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MP223 ‘WAN Coverage Reporting’

Modification Report

Version 0.4

30 August 2023



About this document

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

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This document also has three 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 DCC Preliminary Assessment.

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1. Summary

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

There is no obligation in the SEC for the Data Communications Company (DCC) to report on Wide Area Network (WAN) coverage.

The DCC currently provides reporting on 'SMWAN (Smart Meter Wide Area Network) connectivity level' via the Performance Measurement Report (PMR). SEC Parties also have access to the WAN Coverage Checker which provides information about the WAN Coverage level for that address or postcode area.

Some Suppliers have reported experiencing issues with lack of WAN when attending a site where the WAN Coverage Checker is reporting WAN coverage. If the installation appointment fails, this means that SEC Parties resources have been wasted and may negatively impact the Consumers 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.

The Proposed Solution is to create new reports to show the WAN coverage level in each Communication Service Provider (CSP) region. There will also be reporting on changes to WAN coverage in the previous three months and WAN-related incidents which have been raised. A new template will be created to allow WAN-related incidents to be reported on, which will then also be collated into a new report.

This modification impacts the DCC. Costs in the Preliminary Assessment returned costs of £45,000. SECAS is targeting this modification for the November 2024 SEC Release. This is a Self-Governance modification.

2. Issue

What are the current arrangements?

WAN Coverage Checker

SEC Parties can view the WAN status at properties across Great Britain with reporting provided for each CSP region (South, Central and North). In CSP regions South and Central, Parties can view whether individual addresses have WAN coverage or not, and whether the coverage is considered low, medium or high. In CSP North, Parties can view at WAN coverage at postcode level, but not at individual address level.

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 Bmax¹ 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 Checker is provided to SEC Parties, the Proposer believes reporting could be improved by highlighting addresses where there is no WAN or the WAN status has changed.

What is the impact this is having?

Currently there is no measure or way to understand the current WAN coverage that is critical to Users wanting to enrol Devices in the DCC Service. Without reporting on WAN Coverage, SEC Parties may waste resources by organising smart metering installs in areas reported on the WAN Coverage Checker as having WAN but when attending site there is no WAN.

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

Impact on consumers

Consumers are impacted as their Supplier may not be able to identify whether the issue is with intermittent WAN coverage in their area 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 Consumers view of the wider SMIP.

3. Solution

Proposed Solution

The DCC Preliminary Assessment showed that new reports will be created to satisfy Business Requirements 1 to 4.

The first report produced by DCC will be taken from the existing Data Lake 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 3 and 4, 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 5 and 6 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.

The full description of the solution is available in the DCC Preliminary Assessment in Annex C.

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

The DCC is 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.

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. As a consequence, 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.

DCC System

The data included in this modification is already available within 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 Preliminary Assessment response in Annex C.

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 less installation appointments being booked as Parties are aware of the WAN connection, thereby reducing travel and greenhouse gas emissions.

5. Costs

DCC costs

The estimated DCC implementation cost for this modification is £45,000.

This includes Design, Built and Test costs of £40,000 to implement the new reports and create the new template for Suppliers to raise WAN-related incidents.

There is also optional costs of £5,000 for independent validation of addresses and postcodes contained in the CSP WAN coverage data.

Based on the existing requirements, the fixed price cost for a Full impact Assessment is £2,000 and would be expected to be completed in 30 days.

More information can be found in the DCC Preliminary Assessment response in Annex C.

SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is 1 day of effort, amounting to approximately £600. This cost will be reassessed when combining this modification 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

Recommended implementation approach

SECAS is recommending an implementation date of:

- **Ad-hoc SEC Release;** or
- **07 November 2024** (November 2024 SEC Release) if a decision to approve is received on or before 24 October 2024;

SECAS anticipates this modification will undergo vote at Change Board on 27 March 2024. 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.

If SEC Parties do not believe this should be implemented as an ad-hoc SEC Release, it will be 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 what input is required from these forums. SECAS believes the following Sub-Committees will need to provide the following input to this modification:

Sub-Committee input	
Sub-Committee	Input sought
OPSG	Do you agree this with the business requirements for this modification?
SMKI PMA	None – no impacts
SSC	None – no impacts
TABASC	Should any additional items be included in the business requirements for this modification?

Observations on the issue

This Draft Proposal was presented to the Change Sub-Committee on 15 November 2022. There were no comments from members, but the Proposer highlighted the importance of ensuring WAN coverage is visible to all SEC Parties. The Proposer 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.

Smart Energy Code Administrator and Secretariat (SECAS) discussed this modification with the Sub-Committee Chairs. The TABASC Chair noted that reporting could be split between Smart Metering Equipment Technical Specification (SMETS) SMETS1 and SMETS2 Devices. SECAS has worked with the DCC and Proposer to develop the business requirements and believes that the reporting should be included but not split between SMETS1 and SMETS2 Devices.

Solution Development

Granularity of data

SECAS presented MP223 to the Working Group, Operations Group 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 adhere to this.

4G Communications Hubs

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. Although DCC reporting focuses on postcode and address level, SECAS has drafted the business requirements to ensure all types of Communications Hubs are included in reporting.

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
<i>Preliminary Assessment returned</i>	14 Jul 23
<i>Modification discussed with Working Group</i>	6 Sep 2023
<i>Refinement Consultation</i>	13 Sep 2023 – 4 Oct 2-23
<i>Modification discussed with Working Group</i>	1 Nov 2023
<i>Impact Assessment costs approved by Change Board</i>	22 Nov 2023
<i>Impact Assessment requested</i>	23 Nov 2023
<i>Impact Assessment returned</i>	24 Jan 2023
<i>Modification discussed with Working Group</i>	7 Feb 2024
<i>Modification Report approved by CSC</i>	21 Feb 2024
<i>Modification Report Consultation</i>	22 Feb 2024 - 14 Mar 2024
<i>Change Board Vote</i>	27 Mar 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
Bmax	Required WAN coverage set out in the DCC Licence
CHIMSM	Communications Hub Installation and Maintenance Support Materials
CSC	Change Sub-Committee
CSP	Communication Service Provider
DCC	Data Communications Company
OPSG	Operations Group
PMM	Performance Measurement Methodology
PMR	Performance Measurement Report
SECAS	The Smart Energy Code Administrator and Secretariat
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specification
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SMIP	Smart Metering Implementation Programme
SMS	Smart Metering System
SMWAN	Smart Meter Wide Area Network
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
WAN	Wide Area Network