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Paper Reference:	SECP_88_1501_17
Action:	For Decision

SEC Modification Progression

1. Purpose

This paper sets out the Draft Proposals and Modification Proposals that are ready to proceed to the next stage of the framework and our recommendations to the Panel on how each should be taken forward.

2. Recommendations

This table lists our recommendations for each Draft Proposal and Modification Proposal.

Full details of each proposal can be found in the attached draft Modification Reports.

Proposal	Recommendations
SECMP0015 'GPF timestamp for reading instantaneous Gas values'	<ul style="list-style-type: none"> • APPROVE the updated Modification Report; • APPROVE the revised implementation approach; and • AGREE that SECMP0015 should be sent directly to the Change Board to repeat the vote before being resubmitted to the Authority.
MP077 'DCC Service Flagging'	<ul style="list-style-type: none"> • AGREE that MP077 should be progressed to the Report Phase; • APPROVE the Modification Report; • APPROVE the implementation approach; and • AGREE that MP077 should be progressed as a Self-Governance Modification.
DP146 'SM WAN Coverage Date'	<ul style="list-style-type: none"> • AGREE that DP146 should be converted to a Modification Proposal; • AGREE that MP146 should be progressed to the Report Phase; • APPROVE the Modification Report; • APPROVE the implementation approach; and • AGREE that MP146 should be progressed as a Self-Governance Modification.

3. Points to note

SECMP0015

SECMP0015 was sent back by the Authority in September 2020. In its direction, Ofgem requested that the assessment of the costs and benefits of SECMP0015 be laid out clearly and succinctly, including the reason for the increase in costs between Preliminary Assessment and Impact Assessment.

This work has been completed and the updated Modification Report is ready to be returned for decision. The previous Change Board vote was nullified by the send-back. Also, as the Refinement Consultation only closed on 4 December 2020, we do not believe there is benefit in re-issuing SECMP0015 for Modification Report Consultation. We therefore recommend the report now be submitted directly to the Change Board to redo the vote on 24 February 2021. After that, the report and the Change Board's recommendation will be returned to the Authority for decision.

Following the send back the DCC performed a further analysis of the costs of implementing the modification within a SEC Release, specifically the June 2022 SEC Release, rather than as a stand-alone Release. This Release was chosen as it allowed a sufficient amount of lead time for the modification and system changes required and also will implement the Communications Service Provider (CSP) firmware updates for [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#). SECMP0007 will implement the functionality to update the firmware on PPMIDs which will in-part allow SECMP0015 to be implemented.

The updated analysis of the costs was shared with the Working Group. The costs were reduced but the Working Group still had some concerns about the cost of the modification. SECAS issued a second Refinement Consultation to gather more evidence for the business case. The Modification Report has been updated with both the analysis of the costs and the updated business case.

MP077

MP077 also impacts the Master Registration Agreement (MRA), Xoserve and the emerging Retail Energy Code (REC). We have worked closely with these Codes and Ofgem to agree an implementation schedule of November 2021 which is appropriate and achievable for the whole industry.

During the preparation of this paper, a Network Party questioned if the proposed implementation would clash with the Faster Switching Programme. We will confirm with the impacted Codes and Ofgem that this will not be an issue and give a verbal update to the Panel.

Ali Beard

SECAS Team, 8 January 2021

Attachments:

- **Appendix A:** SECMP0015 draft Modification Report
- **Appendix B:** MP077 draft Modification Report
- **Appendix C:** DP146 draft Modification Report

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SECMP0015

‘GPF timestamp for reading instantaneous Gas values’

Modification Report

Version 2.2

8 January 2021



About this document

This document is a Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

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This document also has seven annexes:

- **Annex A** contains the business requirements for the solution.
- **Annex B** contains the redlined changes to the Smart Energy Code (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 first Refinement Consultation (previously known as Working Group Consultation) Consultation.
- **Annex E** contains the Modification Report Consultation responses.
- **Annex F** contains the DCC statement around the costs. This annex is classified as **RED** – Parties can request a copy by emailing sec.change@gemserv.com.
- **Annex G** contains the responses received to the second Refinement Consultation.

Contact

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1. Summary

This proposal has been raised by Tim Larcher from E.ON.

A gas meter (Gas Smart Metering Equipment (GSME)) is battery powered and uses a low energy circuit to continuously record how much gas has passed through its measuring element. This then continuously updates the meter balance. Approximately every 30 minutes the GSME powers up to pass this information (known as instantaneous values) to the Gas Proxy Function (GPF). However, there is no date or time stamp on the values. Where the GSME is unable to communicate with the GPF the information will not be updated.

This discrepancy between the values on the GSME and the values stored on the GPF could have an impact on a Supplier's interactions with a customer. It could also provide an out-of-date picture of consumption and meter balance to customers via In-Home Displays (IHDs) or Prepayment Meter Interface Devices (PPMIDs). This could lead to issues with direct debit payments, tariff issues and, most importantly, lead prepayment meter customers to believe they have a higher balance on their meter than the actual position. Under these circumstances prepayment customers could have their gas supply cut off before they expect and possibly have the PPMID displaying an incorrect credit balance.

The Proposed Solution is to allow Parties and Devices reading the instantaneous values from the GPF to know the time on the GSME's clock when those values were provided. This will be implemented by updates to Communications Hub software and the Smart Metering Equipment Specifications (SMETS). These updates will ask for the GSME to provide a date and time stamp with the instantaneous values. If a GSME is unable to provide the date and time stamp, the date and time will be populated from the GPF. The Communications Hub will then provide the values along with a date and time stamp and the source of the stamp in the Service Response to Service Requests for the information. Similarly, IHDs and PPMIDs will also be able to determine the time on the GSME clock and may display the time of the last update.

This modification will impact Suppliers, Gas Network Parties and the DCC Systems. The total estimated cost to deliver SECMP0015 as a stand-alone SEC Release is estimated to be approximately £4.6 million. However, if implemented in a SEC Release alongside other modifications the DCC estimate the cost would be approximately £1.77 million. This is an Authority-Determined Modification and if approved is targeted for the June 2022 SEC Release.

2. Issue

What are the current arrangements?

A GSME, usually known as a 'gas meter', is battery powered and uses a low energy circuit to continuously record how much gas has passed through its measuring element, known as the consumption register. This then continuously updates the meter balance. Approximately once every 30 minutes the GSME powers up and connects to the GPF via the Home Area Network (HAN). The GPF is part of the Communications Hub and is therefore continuously powered.

Consumption register changes also:

- cause values in other registers to change continuously, depending on Tariff settings, specifically registers in the Tariff Block Counter Matrix and the Tariff Time of Use (ToU) Register Matrix; and
- cause changes in the Emergency Credit Balance when a meter is in prepayment mode.

These are referred to as 'instantaneous' values.

When Parties or Devices such as IHDs and PPMIDs request information, they receive these instantaneous values from the GPF to save the GSME battery life.

Upon the GSME powering up, the instantaneous values (including meter balance and read information) are passed from the GSME to the GPF. Although the GSME has a clock, the information passed to the GPF does not have an associated date and time stamp. It has been identified that sometimes the GSME cannot communicate with the GPF and therefore the GPF does not always hold up to date information, just the instantaneous values with no date and time stamp.

What is the issue?

Where the GSME is unable to communicate with the GPF (e.g. due to local radio interference on the HAN) the information will not be updated.

Presenting this information with no date and time stamp could be misleading, having an impact on a Supplier's interactions with a customer on aspects such as billing, direct debit payments and Time of Use tariffs.

Additionally, an out-of-date picture of consumption and meter balance could be displayed on a customer's IHD or PPMID, without it being obvious that the position is out-of-date. This could also be of particular concern for prepayment customers, leading them to believe they have a higher credit balance on their meter than the actual position. Under these circumstances prepayment customers could have their gas supply cut off before they expect and possibly have the PPMID displaying an incorrect credit balance.

What is the impact this is having?

Impact on consumers

This could lead to various issues such as:

- prepayment meter customers being unaware that they are using their emergency credit or that their gas supply has been cut off;
- underestimating a customer's direct debit payments, if these are based on a 'historical' instantaneous value;
- underestimating a customer's bill; and
- customer queries if there is a discrepancy between:
 - the real position known to the GSME and the Supplier's view gained by querying the GPF;
 - the values seen by the customer on the GSME and the Supplier's view; or

- the values seen by the customer on the GSME and the IHD or PPMID.

3. Solution

Proposed Solution

This modification will allow Parties and Devices reading the instantaneous values from the GPF to know the time on the GSME's clock when those values were provided or the time on the GPF when the values were received if the GSME cannot provide a time and date stamp. Specifically, it looks to ensure that:

- The GSME will provide the GPF with a date-time stamp value whenever the GSME provides its instantaneous values.
- The GPF will update its copy of this date-time stamp whenever it updates its copy of the GSME's instantaneous values.
- The GPF will make available its copy of the GSME date-time stamp to Devices on the HAN.
- When the GPF creates a Response that contains these instantaneous values, for example:
 - Use Case GCS13a 'Read GSME Consumption Register';
 - Use Case GCS13b 'Read GSME Block Counters';
 - Use Case GCS13c 'Read GSME Register (ToU)';
 - Use Case GCS14 'Read GSME Pre-Payment Register(s)'; or
 - Use Case GCS60a 'Read Meter Balance for GSME',

these will use the copy of the GSME date-time stamp to populate the date-time field in the Response it generates. It will also mark the GSME as the source of that date-time stamp in the Response.

- Where a GSME does not support providing its date-time stamp value when it provides its instantaneous values, the GPF will populate the date-time field in the Response using the time of reading. It will also mark the GPF as the source of that date-time stamp in the time status of the Response.
- Parse and Correlate will decode the time status in Responses as GSME- or GPF-sourced and whether the date-time is reliable, unreliable or invalid.

The Smart Energy Code Administrator and Secretariat (SECAS) is recommending that these changes require a new Principle Version of the GB Companion Specification (GBCS), Smart Metering Equipment Technical Specifications (SMETS) and the Message Mapping Catalogue (MMC) as there will be a change in functionality. The Communications Hub Technical Specifications (CHTS) will have an increase to the sub-version number as historically all increases in version have been sub-versions. The TSAT will be prepared in conjunction with the Technical Architecture and Business Architecture Sub-Committee (TABASC) post decision.

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

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

Breakdown of Other SEC Party types impacted			
	Shared Resource Providers		Meter Installers
✓	Device Manufacturers		Flexibility Providers

Suppliers and Gas Network Operators

All Suppliers and Gas Network Parties that use the relevant Service Requests to read the instantaneous values will be impacted by this modification and its Proposed Solution to read the GPF to identify the time on the appropriate GSME.

Other SEC Parties

This modification will have an impact on Device manufacturers, who will need to build Devices to the new specifications that include the changes made in this modification's solution.

DCC System

Communications Hub software 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 the GPF) and whether the date-time stamp is reliable, unreliable or invalid.

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. MMC Extensible Markup Language (XML) schema will need to be updated to allow Parse and Correlate to implement this change.

Additionally, DCC User Gateway Interface Design Specification (DUGIDS) and GBCS Integration Testing For Industry will be amended to reflect these changes to Communications Hub and MMC changes.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex C.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Schedule 8 'Great Britain Companion Specification' (GBCS)
- Schedule 9 'Smart Metering Equipment Technical Specification 2' (SMETS2)
- Schedule 10 'Communications Hub Technical Specifications' (CHTS)
- Schedule 11 'Technical Specification Applicability Table' (TSAT)
- Appendix AD 'DCC User Interface Specification' (DUIS)
- Appendix AF 'Message Mapping Catalogue' (MMC)

Technical specification versions

SECAS is recommending a new Principle Version of the GBCS, SMETS and MMC be created, and a new Sub Version of CHTS.

A new Use case (GCS60a) will be created and therefore a new version of the DUIS will be created.

The TSAT will be prepared in conjunction with the TABASC post decision.

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

Consumers

Consumers will be positively affected by this modification as interactions with Suppliers will be based on information that the Supplier will know to be accurately time and date stamped. For example, decisions regarding customer bills or direct debit payments would not be subject to errors caused by believing that instantaneous values are current, when in fact they are not. Consumers are expected to have fewer issues with Suppliers regarding direct debit and billing-related matters.

Customers are expected to have fewer issues with information presented to them by IHDs and PPMIDs being out of line with the GSME's view of this data.

These amendments are expected to be especially beneficial to prepayment customers, whose budgeting could be negatively impacted where they are presented unknowingly with out of date information.

Other industry Codes

No impacts have been identified on other industry Codes.

Greenhouse gas emissions

There are no impacts on greenhouse gas emissions identified.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this as a standalone modification is £4,596,044 as set out in Annex C. However, if implemented as part of the June 2022 SEC Release the DCC estimates that significant testing costs could be saved bringing the cost down to £1,772,600. A more detailed document (Annex F) was provided by the DCC. However, this is classified as **RED** and can therefore only be shared with named individuals. If you wish to receive a copy of Annex F please email sec.change@gemserv.com.

Breakdown of DCC implementation costs – June 2022 SEC Release	
Activity	Cost
Design, Build and Pre-Integration Testing (PIT)	£1,335,568
Systems Integration Testing (SIT) and User Integration Testing (UIT)	£437,032

More information can be found in the DCC Impact Assessment response setting out the full costs for a stand-alone release in Annex C and a further statement on costs specific to SECMP0015 in Annex F (**RED**).

SECAS costs

The estimated SECAS cost to implement this modification is two days of effort, amounting to approximately £1,200. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.
- Reviewing and updating any impacted SEC guidance materials.

SEC Party costs

A view on Party costs was sought as part of the first Refinement Consultation. Respondents said there were no direct costs to them, though one said that they expected they would incur costs through manufacturers passing on charges due to changes required for meter specifications. The full responses received can be found in Annex D.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **30 June 2022** (June 2022 SEC Release) if a decision to approve is received on or before 28 May 2021; or

- **3 November 2022** (November 2022 SEC Release) if a decision to approve is received after 28 May 2022 but before 1 October 2021.

This is to enable the DCC sufficient time to design, build, test and implement the changes set out and for Parties to make associated changes, should they wish to. The DCC has stated that if this modification is implemented in the June 2022 SEC Release the combined savings from implementing and testing implementation of other modifications would be substantial. More details can be found in Section 5 above and in Annex F (**RED**). This modification is dependent on the implementation of [SECMP0007 'Firmware updates to IHDs and PPMIDs'](#).

If the November 2022 SEC Release does not contain any other technical specification uplifts, the Panel will subsequently request the Authority directs this modification be implemented in the next SEC Release which implements a technical specification uplift.

7. Assessment of the proposal

Solution development

Solution discussions

The Working Group considered in detail how the end-to-end solution will operate and considered the impact on Parties and other Devices on the HAN querying the GPF. The GBCS Use Cases Responses that should be amended were set out in the business requirements.

The Working Group also considered the interoperability considerations, determining behaviour when a Communications Hub that does support the change is paired with a GSME that does not support the change, and vice versa. The Working Group agreed that an older Communications Hub should be able to support the change (following a firmware update) recording the GSME clock timestamp when it received the instantaneous read from the GSME. It further agreed that if a GSME was on an older firmware version and did not send its clock timestamp then the Communications Hub would include its own timestamp alongside the GSME values. In addition, the source of the timestamp would be made clear to allow Suppliers and Devices to understand how accurate the data was. The Working Group agreed with this and noted its importance to prepayment consumers, specifically when dealing with emergency credit matters.

The Working Group also considered whether the modification should remain an Authority Determined Modification or change to a Self-Governance Modification. The Working Group suggested this question should be included as part of the Working Group Consultation. Respondents suggested this should be changed to a Self-Governance Modification, citing it fits the definition of Self-Governance, as provided in SEC Section D2.6. Respondents to the first Working Group Consultation believed the modification should be progressed as a Self-Governance Modification Proposal.

Costs of the solution

Following the Authority's send back decision on 18 September 2020, a further Working Group meeting was held to discuss the DCC implementation costs. The general problems members highlighted were:

- The Communication Services Providers' (CSPs') costs are different by orders of magnitude;

- One Service Provider's testing costs are excessive; and
- The total costs in the Impact Assessment had increased significantly from those in the Preliminary Assessment.

The DCC answered these by stating:

- During the full Impact Assessment one Service Provider had identified more risks in implementation than the other;
- One Service Provider quotes for two rounds of regression testing as it has found in the past that use of emulators (currently the standard way of testing) does not pick up all the issues found in live; and
- The Preliminary Assessment costs only cover the Design, Build and PIT phases but do not include SIT and UIT. The Impact Assessment includes all these costs. In addition, as the Authority requires a modification to have standalone costs presented, the costs of each system impacting modification include around six months of testing costs which are included in the Impact Assessment.

SECAS and the DCC reiterated that there was no intention to implement this modification as a standalone modification.

The DCC also stated at the Working Group that it expected 60% of the standalone costs could be saved by including this change in the June 2022 SEC Release. This would reduce the cost specific to implementing SECMP0015 to around £2m. Further details can be found in Annex F (RED).

Business case for change

Prepayment meter and pay-as-you-go (PAYG) consumers are often vulnerable and are low-income households. If this issue affects them, they could be left in a position where their PPMID displays reading or balances that indicate they have credit remaining, whereas in fact the information is based on an out-of-date instantaneous value obtained from the GPF. This could affect their ability to budget and, in a worst-case scenario, their gas could be cut off without them realising as the GSME records they have used all their credit, but this has not been updated to the PPMID.

Consumers could be incorrectly billed due to out-of-date consumption measurements and this could affect their direct debit payments. Consumers using ToU tariffs could be billed incorrectly since the consumption would not be recorded across the correct time period. In addition, consumers with inaccurate information displayed on their IHD or PPMID would be less able to 'shop around' for a competitive energy supply deal, or worse still could sign up to one and then find themselves penalised as they are not using their energy in the patterns that were agreed. This could lead to a lack of confidence in IHDs, PPMIDs, Smart Metering, their Supplier and the energy industry as a whole.

Device manufactures stated in the Modification Report Consultation that the addition of the time and date stamp to the instantaneous values would lead to more innovation in the Device market.

Information received to date suggests that the costs to Parties to implement this change will be small and that the costs of not making the change are difficult to assess as they are reputational.

Support for Change

Working Group

The Working Group supported the intention of the solution and cited clear benefits that would help prevent disputes between Suppliers and customers. The Working Group further noted that this change is particularly important to prepayment customers as it could help when dealing with emergency credit matters and loss of supply. The Working Group members agreed that all GSMEs need to have a firmware update to be able support the functionality that is offered by the Modification Proposal.

Working Group members initially stated (following the DCC Preliminary Assessment) that they felt the benefits outweighed the costs (estimated at the time to be around £600k for Design, Build and PIT). Whilst members felt that the costs reflecting implementation in a SEC Release with other modifications were more representative the high level of costs was still a concern.

First Refinement Consultation

The first Refinement Consultation (previously known as the Working Group Consultation) returned three positive responses and no negative responses. One neutral response was given where one participant acknowledged that as they don't operate using GSME meters they would not be best suited to answer.

All Large Suppliers and an Other SEC Party who responded agreed with the solution on the grounds that it would provide a better quality of information for a consumer and prevent a Supplier from using an inaccurate "read value". They believed this would provide a better experience for all involved. Additionally, they believed that, noting the costs (only the DCC Preliminary Assessment was available at the time) and benefits of the modification, it should be approved.

