

# **SEC Modification Proposal, MP140, DCC CR4176**

## **Communications Hub Stock Transfer Full Impact Assessment (FIA)**



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**DCC**

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# 1 Executive Summary

The Change Board are asked to approve the following for implementation:

- Total cost to implement MP140 of £164,669, which comprises:
  - £111,640 in Design, Build and PIT costs
  - £53,029 in release costs (TTO and Systems Integrator)
- A timescale to complete the implementation of 10 months
- Include MP140 in the November 2022 SEC Release
- In addition to the cost of implementation, a total of £23,381 in Application Support costs for the period from November 2022 to October 2024

## Problem Statement

MP140 proposes a process and associated system changes to facilitate transfer of excess Communications Hub stock between Service Users.

Currently there is no process for inter-Service User transfers sanctioned by the SEC and any excess stock that will not be installed can only be returned to DCC, which incurs an Explicit Charge to the Service User.

## Benefit Summary

The main beneficiaries of the change are Service Users, who will gain the ability to utilise excess stock from other Service Users to fulfil short term needs and to avoid the Explicit Charges associated with return and redeployment of Communications Hubs.

The Explicit Charges associated with returning a pallet of Communications Hubs (896 units) are in the region of £6,000.

During 2021, as a result of Supplier of Last Resort events and to assist Suppliers with low stock, DCC has facilitated that transfer of over 100,000 Communications Hubs, which is a labour-intensive manual process that, if transfers continue to be supported in this way, will require an additional 2 FTE staff at a cost of approximately £80,000 per annum to be borne by DCC Users. Implementation of this Modification avoids that additional cost.

## 2 Document History

### 2.1 Revision History

Revision Date	Revision	Summary of Changes
16/12/2021	1.0	Issued to SECAS

### 2.2 Associated Documents

This document is associated with the following documents:

#	Title and Originator's Reference	Source	Issue Date
1	MP140 Business Requirements v0.3	SECAS	
2	SECMP0140 CR4176 - PIA - CH Stock Transfer v1.0	DCC	23/03/2021

### 2.3 Document Information

The Proposer for this Modification is Leigh Hill of DCC.

The Preliminary Impact Assessment was requested of DCC on 27<sup>th</sup> January 2021. It was completed on 23<sup>rd</sup> March 2021.

A Full Impact Assessment was requested on 1<sup>st</sup> July 2021, following which DCC undertook a legal review with CSPN in order to determine the impact on the Communications Hub financing arrangements.

### 3 Solution Requirements and Overview

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

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

#### 3.1 Problem Statement

Currently Parties must confirm their Communications Hub orders in advance and some Parties are building up excess stock, some of which would likely be returned to the DCC.

The DCC want to explore ways in which Parties could transfer Communications Hub stock directly with one another.

This would eliminate an unnecessary returns process to transport the Communications Hub units to the DCC who would then later send it out to whichever Parties are still placing Communications Hub orders.

#### 3.2 Business Requirements

The requirements for this modification have been developed by the Working Group during the Refinement phase. The impact on DCC has been assessed against the Business Requirements.

##### Business Requirement 1

*SEC Parties shall notify DCC when they want to offer Communications Hubs for transfer to and/or from another SEC Party.*

The Proposed Solution will require the DCC to design a process where any SEC Party can list their existing Communication Hub stock to be transferred. This process should have relevant fields to account for how many Communications Hub units will be listed for transfer in this way and to specify the firmware, make and model of any such Communications Hub units. This process should ensure that any SEC Party can access these services. This process should ensure that the Communication Hub stock listed is available for all other SEC Parties to view through the preferred platform of the DCC.

Both SEC Parties involved in the transfer of Communications Hub stock will be required to notify the DCC of any arranged transfer taking place. The SEC Party transferring the Communications Hub stock to another SEC Party will need to notify the DCC when the Communication Hub stock leaves their warehouse. The SEC Party receiving the transferred Communication Hub stock will need to notify the DCC when the Communications Hubs arrive and have been accepted at their preferred destination. This will allow for a smooth transfer of liability for the respective Communications Hub units where both SEC Parties involved have acknowledged the delivery and receiving of the transferred Communications Hub stock.

##### Business Requirement 2

*DCC shall notify all ordering SEC Parties of available Communications Hubs.*

The Proposed Solution will require the DCC to design a process where any SEC Party can receive Communication Hub stock that has been listed as available to be transferred on it. This process should have relevant fields to specify the make and model of any such Communications Hub units so that the purchasing SEC Party can filter results by their preference. This process should ensure that any SEC Party can access these services to receive a listed Communications Hub.

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### Business Requirement 3

*SEC Parties shall notify DCC of number of Communications Hubs they want to adopt.*

The Proposed Solution will require the DCC to ensure the process created to establish the transfer of Communications Hub stock will ask the receiving SEC Party how many units they wish to acquire.

