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November 2020 SEC Release (5 November 2020)

SEC Release Implementation Document Version 0.1

Managed by



About this document

This document is the Smart Energy Code (SEC) Release Implementation Document (RID) for the November 2020 SEC Release, due to be implemented on 5 November 2020. It summarises the scope of the release, the impacts it will have, the timeline and testing strategy, the central costs that will be incurred, and the acceptance criteria for this release.

This document will be updated periodically as the release develops.

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This document also has one annex:

- **Annex A** will contain the Data Communication Company's (DCC's) SEC Release Testing Approach Document (TAD) for this release – this document will be produced by the DCC at a later date.

1. Scope

Approved Modification Proposals

No Modification Proposals have been approved for inclusion in this release.

Targeted Modification Proposals

The following Modification Proposals will be included in this release if a decision to approve is received by the respective cut-off dates:

- [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#) proposes to allow over-the-air (OTA) firmware updates to be delivered to In-Home Displays (IHDs), Prepayment Interface Devices (PPMIDs) and Home Area Network (HAN) Connected Auxiliary Load Control Switches (HCALCSs).
- [SECMP0015 'GPF timestamp for reading instantaneous Gas values'](#) proposes to add a timestamp to the instantaneous value reading that Gas Smart Metering Equipment (GSME) provide to the Gas Proxy Function (GPF).
- [SECMP0024 'Enduring Approach to Communication Hub Firmware Management'](#) proposes to implement an enduring process for the deployment and activation of Communications Hub firmware updates.
- [SECMP0046 'Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure'](#) proposes to allow Electricity Network Parties to be able to use Smart Meter infrastructure to modify Electric Vehicle charging load within a household.
- [SECMP0056 'IHD / PPMID Zigbee Attributes Available on the HAN'](#) proposes to make the appropriate Zigbee attributes for devices on the HAN available to Smart Metering Equipment Technical Specifications (SMETS) 2 devices as is currently the case for SMETS1 devices.
- [SECMP0062 'Northbound Application Traffic Management – Alert Storm Protection'](#) proposes to put in place a traffic management system for Alerts issued by Devices to protect the DCC System and Service Users against alert storms originating from a single Device. SECMP0062 is being implemented in two parts, with the first part of the solution, the mechanism for throttling Alerts, being implemented in an earlier release. The second stage of the solution will be implemented in this release and will cover the changes to allow Users to be notified of throttled Alerts via the metadata in the Alerts that are allowed through.
- [SECMP0063 'Ensuring correct Network Operator Certificates are placed on Electricity Smart Meters'](#) proposes that the DCC will validate the Network Certificate placed on Electricity Smart Metering Equipment (ESME) and the GPF by a Supplier is for the correct Network Operator.
- [MP078 'Incorporation of multiple Issue Resolution Proposals into the SEC - Part 2'](#) proposes to implement a set of approved Issue Resolution Proposals (IRPs) that will introduce clarifications or make corrections to the Technical Specifications that require changes to the DCC Systems.

No further modifications that impact on DCC Systems are expected to be added. Further modifications that do not impact on DCC Systems may be added to the scope of this release at a later date.

DCC Change Requests

A list of any DCC Change Requests being implemented alongside this SEC Release will be provided here.

2. Impacts

This section lists the impacts that the changes included in this release will have on participants and their systems, SEC documents and other industry codes. This section assumes all targeted modifications will be approved for inclusion in this release.

SEC Party and DCC impacts

Participant impact matrix					
Modification	Suppliers	Electricity Networks	Gas Networks	Other SEC Parties	DCC
SECMP0007	✓			✓	✓
SECMP0015	✓		✓	✓	✓
SECMP0024	✓			✓	✓
SECMP0046	✓	✓			✓
SECMP0056	✓			✓	✓
SECMP0062	✓	✓	✓	✓	✓
SECMP0063	✓	✓	✓		✓
MP078					✓

The impacts on the different participants are summarised below. The business requirements for each Modification Proposal are annexed to the Modification Reports for each modification, which are available on the corresponding modifications' webpages.