The Working Group Consultation respondents also supported the belief that the Modification Proposal should be changed from an Authority Determined one to a Self-Governance one on the grounds that it was consistent with the definition of a Self-Governance modification as per SEC Section D2.6.

Finally, when asked what the long-term impacts would be if the Modification Proposal was rejected and not implemented, the Large Suppliers stated there would be drawbacks. In particular, the issues would be meter reading values potentially being misleading, and the possibility of adversely affecting proportion of their prepayment customer base.

The full responses can be found in Annex D.

Modification Report Consultation responses

There were three respondents to the Modification Report Consultation. All respondents were supportive of the proposed changes but were concerned about the excessive costs presented in the DCC Impact Assessment which were £4.6m, a very significant increase from the Preliminary Assessment of around £600k.

Change Board vote and subsequent appeal and Authority send back

This modification was presented to Change Board for vote on 22 July 2020. During the vote, questions were raised around the costs. Whilst Change Board members were supportive that the

modification better facilitated the SEC Objectives (a)¹ and (c)², they felt that the costs were excessive and therefore the business case was not clear. The result of the vote was to reject the modification on costs.

As this was a Self-Governance modification, a 10 Working Day referral window began following the Change Board vote pursuant to SEC Section D9.4(a). On 30 July 2020, British Gas submitted an appeal to the SEC Panel against the Change Board vote. This was then discussed by the Panel on 14 August 2020 where the Change Board decision to reject was overturned. Panel members believed that the solution better facilitated the SEC Objectives and therefore voted to approve.

On 27 August British Gas further appealed the Panel's decision to approve the modification to the Authority as per SEC Section D9.4(b) on the grounds of the costs.

On 18 September 2020, the Authority decided to send this modification back to Panel for further work, specifically requesting:

- A clear business case be laid out in the Modification Report; and
- The cost variance between Preliminary Assessment and the Impact Assessment is clearly explained.

Addressing the Authority's concerns

SECAS has requested information from SEC Parties to support the business case for this modification and further support was sought as part of the second Refinement Consultation and is included in the business case section.

The DCC has provided a further breakdown of the costs specifically identifying the cost savings that are likely to be achieved by including this modification in the June 2022 SEC Release. This can be found in Annex F.

Views against the General SEC Objectives

Proposer's views

Objective (a)

The Proposer believes that SECMP0015 will better facilitate SEC Objective (a) by reducing billing, direct debit and other customer queries and reducing issues such as settlement imbalances.

Objective (c)

The Proposer believes that SECMP0015 will better facilitate SEC Objective (c) by enabling Suppliers and customers to determine if information made available remotely or in the home is out of date.

¹ Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

² Facilitate energy consumers' management of their use of electricity and gas through the provision of appropriate information via smart metering systems.

Industry views

The Working Group agreed unanimously that the modification better facilitates General SEC Objectives (a) and (c), and that the benefits this modification provides, while qualitative in nature, warrant its implementation.

First Refinement Consultation views

The first Refinement Consultation returned three positive responses and one neutral with all four respondents agreeing with the rationale and solution proposed by the Proposer. Whilst some respondents noted they would be impacted by the MMC schema changes, they will not require any development efforts to deliver this.

Three of the respondents agreed that, noting the costs of the modification, it should be approved on the basis that it provides consumers with more accurate data on their energy usage. Two of these respondents further noted that failure to implement this modification would have long term impacts on being able to provide accurate information to their consumer and could end up misleading them. The fourth respondent abstained from giving a view.

Second Refinement Consultation (after send back) views

Following the Authority send back a second Refinement Consultation was issued. This included the DCC's revised costs, amended to show the cost of implementing the modification as part of a multi-modification SEC Release rather than as a standalone SEC Release.

Four responses were received to the Refinement Consultation, from three Large Suppliers and the Consumer Representative. Three respondents believed that this modification should be approved but one Large Supplier did not. It believed that the solution was not complete as the actual time for the instantaneous values would not necessarily be displayed. SECAS responded agreeing that this would not be the case for all Devices. Devices on the GBCS versions with the update would be able to access the data with the time stamp and where possible will be able to display the time.

Respondents in support believed that this modification would allow customers and Suppliers access to more accurate consumption data, particularly important for prepayment meter customers who may lose supply through the lack of the time stamp.

Views against the consumer areas

Improved safety and reliability

Safety would be improved in so much as prepayment customers will be better protected from unexpected loss of supply.

Lower bills than would otherwise be the case

Bills would not be lower, but they may be more accurate.

Reduced environmental damage

No impact identified.

Improved quality of service

More accurate bills and avoiding the chance that prepayment customers might be unexpectedly lose supply would be an improvement in service.

Benefits for society as a whole

No impact identified.

Appendix 1: Progression timetable

The Modification Proposal will be returned to the Panel following the clarifications into the cost of the solution from the DCC. Once presented to the Panel, if approved, it will be issued directly to the Change Board to repeat its vote to recommend to the Authority whether it should be approved or rejected.

Timetable	
Event/Action	Date
Modification Proposal raised	31 May 2016
Initial Modification Report presented to Panel	17 Jun 2016
Business requirements developed with Proposer and DCC	1 Aug 2016 – 3 Oct 2016
Preliminary Assessment requested	3 Oct 2016
Preliminary Assessment returned	21 Mar 2017
Modification discussed with Working Group	24 Apr 2017
Impact Assessment requested	5 May 2017
Impact Assessment returned	18 Jun 2018
Modification discussed with Working Group	17 Jul 2018
Refinement Consultation	3 Apr 2019 – 24 Apr 2019
Updated Impact Assessment requested	25 Apr 2019
Updated Impact Assessment returned	30 Apr 2020
Modification Report approved by Panel	15 May 2020
Modification Report Consultation	19 May 2020 – 10 Jun 2020
Change Board Vote	22 July 2020
Appeal of Change Board vote to Panel	30 July 2020
Appeal presented to Panel	14 Aug 2020
Appeal of Panel decision to Authority	27 Aug 2020
Authority decision to send back	18 Sep 2020
Modification discussed with Working Group	7 Oct 2020
Send back timetable agreed with Panel	16 oct 2020
Modification discussed with Working Group	4 Nov 2020

Timetable	
Event/Action	Date
Second Refinement Consultation	16 Nov – 4 Dec 2020
Updated Modification Report approved by Panel	15 Jan 2021
Change Board vote	24 Feb 2021
Authority decision (anticipated date)	31 Mar 2021

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
CHTS	Communications Hub Technical Specifications
CSP	Communication Services Provider
DCC	Data Communications Company
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
GBCS	GB Companion Specification
GPF	Gas Proxy Function
GSME	Gas Smart Meter Equipment
HAN	Home Area Network
IHD	In Home Display
MMC	Message Mapping Catalogue
MRC	Modification Report Consultation
PAYG	pay-as-you-go
PIT	Pre-Integration Testing
PPMID	Prepayment Meter Interface Device
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS2	Smart Metering Equipment Technical Specifications 2
HAN	Home Area Network
TABASC	Technical Architecture and Business Architecture Sub-Committee
ToU	Time of Use
TSAT	Technical Specification Applicability Tables
UIT	User Interface Testing
XML	Extensible Markup Language

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SECMP0015 ‘GPF timestamp for reading instantaneous Gas values’

Annex A

Business Requirements – version 1.0

About this document

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

These changes have been drafted against SEC Version 5.20.

Functionality Requirements

This SEC modification is to allow Remote Parties and Devices reading the instantaneous values from the GPF to know what the time was on the GSME's Clock to which those values relate. Specifically

1. The GSME is to provide to the GPF with a date-time stamp value whenever the GSME provides its instantaneous values;
2. The GPF is to update its copy of this date-time stamp whenever it updates its copy of the GSME's instantaneous values;
3. The GPF is to make available its copy of the GSME date-time stamp to Devices on the SMHAN;
4. When the GPF creates a Response to Use Cases GCS13a, GCS13b, GCS13c, GCS14 or GCS60, the GPF is to use its copy of the GSME date-time stamp to populate the date-time field in the Response it generates, and mark the source of that date-time stamp in the time status of the Response accordingly; and
5. Parse and Correlate is to decode the time status in Responses so that GSME sourced date-time stamps are flagged, along with (as an option) a decoding as to whether the date-time is (1) reliable, (2) unreliable or (3) invalid.

Changes required to deliver functional requirements

To deliver the functional requirements:

1. GSME would be required to maintain a new Smart Metering Equipment Technical Specifications (SMETS) operational data item ('Instantaneous Values Last Update Date and Time') and provide that value to the GPF each time it provides the instantaneous values. In Zigbee Smart Energy (ZSE), this equates to the ReadingSnapshotTime attribute (0x0007) in the Reading Information Attribute Set within the Metering Cluster;
2. GPF would be required to keep a copy of that value, where it is provided by the GSME, and use it to populate the date-time field in the Responses to Use Cases that read instantaneous values [currently, the GPF puts the Communications Hub (CH) Date and Time in this field]. This Communications Hub Functionality (CHF) would be required to continue to use CH Date and Time, where the GSME does not provide the new data item;
3. GPF would make available its copy of the ReadingSnapshotTime attribute (0x0007) in the Reading Information Attribute Set within the Metering Cluster to Devices on the SMHAN (or would set the to 'invalid time' when it does not have a valid value from the GSME, to make clear to other Devices that it does not have a GSME provided value);
4. Parse and Correlate would decode bit 2 of the 'time status' (in the date-time field with Responses) to flag where date-times come from the GSME rather than the Device (GPF) creating the Response (so where bit 2 is set to 0b1). As an option, Parse and Correlate would also decode bits 0 and 1, in line with GBCS Table 9.1.4.2b. This would require a corresponding change to the MMC.
5. These changes do not affect the structure of any of the existing Use Cases, and so do not require changes to the DCC User Interface Specification (DUIS) or Data Service Provider (DSP) systems.

Testing Requirements

This section sets out the necessary testing requirements to delivery SECMP0015:

1. The DCC will provide Testing Services to support the implementation of SECMP0015 to assess the interoperability of User Systems with DCC Systems and Smart Metering Devices.
2. The DCC will provide an analysis including supporting assumptions and rationale, of any testing required to the DCC Total System.
3. The DCC will prepare a report setting out the scope, phases, timetable, Testing Participants, any assumptions and rationale in relation to SECMP0015 testing.
4. The testing environment that the DCC provides in support of SECMP0015 as part of Testing Services will support the following Service Requests:
 - a. 'Read Instantaneous Import Register' Service Request Variance (SRV) 4.1.1
 - b. 'Read Instantaneous Import Block Counted' SRV 4.1.4
 - c. 'Read Instantaneous Import TOU Matrices' SRV 4.1.2
 - d. 'Read Instantaneous Prepay values' SRV 4.3
 - e. 'Read Meter Balance' SRV 4.18
5. The testing environment will be open to the User Role of Gas Suppliers in respect of SRV 4.1.1 and SRV 4.1.2.
6. This environment should be made available for a minimum of 15 Working Days, depending on the impact of the change. The DCC must provide the costs and assumptions associated with providing this Testing Service, including whether the testing costs are based on a set number of Users utilising the Testing Service, i.e. up to 10 Users, noting that at least two Large Suppliers may test the functionality. This is to ensure it operates correctly before it is put into the End-to-End and Production environments.
7. The objective of testing as part of the Testing Services will be to ensure that, in response to each of the Service Requests, the User receives the corresponding Service Response from the DCC.
8. As part of the Testing Services, the DCC will provide Users with a corresponding version of the Parse and Correlate software and Message Mapping Catalogue.
9. The acceptance criteria for testing as part of the Testing Services will be, following successful execution of the corresponding Command, the User receives the corresponding Service Response from the DCC.
10. The DCC will provide:
 - a. a reasonable number of Test CH for use in the testing environment which represent every combination of Home Area Network (HAN) and Wide Area Network (WAN) Variant. This includes Test CH that comply with version of Communications Hub Technical Specifications (CHTS) in force prior to the Release as well as Test CH that comply with the version CHTS which will be effective on the Release date;

- b. Test Stubs (or other alternative arrangements) to emulate GSME behaviour of version(s) of SMETS in force prior to the Release as well as the version of SMETS which will be effective on the Release date.

Implementation Approach

Implementation requirements

The associated changes to SEC documents, including SMETS, CHTS, Great Britain Companion Specification (GBCS) and Message Mapping Catalogue (MMC) would be implemented at 'Version 5.20' of the SEC.

The Functional Requirements in this Modification would need to be met by all GSME / CH which comply with 'Version 5.20' or a later SEC version, covering both those GSME / CH that are newly installed and those whose firmware is upgraded to 'Version 5.20' or a later SEC version.

There would be no requirement to upgrade firmware on installed GSME / CH to implement this Modification. It would be for Suppliers to decide whether to upgrade GSME and for the DCC to decide whether to upgrade CH.

There would be no requirement for other Device types to be upgraded as part of this Modification (e.g. to be able to read the GSME date-time stamp), as there is no requirement for other Device types to use the additional information. It would be for Suppliers (excluding Consumer Access Device (CADs)) or Consumers (CADs) to decide whether to upgrade other Device Types.

From the point at which 'Version 5.20' comes in to force, the DCC would need to make available to DCC Users an updated version of Parse and Correlate software, which includes support for the decoding of time status. In terms of this Modification, it would be for DCC Users to decide whether and when to implement the updated version of Parse and Correlate software.

There would be no obligation on DCC Users or the DCC to make any specific use of the GPF provided GSME date-time stamp, and so there are no additional changes to DCC User or DCC SEC obligations.

Compatibility Requirements

In terms of compatibility between CH and GSME at differing versions of the Technical Specifications, there should be no compatibility issues, since:

1. as above, the CH will revert to existing behaviour where the GSME does not support this feature
2. if the CH does not support this feature it should discard any GSME provided *ReadingSnapshotTime* attribute value reported to it. [DN: DCC to confirm]

In terms of another Device (e.g. CADs) attempting to read the GPF copy of the *ReadingSnapshotTime* attribute, the other Device will receive an `UNSUPPORTED_ATTRIBUTE` status from the GPF in the response, if the GPF does not support this Modification. It would receive `0xFFFFFFFF` (meaning invalid time) if the GPF supports this Modification but the GSME does not. Both these behaviours are part of the ZigBee Specification and so should be factored in to the design of such Device types.

In line with the wider SEC approach, there is no requirement to update already installed GSME or CH to support these changes. The additional attribute shared over the SMHAN does not affect any other Devices.

From a DCC User perspective, access to these Use Cases would be provided by existing, unchanged Service Requests. The structure of existing Responses would also be unchanged. Versions of Parse and Correlate that do not decode the time status in Responses would still be able to process Responses (since the structure and content of Responses is unchanged).

Thus, there would be no requirements for a DCC User to make any changes as a result of this Modification, save that Gas Suppliers would, for newly installed GSME, need to install GSME that include this functionality.

SEC Modification Proposal, SECMP0015

GPF Timestamp for Reading Instantaneous Gas Values

Full Impact Assessment (FIA), DCC CR213 and CR1197



Version:

1.81

Date:

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Author:

DCC

Classification:

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
21/5/2018	0.1	Initial compilation from Service Providers
24/5/2018	0.2	Internal DCC Review
8/6/2018	1.0	Included all review comments
8/8/2019	1.1	Updated GCS60 to be replaced with GCS60a, completed RAID, ready for re-estimate of testing costs
16/8/2019	1.2	Added testing assumptions
16/10/2019	1.6	Included SIT, UIT and Implementation costs, CR1197
2002/2020	1.67	Updated costs and created separate ANNEX document
11/03/2020	1.81	Added updated DUGIDS document from the DSP, updated RAID

1.2 Associated Documents

This document is associated with the following documents:

#	Title and Originator's Reference	Source	Issue Date
1	SECMP0015 - GPF timestamp - Solution Design Document	https://smartenergycodecompany.co.uk/modifications/sending-commands-via-ppmids/	16/10/2017
2	SECMP0015_DCC_ PA	DCC Document	23/03/2017

1.3 Document Information

The original Business proposer for this Modification was Tim Newton.

This DCC Full Impact Assessment was requested of DCC, and the Service Providers instructed to proceed with their submissions on 7/9/2017. However a change in the requirements, and a SECAS request to provide standalone testing costs meant that the document was reissued in August 2019, and the new Service Provider information and estimates was sent back to SECAS in October 2019.

Note that the term "Change Request" is used interchangeably with "Modification" throughout this document.

1.4 Document Purpose

This Full Impact Assessment (FIA) is provided further to a DCC Preliminary Impact Assessment (PIA), which was requested by the Working Group with the information requested in accordance with SEC Section D6.9 and D6.10. This document builds on the information previously provided as part of the PIA, clarifying and refining the impact of this SEC Modification on DCC.

2 Solution Requirements and Overview

2.1 Context

Instantaneous Gas Smart Metering Equipment (GSME) register values can be read from the Gas Proxy Function (GPF). These will not normally be in-line with the readings on the GSME, since the GSME only provides intermittent updates to the GPF, typically once every 30 minutes.

When reading these attributes from the GPF the date-time field in the response is set to the GPF read time and not the GSME consumption measurement time. Without a timestamp to know when the GSME last updated the GPF, the Supplier cannot know the currency of the information.

In order to provide accurate information to the suppliers, this change proposes that a GSME shall make the time at which an *instantaneous* register is updated available to the GPF whenever the register values are shared with the GPF. When GPF creates Responses to the corresponding use cases, it shall populate date-time stamp value with the value received from GSME and specify the source (indicates whether the value is from GSME or GPF) of the date-time stamp. The value held by the source field will be used to validate the reliability of the date-time stamp in the Critical Software Parse and Correlate application.

In summary, this Modification helps inform the gas suppliers of the currency of the instantaneous register values.

2.2 Requirement

The functional requirements for SECMP0015 as stated in the initial solution design [1] are as stated following. This Modification allows Remote Parties and Devices reading the instantaneous values from the GPF to know what the time was on the GSME's Clock to which those values relate. Specifically:

- The GSME is to provide to the GPF a date-time stamp value whenever the GSME provides its instantaneous values
- The GPF is to update its copy of this date-time stamp whenever it updates its copy of the GSME's instantaneous values
- The GPF is to make available its copy of the GSME date-time stamp to Devices on the SMHAN
- When the GPF creates a Response to GCBS Use Cases GCS13a, GCS13b, GCS13c, GCS14 or GCS60¹, the GPF is to use its copy of the GSME date-time stamp to populate the date-time field in the Response it generates, and mark the source of that date-time stamp in the time status of the Response accordingly
- Parse and Correlate is to decode the time status in Responses so that GSME sourced date-time stamps are flagged, along with (as an option) a decoding as to whether the date-time is (1) reliable, (2) unreliable or (3) invalid.

¹ See section **Error! Reference source not found.** and Appendix A – GBCS Changes for changes

3 Solution Overview

The Communications Hub GSME mirror will be updated to mirror the GSME 'Reading Snapshot Time' and GPF will populate the Use Cases with 'Reading Snapshot Time'. As the change is populating a field that already exists there are no structural changes to the relevant schemas. Backward compatibility is maintained, so there is no impact beyond those listed in the Communications Hub sections below.

The mechanism using which the Timestamp values are populated in the Device Responses corresponding to the following Service Request Variants (SRVs) will undergo modifications due to this change.

