

SEC Modification Proposal 0032

DCC Preliminary Impact Assessment (PIA)

Mod Proposal Title: "Prioritising Prepayment Customers in No WAN Situations"

Mod Path: Path 3 - Self governance



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1 Introduction

The purpose of this DCC Preliminary Impact Assessment (PIA) is to provide the relevant Working Group with the information requested in accordance with SEC Section D6.9 and D6.10.

1.1 Previous Information Provided by DCC

This DCC Preliminary Assessment was requested of DCC on 18/04/2018.

1.2 DCC Contact Details

Please raise any queries regarding this DCC Impact Assessment using the contact details provided below.

Name	DCC - SEC Modification queries
Contact email	mods@smartdcc.co.uk

1.3 Modification Description

This modification seeks to introduce a requirement on the DCC to prioritise achieving Smart Metering Wide Area Network (SM WAN) coverage in areas where:

- Customers are signed up to prepayment contracts with their Suppliers
- A Communications Hub (CH) is installed at a premise but does not connect to the SM WAN
- The SM WAN Coverage Database indicated (at any time during the 30 days prior to the date of installation) that the SM WAN is (or would be) available in the area in which the premise is located on the installation date.

1.4 Requirements

The requirements for this modification have been developed by the Working Group during the Refinement phase. The impact on the DCC has been assessed against the Business Requirements and the corresponding draft legal text set out in the SECMP0032 Solution Design Document v1.0.

Business Requirement 1

The DCC will be required to achieve SM WAN coverage in 30 days (instead of 90 days) in areas where:

- *one or more customers within the relevant coverage area (the understanding is that these align to postcode areas) are signed up to prepayment contracts with their Supplier;*
- *a CH is installed at a premise but it does not connect to the SM WAN;*
- *the installation has been completed in accordance with the Communication Hub Installation Maintenance Support Materials (CHIMSM); and*
- *the SM WAN Coverage Database indicated (at any time during the 30 days prior to the date of installation) that the SM WAN is (or would be) available in the area in which the premise is located on the installation date.*

Business Requirement 2

A mechanism is to be introduced for Suppliers to inform the DCC that there is a customer signed up to a prepayment contract at a certain location. The Proposer identified that a new Service Request (SR) Self-Service Interface (SSI) would be the most appropriate solution.

Introducing a new Service Request will require corresponding changes to:

- *SEC Appendix AH 'Self-Service Interface Design Specification' sections 1.9.1, 1.9.2 and 1.10; and*
- *SEC Appendix E 'DCC User Interface Services Schedule'.*

It is assumed that DCC will provide the corresponding redlining for the introduction of a new Service Request as part of its PA response.

Based on the initial discussions at the Working Group and the Business Requirements as set out in the Solution Design Document, the DCC consider the requirements for SECMP 0032 to be **STABLE**. If the requirements or SEC obligations set out in the Solution Design Document above change, DCC will be required to carry out further impact assessment.

1.5 High Level DCC Assessment

Initial analysis of this modification has revealed a significant number of concerns with the technical implementation.

There will be an impact on the following Service Providers and associated components:

- Communication Service Providers
- Energy Suppliers carrying out smart meter installations
- The DCC DSP Solution

This was confirmed in discussions with Service Providers in compiling this Preliminary Impact Assessment.

1.6 Technical Options

Two options to implement these requirements have been suggested, and are discussed below.

1.6.1 Operational Based Changes

The first solution for this SEC Modification would be Operational where initial analysis by the CSP might show where resolution will be needed.

Under the current process the CSP in the Central and South areas (Telefonica), may provide a resolution path which is for Communications Hubs (CHs) in surrounding homes to the NO WAN Incident to be replaced with SKU2 or SKU3 CHs, effectively raising a new mesh to remediate the problem.

For the North areas, the solution is to provide a new mast for a specific location, but this would lead to higher costs, and the time required to get a new request through Planning Regulations could not be accommodated in a 30 day lead time.

In both areas, SM WAN incidents are likely to be consumer home specific and resolutions will be on a home by home basis, rather than at a postcode level. It is possible to identify areas where coverage will be a problem, but it hard to confine it to a specific area around an anticipated Prepayment Meter, and this would suggest a far greater density of updated solutions than might otherwise be necessary.

However if the Energy Supplier raising the No WAN incident does not own the supplies to all the consumer homes requiring new Comms Hubs that single Energy Supplier cannot resolve the incident on their own. Various Energy Suppliers will be required to coordinate a common installation time in order for the correct, new Comms Hubs to be installed but the other energy suppliers have no obligation to do so and they can do it when they want. This could be overcome by Telefonica accompanying the Energy Supplier for all visits, but this is likely to increase costs in the charging model, and would lead to a significant increase in T3 installs.

Overall, there may be geographical variations for the Operational-based change, with the general risk that the 30 day timeline might not be feasible. There are concerns that this approach would raise the cost to the Service Users significantly with the risk of over-specifying the features for an installation.

1.6.2 Meter Data Analysis

There may be a second option available where a combination of the following data might be used to predict a potential SM WAN incident:

- CSP Data, indicating how installs were carried out
- Utility and Energy Supplier Data, where cases of Prepayment Meters are already known, or in place
- DCC Data, where existing Registration Data from an earlier smart meter installation is available; this data includes Customer Type but is only available for existing smart meter installs

If this installation data could be shared, it should be possible to analyse existing data for failed and successful installations, to predict coverage and signal strength. DCC would be responsible for aggregating the data, providing the data analysis, and making this information available to energy suppliers prior to an installation. The energy suppliers would then be responsible for providing the required resources for an installation.