SEC Party impacts	
Participant	Summary of impacts
Supplier Parties	<ul style="list-style-type: none"> Suppliers will be able to update Devices on the HAN via an OTA method. Suppliers will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME. Suppliers' customers will no longer be able to access data from devices for time periods before their tenancy began. Suppliers will be able to manage the time Communications Hub updates are deployed and activated by the DCC. Suppliers will have the Network Certificates they attempt to place on ESME/GPFs validated by the DCC. Suppliers will be notified via the relevant Alerts allowed through when throttling has taken place.
Electricity Network Parties	<ul style="list-style-type: none"> Electricity Network Parties will have their Certificates validated by the DCC post-commissioning of ESME. Electricity Network Parties will be notified via the relevant Alerts allowed through when throttling has taken place.
Gas Network Parties	<ul style="list-style-type: none"> Gas Network Parties will be able to see the time at which the instantaneous value reading on the GPF was taken from the GSME.

SEC Party impacts	
Participant	Summary of impacts
	<ul style="list-style-type: none"> Gas Network Parties will have their Certificates validated by the DCC post-commissioning of a GPF. Gas Network Parties will be notified via the relevant Alerts allowed through when throttling has taken place.
Other SEC Parties	<ul style="list-style-type: none"> Device manufacturers will need to ensure that devices are built to the revised specifications resulting from these modifications. Other SEC Parties will be notified via the relevant Alerts allowed through when throttling has taken place.

DCC impacts	
Area impacted	Summary of impacts
Communication Hub software	<ul style="list-style-type: none"> Communications Hubs will need be updated to populate Responses to Use Cases GCS13a, GCS13b, GCS13c, GCS14 or GCS60 with a date-time stamp received from the GSME or generated by the GPF. They will also construct message headers such that Users can determine the source of the date-time stamp (as either the GSME or GPF) and whether the date-time stamp is reliable, unreliable or invalid. Communications Hubs will need to handle new Service Requests to populate the Change of Tenancy details across the HAN.
Parse and Correlate	<ul style="list-style-type: none"> Parse and Correlate will be updated to decode the date-time stamp to identify the source (GSME or GPF) and whether it is reliable, unreliable or invalid, and present this information to the User. Message Mapping Catalogue (MMC) schema will need to be updated to allow Parse and Correlate to implement this change.
DCC User Interface Specification	<ul style="list-style-type: none"> A new DCC User Interface Specification (DUIS) version will be released to implement the changes to the metadata for Alerts when throttling is taking place.
Data Service Provider	<ul style="list-style-type: none"> The following Data Service Provider (DSP) components will be affected: <ul style="list-style-type: none"> Communications Service Provider (CSP) Smart Meter Wide Area Network (SM WAN) Gateway and CSP Interfaces Changes to the Self-Service Interface (SSI) to enable the read inventory to include firmware versions Anomaly detection volume thresholds Energy Service Interface Inventory Extract DCC User Gateway Interface Design Specification (DUGIDS) updates, DUIS Service Requests, and MMC, Alerts and Messages Updates to Service Request processing Support for 'Read Firmware' and 'Activate Firmware' on HCALCSs Updates to the Central Products List (CPL) Transform – New GBCS Use Cases Changes to existing Use Cases

DCC impacts	
Area impacted	Summary of impacts
	<ul style="list-style-type: none"> ○ New validation check for Service Request Variants (SRVs) 6.15.1 and 6.21 ○ DUGIDS definitions for the SRVs 6.15.1 and 6.21 will be updated to include the newly introduced error code
Communications Service Providers	<ul style="list-style-type: none"> ● The following CSP components will be affected: <ul style="list-style-type: none"> ○ CSP North SM WAN ○ CSP/DSP Interfaces ○ Communications Hub ○ CSP solution ○ Queuing priorities ● Requires Design, Build, and Test changes to the CSP solutions to support the delivery of firmware Images for HICALCS Devices to appropriate connected HAN Devices. ● Support the delivery of firmware for HAN Devices from the Communication Hub to the connected Device over the HAN. ● Two new GBCS use cases are expected.

