

# Alignment of Migration Testing (MT) and Systems Integration Testing (SIT)

A consultation on changes to the SEC Variation Testing Approach Document for SMETS1 Services (SMETS1 SVTAD) and the Migration Testing Approach Document for SMETS1 Services (MTAD)

Date: 9 August 2019

Classification: DCC Public

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## 1. Introduction and Context

The latest version of SEC Variation Testing Approach Document for SMETS1 Services ('SMETS1 SVTAD') was designated by the Secretary of State on 14 June 2019 and included in the Smart Energy Code (SEC) from version 6.14 onwards as Appendix AK<sup>1</sup>. Under the SMETS1 SVTAD, DCC is required to develop and consult on various approach documents including the Migration Testing Approach Document for SMETS1 Services ('MTAD'). The Secretary of State approved version 1.0 of the MTAD<sup>2</sup> on 14 June 2019.

The current MTAD and SMETS1 SVTAD are focused on DCC's Initial Operating Capability (IOC) for SMETS1 Services. This further consultation relates to changes for all forthcoming Operating Capabilities to provide for alignment of:

- Systems Integration Testing (SIT) as described in the SMETS1 SVTAD; and
- Migration Testing (MT) as described in the MTAD.

It should be noted that DCC issued a consultation on 31 July 2019 which set out DCC's proposal on how we will undertake testing to enable additional Device Model Combination (DMC) to be added to the SMETS1 list of Eligible Product Combinations. This consultation closes on 28 August. The changes to the SMETS1 SVTAD and MTAD in this consultation are in addition to those in the DMC consultation.

**This consultation on the alignment of SIT and MT closes on 6 September 2019.**

DCC will also be holding a consultation briefing session on the 19 August 2019.

## 2. Conceptual Approach

The SMETS1 SVTAD sets out the rights and obligations for SIT and also provides the framework for the MTAD which sets out the rights and obligations for MT.

At present the MTAD and SMETS1 SVTAD are drafted, based on the approach for IOC, such that SIT and MT are distinct, with separate regression testing requirements and exit governance arrangements as follows:

- SIT is a single Test Phase for each Capability Release (IOC, MOC and FOC); and
- MT is a Test Phase for each planned entry on the EPCL.

DCC is proposing changes to the MTAD and SMETS1 SVTAD in order to align SIT with MT. Thus, there will be the same Test Phase structure for SIT as in the current MTAD for MT; there will be three Test Phases (active, dormant, and mixed) for each Device Model Combination (DMC) / Smart Metering Systems Operator (SMSO) combination envisaged to be on the Eligible Product Combinations List (EPCL). This will provide DCC with the flexibility to complete testing for each planned entry on the EPCL.

Structurally there will be two end-of-cycle testing runs for MT and SIT separately, and then a combined system regression (based on migrated devices) of the complete DCC system to ensure that unexpected issues have not arisen. The exception to this would occur if DCC exit with a phase of MT with either Active / Mixed or Dormant followed by SIT. Subsequent MT

