



SMETS1 Conclusions and Further Consultation on changes to support Uplift 2.1 for the FOC cohort and to address issues in the Secure MOC cohort

DCC Conclusions on changes to the SMETS 1 Supporting Requirements (S1SR) and the DCC User Interface Specification (DUIS) and further consultation on the S1SR to support Uplift 2.1 for the FOC Cohort and to address an issue discovered in the Secure MOC cohort.

Date: 14 June 2021

Author: consultations@smartdcc.co.uk

Classification: DCC Public

Table of Contents

1. Introduction and Context	3
2. Consultation Questions & Responses	3
2.1. Questions	3
2.2. Responses	4
3. Analysis of Responses.....	4
3.1. S1SR Question 1	4
3.1.1. Respondent View.....	4
3.2. S1SR Question 2	4
3.2.1. Respondent View.....	4
3.3. S1SR Question 3	5
3.3.1. Respondent View.....	5
3.4. S1SR Question 4	5
3.4.1. Respondent View.....	5
3.4.2. DCC Response	5
4. Further Consultation.....	6
4.1. Register Issue.....	6
4.2. Disablement Thresholds	6
4.3. Further changes to remedy defects.....	7
5. Next Steps	7
6. How to Respond	7
7. Attachments	8

1. Introduction and Context

In the initial stages of the smart meter roll-out across Great Britain, a number of energy suppliers installed first generation smart metering devices (known as SMETS1 devices), in households and small/medium non domestic premises. SMETS1 devices installed by one energy supplier, however, are not always interoperable with and supported by the systems used by another supplier. The Data Communications Company (DCC) has developed a plan and designed a solution for the incorporation of such devices into its national network. It provides important shared benefits for industry and consumers and intends to offer the ability for SMETS1 consumers to maintain their smart services following a decision to switch suppliers.

The DCC solution relies on a common DCC User interface, defined in the DCC User Interface Specification (DUIS) for users of both SMETS1 and SMETS2 devices. The SMETS1 Supporting Requirements (S1SR) – Appendix AM of the Smart Energy Code (SEC), describes supplementary rules for how the DCC will process SMETS1 Service Requests / Service Reference Variants (SRs / SRVs) and includes the accommodation of behaviours that are specific to particular SMETS1 Device Models.

On 7 May 2021, DCC consulted on changes to the S1SR and DUIS to make provision for device specific behaviours in relation to Uplift 2.1 of the FOC cohort, which consultation closed on 04 June 2021.

As a result of the previous FOC consultation on S1SR, DCC has identified a number of corrections to existing behaviours and a number of further FOC device specific behaviours that requires consultation with Industry, further details of these changes are set out in Section 5 below. DCC is only consulting for a period of two weeks in order to provide this fix at the earliest opportunity. DCC is consulting with the intention of designating these changes into the SEC on 20 July 2021.

This document considers the responses that were received to this consultation consistent with the regulatory requirements.

2. Consultation Questions & Responses

2.1. Questions

The consultation presented the consultation questions as set out in Table 1.

S1SR and DUIS Q1	Do you agree with the proposed amendments to the SMETS1 Supporting Requirements Document (S1SR) in Section 18 of that document, that have been added to describe the device behaviour specific relevant to the FOC devices?
S1SR and DUIS Q2	Do you agree with mappings of clauses in Section 18 of S1SR to the relevant Device Models in DMVES?
S1SR and DUIS Q3	Do you agree with the proposed amendments to the DCC User Interface Specification (DUIS)? Please provide rationale for your views?
S1SR and DUIS Q4	Do you have any comments on the draft direction included in Attachment 1 or on the proposed date of 20 July 2021 or as soon as reasonably practicable within 1 month thereafter for redesignation of the DUIS and the S1SR?

Table 1

2.2. Responses

DCC received a written response from three respondents to the consultation on DUIS and the S1SR.

DCC provided all written responses to the Secretary of State.

3. Analysis of Responses

DCC has analysed the feedback provided and views of stakeholders. Subject matter experts within DCC have reviewed every response.

DCC has structured the analysis of responses by question. Thus, this section presents DCC's analysis by question in several separate subsections; with each structured as:

- an overview of the responses on the topic;
- where appropriate a DCC response; and
- areas where DCC disagrees with the view presented by respondents, as the regulation requirements require DCC to report on this.

3.1. S1SR Question 1

DCC sought views on proposals to amend the S1SR for FOC asking ***“Do you agree with the proposed amendments to the SMETS1 Supporting Requirements Document (S1SR) in Section 18 of that document, that have been added to describe the device behaviour specific relevant to the FOC devices?”***.

3.1.1. Respondent View

DCC received three responses to this question.

All respondents were supportive of the proposed changes. There were some suggested changes to the drafting, DCC has considered the proposals and has amended the proposed S1SR accordingly.

Clause 18.19: where an Add Credit Command has never resulted in the recovery of any Payment-based Debt (with their SMETS1 meanings) on the target SMETS1 ~~ESME~~ GSME, the S1SP shall return a SMETS1 Alert indicating failure.

At 18.5 S1SR has been amended by the addition of SMETS1 GSME.

3.2. S1SR Question 2

DCC sought views on proposals to amend the DMVES asking: ***“Do you agree with mappings of clauses in Section 18 of S1SR to the relevant Device Models in DMVES?”***.

3.2.1. Respondent View

Two respondents agreed with this question, with one respondent not providing a response to the question.

3.3. S1SR Question 3

DCC sought views on proposals to amend the DUIS asking: ***“Do you agree with the proposed amendments to the DCC User Interface Specification (DUIS)? Please provide rationale for your views?”***.

