Data Communications Company

SEC Modification Proposal, SECMP0137

Sharing information on Defects and Issues

Preliminary Impact Assessment (PIA)

Version:	**0.2**
Date:	**27th May, 2022**
Author:	**DCC**
Classification:	**DCC PUBLIC**

Contents

1 Executive Summary

The Change Board are asked to approve:

- Total cost to complete the Full Impact Assessment of £3,500
- The timescale to complete the Full Impact Assessment of 30 working days
- ROM costs for SECMP0137 up to the end of Pre-Integration Testing (PIT) of between £15,000 and £25,000
- A likely additional one DCC Full Time Employee to maintain the supporting materials

Problem Statement and Solution

Currently, there is no approach allowing Smart Energy Code (SEC) Parties and the Data Communications Company (DCC) to share information on known issues and Devices except via forums, due to the commercially sensitive information surrounding the Devices. Though some Suppliers may have information to support the resolution of some Device issues, there is no accessible means to share such information across the industry. Consequently, the lack of an industry approach to tackling issues and defects posed by Devices and Device Combinations means that issue fixes are slow for the end energy consumer.

This Modification intends to develop an approach to share information between SEC Parties relating to issues and defects affecting Devices and Device Model Combinations.

Benefits

This Modification will give better visibility of issues that affect devices enrolled within the DCC systems allows DCC Customers to mitigate and work around issues with Devices providing better performance across the DCC Ecosystem. SEC Parties will be able to identify published fixes for identified problems.

2 Document History

2.1 Revision History

Revision Date	Revision	Summary of Changes
17/05/2022	0.1	Initial version
27/05/2022	0.2	DCC internal review

2.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Filename	Source	Issue Date
1	MP137-Business Requirements v0.6	SECAS	31/03/2022

References are shown in this format, [1].

2.3 Document Information

The Proposer for this Modification is Ralph Baxter of Octopus Energy. The Modification was raised on 20th July 2020.

An initial Preliminary Impact Assessment was requested of DCC on 9th May 2022.

3 Context and Requirements

In this section, the context of the Modification and requirements are stated.

The problem statement and requirements have been provided by SECAS and the Proposer.

3.1 Problem Statement

Currently, there is no approach allowing SEC Parties and the DCC to share information on known issues and Devices except via forums, due to the commercially sensitive information surrounding the Devices. Though some Suppliers may have information to support the resolution of some Device issues, there is no accessible means to share such information across the industry. Consequently, the lack of an industry approach to tackling issues and defects posed by Devices and Device Combinations means that issue fixes are slow for the end energy consumer.

This Modification intends to develop an approach to share information between SEC Parties relating to issues and defects affecting Devices and Device Model Combinations.

3.2 Business Requirements

This section contains considerations and assumptions for the business requirements taken verbatim from the SECAS documents [1].

#	Business Requirement
1	The Data Communications Company (DCC) to develop and maintain a searchable database for storage of information relating to issues, defects and fixes including Device Model Combination (DMC) and firmware versions.
2	Device Manufacturers will provide an initial file (type to be specified by the DCC) of known issues, defects and fixes.
3	Defects and issues on DMC including CH which are voluntarily declared by manufacturers will be recorded on the database on an ongoing basis.
4	Defects and issues for DMC including CH and firmware versions which are raised by SEC Parties to the DCC will be recorded on the database.
5	Known fixes for DMCs provided by any Party and confirmed by the Manufacturer will be recorded on the database.
6	The DCC to populate the information on the platform based on DMC.
7	The DCC and SEC Parties to have access to the database.
8	A glossary of terms to be used should be developed and published.

Table 1: Business Requirements for SECMP0137

Currently, fixes to issues and defects for Devices, DMCs and CHs are not displayed to the wider industry. This requirement aims to share issues or defects and fixes which were raised and identified by the DCC and/or parties for DMC and CHs. This will include those which have safety, security, or billing concern, although it is noted that there are other more critical methods to reporting security and safety issues which should be followed. This solution is in no way intended to replace those. This solution will be applied to the database which will host issues and defects on Devices or Device Model Combinations and any fixes for them. This will include firmware versions.

Requirement 1: The DCC to develop and maintain a searchable database for storage of information relating to issues, defects and fixes including Device Model Combination (DMC) and firmware versions

The DCC will develop and maintain a database. This database will contain any information related to issue, defects and known fixes to these. The DCC will provide a resource for SEC Parties to query the database in order to help resolve industry interoperability problems. The system shall ensure not to unduly influence Suppliers to select one Device over another (for example if it is known that a particular CH works better with one Device over another there should not be any influencing towards the working Device).