### Business Requirement 4

*DCC will keep a record of transactions between SEC Parties, which will be publicly accessible.*

The Proposed Solution will require the DCC to deliver a method of recording all Communications Hub transfers. Any means of recording the transfers between Suppliers should be available for any Supplier Party to access and where a log of transfers relating to that Supplier can be saved. Any such record of transactions should be regularly updated and have security in place so that unauthorised Users will not be able to access the log.

### Business Requirement 5

*The DCC process created for Communication Hub stock transfers will have a transparent selection model for which Supplier Party can purchase Communications Hub stock.*

The Proposed Solution will require the DCC to have a clear selection process in place as to how the SEC Parties are able to transfer the Communication Hub stock. Any method the DCC utilises to select which Supplier Parties are able to receive the offered stock, either by auction, a first come first serve basis or other means should be stated and circulated to industry before progressing to Impact Assessment. This selection should remain consistent and not be subject to change, unless prior notice is given. Any change of process should follow approval from industry before any such change is made.

The DCC will be required to notify the SEC Party (who offered Communications Hubs for transfer) of the SEC Parties who have been selected through the process to receive the offered Communications Hub stock.

When completion of transfer between SEC Parties has taken place, the receiving SEC Party will be required to submit a list of Global Unique Identifiers (GUIDs) that have been received to the DCC. Upon receipt of list of GUIDs, the DCC shall amend ownership of Communications Hubs and amend stock level charging accordingly.

### Business Requirement 6

*The DCC will ensure a disputes process is included in any solution.*

The Proposed Solution will require the DCC to deliver a clear disputes process into any process created to facilitate the transfer of Communications Hub stock. In the event of a SEC Party who either sends or receives Communications Hub stock and it doesn't fit the description of the quantity, make, model or firmware that is provided in the list of GUIDs a disputes process needs to be available so that a settlement/resolution can be made between the involved SEC Parties. Any disputes process should be clearly visible in the SEC and be easily accessible for a SEC Party to view on the DCC website and/or the Self Service Interface.

## 4 Benefits

The Benefits associated with various Parties are noted following.

Organisation	Benefit
DCC	<p>Support Service User requests to transfer Communications Hubs (CH) whilst maintaining accurate billing to each User for stock held, leveraging existing billing system interfaces and automation.</p> <p>Clear accountability for CH stock transferred between Service Users.</p>
Service Providers	None
Service Users	<p>Access to CH stock for immediate requirements without the usual lead times.</p> <p>Avoid Explicit Charges associated with returning excess CH stock to the DCC by instead offering stock for transfer – these charges are in the region of £6,000 per pallet of 896 Communications Hubs. In 2021, DCC has facilitated the transfer of over 100,000 Communications Hubs due to Supplier of Last Resort events and urgent stock requirements from Suppliers..</p> <p>Reduction in aggregate charges for CH stock by optimising inventory levels among Service Users.</p> <p>Clear accountability for CH stock transferred between Service Users.</p> <p>Avoid the cost of administering an enduring manual process to transfer stock and reconcile billing – DCC estimates that this would require 2 FTEs at a cost of approximately £80,000 per annum.</p>

Table 1 – Benefits

## 5 Impacted Domains

The impacted domains have been identified as follows:

Domain	Impact Summary
CSP North	<p>Incident Management (no system changes)</p> <p>Logistics/ Asset Management (no system changes)</p> <p>Legal &amp; Commercial</p>
CSP South and Central	Incident Management (no system changes)



Domain	Impact Summary
	Logistics/ Asset Management (no system changes)
DSP	Smart Metering Inventory Self Service Management Interface
DCC	Logistics Legal & Commercial
Service Users	Logistics/ Asset Management

Table 2 – Impacted Domains

The impacts on CSP North and CSP South and Central do not require system changes and therefore the CSP costs to implement this Modification are nil. A legal review was carried out with CSP North to establish whether there is an impact on the Communications Hub financing arrangements as a result of the implementation of the preferred solution option. No impact was identified.

## 6 Solution Overview

This section describes the overall solution and the impact of MP140 on DCC's Services and Interfaces that impact Users and/or Parties.

Changes to the DSP are required for this Modification solution.

### 6.1 Description of Solution

The preferred technical solution to support the transfer Communications Hubs stock between Service Users, for which a Full Impact Assessment was requested by SECAS, is that the SEC Party ID of the new recipient of the transferred Communications Hubs is updated in DSP systems (Smart Metering Inventory), only and CSP systems are not updated.

