

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.



MP223 'WAN Coverage Reporting'

Modification Report

Version 0.7

9 January 2024

Corporate member of
Plain English Campaign
Committed to clearer
communication

592



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

1. Summary.....	3
2. Issue.....	3
3. Solution	5
4. Impacts	6
5. Costs	7
6. Implementation approach	8
7. Assessment of the proposal	8
8. Case for change.....	11
Appendix 1: Progression timetable	13
Appendix 2: Glossary	14

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

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

Ben Giblin

020 3934 8646

ben.giblin@gemserv.com

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 £45,000 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 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 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.

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

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)	£45,000
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 £45,000. This includes costs of £40,000 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.

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

Recommended implementation approach

SECAS is recommending 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 late August 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. This would lead to a positive environmental impact as there will be less possibility of Meter Installers attending sites when the installation is unsuccessful. In addition to the environmental impact, 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 (a²), (b³) and (g⁴).

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 (e⁵).

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.

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 23
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
<i>Modification Report approved by CSC</i>	<i>16 Jan 2024</i>
<i>Modification Report Consultation</i>	<i>17 Jan 2024 – 7 Feb 2024</i>

Timetable	
Event/Action	Date
<i>Change Board Vote</i>	<i>21 Feb 2024</i>

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
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

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

MP223 ‘WAN Coverage Reporting’

Annex A

Business requirements – version 0.5

About this document

This document contains the business requirements for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The Data Communications Company (DCC) will use this information to provide an assessment of the requirements that help shape the complete solution.

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	Wide Area Network (WAN) coverage level for each Communication Services Provider (CSP) region (CSP North, CSP South, CSP Central), to be made available every three months.
2	Reporting to be produced every three months on addresses where there is no WAN or the WAN status has changed within the previous three months.
3	Monthly reporting on sites where Suppliers raise WAN-related incidents in each CSP region.
4	The WAN coverage checker to be updated monthly when Suppliers raise WAN-related incidents to the DCC Service Desk.
5	On an informal basis, request information from CSPs about planned work and work that is ongoing to improve WAN at sites which are currently declared to have no WAN.
6	On an informal basis, request information from CSP's about WAN outages which will then be provided to SEC Parties.

2. Considerations and assumptions

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

2.1 General

This solution will be applied to Smart Metering Equipment Technical Specifications (SMETS)1 and SMETS2 Devices enrolled in the DCC Service.

2.2 Requirement 1: Wide Area Network (WAN) coverage level for each Communication Services Provider (CSP) region (CSP North, CSP South, CSP Central), to be made available every three months.

The DCC to report quarterly on WAN coverage levels in each CSP region. This figure should be calculated by the number of 'covered' addresses which have some level of WAN coverage against the total addresses in that CSP region.

In CSP South this means covered addresses are those which have a status 'TRUE' with 'LOW', 'MEDIUM' or 'HIGH' on the WAN coverage checker. These addresses should be compared against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

In CSP Central this means covered addresses are those which have a status 'TRUE' with 'LOW', 'MEDIUM' or 'HIGH' on the WAN coverage checker. These addresses should be compared against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

In CSP North, this means addresses which are classified as TRUE/HIGH against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

2.3 Requirement 2: Reporting to be produced every three months on addresses where there is no WAN or the WAN status has changed within the previous three months.

At sites where there is no WAN coverage, or the WAN coverage level has changed since the last quarterly report, this should be recorded and provided to SEC Parties.

In CSP South this means all addresses which do not have WAN or where the WAN status has changed are reported on at property level.

In CSP Central this means all addresses which do not have WAN or where the WAN status has changed are reported on at property level.

In CSP North, this means all postcodes which have one or more addresses with no WAN are reported on.

2.4 Requirement 3: Monthly reporting on sites where Suppliers raise WAN-related incidents in each CSP region.

The DCC to record when Suppliers raise WAN-related incidents to the DCC Service Desk and the address where this has been raised. This information should be made available to SEC Parties monthly.

2.5 Requirement 4: The WAN coverage checker to be updated monthly when Suppliers raise WAN-related incidents to the DCC Service Desk.

All WAN incidents raised to the DCC Service Desk to be recorded. This should be passed onto CSPs to ensure the WAN coverage checker is accurate. If found to be inaccurate, the WAN coverage checker should be updated accordingly each month.

2.6 Requirement 5: On an informal basis, request information from CSPs about planned work and work that is ongoing to improve WAN at sites which are currently declared to have no WAN.

The DCC to report monthly on work which is ongoing to improve WAN coverage at sites which are currently declared to be no WAN.

This should include work which is ongoing in each CSP region to improve WAN where coverage is planned to be available.