- 4.1.1 Read Instantaneous Import Registers
- 4.1.2 Read Instantaneous Import TOU Matrices
- 4.1.4 Read Instantaneous Import Block Counters
- 4.3 Read Instantaneous Prepay Values
- 4.18 Read Meter Balance

3.1 Communication Hubs Changes

The major impact of SECMP0015 to services is on the Communications Hub (Comms Hub), through an uplift of the r2.x Communications Hub firmware codebase to support the time stamping of GSME instantaneous values. These will be implemented by the CSPs.

The Comms Hub will require changes to the GSME mirror to make the attribute available on the HAN, and GPF functions both to record to record a value of the 'ReadingSnapshotTime' attribute provided by a GSME on the connected HAN attribute and to populate the date-time field in the responses for the specific GBCS use cases. This will also impact the Parse and Correlate component.

3.1.1 Mirror Reading Snapshot Time

The ReadingSnapshotTime attribute is optional, and represents the last time all of the Current Summation Delivered, Current Summation Received, Current Max Demand Delivered, and Current Max Demand Received attributes supported by the device were updated. The default value shall be 0xFFFFFFFF.

It is expected this will be updated by the GSME every time the GSME data is mirrored from GSMEs that support this Modification. The CH will support GSMEs that both implement and do not implement this SEC Modification. Test cases shall be added that cover meters that both support and do not support this optional attribute.

The GSME mirror shall make this attribute available to devices on the HAN. If the attribute is read when it has not been populated the response status 'unsupported attribute' shall be returned.

Note: the SEC solution design document [1] proposed the attribute shall be set to 'invalidTime' as opposed to 'unsupported attribute' as defined by ZigBee. This should be implemented to match the GBCS/CHTS update.

3.1.2 Populate Identified Use Cases Timestamp Field

When the GPF creates a Response to Use Cases GCS13a, GCS13b, GCS13c, GCS14 or GCS60a, the GPF shall use its copy of the GSME date-time stamp to populate the date-time field in the Response it generates if available. If the GSME date-time stamp is null or not available, the current time shall be used. The source of the timestamp shall be used to indicate the GSME consumption time or the CH current time.

The Time Stamp 'bit 2' element will be set to 1 for data from the GSME and 0 for the CH. The GBCS section 7.2.7, "Message construction – Grouping Header", specifies the message construction for the above mentioned GBCS messages.

All the affected messages will require the 'Date-time stamp in response' as specified in the column Z of tab 'Use Case Reference' of GBCS section 20 mapping table.

3.2 DUIS, DUGIDS and MMC

The DCC User Interface Specification (DUIS) is expected to remain unchanged. The DCC User Gateway Interface Design Specification (DUGIDS) and Message Mapping Catalogue (MMC) will require changes; as described following.

3.2.1 DUIS, DUGIDS and Related GBCS Changes

The description of the following SRVs in DUGIDS shall be updated to reflect the behaviour of the timestamp field.

- 4.1.1 Read Instantaneous Import Registers
- 4.1.2 Read Instantaneous Import TOU Matrices
- 4.1.4 Read Instantaneous Import Block Counters
- 4.3 Read Instantaneous Prepay Values
- 4.18 Read Meter Balance

The structures of these SRVs are not expected to change and hence there will not be any changes to the DUIS XML Schema Definition.

The GSME GBCS Use Case associated with SRV 4.18 will be changed to GCS60a from GCS60; however the input parameters do not change. In this case the definition of the Service Requests within the DUIS schema requires no changes, but DUIS will be uplifted to a new version to support the new GBCS version. It shall be noted that the Service Users shall be able to send SRV4.18 using the old DUIS version and, where supported by the Device, DCC Data Systems will transform the request to the new GBCS case.

DUGIDS will be updated to describe the new behaviour for the benefit of the Service Users and other applications including Parse and Correlate. An illustrative example of the changes required to DUGIDS is available in the

extract embedded below. A complete version of DUGIDS will be developed by the DSP during the Design phase.



CR1197 DUGIDS
Extract v0.3.docx

The structures of these SRVs are not expected to change and hence there will be no changes to the DUIS XML Schema Definition.

3.2.2 MMC Changes

The MMC XML Schema Definition shall be modified to add two new optional attributes to the existing timestamp field within the Response Header:

IsFromGSME	If the IsFromGSME attribute of the Timestamp in the Response is set to True, then this indicates that the value of Timestamp is set by the GSME, not the GPF.
ClockStatus	Indicates if this time is RELIABLE, UNRELIABLE or INVALID.

The Service User Simulator (SUS) will need to integrate the new MMC schema to ensure that the implementation is consistent with that of the Parse and Correlate software.

3.3 Transform Libraries

Transform will build the library for the new GBCS Use Case GCS60a, which will be based on the GCS60 implementation.

3.4 GBCS Changes

The following GBCS use case and message responses shall be updated:

- GCS13a Read GSME Consumption Register
- GCS13b Read GSME Block Counters
- GCS13c Read GSME Register (TOU)
- GCS14 Read GSME Prepayment Register(s)
- GCS60 Read Meter Balance for GSME, will be replaced with GCS60a

Changes to the use cases are covered in detail in Appendix A – GBCS Changes on page 25.

3.5 Parse and Correlate Application

Parse and Correlate will provide a solution to read the Grouping Header date-time field from the responses and decode bit 2 of that field, which corresponds to the 'time status', to flag where date-times came from the GSME rather than the CH. Parse and Correlate would also decode bits 0 and 1, in line with GBCS Table 9.1.4.2b and flag that date-time as (1) reliable, (2) unreliable or (3) invalid.

As noted above, a new MMC schema with all the relevant changes for this solution needs to be supplied and applied to Parse and Correlate.

3.6 Critical Software GBCS Integration Testing For Industry (GFI)

The GFI Testing Tool and GFI Comms Hub will be impacted by this Modification.

The GFI Testing Tool will require the following changes to its GPF data structures:

- Add the attribute ReadingSnapshotTime to the GPF data structures
- Initialize ReadingSnapshotTime on the GPF with 0xFFFFFFFF (invalid value)
- Support mirroring of ReadingSnapshotTime by a GSME sending a Report Attributes command
- Expose ReadingSnapshotTime to devices on the HAN

GPF response construction will also need to be updated for the use cases GCS13a, GCS13b, GCS13c, GCS14 and GCS60a in order to correctly set the Grouping Header date-time:

- If the GPF ReadingSnapshotTime is invalid, date-time will be set to the GFI CommsHub system time, and the status field will indicate the value as unreliable and as having the same source as the response
- If the GPF ReadingSnapshotTime is invalid, date-time will be set to the value of that attribute, and the status field will indicate the value as reliable and as having a source different from the source of the response

The test reports produced by GFI will also be enhanced to display the Grouping Header date-time status information.

The GFI GSME emulator will require improvements to validate the changes required by this Modification. These improvements will include the ability for the GSME emulator to act both as a device that mirrors ReadingSnapshotTime and a device that does not mirror that attribute.

The solution described above will allow the GFI GPF to work with Gas Meters capable of mirroring ReadingSnapshotTime as well as GSMEs that do not mirror this attribute.

A change in the GBCS mapping table that sets the grouping header date-time field as mandatory for use case GCS60a will be required.

Is also assumed that a given GSME will have a consistent behaviour regarding the mirroring of ReadingSnapshotTime when mirroring Instantaneous GSME register values. It will either always report ReadingSnapshotTime or never report it. Although an inconsistent behaviour will not prevent the use of GFI it may cause the GFI GPF to provide misleading information both to remote parties and to devices on the HAN.

4 Impact on DCC Systems, Processes, and People

This section describes the impact of SECMP0015 on DCC's Services and Interfaces that impact Users and/or Parties.

4.1 Solution Infrastructure

No additional infrastructure will be required.

4.2 Impact on Safety

This change does not affect the processing, storage or transmission of data within DCC Data Systems. No new types of hardware infrastructure are required to be procured or installed as a result of this change and, therefore, there is no foreseeable HSE impact. The proposed functionality will be accommodated within existing infrastructure which have already been subject to assessment.

4.3 Impact on Consumers

Consumers will not be impacted, but there will be benefits to the addition of this metadata, including considerations around Pre-payment and emergency credit calculations.

4.4 Modification Deliverables

The changed documents and deliverables for SECMP0015 are as described in the table below.

Deliverable	Changes Required
SD4.1 DCC User Gateway Interface Design Specification	DUGIDS Updates required to Annex 4.
SD4.1.19 MMC XML schema	MMC Changes to support the new functionality
Communications Hub Detailed Specification (CHDS) CH02	CHDS will be uplifted to include new commands with PIT Test Approach
Communications Hub Technical Specification (CHTS)	CHTS will be uplifted to include new commands with PIT Test Approach
Parse and Correlate Application	CRITICAL Software Changes: Use Case Specifications Test Approach Test Case Specifications Test Reports Installation Document Software Architecture Specification API Release Notes Traceability Matrix Release Notes

Deliverable	Changes Required
GFI Software	CRITICAL Software Changes: Installation Document, and Release Notes
Released based test artefacts (Test Plans, Heatmaps, new/updated test scenarios etc.)	This Modification will contribute to Release based test artefacts

4.5 Impact on Security

This section describes the impact the DCC considers SECMP0015 will have on the Security of the DCC's Total System.

DCC has carried out a security risk assessment for SECMP0015 and determined that there is no change to the security model as a result of the planned Modification.

4.6 Transition to Operations (TTO) Approach

No TTO-specific charges related to the DSP have been included in this FIA on the basis that it is relatively small. It is assumed that other larger or more complex Change Requests will include partial provision for TTO and that the overall release CR will address any collective shortfall.

4.7 Application Support

The Application Management Support team are responsible for the provision of application level support for the DCC Data System application.

It is not expected that this new functionality will result in an increase in service calls.

5 Testing Considerations

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

Testing costs for SIT and UIT have been built on the following assumptions:

- A standalone SEC Modification release, with an Implementation of Go Live in November 2020 (although has no bearing on the final costs and durations)
- SIT testing 8 weeks
- UIT testing 4 weeks
- 10 test sets per Comms Hub type. This means 10 for Arqiva (5 Single Band CH, 5 Dual Band CH), 20 for Telefonica (same split per band, but two meter manufacturers).
- Full regression testing

In addition, the cost for all testing and implementation costs will be determined as part of a "Grouping CR" or SEC Release CR, once the full scope of the release that this SEC Mod is allocated to is finalised; that cost will apply to the release and not to an individual SEC Modification.

Note there is no requirement for CHM and BSS regression testing, as there are no changes in these applications.

Timelines are shown in section 6.1 following although times may well be called out in the following sections.

5.1 Pre-Integration Testing

Pre-Integration Testing (PIT) estimates are subject to a PIT environment being available for this testing to be carried out. The Communications Hub change testing will be limited to PIT testing of the new functionality outlined in this Modification as well as PIT regression testing. PIT System Comms Hub testing will consist of 2 cycles of testing of the new functionality delivered by this Modification, plus 2 cycles of regression testing. A repeat of a subset of PIT System test cases will be conducted for DCC Test Assurance witnessing.

When the software has been deployed into PIT, it may be possible to operate the following phases of testing in parallel:

- Devices Acceptance testing
- Networks testing
- System testing

Device testing focuses on both acceptance testing new releases from the CH manufacturers, the testing of physical aspects of the Communication Hub and the testing of core functionality relating to start up and initial operation.

Networks testing focuses on how the Communication Hub interacts with the SMWAN.

System testing focuses on how the Communication Hub interacts with the CSP systems including:

- GBCS message processing
- Firmware distribution
- Device management related functionality including power outage processing

Multiple PIT teams may be engaged operate in parallel to minimise the duration of the overall testing phase.

5.2 System Integration Testing and User Integration Testing

The DSP SIT team will create a set of test scenarios to validate the new functionality introduced by the new Use Case GCS60a and to include SRs 4.1.1; SR4.1.2; SR4.1.4; 4.3 and 4.18. SIT effort also includes also regression testing of the affected functional areas and supporting CSP testing.

The DSP UIT Test team will prepare and execute the necessary tests to verify a successful deployment of the changes has been completed in the UIT environment. UIT resources will then be available to support service users with their own user testing activities in a two (2) calendar month period. The DSP UIT support for CR1197 is expected to be part-time throughout this period.

This particular change will require UIT environments to undergo specific post-deployment verification of some key components (Service User Simulator incorporating the new version of Parse and Correlate) in addition to other standard deployment checks that are part of this change.

CSP test lab support will be required to Permit the System Integrator (CGI SI) to execute the SI regression test pack for System Integration Testing (SIT) and User Integration Testing (UIT). The same support will provide triage and defect resolution activities during any SI managed integrated testing.

5.3 Framework and Testing Tools

This Modification will require the following changes to support CH testing:

- Update to testing framework to verify and validate the backward compatibility use cases
- Update to test support tools to support upstream and downstream mechanism limits / no limits
- Update the PIT meter Test Stub capability to assure the Modification Communication Hub software uplift

5.4 Reference Test Data Set (RTDS)

The RTDS data set will be updated with the following changes:

- New GBCS payloads for the use cases GCS13a, GCS13b, GCS13c, GCS14 and GCS60a run on a GPF. These payloads will include a mix of examples where the GPF returns the GSME timestamp (reliable date-time) and its own timestamp (unreliable date-time).
- Update of existing GCS60a payloads to include the Grouping Header date-time.
- New and updated DUIS and MMC examples for SRV 4.1.1, 4.1.4, 4.1.2, 4.3, and 4.18 matching the payloads mentioned above.

It is assumed there will be a change in the GBCS mapping table that sets the grouping header date-time field as mandatory for use case GCS60a.

6 Implementation Timescales and Releases

This Modification was expected to be included in a SEC release in November 2020. Implementation timescales will be finalised as part of the relevant SEC release Change Request.

6.1 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 **13 months**.

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

Phase	Start	End
SECAS agreement on scope of release	Decision Date (D)	
CAN signature	D + 1 Month	
PIT Phase	D + 1 Month	D + 6 Months
SIT Phase (functional changes only)	D + 6 Months	D + 10 Months
UIT Phase (functional changes only)	D + 11 Months	D + 12 Months
Transition to Operations and Go Live	D + 12 Months	D + 13 Months

For the CSPs, the testing cycles follow the pattern described in section 5.1 onwards with two PIT cycles, an additional cycle of defect fixes, and two SIT cycles.

6.2 Release Allocation and Other Modifications

When a decision is made on the potential SEC Release for this Modification, an assessment of any overlaps or duplication of functionality, particularly testing will be made. Allocation to a SEC Release is decided when the Modification is approved. The allocation to any release may be dependent on other Modification timings and the suitability of a release.

At this time, there no functionality overlaps with other Modifications has been identified.

6.3 Costs and Charges

This section indicates the quote per application development stage for this Modification. Note these costs assume a standalone release of just this SEC Modification without any other Modifications or Change Requests in the release, which is not truly reflective of what the 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	PIT	SIT	UIT	TTO	App. Support	SP Total
Phase Total	244,695	583,985	1,187,698	708,588	651,239	121,718	90,701	4,596,044

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.
Application Support	Any costs associated with supporting the new functionality.

6.4 Impact on Contracts and Schedules

It is not expected that there will be material changes to the contract as a result of this change. The actual changes will be assessed as part of the Contract Amendment Note (CAN).

There are modifications in the contract schedules required to support the changes in this Modification (*impacted Service Provider(s) shown like this below*):

Schedule 2.1: (CSP) For update to DSP Functional Requirements

Schedule 2.3: (CSP) The GBCS version in schedule 2.3 is to be updated

Schedule 4: (CSP) Technical requirement details to be added to this Schedule.

Schedule 6.1: (DSP, CSP) Consideration for updates to DSP Milestones if this change is to be implemented outside of the standard release cycle;

Schedule 7.1: (DSP, CSP) For updates to payments linked to milestones and Operational charges.

Schedule 11: (CSP) Technical requirement details to be added to this Schedule along with references to updated specification documents.

Schedule 12: (CSP) To reflect the uplifted GBCS specification version.

7 Risks, Assumptions, Issues, and Dependencies

The tables below provides a summary of the Risks, Assumptions, Issues, and Dependencies (RAID) observed during the production of the Full Impact Assessment. DCC requests that the Working Group considers this section and considers any material matters that have been identified. Changes may impact the proposed solution, implementation costs and/or implementation timescales.

RAID and Clarifications already considered in the PIA have been rolled up into



PIA RAID.docx

the attached file:

7.1 Risks

Ref	Description	Status/Mitigation
SIA15-A-R1	Any changes to the scope or interpretation of the items in scope will need to be agreed with the DCC in the first instance and will require reassessment and therefore agreement from the DCC that they accept the impact in terms of cost and time.	Accepted.
SIA15-A-R2	There is a risk that any changes to previous deliveries or overrunning of previous projects will impact the timescales for delivery of the Modification.	Accepted
SIA15-A-R3	The availability of the revised CHTS and GBCS specifications may delay this programme.	Accepted
SIA15-A-R4	If the GSME firmware version which aligns with GBCS functionality within the Modification is not available for SIT testing, new functionality cannot be effectively verified.	Accepted.
SIA15-A-R5	Any requests for additional or extended rounds of testing would impact the overall cost and schedule.	Accepted
SIA15-A-R6	Should test phases be delayed for reasons outside of Service Provider's control, additional charges will apply.	Accepted
SIA15-A-R7	The meter emulators are not representative enough of real meters, meaning defects may be found in SIT testing, which are not found in PIT.	Accepted but meter emulators will be specified and developed for the release.
SIA15-A-R8	The Environment Refresh plan (PIT-B and SIT-B) impacts the Modification timeline when test environments are upgraded.	Accepted. DCC needs to secure and refresh as appropriate.

