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SECMP0039

‘Communication Hub returns notification mechanism for Other SEC Parties’

Modification Report

Version 0.3

Administered by



About this document

This document is the Modification Report for SECMP0039 '[Communication Hub returns notification mechanism for Other SEC Parties](#)'. It provides detailed information on the background, issue, solution, costs, impacts and implementation approach. It also summarises the discussions that have been held and the conclusions reached with respect to this Modification Proposal.

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This document also has four annexes:

- **Annex A** contains the business requirements for the proposed solution.
- **Annex B** contains the redlined changes to the SEC required to deliver the proposed solution.
- **Annex C** contains the full Data Communications Company (DCC) Impact Assessment response.
- **Annex D** contains the full responses received to the Working Group Consultation.

1. Summary

SEC Section F5 'Communication Hub Forecasts & Orders' allows any SEC Party to place orders for Communications Hubs. Between the Communications Hubs delivery acceptance and the installation at a premise, the SEC Party that placed the order requires a mechanism to notify the DCC in the event of needing to return a Communications Hub. This can be done by submitting the corresponding DCC User Interface Specification (DUIS) Service Requests.

Currently, these service requests are only available to Energy Suppliers¹ but some Suppliers use Other SEC Parties to provide a 'full managed service', particularly in regard to the logistics involved in the Smart metering rollout. However, because these service requests are limited only to Supplier Parties, the contracted provider cannot issue these and must instead ask the corresponding Supplier to do so. Allowing other Parties access to the notification and response mechanism will allow any ordering party to return orders on behalf of a number of Energy Suppliers.

The Proposer therefore proposes to extend the Eligible User Roles for DUIS Service Requests 8.14.3 and 8.14.4 to include Registered Supplier Agents (RSA) and for the ordering Party to be provided with a response to acknowledge the acceptance or failure of the notification.

SECMP0039 will impact on the DCC and on Other SEC Parties who may need to issue these service requests on behalf of Suppliers. The central implementation costs are around £202,000. If approved, SECMP0039 is proposed for inclusion in the November 2019 SEC Release.

¹ Import Supplier or Gas Supplier

2. Background

Returning of Communications Hubs Pre-installation

The SEC currently allows any SEC Party to place orders for Communications Hubs. Between the Communications Hubs delivery acceptance and installation at a premise, the SEC Party that placed the order requires a mechanism whereby they can notify DCC in the event of needing a fault or no fault return. This can be done by submitting DUIS Service Requests 8.14.3 'Communications Hub Status Update – Fault Return' or 8.14.4 'Communications Hub Status Update – No Fault Return'.

What is the issue?

Currently, these two Service Requests can only be submitted by SEC Parties in the role of Energy Suppliers (either an Import Supplier or a Gas Supplier). Other Parties that may order and install Communications Hubs on behalf of a Supplier cannot submit these requests and must instead request the Supplier do so on their behalf.

Allowing these other Parties access to this notification and response mechanism will allow an ordering party acting on behalf of Suppliers to be able to trigger a Communications Hub return directly. This will enable a more efficient process for returning Communications Hubs and help to reduce the demand on each individual Energy Supplier. This modification was raised to allow all SEC Parties who order Communications Hubs a mechanism to execute a complete ordering and returns process.

SECMP0039 was raised by Lowri Beck on 16 July 2017 to resolve this issue.

3. Solution

Proposed Solution

The Proposer proposes to extend the Eligible User Roles for DUIS Service Requests 8.14.3 and 8.14.4 to include Registered Supplier Agents (RSAs) and for the ordering Party to be provided with a response to acknowledge the acceptance or failure of the notification

The business requirements for the solution can be found in Annex A.

Legal text

The changes to the SEC required to deliver the proposed solution can be found in Annex B.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

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

This modification will allow DCC Users registered as RSAs to be able to submit Service Requests 8.14.3 and 8.14.4 if they wish.

DCC System

DCC Systems will need to be amended to receive and validate Service Requests 8.14.3 and 8.14.4 from RSAs.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex C. Please note that in the Impact Assessment the term Supplier Nominated Agent (SNA) is used instead of Registered Supplier Agent (RSA). SNA is the equivalent term in the DCC User Gateway Interface Design Specification (DUGIDS) to RSA in DUIS. As the legal text changes in Annex B are to the DUIS document, this will involve adding 'RSA' to the list of eligible users.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Appendix AD 'DCC User Interface Specification v2.0'

Other industry Codes

This modification will not impact on other Industry Codes.

Greenhouse gas emissions

This modification will not impact on Greenhouse gas emissions.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £201,650. The breakdown of these costs is as follows:

Breakdown of DCC implementation costs	
Activity	Cost
Design, Build and Pre-integration Testing (PIT)	£201,650
System Integration Testing (SIT), User Integration Testing (UIT) and implementation	None

Please note that the costs for SIT, UIT and implementation will be covered under the SMETS1 Enrolment and Adoption programme, as long as SECMP0039 is included in the November 2019 SEC Release. These costs will therefore not be incurred as part of this modification.

Additionally, the DCC have identified a total of £22,698 for Operational costs over a 28-month period. More information can be found in the DCC Impact Assessment response in Annex C.

SECAS costs

The estimated SECAS implementation costs to implement this modification is two days of effort, amounting to approximately £1,200. The activity to be undertaken for this is updating the SEC and releasing the new version to the industry.

SEC Party costs

SEC Parties may incur system upgrade costs necessary to enable them to use the Service Requests and testing costs; these will be dependent upon their individual testing approach.