In CSP North this reporting should exclude any properties which are classed in the WAN coverage checker as 'postcode valid but not planned to be covered'.

2.7 Requirement 6: On an informal basis, request information from CSP's about WAN outages which will then be provided to SEC Parties.

The DCC to ensure all information regarding planned WAN outages which are provided to the DCC Service Desk by CSPs are provided to SEC Parties prior to the outage taking place.

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
CSP	Communication Service Provider
DCC	Data Communications Company
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specifications
WAN	Wide Area Network

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

MP223 ‘WAN Coverage Reporting’

Annex B

Legal text – version 0.3

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 76.0.

Add Section H13.15 as follows:

SM WAN Coverage Reporting

H13.15 The DCC shall:

- a) produce quarterly reporting on SM WAN coverage levels for each Region. This figure should be calculated by the number of 'covered' addresses which have some level of SM WAN coverage against the total addresses in that Region;
- b) produce quarterly reporting of addresses where there is no SM WAN coverage or the SM WAN coverage level has changed since the last quarterly report;
- c) produce monthly reporting when Suppliers raise SM WAN-related incidents to the DCC Service Desk and the address where this has been raised;
- d) record all SM WAN-related incidents raised to the DCC Service Desk. A monthly report shall be produced showing all incidents in each Region;
- e) on an informal basis, request information from DCC Service Providers for each Region about planned work and work that is ongoing to improve SM WAN at sites which are currently declared to have no SM WAN; and
- f) on an informal basis, request information from DCC Service Providers for each Region about SM WAN outages which will then be provided to SEC Parties.

This document is classified as **Clear** in accordance with the Panel Information Policy. Recipients can distribute this information to the world, there is no limit on disclosure. Information may be shared without restriction subject to copyright.

MP223 'WAN Coverage Reporting'

Annex C

Refinement Consultation responses

About this document

This document contains the full collated responses received to the [MP223 'WAN Coverage Reporting'](#) Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
British Gas	Large Supplier	Yes	Yes, we support the proposer's view that this solution should effectively (or as effectively as possible) help with the identified issue. We agree with the Modification Report that any reporting set in place needs to also be future-proofed for 4G.	
EDF	Large Supplier	Yes	Improved reporting will provide a measure for DCC's performance against Bmax targets and provide understanding to industry of what measures DCC are taking to improve performance whilst allowing suppliers and others a better, more detailed understanding of WAN coverage across the country –saving money on field visits and (hopefully) ensuring customers have a prospect of coverage improvements in the future derived from the information such reporting will provide.	
EON	Large Supplier	Yes	In regard to requirement 3, it is not clear if the incidents suppliers have already reported by the current method will be included in the reporting.	DCC have noted that historical WAN-related incidents will not be included in reporting. This is because they have not been recorded in such a way that can be transferred to a new report. DCC noted that the new template will provide structure

Managed by



Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			We want to avoid suppliers having to re-raise any known issues in order to populate the report. We suggest that this is factored into the solution and the legal text.	which is required to allow all new WAN incidents to be collated into the new report.
Octopus Energy	Large Supplier	Yes, partially	The proposed solution resolves the first part of the identified issue to provide reporting on current WAN coverage percentages. We feel that creating an SEC Requirement for this type of regular reporting may also hold CSPs more accountable for their coverage responsibilities. We acknowledge that the scope of this modification is to provide a reporting mechanism but we feel an important next stage will be how it might drive work to improve WAN coverage. Whilst we accept that there might be a higher cost associated with making the reporting a contractual requirement for CSPs to provide regular WAN coverage reporting, we feel the lack of contractual arrangement leaves a risk that the CSPs may refuse or eventually stop producing the reporting. We understand there may be extensions to the timeline/costs if contractual change is sought as part of MP223 and therefore accept the proposal for informal request of this information but feel it is important to highlight there is an associated risk.	The business requirements have been written in collaboration with DCC, noting the existing reporting they already receive from CSPs. For example, some requirements state the DCC should produce monthly reporting, because this is the frequency which they receive the information from CSPs. The Proposer is also keen for this modification to be as low-cost as possible. SECAS discussed the potential of changing DCC/CSP contracts however where advised that this would likely incur very high cost, going against the wishes of the Proposer.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
OVO	Large Supplier	Yes	We just have one query around requirement 4 as we believe that there are already templates to raise WAN incidents as this is a process that is already in place. Can this requirement be expanded upon? How would this template differ? Would this also help prevent the CSP's also coming back to Suppliers requesting further information?	SECAS has asked for this information from DCC and will update this response accordingly.
Utilita	Large Supplier	Yes	We believe that having accurate reporting on the status of WAN connectivity is required to identify if Bmax targets have been met. It will help industry and the DCC identify where coverage improvements are required. Enhanced reporting will also enable future projects, such as the 4G transition, to be successful. In addition, accurate reporting would allow Suppliers to plan installation appointments with confidence and reduce the number of failed visits due to WAN coverage issues.	