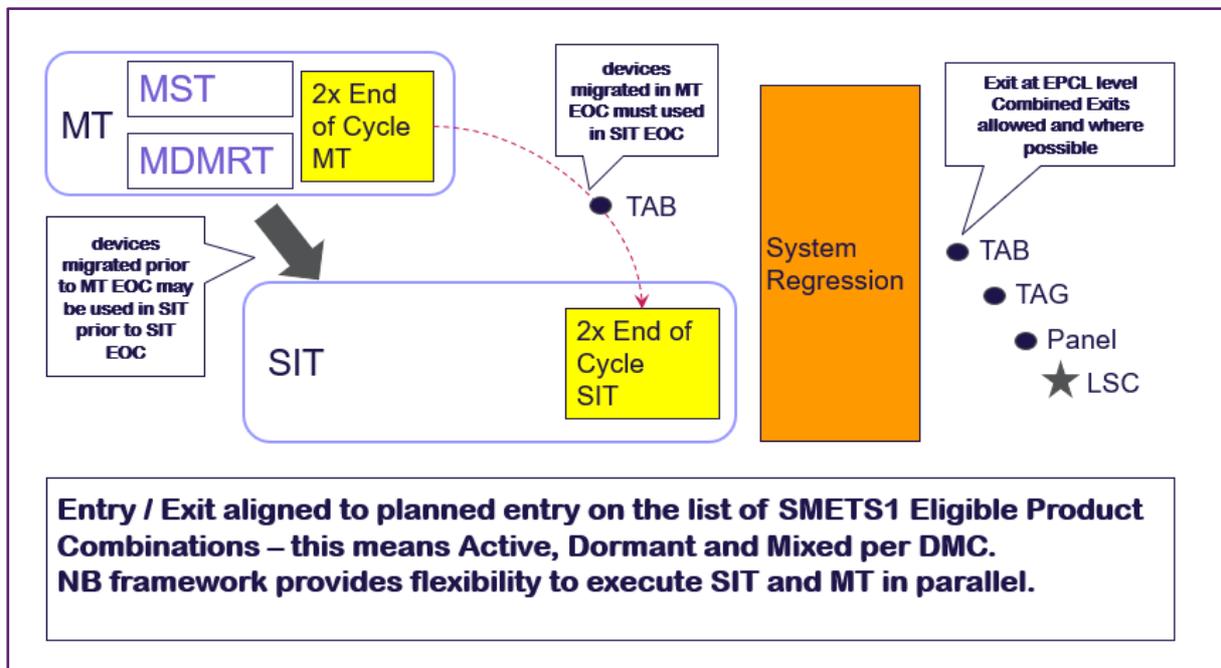
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<sup>1</sup> The current SEC is available via the SECAS website - [www.smartenergycodecompany.co.uk/the-smart-energy-code-2/](http://www.smartenergycodecompany.co.uk/the-smart-energy-code-2/).

<sup>2</sup> The current MTAD is available via the SECAS website - [Migration Testing Approach Document for SMETS1 Services v1.0.](#)

exits would not require SIT and hence regression, subject to no major changes being made, would not be required. An outline of the approach to align MT and SIT was presented to the SEC Panel Testing Advisory Group (TAG) on 26 June 2019 and generally well received. The revised approach is provided graphically in Figure 2.1 below.

Figure 2.1 – Overview of MT-SIT Alignment



DCC recognises that stakeholders supported the engagement with the TAG (for IOC) on the breadth and depth of MT. Moving forward this engagement will now be extended to include SIT via a document titled 'Depth and Breadth of SIT', to be shared alongside the 'Depth and Breadth of MT' document. These documents will be provided for MOC and FOC separately with the scope for any disagreements on content between DCC and TAG to be referred to the Secretary of State for decision. Similarly, DCC will also be engaging with TAG on the scope of regression testing. DCC intends to undertake this engagement activity with TAG in July and August 2019.

The MTAD allows, where practical, for the DCC to combine the exit / completion reporting for several Testing Phases into a single document which will be used for TAG and Panel engagement when seeking approval for completion of testing. The aligned approach will also now include the same combining for SIT.

In reviewing the testing approach for the alignment of MT and SIT, DCC considers the independent audit provisions regarding MT and SIT provide very limited value which is further diminished by the increasing TAG engagement via the Depth and Breadth documents. On this basis, DCC doesn't consider this to be an economically efficient use of resources and has removed Clause 12 the MTAD and Clause 19 from the SMETS1 SVTAD.

MT-SIT  
Q1

*Do you have any views on the proposal to remove the audit requirement from the MTAD and the SMETS1 SVTAD? If you consider that the audit requirement should be retained, then please can you detail the benefits you consider this provides.*

This consultation document is seeking views on the detailed changes to the SMETS1 SVTAD and MTAD as well as the date for re-designation and approval by the Secretary of State of the SVTAD and MTAD respectively.

<b>MT-SIT Q2</b>	<i>Do you have any general comments on changes to the MTAD and SMETS1 SVTAD to support the alignment of MT and SIT for MOC/FOC?</i>
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### 3. Document Changes

In addition to a number of limited typographical and formatting changes, there are a number of proposed changes to the SMETS1 SVTAD and MTAD as set out in Figure 3.1.