SEC document impacts

SEC document impact matrix								
Document	SECMP 0007	SECMP 0015	SECMP 0024	SECMP 0046	SECMP 0056	SECMP 0062	SECMP 0063	MP078
Schedule 8	✓	✓	✓		✓			✓
Schedule 9	✓	✓			✓			
Schedule 10	✓	✓	✓		✓			
Schedule 11	✓	✓	✓		✓			✓
Appendix AD	✓		✓			✓	✓	
Appendix AF	✓	✓	✓					

The document impacts are provisional based on the current understanding of the solutions. Some solutions are still at early stages of assessment, and the impacts will be updated as each modification evolves.

The approved changes to each document are annexed to the Modification Reports for each modification, which are available on the corresponding modifications' webpages.

Other code impacts

No other codes are impacted as a result of this SEC Release.

3. Implementation timeline

This section lists the provisional timeline for the implementation of this release. Please note that specific dates are still being determined; these will be added in before the RID is baselined by the Panel.

This timeline includes the dates on which decisions on modifications are anticipated, dates for when the System Integration Testing (SIT) and User Integration Testing (UIT) test phases are planned to commence and complete, and key governance steps for the Panel and the Testing Advisory Group (TAG) to complete.

Please note that dates for the submission and approval of the SIT and UIT Completion Reports and the commencement and closure of the UIT window are provisional and may change nearer the time. These dates are based on the anticipated schedule for TAG and Panel meetings, but ad-hoc meetings may be required in order to sign these documents off. These dates and approaches will be confirmed as the DCC prepare the TAD.

Release implementation timetable		
Date	Event	Notes
11 Oct 19	Panel baselines RID for system-impacting modifications	The Panel will review the RID for DCC System-impacting modifications (including modifications targeted but not approved) and baseline the document.
Late Dec 19	DCC submit draft SEC Release TAD	
Late Dec 19	TAG review draft SEC Release TAD	
Jan 20	DCC consult on draft SEC Release TAD	The DCC will consult the industry on the draft TAD.
Late Feb 20	DCC submit updated SEC Release TAD	The TAD will be updated to account for comments provided by the TAG and from the consultation.
Late Feb 20	TAG review updated SEC Release TAD	The TAG will provide a view to the Panel on whether this document is suitable for use.
Mar 20	Panel review SEC Release TAD	The Panel will review the TAD and incorporate it into the RID.
06 Apr 20	SIT commences	
15 May 20	Panel baselines RID for non-system-impacting modifications	The Panel will review the RID for non-DCC System-impacting modifications (including modifications targeted but not approved) and re-baseline the document to include these.
Late Jul 20	DCC submit SIT Completion Report	
Late Jul 20	TAG review SIT Completion Report	The TAG will provide a recommendation to the Panel on whether SIT has been completed successfully.
Late Jul 20	Test Participants inform DCC of their regression testing plans	By 10 Working Days before UIT begins

Release implementation timetable		
Date	Event	Notes
Aug 20	Panel approve SIT Completion Report	
17 Aug 20	UIT commences	
Mid Sep 20	Test Participants to provide regression testing results to DCC	By five Working Days before UIT completion
25 Sep 20	UIT window closes	
Late Sep 20	DCC submit UIT Completion Report	
Late Sep 20	TAG review UIT Completion Report	The TAG will provide a recommendation to the Panel on whether UIT has been completed successfully.
Early Oct 20	Operations Group review status against acceptance criteria	The Operations Group will review the status of the release and provide a recommendation on whether it should be implemented as planned.
Early Oct 20	Panel approve UIT Completion Report	
Early Oct 20	Panel go/no-go decision	The Panel will review the status of the release against the acceptance criteria and will determine if the release should be implemented as planned.
05 Nov 20	Release go-live	The changes are implemented.

4. Test strategy

This section covers the testing approach that will be taken by the DCC as part of the implementation of this release.

DCC's testing approach

The DCC's SEC Release Testing Approach Document will be provided as Annex A to this document in due course. This will cover the DCC's approach to SIT.

User testing approach

The DCC's SEC Release Testing Approach Document will be provided as Annex A to this document in due course. This will cover the DCC's approach to UIT.