Question 2: Do you agree that the legal text will deliver MP223?

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
British Gas	Large Supplier	Yes	We recognise that unfortunately H13.15 (e) and (f) can only be on an informal basis. However, we think it is still worth including these. We found the wording on H13.15 (b) and (c) to be a bit unclear. I particularly think for (b) the sentence needs to be redrafted, as I can't quite understand what the sentence is trying to say is required. What is the difference between a "WAN-related incident" in (c) and a "WAN incident" in (d)?	For (b) this has been amended to read "Produce monthly reporting of addresses where there is no WAN coverage or the WAN coverage level has changed since the last quarterly report". The Legal Text has been amended to refer to all WAN-related incidents.
EDF	Large Supplier	Yes	Legal text appears to provide for the changes noted in answer to Q1, however; "c) produce monthly when Suppliers raise..." appears to miss the word 'reporting'.	This text error has been amended in the Legal Text v0.2
EON	Large Supplier	Yes	However, please see answer to Q1.	
Octopus Energy	Large Supplier	Yes, partially	The legal text appropriately covers the requirements of the initial request and therefore delivers MP223.	
OVO	Large Supplier	Yes	-	
Utilita	Large Supplier	Yes	No comments	

Question 3: Do you agree with the proposed implementation approach?

Question 3			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	Yes	Except we don't understand why it needs to take until November 2024 to implement. We would prefer this to be earlier if possible.
EDF	Large Supplier	Yes	No issues with approach. Positive to see 4G reporting will be included.
EON	Large Supplier	Yes	An ad hoc release would be preferable to waiting for a scheduled release date.
Octopus Energy	Large Supplier	Yes	We agree with the proposed approach to resolve the issue outlined in the proposal. We would however note that the November 2024 SEC release is over a year away and we believe it should be possible to bring this forward without impact on cost considering that we understand that the CSPs produce some type of reporting already in this area.
OVO	Large Supplier	No	As discussed at the working group we believe that a shorter lead time should be explored and perhaps the June 2024 release would be a more suitable time to aim for considering what is needed for this modification.
Utilita	Large Supplier	Yes	No comments

Question 4: Will there be any impact on your organisation to implement MP223?

Question 4			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	No	There is no implementation impact as such, except Suppliers need to be encouraged to report all WAN-related incidents, once the mod goes live, to be included in the reporting. There will be a positive impact if it helps with accuracy of identifying non-WAN properties before we visit.
EDF	Large Supplier	No	Business already reports WAN issues to DCC as BAU process.
EON	Large Supplier	No	Impact is on DCC only.
Octopus Energy	Large Supplier	No	We do not believe there will be any impact on our organisation to implement MP223. The reporting that MP223 seeks to implement is in addition to what is already in place. We can choose to use this when necessary, hence it does not require any committed effort to implement other than the time spent by a staff member reviewing the data.
OVO	Large Supplier	Yes	A positive impact in terms of greater visibility of WAN incidents and WAN coverage reporting.
Utilita	Large Supplier	Yes	Potential minor process changes to job booking and planning within Field Services could be made to optimise these activities based on the increased accuracy of WAN reporting.

Question 5: Will your organisation incur any costs in implementing MP223?

Question 5			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	TBC	Expected to be low.
EDF	Large Supplier	No	Business already reports WAN issues to DCC as BAU process.
EON	Large Supplier	No costs	-
Octopus Energy	Large Supplier	No	As in Question 4, we do not believe this will incur any additional efforts or costs. The Proposal appears to have benefits to us as a supplier. Implementation of MP223 will provide us with clearer WAN reporting on incidents raised and we will be able to better understand WAN issues at sites and not waste resources revisiting sites with known issues.
OVO	Large Supplier	Less than £100k	We anticipate minimal cost outside of this modification.
Utilita	Large Supplier	Less than £10k	There may be minor costs to implement this as it would involve checking a new report before booking or planning a job.

Question 6: How long from the point of approval would your organisation need to implement MP223?

Question 6			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	N/A	It would be useful to have the more accurate coverage information as soon as possible.
EDF	Large Supplier	N/A	Business already reports WAN issues to DCC as BAU process.
EON	Large Supplier	N/A	-
Octopus Energy	Large Supplier	0	As covered in Questions 4 & 5, we do not believe there would be any need for extra resources or time to implement the changes proposed to implement MP223. This is a reporting set which provides deeper information in addition to the already available WAN data.
OVO	Large Supplier		As soon as reporting is provided
Utilita	Large Supplier	1 – 2 months	If process changes are required with the advent of the new reports, we would need to update process documents and train out the new changes.