6. Implementation approach

Recommended implementation approach

The Working Group is recommending an implementation date of:

- **7 November 2019** (November 2019 SEC Release) if a decision to approve is received on or before 20 February 2019; or
- **25 June 2020** (June 2020 SEC Release) if a decision to approve is received after 20 February 2019 but on or before 19 June 2019.

The DCC have indicated that they could implement SECMP0039 in the November 2019 SEC Release if the Change Board approves this modification under Self-Governance in February 2019.

Furthermore, the DCC have informed the Panel that the post-PIT costs for any modifications included in the November 2019 Release will be absorbed under the costs for the SMETS1 Enrolment and Adoption changes due to go live around the same time, and so would not be incurred under the modification's implementation costs.

7. Discussions and development

Discussion of Proposed Solutions

The Working Group initially considered two proposed solution options:

- Make changes to the Eligible User Roles within Service Requests 8.14.3 and 8.14.4; and/or
- Add additional functionality into the DCC's Operational Management Services (OMS) systems.

The Working Group considered that solving this issue via the OMS system would avoid the complications of the relevant participants needing to become a DUIS User. However, the Working Group also noted this option may be limited as there is a need for making sure that the other actions triggered by the DUIS Service Request take place, which means this option would still require corresponding changes to be made to DUIS. Suppliers would also be impacted by this option.

The DCC Preliminary Assessment concluded that this solution would be unfeasible as it would result in a manual process. The DCC noted to the Working Group that there were two OMS systems, for each of the two Communication Service Providers, with no integration between these and the Data Service Provider. In any event, even if this option was progressed, changes would still be required to DUIS as any request submitted via the OMS would still need the corresponding Service Request (8.14.3 or 8.14.4) to be created.

The Proposer and the Working Group therefore agreed to progress only the option of allowing all potential participants that can order Communications Hubs to have access to Service Requests 8.14.3 and 8.14.4. This would be achieved by extending the list of eligible senders for these requests.

Which roles should be added to the list of Eligible Users?

The Working Group initially believed that the list of Eligible Users for Service Requests 8.14.3 and 8.14.4 should be extended to cover all potential participants that could order Communications Hubs, and therefore may need to return them prior to installation. During the DCC Preliminary Assessment, the DCC believed that this could be achieved by adding 'Registered Supplier Agent' (RSA) to the list.

The Working Group considered whether the addition of RSA would be sufficient, noting that this would not cover participants such as Meter Asset Providers (MAPs). One member believed the basic principle that Service Requests should only be made available to those that needed them. Another member, who was from a MAP, did not believe they needed to be included in the list of Eligible Users, and was comfortable with only adding RSA.

The Working Group agreed that, as long as respondents to the Working Group Consultation did not identify any issues, the addition of RSA would be sufficient to deliver the SECMP0039 solution. No respondents to the consultation highlighted any issues with this approach.

What validation should be performed on submissions from RSAs?

The Working Group sought to clarify what validation the DCC needed to perform on a Service Request received from an RSA. In addition to the basic validation of confirming the sender was an RSA, members wanted the DCC to validate that the RSA was submitting a request on behalf of a Supplier for which it was confirmed they were working for. One member noted they did not want an

RSA to send a request on their behalf when it was not working for them. The Working Group agreed that this validation needed to be included in the solution.

8. Conclusions

Benefits and drawbacks

The Proposer and the Working Group have identified the following benefits and drawbacks in implementing this modification:

Benefits

- This will remove the need for Small Suppliers to become involved when one of their Supplier Agents needs to return a Communications Hub, which streamlines the process and reduces the burden on them. Members note that while Large Suppliers are able to manage this themselves, Small Suppliers don't have the same logistics and so often use agents to perform activities such as installing Communications Hubs on their behalf. Efficiency in this process is reduced if the agents have to request the Small Supplier submit Service Requests on their behalf, each time they need to trigger a return, incurring costs on the Small Supplier in time and effort.
- It allows for greater consistency of service provided by agents across the industry, where agents can operate on behalf of their Suppliers. Members note that the Communications Hubs returns process does not currently align with the wider industry standard of allowing agents to work on behalf of Suppliers, due to them being unable to submit the corresponding Service Requests; this change would remove this impediment and bring this returns process in line with this model.
- Some members believed it may also reduce operational costs, which benefits the consumer. However, the DCC clarified that a monthly shipment of returns would reduce costs but if smaller users were to send back Communications Hubs individually then it could be more costly. In any event, this change would not affect the subsequent administration for returning a Communications Hub, only the means by which it is triggered and who it can be triggered by.

Drawbacks

No drawbacks were identified by the Working Group.

Proposer's rationale against the General SEC Objectives

Objective (a)²

The Proposer believes that SECMP0039 will better facilitate SEC Objective (a). The efficient procurement of Communication Hubs by enabling ordering parties to support Suppliers, in particular Small Suppliers, in the effective provision, installation and operation of Smart Metering. Suppliers who seek Other SEC Parties to provide a 'full managed service', particularly in regard to the logistics involved in the Smart metering rollout, will realise reduced costs and administrative burden.

² Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain.

Objective (d)³

The Proposer believes that SECMP0039 will better facilitate SEC Objective (d) as it will allow all ordering parties to be able to carry out a complete ordering and returns process. It will also help lower costs and administrative burden for smaller Suppliers. This change will also bring the Communications Hubs returns process in line with the wider industry approach of allowing agents to perform tasks on behalf of their Suppliers, and so corrects a flaw in the design of this particular process.

