

SEC Modification Proposal

- DCC Preliminary Assessment (PA) – **Final**
- Mod Proposal Ref: SECMP 0025
- Mod Proposal Title: Electricity Network Party Access to Load Switching Information
- Mod Path: Path 2 - Authority determination

Version:

1.0

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Author:

DCC

Classification:

DCC PUBLIC

Contents

1	Introduction	3
2	Impact on DCC's Systems, Processes and People	4
3	Impact on Security	6
4	Testing Considerations.....	6
5	Implementation Timescales and Releases.....	7
6	DCC Costs and Charges	8
7	RAID.....	10

1 Introduction

1.1 Document Purpose

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

1.2 Previous information provided by DCC

This DCC Preliminary Assessment was requested of DCC on 07/02/2017.

1.3 DCC Contact Details

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

Name	DCC - SEC Modification queries
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1.4 Modification description

This proposal seeks to enable Electricity Network Parties to have access to information from the Smart Metering System relating to load switching carried out by Smart Meters or Smart Meter connected Devices. It also proposes that the Smart Metering System informs Electricity Network Parties when changes are made to existing load switching regimes.

1.5 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 and the corresponding draft legal text set out in the Solution Design Document.

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 SECMP 0025 to be **STABLE**. Where the requirements or SEC obligations set out in the Solution Design Document above change, DCC will be required to carry out further impact assessment.

2 Impact on DCC's Systems, Processes and People

This section describes the impact of SECMP 0025 on DCC's Services and Interfaces that impact Users and/or Parties.

2.1 Summary

- Introduce a new GBCS use case that replaces ECS35f 'Read ALCS Event Log' and provide access to the Network Operators in addition to the Electricity Import Suppliers at the Device level. SRV 6.13 'Read Event Or Security Log' shall be updated to use the new GBCS use case instead of ECS35f for reading ALCS event logs.

The new Use Case is expected to return exactly the same data in the payload as the existing one.

- Allow access to Electricity Network Operators to submit the SRV 7.7 'Read Auxiliary Load Switch Data' to enable them to read ALCS data. This change shall be introduced through exceptional use of the URP processing pattern to forward the corresponding GBCS Command to the target Device on behalf of the Electricity Network Operators. This would support reading the ALCS data from the devices that are already in use. This change does not require an update to access permissions.
- Introduce a DCC Alert to notify Electricity Network Operators whenever DCC Data Systems receives a successful Response to the SRV 6.14.2 'Update Device Configuration (Auxiliary Load Control Scheduler' from an ESME indicating change in the ALCS configurations. The DCC Alert shall contain the ESME's Device ID. The DCC Alert shall be created for the Responses resulting from the following Future Dated scenarios. This is in addition to the On Demand Responses to SRV 6.14.2.
 - a) On receipt of a Future Dated Device Alert 0x8F66 (success) corresponding ECS46c 'AuxiliaryLoadControlSwitchesCalendar ActivateDateTime'.
 - b) On receipt of a Future Dated Device Alert 0x8F66 (success) corresponding ECS46c 'AuxiliaryLoadControlSwitchesCalendar (SpecialDays) ActivateDateTime'.

2.2 Impact on DSP Systems

- Request Management shall handle the changes in processing pattern to SRV 7.7. It shall also handle the validations associated with the changes to both SRV 6.13 and 7.7. Request Management Northbound shall also introduce creation of DCC Alerts when a Device Response to SRV 6.14.2 is received.
- Transform shall implement the newly introduced GBCS Use Case that replaces ECS35f.

2.3 Impacts on DCC Services and Interfaces

The following table describes the detailed impacts of SECMP 0025 on DCC's Systems and processes.

Ref	Impact on DCC	User or Party Impact
001	Changes to SRV 6.13 Starting from the Supported DUIS Version, SRV 6.13 shall use the newly introduced GBCS Use Case in place of ECS35f for both Electricity Import Supplier (EIS) and Electricity Network Operator (ENO) user roles for devices that support that new Use Case. For devices that do not support the new Use Case, the existing ECS35f Use Case shall be used for the EIS role and the request shall be rejected for the ENO role with error code E061304, as it would be in any earlier DUIS version.	GBCS Change
002	Changes to SRV 7.7 SRV 7.7 shall be available to the Electricity Network Operators (ENO) starting only from the Supported DUIS Version. ACB shall consider ENO as an URP and use the existing UC ECS61a (with no change in access rules) to allow the ENO to read the data. This is an exceptional use of URP pattern in a KRP scenario.	DUIS Change
003	New DCC Alert and changes to processing the Response to SRV 6.14.2 Update Device Configuration (Auxiliary Load Control Scheduler) Define a new DCC Alert to notify the Electricity Network Operators whenever a successful Response to SRV 6.14.2 is received from a Device for both On Demand and Future Dated scenarios. The relevant ENOs are determined as per the CR193 solution being implemented as part of Release 1.4. Local Delivery is supported for SRV 6.14.2 and it is assumed that the new DCC Alert shall be triggered when a Response to this SRV is received via SRV 8.13 Return Local Command Response.	DCC alerts

Ref	Impact on DCC	User or Party Impact
002	Parse and Correlate The changes required to implement this CR will affect the Parse service. Parse & Correlate will accommodate this CR by: - Replacing the existing GBCS Use Case 'ECS35f Read ALCS Event Log' with the new replacement use Case; - DUIS / MMC schema deployment; - Provide support for the existing Use Case for users of GBCS / DUIS / MMC v1.0; - Add test cases to exercise the Use Case replacement; - Add test cases to exercise the new Use Case; - Documentation updates and release tasks...	Updated P&C software.