Question 7: Do you believe that MP223 would better facilitate the General SEC Objectives?

Question 7			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	Yes	-
EDF	Large Supplier	Yes	MP233 very clearly facilitates the first general SEC objective of facilitating the efficient provision, installation and operation of Smart Metering Systems by allowing better understanding of WAN coverage across the country and hopefully providing a metric & data to allow DCC to improve coverage to customers.
EON	Large Supplier	Yes	This will facilitate objective a) facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain By reducing waste and promoting efficiency and providing a better experience for customers.
Octopus Energy	Large Supplier	Yes	MP223 helps meet SEC objective a) by facilitating improvements to smart meter installation confidence. To lesser degrees, it also supports SEC objectives b) & e). We feel that MP223 broadly facilitates the general SEC objectives and also encourages CSPs to meet their coverage targets by making this information more transparent and widely accessible.
OVO	Large Supplier	Yes	A, B and G
Utilita	Large Supplier	Yes	We believe that this mod would better facilitate Objectives (a) and (e). Having an accurate understanding of WAN status at a given property will lead to job bookings being more efficient, with fewer cancellations or failures due to communications issues. This will also give future projects the ability to plan rollouts targeted to areas that have high coverage and highlight areas that may require further intervention to resolve. It will also help identify if coverage targets have been met and if enhancements are required.

Managed by

Question 8: Do you believe there will be any impacts on or benefits to consumers if MP223 is implemented?

Question 8			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	Yes	It would allow fewer failed Smart install visits.
EDF	Large Supplier	Yes	Potential benefit of avoiding unnecessary installation/engineer visits to customers and possibly leading to improved coverage in certain areas allowing smart meter installations and the benefits of smart systems to be brought to more customers.
EON	Large Supplier	Yes	Less aborted installation appointments which will benefit suppliers and customers.
Octopus Energy	Large Supplier	Yes	We believe that the implementation of MP223 will improve the experience for energy consumers as they will have less time wasted on repeat jobs. This also improves the overall programme and reduces costs in wasted jobs- such costs would eventually make their way onto customers' bills so any reduction here has material benefit for energy consumers. Bringing a focus to WAN consistency and stability stands to benefit consumers as shared information may lead to better understanding and shared learning again reducing costs which would otherwise impact consumers.
OVO	Large Supplier	Yes	We should be able to determine more easily whether there is WAN coverage at an address, reducing aborts and customer dissatisfaction.
Utilita	Large Supplier	Yes	Consumers will benefit from the increased accuracy of reporting as this will improve the success rate of jobs and avoid breaking promises to customers due to unknown WAN status. Some customers may also receive coverage where they would not have without this reporting.

Question 9: Noting the costs and benefits of this modification, do you believe MP223 should be approved?

Question 9			
Respondent	Category	Response	Rationale
British Gas	Large Supplier	Yes	The costs seem reasonable for the benefits this would (or should) achieve.
EDF	Large Supplier	Yes	The cost is very reasonable for the reporting provided and potential benefits it may provide.
EON	Large Supplier	Yes	More accurate reporting will lead to less aborted appointments
Octopus Energy	Large Supplier	Yes	The costs estimated to be £40,000 appear to be a reasonable price for the improvements to be made in programme support and improved energy consumer experience.
OVO	Large Supplier	Yes	-
Utilita	Large Supplier	Yes	With the 4G transition on the horizon it is critical that all Supplier share an accurate understanding of the current WAN status of the networks across the UK, as this will enable a smooth rollout of this new technology. Additionally, this understanding on WAN status will provide ongoing benefits to new installations and replacements, as well as allowing proactive actions to be taken in chases where there has been a change in WAN status that we cannot do at the moment.

Question 10: Should the optional £5,000 cost for independent validation of CSP postcode validation data be included as part of this modification?

Question 10		
Respondent	Category	Comments
British Gas	Large Supplier	Yes, but could this be done as soon as possible, ahead of the November 2024 current targeted date. It is particularly important for accurate scoping and planning for RTS replacements, so the sooner the better.
EDF	Large Supplier	Yes – this is a reasonable cost for the additional validation.
EON	Large Supplier	
Octopus Energy	Large Supplier	We agree with the principle of independent validation of CSP postcode data and believe it would be valuable to the reporting proposed by MP223. However, we would be interested to know what form this independent validation would take and who would conduct this. We believe that CSPs should be validating their own data regularly aside from this modification but see this modification as an opportunity to clarify this and confirm the validity.
OVO	Large Supplier	Yes
Utilita	Large Supplier	We believe this will provide an additional level of confidence to the accuracy of the reporting, and for the cost, we do not see a reason this validation work should not be undertaken.