**Figure 3.1 - Overview of Drafting Changes**

No.	Reference	Description of Change	Rationale for Change
1.	SMETS1 SVTAD Various	SIT Test Phases for each planned entry on the EPCL for MOC or FOC.	This captures the alignment to each Migration Testing Phase as per the MTAD.
2.	SMETS1 SVTAD Table 1.1  MTAD Table 2.1	Changes to definitions.	To support changes elsewhere in documents. NB Definition of Capability Release moved from MTAD to SMETS1 SVTAD.
3.	SMETS1 SVTAD Clause 5.7	Permitting MT and SIT to overlap.	Provide clarity that the alignment of MT and SIT allows both Test Phases to complete together.
4.	SMETS1 SVTAD Clause 7.4 (c), 7.6 and 7.7  MTAD Clause 7	New Depth and Breadth of Regression Testing document.	New document to capture the approach to regression testing covering MT and SIT. Rules where TAG disagree with approach also provided.
5.	SMETS1 SVTAD Clause 8.7	Clarity on the timetable for testing.	Allows DCC to amend the timetable dynamically if issues arise that require an alternative approach.
6.	SMETS1 SVTAD Clause 9.7  MTAD Clause 10.2	Combining of completion reports for SIT and also with MT.	To align completion for SIT with completion for MT.

No.	Reference	Description of Change	Rationale for Change
7.	SMETS1 SVTAD Clause 12.5 (e), 12.7 and 12.8  MTAD Clause 8.2 (e) and 8.3	New Depth and Breadth of SIT document which may be combined with Depth and Breadth of MT as per the MTAD.	Rules for the production of a document setting out the depth and breadth of SIT and MT for each Capability Release. The approach is also aligned within MTAD and SMETS1 SVTAD.
8.	SMETS1 SVTAD Clause 12.6	Condition on entry criteria for any precursor Test Phases.	Clarity that MT does not need to complete for SIT to start.
9.	SMETS1 SVTAD Clause 12.9 (a)  MTAD Clause 4.3 (b)	Allowing testing not to be repeated if equivalent to prior tests.	Allows DCC to de-scope tests which are equivalent e.g. SIT for a DMC with Active Meters may be equivalent to a DMC with Dormant Meters although there are different planned entries on the ECPL.
10.	SMETS1 SVTAD Clause 13.5 and Clause 13.9	Clarification on DMC de- selection	Clarifies that where the DCC considers that it can be either SIT completion for IOC or SIT or MT completion in respect of a planned entry on the EPCL for MOC or FOC.
11.	SMETS1 SVTAD Clause 13.11	New Clause on consulting with TAG on DMC being reintroduced following de-selection.	Allows DCC to consult with TAG only rather than a full consultation where a DMC is being reintroduced where the sole change to the DMC is the firmware version. This will avoid unwarranted delay.
12.	SMETS1 SVTAD Table 13.1 SIT Regression Execution Exit Criteria	Inclusion of known defects added to exit criteria.	This is a correction and reflects DCC's actual working approach with TAG.
13.	SMETS1 SVTAD New Table 13.3  SMETS1 SVTAD Clauses 13.21, 13.22 and 13.23	New Testing Issues Thresholds for SIT by planned entry on the EPCL.	Approach to defect mask to aligned to MT approach with limit for a SIT Test Phase and also an aggregate limit.
14.	SMETS1 SVTAD Clause 19 and Table 10.1 and Table 4  MTAD Clause 12	Audit limited to IOC.	Removed as adding limited value given increased TAG engagement.