Objective (h)⁴

The Proposer believes this modification better facilitates the operation of the Alt HAN arrangements as a complete ordering and returns process would support a co-ordinated installation approach within the Alt HAN arrangements.

Working Group members' views

The majority of the Working Group agreed that the modification will better facilitate Objectives (a) and (d) as set out by the Proposer, but one member was neutral as they could not see an overall benefit for the costs that this modification would incur. The Working Group believes SECMP0039 to be neutral to Objective (h).

Consultation respondents' views

There were four respondents to the Working Group Consultation (three Large Suppliers and one Network Party). Two respondents supported the modification and two did not, their reservations mainly based on the costs estimated in the Preliminary Assessment to implement the change. One respondent commented that the costs to Large Suppliers in implementing this modification would duplicate costs already borne for operational business, meaning the Large Supplier constituency would effectively be funding the operational business of Small Suppliers with regard to Communications Hubs returns. The full responses received can be found in Annex D.

³ Facilitate effective competition between persons engaged in, or in Commercial Activities connected with, the Supply of Energy.

⁴ Facilitate the establishment and operation of the Alt HAN Arrangements.

Appendix 1: Glossary

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

Glossary	
Acronym	Full term
Alt HAN	Alternative Home Area Network
CH	Communications Hub
DCC	Data Communications Company
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specifications
MAP	Meter Asset Provider
OMS	Order Management System
PIT	Pre-Integration Testing
RSA	Registered Supplier Agent
SEC	Smart Energy Code
SECAS	SEC Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SNA	Supplier Nominated Agent
SEC	Smart Energy Code



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SECMP0039 ‘Communication Hub returns notification mechanism for Other SEC Parties’

Annex A

Business Requirements – version 0.1

About this document

This document contains the Business Requirements that would be required to deliver this Modification Proposal.

Business Requirements

Context

Two mechanisms currently exist for a SEC Party to raise a request to return a Communication Hub (CH) to the DCC:

- The Party can send either Service Request Variant (SRV) 8.14.3 'Communications Hub Status Update – Fault Return' or SRV 8.14.4 'Communications Hub Status Update – No Fault Return'; or
- The Party can contact the DCC Service Desk.

Currently, the only Eligible Users for SRVs 8.14.3 and 8.14.4 are Import Suppliers (IS) and Gas Suppliers (GS). All other Users can only raise a return request via the DCC Service Desk.

This modification seeks to allow all SEC Parties the option to be able to notify the DCC of fault or no-fault returns using the two SRVs.

Requirement 1: All Communication Hub owners will be able to submit SRV 8.14.3 and SRV 8.14.4.

This will extend the list of Eligible Users listed in the DCC User Interface Specifications (DUIS) for the above Service Requests (SRs).

This requirement will not prevent any Eligible User from using alternative initiation methods such as contacting the DCC Service Desk.

Requirement 2: The additional Eligible Users will only submit these SRVs prior to installation. Following installation, the returns process will only be triggered by the relevant Supplier.

In the case of a post-installation return, only Registered Supplier Agents (RSAs) would remove and return the CH once the Supplier had raised the request, received the necessary information and passed this to the RSA.

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SECMP0039 ‘Communication Hub returns notification mechanism for Other SEC Parties’

Annex B

Legal text – version 0.1

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

These changes have been drafted against SEC Version 5.18.

Appendix AD ‘DCC User Interface Specification v2.0’

Amend Section 3.8.115.1 as follows:

3.8.115 Communications Hub Status Update – Fault Return

3.8.115.1 Service Description

Service Request Name	CommsHubStatusUpdate-FaultReturn	
Service Reference	8.14	
Service Reference Variant	8.14.3	
Eligible Users	Import Supplier (IS) Gas Supplier (GS) <u>Registered Supplier Agent (RSA)</u>	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request (Only one populated)	8 – DCC Only	
Common Header Data Items	See clause 3.4.1.1.	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement Also see Response Section below for details specific to this request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

Amend Section 3.8.116.1 as follows:

3.8.116 Communications Hub Status Update – No Fault Return

3.8.116.1 Service Description

Service Request Name	CommsHubStatusUpdate-NoFaultReturn	
Service Reference	8.14	
Service Reference Variant	8.14.4	
Eligible Users	Import Supplier (IS) Gas Supplier (GS) <u>Registered Supplier Agent (RSA)</u>	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request (Only one populated)	8 – DCC Only	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement Also see Response Section below for details specific to this request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

SEC Modification Proposal, SECMP0039

Communications Hub Returns Notification Mechanism for Other SEC Parties

Full Impact Assessment (FIA), DCC CR 305

Version:	0.8
Date:	24th December 2018
Author:	DCC
Classification:	DCC PUBLIC

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
29/10/2018	0.5	Compilation from Service Providers, requested changes
	0.6	Internal DCC Review
04/12/2018	0.7	Included all DCC internal review comments, and responses to clarifications from Service Providers
24/12/2018	0.8	Added statements on post-PIT testing costs

1.2 Associated Documents

This document is associated with the following documents:

Title and Originator's Reference	Source	Issue Date
SECMP0039 Solution Design Specifications	https://smartenergycodecompany.co.uk/download/4743	06/02/2018
SECMP0039 - Modification Proposal Form	https://smartenergycodecompany.co.uk/download/586	24/07/2017

2 Introduction

This modification seeks to amend the SEC and DCC's systems to provide Suppliers with a means of performing quality assurance and fault diagnostics on SMETS2 devices returned by meter operatives.