Question 11: Please provide any further comments you may have.

Question 11				
Respondent	Category	Response	Rationale	SECAS Response
British Gas	Large Supplier	-	-	
EDF	Large Supplier	-	-	
EON	Large Supplier	-	-	
Octopus Energy	Large Supplier	-	-	
OVO	Large Supplier		We would like to emphasise that we would like the reporting based on data this is available as a priority, and then changes to contracts to be considered as this could delay the issuing of the reports due to being costly and taking a long time.	Due to the feedback received from Parties, this modification will be implemented as an ad-hoc SEC Release as soon as a decision is made by Change Board. The DCC has informed SECAS that the Impact Assessment will take 30 days. In the Impact Assessment an accurate timescale will be provided as to the testing time needed to implement this modification before go-live.
Utilita	Large Supplier		It is important to note that Business Requirement 3 can only be accurately reported if Suppliers are raising WAN-related incidents with DCC as and when they occur.	SECAS and the Proposer acknowledge that Suppliers will need to report on incidents so ensure the new report on WAN incidents is as accurate as possible. SECAS has not explored the possibility of

Question 11				
Respondent	Category	Response	Rationale	SECAS Response
			Should this mod be implemented, it is critical that Suppliers are reminded to raise these incidents and that this behaviour becomes BAU activity if it is not already. This could be added to existing DCC communications channels such as Service Review or Incident Reviews as an example.	adding this reminder to DCC communications channels but will do so when the Impact Assessment is requested.

SEC Modification Proposal, SECMP223

Annex D

WAN Coverage Reporting

Full Impact Assessment (FIA)

Version:	1.0
Date:	19th December, 2023
Author:	DCC
Classification:	DCC Public

Contents

1	Executive Summary	3
2	Document History	4
2.1	Revision History	4
2.2	Associated Documents	4
2.3	Document Information.....	4
3	Context and Requirements	5
3.1	Problem Statement	5
3.2	Business Context and Requirements.....	5
3.3	Business Requirements	6
4	Description of Solution	8
4.1	DCC Data Science and Analytics.....	8
4.2	DS&A Solution Overview	8
4.3	Solution Constraints and Changes	9
4.3.1	Delivery Mechanism.....	10
4.4	Working Methodology	10
4.5	Data Delivery, Testing, and User Acceptance.....	10
5	Impact on Systems, Processes and People	11
5.1	Infrastructure Impact.....	11
5.2	Security Impact.....	11
5.3	Data Science & Analytics Team and Wider DCC Operations.....	11
6	Implementation Timescales and Approach.....	11
6.1	Testing and Acceptance.....	11
7	Costs and Charges.....	13
7.1	Design, Build, and Testing Cost Impact.....	13
	Appendix A: Glossary	14

1 Executive Summary

The Change Board are asked to approve the following:

- Total cost to implement SECMP0223 are £45,000 (including validation of postcodes / addresses in CSP coverage data), which includes Design, Build and PIT (no formal SIT or UIT is required); and
- A timescale to complete implementation of six (6) months.

Problem Statement

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.

Although the WAN Coverage Checker is provided to SEC Parties, the Proposer believes reporting could be improved through the provision of reporting that highlights addresses where there is no WAN or the WAN status has changed.

Benefit Summary

The additional reporting requested will provide a periodic overview to DCC Users of WAN coverage in each CSP Region, which in effect summarises the WAN coverage data available to DCC and to Users. The applicability of that reporting to the planning of Smart Meter installations at specific consumer premises is unclear.

2 Document History

2.1 Revision History

Revision Date	Revision	Summary of Changes
19/12/2023	1.0	Issued

2.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	MP223 Modification Report v0.3	SECAS	23/05/2023
2	MP223 Business Requirements v0.4	SECAS	23/05/2023
3	SECMP223 - PIA - WAN Coverage Reporting V1.0	DCC	14/07/2023

References are shown in this format, [1].

2.3 Document Information

The Proposer for this Modification is Emslie Law from the OVO.

The Full Impact Assessment was requested of DCC on 3rd November 2023.

3 Context and Requirements

In this section, the context of the Modification, assumptions, and the requirements are stated.

The requirements have been provided by SECAS, the Proposer, and the Working Group.

3.1 Problem Statement

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 targets required of the DCC (target coverage for WAN, as set in the DCC Licence) 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.

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.

