MP223

'WAN Coverage Reporting'

Modification Report

Version 1.1

14 February 2024

Corporate member of
Plain English Campaign
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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 and views.

Contents

This document also has four annexes:

- **Annex A** contains the Business Requirements for the Proposed Solution.

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

- **Annex C** contains the responses to the Refinement Consultation.

- **Annex D** contains the Data Communications Company (DCC) Impact Assessment.

Contact

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1. Summary

This proposal has been raised by Emslie Law of OVO Energy.

At present, there is no obligation in the SEC for the DCC to report on Smart Meter Wide Area Network (SMWAN) coverage.

The DCC currently provides reporting on 'SMWAN connectivity level' via the Performance Measurement Report (PMR). DCC Users have access to the Wide Area Network (WAN) Coverage Checker via the Self-Service Interface (SSI) which provides information about the WAN Coverage level for that address or postcode area.

Several Large Suppliers have reported experiencing issues with lack of WAN when attending a site where the WAN Coverage Checker is reporting that there is WAN coverage. If the installation appointment fails, SEC Parties have wasted resources and the experience may negatively impact the consumer's view of the Smart Metering Implementation Programme (SMIP). To establish where the problem lies, the Proposer believes that further reporting from the DCC will help with root cause analysis.

If approved, the Proposed Solution to this modification will introduce two new reports. The first report will include a high-level summary of the overall WAN coverage level in that Communication Service Provider (CSP) region, as well as addresses where there is no WAN or the WAN level has changed in the previous three months. A new template will be created to allow WAN-related incidents to be logged, which will be collated in the second new report.

This modification impacts the DCC, Suppliers, Meter Installers and Device Manufacturers. The DCC has confirmed costs of £61,100 to implement and the Smart Energy Code Administrator and Secretariat (SECAS) is targeting this modification for implementation in an ad hoc SEC Release, six months following decision.

This is a Self-Governance modification.

2. Issue

What are the current arrangements?

WAN Coverage Checker

DCC Users can view the WAN status at properties across Great Britain by using the WAN Coverage data on the SSI, with reporting provided for each CSP region (South, Central and North). This has informally become known as the WAN Coverage Checker.

In CSP regions South and Central, Parties can view whether individual addresses have WAN coverage and whether the coverage is considered to be low, medium or high.

In CSP North, Parties can view WAN coverage at postcode level, but not at individual address level. Parties can see whether the coverage in that postcode is considered to be low, medium or high.

Performance Measurement Report

The DCC is currently reporting 'SMWAN connectivity level' via the Performance Measurement Report as Service Provider Metrics which are not required by the SEC.

This is calculated "*on the last day of each Performance Measurement Period by comparing the number of commissioned Communications Hubs with the number of Communications Hubs where SM WAN connectivity has been reported as lost during the Performance Measurement Period.*"

The Performance Measurement Methodology (PMM) defines 'Lost Connectivity' as when:

> *"(a) the Communications Hub had been through a successful installation (as defined in the Communications Hub Installation and Maintenance Support Materials (CHIMSM) within the Coverage Area; and*

> *(b) there existed during the Performance Measurement Period a connectivity related Incident associated with the Communications Hub which had remained unresolved for greater than ten (10) days."*

This measurement is reliant on Users completing an installation as per CHIMSM and then having raised a connectivity Incident which has remained unresolved for more than ten days.

Statement of Service Exemptions

The Statement of Service Exemptions sets out two categories of premises for which SMWAN connectivity will not be provided. The first category focuses on those premises within an area of SMWAN coverage which cannot be connected to the SMWAN due to local environmental factors, property type or specific installation issues. The second category focuses on premises which are outside of the Coverage Area within a Coverage Region.

Under Condition 17 of the Smart Meter Communication Licence the DCC must review the Statement of Service Exemptions annually and propose revisions to Ofgem if there are any to make. The DCC is not under obligation in its Licence to report on WAN Coverage levels annually in the Statement of Service Exemptions.

What is the issue?

There is currently no obligation or requirement in the SEC on the DCC to report current WAN coverage percentages or any work which is ongoing to improve them.

The Bmax[1] targets required of the DCC are:

- 99.25% coverage in the CSP Central region.
- 99.25% coverage in the CSP South region.
- 99.50% coverage in the CSP North region.