	The Arqiva PIT-B and UIT-B Test Environments are provided to the end of June 2020. If the timing of implementation of this change means that any testing takes place after the end of June 2020 there will be no B-Stream Test environment and that testing will need to take place on the A-Stream Test Environment. This could affect defect fixes and other upgrades which are intended to be tested on the A-Stream Test Environment.	
SIA15-A-R9	The CSPs currently only have the capability to execute two sets of Comms Hub firmware PIT testing in parallel. If other PIT testing activities are already being conducted with higher priority as defined by DCC, this Modification's PIT testing may be delayed.	Accepted. Note this limit will impact any other Comms Hub changes proposed in this timeline.
SIA15-A-R10	The charges set out in this IA are based on CSP North and Central's (Arqiva) understanding of the Modification as set out in the IA. If the approved CHDS or CHTS is different, then any programme or cost risk arising from those changes rests with the DCC. Arqiva's price includes the cost of providing one draft of these documents. If further drafts are necessary, for any reason other than an oversight by Arqiva of changes known to Arqiva at time of CAN, the cost of these further changes will be paid by the DCC on a time and materials basis. The DCC are responsible for, and will run, the consultation in regard to these changes. The risk of these changes leading to programme delay or additional work to change the implementation will rest with the DCC.	Accepted
SIA15-A-R11	The Comms Hub firmware does not meet the defect mask after two cycles of PIT testing, requiring further development and testing.	Accepted
SIA15-A-R12	If the System Integrator cannot execute the SIT Test Phase per test cycle in the assumed periods, the baseline schedule may be impacted.	Accepted
SIA15-A-R13	Further defects may be found in UIT Enduring Testing, after the UIT project testing has completed, blocking the OA process.	Open
SIA15-A-R14	Should the DCC want to introduce real meters and devices into CR1197 PIT testing, the baseline delivery scheduled for CR1197 may be impacted.	Accepted
SIA15-E-R1	Firmware delivered late and delays PIT/Delivery	Reduce. Frequent reviews with firmware suppliers, Critical Software audit implementation, EDMI contracted on a fixed price basis
SIA15-E-R2	Additional Assurance Maintenance Plan (AMP) cycle(s) of Commercial Product Assurance (CPA) required due to defects	Reduce. CSPs and firmware suppliers to be involved in testing

		approach. EDM I contracted on a fixed price basis for resolution of defects within their software."
SIA15-E-R3	PIT completion is delayed by issues with (EDMI) firmware	Reduce. 2 cycles of PIT testing included in project plan
SIA15-E-R4	SIT testing is extended due to Severity 2 issues identified during SIT	Reduce. 2 cycles of SIT testing have been included in the project plan
SIA15-E-R5	UIT testing is extended due to Severity 2 issues identified during UIT	Reduce. 2 cycles of PIT and SIT have been included in the project plan
SIA15-E-R6	Following completion of UIT project testing, defects are found in Enduring UIT which block OA	Accepted. DCC to accept that these defects are managed differently so that the impact is mitigated
SIA15-E-R7	The firmware supplier (EDMI) fix duration is greater than the 4 weeks currently assumed in the plan	Reduce. Regular defect triage and reviews to track progress and minimisation of schedule impact by testing in parallel with supplier testing
SIA15-E-R8	Planned resources are unavailable	Reduce. Ensure that a robust project plan (with appropriate durations) is in place prior to the commencement of the Modification which factors in commitments on other CRs
SIA15-E-R9	Existing programmes delay delivery of this Modification.	As above. Mitigation carried out under the existing programmes"
SIA15-E-R10	SLS emulator firmware for the relevant version of GBCS required for Modification is not available for PIT or SIT testing	Accepted
SIA15-E-R11	Current programme work-off and/or prod fixes are added to scope, increasing development & test timescales	Accepted, scope will be finalised before work starts
SIA15-E-R12	DCC does not finalise scope before instruction to proceed	Accepted

SIA15-T-R1	<p>There is a risk that incorporating new functionality, such as this Modification, as part of a firmware maintenance release will, should defects be identified related to this Modification, block the progression of maintenance fixes.</p> <p>Should this scenario occur and there are no Severity 1 or 2 defects related to the scope of this Change Request, CSP South (Telefonica) expect DCC-L to:</p> <ul style="list-style-type: none"> Continue to support the progression of the maintenance release through the test cycle and through OAB. As the changes do not relate to any BAU SU used functionality this is a reasonable approach Support the introduction of defect fixes as part of a further maintenance release 	Open
SIA15-T-R2	<p>There is a risk that any specification misinterpretation that is identified during testing the firmware releases associated with this Modification result in the need to iterate the Comms Hub firmware, delaying the availability of compliant firmware in Production and resulting in additional effort to test additional firmware releases and manage the progression of that firmware.</p>	Accepted. Design reviews and workshops will cover in detail each aspect of the change.

7.2 Assumptions

These assumptions have been used in the creation of this Full Impact Assessment. Any changes to the assumptions may require DCC to undertake further assessment, prior to the contracting and implementation of this change.

Ref	Description	Status/Mitigation
SIA15-A-A1	The costs included in this IA response are based on the assumed scope/timescales as provided by DCC in this Modification. If these change, the Service Providers reserve the right to reassess the impact of this Modification.	Accepted, but no charges will be made for this work.
SIA15-A-A2	It is assumed that no additional test devices will be required for this Modification.	Accepted
SIA15-A-A3	PIT System testing will be performed against emulators or stubbed ESME and GSME devices and the scope of PIT testing will be similar to earlier Releases.	Accepted.
SIA15-A-A4	All test activities are planned in sequence.	Accepted
SIA15-A-A5	CPA will be obtained through AMP.	Accepted
SIA15-A-A6	ZigBee full recertification will be required.	Accepted
SIA15-A-A7	This CR (CR1197), the Modification, will be the 'change' scope for this release.	Rejected (Ignore). A separate CR will be

		raised for Post-PIT Testing of all changes in a future release.
SIA15-A-A8	No formal OCT and DIT Test Phases are planned for this release.	Accepted
SIA15-A-A9	No weekend work is planned. If needed, prior notice will be required and additional costs may be applicable.	Accepted
SIA15-A-A10	Should test phases be delayed for reasons outside of Arqiva's control, additional charges will apply.	Accepted
SIA15-A-A11	SBCH testing is of a higher priority than DBCH testing.	Accepted
SIA15-A-A12	A full cycle of testing will be carried out in SBCH and DBCH variants and a subset will be verified in DBCH-F, SBCH-ITCH, DBCH-ITCH variants.	Accepted
SIA15-A-A13	PIT testing is executed with emulators only.	Accepted
SIA15-A-A14	Any changes to schedule and/or cost to the PIT testing approach to include testing with real meters will be covered under a separate DCC Change Request.	Accepted
SIA15-A-A15	The DCC will provide a separate CR to formally recognise the DCC Operational Acceptance process (OA).	Accepted
SIA15-A-A16	It is assumed that resource will be available to implement this Change and that no mobilisation is necessary. If this is not the case, then timescales are subject to change and will be confirmed at CAN.	Accepted
SIA15-A-A17	This IA assumes that the B-Stream Test Environments (PIT and UIT) are closed down at the end of June 2020 in line with the current Agreement. This IA does not include any costs for the replacement of, or the extension of the availability of, the B-Stream Test Environments. Ref SIA15-A-R8.	Ignore. DCC intends to extend the availability of the B-stream environments.
SIA15-A-A18	This IA has been based on completion of CR1047 (GBCS v3.2) prior to commencement of those Modification. If this is not correct, then the pricing and timescales are subject to change.	Accepted
SIA15-T-A1	During PIT the following devices combinations will be tested: <ul style="list-style-type: none"> CR1197 (Modification) compliant test stub and CR1197compliant CH Non- CR1197 compliant test stub + CR1197 compliant CH. 	Accepted
SIA15-T-A2	Assume GPF implementation will be backward compatible with non-compliant GSME by filling up missing time-stamp attributes with Communications Hub's own time-stamp.	Accepted

SIA15-T-A3	<p>Assume the environments used to prove the CH firmware delivery of this Modification will be determined at the point of availability to release into the PIT and SIT environments and will be based on:</p> <ul style="list-style-type: none"> Whether the PITB / SITB / UITB environments are expected to endure for the period of testing whether the PITA, SITA and UITA environments are expected to be available at the times expected within the delivery plan 	Rejected, not part of this FIA
SIA15-T-A4	<p>Assume the scope of the PIT Approach uplift required to support this Modification in regard to CH firmware change is limited to:</p> <ul style="list-style-type: none"> Proving via PIT testing that the GPF is able to record a value of the ReadingSnapshotTime attribute provided by a GSME; Proving the GPF can populate the date-time field in the responses for the GBCS use cases listed 	Accepted
SIA15-T-A5	<p>Assume there is sufficient capacity within the SIT plan to test any planned Communication Hub related releases defined within this Modification across both SBCH and DBCH.</p>	Rejected, not part of this FIA
SIA15-T-A6	<p>Assume there will be a single iteration of software required for this Modification from the Communication Hub vendors. The delivery plan for this release has a single iteration.</p>	Accepted
SIA15-T-A7	<p>Assume there is a change in the DUIS schema version used for the CSP management interface and there is additional effort to load the updated DUIS schema and to regression test this functionality in PIT.</p>	Accepted
SIA15-T-A8	<p>Assume that the firmware changes to support the delivery of this Modification will be managed via the incorporation of the change within a firmware maintenance release and not as part of a DCC release operating in parallel with the maintenance release process.</p> <p>Whilst CSP South and Central understand that the incorporation of changes and fixes within maintenance releases is something that will be discussed with DCC-L as part of release planning, it has been necessary to make this assumption from a commercial planning perspective.</p>	Accepted
SIA15-T-A9	<p>Creation of a version of the appropriate SEC technical specifications (including any of GBCS and CHTS) to support this Modification such that it can be deployed into Production</p>	Accepted

7.3 Issues

None at this time.

7.4 Dependencies

Reference	Dependency	Implication if dependency not met	Status
SIA15-T-D1	There is a dependency on the Technical Specifications to include the changes in this Modification	If the specifications are not updated, then this Modification cannot be promoted into Production and DCC shall be liable for any wasted costs	Accepted
SIA15-T-D2	There is a dependency on CPA security characteristics to be updated to align with the Technical Specifications mentioned in SIA15-T-D1	If CPA is not updated to align with the new Technical Specifications, then the change can't be delivered	Accepted
SIA15-T-D3	Telefónica has a dependency on DCC-L raising purchase order cover upon acceptance of this Impact Assessment such that Telefónica can progress with the delivery of this Change Request beyond any previously agreed commercial cover.	Telefónica will be unable to meet the delivery timeframes included in this Impact Assessment.	Rejected. PO Cover will be raised when the Modification is approved by SECAS, and the release plan is completed.
SIA15-T-D4	Any defect fixes that may prevent OAB for the Comms Hub firmware releases delivered under this Modification should be included in the firmware scope at least twenty (20) days prior to the release of that firmware into PIT. Defects must have been confirmed and triaged by the respective CSP and associated Communication Hub manufacturer.	Telefónica will be unable to incorporate the defect fixes into the specified release	Accepted
SIA15-T-D5	Telefónica is dependent on DCC-L organising a workshop with CH vendors, BEIS and DCC to walkthrough the changes to the specification to identify and resolve any areas of specification misinterpretation that may delay this release	Telefónica will revise the pricing associated with SIA15-T-R2 if there are any specification interpretation issues that result in additional or wasted costs for Telefónica.	Partially accepted. Design reviews and workshops will cover in detail each aspect of the change.

Appendix A – GBCS Changes

This SEC Modification is designed to allow Remote Parties and Devices reading the instantaneous values from the GPF to know what the time was on the GSME's Clock to which those values relate.

The solution requires the GPF to create Responses to Use Cases GCS13a, GCS13b, GCS13c, GCS14 and GCS60 and use its copy of the GSME date-time stamp to populate the date-time field in the Response.

The date-time stamp is part of the Grouping Header defined in GBCS Section 7.2.7 'Message construction – Grouping Header'. GBCS Table 7.2.7 details: 'Where date-time is required for a Message, it shall be a 12 octet string as per the DLMS specification. See 'date-timestamp in response' column, 'Use Case reference' tab in Mapping Table'.

Figure 1 below illustrates the date-time stamp in the Grouping Header.

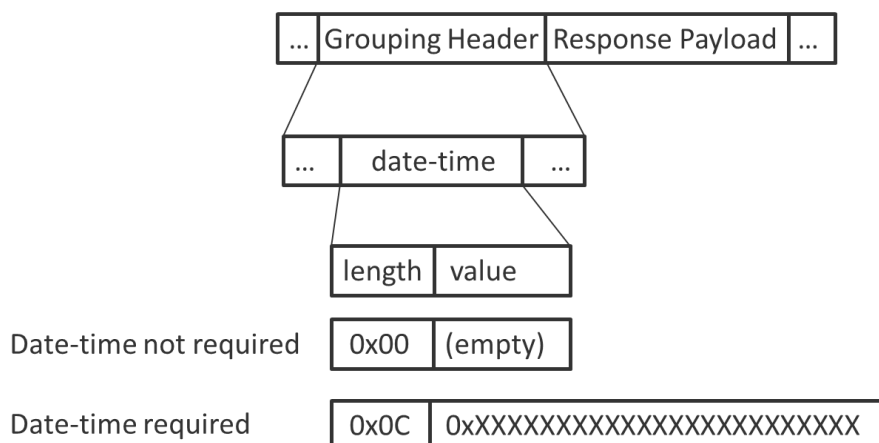


Figure 1:Date-time stamp in Grouping Header

The settings in the Mapping Table 20 mandate Use Cases GCS13a, GCS13b, GCS13c, GCS14 to include the date-time stamp in the Response; however for the Response to Use Case GCS60 the date-time stamp is currently not mandated.

The documentation in GBCS Mapping Table 20 is consistent across different version of GBCS; Table 1 below shows an extract of Mapping Table 20 with Use Case GCS60 being highlighted:

<i>Use Case Name</i>	<i>DLMS/AS N.1 message Location (1= in html)</i>	<i>Use Case (DLMS/ASN.1)</i>	<i>Message Code</i>	<i>GBZ message Location (1= in html)</i>	<i>Use Case (GBZ)</i>	<i>Message Code (gas)</i>	<i>Date-timestamp in response</i>
Read Import Energy / Consumption Registers	1	ECS17b Read ESME Energy Registers (Import Energy)	0x0027	1	GCS13a Read GSME Consumption Register	0x0074	Y
Read Energy / Consumption Register (TOU)	1	ECS17d Read ESME Energy Register (TOU)	0x0029	1	GCS13c Read GSME Register (TOU)	0x00B6	Y
Read GSME Energy Register (Block Counters)				1	GCS13b Read GSME Block Counters	0x00B8	Y
Read Prepayment Registers	1	ECS19 Read ESME Prepayment Registers	0x002D	1	GCS14 Read GSME Prepayment Register(s)	0x0075	Y
Read Meter Balance for Smart Meter	1	ECS82 Read Meter Balance for ESME	0x0069	1	GCS60 Read Meter Balance for GSME	0x008D	

Table 1: Existing requirements for the inclusion of the Date-time stamp in the Grouping Header for Use Cases GCS13a, GCS13b, GCS13c, GCS14, GCS60

As a consequence the implementation of SECMP0015 is possible for GCS13a, GCS13b, GCS13c, GCS14 as per the original solution design document; it is not possible for GCS60 due to the date-time stamp being not populated in the Grouping Header.

An alternative implementation is needed to support the desired functionality for GCS60.

Amended Solution

In order to include the functionality provided by Use Case GCS60 in the solution the following approach shall be taken:

1. Use Case GCS60 shall be deprecated;

2. a new Use Case GCS60a with a new GBCS Message Code shall be introduced;
3. the parameters of Use Case GCS60a shall be those of Use Case GCS60;
4. in addition Use Case GCS60a shall contain a 'Y' in the column 'date-timestamp in response', 'Use Case reference' tab in Mapping Table 20; and
5. Use Case GCS60a shall be added as a new line in Mapping Table 20.

These changes shall be documented in a new version of GBCS.

Implementation Impact

The sending of the Use Case GCS60a Command is similar to the sending of the existing GCS60 Command; minor changes are required to support Use Case GCS60a on the Supplier and DCC systems.

With regards to Responses from devices to the Command containing the Use Case GCS60a, the changes listed above will impact devices and processes due to the inclusion of the date-time stamp in the Grouping Header of the message:

- The GPF must support the new Use Case GSC60a.
- The GSME must support the new Use Case GCS60a.
- A new version of DUIS is required to include Use Case GCS60a.
- A new version of MMC is required to include Use Case GCS60a.
- Parse and Correlate must support Use Case GCS60a.

This implementation approach preserves the Use Case ECS82 in its current format without the date-timestamp and therefore doesn't impact either the ESME or the DCC and Suppliers Systems.

Appendix B – Glossary

.Acronym	Definition
AMP	Assurance Maintenance Plan
BSS	Business Support System
CAN	Contract Amendment Note
CH, Comms Hub	Communications Hub
CHDS	Communications Hub Detailed Specification
CHM	Communications Hub Manager
CHTS	Communications Hub Technical Specification
CPA	Commercial Product Assurance
CR	DCC Change Request
CSP	Communications Services Provider(s)
DBCH	Dual Band Communications Hub
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FIA	Full Impact Assessment
GFI	GBCS Integration Testing For Industry
GPF	Gas Proxy Function
GSME	Gas Smart Metering Equipment
HAN	Home Area Network
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
ROM	Rough Order of Magnitude (cost)
SBCH	Single Band Communications Hub
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SP	Service Provider
SR	Service Request
SRV	Service Request Variant
SUS	Service User Simulator
UIT	User Integration Testing

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SECMP0015 ‘GPF timestamp for reading instantaneous Gas values’

Annex D

Working Group Consultation responses

About this document

This document contains the full non-confidential collated responses received to the SECMP0015 Working Group Consultation.

Question 1: Do you agree with the solution put forward?

Question 1			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party	Yes	The quality of information provided by the display to the consumer will be improved, giving a better experience to the end user.
E.ON	Large Supplier	Yes	EON supports the proposal for the following reasons: <ul style="list-style-type: none"> It will enable EON to age the GSME balance more accurately It will support identification of communications issues between the GSME and GPF devices i.e. if the source of the instantaneous values is the GSME and the date/time stamp is greater than 30 minutes old, then this could indicate that there has been a loss of comms between the devices It will support more accurate and timely balance information for PAYG customers
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters. This means all processes are unfamiliar and would not make a fair response.
Scottish Power	Large Supplier	Yes	This solution is necessary to mitigate the use of misleading read values in various consumer interactions.

Question 2: Will there be any impact on your organisation to implement SECMP0015?

Question 2			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party	No	Existing implementations work (with limitations on the temporal accuracy of the information) and the change will not break this solution. Implementation of SECMP0015 will allow future products to seamlessly use this extra information as we choose to introduce them.
E.ON	Large Supplier	Yes	EON will be required to schedule the integration of the new Message Mapping Catalogue schema, which will be delivered as part of normal service delivery/support activity. No development effort will be required
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	Changes to Parse & Correlate software and changes to meter specifications will have some impacts.

Question 3: Will your organisation incur any costs in implementing SECMP0015?

Question 3			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party		
E.ON	Large Supplier	No	As above, the internal changes required to deliver the change will form part of normal service delivery/support activity
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	As indicated in our response to Q2, implementing changes to Parse & Correlate software and the pass through costs of manufacturers' changes to meter specifications will have some impacts. However, as both are externally sourced, we cannot currently quantify the specific costs associated with these.

Question 4: Do you believe that SECMP0015 would better facilitate the General SEC Objectives?

Question 4			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party		
E.ON	Large Supplier	Yes	Delivery of this change will better facilitate general SEC objective 3 – To facilitate Energy Consumers' use of electricity and gas by providing information through Smart Metering Systems
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	<p>We consider the test for Objectives (a) and (c) to have been met as highlighted:</p> <p>(a) the first General SEC Objective is to facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain; and</p> <p>(c) the third General SEC Objective is to facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of appropriate information by means of Smart Metering Systems.</p>

Question 5: Noting the costs and benefits of this modification, do you believe SECMP0015 should be approved?

Question 5			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party	Yes	The end user can be misled by information on the display if this is not approved – availability of the extra information is a necessary part of making the display more trustworthy.
E.ON	Large Supplier	Yes	The costs appear to be consistent with the changes being delivered and testing required to assure them
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	Customers should know whether the data they have is contemporary.

Question 6: How long from the point of approval would your organisation need to implement SECMP0015?

Question 6			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party		
E.ON	Large Supplier	1 month	Lead time of at least one month required to schedule the MMC Schema/P&C upgrade/changes with EON's service providers
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	c. 12 months	

Question 7: Do you agree with the proposed implementation approach?

Question 7			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party	Yes	
E.ON	Large Supplier	No	The implementation timescale is longer than EON would like. A significant proportion of our customer base will have Smart Metering by Q3/4 of 2020, many of which will be in PAYG mode, before this change is delivered. The risks, customer impacts and costs associated with managing them will have to be borne by EON during that period.
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	

Question 8: Do you agree that the legal text will deliver SECMP0015?