2.1 Document Purpose

The purpose of this Full Impact Assessment (FIA) is to provide the relevant Working Group with the information requested in accordance with SEC Section D6.9 and D6.10.

This modification is to allow all SEC Parties who order Communication Hubs a mechanism to notify the DCC of fault or no fault returns and receive appropriate responses, thus enabling all ordering Parties to execute a complete ordering and returns process.

2.2 Previous Document Information

The original Proposer for this Modification was Jason Winstanley of Lowri Beck Services Ltd.

The Preliminary Impact Assessment was provided by DCC in May 2018.

2.3 DCC Contact Details

Please raise any queries regarding this DCC Impact Assessment using the email contact details provided below.

Name DCC - SEC Modification queries

Contact email mods@smartdcc.co.uk

2.4 Context

The following text was provided by the Modification Proposer.

Currently two mechanisms exist for a SEC Party to raise a request to return a Communication Hub (CH) to the DCC:

- The Party can send either Service Request Variant (SRV) 8.14.3 'Communications Hub Status Update – Fault Return' or SRV 8.14.4 'Communications Hub Status Update – No Fault Return'; or
- The Party can contact the DCC Service Desk.

Currently, the only Eligible Users for SRVs 8.14.3 and 8.14.4 are Import Suppliers (IS) and Gas Suppliers (GS). All other Users can only raise a return request via the DCC Service Desk.

This modification seeks to allow all SEC Parties the option to be able to notify the DCC of fault or no fault returns using the two SRVs.

2.5 Requirements

The primary business requirements are as follows.

Requirement 1	<p>All Communication Hub owners will be able to submit SRV 8.14.3 and SRV 8.14.4</p> <p>This will extend the list of Eligible Users listed in the DCC User Interface Specifications (DUIS) for the above Service Requests (SRs).</p> <p>This requirement will not prevent any Eligible User from using alternative initiation methods such as contacting the DCC Service Desk.</p>
Requirement 2	<p>The additional Eligible Users will only submit these SRVs prior to installation. Following installation, the returns process will only be triggered by the relevant Supplier.</p> <p>In the case of a post-installation return, only Registered Supplier Agents (RSAs) would remove and return the CH once the Supplier had raised the request, received the necessary information and passed this to the RSA.</p>

Based on the discussions at the Working Group and the Business Requirements as set out in the Solution Design Document, DCC consider the requirements for SECMP0039 to be **STABLE**.

2.6 Description of Solution

For the requirements identified above, SECAS has recommended solutions as follows.

In order to allow all Communication Hub owners to initiate a CH Return process by way of Service Requests, DCC Data Systems shall introduce the following changes.

1. Allow additional SEC Parties to notify Comms Hub Returns via the Service Requests 8.14.3 and 8.14.4
2. Introduce a validation check to make sure that only the Energy Suppliers are allowed to submit 8.14.3 or 8.14.4 if it's related to an already installed Comms Hub.

2.6.1 High Level Solution

DCC Data Systems will modify the behaviour of the following Service Requests such that in addition to EIS (Electricity Import Supplier) and GIS (Gas Import Supplier) roles, SNAs (Supplier Nominated Agents) will also be permitted to use these to notify Comms Hub Returns.

1. SRV 8.14.3 Communications Hub Status Update – Fault Return
2. SRV 8.14.4 Communications Hub Status Update – No Fault Return

Although the original SECMOD and Change Request sought to allow all SEC party roles to access these SRVs, DSP believes that allowing SNAs alone are sufficient to handle the reported issue. This is consistent with the PIA response.

Only the parties in the role of EIS or GIS are permitted to notify a return of Comms Hubs using the above SRVs after they are installed. DCC Data Systems should process SRVs 8.14.3 or 8.14.4 submitted by SNAs only for the Comms Hubs with status 'Pending' in the Device Inventory.

If a SNA attempts to notify return of a Comms Hub after it has been installed, the Service Request shall be rejected with the existing error code E5. Please note that this validation check will rely only on the latest information available in the Device Inventory.

2.6.2 Solution Constraint

DCC and the associated Service Providers are conscious about the urgency of this change and therefore proposes the overloaded usage of the error code E5, instead of introducing a dedicated error code, to reduce the implementation time and to avoid the overheads associated with DUIS version uplift. In future if it is felt necessary to have a dedicated SRV specific error code to handle this scenario, it can be handled via a separate CR.

3 Impact on DCC's Systems, Processes and People

This section describes the impact of SECMP0039 on the DCC Total System services and interfaces that impact Users and/or Parties.

This SEC Modification specifically allows all SEC Parties who order Communication Hubs, a mechanism to notify the DCC of fault or no fault returns and receive appropriate responses. This allows all ordering Parties to execute a complete ordering and returns process.

3.1 DUGIDS, DUIS and MMC

As noted in section 2.6.2 above, the DUIS schema will not be modified to implement this change on the basis that error code E5 can be overloaded.

The DUGIDS documentation related to SRV 8.14.3 and 8.14.4 will be updated to reflect the additional user role it is required to support. The DUGIDS main document will be updated such that the notes related to the error code E5 is updated to describe the additional scenario.

The following table describes the general attributes of the SRVs that are impacted due to this change.