Although the WAN Coverage data is provided to DCC Users, the Proposer believes reporting could be improved by highlighting addresses where there is no WAN or the WAN status has changed.

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[1] Bmax is the target coverage for WAN set in the DCC Licence

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What is the impact this is having?

Without guaranteed reporting on WAN coverage levels, SEC Parties may not have sufficient information to understand WAN coverage which is critical to enrolling Devices in the DCC Service.

Impact on consumers

Consumers are impacted as without regular reporting their Supplier may not be able to identify whether an issue is with intermittent WAN coverage or with the Smart Metering System (SMS). As a result, the consumer loses out on the benefits of the Smart Meter rollout. Additionally, if consumers have Smart Meter installation appointments which are unsuccessful due to lack of WAN when the Supplier reaches the site, this can negatively impact the consumer's view of the wider SMIP.

3. Solution

Proposed Solution

The solution has been created based on the Proposer's business requirements which can be found in Annex A.

The DCC Impact Assessment showed that new reports will be created to satisfy business requirements one to four.

The first report will be created using data from the DCC's existing pool about WAN coverage levels. This will be made available in Excel format which will include a high-level summary of the percentage WAN coverage level in each CSP region. It will also include reporting on addresses where there is no WAN or the WAN status has changed since the last report.

To satisfy requirements three and four, the DCC will create a template that will allow WAN-related incidents to be logged and reported on. The submissions using this template will be collated into a second report so that SEC Parties are able to see where incidents have been raised. A CSP version of the report will also be produced, showing incidents relevant to each region.

For requirements five and six there is no contractual obligation for CSPs to report on planned or in-progress work to improve WAN. There is also no contractual obligation to report on planned WAN outages. In lieu of contract changes to require this to be provided, the DCC will ask for this information on an informal basis from the CSPs. SECAS discussed the possibility of contract changes with DCC to fulfil requirements five and six, with the DCC noting that any changes to the contracts would likely incur very high costs. Throughout the modification process, the Proposer has sought to keep associated costs as low as possible. Therefore, this modification does not seek to amend existing contractual arrangements.

The full description of the solution is available in the DCC Impact Assessment in Annex D.

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
	DCC Other Users	✓	MAPs/ MAMs

DCC systems are impacted by this modification as they will need to produce two new reports to satisfy the business requirements. DCC will also need to contact CSPs on an informal basis to discuss ongoing work which is ongoing to improve WAN and whether any planned WAN outages will take place. DCC noted in the Impact Assessment that there is no infrastructure impact as a result of this modification.

Suppliers are impacted by this modification as they be able to determine more easily whether there is WAN coverage at an address where they are planning an install. Consequently, Meter Installers are indirectly impacted as it is expected they will have a better idea of whether the WAN coverage has changed in the previous three months and should see an improvement in terms of failed visits reducing.

Manufacturers are also impacted as they will be able to see whether meters are non-communicative due to a fault with the Device or due to a lack of WAN.

DCC System

The data included in this modification is already available within the DCC and therefore there is no impact to existing infrastructure.

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

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 B.

Consumers

Consumers may be impacted as Suppliers will be able to determine if there is WAN at their address before organising smart meter installations, leading to less failed appointments.

Other industry Codes

There is no impact on other industry Codes.

Greenhouse gas emissions

This modification could lead to a reduction in unsuccessful installation appointments as Parties are aware of the WAN connection before attending sites, therefore reducing unnecessary greenhouse gas emissions.

5. Costs

DCC costs

Breakdown of DCC implementation costs	
Activity	**Cost**
Design, Build and Pre-Integration Testing (PIT)	£61,100
Systems Integration Testing (SIT)	£0
User Integration Testing (UIT)	£0
Implement to Live	£0
Application Support	£0

The development and testing for this modification will not follow the conventional PIT, SIT and UIT pattern associated with a regular SEC Release as it does not affect DCC Total Systems. It also does not require testing services of the DCC System Integrator or CSPs.

The DCC implementation cost for this modification is £61,100. This includes costs of £56,100 to implement the new reports and create the new template for Suppliers to raise WAN-related incidents. There are costs of £5,000 for independent validation of addresses and postcodes contained in the CSP WAN coverage data.

More information can be found in the DCC Impact Assessment response in Annex D.

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SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is one day of effort, amounting to approximately £600.