3 Impact on Security

This section describes the impact DCC considers SECMP 0025 will have on Security of DCC's Total System.

DCC has carried out a security risk assessment for SECMP 0025 and determined that **there are no material security risks** associated with the implementation of DCC's proposed solution.

4 Testing Considerations

This section describes the testing phases required to support the implementation of SECMP 0025.

4.1 Summary

- DCC will be required to carry out Pre-Integration Testing and System Integration Testing for SECMP 0025
- DCC anticipates that Users will require User Integration Testing to support their implementation of SECMP 0025. DCC asks that the Working Group considers and compiles the User testing requirements with DCC support, to ensure an optimal approach is taken for User Integration Testing for the relevant release.

4.2 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 Pre-Integration Testing (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 FAT scripts in accordance with assurance procedures used for Release 1.2; and
- Achieving PIT complete status and subsequent reporting.

4.3 Systems Integration Testing

Systems Integration Testing (SIT) is the testing of DCC's Total System, which brings together the component parts of DCC's System (e.g. DSP and CSP Systems) to allow testing of the end-to-end solution by DCC. The SIT activity is done 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.

4.4 User Integration Testing

User Integration Testing enables Users to run specific tests to support their implementation of a change.

DCC expects that User Integration Testing will be required in order to support User implementation of this modification.

Individual changes are collected into a DCC release. In order to achieve more efficient User Integration Testing for all parties, the DCC will coordinate specific testing requirements for all changes that comprise a release and issue a testing release approach document.

5 Implementation Timescales and Releases

5.1 Change Lead Times

From the date of approval, (in accordance with Section D9 of the SEC), in order to implement the changes proposed DCC requires a lead time between **9 and 12 months**

This includes twelve months as stated in the DCC Release Management Policy plus an additional one month to allow for integrated release planning. Integrated release planning

can only begin once all Authority Determinations have been received for all modifications proposed to be included within each Release.

6 DCC Costs and Charges

6.1 Cost impact

6.1.1 Implementation costs

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

Implementation costs							
Implement ation Phase:	Design	Build	Pre- Integration Testing	System Integration Testing	User Testing	Impleme ntation to Live	Total
SECMP 0025	Between £784,000 and 1,048,000			TBD in full IA	TBD in full IA	TBD in full IA	£784,000 - £1,048,000
Implementation costs – supplementary information							
Implementati on cost assumptions	A. Costs are exclusive of VAT and any applicable finance charges B. Majority of the costs above represent labour costs. C. Costs provided for Design, Build and Pre-Integration Testing are quotes provided by the Service Providers and assuming there is no scope change can be considered the final costs. DCC have reviewed and challenged the costs from the Service Providers to ensure this reflects best price to date.						
Explanation of Implementati on Phases	DCC’s implementation costs are provided by implementation phases. The following describes the purpose of each phase: • Design: The production of detailed System and Service design 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: Each Service Provider tests its own solution to agreed standards in isolation of other Service Providers. This is assured by DCC. • System Integration Testing: All Service Providers’ PIT-complete solutions are brought together and tested as an integrated solution, ensuring all Service Provider solutions align and operate as an end to end solution. • User Integration Testing: Users are provided with an opportunity to run a range of pre-specified tests in relation to the relevant change.						

- *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.*

The fixed price cost for a Full Impact Assessment is **£15,689**.

6.1.2 On-going operational costs

The table below details the additional cost associated with the on-going operation of the new Systems or Services introduced through this Modification Proposal.

6.2 Impact on Charges

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

DCC notes that SECMP 0025 does not propose any changes to the charging arrangements set out in SEC Section K. DCC has made the assumption that, in the absence of an agreed alternative arrangement by the Working Group, the costs associated with the implementation of SECMP 0025 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 SECMP 0025 to commence in the month following the modification's implementation.

7 RAID

The detail below provides a summary of the risks, assumptions, issues, dependencies and clarifications observed during the production of a DCC Impact Assessment. DCC requests that the Working Group consider this section and consider any material matters that have been identified during this Impact Assessment phase. Any changes may impact the proposed solution, implementation costs and/or implementation timescales.

7.1 Risks

Ref	Risk Description	Probability	Impact
None identified			

7.2 Assumptions

DCC would like to confirm the validity of assumptions listed below with the Working Group. These assumptions have been used in the creation of this DCC Impact Assessment. Any changes to the assumptions may require DCC to undertake further assessment, prior to the contracting and implementation of this change. Any changes may impact the proposed solution, implementation costs and/or implementation timescales.

Ref	Description	Assumption Accepted
A-001	Design Assumption – there is a requirement for creating a DCC Alert in a situation where the Response to SRV 6.14.2 is received via SRV 8.13 (Local Delivery), this PA considers this as a valid requirement.	TBC
A-002	ALCS labels – This Preliminary Assessment assumes that there is no requirement to notify ENOs by way of new DCC Alerts when an ALCS label is changed by using SRV 6.14.1.	TBC

7.3 Issues

Ref	Issue Description	Severity	Priority
None Identified	n/a	n/a	n/a

7.4 Dependencies

Ref	Dependency	Dependency Accepted
None identified	n/a	n/a

7.5 Clarifications Required

Ref	Dependency	Status
None identified	n/a	n/a