Service Reference	Service Reference Variant	Name	Critical	Sensitive Response	Protection Against Replay	On Demand	Future Dated	DSP Scheduled	DCC Only	Eligible User Role	SMETS1 Applicability
8.14	8.14.3	Communications Hub Status Update. – Fault Return	No	No	No	No	No	No	Yes	EIS GIS SNA	No
8.14	8.14.4	Communications Hub Status Update – No Fault Return	No	No	No	No	No	No	Yes	EIS GIS SNA	No

Table 1: SRV Matrix

3.1.1 Request Management

Request Management will be modified to implement the validation check.

3.1.2 Data Management

Data Management will be updated to make the configuration changes required to grant access to the additional user roles to the SRVs 8.14.3 and 8.14.4. No changes are expected to the Data Model.

3.2 Infrastructure Impact

This Preliminary Assessment has identified that there will be no additional hardware specifically related to this change.

Note: This change on its own would not warrant the procurement of additional infrastructure. However, the aggregated impact of many similar changes will eventually warrant the procurement of additional CPU, storage and associated hosting and

management charges. There may be a need to raise a separate change to cover associated costs. For the purposes of this impact assessment any future costs are not attributable to this CR.

3.3 Impact on Interfaces

The proposed solution does not require changes to any of the DCC Total System interfaces.

There is no Impact on processing, storage and/or transmission of the DCC Data.

3.4 Non Functional Impacts

3.4.1 Impact on Performance

This change does not have any impact on performance.

3.4.2 Impact on Resilience

This change does not impact the underlying resilience of the DCC Total System.

3.4.3 Impact on Disaster Recovery

This CR does not change the Disaster Recovery solution or Business Continuity and Disaster Recovery (BCDR) procedures.

3.5 Impact on Systems Safety and HSE

Although failures of the proposed notification functionality could impact logistical management of Comms Hub devices, leading to operational inconvenience or a financial impact if for example the device inventory were incorrectly maintained, there is no direct or credible systems safety risk associated with this change. There are no credible safety risks associated with the new functionality responsible for Comms Hub logistics management prior to installation of the devices, which contrasts with for example misconfiguration of operational Comms Hub devices connected to DCC's production network (ref. DSP FMECA, DQ.0019). Furthermore, it has been discussed and agreed between the SPs and the DCC that DUIS SRVs 8.14.3 and 8.14.4 present no credible safety risk (ref. DSP SHAR, DQ.0005).

No new types of hardware infrastructure are identified in this CR and, therefore, there is no foreseeable HSE impact. For the purposes of this Safety Impact Assessment, it is assumed that the proposed functionality will be accommodated within existing types of DSP infrastructure which have already been subject to DSP S&E assessment.

3.6 Deliverables

The deliverables are as described in the table.

Deliverable	Changes Required
SD4.1 DCC User Gateway Interface Specification	Documentation updates to describe the newly supported role and the error code behaviour change.

3.7 Request Management

Request Management needs to implement the necessary validation checks needed for the new SRVs, along with any business logic and transformation to the new GBCS Use Cases.

Based on the response to these SRVs from the devices, Request Management shall also initiate inventory updates in the northbound processing flow. The management of device status within the inventory is expected to be impacted by this new process, with changes required in a number of places to allow these “variant” steps to be followed.

3.8 Impact on SP Services

It is expected that this change will have a material impact on Services and the Application Management Support (AMS) Team will need their standard handover and knowledge transfer from the various development teams including any additional security or database aspects introduced. Thereafter, as part of transition into service, handover from PIT, ongoing SIT support and support for User Testing including deployments will be provided. Knowledge transfer will be cascaded throughout the application management team. For the initial service, AMS will provide early life support to make adjustments and provide guidance to DCC Service Desk and DCC Service Management on any issues arising when SEC Parties make use of this new functionality.

For ongoing support, a small uplift has been included to operational charges below to cover an estimated one call per month to respond to initial queries in relation to the new functionality.

3.9 Contract Schedules

Contract updates will be required for this change. The detailed updates will be determined as part of the resulting Contract Amendment Note (CAN). It is expected to impact the following schedules:

- Schedule 6.1: A new milestone or milestones will be added to reference completion of implementation of this change
- Schedule 7.1: Will be updated to include an increased payment against the completion milestones and the Operational Charge will be increased

Cost for these changes are included in the costs section following.

3.10 Impact on Security

No material security risks have been identified by the security assurance team’s review of the proposed solution. In particular, there is no change to the security or access models, no additional data that could be considered sensitive is being processed, there are no new interfaces, and although the existing interfaces require some minor change, this does not present any new attack vectors.

There is no requirement for additional penetration testing or protective monitoring coverage.

There is a need for some general assurance support during the implementation including:

- Support to the Implementation and SIT Teams during implementation and integration

- Review of design documentation to ensure alignment with contractual security obligations
- Review of test artefacts and outcomes where there is a potential security consideration
- Attendance at meetings where required by the PIT Team to advise on security

4 Testing Considerations

This section describes the testing phases required to support the implementation of SECMP0039. Note that only Testing Tools and Pre-Integration Testing costs are included in the cost estimates following.