3.2 Business Context and Requirements

WAN Coverage for CSPN is described at postcode level, not for individual addresses. DCC has discussed the possibility of increasing the granularity of CSPN WAN Coverage data to identify individual addresses, which would require a major system change, with SECAS and the Proposer and, noting the statement in the Modification Report that the Proposer wishes to keep implementation costs to a minimum. Further to those discussions, DCC has responded to the business requirements on the basis that the CSPN WAN Coverage data will remain at postcode level only.

DCC also notes that the requirements listed for SECMP223 imply a solution that will summarise WAN Coverage data already available to DCC Users via the Self-Service Interface and, while the additional reporting will provide an overview to Users periodically, the applicability of that reporting to the planning of Smart Meter installations at specific consumer premises is unclear.

With respect to WAN related incidents, and reporting thereon, it should be noted that when a DCC User submits a Communications Hub Status Update – Install No SM WAN Service Request (SRV 8.14.2), an incident is created automatically in the DCC Service Management System and a series of diagnostic checks, similar to those described in the CH Installation and Maintenance Support Materials, are carried out automatically. If the checks identify that the Comms Hub was installed in a location where no WAN coverage is reported, according to the CSP coverage data, or if the Comms Hub is found to be communicating, the Incident will be closed.

3.3 Business Requirements

Requirement 1: The DCC to produce a figure of the WAN coverage level for each CSP region, every three months.

The DCC to report quarterly on WAN coverage levels for each CSP region. This figure should be calculated by the number of 'covered' addresses which have some level of WAN coverage against the total addresses in that CSP region.

In CSP South this means covered addresses are those which have a status 'TRUE' with 'LOW', 'MEDIUM' or 'HIGH' on the WAN coverage checker. These addresses should be compared against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

In CSP Central this means covered addresses are those which have a status 'TRUE' with 'LOW', 'MEDIUM' or 'HIGH' on the WAN coverage checker. These addresses should be compared against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

In CSP North, this means addresses which are classified as TRUE/HIGH against the total number of addresses in this CSP region to calculate the WAN coverage percentage.

Requirement 2: The DCC to produce reporting on addresses where there is no WAN or the WAN status has changed, every three months.

At sites where there is no WAN coverage, or the WAN coverage level has changed since the last quarterly report, this should be recorded and provided to SEC Parties.

In CSP South this means all addresses which do not have WAN or where the WAN status has changed are reported on at property level.

In CSP Central this means all addresses which do not have WAN or where the WAN status has changed are reported on at property level.

In CSP North, this means all addresses which do not have WAN are reported on at postcode level.

Requirement 3: The DCC to produce monthly reporting on sites where Suppliers raise WAN-related incidents in each CSP region.

The DCC to record when Suppliers raise WAN-related incidents to the DCC Service Desk and the address where this has been raised. This information should be made available to SEC Parties monthly.

Requirement 4: The DCC to ensure the WAN coverage checker is updated accordingly when Suppliers raise WAN-related incidents to the DCC Service Desk.

All WAN incidents raised to the DCC Service Desk to be recorded. This should be passed onto CSPs to ensure the WAN coverage checker is accurate. If found to be inaccurate, the WAN coverage checker should be updated accordingly.

Requirement 5: The DCC to produce monthly reporting on work which is ongoing to improve WAN coverage in each CSP region at sites which are currently declared to be no WAN.

The DCC to report monthly on work which is ongoing to improve WAN coverage at sites which are currently declared to be no WAN.

This should include work which is ongoing in each CSP region to improve WAN where coverage is planned to be available.

In CSP North this reporting should exclude any properties which are classed in the WAN coverage checker as 'postcode valid but not planned to be covered'.

Requirement 6: All planned WAN outages which are passed between CSPs and the DCC Service Desk to be passed to SEC Parties.

The DCC to ensure all information regarding planned WAN outages which are provided to the DCC Service Desk by CSPs are provided to SEC Parties.

4 Description of Solution

Following analysis of the Requirements above, the DCC Data Science & Analytics (DS&A) Team proposes the following Solution:

- Coverage data-marts with associated reporting
- Remedy template creation
- Custom Remedy reporting

4.1 DCC Data Science and Analytics

DCC's Data Science and Analytics (DS&A) function was formed from a specific sub element of the Technical Operations Centre (TOC). It has particular focus on underpinning the existing TOC capability with dedicated emphasis on utilising the considerable data DCC generates and captures. This team is responsible for all aspects of the data across the Data Analytics lifecycle from initial structuring and organisation, ensuring its timeliness availability across TOC and wider DCC. Within DS&A however, further data-analytical processing techniques are employed in order to derive insights for industry. The DS&A function also has DCC responsibility for its regulatory reporting.