This cost will be reassessed if this modification is included in a scheduled SEC Release. The activities needed to be undertaken for this are:

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

6. Implementation approach

Agreed implementation approach

The CSC has agreed an implementation date of:

- **Six months following decision** (Ad hoc SEC Release)

The DCC has noted that the development and testing for this modification will not follow the PIT, SIT, and UIT pattern associated with a "conventional" SEC Release, and will not require the testing services of the System Integrator or CSPs. There is a six-month lead time for this modification. Given the current timeline for this modification, SECAS anticipates this modification will be implemented in early September 2024.

All respondents to the Refinement Consultation noted it would be beneficial to have this modification implemented as soon as possible, rather than being included in the November 2024 SEC Release.

7. Assessment of the proposal

Areas for assessment

Sub-Committee input

SECAS has engaged the Chairs from the Operations Group (OPSG), the Technical Architecture and Business Architecture Sub-Committee (TABASC), the Security Sub-Committee (SSC) and the Smart Metering Key Infrastructure Policy Management Authority (SMKI PMA) to confirm their views on this modification.

Sub-Committee input	
Sub-Committee	**Input received**
OPSG	The business requirements are sufficient and should not be amended.
SMKI PMA	None – no impacts
SSC	None – no impacts
TABASC	The business requirements are sufficient and should not be amended.

Observations on the issue

This Draft Proposal was presented to the Change Sub-Committee (CSC) on 15 November 2022. The Proposer highlighted the importance of ensuring WAN coverage is visible to all SEC Parties. They also noted the modification will seek to enhance the WAN reporting measures which already exist to improve transparency and encourage further discussion on this topic.

The TABASC Chair noted that reporting could be split between Smart Metering Equipment Technical Specification (SMETS)1 and SMETS2 Devices. SECAS has worked with the DCC and Proposer to develop the business requirements and believes that the reporting should include both SMETS1 and SMETS2 Devices, but these should not be split out.

Refinement Consultation Responses

SECAS received six responses to the Refinement Consultation, all from Large Suppliers who supported approval of this modification.

Parties noted that this information would be useful when organising installs so they could examine the WAN before deciding on whether to send a Meter Installer to a site. They added that this would also be beneficial to Consumers as there would be less chance of failed appointments.

Solution Development and Discussion Points

Granularity of data

SECAS presented the issue to the Working Group, OPSG and TABASC. Many members highlighted that they would like to be able to determine what the WAN Coverage levels are at each property across Great Britain. This is because many postcodes, especially in rural areas, cover a wide distance.

Whilst preparing the business requirements for this modification, the DCC highlighted that address-level reporting is available in CSPs South and Central, but not in CSP North. If this modification sought to change reporting in CSP North from postcode level to address level this would likely have very substantial cost implications.

Similarly, the DCC already has agreements with the CSPs for reporting, which is why some of the business requirements require reporting every three months, with others stating reporting is needed each month. The Proposer would like potential costs to be kept to a minimum in this modification, therefore the business requirements have been drafted in a manner to deliver this.

Will reporting on 4G Communications Hubs be included?

Many SEC Parties highlighted that 2G and 3G Communications Hubs are being phased out to be replaced by 4G Communications Hubs in the coming years, noting that the modification should ensure that reporting covers all types of Communications Hubs.

The DCC Impact Assessment notes that the new reports and template have been designed in a way which accommodates future changes. It should be noted that the 4G WAN provider is required to deliver the new WAN coverage data to DCC, which DCC will endeavour to incorporate into the reports. As 4G Communications Hubs are not yet being installed, the DCC has been unable to test whether the new 4G data can be included, however DCC does have a requirement on the new 4G provider to comply with a specification similar to the existing reporting.

DCC have confirmed that reporting on 4G Communications Hubs will be included but it will be reported separately from 2G/3G Communications Hubs. They noted there will be overlap of postcodes as different properties may have 2G, 3G or 4G Communications Hubs installed leading to duplication of reporting.

What will the new template for reporting WAN-related incidents look like?

The DCC Preliminary Assessment noted that a new template will be created for Parties to report on WAN-related incidents, with work instructions to explain how it should be completed. The data which is then submitted via this template will be collated in a report which will be distributed to Parties monthly.

Working Group members questioned whether the template would allow qualitative reporting. They noted it would be useful to have a template which is flexible to allow Suppliers to provide details about the issues they experienced during the installation. The DCC Impact Assessment showed that the template has been designed to allow for further detail to be provided for each incident.

