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Paper Reference:	**SECP_73_1110_15**
Action:	**For Decision**

DP083 Problem Statement

1. Purpose

Draft Proposal DP083 'Change Coordination' was raised by the DCC and has undergone the Development Stage. The Change Sub-Committee believes this Draft Proposal is ready to be converted to a Modification Proposal. This paper sets out our proposed approach for progressing this modification for the Panel's approval. We are recommending that this modification be progressed to the Refinement Process, and that the Panel agrees the first package of work to be undertaken.

This paper provides a high-level summary of the key points. A copy of the problem statement submitted by the Proposer can be found in Appendix A.

2. Summary of the issue

Changes to Users Systems, Devices and processes can have a direct impact on DCC Systems and the overall Smart Metering network. When changes are made to Systems, new Devices are introduced or updates are made to existing Devices using DCC Systems, there is a risk that these activities may impair the performance of the DCC Total System. In extreme cases, there is a possibility that the Services could be disrupted. User-led changes can also have an impact on how the DCC identifies, triages and manages Incidents. There are no obligations in the SEC for DCC Users to provide such information. This means the DCC does not have a full view of changes and the potential impacts they may have on DCC Systems.

3. Proposed progression

The Change Sub-Committee has agreed that this Draft Proposal is ready to be converted to a Modification Proposal. We believe that this modification should be progressed to the Refinement Process to allow for the development and assessment of a solution to the agreed issue.

Many of the comments we have received, both from SEC Parties and from the Change Sub-Committee, have raised concern regarding what data the DCC will gather, and how this data will be used. Additionally, although the issue is recognised, there are thoughts that this lies with the DCC Systems, rather than the DCC Users. Taking this proposal through the Refinement Process will allow for the development of a solution that will alleviate these initial concerns raised.

Work package and timetable

We propose the following first package of work to be undertaken during the Refinement Process:

Activity	Date
Prepare business requirements with the Proposer (DCC)	14-18 October 2019
Publish business requirements on the SEC Website and open these for industry comment	21 October 2019
Discuss proposal with the Operations Group	5 November 2019
Discuss at the November Working Group meeting	6 November 2019
Update Panel on progress	15 November 2019

During this first work package, we will be discussing this Proposal with the Operations Group to gather an understanding of the operational impacts. We will seek any input it may have into the development of a solution.

Areas of assessment

As part of the assessment of this modification's solution, we believe the following questions need to be answered in addition to the standard assessment areas.

Will the implementation of SECMP0062 resolve the example issues provided by the Proposer?

It has been highlighted that 'SECMP0062 'Northbound Application Traffic Management - Alert Storm Protection' may resolve the issues highlighted as the crux of these issues relate to traffic management. This will need to be investigated and confirmed as part of the assessment of any solution.

What information will be requested of DCC Users and how will this be used to prevent such incidences?

The Change Sub-Committee commented that if DCC Users had provided information prior to the example incidences that occurred, it could not see how this would have prevented the outcome. Additionally, DCC Users are already asked to provide Service Request forecasting to the DCC, and as part of the Refinement Process it should be understood what additional information is required and how this information will be used by the DCC.

4. Recommendations

The Panel is requested to:

- **AGREE** that DP083 is ready to be converted to a Modification Proposal;
- **AGREE** that MP083 should be progressed to the Refinement Process; and
- **AGREE** the first package of work and the timetable for MP083.

Jordan Crase

SECAS Team

4 October 2019

Attachments:

- **Appendix A:** DP083 problem statement

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DP083 'Change Coordination' Problem statement – version 1.0

About this document

This document provides a summary of this Draft Proposal, including the issue or problem identified, the impacts this is having, and the context of this issue within the Smart Energy Code (SEC).

Proposer

This Draft Proposal has been raised by Tom Rothery from the Data Communications Company (DCC).

What is the issue or problem identified?

Background

DCC led changes

Under SEC obligations, the DCC informs Users of planned changes to DCC Systems. This is primarily performed through the Forward Schedule of Change. This tool ensures that the DCC provides timely information on Planned Maintenance and is designed to explicitly minimise the impact of changes on DCC Users. It is also intended to help DCC Users plan their own changes without disruption from Planned Maintenance or changes to DCC Internal Systems.

User led changes

Changes to Users Systems, Devices and processes can also have a direct impact on DCC Systems and the overall Smart Metering network. When changes are made to Systems, new Devices are introduced, or updates are made to existing Devices using DCC Systems, there is a risk that these activities may impair the performance of the DCC Total System. In extreme cases, there is a possibility that the Services could be disrupted. User-led changes can also have an impact on how the DCC identifies, triages and manages Incidents.

What is the issue?