Question 8			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party		
E.ON	Large Supplier	Yes	The legal text clearly describes the required behaviour of GSME device and GPF when handling instantaneous values in future
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	

Question 9: Do you believe that this modification should be progressed as a Self-Governance Modification?

Question 9			
Respondent	Category	Response	Rationale
Chameleon Technology	Other SEC Party		
E.ON	Large Supplier	Yes	The modification fits within the SEC definition of a Self-Governance Modification as defined in the SEC Section D
Smartest Energy	Small Supplier	N/A	Smartest currently will not be operating/supplying GSME meters
Scottish Power	Large Supplier	Yes	

Question 10: What long term impacts (if any) would you incur if SECMP0015 is not implemented?

Question 10		
Respondent	Category	Response and rationale
Chameleon Technology	Other SEC Party	
E.ON	Large Supplier	Failure to implement the modification would have long term impacts on our ability to provide accurate information to energy consumers, which could adversely affect a proportion of our PAYG customer base. In addition, EON anticipates a need to send unnecessary service requests to both the GPF and GSME devices to validate the accuracy of data held on the GPF whilst the GSME timestamp is not available
Smartest Energy	Small Supplier	N/A
Scottish Power	Large Supplier	Meter reading values may be misleading.

Question 11: Please provide any further comments you may have

Question 11		
Respondent	Category	Comments
Chameleon Technology	Other SEC Party	
E.ON	Large Supplier	
Smartest Energy	Small Supplier	N/A
Scottish Power	Large Supplier	N/A

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SECMP0015 'GPF timestamp for reading instantaneous Gas values'

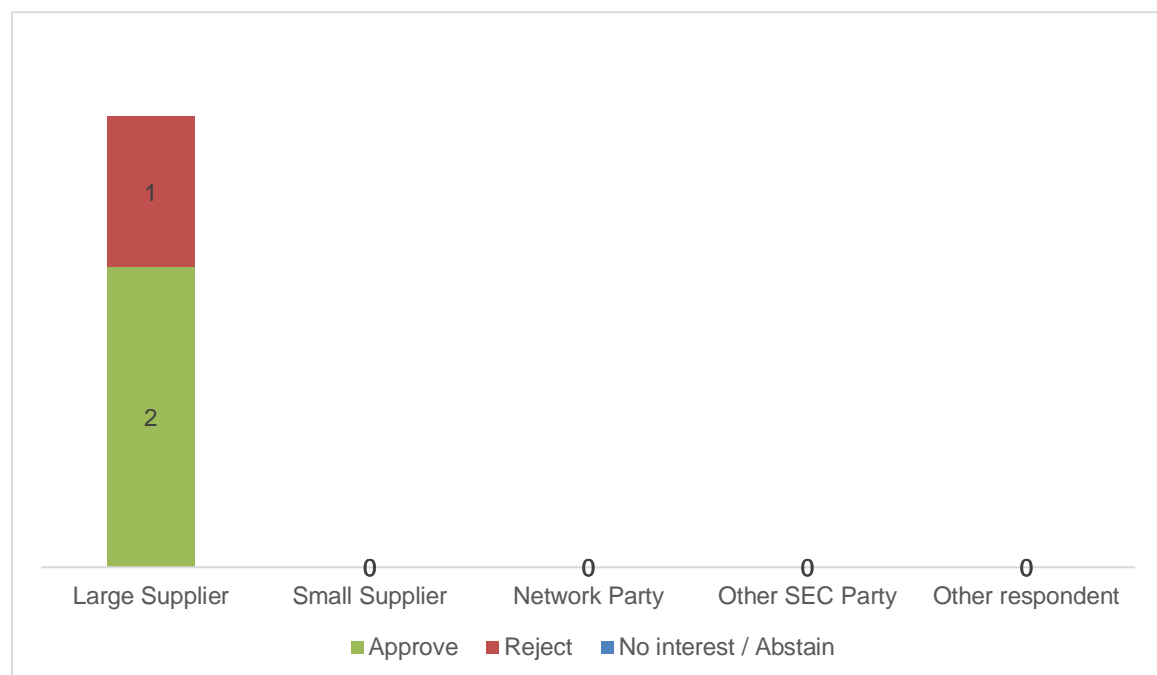
Annex E

Modification Report Consultation responses

About this document

This document contains the full collated responses received to the SECMP0015 Modification Report Consultation.

Summary of responses



Question 1: Do you believe that SECMP0015 should be approved?

Question 1			
Respondent	Category	Response	Rationale
E.ON	Large Supplier	Approve	E.ON is supportive of this change to support meter triage and improve billing and customer data accuracy.
OVO	Large Supplier	Approve	<p>The impact on the customer journey and issues relating to Prepayment require this to continue although the costs for doing so may mean this will not happen and getting the best outcome for the customer may not be possible due to exorbitant costs the DCC seem to charge Users.</p> <p>We agree these align to SEC Objectives (a) and (c).</p>
Scottish Power	Large Supplier	Reject	<p>We were broadly supportive of this modification in light of the positive cost benefit ratio suggested from its preliminary assessment 2 years ago, which was around £600k.</p> <p>However, the full impact assessment suggests costs nearer £4.6m for PROD delivery. In our view this completely undermines the case for implementation.</p>

Question 2: Please provide any further comments you may have

Question 2		
Respondent	Category	Comments
E.ON	Large Supplier	Can the DCC give an indication of the cost savings associated with testing using real devices instead of emulators, as referred to in Section 5. The section suggests that additional detail is available in Annex C, but there isn't a clear statement of the cost saving.
OVO	Large Supplier	The costs are not finalised and this needs to be challenged and drawn out. DCC need to clarify the costing to use actual devices and not emulators. It must also be flagged the cost for this change is huge and far outside the acceptable tolerances. This needs to be discussed and go through before this is cleared to be progressed. It is a shame this is no longer an Authority Driven change as it would be interesting to see their view of the costs and how much changing the Solution, especially for Prepayment customers, will be charged to Users.
Scottish Power	Large Supplier	N/A

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MP077 'DCC Service Flagging'

Modification Report

Version 0.4

8 January 2021

Corporate member of
Plain English Campaign
Committed to clearer
communication

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About this document

This document is a draft Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

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This document also has five annexes:

- **Annex A** contains the business requirements for the solution.
- **Annex B** contains the redlined changes to the Smart Energy Code (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 Refinement Consultation.
- **Annex E** contains the DCC statement around the costs. This annex is classified as **RED** – Parties can request a copy by emailing sec.change@gemserv.com.

Contact

If you have any questions on this modification, please contact:

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020 7081 3345

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1. Summary

This Proposal was raised by Paul Saker of EDF on 7 June 2019.

The industry needs a simple and reliable mechanism for identifying where smart Devices are, or are not, present at a location. This is currently performed by a DCC 'service flag' at meter point level, where the information is stored in the DCC's Smart Metering Inventory (SMI). This information is necessary for Suppliers to establish whether there is a Smart Metering System (SMS) they can communicate with at that location. Suppliers need this information on order to be able to offer consumers the correct service and associated tariff. Network Parties need the information to correctly handle Alerts.

Issues have been identified in the current process where the DCC service flag is incorrect. This hinders both the switching process for some consumers with Smart Meters (as Suppliers cannot offer an appropriate tariff) and Ofgem's Switching Programme in general.

The Proposed Solution is to amend the SEC Appendix X 'Registration Data Interface Specification' and any other references in the SEC to the DCC service flags. The 'W' for Withdrawn and 'S' for Suspended flags will be removed. Instead, a 'N' for Non-Active and an 'I' flag for InstalledNotCommissioned will take their place. By doing this, the new DCC service flag states should align to what is written in the SEC and allow Users to tell the difference between the status of an SMS which is either Active, installed but not commissioned or decommissioned.

The cost of implementing the Modification Proposal is approximately £387,000. This Modification Proposal affects all Supplier Parties, Gas and Electricity Network Operators, Other SEC Parties and the DCC. This Modification Proposal will impact the DCC Systems by affecting the Data Service Provider (DSP), but will not impact the technical specifications. This change is targeted for the November 2021 SEC Release and is a Self-Governance Modification. Please note that this Modification Proposal requires sequential changes to be administered by the Master Registration Agreement (MRA) and Xoserve for the Uniform Network Code (UNC) to be implemented on the November 2021 SEC Release date.

2. Issue

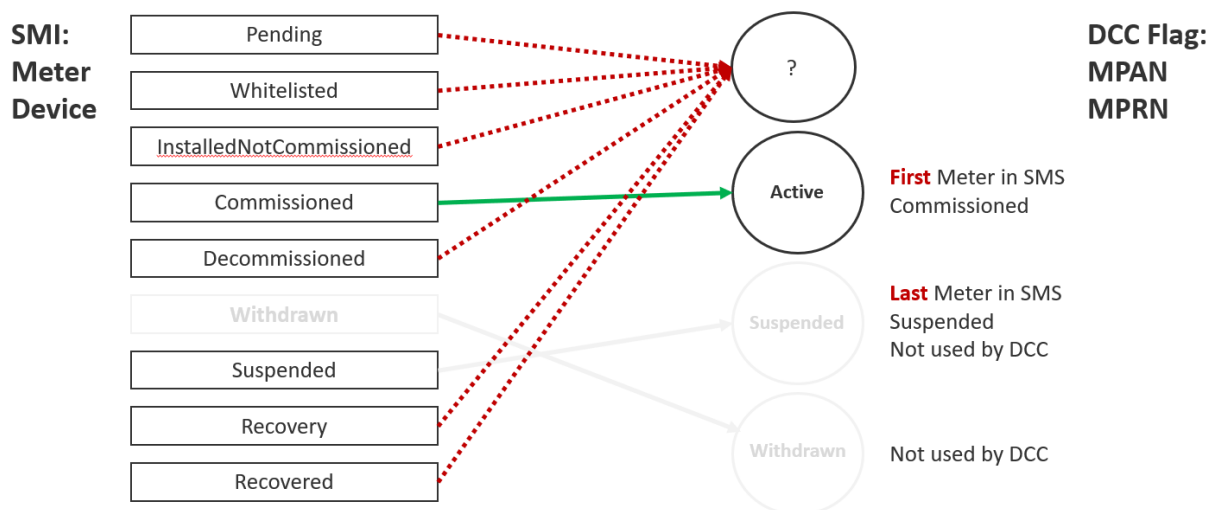
What are the current arrangements?

The current approach, as recommended by the DCC, is to use the DCC service flag held in the gas and electricity registration systems to understand the SMS at a property. This registration is managed by the DCC Service status update file as part of the wider DCC Systems. The DCC describes this as the file produced by DCC and transferred to each Network Party detailing the DCC Status of each Electricity Metering Point or Gas Supply Meter Point registered to that Network Party. This is created using the D0350 'Notification of DCC Services at Metering Point' data flow triggered from the DCC central systems. When the first meter in a smart metering system is commissioned the value of the service flag is set to 'A' for active. The other current service flag values available are 'S' for suspended and 'W' for withdrawn. These three DCC service flags are detailed in the SEC in Appendix X 'Registration Data Interface Specification'.

The DCC service flags correspond to the various states as described in the SMI which consist of the following:

- Pending
- Whitelisted
- InstalledNotCommissioned
- Commissioned
- Decommissioned
- Withdrawn
- Suspended
- Recovery
- Recovered

Of this list, only Commissioned, Withdrawn and Suspended are currently in use for DCC service flag states. The current SMI Device states and how they are mapped to the service flags are displayed in the infographic below:



This illustrates and details where Suppliers and Network Parties have noted that the 'Active' status does not change, even when all Smart Meters have been physically removed from the premises. This also helps to explain why the 'Withdrawn' flag isn't used as the non-domestic opt out has since been removed, as per the BEIS consultation referenced below, and why the 'Suspended' state is currently not working as originally intended due to Smart Meters being removed and the SMS still being listed as 'Active'.

What is the issue?

At the moment, multiple concerns that have been raised with the way the DCC service flags operate. These issues include:

- The DCC service flag is being set to 'A' (active) where a smart metering system is installed but has not been commissioned, and therefore cannot be operated as 'smart'. It appears that this may be set to 'A' when the meter status is set to 'whitelisted' or 'installed not

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commissioned'. This is incorrect as these SMSs are not active and is not what would be expected based on the definition of 'Enrolment' within the SEC as found in SEC Section A 'Definitions and Interpretations' and H5 in SEC Section H 'DCC Services'.

- The DCC service flag currently will remain as 'A' indicating an SMS is still present even when a SMS is removed and not replaced or is replaced with a non-smart meter as there are no DCC service flags to reflect that removal.
- The DCC service flag may remain as NULL, where a valid flag value hasn't been set. This may be the case even where a Smart Metering Equipment Technical Specifications (SMETS) 2 meter has been installed, if the meter has been installed without a WAN connection being made ('Install and Leave' process).
- Due to the removal of the "non-domestic opt-out"¹, the 'W' DCC service flag is no longer required. The non-domestic opt-out allowed SMETS2 Smart Meters to be 'Withdrawn' from a non-domestic premises (both public and private), but following a BEIS consultation had chosen to remove this from the energy Supply Licence.
- The 'S' flag is not currently used in DCC Systems. This is due to the SEC not currently detailing the service flag states and that the appropriate Device status has been removed from the Central Products List (CPL), meaning it is no longer in use.
- The DCC systems include a value of "N" for Not Active to address the situations where a meter is or has been present but is not operating in smart mode, but this value is not currently used in the registration systems.

SEC Section E 'Registration Data' specifies an obligation on the DCC to provide information to Gas and Electricity Registration Data Providers (RDPs) where an enrolled SMS is associated with the relevant network. SEC Appendix X 'Registration Data Interface Specification' details the definition of a service flag and the relationship of the interfaces between the RDPs and the DCC concerning data flows as defined in the Data Transfer Catalogue (DTC). Currently, SEC Appendix X still uses the 'Withdrawn' and 'Suspended' flag states which are no longer used for the reasons given above and there is no area in the SEC which explicitly defines how each individual service flag corresponds to an enrolled SMS.

What is the impact this is having?

It is important that the issues raised are addressed as it is having a direct impact on and impeding the switching process for some consumers with Smart Meters. The reliability and accuracy of the switching process is something that Ofgem is focussing on currently through its Switching Programme.

The industry needs a simple and reliable mechanism for identifying where smart Devices are, or are not, present at a location. This information is necessary for Suppliers to establish whether there is an SMS they can communicate with at that location in order to accurately offer customers the correct tariff and service. It is also essential for Network Parties to correctly handle Alerts.

It could also lead to Suppliers having to expend additional resources and effort to correct any issues and reducing confidence in the existing business process. Suppliers with Smart Metering stock may need to perform a site visit to attain information concerning SMSs such as the location and condition

¹ The "non-domestic opt-out" was removed from the Energy Supply Licence conditions following a [BEIS consultation](#).

of individual Devices, whether they are fully operational, in a 'dumb' state or have been removed and/or damaged.

Impact on consumers

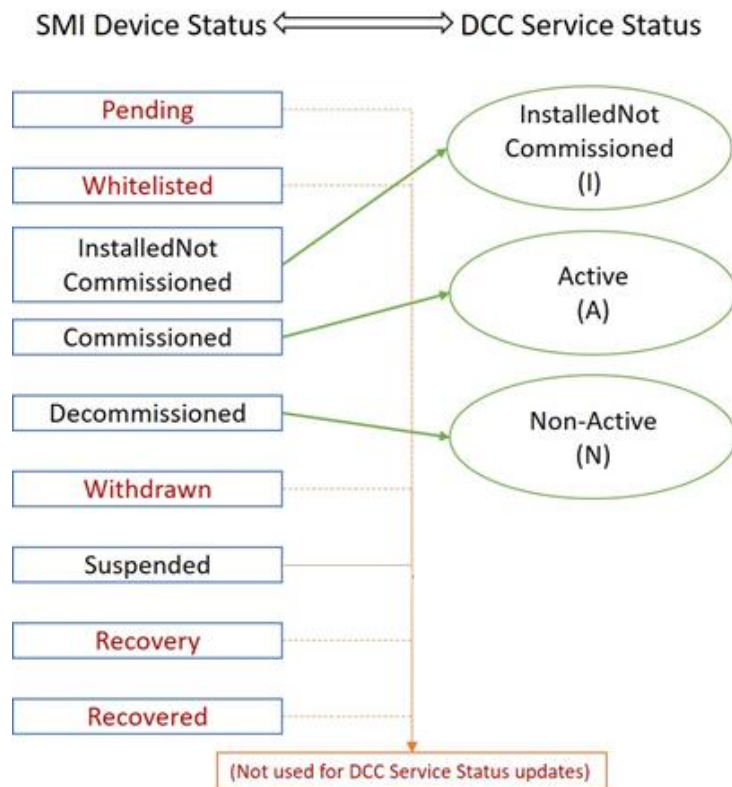
If a consumer wants to switch Suppliers, their tariff will be based on the information in the SMI. However, if the consumer's actual meter configuration does not match this information, it might not be possible to complete a switch or the consumer might default onto a different tariff causing financial loss. If the issue is left unchecked, it may result in consumers not being offered a full choice of products or services as part of the Change of Supply process leading to reducing consumer confidence in the Smart Metering Programme.

3. Solution

Proposed Solution

The Proposed Solution is to amend SEC Appendix X 'Registration Data Interface Specification' to describe the DCC service flag process. This will require removing the 'W' and 'S' flags which are no longer in use, and instead replace them with the existing DCC 'N' flag and a new 'I' (InstalledNotCommissioned) flag which will need to be placed into the appropriate registration system. Additional guidance will be added to the SEC to describe what each service flag does.

These new DCC service flag states in addition to the 'A' flag will enable Users to tell the difference between an SMS that is active, installed but not fully operational, or decommissioned. As a result of these changes, the 'Suspended' state will no longer be mapped to a service flag and will not be affiliated with the other service flags. This will not create any issues, as when a Device would be placed in a 'Suspended' state but the SMS it is part of is displayed as 'Active' with the 'A' flag, this should not change. An example where this would happen is if the Device model is removed from the CPL, and a Supplier Party would then likely issue a firmware update of said Device which throughout would keep the SMS displayed as 'Active' This results in the SMI Device states being mapped to the new service flag states as outlined below:



For the purpose of clarity, below is a list of the possible DCC service flag states and their descriptions:

- **NULL** - The starting position of a Meter Point that is not associated with a Device with an 'Installed Not Commissioned' or 'Commissioned' Device status and has not done so previously.
- **'Active'/'A'** - The Meter Point Status 'A' requires at least one of the associated Smart Meters to have the 'Commissioned' Device status in the SMI.
- **'Non-Active'/'N'** - The Meter Point Status 'N' indicates that it is not associated with a Device with an 'Installed Not Commissioned' or 'Commissioned' Device status, but has been previously.
- **'InstalledNotCommissioned'/'I'** - The Meter Point Status 'I' requires all the associated Smart Meters to have the 'Installed Not Commissioned' Device status in the SMI.

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

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

Breakdown of Other SEC Party types impacted			
✓	Shared Resource Providers	✓	Meter Installers
✓	Device Manufacturers	✓	Flexibility Providers

All Parties are impacted by this change to some degree. All Users can use the DCC service flags to be given information on the status of an SMS. If these change then any Party who uses these amended service flags will be impacted.