Requirement 2: Device Manufacturers will provide an initial file (type to be specified by the DCC) of known issues, defects and fixes

The DCC to provide details of what file type/format, which items of information, how it should be delivered and by what date. Device Manufacturers will then provide this information (on a voluntary basis) to the DCC in order for it to populate the database. (Requirement 8 should be developed before this is requested).

Requirement 3: Defects and issues on DMC including CH which are voluntarily declared by manufacturers will be recorded on the database on an ongoing basis

Using the process Manufacturers currently use to identify and report issues and defects the DCC contact point should be made aware of any newly identified issues/defects and fixes as soon as possible. A method for DCC to agree with a manufacturer that an item should be included is required.

Requirement 4: Defects and issues for DMC including CH and firmware versions which are raised by SEC Parties to the DCC will be recorded on the database.

Information on issues and defects raised to the DCC by SEC Parties will be recorded on the database by the DCC (source of information to be recorded, Status of information to be recorded).

Requirement 5: Known fixes for DMCs provided by any Party and confirmed by the Manufacturer will be recorded on the database

Information raised on fixes raised to the DCC by SEC Parties will be recorded on the database by the DCC (source of information to be recorded, Status of information to be recorded). These will be confirmed with the manufacturer. A process will need to be developed to agree this.

Requirement 6: The DCC to populate the information on the platform based on DMC.

Each part of the combination is important and therefore the firmware versions should be populated but should be independently searchable.

Requirement 7: The DCC and SEC Parties to have access to the database.

The DCC, Suppliers and manufacturers will be able to search by the DMC to retrieve the details of the issue and where available the fix. There should be the ability to add Network Parties to the list of those able to access the information. ONLY issues where a known fix is available should be searchable by anyone other than the DCC.

Requirement 8: A glossary of terms to be used should be developed and published.

This should be developed before the manufacturers are requested to provide the information so that the information used to populate the database initially is consistent and searchable.

4 Description of Solution

This section describes the DCC approach to supporting the business requirements and the inputs of Device Manufacturers and Service Providers.

4.1 Overview

DCC will undertake the creation and maintenance of a database, or rather a spreadsheet, to hold the required information, but there will be a new process for the submission, management, and publication of this data as described following.

DCC is considering SMETS1 device information as out of scope for this Modification, because this is already provided as part of the SEC Appendix AM, SMETS1 Supporting Requirements. This data sharing is not seen as a concern because the meters and other devices are already installed, and no further installation of SMETS1 Devices is anticipated.

4.2 DCC Data Sources

Whilst not specifically mentioned in the Business Requirements above, the DCC was requested to consider the use of DCC held data, both in the DCC Service Management System (DSMS) Remedy database and as held by the DCC Product teams, as a source for populating a database. In both cases, there are problems with sharing this data because:

- Unlike SMETS1, SMETS2 devices are still being ordered and purchased, such that any data published by DCC might be seen as a recommendation.
- DCC does not hold all defect data for all Device manufacturers, and publishing that data might be seen as favouring, or preferring those Device manufacturers who have not shared their data with DCC.
- Publishing data provided by Device manufacturers to DCC could be seen as a breach of confidence, and leave DCC open to charges of not operating a "fair" system.
- Device data held in DSMS is in freeform text rather than fixed fields, and extracting that data would be difficult leaving incomplete and inconsistent coverage.

4.3 Process for Creating and Maintaining the Data

The process for populating and maintaining the defect data is shown in the following diagram.

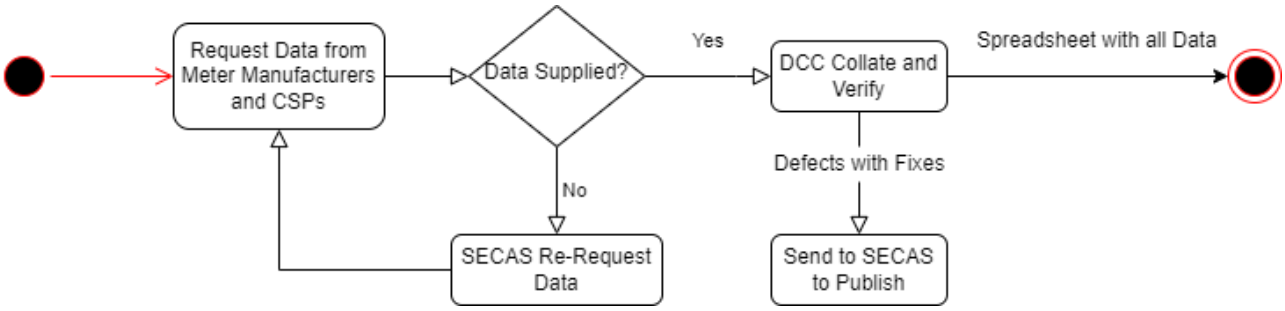

Figure 1: Simplified Process Diagram

To initially create and then maintain the database, Device manufacturers and Communications Service Providers (CSPs) will be asked to provide this information to the

DCC Devices team. By requiring the Device manufacturers and CSPs to supply defects to DCC is in effect only using provided defects where a Device Manufacturer or CSP has accepted that a defect is in place.