5. Costs

This section summarises the costs that will be incurred by the DCC and the Smart Energy Code Administrator and Secretariat (SECAS) in implementing this release.

DCC costs

The total DCC implementation costs of this release have not yet been determined.

The DCC have provided the following cost breakdown for each DCC System impacting modification in this release:

Breakdown of DCC implementation costs				
Modification	Design, Build & PIT	SIT	UIT	Implement to live
SECMP0007	<i>£20,000,000</i>	TBC	TBC	TBC
SECMP0015	<i>£570,000</i>	TBC	TBC	TBC
SECMP0024	TBC	TBC	TBC	TBC
SECMP0046	TBC	TBC	TBC	TBC
SECMP0056	<i>£1,300,000</i>	TBC	TBC	TBC
SECMP0062	N/A	N/A	N/A	N/A
SECMP0063	<i>£550,000</i>	TBC	TBC	TBC
MP078	TBC	TBC	TBC	TBC

No impact on operational costs have been identified.

Costs in italics are estimated costs provided in the Preliminary Assessments. Firm costs will be provided in the Impact Assessments.

The full set of changes for SECMP0062 are currently expected to be developed as part of the development of part 1. The DUIS changes will then be left dormant until this release goes live. As such, the full costs for this modification have been allocated to the release which includes part 1.

The DCC will provide standalone costs for SIT, UIT and Implement to Live for each modification for inclusion in their Modification Reports as part of the Impact Assessment. Once the scope of the release is confirmed and the Preliminary Assessments for all candidate modifications are complete, the DCC will produce a combined Preliminary Assessment. This will provide a combined estimated cost for each of these stages when the modifications are delivered as a single package. Where possible, these combined costs will also be provided in the respective Modification Reports.

SECAS costs

SECAS will incur two days effort, equating to around £1,200, to update and implement the changes to the SEC. SECAS estimate a maximum of 20 days of effort, equating to around £12,000, will be needed for project management of the release. This cost has already been accounted for in the SECAS budget, and so Parties will not incur any additional costs.

6. Acceptance criteria

The following criteria will need to be met before the release can go live.

- The DCC have developed the coding for each approved change and confirmed they will be able to deploy this to the live environment on the agreed implementation date.
- The DCC have completed and closed each Test Phase against the agreed exit criteria.
- The DCC have confirmed that there are no Severity 1 or 2 defects outstanding that would be deployed to the live environment.
- The DCC have produced a clear resolution plan for any outstanding Severity 3, 4 or 5 defects and that the number of extant Testing Issues is within the agreed threshold figures.
- The DCC have demonstrated that the SIT and UIT test environments were aligned to the solution being deployed to production; if there were any differences, these were identified and the risks these posed demonstrably managed.
- The DCC have demonstrated that they are ready to operate the new or updated capabilities.
- SECAS will be ready to implement the approved changes to the SEC on the agreed implementation date.

The Panel will review the status of the release against these criteria at their meeting one month before go-live, and will determine then if the release should or shouldn't be implemented as planned.

Appendix 1: Version control

Document history		
Version	Date	Changes
0.1	12 Sep 19	First draft issued to the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Operations Group and SEC Parties for comment.

Appendix 2: Glossary

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

Glossary	
Acronym	Full term
CPL	Central Products List
CSP	Communications Service Provider
DCC	Data Communication Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
GPF	Gas Proxy Function
GSME	Gas Smart Metering Equipment
HAN	Home Area Network
HCALCS	HAN Connected Auxiliary Load Control Switch
IHD	In-Home Display
IRP	Issue Resolution Proposal
MMC	Message Mapping Catalogue
OTA	over-the-air
PIT	Pre-Integration Testing
PPMID	Prepayment Interface Device
RID	Release Implementation Document
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SM WAN	Smart Meter Wide Area Network
SMETS	Smart Metering Equipment Technical Specifications
SRV	Service Request Variant
SSI	Self-Service Interface
TABASC	Technical Architecture and Business Architecture Sub-Committee
TAD	Testing Approach Document
TAG	Testing Advisory Group
UIT	User Integration Testing



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