As Users are not currently required to notify the DCC of their planned changes, the DCC only has a partial view of planned changes that can impact the Smart Metering network. Without a full view of all change, the identification, triage and management of Incidents is more challenging to execute, and consequently incident resolution can take longer.

How does this issue relate to the SEC?

In accordance with SEC Section H8.4, the DCC is required to provide Parties, Registration Data Providers (RDPs) and the Technical Architecture and Business Architecture Sub Committee (TABASC) with a schedule of each month's Planned Maintenance. This schedule sets out:

- the proposed Maintenance activity;
- the parts of the Services that will be disrupted (or where there is a Material Risk of disruption) during each Maintenance activity;
- the time and duration of each Maintenance activity; and
- any associated risk that may subsequently affect the return of normal Services.

In accordance with SEC Section H8.8, where the DCC is proposing to a make change to DCC Internal Systems the DCC shall also:

- undertake an assessment of likely impact on Parties and RDPs that may arise because of the Maintenance;
- consult with Parties, RDPs and the TABASC regarding any Material Risk of disruption;

- provide Parties and RDPs with the opportunity to be involved with any testing of the change to DCC Internal Systems prior to implementation; and
- undertake an assessment of the likely impact of the change on the security of the DCC Total System, Smart Metering Systems, and the Systems of Parties and RDPs.

There are no such obligations in the SEC for DCC Users to provide such information. This means the DCC does not have a full view of changes and the potential impacts they may have on DCC Systems.

As a Licenced body, the DCC has a duty to fulfil its Licence Objective[1] and the SEC Objective[2] of maintaining an efficient and economical service, to enable the Smart Meter roll-out and to provide ongoing Smart functionality for end consumers. A holistic, transparent view of both DCC-led and User-led changes can help maintain a smooth service for all Users in the future and support the DCC in fulfilling its objectives.

1 The First Enduring General Objective of the Licensee is to carry on the Mandatory Business in the manner that is most likely to ensure the development, operation, and maintenance of an efficient, economical, co-ordinated, and secure system for the provision of Mandatory Business Services under the Smart Energy Code and where relevant the Retail Energy Code.

2 The second General SEC Objective is to enable the DCC to comply at all times with the General Objectives of the DCC (as defined in the DCC Licence), and to efficiently discharge the other obligations imposed upon it by the DCC Licence.

What is the impact this is having?

What Incidents have already been encountered?

The DCC has already encountered Incidents resulting from the lack of communication of planned User led changes. Two such incidences and their impacts are noted here.

Firewall

A User made changes to their firewall, which blocked the message route between the Data Service Provider (DSP) and the User. No messages were received by the User from the DSP, and the DSP had a build-up of 1,500,000 messages, which impacted the performance of the network and the operations of all Users. The DCC had to reallocate its resources to investigate the issue, which meant that the Business Continuity Disaster Recovery (BCDR) activity that was planned for that day had to be postponed.

Meter data management

A User deployed a new meter data management system with adverse repercussions. The launch caused the generation of erroneous messages by the User's systems, which flooded the DCC System. The 'message storm' caused an interruption to the DCC service, impacting all Users' ability to commission smart meters. Users had to both rebook installations, which meant taking slots from other planned installations, and install SMETS1 assets instead.

What is the impact of doing nothing?

As described in the examples above, interruptions are already happening. The DCC is concerned that, without greater transparency of User change, there will be even more disruption ahead. The complexity of the Smart Metering estate is growing with new market entrants, firmware versions, Devices and functionality, which may have a disproportionate impact on the Smart Metering network.

What are the views of the industry?

Views of the DCC

The DCC is supportive of changes to the SEC to ensure transparency of DCC User planned changes and coordination of these changes. The DCC has also been working closely with SEC Parties to identify a solution for sharing User-led change.

Views of SEC Parties

Four comments were received in the Development Stage. These were from two Large Suppliers, one Small Supplier, and one Other SEC Party. In general, the comments are unsupportive of this Proposal, and the Parties believe that this issue lies in the DCC System rather than with DCC Users. One Large Supplier is in support of this proposal and can see the benefits of coordinating DCC User changes at a high level. The Proposer has provided further clarification and rebuttal to each of the comments received. Full details can be found here.

Views of Panel Sub-Committees

The Operations Group has been working with the DCC, prior to this Draft Proposal, to establish and address this identified issue. The Operations Group is happy for the Draft Proposal to proceed.

Views of the Change Sub-Committee

The Change Sub-Committee agreed that there is a clear issue to be addressed. However, there are some considerations to be taken in developing a solution, and there are key questions that it would like answered in the Refinement Process. These are:

- In the examples provided by the Proposer, how would the DCC User information enabled the DCC to prevent this from happening?
- Is this a DCC System resilience issue?
- As DCC Users are already required to submit Service Request forecasting to the DCC, what additional information would be required of DCC Users?