Other Working Group members agreed that a flexible template would be useful as they had previously reported incidents, had been unable to provide all the related information, then had been asked for the information at a later date. They added it would be convenient to provide all the information at once when the incident had been raised.

The DCC noted the comments provided by SEC Parties during the Working Group, adding that the new template will provide an opportunity for key questions to be answered which will provide the DCC and Service Providers with the necessary information they require when incidents are raised.

Targeted SEC Release

During the September 2023 Working Group Meeting, several members noted that this modification is being targeted by SECAS for inclusion in the November 2024 SEC Release. They questioned why the implementation of the modification would take so long, noting the SEC Modification process as well as the six months of testing noted in the DCC Preliminary Assessment. Further feedback gained during the Refinement Consultation supported an ad hoc SEC Release.

Now the Impact Assessment has been returned, SECAS has discussed the implementation timeline with the DCC. SECAS anticipates this modification to undergo Change Board vote on 21 February 2024, with the six months of testing allowing this modification to be implemented as an ad-hoc SEC Release in late August 2024.

Can requirements five and six be fulfilled?

For requirements five and six there is no contractual obligation for CSPs to report on planned or in-progress work to improve WAN. There is also no contractual obligation on CSPs to report on planned WAN outages. In lieu of contract changes to require this to be provided, the DCC will ask for this information on an informal basis from the CSPs.

During the September Working Group meeting, one member questioned whether there was any value adding these requirements into the legal text as they cannot be fulfilled on a formal basis by DCC without a contract change.

SECAS noted these comments but highlighted the fact that the Proposer raised this modification to ensure there is formal reporting in the SEC, with this being an identified business requirement. Although adding this into the SEC would not lead to formal reporting, SECAS has drafted the legal text so that DCC can ask for this information on an informal basis to satisfy these requirements.

During the September Working Group meeting another member questioned whether new contracts between DCC and CSPs would include the need for reporting on WAN outages. They noted that they believed this would have been sensible to include in new contracts. SECAS has engaged with DCC who confirmed that the new contracts for 4G Communications Hubs are similar to 2G/3G contracts and do not require CSPs to inform the DCC of any WAN outages. DCC has informed SECAS that there are specific obligations in relation to notification of planned outages affecting certain systems (e.g. those used for provision of testing services) and general obligations relating to Incident and Change Management. Although these align with the SEC Incident Management Policy there is nothing which would specifically meet requirement five and six.

Will historical WAN-related incidents be included in reporting?

During the Refinement Consultation one Party noted that they have raised many WAN-related incidents to the DCC and questioned whether these historical incidents would be included in the new reporting. They noted this would be useful to see whether issues are being raised frequently in certain areas.

The DCC has informed SECAS that historical WAN-related incidents will not be included in the reporting. This is because WAN-related incidents, other than those created in response to a No WAN install, are not currently specifically categorised in the DCC's Service Management System. Historical incidents have been recorded in narrative form so there is no structured data which the reports can be based upon. The new template introduced as part of this modification will provide structure needed to produce reporting on WAN-related incidents.

8. Case for change

Business case

Throughout the modification process Parties commented that the solution would be useful in helping Suppliers and Meter Installers when determining whether to attend sites to install Smart Meters. Knowledge of whether there is a sufficient WAN connection may lead to a reduction in failed appointments as Parties may choose to not attend where it is unlikely the Devices will connect to the WAN. Similarly, Meter Asset Providers (MAPs) have indicated that this modification will enable them to identify whether issues are related to the WAN or the Device itself. One MAP noted that removal charges are around £250 per Device, so the cost of this modification would be saved by not completing 90 dual fuel removals as they could correctly identify the root cause of issues.

In addition to the environmental savings, a reduction in the number of failed installation appointments is likely to reduce the chance of Consumers having a negative perception of the SMIP. Furthermore, this modification seeks to ensure that there is guaranteed reporting on WAN coverage by the DCC, as there is currently no SEC requirement for them to do so.

SECAS has not received any feedback against approval of this modification. However, it is noted that the WAN coverage data which will be included in the new reports is already available to Parties in an unfiltered format on the SSI. Furthermore, DCC has not been able to confirm whether 4G Communications Hubs will be included in reporting as part of the modification.