4.1 Summary

Following initial assessment and responses from impacted workstreams, this will require PIT regression testing and PIT System testing of the new functionality brought in by this Modification, including:

- 2 cycles of PIT regression testing of Communications Hub
- 1 cycle of PIT regression testing of BSS solution
- PIT testing of Communications Hub new functionality: new GBCS messages expected (awaiting outcome of CRP) and new SRVs

4.2 Framework and Testing Tools

4.2.1 GFI Testing Tool

The GFI Testing Tool will be enhanced to support the new use cases CS02f and CCS07 with new tests, encoding and decoding of the new GBCS messages, and execution of these use cases in an emulated scenario. This includes:

- Create new classes to encode and decode new GBCS messages
- Create new test case classes
- Create new test case specifications
- Extend the functionality of the ESMEEmulator, GSMEEmulator and CHFEmulator components to support the execution of the new use cases in an emulated scenario

4.2.2 GFI CommsHub

The GFI CommsHub will be enhanced to support the new use case CCS07. Additionally the ZigBee meter emulators used to test the GFI CommsHub will be enhanced to support testing the disconnection of a Smart Meter from the HAN (use case CS02f). This includes:

- Support CCS07 in the CommsHub
- Support CS02f in ZigBee meter emulators

4.2.3 Reference Test Data Set (RTDS)

The RTDS data set will be enhanced with examples of GBCS payloads, DUIS requests and MMC responses for all 3 new service requests. Both success and error scenarios (when applicable) will be included.

4.3 Pre-Integration Testing

Pre-Integration Testing comprises the tests that each Service Provider performs on its respective System changes, prior to the integration of all Service Provider systems. DCC has factored the cost of PIT, including DCC assurance, into this Impact Assessment. Suggested PIT scope would include:

- Production, review and agreement of a design to enable development

- Low level design production, development, unit test and any rework to achieve PIT complete status
- Data generation and loading into the Test environment
- Execution of System Tests through sufficient iterations to enable PIT complete
- Design, implementation and execution of scripts in accordance with assurance procedures used for Release 1.2
- Achieving PIT complete status and subsequent reporting

4.4 Systems Integration Testing

Systems Integration Testing (SIT) is the testing of the DCC Total System, which brings together the components, e.g., DSP and CSP Systems, to allow testing of the end-to-end solution by DCC. SIT is carried out for every DCC System release and incorporates the test and integration of multiple changes.

Additional SIT is recommended by DCC for a modification of this type. It should however be noted that the scope of SIT is likely to be more focused on regression testing to confirm that the changes applied as part of this modification have not had an impact on the wider DCC Total Systems.

Suggested SIT scope would at a high level typically include:

- System Test script and data design
- Data generation and loading into a co-ordinated System Test environment
- Execution of System Tests through sufficient iterations to enable SIT complete

During the Transitional phase of the Smart Metering Implementation Programme (SMIP) the SIT environment and associated services are primarily used to provide integration testing to support implementation. At this stage in the programme the SIT environment is required to support the integration of SMETS1 systems into the DCC ecosystem, with the associated costs already being incurred by Users. Because Users are already paying for SIT, DCC considers that SIT costs should not be included in this assessment. This position will be reviewed once the incorporation of SMETS1 systems is complete.

4.5 User Testing

User Integration Testing (UIT) is referred to as User Testing in the SEC. User Testing of Modification Proposals is provided using the Modification Implementation Testing Service. It enables Users to run specific tests to support their implementation of a change. DCC expects that User Testing will be required to support User's implementation of this modification.

Individual changes are collected into a DCC release. In order to achieve more efficient User Testing for all parties, the DCC will coordinate specific testing requirements for all changes that comprise a release (which may include defect fixes and changes to DCC Internal Systems along with Modification Implementation Testing) and will issue a testing release approach document.

Modification Implementation Testing is only one of several Testing Services provided to Users under the SEC, and mostly comprises the provision of testing facilities (such as a Test Lab), the User Integration Testing (UIT) environment and DCC staff to support testing. The costs associated with the provision of Modification Implementation Testing are largely fixed costs common to the provision of all of the Testing Services. As such the costs of User Testing are not included in this assessment.

5 Implementation Timescales and Testing

5.1 Timescale

It is assumed that this change will be implemented as part of an interim release alongside a pipeline of other work, but after Release 2.0 goes into Production. The change will be implemented using a waterfall methodology such that a pre-integration implementation phase, consisting of design, development and system testing will precede a formal Systems Integration Test phase. The pre-integration phase is expected to take approximately four months and the Systems Integration execution Testing phase is expected to follow in months five and six. Therefore, the change will be ready to schedule to a production release after approximately six months. Work will proceed once full commercial cover has been provided, that is once there is an agreed and signed CAN.

5.2 Testing and Acceptance

This change includes the standard test phases as documented in schedule 6.2 and standard exit criteria will apply:

- Pre-integration Testing: DSP will provide a summary output to confirm tests executed and Schedule 6.2 exit criteria compliance;
- Systems Integration Testing: Existing scripts will be updated, and positive path tests will be executed. SIT could be executed on either SIT-A or SIT-B depending on whether the change is implemented as a patch to the production release or as part of a new release.
- User Integration Testing: Any testing required for the existing SRs 8.14.3 and 8.14.4 will be undertaken as part of Testing Services on the assumption that DCC CR279 is agreed and enables inclusion of new functional changes (CR279 FIA version 1.1 would enable this change to be tested with no further charges on either the UIT-A or UIT-B environment).

6 Costs and Charges

The activities described in this Full Impact Assessment have been carried out on a Fixed Price basis in accordance with Part E of Schedule 8.2. The labour price has been calculated at proposed Schedule 7.1 rates for the 2018-2019 contract year.

Prices are based on resources working normal working hours as defined by Schedule 7.1 with the exception of deployment activities which may take place outside normal working hours but not including any Sunday working.

The charges are exclusive of VAT and bank finance charges. The Working Capital Charge will be calculated at the time of CAN generation as it is dependent on agreement of payment milestones.

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.

