022
Modification discussed with SSC	13 Apr 2022
Modification discussed with Working Group	4 May 2022
Modification Report approved by CSC	17 May 2022
Modification Report Consultation	23 May – 10 Jun 2022
Change Board Vote	22 Jun 2022

Appendix 2: Glossary

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

Glossary	
Acronym	Full term
CHF	Communications Hub Function
CoS	Change of Supplier
CSC	Change Sub-Committee
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
KRP	Known Remote Party
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SRV	Service Request Variant
SSC	Security Sub-Committee