3.3.1. Respondent View

The DUIS changes were to remove the FOC specific exclusions relating to firmware upgrades for SMETS1 Prepayment Meter Interface Devices PPMIDs. Two respondents agreed with this question, with one respondent not providing a response to the question.

3.4. S1SR Question 4

DCC sought views on proposals to re-designate the S1SR asking: ***“Do you have any comments on the draft direction included in Attachment 1 or on the proposed date of 20 July 2021 or as soon as reasonably practicable within 1 month thereafter for redesignation of the DUIS and the S1SR?”***.

3.4.1. Respondent View

Two respondents agreed with this question, with one respondent not providing a response to the question. One respondent provided a caveat that DCC should have sufficient time to consider the responses.

3.4.2. DCC Response

Considering the nature of the responses received, DCC is of the view that it has had sufficient time to effectively consider and address the responses that were received

4. Further Consultation

4.1. Register Issue

Additionally, the DCC has also discovered an issue whereby non-Secure devices (PPMIDs, IHD's and CAD's) connected to a Secure ESME may not operate correctly once the installation is migrated.

For the Secure S1SP, the first time a tariff is applied to device results in all 48 Time of Use (TOU) registers becoming active on the ESME. These devices also uses a version of ZigBee (1.2b) which only natively supports 15 TOU registers. Due to both of these factors, the ESME stops using the standard ZigBee mechanisms for publishing prices and balances on the HAN and uses a ZigBee Manufacturer Specific Profile (MSP) instead. The DCC believes that this MSP has not been implemented by any of the non-Secure PPMID manufacturers and resulting in the PPMID not being able to accurately display price and balance information.

To address this issue, where a User sends a request to configure a device with less than 15 TOU registers, then the prices being sent to the device will be padded to the full 15 registers. Note that readings will still be returned containing the 48 registers but those registers above the 15-register limit will always be zero and the total consumption returned may not reflect the sum of the registers returned. Where a user sends a request to configure the device with greater than 15 TOU registers then the prices will be padded to the full 48 TOU registers, and this will mean that any non-Secure PPMID will stop functioning correctly.

The fix will also affect update price SRV's, where prices will be rejected if the meter is operating in below-15 TOU register mode and the user tries to set more than 15 prices. Similarly if the meter is operating in above 15 TOU register mode and the user sets less than 15 prices then the request will be rejected.

As this is impacting the operation of these PPMIDs, DCC is looking to address this issue at the earliest possible opportunity.

Users must note that when these changes to the DCC solution are applied, which will be implemented in parallel to the Uplift 2.1 changes, there will be action required by users to correct any installations affected by this issue. The DCC is recommending that users reapply any tariff to the affected installations and this will then allow the data to be displayed correctly on the PPMID.

4.2. Disablement Thresholds

DCC has identified a further change that is required to the S1SR in support of Uplift 2.1 for FOC.

The current Trilliant solution relies on using two different parameters, held by the comms hub, and which must align, when determining the payment mode of a particular device. However, for some Trilliant devices the firmware upgrade path causes one of these parameters, the disablement threshold parameter, to be overwritten and as a result, a 4.13 Service Request will fail. During migration this check is failing as the payment mode cannot be determined. DCC is proposing a fix that removes this unreliable attribute when checking for the payment mode.

Following this change, if the disablement threshold parameter is attempted to be read before a change in payment mode is made on the end device, the user will receive an unsupported value for the disablement threshold element.

This behaviour is reflected in the proposed changes to the S1SR at Clause 18.27.

4.3. Further changes to remedy defects

DCC has also made the following changes to remedy defects that have been identified:

18.61 Read Device Log to make provision for a potential delay to the data provided in the SMETS1 Response.

As a consequence of these proposed changes, DCC is also proposing changes to Appendix A to the S1SR, the Device Model Variations to Equivalent Steps Matrix (DMVES).

S1SR Q1

Do you agree with the proposed amendments to the SMETS1 Supporting Requirements Document (S1SR) in Section 18 of that document, that have been added to describe the device behaviour specific relevant to the FOC devices?

S1SR Q2

Do you agree with mappings of clauses in Section 18 of S1SR to the relevant Device Models in DMVES?

5. Next Steps

DCC will submit its conclusions for the two consultations on regulatory changes to support Uplift 2.1 for FOC and provide an updated version of S1SR and DUIS to the Secretary of State on 12 July 2021 and anticipates that the Secretary of State will re-designate the S1SR on 20 July 2021 in line with the date which DCC consulted on in its consultation of 7 May 2021.

6. How to Respond

Please provide responses by 1600 on 28 June 2021 to DCC at consultations@smartdcc.co.uk.

Consultation responses may be published on our website www.smartdcc.co.uk. Please state clearly in writing whether you want all or any part, of your consultation to be treated as confidential. It would be helpful if you could explain to us why you regard the information you have provided as confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department of Business, Energy and Industrial Strategy (BEIS) and the Gas and Electricity Markets Authority (the Authority). Information provided to BEIS or the Authority, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). If BEIS or the Authority receive a request for disclosure of the information we/they will take full account of your explanation (to the extent provided to them), but we/they cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

If you have any questions about the consultation documents, please contact DCC via consultations@smartdcc.co.uk.

7. Attachments

- Attachment 1: SEC Appendix AM SMETS1 Supporting Requirement – clean
- Attachment 2: SEC Appendix AM SMETS1 Supporting Requirement – redlined
- Attachment 3: SEC Appendix AM Annex A – Device Model Variations to Equivalent Steps
- Attachment 4: SEC Appendix AD – DCC User Interface Specification (3.0)
- Attachment 5: SEC Appendix AD – DCC User Interface Specification (3.1)
- Attachment 6: SEC Appendix AD – DCC User Interface Specification (4.0)
- Attachment 7: S1SR Response Template