# SEC Modification Proposal, SECMP0117, DCC CR1368

## Bulk Communications Hub (CH) Returns

## Preliminary Impact Assessment (PIA)

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|---|---|
| **Version:** | 0.2 |
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| **Author:** | DCC |
| **Classification:** | DCC PUBLIC |

# Contents

# 1    Document History

## 1.1    Revision History

| Revision Date | Revision | Summary of Changes |
|---|---|---|
| 15/07/2020 | 0.1 | Initial version, for DCC internal review |
| 16/07/2020 | 0.2 | Released following DCC internal review |
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## 1.2    Associated Documents

This document is associated with the following documents:

| Ref | Title and Originator's Reference | Source | Version |
|---|---|---|---|
| 1 | MP117-Modification-Report | SECAS | 0.3 |

References are shown in this format, [1].

## 1.3    Document Information

The Proposer for this Modification is Sasha Townsend of Data Communications Company (DCC). The original proposal was submitted in February 2020.

The Preliminary Impact Assessment was requested of DCC on 8 June 2020.

# 2 Context and Requirements

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

The SEC Definitions, issue statement, and requirements have been provided by SECAS and the Proposer.

## 2.1 Current Arrangements

SEC Section F5 'Communication Hub Forecasts & Orders' allows any SEC Party to place orders for Communication Hubs (CH). Any Supplier Party can notify the DCC under SEC Section F8.7 if they need to return a CH. A Party wishing to return a CH is entitled to do so at any time.

Parties currently return Communications Hubs to the DCC for several reasons, including:

• A CH fault/defect is identified either prior or post-installation;

• CHs are destroyed or damaged in transit/storage; or

• The DCC requests that Parties return CHs to the DCC because of a Product Recall/Technology Refresh.

SEC Appendix I 'Communications Hub Installation and Maintenance Support Materials' (CHIMSM) currently sets out the procedures for notifying the DCC of a CH return. It requires DCC Users to submit one of two Service Requests (SR) depending on the reason for return:

• SR 8.14.3 'Communications Hub Status Update – Fault Return'; or

• SR 8.14.4 'Communications Hub Status Update – No Fault Return'.

On submission of a SR 8.14.3 or a SR 8.14.4, a Returns Remedy Record is automatically generated, which starts a CH returns process (approx. 90 days) from the DCC User back to the DCC.

## 2.2 What is the issue?

Currently, a SR 8.14.3 or a SR 8.14.4 allow DCC Users to input one CH Globally Unique Identifier (GUID) per request. This means that DCC Users must send an individual Service Request to notify the DCC of each CH return.

DCC Users are reporting that to trigger an individual Service Request can take a significant amount of time and effort per CH. They have stated that this is not a sustainable approach in dealing with returns. Therefore, DCC Users have requested the ability to upload and trigger all the necessary Service Requests relating to a bulk CH return.

## 2.3 Impact of the issue

Sending one CH at a time using SR 8.14.3 or a SR 8.14.4 causes inefficiencies, duplicating time and effort for DCC Users attempting to return multiple CHs.

# 3 Description of Solution

The objective of this SEC modification is to provide DCC Users with the ability to return Comms Hubs in bulk using a single Service Request. The business requirements are as follows.

Requirement 1:

The DCC will provide DCC Users the means to provide multiple Device IDs in SR8.14.3, so that multiple Communications Hubs (CH) can be returned to DCC with one SRV rather than the current process of sending one SRV for one CHs fault return.

Requirement 2:

The DCC will provide DCC Users the means to provide multiple Device IDs in SR8.14.4 so that multiple CHs can be returned to DCC with one SRV rather than the current process of sending one SRV for one CHs no fault return.

## 3.1 SEC Changes

The DCC and Service Providers have reviewed the requirements, solution and expect the changes required in SEC Appendix AD - DCC User Interface Specification. Section 3.8.115 and section 3.8.116 of SEC Appendix AD shall get updated to include the updated definition of SR 8.14.3 and SR 8.14.4 respectively.

The actual change to the SRV data definition with the updated DUIS schema of Request and Response data items will be provided during the Full Impact Assessment (FIA).

## 3.2 DSP Solution Overview

The DCC Data System will modify the definition of SRV8.14.3 and SRV8.14.4 such that it can accept a list of CH Returns records. This list of CH Returns records will be introduced as an optional attribute in the DUIS Schema. This will ensure that the existing mechanism to notify individual CH Return records can remain operational with no changes to the Service Users' systems.

The maximum number of Device IDs supported within a single Service Request will be limited to 999.

After a SRV8.14.3 or SRV8.14.4 has been received by DCC Data System, the validation checks for a single CH Return that are currently in force for these SRVs will be carried out for each CH included in the list of CH Returns records.

The response provided to the Service Users will contain any validation error for the list of CH Returns records.

DCC Data System will create individual Service Audit Trail (SAT) log entries for each CH Returns record with the specific error code that indicates the status of validation checks within DCC Data Systems. For each successfully validated CH Returns record, the Comms Hub Logistics Status in the Smart Meter Inventory (SMI) will be set to "Returned".

DCC Data Systems will also create individual Service Returns Records within DSMS (Remedy) for each Comms Hub (CH Returns record) in the list. This approach ensures that no changes are required to DSMS and all the changes are handled within DCC Data Systems. This will make sure that there are no changes required within DSMS for the subsequent notifications that are required to be sent to the appropriate CSPs.

