Data Communications Company

Consultation

System Capacity Testing Approach Document for SMETS1 Services DRAFT v1.0

Consultation opens: 13 May 2019
Consultation closes: 31 May 2019

Date: **13 May 2018**

Classification: **DCC Public**

1 Introduction and Context

The SEC Variation Testing Approach Document for SMETS1 Services ("SMETS1 SVTAD") was designated by the Secretary of Station on 18 September 2018 and included in the Smart Energy Code (SEC) from version 5.22 onwards as Appendix AK. Under the SMETS1 SVTAD, DCC is required to develop and consult on various approach documents including the System Capacity Testing Approach Document for SMETS1 Services ('SCTAD').

This consultation seeks views on the draft SCTAD.

The closing date for this consultation is 31 May 2019

2 Background

The SCTAD is required under the SMETS1 SVTAD to set out any supplementary rights and obligations in relation to System Capacity Testing. The purpose of System Capacity Testing is to demonstrate that the operational performance of the Modified DCC Total System is not adversely affected by introduction of SMETS1 Services, and that the SMETS1 Services will operate at the requisite performance levels.

The intent is that the SCTAD will apply to IOC, MOC and FOC. However, at this stage, the focus has been IOC and there may the need for DCC to add further content to the SCTAD to support any differences in the System Capacity Testing approach for MOC and FOC.

3 Approach to System Capacity Testing

The existing SMETS1 SVTAD is based on a series of Test Phases with System Capacity Testing being one of those Test Phases. DCC's proposed approach to System Capacity Testing is to treat System Capacity Testing for IOC, MOC and FOC as three separate Test Phases with the same entry and exit criteria for each. This approach aligns with our approach to SIT where IOC, MOC and FOC are individual Test Phases.

System Capacity Testing will test the operational performance of the affected elements of the Modified DCC Total System and its ability to support predicted levels of:

- The Migration of SMETS1 Installations
- The Installation and Commissioning of SMETS2+ Smart Metering Systems
- SMETS1 and SMETS2+ daily traffic on the Modified DCC Total System

Appendix A of the SCTAD sets out the volume model for System Capacity Testing and explains how DCC has derived the requisite performance levels that we require each of the Service Providers to meet within the scope of System Capacity Testing. System Capacity Testing will be undertaken to confirm that the expected volumes of Device Model Combinations (DMCs) can be both enrolled and operated for IOC, MOC and FOC. If expected volumes have remained broadly as predicted for MOC and FOC, then we propose that DCC will be able to rely on evidence from earlier testing in assessing System Capacity Testing completion.

3.1 Scope of System Capacity Testing

The scope of System Capacity Testing activities is set out in section 3.4 of the SCTAD and illustrated in Figure 1 (also shown below to aid review) as "SMETS1 impacted components subject to System Capacity Testing". It includes testing of the individual components of infrastructure relating to the SMETS1 Service Providers included in the scope of System Capacity Testing. These are:

- Data Service Provider (DSP);
- Commissioning Party (CP);
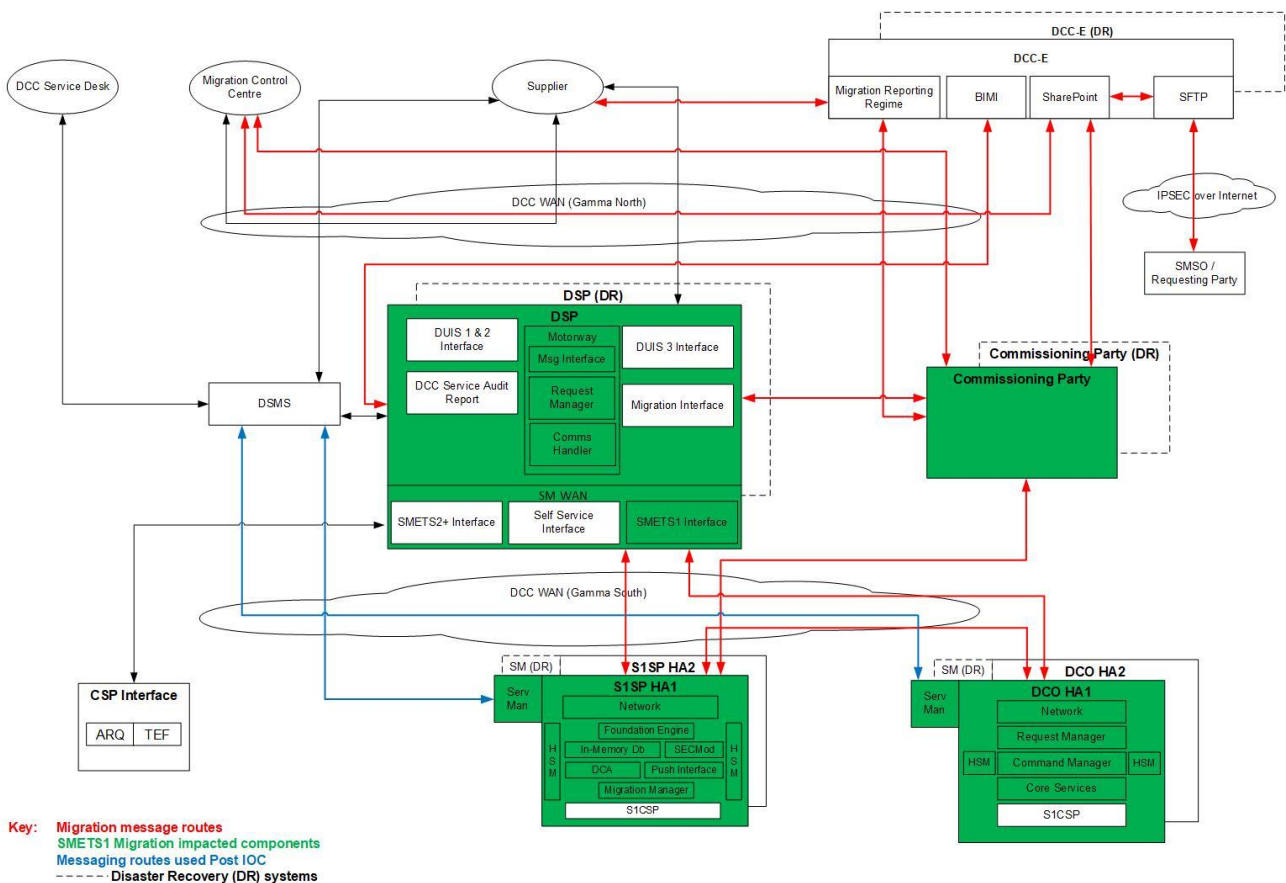- Dual Control Organisation (DCO); and
- SMETS1 Service Provider (S1SP)).

Figure 1: System Capacity Testing Scope

Exclusions from the scope of System Capacity Testing

As Figure 1 shows, there are a number of systems and interfaces which have been excluded from the scope of System Capacity Testing. DCC has taken a risk-based approach to defining the scope of System Capacity Testing. Where DCC's technical assessment indicates that there is a low-risk that end-to-end performance related issues will arise within components of the DCC System, they have been excluded. For example, where the risk is high, in the core components of

the DSP (often referred to as 'the motorway'), which will process larger volumes of SMETS1 and SMETS2+ traffic, these components are included within the scope. Where the risk is lower, e.g. the interface between the SMETS2 CSPs and DSP – which will be unaffected by SMETS1 traffic, these are not included in the scope. This includes capacity testing for the SMETS1 CSP, as it is our view that the SMETS1 traffic across their national mobile network following migration represents a very small proportionate increase in the comms services they provide. We will however seek assurance from the CSP and will secure confirmation that they can manage expected capacity increases associated with SMETS1 Services.