Implementation Costs							
Phase	Design	Build	Pre-Integration Testing	System Integration Testing	User Testing	Implement to Live	Total
SECMP0039	Total £201,650			Not included ¹	Not included ²	Not included ³	£201,650
Supplementary Information							
Implementation cost assumptions	<p>A. Costs are exclusive of VAT and any applicable finance charges</p> <p>B. Majority of the costs above represent labour costs.</p> <p>C. Costs provided for Design, Build and Pre-Integration Testing are quotes provided by the Service Providers with specific exclusions of costs as identified above. DCC have reviewed and challenged the costs from the Service Providers to ensure this reflects best price to date.</p> <p>D. Costs will be refined during future assessments.</p>						
Explanation of Implementation Phases	DCC's implementation costs are provided by implementation phases. The following describes the purpose of each phase:						

¹ At this stage in the SMIP the SIT environment is required to support the integration of SMETS1 systems into the DCC ecosystem, with the associated costs already being incurred by Users. Because of this DCC considers that SIT costs should not be included in this assessment.

² The costs associated with Modification Implementation Testing are largely fixed costs for providing all of the Testing Services. As such the costs of Modification Implementation Testing are not included in this assessment.

³ Individual changes are collected into a DCC release in order to make implementation as efficient as possible. Because of this DCC does not consider it appropriate to provide separate implementation costs for each individual change.

	<ul style="list-style-type: none"> • <i>Design: The production of detailed System and Service design to deliver all new requirements.</i> • <i>Build: The development of the designed Systems and Services to create a solution (e.g. code, systems, or products) that can be tested and implemented.</i> • <i>Pre-integration Testing: Each Service Provider tests its own solution to agreed standards in isolation of other Service Providers. This is assured by DCC.</i> • <i>System Integration Testing: All Service Providers' PIT-complete solutions are brought together and tested as DCC's Total Solution, ensuring all Service Provider solutions align and operate as an end to end solution.</i> • <i>User Integration Testing: Users are provided with an opportunity to run a range of pre-specified tests in relation to the relevant change.</i> • <i>Implementation to Live Costs: The solution is implemented into Production environments and ready for use by Users as part of a live service. This service is subject to implementation costs.</i>
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6.2 Operational Costs

Operational costs include support for additional functionality for the duration of the contract including an initial snagging/query period of 1 month incubation support and 2 medium complexity calls per month on average relating to additional functionality. The Full Impact Assessment Cost Model for Enduring Application Management has been estimated at a cost of £811 per month, and a total of £22698 for a 28 month period for a potential Go Live to the end of the Service Provider contract.

6.3 Impact on Levied Charges

This section describes the potential impact on Charges levied by DCC in accordance with the SEC.

DCC notes that SECMP0039 does not propose any changes to the charging arrangements set out in SEC Section K. DCC has assumed that, in the absence of an agreed alternative arrangement by the Working Group, the costs associated with the implementation of SECMP0039 will be allocated to DCC's fixed cost based and passed through to Parties via Fixed Charges.

Subject to the commercial arrangements put in place to support the relevant Release, DCC expects the increase in Charges associated with the implementation of SECMP0039 to commence in the month following the Modification implementation.

7 Risks, Assumptions, Issues, and Dependencies

In the following sections, Risks, Assumptions, Issues, and Dependencies have been identified.

7.1 Risks

Ref.	Area	Description	Impact
MP39-DR1	UIT Testing, User Testing	Any testing required for the existing SRs 8.14.3 and 8.14.4 will be undertaken as part of the provision of the Testing Services on the assumption that DCC CR279 is agreed and enables inclusion of new functional changes (CR279 FIA version 1.1 would enable this change to be tested with no further charges on either the UIT-A or UIT-B environment).	High

7.2 Assumptions

Ref.	Area	Description	Accepted
MP39-DA1	Error Code	Error code E5 will be overloaded	
MP39-DA2	Changed Requirements	Any further changes to requirements after submission of this FIA will be chargeable under implementation costs for this change	

7.3 Issues

None at this time.

7.4 Dependencies

Ref.	Dependency	Impact
M39-DD1	Full commercial cover in the form of a signed CAN is required for DSP to carry out any work in relation to this change.	High impact on the timescales.

Appendix: Glossary

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

Acronym	Definition
AMS	Application Management Support
BCDR	Business Continuity and Disaster Recovery
CAN	Contract Amendment Note
CH	Communications Hub, Comms Hub
CR, CRP	Change Request, BEIS Change Request
CSP	Communication Service Provider
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
EIS	Electricity Import Supplier
FIA	Full Impact Assessment
GBCS	Great Britain Companion Specification
GFI	GBCS Integration Testing For Industry, a testing tool
GIS	Gas Import Supplier
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
SEC	Smart Energy Code
SIT	Systems Integration Testing
SMIP	Smart Metering Implementation Programme
SNA	Supplier Nominated Agent
SP	Service Provider
SR	Service Request
SRV	Service Request Variant
UIT	User Integration Testing

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SECMP0039 ‘Communication Hub returns notification mechanism for Other SEC Parties’

Annex D

Working Group Consultation responses

About this document

This document contains the full non-confidential collated responses received to the SECMP0039 Working Group Consultation.

Question 1: Do you agree that the proposed solution better facilitates the SEC Objectives and should therefore be approved?