The Service Users will be able to track the progress of the returns for individual Comms Hubs using the existing SSI interface. There will not be a mechanism that provides a consolidated status of CH Returns records that were part of a Service Request submitted to the DCC Data Systems.

## 3.3    CSP Solution Overview

As the Bulk CH Return using the list of CH Return records in SR 8.14.3 and 8.14.4 will create individual Service Returns Records within DSMS system, CSP systems will not be impacted by this change.

## 3.4    Other Solution Impacts

Apart from DSP, no other DCC Components are impacted by this change.

# 4    Impact on DCC Systems, Processes and People

This section describes the impact of SECMP0117 on DCC Services and Interfaces that impact Users and/or Parties.

## 4.1    System Components

SRV 8.14.3 and 8.14.4 definition in the DUIS Schema, Request Management and Data Management components are impacted at DSP.

## 4.2    Security Impact

The implementation will be security assured during the implementation phase. This includes reviewing designs, test artefacts and providing consultancy to the implementation and test teams.

A more detailed security impact will be carried out as part of the Full Impact Assessment.

At this stage, a penetration test and updates to protective monitoring are not thought to be required.

## 4.3    Technical Specifications

There will be changes in DUIS and corresponding changes in DUGIDS for the changes in DUIS. No other changes in any Technical Specification are expected.

## 4.4    Integration Impact

An appropriate level of Systems Integration and User Integration Testing (SIT and UIT) will be carried out prior to progressing the release of this change to the Production environment, but this is not included in the PIA.

## 4.5    Infrastructure Impact

There will be no change to the infrastructure design as a result of this change.

The Modification does not impact the DSP's resilience or Disaster Recovery implementation.

## 4.6    Application Support

No changes to Application Support are expected.

## 4.7    Service Impact

No material impact is expected for the Operations team and no changes to SLAs are expected. The impact will be validated further as part of the FIA.

## 4.8    Safety Impact

No impact is expected, but a full Safety Impact Assessment will be carried out as part of the production of the FIA.

## 4.9    Contract Schedules

No changes to contracts are expected, but this will be re-evaluated for the FIA.

# 5 Implementation Timescales and Approach

As this change affects DUIS Schema, it will need to be implemented as part of a scheduled release. Notwithstanding in which release this change is implemented, based on the current response from the Service Provider, the elapsed time for implementation from project initiation through to PIT completion will be 3 - 6 months.

The release lifecycle duration will be confirmed as part of the FIA. As currently planned, the standard ongoing major release model will provide drops to the production environment in November 2021.

## 5.1 Implementation Approach

Implementation of this change is assumed to follow a hybrid of agile and waterfall methodology. The release lifecycle duration will be confirmed as part of the FIA.

## 5.2 Testing and Acceptance

It is assumed that the change will be implemented and tested as part of a major release and will include release based regression testing in SIT and UIT.

# 6 Costs and Charges

The table below details the cost of delivering the changes and Services required to implement this Modification Proposal.

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

The Rough Order of Magnitude cost (ROM) shown below describes indicative costs to implement the functional requirements as assumed above. The price is not an offer open to acceptance. It should be noted that the change has not been subject to the same level of analysis that would be performed as part of a Full Impact Assessment and as such there may be elements missing from the solution or the solution may be subject to a material change during discussions with the DCC. As a result, the final offer price may result in a variation.

## 6.1 Design, Build and Testing Cost Impact

The table below details the cost of delivering the changes and Services required to implement this Modification. For a PIA, only the Design, Build and PIT indicative costs are supplied.

| £ | Design, Build and PIT |
|---|---|
| Bulk CH Return | 550,000 |

Based on the existing requirements, the total fixed price cost for a Full Impact Assessment by the Service Provider is £16353.32 and would be expected to be completed in 30 days.

# 7 Risk, Assumptions, Issues, and Dependencies

In the following sections, Risks, Assumptions, Issues, and Dependencies have been identified. Two clarifications are also requested.

Further RAID may be established as part of the Working Group reviews and the FIA.

## 7.1 Risks

None at this time.

## 7.2 Assumptions

| Ref. | Area | Description | Accept |
|------|------|-------------|--------|
| MP117-AD01 | Design | To provide the validation error of bulk CH Return records, an XML structure (similar to Response construction of SR 11.1- Update firmware) with a list of Device IDs and validation error response code shall be used. | |

## 7.3 Issues

None at this time.

## 7.4 Dependencies

None at this time.

## 7.5 Clarification

None at this time.

## Appendix A: Glossary

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

| .Acronym | Definition |
| --- | --- |
| CH | Communications Hub |
| CR | DCC Change Request |
| DCC | Data Communications Company |
| DSMS | DCC Service Management System |
| DSP | Data Service Provider |
| DUGIDS | DCC User Gateway Interface Design Specification |
| DUIS | DCC User Interface Specification |
| FIA | Full Impact Assessment |
| GUID | Globally Unique Identifier |
| 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 |
| SIT | Systems Integration Testing |
| SMI | Smart Metering Inventory |
| SP | Service Provider |
| SR | Service Request |
| SRV | Service Request Variant |
| SSI | Self Service Interface |
| UIT | User Integration Testing |