Supplier Parties will be additionally positively impacted by potentially not having to correct any issues arising from incorrect information being provided to a SMS they are responsible for. This will result in less time and money being used to mitigate these issues.

DCC System

In the DCC Impact Assessment the DCC stated that its DSP Systems are impacted by this change. However, it confirms there are no changes to Technical Specifications.

The DCC Service Status update file used for registration data management for processing electricity and gas will be amended to include meter points which have had a DCC Service Status update to the 'A' flag and the meter points which have had a DCC Service Status to either of the incoming 'N' or 'I' flags.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex C.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Appendix X 'Registration Data Interface Specification'

The full details of the legal text can be found in Annex B.

Consumers

Consumers will be positively impacted by this change by their Suppliers being able to pass on reliable information about the state of a SMS their respective Devices. Suppliers will be able to identify which premises are able to run a full range of Smart Metering services and so will help to ensure that a Change of Supplier event doesn't deprive a consumer of any of the benefits of Smart Metering.

Consumers will also benefit from accurate information being given to Devices they own on an SMS and therefore being offered the correct tariff and not potentially incur any pass through of costs incurred by Suppliers.

Other industry Codes

This Modification Proposal will impact both the Master Registration Agreement (MRA) and Xoserve who administer the UNC. Both Codes were consulted extensively during the Refinement Process of the Modification Proposal. As part of these discussions, an agreed implementation date of 4 November 2021 (November 2021 SEC Release) was confirmed across the SEC, MRA and the UNC in consultation with Ofgem so that all the impacts would be made live simultaneously.

MRA

The MRA will be affected as it will be required to change the D0350 flow, used in the industry Registration Data process.

The D0350 flow allows the DCC to notify the Meter Point Administration Service (MPAS) that it is providing communications services to a metering point. It further provides any data updates required for that MPAS.

A concern was raised as the DCC is only limited to one flow per MPAN/MPRN. The MRA confirmed there is no cap on the content or how many flows can be placed in a single file update. This could mean thousands of Devices potentially changing flag state all at the same time.

As part of the changes to the D0350 flow, the 'W' and 'S' service flag values will be replaced with the new 'N' and 'I' service flag values. This requires a sequential change to be made after this Modification Proposal is approved so that the DTC matches SEC Appendix X resulting in the service flag values remain consistent. The existing service flag values for Electricity RDPs in the MRA which will need to be amended can be found [here](#).

Under the Retail Code Consolidation (RCC) Significant Code Review (SCR) the MRA will transition to the Retail Energy Code (REC) on 1 September 2021. The MRA highlighted that this could provide a barrier to implementing the changes on the proposed implementation date in November 2021. After raising this issue with Ofgem, it was agreed that a consequential change would be raised after MP077 is approved in order to carry out the changes to the REC needed to mirror the SEC changes.

Xoserve

Xoserve will be affected by changes to the UK Link Manual so it can set out guidance surrounding the changes to any flags and consequential impacts on RDPs. The UK Link Manual contains the terms and conditions of the UNC, as set out in the framework of the gas transporters license.

Xoserve additionally stated that to mirror the impacts of MP077, a proposal has been raised through Xoserve to ensure the changes are implemented on the same date. This proposal is called [XRN 5142 – New Allowable Values for DCC Service Flags in DXI File from DCC](#).

Like the MRA, this consequential change will enact the amendments needed to ensure that all Codes align to the newly introduced DCC service flag states. The proposal will set out the detailed design stages and lay out the changes required after MP077 is approved and pending implementation in November 2021. This approach was agreed with SECAS, the MRA/REC and Ofgem.

Greenhouse gas emissions

There are no impacts on greenhouse gas emissions.

5. Costs

DCC costs

The estimated DCC implementation costs to implement this modification is £387,378. The breakdown of these costs is available in Annex E which will be available upon request from SECAS for SEC Parties by emailing sec.change@gemserv.com.

SECAS costs

The estimated Smart Energy Code Administrator and Secretariat (SECAS) implementation costs to implement this modification is two days of effort, amounting to approximately £1,200. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

A minority of respondents to the Refinement Consultation stated they would incur minor costs. One respondent stated it would be a low cost due to updating a list of valid values. Another respondent stated that they would require further analysis to detail the effort and costs associated with implementation.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **4 November 2021** (November 2021 SEC Release) if a decision to approve is received on or before 4 March 2021; or
- **3 June 2022** (June 2022 SEC Release) if a decision to approve is received on or before 1 October 2021, but after 4 March 2021.

According to the DCC's Impact Assessment, they have stated that eight months lead time would be required to implement the Proposed Solution. This lead time means that the earliest SEC Release this Modification Proposal can be implemented in is the November 2021 SEC Release.

This implementation approach has been agreed in principle by the MRA/REC, Xoserve and Ofgem, where following approval of the SEC Modification Proposal, sequential changes will be made so that all industry Codes progress their changes to go live on 4 November 2021.

7. Assessment of the proposal

Observations on the issue

The Technical Architecture and Business Architecture Sub-Committee (TABASC) stated its interest in the modification. It questioned whether this would be classified as a defect; something the DCC needs to correct to be in line with what the SEC currently states. SECAS responded saying that because the modification's solution could end up changing the DCC flagging system outright, this would require a SEC modification rather than being a defect. No other Sub-Committee gave any views on the Modification Proposal during its Development Stage.

Comments from SEC Parties were unanimously supportive, expressing their support to address the issue raised and to prevent it becoming harder to manage. One Large Supplier noted, along with its support, that there would be a cross-Code impact with the MRA and that any Impact Assessments would have to be coordinated with developments with Ofgem's Switching Programme. SECAS had acknowledged the cross-Code impact this modification would create with MRA and confirmed that there had been communication between Ofgem and the DCC over implementation of the solution. Following discussions with the other industry Codes affected and Ofgem, the outcome was an agreement to target the implementation of the Modification Proposal for the November 2021 SEC Release. Following approval of the SEC Modification Proposal, the MRA and Xoserve would progress the necessary changes in their Codes with an implementation date to match this Modification Proposal, to ensure a synchronised set of changes to the DCC service flags takes place.

Solution development

Changes in the Solution from the Business Requirements

When the Proposed Solution was originally suggested in the first Working Group meeting, members believed that InstalledNotCommissioned, Suspended and Recovery/Recovered should be included in the new 'N' flag. The business requirements were drafted to include these and were submitted to the DCC for a Preliminary Assessment. When the Preliminary Assessment was returned, SECAS noted that there were divergences from the business requirements which were raised at the next Working Group meeting. Specifically, the DCC's solution did not include the Suspended and Recovery/Recovered states under the 'N' flag.

This was due to some of the proposed changes potentially resulting in large numbers of Meter Points needing to have their DCC Service Status flag changed at the same time. For example, the Meter Point Administration Number (MPANs) and Meter Point Reference Number (MPRNs) associated with every Smart Meter in some types of Smart Metering Key Infrastructure (SMKI) Recovery incident, or a corresponding Smart Meter's Firmware Version suspension or Recovery status. Additionally, changes to the Recovery status could have also affected the performance of the Recovery operation due to having to undertake additional functionality when the focus should be on recovering the Devices. Also, if a popular Device model is removed from the CPL this would cause a large number of DCC service flags on an SMS to change to Suspended simultaneously.

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In a previous communication the MRA stated it could only handle 20,000 updates per file, which is sent to the Network Parties, meaning the approach for these updates would be staggered. Additionally, an 'I' flag was introduced so that the 'N' and 'I' flags could differentiate between Smart Meters that are decommissioned and installed, but not commissioned. With the removal of the 'W' and 'S' flags, this results in the service flags being changed to the following:

- A – Active
- N – Non-Active
- I – InstalledNotCommissioned

One Working Group member enquired into the restrictions on the existing D0350 flows that the 'N' flag would use. In particular, how many flows could be included a single file update and if there was a definitive content limit for this file. This was to confirm whether a single D0350 file update could be sent from the DCC through the DTC to Users could potentially affect hundreds of thousands of Devices. SECAS took this query to both the DCC and the MRA to which both confirmed that there was no limit from a DCC or MRA perspective for what they could provide to Users. This means that a single D0350 update could affect hundreds of thousands of Devices, including the above scenario where if a popular Device type is removed from the CPL, this will suspend them.

One Working Group member asked that any resulting legal text that introduces changes to the DCC service flags in SEC Appendix X include details about the states and their processes, in addition to the change of values. This is so that anyone examining the SEC for the purpose of understanding the roles of the DCC service flag states would be given clear and accessible information for these states. The SEC currently only contains the flag values, but no further information. The other Working Group members agreed with this. SECAS acknowledged this and has provided this additional information alongside the change of values, this can be found in the legal text in Annex B.

Rejected Alternative Solution

A potential Alternative Solution was discussed and ultimately disregarded to amend SEC Appendix X to describe the DCC service flag process. This required removing the 'W' flag which will no longer be in use, and instead replace it with the existing DCC 'N' flag and the new 'I' flag the Proposed Solution looks at introducing, which will need to be placed into the appropriate registration system.

This Alternative Solution would have retained the 'S' flag so that there will be four service flag states in use (A, N, I and S). This option was rejected by the Proposer as it was more expensive in the Preliminary Assessment solutions returned. The Working Group was content to remove the 'Suspended' DCC service flag state as members agreed it was not necessary to know about the suspension. Consequently, only the Proposed Solution was undertaken for an Impact Assessment.

Alignment of changes to other Codes

One member asked about the implementation date, and whether the other impacted codes would be notified about when this change will take place to prevent any breaches of code. SECAS took actions to confirm with the MRA and to Xoserve when a suitable implementation date would be for the Modification Proposal – see Section 4 above.

SECAS was also asked to confirm if the MRA's figure of 20,000 updates per file is for the data flow affected by the Modification Proposal, rather than a Change of Agent flow. The MRA confirmed that

there was no cap on the number of updates in a file, as per the previous enquiry into restrictions on MRA data flows.

Impact on the Ofgem Switching Programme

After investigation, the Ofgem Switching Programme will be unaffected. This is due to the only message from the DSP sent to the Central Switching Service (CSS) being a “CommHubLink” message which only contains information to highlight where a meter point is associated or joined to a specific Communications Hub. The CSS is a one of a number of Switching DSPs which comprises of a registration service and address management service, which shall operate alongside the existing industry registrations services for gas and electricity.

Other impacts of this modification

It has been estimated that of 3 million live Smart Meters, approximately 45,000 meter points were set to the status that is covered in the proposed N flag state. Both the Preliminary Assessment and Impact Assessment confirmed that the solution will only affect SMETS2 Smart Meters, and any changes to SMETS1 Smart Meters will consist of non-functional changes.

The only other area affected by the solution is that there will be changes to the Registration Data outgoing flows from the DSP for electricity and gas to add a Non-Active status ('N') and the InstalledNotCommissioned status ('I').

Support for Change

The Working Group members were happy with this new Proposed Solution in principle.

The Refinement Consultation also noted support from the Consumer Representative and from some Network Parties. Their reasons for supporting the Modifications were that it offered consumers fewer issues for switching Smart Metering services, that the changes to the service flags would improve the reliability of information available and that aligning the SEC to the flags would ensure clarity and transparency.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that the Modification Proposal better facilitates General SEC Objective (a)². The reason for this was that by establishing a source of reliable information on the status of an SMS at a consumer's premise, this will help ensure the efficient operation of Smart Meters and associated Devices. It can also improve the provision of Smart Metering services by helping provide accurate information to Supplier Parties if a consumer is affected by a CoS event.

² Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

Industry views

Refinement Consultation respondents who supported the solution believed that the modification better facilitated SEC Objective (a). This was due to better reliability of the information provided through service flags and that it could help identify Devices forming part of a Smart Metering System and its overall status.

Views against the consumer areas

For the current end consumer experience, switching between energy Suppliers is a relatively straightforward process, but crucially requires correct information from the DCC's SMI to underpin the status of an SMS at a consumer's premise. If this Modification Proposal is not implemented by the time the CSS is brought live, there is a risk that incorrect information would be used which could lead to a consumer switching to a new energy supplier that can't offer a full range of services to their location or that it could lead to the wrong tariff being applied. If the consumer's meter configuration does not match this information, it might not be possible to complete a switch of service or the customer might default onto a different tariff causing financial loss.

If this Modification Proposal was to be implemented, the newly proposed service flag states and subsequent mapping would ensure that consumer information matches the data in the SMI. This would mean the information is reflective of whether Devices as part of a consumer's SMS are Active, Non-Active, installed but not yet commissioned, or have been physically removed from the premise. This would provide assurances to consumers that the information they use for switching energy suppliers is reliable and would give them confidence for any switch of service.

Improved safety and reliability

This area would be positively impacted by the change. This would be due to the improvement of accuracy in the information used in the DCC's SMI and therefore the information which is relayed to consumers which would be used for a switch of energy Supplier. This would also increase the confidence of consumers using switching services to find a tariff at optimum cost by getting accurate quotes and lists of services available from energy Suppliers. This will positively impact the Switching Programme by helping to ensure that an SMS involved in a CoS event will be displaying the correct information for its DCC service flag.

Lower bills than would otherwise be the case

This area would be positively impacted by the change. This Modification Proposal will not lower the material cost of energy bills, but would prevent the possible passthrough of costs borne by the energy Supplier on to consumers. By preventing resources being used to rectify issues on site at a premise for an SMS and averting potential reputational damage, this may lower the cost of consumers bills, or at least negate an increase in the costs.

Reduced environmental damage

This area would be positively impacted by the change. An argument could be raised in that no energy would be consumed to transport personnel to a premise for an on-site visit to correct problems with an SMS, but this is a minor improvement. However, this would likely increase the confidence both in the

CSS and the Smart Metering Implementation Programme (SMIP) and consequently encourage the average UK citizen to use a Smart Meter which will reduce energy consumption over time.

Improved quality of service

This area would be positively impacted by the change. The assurances provided by the Proposed Solution would guarantee that consumers can reliably use switching services for changing energy tariffs and that alignments between the DCC's SMI information and the state of Devices as part of a consumer's SMS remain consistent.

Benefits for society as a whole

This area would be positively impacted by the change. The confidence of switching services being underpinned by reliable data will improve consumer confidence in both the SMIP, and the wider UK energy market as a whole.

Appendix 1: Progression timetable

Following the return of the Impact Assessment, the DCC, MRA and Xoserve were consulted to check the contents of the Modification Report before being taken to Panel for decision. If the Panel approves the Modification Report in January 2021, then it will be issued for Modification Report Consultation (MRC) and taken to the Change Board for a vote in February 2021. There, it will look to be approved under Self-Governance with the referral window closing in early March 2021, ensuring the necessary lead time for implementation in the November 2021 SEC Release.

Progression Timetable	
Action	Date
Issue Refinement Consultation	24 Feb 2020 – 13 Mar 2020
Return to Working Group	1 Apr 2020
Preliminary Assessment updated	18 May 2020
Working Group meeting to discuss updated PA	3 Jun 2020
Preliminary Assessment updated with SMETS1 clarifications	17 Jun 2020
Preliminary Assessment updated to include MRA & UNC impacts	20 Aug 2020
Business Requirements updated	10 Sep 2020
Impact Assessment Requested	22 Sep 2020
Joint Industry Code meeting with Ofgem	13 Nov 2020
Impact Assessment returned	25 Nov 2020
Joint Industry Code meeting with Ofgem	27 Nov 2020
Joint Industry Code meeting with Ofgem	11 Dec 2020
Modification Report approved by Panel	15 Jan 2021
Modification Report Consultation	18 Jan 2021 – 5 Feb 2021
Change Board Vote	24 Feb 2021

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
CSS	Central Switching Service
DCC	Data Communications Company
DSP	Data Service Provider
DTC	Data Transfer Catalogue
MPAN	Meter Point Administration Number
MPAS	Meter Point Administration Service
MPRN	Meter Point Reference Number
MRA	Master Registration Agreement
MRC	Modification Report Consultation
RCC	Retail Code Consolidation
RDP	Registration Data Provider
REC	Retail Energy Code
SCR	Significant Code Review
SEC	Smart Energy Code
SECAS	Smart Energy Code and Secretariat
SMI	Smart Metering Inventory
SMIP	Smart Metering Implementation Programme
SMKI	Smart Metering Key Infrastructure
SMS	Smart Metering System
TABASC	Technical Architecture and Business Architecture Sub-Committee
UNC	Uniform Network Code

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MP077 ‘DCC Service Flagging’

Annex A

Business requirements – version 0.4

About this document

This document contains the business requirements for this Modification Proposal. It provides detailed information on the business requirements for the Proposed Solution agreed by the Proposer, with input from the Data Communications Company (DCC) and Sub-Committees. It also provides the considerations and assumptions for each business requirement with respect to this Modification Proposal.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	Requirement
1	DCC to implement a method of understanding if there is a Device currently at a premise.
2	DCC to have a reliable source of information on the state of DCC Service Flags.
3	DCC to implement a new Service Flag state of "N" for Non-Active to inform where a Device has been installed but not commissioned/set to active.

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

2.1 General

The DCC Service Flag provides information regarding the state of a Smart Metering System (SMS) at the consumer's premise. The three current states of the DCC Service Flagging are:

- “A” for Active;
- “W” for Withdrawn; and
- “S” for Suspended.

The solution will look to address the issues of understanding what the correct DCC Service Flags are, whether those are displayed and ensuring that the correct information can be sent to users of the service.

SEC Section A ‘Definitions and Interpretations’ defines the Smart Metering Systems separately for electricity and gas. The DCC Service Flag is used equally for electricity and gas and is communicated to the Electricity Registration Data Provider (RDP) and Gas RDP. MP077 was raised by Network Parties and Suppliers for electricity; however, it makes sense to extend this to gas too, so both are accounted for in the same solution.

We anticipate this solution will have impacts on the Smart Energy Code (SEC), Master Registration Agreement (MRA), Retail Energy Code (REC), the UK Link Systems and potentially the Uniform Network Code (UNC). The UK Link Systems impact will require a change proposal to be raised and implemented by their Data Services Contract (DSC) Delivery Sub-Group.

2.2 Requirement 1: To implement a method of understanding if there is a Device currently at a premise.

This requirement obligates the DCC to implement a means of identifying whether there is at least one Device enrolled in a Smart Metering System at a premise.

Currently, the means of identifying Devices is done through identifying whether a SMS is active or not. An active SMS is identified by at least one Metering Device that has been commissioned on the SMS. For accurate information on the location of an individual smart meter, a combination of DCC Service Status, Meter Point Status and Device Status is required. Information supplied by DCC service flags alone does not suffice.

The current implementation of the SEC and DCC service does not account for Devices that may have been removed from the SMS or that don't deliver all of the smart functionality. If all Metering Devices have been removed from the SMS the status of the SMS remains incorrectly as active.

Therefore, a more granular approach is required. As part of the Modification Proposal's solution, it looks to allow for the situation where the SMS ceases to exist due to all Metering Devices being removed or not being available. As part of this assessment, we require the clarifications on the current DCC's use of the “A” for Active Flag and “S” for Suspended Flag states and whether that aligns to the SEC.

DCC will also provide summaries for the current “A” for Active and “S” for Suspended DCC Service Flag States so it can be accurately placed in the SEC. These are required to remove ambiguity from when Flag states are used and to prevent SEC Users being misinformed.