Question 1			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	We are supportive of this modification and believe this will improve the returns process and make it more efficient and therefore we believe the objectives outlined in the modification will be met.
National Grid Smart	Network	Yes	Yes, NGS agrees.
EDF Energy	Large Supplier	No	While we can see the rationale for making this change, we do not believe that it has been clearly demonstrated that it better facilitates the SEC Objectives. Our main concern is that it has not been demonstrated that the significant costs associated with implementing this change are justified by the efficient benefits to be gained through its implementation. In order to justify making such a significant investment, the cost of which will ultimately be borne by consumers, it should be demonstrated that this investment will result in a clearly quantified benefit. No such quantification has been made, and without this we do not believe that this Modification Proposal can be approved.
EoN	Large Supplier	No	It is our view that the provision, installation, operation and interoperability of Smart Metering Systems (SMS) is entirely unaffected by the ability of Parties to issue Service Requests (SRs) pertinent to the return of a Communications Hub (CH), which occurs after replacement. We further believe that burdening the consumers of one constituency for the operational ease of another constituency fails to facilitate effective competition between Parties engaged in the Supply of Energy.

Question 2: Will your organisation be impacted due the implementation of this modification?

Question 2			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	-
National Grid Smart	Network	Yes	NGS will be positively impacted, as it will facilitate a smoother process with logistics when returning the communication hub.
EDF Energy	Large Supplier	Yes	<p>We would need to undertake regression testing as a result of the implementation of this modification, in order to ensure that the Service Requests continue to function for us in the same way that they did prior to the change being implemented.</p> <p>We also assume that we would pick up a proportion of the cost for implementing this change – while it is not explicitly stated we assume the cost will be apportioned across all Parties that pay for DCC costs.</p>
EoN	Large Supplier	Yes	As a member of the Large Supplier constituency this Modification would duplicate costs we have already borne for our own operational business, such that only the operational businesses of the Small Supplier constituency can benefit. In addition, this financial burden to support businesses within the Small Supplier constituency is disproportionate to the extent that the businesses within the Large Supplier constituency would effectively be funding the operational business of Small Suppliers with regard to CH returns.

Question 3: Will your organisation incur any costs in implementing SECMP0039?

Question 3			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	-
National Grid Smart	Network	Yes	NGS will not incur additional costs for implementation.
EDF Energy	Large Supplier	Yes	As per our response to Q2 we would expect to incur some costs as a result of the need to undertake regression testing, however we would expect this cost to be marginal to the standard cost of implementing a new DCC release. We also assume we will be liable for some proportion of the DCC's implementation costs.
EoN	Large Supplier	Yes	As Above.

Question 4: Having considered the potential impacts and costs to your organisation, as well as the cost to deliver the modification, do you agreed that SECMP0039 should be approved?

Question 4			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	As this will be a forward step in the returns process, the benefits will outweigh any costs incurred.
National Grid Smart	Network	Yes	NGS believes that SECMP0039 should be approved, as it will make the returns process more efficient in terms of time and costs.
EDF Energy	Large Supplier	No	As noted in our response to Q1, while we can see the rationale for making this change, given the significant costs involved we cannot support the progression of this Modification without some quantification of the benefits to be gained.
EoN	Large Supplier	No	<p>It is our current view that the Working Group and/or Proposer, where Small Supplier businesses cannot accommodate this activity, ought to consider alternative solutions under SEC that ensure appropriate and fair funding of the solution, and have made two suggestions to that end below:</p> <p>Alternative 1 – Any Supplier or Registered Supplier Agent (RSA) seeking to introduce changes to DUIS for business ease should do so via the Elective Services procedures such that the solution is funded by those who benefit from its implementation. For clarity it should be understood by the DCC that K7.7 would not herein apply to Large Supplier Parties;</p> <p>Alternative 2 – Any Supplier wishing to utilise a RSA for the CH return process should provide said RSA with the credentials/identifier that permit Shared Resources to act on behalf on Suppliers without incurring changes to DUIS.</p> <p>We note however that an inherent issue with all solutions is the quality of data being used to validate the RSA. As is evident in non-smart processes, the asset returns process is negatively impacted where Suppliers are not responsible for their own returns and RSA data</p>

Question 4			
Respondent	Category	Response	Rationale
			<p>is not wholly reliable (e.g. lost assets and continual invalid rental fees, invalid premature replacement charges etcetera).</p> <p>We further note that we do not believe that this ought to be a Path 3 Modification given the financial implications on Large Suppliers to pay for something which is effectively an operating cost for Small Suppliers*, a cost which we ourselves already fund for our own businesses.</p> <p>*SEC Section D2.6.</p>

Question 5: Do you believe that the draft legal text changes deliver the intention of the modification?

Question 5			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	-
National Grid Smart	Network	Yes	NGS agrees that the draft legal text changes deliver the intention of the modification.
EDF Energy	Large Supplier	Yes	We have not identified any issues with the draft legal text.
EoN	Large Supplier	Yes	Although there is nothing within the legal text that clarifies the validation that would be undertaken on the RSA submitting the SR.

Question 6: Do you agree with the proposed implementation approach?

Question 6			
Respondent	Category	Response	Rationale
npower	Large Supplier	Yes	-
National Grid Smart	Network	Yes	We agree to support the implementation date if this is the earliest change can be made. We would welcome addition information around, what would be put in place to work with whilst this modification is implemented.
EDF Energy	Large Supplier	Yes	We agree with the proposed implementation date – however we would note that the long lead times for the implementation of this change may reduce the benefits to be gained from this change as it would be towards the end of the rollout.
EoN	Large Supplier	Neutral	We do not believe that this modification should be implemented because in our opinion it does not better facilitate any SEC objective, that said the proposed implementation date does accord with the Release Management Policy.