Report performance testing is not within scope of the System Capacity Testing activities. The introduction of SMETS1 Services will not change the format of the files but will increase the size of the files which could impact the time to complete the reports. DCC has development plans in place to ensure that the current operational reporting systems are able to operate at requisite performance levels and will report on this as part of its go-live readiness submission.

In relation to the reporting requirements for migration, the Migrating Report Regime (MRR) system is a stand-alone system to manage the volume of migration transactions, and its operation is not linked to the process of migration itself. DCC is required to provide 6-hourly reports on migration and so the processes for managing this are relatively simple. The system has been designed to be scaled as necessary to provide larger migration reports.

The SMSO systems produce the reports required to drive the Requesting Party activities. The SMSO is an existing production system which has been successfully supporting the current SMETS1 pre-migration Service offering. It is our view that the impact of the changes involved in supporting the Requesting Party as part of the DCC SMETS1 Service would be negligible on their reporting solution and would not have a material effect on the continued performance of the SMSO systems, or the performance or capacity of the migration process. On that basis the SMSO systems testing are not within scope of System Capacity Testing. Moving forward, we intend to undertake Requesting Party system capacity testing alongside MOC and FOC.

In terms of the activity of SMKI systems, the impact of SMETS1 Devices is considerably less than for SMETS2+ Devices due to the difference in the security architecture of the SMETS1 and SMEST2+ Services. Since SMKI systems have already been scaled to perform satisfactorily for operation with 53 million smart meters on SMETS2+, the effect of SMETS1 would therefore be minimal on the SMKI Systems.

Testing of DCC's Service Management System and Self-Service Interface will not be undertaken as part of System Capacity Testing. The Self-Service Interface is being tested as part of the SSI improvement project which DCC is undertaking with oversight from the SEC Panel Operations Group Sub-Committee and includes scaling the portal to support future demands. DCC's Service Management System has been tested as part of DCC's earlier operational readiness activity which has considered the increase in service management activity associated with SMETS1.

We consider that this approach provides the right balance for System Capacity Testing, between a broader scope which would increase cost and time, and a narrower or more limited scope, which would not allow DCC to demonstrate it has met the System Capacity Testing Objective.

4   Next steps and approval

Following this consultation which closes at 17.00 on 31 May 2019. DCC will take into account respondents' views, and submit the SCTAD to the Department of Business, Energy and Industrial Strategy. We plan to engage with stakeholders on the content of the SCTAD during the consultation window.

DCC expects to issue its conclusions in relation to this consultation, along with any necessary amendments to the SCTAD, and provide a report to BEIS on or before Friday 14 June 2019. DCC has discussed the approval of the SCTAD with BEIS and it is proposed that, subject to timely receipt of the DCC's report and copies of relevant stakeholder responses to this consultation, BEIS will approve the SCTAD on 21 June 2019 or, if necessary, as soon as reasonably practicable within one month thereafter.

In order to expedite the approval of the SCTAD, DCC is also seeking views on behalf of BEIS on the above proposed date for approval of the SCTAD.

5 Questions for respondents

We are seeking stakeholders' views on the following 3 questions:

Q1.	Do you support the overall approach and scope of the System Capacity Testing Approach Document for SMETS1? Please provide a rationale for your views.
Q2	Do you have any other comments on the draft SCTAD? Please provide details and any rationale.
Q3	Do agree with the proposed approval date by BEIS for the SCTAD of 21 June 2019 (or, if necessary, as soon as reasonably practicable within one month thereafter)? Please provide a rationale for your views.

6 How to respond

Please provide responses in the attached template by **17:00 on 31 May 2019** to DCC at consultations@smartdcc.co.uk. If you have any questions about the consultation documents, please contact Fiona Tranter at fiona.tranter@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.

7   Attachments

Attachment 1: System Capacity Testing Approach Document

Attachment 2: Response template