2.3 Requirement 2: To have a reliable source of information on the state of DCC Service Flags.

This requirement obligates the DCC to provide reliable and consistent updates on the state of Service Flags.

At the moment, Service Flags describing the state of the SMS are being set to inaccurate values. SEC Parties have noted that this inaccuracy has made the switching process of Smart Meters and other Devices harder to complete. It also may result in Suppliers mis-selling a service to consumers if the Service Flag misinforms the Supplier of which services they can provide to the consumer. With reliable information of DCC Service Flags being an integral part of Ofgem’s Switching Programme plans, this is required as part of the Modification Proposal’s solution.

This requires DCC to remove the “W” for Withdrawn Flag from the DCC Flagging System. With the “W” Flag requiring a Service Request which is not currently used in the DCC User Interface Specification (DUIS) and future versions, this Flag is obsolete and needs removing. The reason it currently isn’t in use in DUIS is due to the removal of the non-domestic opt-out.

2.4 Requirement 3: To implement a new Service Flag state of “N” for Non-Active to inform where a Device has been installed but not commissioned/set to active.

This requirement obligates the DCC to create a new DCC Service Flag state of “N” to indicate a Non-Active SMS. The “N” flag will be added as a new state to the existing D0350 Data Flow.

SEC Parties have identified that after a SMS is fully operational, the flag is set to “A”. However, this flag state did not change on these systems, despite having had all Devices removed from the SMS at a later time.

The proposed “N” flag will be used to identify a SMS with installed Devices where the Devices are not fully operational or have not been commissioned. Until the SMS can deliver the full range of functionality, the DCC Service Flag associated with the SMS will be set to “N”;

Upon successful commissioning of the Device the DCC Service Flag will be then set to “A”.

The “N” Flag is to be used when the following circumstances occur:

- One or multiple Metering Devices have been installed at a premise and the DCC is informed by the Responsible Supplier that the Devices are in the state “InstalledNotCommissioned”;
- All Metering Devices on the SMS have been set to the states “InstalledNotCommissioned”, “Decommissioned”, “Recovery” or “Recovered”.

Any time the “N” Flag is used, the DCC will issue the D0350 Data Flow and provide the relevant information to the Meter Point Administration Service (MPAS) Provider.

With the InstalledNotCommissioned being included in the “N” Flag, the responsible party (or parties) for installation(s) will be obligated to provide the correct information to the Smart Metering Inventory (SMI). This is crucial to ensure no miscommunications occur with setting the correct DCC Service Flags.

Discussions took place as to whether more Device States should be included in the “N” Flag’s scope or whether it should be providing information at a Device, rather than SMS level. These points were considered by the Proposer from the Working Group and the Technical Architecture and Business Architecture Sub-Committee (TABASC). The Proposer elected to choose this limited scope due to the information at an individual Device level already being available through the SMI. It was acknowledged that although possible to replicate the data in the SMI to deliver information through the Service Flags, this wouldn’t be feasible. This was due to concerns that it would come at unjustifiable expense to industry and that the lead time required to implement the solution would be too long for any improvement before Ofgem’s Switching Programme takes effect.

3. Glossary

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

Glossary	
Acronym	Full term
DCC	Data Communications Company
DSC	Data Services Contract
DUIS	DCC User Interface Specification
MPAS	Meter Point Administration Service
MRA	Master Registration Agreement
RDP	Registration Data Provider
REC	Retail Energy Code
SEC	Smart Energy Code
SMI	Smart Metering Inventory
SMS	Smart Metering System
TABASC	Technical Architecture and Business Architecture Sub-Committee

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MP077 ‘DCC Service Flagging’

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 28.0.

Appendix X 'Registration Data Interface Specification'

Amend Section 3.28 (b) (i) as follows:

- (i) The format of an E46 record is as follows:

Field Name	Optionalit y	Type	Length	Description						
Transaction Type	Mandatory	Text	3	Value: E46						
Outcome Code	Mandatory	Text	2	Details whether the request has been accepted or rejected. AC – Accepted RJ – Rejected.						
Meter Point Reference	Mandatory	Number	10							
DCC Service Flag	Mandatory	Text	1	Service flag provided by the DCC. The allowable values are: <table><tr><td>A</td><td>Active</td></tr><tr><td>SN</td><td>SuspendedNon-Active</td></tr><tr><td>WI</td><td>Withdrawn InstalledNotCommissioned</td></tr></table>	A	Active	SN	Suspended Non-Active	WI	Withdrawn InstalledNotCommissioned
A	Active									
SN	Suspended Non-Active									
WI	Withdrawn InstalledNotCommissioned									
DCC Service Effective From Date	Mandatory	Date	8	The date the DCC Service Flag (provided above) is effective from. Format : YYYYMMDD						

<u>Service Flag</u>	<u>Description</u>
<u>Active</u>	<u>DCC Service Flag 'A' requires at least one of the associated Smart Meters at an SMS to have the 'Commissioned' Device status in the SMI.</u>
<u>Non-Active</u>	<u>DCC Service Flag 'N' indicates that it is not associated with a Device with an 'InstalledNotCommissioned' or 'Commissioned' Device status, but has been previously.</u>
<u>InstalledNotCommissioned</u>	<u>DCC Service Flag 'I' requires all the associated Smart Meters at an SMS to have the 'InstalledNotCommissioned' Device status in the SMI.</u>

Amend Section 3.29 (a) as follows:

- (a) DCC Status File

To notify each Gas Registration Data Provider of DCC Service Flag updates the DCC shall send a single DCC Status File (Ref DXI) that shall consist of a single data

record per update (Ref. E45). The format of an E45 record is as follows:

Field Name	Optionality	Type	Length	Description	SEC reference	
Transaction Type	Mandatory	Text	3	Value: E45	Not applicable	
Meter Point Reference	Mandatory	Number	10		Section E2.4 (b)	
DCC Service Flag	Mandatory	Text	1	Service flag provided by the DCC. The allowable values are:	Section E2.4 (b)	
				A		Active
				SN		Suspended Non-Active
				WI		Withdrawn Installed Not missioned
DCC Service Effective From Date	Mandatory	Date	8	The date the DCC Service Flag (provided above) is effective from. Format : YYYYMMDD	Section E2.4 (b)	

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MP077 ‘DCC Service Flagging’

Annex D

Refinement Consultation responses

About this document

This document contains the full non-confidential collated responses received to the MP077 Refinement Consultation.

Question 1: Do you agree with the solution put forward?

Question 1			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	Yes	We agree that the allowable values for the 'DCC Service Flag' data item should be updated to more accurately reflect device statuses to provide clarity and improve information reliability.
Citizens Advice	Consumer Rep	Yes	<p>It is vital for the consumer smart meter experience and the accountability of the rollout that there is a reliable mechanism for identifying smart devices and their operational state at a property.</p> <p>Left unchecked, poor identification of meter status could undermine the impact of reforms to improve reliability of consumer switching.</p> <p>We see examples of suppliers unclear about whether a smart meter is present and operating at a property. This then leads to consumer billing discrepancies and switching problems. We hope this modification will mean fewer consumers suffer from these issues.</p> <p>It could also be important for consumer safety to ensure that DNO's have accurate visibility of a properties metering status.</p> <p>The inaccuracies in the identification of smart devices also needs to be addressed to support more accurate monitoring of the way in which smart metering systems are operating.</p>
Electricity North West Limited	Electricity Network Party	Yes	We believe that simplifying the process, by aligning the Service flags with what is written in the SEC, to allow Users to identify the status of Devices on a Smart Metering System (SMS) should resolve the issue.

Question 1			
Respondent	Category	Response	Rationale
SSEN	Electricity Network Party	No	SSEN are fully supportive of this Mod and agree that the solution needs to be amended, as it is currently not fit for purpose. We would like to understand the solution further as the DCC PIA does not provide an adequate description of the new status' and how these will help us understand the status at a property e.g. The information about how the N – Non-Active status will allow users to know when a device is Decommissioned versus, when a device is Recovered.
Western Power Distribution	Electricity Network Party	No	<p>We believe that the Modification Report Consultation Legal Text and the DCC Preliminary assessment contradict each other.</p> <p>The proposed solution in the consultation includes A, N and I, however the DCC PIA proposes only flag A and N.</p> <p>We believe that the flags required going forward should include:</p> <ul style="list-style-type: none"> • A – Active • N – Not Active • I – Installed Not Commissioned • S – Suspended <p>We believe that business requirements do not actually match what was agreed in the working group discussion as it was agreed that 'I' was required.</p>
EDF	Large Supplier	No	<p>There is a clear misalignment between the solution set out in the Modification Report and the solution detailed in the DCC Preliminary Impact Assessment. The Modification Report explicitly states (in Section 3) that the solution will include a new 'I' (InstalledNotCommissioned) Flag, and this 'I' status is included in the however there is no reference to this in the DCC Preliminary Assessment. The PA does call out that the 'DSP proposed solution does not match exactly the changes described in the Modification</p>

Question 1			
Respondent	Category	Response	Rationale
			<p>requirements' - but it doesn't seem to refer to this requirement and it certainly doesn't align with the description of the solution in the Report. It is not clear whether the DCC is even able to implement the solution defined in the report, and specifically the new 'I' status.</p> <p>It is not really possible to provide a view on whether we agree with the solution as we don't really know what the proposed solution involves and whether it fully addresses the issues that caused his change to be raised in the first place.</p> <p>It is not clear how and when changes to the MRA and the UNC would be progressed in relation to this change, and how any changes to those codes would be able to be progressed in light of Ofgem's Retail Code Consolidation Significant Code Review (SCR). The MRA is not even due to be in existence by the time that this change is due to be implemented (June 2021) and there are currently no planned REC/UNC release being planned for June 2021 on the basis that this is just before the go live date for Ofgem's Switching Programme SCR (currently scheduled for July 2021). Further clarity is required on how any consequential changes would need to be made and under which Codes - and how the implementation of this change will or may be impacted by the ongoing SRs.</p> <p>The technical solution for this change may also need to be considered in light of the changes being delivered by the Switching Programme. Currently registration information is exchanged between the DCC and Registration Data Providers (RDPs), operating on behalf of Network Operators. The flow of data from the RDPs to the DCC systems for access control/charging purposes are will be largely if not entirely replaced by data from the new Centralised Switching Service (CSS). It is not clear whether the data that currently flows from the DCC systems to the current registration systems (MPAS/Xoserve) via the RDPs should still flow via this route, or should instead be sent to the CSS. It would make no sense to retain the RDPs and their associated cost purely to manage updates to the DCC Service Flag. When this change was raised the hope was that this could be delivered quickly and in</p>

Question 1			
Respondent	Category	Response	Rationale
			advance of the Switching Programme changes. As this is no longer the case, consideration should be given to revisiting the overall technical solution to make sure it aligns with the new systems and technical architecture being delivered by the Switching Programme.
SSE	Large Supplier	No	We do not see how the benefits provided justify the cost of the change as it currently stands. We are fully supportive of improving industry data and looking to remove barriers to maintaining it all accurately, but we have implemented processes to overcome these issues and implementing this proposal would incur a cost.

Question 2: Will there be any impact on your organisation to implement MP077?

Question 2			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	No	No impacts to NGN have been identified as a result of this proposal.
Citizens Advice	Consumer Rep	No	
Electricity North West Limited	Electricity Network Party	No	
SSEN	Electricity Network Party	Yes	As there will be new Status' codes implemented as part of the Modification, SSEN will need to make system changes to handle these. At this time, the implementation effort and on-going impacts are unknown.
Western Power Distribution	Electricity Network Party	Yes	As an RDP we will need to update our systems to be able to receive the new flags. These changes are required through the Master Registration Agreement change process due to flags being determined by the valid set within the Data Transfer Catalogue. We might also be required to make changes to our back end systems based on the updated flag statuses that we could receive.
EDF	Large Supplier	Yes	We will need to make changes to your systems be able to receive and process the updated values for the DCC Service Flag. As noted in our response to question 1 we do not believe it is clear what the values will be and what we might do as a result when we receive them as the detail in the Report and in the PA are not the same.
SSE	Large Supplier	No	It looks like the particular dataflow referred to in this consultation is sent by DCC to MPAS, therefore the impact on SSE is minimal. There may need to be some further analysis to ensure our systems can manage the new flags or accommodate the changes that

Question 2																	
Respondent	Category	Response	Rationale														
			<div>DCC/MPAS would have to implement. Should be a very small impact if any though (details of impacted flow below):</div> <div><div><div>Flow Reference: D0350</div><div><div>Flow Reference: D0350</div><div>Flow Version: 001</div><div>Status: Operational</div><div>Flow Name: Notification of DCC Services at Metering Point</div><div>Flow Description: DCC notifies MPAS that it is providing communications services to a metering point and provides any data updates required for MPAS.</div><div>Flow Ownership: MRA</div></div></div><div><table><thead><tr><th>From</th><th>To</th><th>Version</th></tr></thead><tbody><tr><td>DCC</td><td>MPAS</td><td>10.7</td></tr></tbody></table></div><div><div>Item Reference: J1833</div><div><div>Item Name: DCC Service Flag</div><div>Item Ownership: MRA</div><div>Item Description: A DCC provided flag to indicate the status of the services being provided by the DCC to a Metering Point.</div><div>Units: None</div><div>Valid Set: Values are: ('_' indicates a space character for illustrative purposes only and should not be used in the data item)</div></div><div><div><table><thead><tr><th>Value</th><th>Description</th></tr></thead><tbody><tr><td>A</td><td>Active</td></tr><tr><td>S</td><td>Suspended</td></tr><tr><td>W</td><td>Withdrawn</td></tr></tbody></table></div><div><div>Download:</div><div>In Flows: D0089, D0091, D0204, D0213</div><div>DTC Version: 12.7</div><div>Version: 12.7</div></div></div></div></div>	From	To	Version	DCC	MPAS	10.7	Value	Description	A	Active	S	Suspended	W	Withdrawn
From	To	Version															
DCC	MPAS	10.7															
Value	Description																
A	Active																
S	Suspended																
W	Withdrawn																

Question 3: Will your organisation incur any costs in implementing MP077?

Question 3			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	No	No costs to NGN have been identified as a result of this proposal.
Citizens Advice	Consumer Rep	No	
Electricity North West Limited	Electricity Network Party	No	
SSEN	Electricity Network Party	Yes	As detailed in question 2, Implementation time, costs and effort are currently unknown.
Western Power Distribution	Electricity Network Party	Yes	<p>We are unable to confirm costs at this time due to the proposed solution being unclear and therefore we are unsure exactly what changes will need to be made.</p> <p>We also believe that consideration of the costs involved as part of the MRA (and gas equivalent changes if applicable) changes should be considered as these will form part of the overall implementation costs of the solution.</p>
EDF	Large Supplier	Yes	The direct cost of implementing DCP077 should be low as it should just be an update to the list of valid values for the DCC Service Flag.
SSE	Large Supplier	No	Further analysis would be required to understand what impact this might have on SSE, but we expect there to be an implementation cost.

Question 4: Do you believe that MP077 would better facilitate the General SEC Objectives?

Question 4			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	Yes	We agree that updating 'DCC Service Flag' allowable values should more accurately reflect device statuses and therefore further SEC Objective a) to facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain by improving the reliability of information to better help operation of smart metering services.
Citizens Advice	Consumer Rep	Yes	<p>We think that Objective A is met because the modification supports the efficient installation and operation of smart meters through more accurate identification of smart metering systems operation.</p> <p>This modification also supports Objective C because without a supplier providing accurate guidance on the smart capability of their devices it risks consumers assuming they have smart metering and do not need to manually monitor meter readings. This modification should mean suppliers are able to provide consumers with more consistent information on the presence and operating capability of their smart meters.</p>
Electricity North West Limited	Electricity Network Party	Yes	We believe that the improvement in the identification of devices on a Smart Metering System together with their status will better facilitate General SEC Objective (a) 'Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.'
SSEN	Electricity Network Party	No	In its current format, SSEN believe MP077 will not better facilitate General SEC Objective (a) as this will not allow SSEN to understand the actual status of a SMS at a consumer's premise.

Question 4			
Respondent	Category	Response	Rationale
Western Power Distribution	Electricity Network Party	No	We believe, based on all the details provided within the consultation that this modification doesn't better facilitate any of the SEC Objectives and in fact would actually be detrimental to SEC Objectives (a) and (g). We believe that this modification will hinder the efficient operation of Smart Metering Systems and reduce transparency.
EDF	Large Supplier	Yes	Once a clear solution is agreed we believe that MP077 will better facilitate General SEC Objective (a) by ensuring that suppliers are able to understand whether a consumer they are looking to acquire has an active DCC enrolled smart meter as part of the sales/acquisition process, and therefore ensure they offer that consumer appropriate products and tariffs as a result. Making the DCC Service Flag more accurate will also make it more likely that a gaining supplier will be able to operate a smart meter that they gain as the result of a change of supplier as they will have visibility of the capability at an early stage in the switching process.
SSE	Large Supplier	No	Although there are SEC objectives that could be facilitated by this Mod, the fact that we do not support the Mod means we cannot provide a rationale.

Question 5: Noting the costs and benefits of this modification, do you believe MP077 should be approved?

Question 5															
Respondent	Category	Response	Rationale												
Northern Gas Networks	Gas Network Party	Yes	Yes, as the potential improvement in information reliability regarding the ‘DCC Service Flag’ will be of benefit to the industry.												
Citizens Advice	Consumer Rep	Yes	Given the anticipated scale of 45,000 meters impacted and potential risk of not addressing the issue for the rollout and for the future reliability of switching we don’t think the costs are prohibitive at this stage.												
Electricity North West Limited	Electricity Network Party	No	<div>The table showing the breakdown of DCC Implementation costs seems to be incomplete:<table><tr><th colspan="2">Breakdown of DCC implementation costs</th></tr><tr><th>Activity</th><th>Cost</th></tr><tr><td>Design, Build and Pre-Integration Testing (PIT)</td><td>£75,000</td></tr><tr><td>Systems Integration Testing (SIT)</td><td>TBC</td></tr><tr><td>User Integration Testing (UIT)</td><td>TBC</td></tr><tr><td>Implement to Live</td><td>TBC</td></tr></table></div>	Breakdown of DCC implementation costs		Activity	Cost	Design, Build and Pre-Integration Testing (PIT)	£75,000	Systems Integration Testing (SIT)	TBC	User Integration Testing (UIT)	TBC	Implement to Live	TBC
Breakdown of DCC implementation costs															
Activity	Cost														
Design, Build and Pre-Integration Testing (PIT)	£75,000														
Systems Integration Testing (SIT)	TBC														
User Integration Testing (UIT)	TBC														
Implement to Live	TBC														
SSEN	Electricity Network Party	No	Looking at the proposed changes and costs associated, SSEN do not believe that a clear enduring process has been met with the current design approach.												
Western Power Distribution	Electricity Network Party	No	We do not know the costs due to the DCC PIA providing costs for a different solution to that proposed. We also don’t feel that this modification better facilitates the SEC Objectives.												
EDF	Large Supplier	Yes	As the proposer for this modification we continue to believe that there is a problem that needs to be fixed. However there is definitely insufficient clarity on the solution, how it will work in practice and how (and when) it would be implemented to support approval of this change as it stands.												

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Question 5			
Respondent	Category	Response	Rationale
SSE	Large Supplier	No	There would be a cost of implementation and we do not see the benefit.

Question 6: How long from the point of approval would your organisation need to implement MP077?