DS&A operate secure and scalable cloud computing with powerful analytic software to help identify and understand how the DCC service is used with objectives to evaluate application execution, message flow and orchestration performance, device, HAN configuration compliance and more. The team is staffed by dedicated DCC sourced system experts, experience data scientists supported by cloud technologists and database developers and administrators.

DS&A have developed much of the DCC operational capability incorporating Service Visualisation of Operational Management dashboards, proactive alerting of operational metrics and anomaly detection systems. It is, however, it's Operations Analytics tools that will be utilised to fulfil this modification. Operational Analytics allow highly accurate monitoring of key DCC KPI's across many aspects of the end-to-end service and is operatable at Device, Meter-point, or transactional request identity level for a forensic analysis of specific behaviour and troubleshooting. It is when such seemingly discreet data is connected and aggregated that allow the correlation of trend analysis and generation of meaningful insights such that will drive this Modification.

DCC DS&A will be responsible for the design, development, implementation and BAU maintenance of the solution for this Modification.

4.2 DS&A Solution Overview

Utilising the coverage datasets provided by the CSPs, the DS&A team will create and maintain a bespoke, automated Extract, Transform and Load (ETL) processes to import the data from our Data Lake and from there create a new data model which can be used to satisfy Requirements 1 and 2.

The data from this data model will be used to create a single report in excel format that includes the output based on Requirements 1 and 2.

Report 1 - Requirement 1 & Requirement 2

For Requirement 1, a new report will be created that will be produced every 3 months. The new report will contain a high-level summary of the percentage WAN coverage level in each CSP region.

The new report will also contain the details of WAN Coverage changes as stipulated in Requirement 2.

The excel spreadsheet format has been chosen as it's an accepted standard. It isn't expected that the data within the report will exceed the limits of an excel spreadsheet, but if it is deemed necessary, the report output will be changed to be 2 separate reports in csv format, combined into a single zip file.

Report 2 - Requirement 3 & Requirement 4

For Requirement 3 a new template will be created in Remedy that will allow WAN-related incidents to be easily logged and reported on. Work Instructions will be created to explain how the new template should be completed. A new report that satisfies Requirement 3 will be created and produced as per the agreed timescales and will be published to SEC Parties to their area on SharePoint.

To satisfy Requirement 4, a CSP version of the report will also be produced showing incidents relevant to CSPN, CSPC and CSPS.

Requirements 5 & 6

For Requirement 5 there is no contractual obligation for CSPs to report on planned or in-progress work or planned WAN outages. In lieu of a contract change to require this to be provided, DCC will ask for this on an informal basis from CSPN, CSPC and CSPS.

4.3 Solution Constraints and Changes

DCC will only use the data contained within the coverage data provided by CSP North, CSP Central and CSP South. CSPs are required to ensure that coverage data is accurate and up-to-date, therefore there will be no independent validation of postcode / address data. This is relevant to Requirement 1 and Requirement 2.

Should independent validation of postcode and address data be required (i.e. reconciliation of addresses in each CSP Region vs those reported in the CSP coverage data, there will be an additional charge, as set out in section 7.

Coverage data provided by CSP Central and CSP South is provided at the address level whereas CSP North data is provided at the postcode level. Changes for CSP North to provide data at the address level are out of scope.

Requirement 4 - DCC is not able to implement changes to the WAN coverage checker as this is a service that is provided by the CSPs and would likely require a change to implement.

Requirement 5 – There is no contractual requirement for CSPs to inform DCC of work planned or in-progress. Without a contractual change the reporting would only be on an informal basis.

Requirement 6 – There is no contractual requirement for CSPs to inform DCC of planned outages. Without a contractual change the reporting would only be on an informal basis

DS&A have reviewed the requirements and concluded they can be met in full and delivered using existing data available and subsequently working within the constraints of the current solution should involve no commercial change to the DCC Solution.

If data sources are identified in the future that may help customers in managing performance, DCC will seek to introduce this source and adapt the reporting solution to accommodate, DCC reserves the right to cover any costs in the obtaining, productionising and presenting this information.

The DCC DS&A team will make reasonable endeavours to configure the reporting / templates in a way that accommodates future changes – the introduction of the next generation of Comms Hubs is an example of this. Whilst this isn't a live service yet and it's therefore not possible to test this logic completely, the 4G WAN provider will be required to deliver WAN coverage data to DCC, which DCC will endeavour to incorporate into the reports.

4.3.1 Delivery Mechanism

Across all reporting requirements stated within this Modification, DCC will publish all relevant files at the stated frequency to DCC's secure SharePoint repository. The files will be Excel Spreadsheets of type xlsx unless the volume of data within the report renders this format inappropriate. The alternative to Excel spreadsheets would be csv files compressed and incorporated into compressed zips.