Views against the General SEC Objectives

Proposer's views

The Proposer believes this modification better facilitates SEC Objectives (a[2]), (b[3]) and (g[4]).

Industry views

During the Refinement Process many Parties noted that this modification better facilitates SEC objective (a).

During the Refinement Consultation all Parties referenced SEC Objective (a), noting how this would help efficiency of installing Smart Metering Systems. Parties also referenced objectives (b) and (e[5]).

Parties noted that they believed this modification would enable a better understanding of WAN coverage across Great Britain and would therefore reduce waste, promote efficiency and provide a better experience for Consumers. Other respondents to the Refinement Consultation noted that this will enable Parties to determine if CSP's are meeting their coverage targets as the information will be more readily available.

Views against the consumer areas

Improved safety and reliability

This modification has a neutral impact on safety and reliability.

Lower bills than would otherwise be the case

This modification has a neutral impact on safety and reliability.

Reduced environmental damage

This modification has a positive impact on reducing environmental damage as Parties will have visibility of WAN coverage at properties across Great Britain. In turn, this will allow them to determine if a site visit should be arranged given the WAN coverage levels which should reduce the number of failed engineer site visits. In turn, this may reduce the amount of Devices which are scrapped unnecessarily.

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[2] facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers premises within Great Britain.
[3] enable the DCC to comply at all times with the General Objectives of the DCC, and to efficiently discharge the other obligations imposed upon it by the DCC Licence.
[4] facilitate the efficient and transparent administration and implementation of this Code.
[5] facilitate such innovation in the design and operation of Energy Networks as will best contribute to the delivery of a secure and sustainable Supply of Energy.

Improved quality of service

This modification has a positive impact on improved quality of service as SEC Parties will be able to determine if it is worth organising an installation appointment, leading to less failures and a better service for consumers.

Benefits for society as a whole

This modification has a neutral impact on benefits for society as a whole.

Final conclusions

SECAS has received very supportive feedback in relation to this modification throughout the Refinement Process. Parties noted the low cost of this modification and asked for it to be implemented as soon as possible. All respondents to the Refinement Consultation noted the benefits of knowing the WAN status to reduce environmental impacts, provide a better service to Consumers and to determine if CSPs are meeting WAN coverage targets.

The Working Group, OPSG and TABASC were all supportive of this modification being approved. They believed the business requirements developed by the Proposer, SECAS and DCC were sufficient and did not need to be amended.

Appendix 1: Progression timetable

Timetable	
Event/Action	**Date**
Draft Proposal raised	1 Nov 2022
Presented to CSC for initial comment	15 Nov 2022
CSC converts Draft Proposal to Modification Proposal	17 Jan 2023
Business requirements developed with Proposer and DCC	6 Feb 2023 – 20 Mar 23
Modification discussed with Working Group	5 Apr 2023
Business requirements discussed at TABASC	4 May 2023
Business requirements discussed at OPSG	9 May 2023
Preliminary Assessment requested	23 May 2023
Preliminary Assessment returned	14 Jul 2023
Modification discussed with Working Group	6 Sep 2023
Refinement Consultation	13 Sep 2023 – 4 Oct 2023
Impact Assessment costs approved by Change Board	25 Oct 2023
Impact Assessment requested	26 Oct 2023
Impact Assessment returned	21 Dec 2023
Modification Report approved by CSC	16 Jan 2024
Modification Report Consultation	17 Jan 2024 – 7 Feb 2024

Timetable	
Event/Action	**Date**
Change Board Vote	21 Feb 2024

Italics denote planned events that could be subject to change

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**
CHIMSM	Communications Hub Installation and Maintenance Support Materials
CSC	Change Sub-Committee
CSP	Communication Service Provider
DCC	Data Communications Company
MAP	Meter Asset Provider
OPSG	Operations Group
PIT	Pre-Integration Testing
PMM	Performance Measurement Methodology
PMR	Performance Measurement Report
SEC	Smart Energy Code
SECAS	The Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
SMIP	Smart Metering Implementation Programme
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SMS	Smart Metering System
SMWAN	Smart Meter Wide Area Network
SSC	Security Sub-Committee
SSI	Self-Service Interface
TABASC	Technical Architecture and Business Architecture Sub-Committee
UIT	User Integration Testing
WAN	Wide Area Network