It should be noted that the Coverage Checker is postcode-based in the Northern area, and premise-based in the Central and Southern areas. The Coverage Checker includes

information on the coverage, but does not include information on the customer or meter type, including Prepayment. Making this information available would require reconfiguration of the Self Service Interface and Coverage Checker. Naturally only information for previous smart meter installations will be held in an updated version of the Coverage Checker. In addition, Prepayment Meter information is considered personal information under the General Data Protection Requirement, and would require additional data processing and security implementations to keep this data secure.

Overall, the work to establish the data required for the analysis and the sharing of information to energy suppliers prior to an installation is likely to be significant and lengthy to implement. Similar SEC Modifications have been costed at between £1 and £2 million.

1.7 Concerns

There appears to be no hard and fast information regarding the distribution of Prepayment meters across postcodes. There are about 1.8 million postcodes, 4.5 million electricity prepay and 3.5 million gas prepay meters, which infers an average of between 2 and 3 electricity prepayment meters and 2 gas prepayment meters per postcode. We have requested further information on the distribution of Prepayment meters from the Working Group. If there is at least one Prepayment Meter per postcode, then the Requirements of the SEC Modification may not be valid and the business benefit very limited.

Changing the No WAN resolution from 90 days to 30 days is a massive impact on the DCC and current processes. Every part of the Smart Meter implementation has been geared towards 90 day resolutions for the CSPs so any change to this, whether it is for prepayment customers only or not, will have substantial regulatory, contractual, process and cost impacts. We would recommend that the Working Group consider ways that it might be possible to reduce the time to remediate a NO WAN incident

In all cases, significant additional obligations need to be placed on the Energy Suppliers themselves to guarantee resolution.

Implementing a reduced resolution of 30 days for CSP-specific areas is unworkable, while establishing individual postcodes where a Prepayment meter is known to exist, this will make the problem more complex rather than simpler to implement.

Prioritising any consumer group over any other consumer group is not currently catered for in the SEC and definitely has no grounding in the CSP implementation, as currently the CSPs see their estate as one and are unaware of which Energy Supplier or DCC Customer are responsible for which Communication Hub. In addition, it would not be possible to prioritize one Energy Supplier's customers over another set of customers as this would be anti-competitive.

It should be noted that in the SMETS2 design, prepayment is designed to operate in the absence of SM WAN as long as:

- Devices are paired locally in the premises
- A Prepayment Meter Device (PPMID) with a local payment option is used
- The consumer is appropriately informed and educated, which they must be under the SMICoP code

These design considerations should cover the majority of cases, and mean that SMETS 2 meters should not be subject to these considerations..

1.8 Summary of Issues

We see the following issues as problems for this SEC Modification in general:

- Reducing the resolution from 90 to 30 days in specific cases, and identifying applicable cases ahead of installation.
- Implementing a 30 day turnaround with serious disruption and cost to both the CSPs and Service Users. This turnaround may not even be possible if planning permission needs to be sought for remediation measures, as in the case of the Northern area.
- Identifying those locations with Prepayment customers, and those postcodes without, and transforming this to premise based predictions of No WAN situations.
- Billing for the installations and further provisions.
- Not over-installing a mesh in the Central and Southern areas, with a corresponding cost increase for each such install. For the same areas, CSP attendance at an install would drive up installation costs overall.
- Security, data privacy and competitive issues relating to sharing Prepayment data across other energy suppliers, as well as those who supplied the data.
- The feasibility of supplying adequate and complete Prepayment data.
- GDPR relating to sharing Prepayment meter data and locations.

2 Recommendation

An operational-based change would face significant logistical obstacles and would require large changes to the existing process, with no guarantee that a 30 day deadline could be met. A data analytics option using meter type and surrounding historical installation data provided prior to an installation is feasible, but the work to establish the data availability and sharing of information is likely to be difficult and costly.

In addition, the timelines required to define the Modification suggest that the timeline for the delivery of the modification is November 2019, which reduces the business benefit of any change.

From the analysis above, based on the technical difficulties associated with this SEC Modification, the low business benefit, and anticipated extremely high costs of delivering a solution, the recommendation is that this SEC Modification is not progressed.

3 Additional Requirements

A further series of requirements were supplied as part of the Solution Design document.

Additional Requirement 1

The Proposer and the Working Group seek the answers to the following:

- *The rationale behind the 90 days' time frame; and*
- *The possible impacts of reducing the time limit from 90 days to 30 days.*

The 90 days timeframe is based upon the time to re-provision and allocate a second visit to a location with No WAN. In the case of the Northern area, planning permission to build a new mast is required as well.

Reducing the time limits to 30 days will have a significant cost impact, and may not be possible, as detailed in sections above.

Additional Requirement 2

*The DCC to provide a redlining as part of Preliminary Assessment (PA) and Impact Assessment (IA) with regards to the following alterations to the SEC (**Requirement 2**):*

SEC Appendix AH 'Self-Service Interface Design Specification' sections 1.9.1, 1.9.2 and 1.10; and

SEC Appendix E 'DCC User Interface Services Schedule'.

This information has not been provided based on the above recommendation. A response to this request will be provided if the SEC Modification is progressed.

Additional Requirement 3

The DCC to provide an indication as to when the coverage will be provided or if this is a postcode area where there will be 'no WAN ever', i.e. part of the percentage of the areas where WAN cannot be economically provided for.

We will seek detailed information from the CSPs on this requirement. A response to this request will be provided if the SEC Modification is progressed.