For Requirement 1 & 2, a single report will be produced and shared via the "Information for SEC Parties" location on SharePoint.

For Requirement 3, reports will be created at an individual Service User level and shared via their individual Service User area in SharePoint

Where possible and upon request, other file formats may be accommodated where a Service User has a different and specific preference.

4.4 Working Methodology

During the requirement gathering and refinement, principally as part of the SECMP0223 process which has driven this Modification requirement, the DCC and SECAS hosted workshops with the Working Group. These workshops aimed to validate the proposals in the Operational Metrics Review (OMR) in terms of the viability of implementing the recommendations, to refine the requirements further, and to enable fast delivery of new requirements and improvements.

It is proposed that the reporting will be delivered by the DCC DS&A team via an iterative delivery mechanism, whereby a Minimum Viable Product (MVP) will be available in a first prototype release in the Implementation phase and following consultation with Service Users, further functionality can be delivered in a fast and frequent continuous delivery mechanism until the final product is complete.

4.5 Data Delivery, Testing, and User Acceptance

The development and testing 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.

5 Impact on Systems, Processes and People

As defined the change included in this document is confined to data already within the DCC, with no expected changes impacting SMETS1 or SMETS2 Service Providers.

5.1 Infrastructure Impact

No impact to existing infrastructure.

It should be noted that the solution as proposed should not add noticeable traffic or processing to the Smart Metering System or network.

5.2 Security Impact

The solution will need to ensure that only data related to the relevant SEC Party is made available, and will be security assured during the implementation phase through standard DS&A reviews, however no impact from such assessments is anticipated.

5.3 Data Science & Analytics Team and Wider DCC Operations

The full range of activities required to implement these requirements including design, development, testing, and implementation would be performed by DCC DS&A utilising in-house contractors and permanent staff.

6 Implementation Timescales and Approach

A key factor in planning and delivering this Modification's implementation and release is that the changes are neither part of the Smart Metering System, nor do they impact any Technical Specifications, such that they can be implemented separate from the now-standard SEC Release dates.

This work should be completed within six (6) months of approval.

6.1 Testing and Acceptance

It is assumed that the change will be implemented and tested as a separate release, and will include testing iteratively during development. The development and testing will not require the testing services of the System Integrator or the CSPs.

During the design, development and test phases for this Modification, DCC will engage with Service Users (a representative cross-section of Users who undertake Installation & Commissioning will be selected) at the following stages (these will not necessarily occur in sequential order):

Stage	Purpose of engagement
1. WAN coverage report design	Validate format of draft WAN coverage report (Requirements 1 & 2).
2. WAN coverage report delivery	Validate SharePoint delivery mechanism of WAN coverage report (Requirements 1 & 2).
3. Incident Template design	Validate that the additional information required for a WAN related Incident is captured by the new template to minimise

	further information gathering prior to triage and ensure consistent reporting.
4. WAN incident report design	Validate format of draft WAN coverage report (Requirement 3).
5. WAN incident report delivery	Validate SharePoint delivery mechanism of WAN coverage report (Requirement 3).

7 Costs and Charges

The table below details the cost of delivering the changes and Services required to implement this Modification Proposal. The Rough Order of Magnitude cost (ROM) shown below describes indicative costs to implement the business requirements.

7.1 Design, Build, and Testing Cost Impact

The table below details the cost of delivering the changes and Services required to implement this Modification. The scope of supply under this FIA includes design, development (build), testing within a selected TOC environment.

£	Design, Build and Test
Implement reports and new Remedy template	£40,000
Postcode Data to facilitate independent validation of addresses / postcodes contained in CSP WAN coverage data	£5,000

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
BAU, BaU	Business As Usual
CPL	Central Products List
CSP	Communication Service Provider
CSV	Comma Separated Variable
DCC	Data Communications Company
DNO	Distribution Network Operator
DSP	Data Service Provider
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FIA	Full Impact Assessment
FTE	Full Time Employees
GBCS	Great Britain Companion Specification
GSME	Gas Smart Metering Equipment
I&C	Installation and Configuration
IHD	In Home Display
KPI	Key Performance Indicators
MVP	Minimum Viable Product
OMR	Operational Metrics Review
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
PMR	Performance Measurement Report
PPMID	Payment Meter Interface Device
ROM	Rough Order of Magnitude (cost)
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SLA	Service Level Agreement
SMETS	Smart Metering Equipment Technical Specification
SMS	Smart Metering System
SRV	Service Request Variant
SVP	Speed, Volume, Payload
S1SP	SMETS1 Service Provider
TOC	Technical Operations Centre
UIT	User Integration Testing