DCC will implement a process to manage requests for and offers of Communications Hubs from SEC Parties:

- Communication between DCC and SEC Parties will be via email;
- Available Communications Hub stock will be listed on the DCC customer SharePoint;
- Transaction records for transferred Communications Hub stock will be made available on the DCC customer SharePoint;
- DCC will document and publish via the DCC customer SharePoint its selection criteria for allocating Communications Hubs to requesting SEC Parties and the steps that it will take in the event of a dispute between transferring and receiving SEC Parties.

Charges for the transferred Communications Hubs will be billed to the new SEC Party, as DCC finance processes rely on the data held in the Smart Metering Inventory (SMI).

### 6.2 Overview

The solution for this MP140 entails the following:

- After the Comms Hub transfer between two Service Users has been completed, DCC Logistics will share the details of the transfer with DSP using a file named 'CH Stock Transfer File'. To support this, a new file upload interface will be provided within SSMI for the purpose of CH stock transfer notification. This interface and the subsequent processing will be built in accordance with the existing processing patterns for file upload. The file will contain the list of Comms Hub IDs and the new Service User Reference. The format of the file will be finalised in consultation with DCC during the design phase.
- DSP will process the received file and update the Comms Hub Logistics records in the Smart Metering Inventory (SMI) with the new Service User ID for the list of Comms Hubs. Only Comms Hubs with an SMI status of 'Pending' will be eligible for transfer and this will be enforced by way of validation checks within SSMI.
- The CH stock transfer data is updated only within DSP. The CSPs will not be updated since there is currently no mechanism to notify them when an update of this nature is made to the Comms Hub records.
- The updated Comms Hubs records will be available in the next scheduled delivery of Communications Hub Delivery Report (ESI-013). DCC will use this for charging the new Service User.

### **6.3 Self Service Management Interface (SSMI)**

SSMI will be updated to provide an interface to upload the 'CH Stock Transfer' file for DSP's processing. The file upload mechanism will follow the standard workflow controls and behaviour used within SSMI.

### **6.4 Enterprise Systems Interface (ESI)**

No changes are needed to the ESI report. The updated data will be available in the reports generated after the updates to the Smart Metering Inventory.

### **6.5 Data Management**

Data Management will be updated to process the CH Stock Transfer file contents received from SSMI and to update the Inventory with the same.

Data Management will implement the validation check to accept the updates only for the Comms Hubs with an SMI status of 'Pending'.

### **6.6 Security Impact**

The DSP Security Assurance team has reviewed this change. There is no material impact on the DSP security implementation. The solution proposed is making use of pre-set patterns which are security assured. The Security Assurance team will provide general security oversight of the implementation throughout its implementation in accordance with DSP's contractual requirements:

- Provide design time guidance through the review of design documentation to maintain alignment with contractual requirements and minimise security risks;
- Review test artefacts and outcomes where there is a potential security consideration;
- Attend meetings where required by the implementation teams.
- Liaise with DCC as necessary on any security related concerns.

### **6.7 Technical Specifications and Documentation**

There are no changes to any of the Technical Specifications.

Draft legal text for amendments to Section F and Appendix H is included with this Full Impact Assessment.

### **6.8 Infrastructure Components**

There is no impact to infrastructure as part of this Modification.

### **6.9 Application Support**

The DSP Application Management Support team is responsible for the provision of application-level support for the DCC Data System application. This change provides additional functionality that will be subject to ongoing support.

There will be a small impact to service as a result of the additional functionality being added to SSMI in order for the CH Stock transfer file to be uploaded. Specifically, interfaces and processing will be impacted, along with providing investigation and resolution into any issues raised relating to the uploading or processing of the transfer file.

As a result, DSP has made a conservative estimate that the change will result in up to two low complexity calls per month that need to be assimilated, investigated, resolved and then monitored. Operational Support will commence from November 2022 and is expected to be enduring until 31st October 2024, when the current contract ends.

The team will need to be prepared to support the change from the day it goes into live operation. As such, the team must review the functional solution and its technical implementation. The team must understand any configurable options and develop procedures to enable its support. This information must be absorbed across the team.

## **6.10 Impact on DCC**

Design, build and test the tools and templates to support administration of the process by which:

- Service Users will make requests for and offers of Communications Hubs for transfer;
- Service Users will view available Communications Hub stock and transaction records for transferred stock;

Document the selection criteria for allocating Communications Hubs to requesting SEC Parties and the dispute resolution process.

## **6.11 Impact on Service Users**

There is no impact on User Systems as a result of this change, save to the extent that Service Users wishing to offer or request Communications Hub stock will be required to:

- Interact with DCC via email and the DCC customer SharePoint;
- Provide or receive lists of Communications Hubs for transfer in a format specified by DCC; and
- Interact with other Service Users as transferring or receiving party as part of a Communications Hub stock transfer transaction

as set out in the draft amendments to Section F and Appendix H.