Note that there is currently no requirement for defect and fix information to be provided to the DCC, such that DCC has no commercial leverage and device manufacturers and suppliers have no responsibility to provide this data. To ensure an even coverage across the device information, all Device manufacturers and CSPs will be asked to provide defect, issue and fix information in the format described following. If the requested data has not been received 15 Working Days (WD) after the agreed delivery date, DCC will request SECAS to chase the data provider to supply the information. This period will be agreed as part of the Full Impact Assessment (FIA). If data from a particular Device manufacturer or CSP is not provided for the report, this shall be noted on the cover sheet of the spreadsheet.

The DCC Devices and Service Design teams will collate the inputs, then verify the data by checking the data, any references to fixes, and ensuring a consistent presentation of information across the data. When complete, the DCC will save a version of all the data provided, and send a version containing only defects and issues where a fix has been provided to SECAS. It should be noted that this is a human resource intensive process for DCC to ensure the governance is suitable for regular reporting. SECAS will then publish the latter version on their website for all interested parties.

The DCC version will be used as the starting point for next version of the data. The initial suggestion is that this data should be refreshed on a quarterly basis.

4.4 Technical Solution

Device Manufacturers and CSPs would be asked to provide the data to the DCC in a comma delimited CSV format with the fields defined as follows.

Field	Data Type	Description
Identifier	Numeric	Unique ID for defect or issue
Make	Text	Device manufacturer
Model	Text	Device model
Firmware Version	Text	Version on device
Device Type	Text	This column will match the inventory definitions for devices
Source	Text	Source of Information; Device Manufacturer or CSP
Status of Information	Text	Issue, Defect or Fix
Date last Updated	Date	
Fix Available	Yes / No	Only defects with fixes available can be published on the SECAS website
Fix Information	Text	Supporting information provided to DCC

The data could be sent to the DCC on a secured SharePoint site; this will be confirmed as part of the FIA.

The simplest solution to holding the data would be as a spreadsheet with validation rules, published as a read-only version. The validation rules would check that data provided matched the required data type, and identify any repeated information.

4.5 Publication of the Results

Once the data has been verified, DCC will create a separate version of the spreadsheet that contains only issues and defects with related fixes. This version will be sent to SECAS for posting on their website. SECAS would be responsible for the access rights to the published data.

After the initial publication, DCC will prepare a new version of the spreadsheet containing all provided data with the original information, any updates to that information, and new defects, on a regular basis.

5 Implementation Timescales and Approach

The release lifecycle duration will be confirmed as part of the FIA, although the time to develop the spreadsheet schema and the glossary will be less than three months.

6 Costs and Charges

The scope of supply under this PIA includes design, development (build), system testing, and testing within the PIT environments.

The Rough Order of Magnitude cost (ROM) shown below describes indicative costs to implement the functional requirements as assumed now. The price is not an offer open to acceptance. This change has not been subject to the same level of analysis that would be performed as part of a FIA and as such there may be elements missing from the solution or the solution may be subject to a material change. As a result the final offer price may result in a variation.

The table below details the cost of delivering the changes and Services required to implement this Modification as follows:

- Development of glossary
- Development of the spreadsheet, including validation by business rules
- Provision of a secure SharePoint site for Device Manufacturers and the CSPs

£	Design, Build and PIT Cost Range
SECMP0137	£15,000-25,000

Design	The production of detailed designs to deliver the requirements.
Build	The development of the spreadsheet, glossary, and the set up of the SharePoint site for data delivery.
Testing	Testing of the SharePoint sites, quality assurance of the glossary, and testing of the spreadsheet.

It should be noted that there will also be costs associated with the running of the service for both the DCC and SECAS. The effort for the DCC is likely to be one Full-Time Employee (FTE) to be reckoned on an annual basis.

Based on the existing requirements, the fixed price cost for a Full Impact Assessment is **£3500** and would be expected to be completed in 30 working days.

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
CH, Comms Hub	Communications Hub
CSP	Communications Services Provider
CSV	Comma Separated Value
DCC	Data Communications Company
DMC	Device Model Combination
DSMS	DCC Service Management System
FIA	Full Impact Assessment
FTE	Full-Time Employee
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specification
WD	Working Day