Question 6			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party		The implementation date should take into consideration any system or file format changes required by parties who receive or send files which contain the 'DCC Service Flag' data item.
Citizens Advice	Consumer Rep		
Electricity North West Limited	Electricity Network Party	6 months minimum	To ensure relevant processes and procedures have been reviewed/updated.
SSEN	Electricity Network Party	N/A	At this time due to the requirement to create, amend and test the necessary changes. SSEN is unsure of the time required to implement the changes.
Western Power Distribution	Electricity Network Party	Unknown	This modification requires a change to our MPRS systems and we are unable to advise what lead time is required until the MRA Change is raised. This is because without the MRA change proposal we do not know exactly what the requirements will be.
EDF	Large Supplier	6 months	This is really driven by the lead time for the consequential changes required to the MRA and UNC - any change to the valid values for a data item would usually require a six month lead time.
SSE	Large Supplier	No comment	Unknown - further analysis is required.

Question 7: Do you agree with the proposed implementation approach?

Question 7			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	Yes	This proposal could be implemented in the June 2021 Major SEC Release.
Citizens Advice	Consumer Rep	Yes	We think this solution should be implemented as soon as possible
Electricity North West Limited	Electricity Network Party	Yes	We are comfortable with the proposed approach for implementation in Jun-21.
SSEN	Electricity Network Party	No	SSEN would like to understand the timeframes required by other impacted industry parties E.g. MRA, to understand if this timeframe is realistic.
Western Power Distribution	Electricity Network Party	No	<p>We have raised our concerns regarding the associated change required under the MRA (and gas equivalent changes if applicable), however this is not mentioned within this consultation.</p> <p>We feel that there will not be a need to batch the 'N' flag updates as the volumes will not exceed what the systems are capable of, and this is because we feel that 'S' should be included for suspended and these could be triggered in mass volumes.</p> <p>In order to implement the proposed changes there will be changes required to MPRS and presently, due to faster switching, there is a change freeze in place.</p> <p>We are also concerned that it appears that there has been no consideration to the SCR and the fact that it is possible that the implementation of these changes might be impacted by the faster switching programme.</p>
EDF	Large Supplier	No	As noted above in our response to question 1 we do not believe that it will be possible to implement this change as part of the June 2021 release.

Question 7			
Respondent	Category	Response	Rationale
SSE	Large Supplier	No comment	No comment

Question 8: Do you agree that the legal text will deliver MP077?

Question 8			
Respondent	Category	Response	Rationale
Northern Gas Networks	Gas Network Party	Yes	We believe the legal text provided should deliver the Solution set out in the modification.
Citizens Advice	Consumer Rep		
Electricity North West Limited	Electricity Network Party	Yes	We believe the legal text will deliver the intent of this modification.
SSEN	Electricity Network Party	No	The implementation of 3 status' in the legal text do not provide enough information to deliver requirement 1: "Implement a method of understanding if there is a Device currently at a premises"
Western Power Distribution	Electricity Network Party	Yes	We agree that the changes in the legal text match the proposed change in the modification.
EDF	Large Supplier	Yes	As already noted the legal text aligns with the solution defined in the Report but not with the solution defined in the PA – it is not clear which of these is actually proposed to be implemented.
SSE	Large Supplier	No comment	No comment

Question 9: Please provide any further comments you may have

Question 9		
Respondent	Category	Comments
Northern Gas Networks	Gas Network Party	Receivers or senders of data flows, e.g. CDSP, that incorporate the DCC service flag values should be kept informed of the progress of this modification. In order to allow for their own systems updates to be aligned they should be consulted, as early as possible, with reference to timelines. This way the industry can minimise disruption and failures of file flows.
Citizens Advice	Consumer Rep	
Electricity North West Limited	Electricity Network Party	Our understanding is that other DCC-MPAS interfaces are to be replaced by new messages under Ofgem's Switching Programme so shouldn't the implementation of this change be through that Programme to make it more efficient for all parties in the long term. Wont the continued use of the D0350 dataflow result in RDP interface costs still being incurred?
SSEN	Electricity Network Party	N/A
Western Power Distribution	Electricity Network Party	<p>We are very concerned that the DCC PIA does not actually meet the business requirements that were agreed in the working group. We feel that the business requirements should have matched what was discussed in the working group and a PIA requested for these requirements, and then the DSP could propose an alternative solution (only including a new 'N' flag) with justification as to why they believe that this is the better option. The working group can then discuss which option is the best solution for industry.</p> <p>As mentioned previously we are also concerned that appropriate attention to the cross code requirements and SCR have not been considered.</p> <p>We would also like to see the 'S' flag remain. We need to be able to identify whether there is a DCC Smart Meter physically on site as well as whether or not we can communicate with it. If suspended devices are included with either the 'N' or the 'A' status will result in misleading data.</p>

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Question 9		
Respondent	Category	Comments
		<p>Page 10 of the DCC PIA states ' A SMS is said to be 'Decommissioned' if it is removed from the wall', however we believe that there might be situations where a device is decommissioned but is still in situ, for example if a customer wishes to opt out of having smart services.</p> <p>We are concerned about the first paragraph of Section 3.1.2 of the DCC PIA due to the fact that there are currently multiple devices associated to a single MPxN in error. With these anomalies within the SMI we believe that there will be confusion with regards to the correct status to set.</p> <p>On page 11 of the DCC PIA it states 'Two DSP feature switches will be introduced to enable the new functionality, one for Gas and one for Electricity at the appropriate point for each. It is assumed that the new functionality will be enabled only when all RDPs for a given fuel type are in a position to receive the new DCC Service Status, i.e. there will be no need for DSP to enable the new feature for electricity on a per RDP basis, since with more than 20 electricity RDPs that would make the solution more complex.' We question this as RDPs will be forced to implement under a Big Bang approach with the MRA (and gas equivalent changes if applicable) changes.</p>
EDF	Large Supplier	
SSE	Large Supplier	No comment

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DP146 'SM WAN Coverage Date'

Modification Report

Version 0.4

8 January 2021

Corporate member of
Plain English Campaign
Committed to clearer
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About this document

This document is a Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views, and conclusions.

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This document also has one annex:

- **Annex A** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.

Contact

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1. Summary

This proposal has been raised by Clare Stapley from the Data Communications Company (DCC).

The DCC is required to provide information to Parties via the Self Service Interface (SSI) regarding the Smart Metering Wide Area Network (SM WAN) availability for Smart Metering Equipment Technical Specifications (SMETS) 1 and SMETS2 Devices. The requirement as set out in SEC Section H is to provide information on if and when the SM WAN will be available.

The SEC sets out a specific date of 1 January 2021 for coverage to be provided. However, although the required target has been met, the Communications Service Provider (CSP) for the South and Central (S&C) Regions has stated that it plans to continue to increase and enhance the coverage. The DCC has therefore suggested that the limiting date in Section H should be removed to allow the CSP S&C to populate the date field beyond 1 January 2021.

This Proposed Solution is therefore to remove the date to allow the SM WAN coverage checker to continue to populate the expected date of any coverage.

This modification will affect the DCC and Suppliers. There are no DCC costs associated with this change. If approved this modification will be implemented in the June 2021 SEC Release. This is a Self-Governance Modification.

2. Issue

What are the current arrangements?

The DCC is required to provide information to Parties via the Self Service Interface (SSI) regarding the SM WAN availability for SMETS1 and SMETS2 Devices. The requirement, as set out in SEC Section H8.16, is to provide information on if and when the SM WAN will be available:

- (f) any and all information in respect of the SMETS1 SM WAN as the DCC is required to make available under the Self-Service Interface Access Control Specification and the SSI Baseline Requirements Document, which shall be made available to all Users; and the following information in respect of the SMETS2+ SM WAN, which shall be available to all Users (and which shall be capable of interrogation by post code and postal outcode):
 - (i) whether a Communications Hub Function installed in a premises at any given location:
 - (A) is expected to be able to connect to the SM WAN;
 - (B) is expected to be able to connect to the SM WAN from a particular date before 1 January 2021, in which case the date shall be specified; or

- (C) cannot be confirmed as being able to connect to the SM WAN before 1 January 2021;

This information allows Suppliers to identify where a Smart Metering System (SMS) could be installed and would connect immediately to the WAN. Alternatively, the Supplier could perform a 'proactive install and leave' where the SMS could be installed but not connected (where no WAN was present) and then connected at a later date when WAN was available, thus avoiding more than one site visit.

Currently, the DCC logic for the CSP S&C is as follows:

- If a premise already has WAN coverage, then the parameter availability on the CH device is set at 'True' and the WAN availability date is empty.
- If the premise does not have any WAN coverage, but the CSP plans to cover with a future network build in the next few months then the WAN availability on the CH is set to 'False' and the availability date will be populated.
- If the premise does not have any WAN coverage and there is no plan in place to provide WAN coverage, then the WAN availability on the CH is set to 'False' and the availability date will be empty. This will remain empty until six weeks before the date of coverage is being provided, after which the availability date will be populated.

What is the issue?

SEC Section H8.16 sets a date of 1 January 2021 for coverage to be provided. This date was used as when the Smart Meter Implementation Programme began, roll out was due to be completed by the end of 2020. Although the SM WAN coverage by the DCC has reached target levels, the CSP in the Central and South Regions expects to continue to increase and enhance the SM WAN coverage. This means DCC Service Users will start to see WAN availability date beyond 1 January 2021, in particular for new build properties and in areas where there is currently no network coverage. This will go beyond the 1 January 2021 limitation date stated in the SEC.

What is the impact this is having?

If the date remains the DCC will not be able to provide expected SM WAN coverage dates in the future. This facility has helped Suppliers to provide better customer service by allowing them to perform a proactive install and leave to avoid a second site visit once the SM WAN is active. However, it is worth noting that the Supply Licence Conditions 49.8(c) for electricity and 43.8(c) for gas provide a derogation which facilitates proactive install and leave. This derogation ends on 1 January 2021 so no further proactive install and leaves are permitted. Despite that, the population of the date field means Suppliers will be able to provide their customers with more information on when a WAN is likely to be available and will enable proactive install and leave should they be permissible again in the future.

3. Solution

Proposed Solution

The Proposed Solution is to remove the date '1 January 2021' from SEC Section H8.16. This will futureproof the SEC for Suppliers to continue to provide a service to areas where WAN coverage is yet to be installed. The solution will benefit Suppliers who want to extend their network coverage and continue to provide an improved service.

The proposed redlined changes can be found in Annex A.

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

Supplier Parties

Supplier Parties would be able to access up to date information to continue to extend their service and fulfil their contractual obligations. This will have a positive impact as futureproofing the SEC will allow Suppliers to continue to perform proactive 'install and leave' or information for consumers for areas where WAN is yet to be installed should it be permitted.

DCC System

There are no impacts on the DCC Systems.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section H 'DCC Services'

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

Consumers

There will be no negative impact on consumers. Consumers will benefit from this proposal as they will be supplied with Smart Meters and site visits will be reduced.

Other industry Codes

No other industry Codes are impacted by this proposal.

Greenhouse gas emissions

This proposal will have no effects on greenhouse gas emissions.

5. Costs

DCC costs

There are no DCC costs to implement this proposal.

SECAS costs

The estimated SECAS implementation costs to implement this modification is one day of effort, amounting to approximately £600. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

There will be no cost to SEC Parties to implement this proposal.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **24 June 2021** (June 2021 SEC Release) if a decision to approve is received on or before 10 June 2021; or
- **4 November 2021** (November 2021 SEC Release) if a decision to approve is received after 10 June 2021 but on or before 21 October 2021.

The rationale for choosing this implementation date is that it is the earliest SEC Release it could be incorporated into for a straightforward change following a decision. Given the change would not be making any material impacts, there is no lead time associated with the Proposed Solution.

7. Assessment of the proposal

Observations on the issue

Interactions with the licences

A Change Sub-Committee (CSC) member suggested this could pose a problem for them due to the date being hardcoded into Supply Licences as the end date for proactive install and leave in areas where there is a future coverage date. The CSC member referred to The Department for Business, Energy and Industrial Strategy (BEIS) consultation on consequential changes following confirmation of the new post-2020 policy framework (September 2020 Consultation – cover letter and consultation document).¹

The BEIS consultation states:

Proactive install and leave and DCC WAN coverage

22. Electricity supply licence condition 49.8(c) and gas supply licence condition 43.8(c) temporarily exempt energy suppliers from the operational requirements set out at licence conditions 49.4 and 43.4, respectively, in cases where the DCC WAN is not available on the installation date but is expected to be available prior to 1 January 2021. This date reflects DCC's contractual obligations to provide WAN coverage to 99.25% of premises in the CSP Central and South Regions, and 99.5% of premises in the CSP North Region by the end of 2020.

23. We do not propose amending this date despite the extension to the 'all reasonable steps' framework as the DCC is on track to deliver its contractual obligations by the end of 2020. The most recent DCC Statement of Service Exemptions shows that as of 1 January 2020 WAN coverage was at 99.75% in the Central and South regions and 99.4% in the North region.

24. We note that certain SEC provisions also relate to DCC WAN coverage and apply from the end of 2020. We do not propose amending these provisions for the same reasons.

The consultation confirmed that BEIS is not planning to move this date as set out in the Supply Licence. These obligations do not allow proactive 'install and leave' beyond 1 January 2021.

By removing the date 1 January 2021 from SEC Section H it will allow Suppliers to know when the SM WAN will be present, if it is not at the time of checking. This will allow Suppliers to keep consumers informed of when they might be able to have a Smart Metering System installed.

¹ <https://smartenergycodecompany.co.uk/latest-news/beis-consultation-on-consequential-changes-following-confirmation-of-the-new-post-2020-policy-framework/>

Overall, this means that Suppliers **will not** be able to continue to perform proactive 'install and leave' but **will** be able to improve coverage for areas they have not covered before. This will also enable proactive install and leave should this be permissible again in the future.

Views of the DCC

The DCC initially suggested that the date should be changed to 2029, which is the end of the CSP contract, to allow for any improvements that the CSP S&C might make. However, this caused some confusion. A SECAS investigation determined that the reason for the change of date was to allow for SM WAN coverage enhancements and it was suggested that the date should be removed completely to allow further futureproofing.

The DCC further suggested that Parties may have hardcoded the date into their Systems. This modification was presented to all the SEC Sub-Committees and to various DCC Working Groups. No Parties highlighted that this issue would affect them, nor that there was any reason why a Party would hardcode this date into their systems.

The DCC suggested that some reports might be affected but no reports were identified as being affected.

In conclusion, the DCC requested removing the date from the SEC and for the DCC to be allowed to respond to its customers with a date after 1 January 2021 to allow for CSP SM WAN coverage enhancements.

Views of the TABASC

The Technical Architecture and Business Architecture Sub-Committee (TABASC) expressed interest in this Draft Proposal. The TABASC noted this proposal would not be expected to result in any changes to the DCC Systems, however questioned if it could potentially require changes to User Systems. It suggested SECAS discuss with BEIS to manage and align this change with the work BEIS was undertaking regarding DCC network coverage.

The BEIS representative on the TABASC advised that proactive and leave install is a policy which allows energy Suppliers to meet their operational licence conditions by installing and leaving Smart Metering equipment where the WAN is predicted to be provided by 1 January 2021. The consultation position, as noted above, is to effectively end the concept of proactive leave and install when the DCC achieved its target coverage. The BEIS representative advised the Draft Proposal was raised to allow for changes to the WAN Coverage Checker to reflect changes in coverage over time, in particular due to new build premises and the provision of the WAN to these sites.

Views of the Change Sub Committee

The Change Sub Committee agreed that this Draft Proposal should be converted to a Modification Proposal and go straight through to the Report Phase.

Support for Change

There was support for this change from a Large Supplier, although it was recognised the DCC has met its coverage target. This change will allow the CSP Central and South to let Suppliers, and

therefore consumers, know when it will be providing a service to areas which do not currently have WAN coverage.

There was also a request to have new build postcodes added to the coverage checker more quickly than at present, as the main issue for Suppliers is the significant delay between new postcodes being created and then appearing on the DCC coverage checker. SECAS acknowledged this requested and advised this would need to be a separate modification.

There was a request from the Large Supplier for the DCC to provide information on how the CSP conducts its planning and enhancements and how the CSP S&C could publish information on which areas were being upgraded. This was because if a Supplier has previously checked an address and been told there is no SM WAN expected they would not know to check again. The DCC will publish any CSP Coverage enhancements as appropriate.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that this modification better facilitates General SEC Objective (a)². The reason given was that it would enable future dated WAN connections which would allow Suppliers to provide more consumers with Smart Meters. Suppliers will be able to provide more information to consumers about when WAN coverage would be available to a particular premise.

Views against the consumer areas

Improved safety and reliability

The change is neutral against this area.

Lower bills than would otherwise be the case

The change is neutral against this area.

Reduced environmental damage

The change is neutral against this area.

Improved quality of service

This implementation will have a positive impact to Suppliers as it allows them to provide more accurate information to consumers and to aid in their roll out obligations.

Benefits for society as a whole

This implementation will benefit the society as it will allow for areas to be connected to the smart metering infrastructure where it was not previously able to be due to no WAN connection. This will

² Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers premises within Great Britain.

give the opportunity for the CSP C&S to continue to extend its service enhancements beyond the date of 1 January 2021 and more consumers to have Smart Metering Systems installed.

Appendix 1: Progression timetable

The Modification Proposal was presented to the CSC on 5 January 2021 where CSC recommended it should be presented to Panel for conversion to a Modification Proposal and to be taken straight to the Report Phase as a Self-Governance Modification.

Timetable	
Event/Action	Date
Draft Proposal raised	16 Oct 2020
Presented to CSC for initial comment	27 Oct 2020
Presented to CSC for update	24 Nov 2020
Present to CSC for final comment and recommendations	5 Jan 2021
Panel converts Draft Proposal to Modification Proposal	15 Jan 2021
Modification Report Consultation	18 Jan 2021 – 5 Feb 2021
Change Board vote	24 Feb 2021

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
BEIS	Department of Business, Energy and Industrial Strategy
CSC	Change Sub Committee
CSP	Communication Service Provider
DCC	Data Communications Company
S&C	South and Central Regions
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SMETS	Smart Metering Equipment Technical Specifications
SMS	Smart Metering System
SM WAN	Smart Metering Wide Area Network
SSI	Self Service Interface
TABASC	Technical Architecture and Technical Business Architecture Sub Committee

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DP146 ‘SM WAN Coverage Date’

Annex A

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.

Section H ‘DCC Services’

These changes have been redlined against Section H version 10.0.

Amend Section H8.16 as follows:

Self-Service Interface

H8.16 The Self-Service Interface must (as a minimum) allow the following categories of User to access the following:

- (f) any and all information in respect of the SMETS1 SM WAN as the DCC is required to make available under the Self-Service Interface Access Control Specification and the SSI Baseline Requirements Document, which shall be made available to all Users; and the following information in respect of the SMETS2+ SM WAN, which shall be available to all Users (and which shall be capable of interrogation by post code and postal outcode):
 - (i) whether a Communications Hub Function installed in a premises at any given location:
 - (A) is expected to be able to connect to the SM WAN;
 - (B) is expected to be able to connect to the SM WAN from a particular date ~~before 1 January 2021~~, in which case the date shall be specified; or
 - (C) cannot be confirmed as being able to connect to the SM WAN ~~before 1 January 2021~~;