## **6.12 Service Impact**

No changes to SLAs or reporting are expected as a result of this change.

## **7 Testing Considerations**

This Full Impact Assessment includes the cost to develop, fully test and deliver this SEC Modification.

### **7.1 Pre-Integration Testing**

During Pre-Integration Testing (PIT), each Service Provider tests its own solution to agreed standards in isolation of other Service Providers.

The DSP PIT team will design and implement the functional updates required to the DSP for the change.

The design, implementation, Early Automated System Testing (EAST), System Testing, Performance Testing and Factory Acceptance Testing (FAT) phases will operate as a single phase of activity with a single drop into DSP's SIT-B environment.

FAT will consist of a defined subset of EAST tests being observed by DCC within the final one week of testing. The Schedule 6.2 exit criteria and defect mask will apply for the Pre-Integration Process.

### **7.2 System Integration Testing (SIT)**

MP140 has no DSP SIT impact, as no Service Provider integration activity is required.

### **7.3 User Integration Testing (UIT)**

MP140 has no DSP UIT impact, as no Service Provider integration activity is required.

## 8 Implementation Timescales and Releases

This Modification is expected to be included in a SEC Release in November 2022. Implementation timescales will be finalised as part of the relevant SEC Release Change Request.

### 8.1 Change Lead Times and Timelines

From the date of approval (in accordance with Section D9 of the SEC), to implement the changes proposed DCC requires a lead time of approximately **five months**.

The broad breakdown of the testing regime is shown in the following table in months after an approval decision date (D).

Phase	Duration
SECAS agreement on scope of release	
CAN signature	D + 1 Month
Design, Build and PIT Phase	4 Months
SIT and UIT Phase, aligned with Release Dates	N/A – however the Release timescales must be respected
Transition to Operations and Go Live	D + 5 Months

### 8.2 SEC Release Allocation and Other Code Impacts

This Modification is expected to be implemented as part of the November 2022 SEC Release, however the allocation to a release may be dependent on other Modification timings and the suitability of a release. No functionality overlap with other Modifications has been identified at the time of undertaking this Impact Assessment.

## 8.3 Costs and Charges

This section indicates the quote for all phases of application development stage for this Modification. Note these costs assume a release of just this SEC Modification without any other Modifications or Change Requests in the release, which is not truly reflective of what the post-PIT test costs or programme duration will look like. A calculation of those costs will be carried out when the contents of the future Release are finalised, and the post-PIT costs determined through a "Grouping CR" also referred to as a "Release CR".

	Design, Build, and PIT	Integration Testing, SIT and UIT	TTO	Total
MP140	£111,640	£50,000 (Systems Integrator Release costs)	£3,029	<b>£164,669</b>

**Design**                      The production of detailed System and Service designs to deliver all new requirements.

**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.

**Pre-Integration Testing (PIT)**                      Each Service Provider tests its own solution to agreed standards in isolation of other Service Providers. This is assured by DCC.

**Systems Integration Testing (SIT)**                      All the Service Provider's PIT-complete solutions are brought together and tested as an integrated solution, ensuring all SP solutions align and operate as an end-to-end solution.

**User Integration Testing (UIT)**                      Users are provided with an opportunity to run a range of pre-specified tests in relation to the relevant change.

**Implementation to Live (TTO)**                      The solution is implemented into production environments and made ready for use by Users as part of a live service.

### 8.3.1 Application Support Costs

Application Support costs have been calculated for the period commencing November 2022 and ending October 2024, including a period of Early Life Support in the two months following implementation of the Release.

	Application Support
MP140	£23,381

### 8.3.2 Changes to the DSP Contract

The contract updates will be detailed within the CAN and will impact the following schedules:

- DCC Obligations will require new obligations for the DCC to achieve the deliverables under this Modification;
- Schedule 4.1: Solution Design documents will need to be updated;
- Schedule 6.1 - to reflect delivery milestones;
- Schedule 7.1: Define payments associated with Sch 6.1 milestones.

### 8.3.3 Changes to the CSPN and CSPC&S Contracts

Although there is no impact on either CSP as part of delivery of this Modification, a contract update is for each of the CSP Agreements is proposed to add, as a DCC Responsibility, a requirement for DCC to provide the location of any transferred Communications Hubs on request.

## Appendix A: Glossary

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

Acronym	Definition
CR	DCC Change Request
DCC	Data Communications Company
DSP	Data Service Provider
EAST	Early Automated System Testing
FIA	Full Impact Assessment
HAN	Home Area Network
I&C	Installation and Commissioning
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
RSA	Registered Supplier Agent
SAT	Service Audit Trail
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
SMI	Smart Metering Inventory
SRV	Service Request Variant
SSI	Self Service Interface
UIT	User Integration Testing