No.	Reference	Description of Change	Rationale for Change
15.	MTAD Clause 1.2	Removed reference to MOC and FOC updates.	This is now redundant as new MTAD covers all Capability Releases.
16.	MTAD Clause 2.4	Reference to SMETS1 SMSO	Clarifies that SMETS1 SMSO in the MTAD means the relevant SMETS1 SMSO (acting in the capacity of DCC Service Provider) for the DMC that is the subject of testing.
17.	MTAD Clause 4.2	MT based on DMCs selected under the SMETS1 SVTAD.	Aligns DMCs in scope for MT and SIT.
18.	MTAD Clause 5.3 and Clause 5.5	Changes to references to TMAD.	This change provides for alignment to the GroupID drafting in the TMAD for each Capability Release.
19.	MTAD Clause 6.3	Separate MOC and FOC provisions on undertaking Migration DMRT	Changes to reflect different requirements in each Capabilities Releases with regards to applying firmware and configuration.

**MT-SIT  
Q3**

*Do you have any detailed comments on the changes to the legal drafting in SMETS1 SVTAD and MTAD? Please provide a rationale for your views.*

## 4. Next Steps

Following this consultation, DCC will take into account respondents' views, and submit the following two documents to the Department of Business, Energy and Industrial Strategy (BEIS):

- i. the amended SMETS1 SVTAD for re-designation in the SEC by the Secretary of State (Attachment 2); and
- ii. the amended MTAD for approval by the Secretary of State (Attachment 4).

DCC will conclude on this consultation, providing a report to BEIS no later than Friday 27 September 2019. DCC has discussed the next steps 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 MTAD and re-designate the SMETS1 SVTAD on Friday 4 October 2019 or, if necessary, as soon as reasonably practicable within one month thereafter.

In order to expedite the re-designation of the SVTAD and approval of the MTAD, DCC is also seeking views on behalf of BEIS on the above proposed date for approval / re-designation of these documents as well as the draft direction which is presented in Attachment 1 of this consultation document for stakeholder consideration.

*Do you agree with the proposed approval/re-designation date of 4 October DD MMM2019 (or, if necessary, as soon as reasonably practicable within one month thereafter) for the MTAD and SMETS1 SVTAD using the draft direction at Attachment 1?*

## 5. How to respond

Please provide responses in the template (Attachment 6) by **16:00 on Friday 6 September 2019** to DCC at [consultations@smartdcc.co.uk](mailto:consultations@smartdcc.co.uk).

Consultation responses may be published on our website [www.smartdcc.co.uk](http://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](mailto:consultations@smartdcc.co.uk).

## 6. Attachments

- Attachment 1 – Draft Secretary of State Direction
- Attachment 2 – SEC Variation Testing Approach Document for SMETS1 Services V1.4 (clean)
- Attachment 3 – SEC Variation Testing Approach Document for SMETS1 Services V1.4 (changed marked against V1.3 i.e. DMCT consultation text)
- Attachment 4 – Migration Testing Approach Document for SMETS1 Services V1.2 (clean)
- Attachment 5 – Migration Testing Approach Document for SMETS1 Services V1.2 (changed marked against V1.1 i.e. DMCT consultation text)
- Attachment 6 – Response Template

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## Attachment 1

This attachment contains the draft direction and designation text that BEIS intend to utilise for approval of the revised MTAD and re-designation of the revised SVTAD.

### **Draft Direction and Designation Text**

*This direction is made for the purposes of the smart meter communication licences granted under the Electricity Act 1989 and the Gas Act 1986 (such licences being the "DCC Licence") and the Smart Energy Code designated by the Secretary of State pursuant to the DCC Licence (such code being the "SEC").*

*Words and expressions used in this direction shall be interpreted in accordance with Section A (Definitions and Interpretation) of the SEC.*

- a) *Pursuant to Condition 22 of the DCC Licence and Section X5 (Incorporation of Certain Documents into this Code) of the SEC, the Secretary of State directs that, with effect from 4 October 2019 the SEC Variation Testing Approach Document for SMETS1 Services previously designated and incorporated into the SEC as Appendix AK is hereby re-designated and incorporated in the form set out in Annex [XX] to this direction.*
- b) *Pursuant to clause 3.4 of the Appendix AK (SEC Variation Testing Approach Document for SMETS1 Services) to the SEC, the Secretary of State hereby directs that the Migration Testing Approach Document for SMETS1 Services is approved in the form set out in Annex [XX] to this direction.*

*For the avoidance of doubt such re-designation of the SEC Variation Testing Approach Document for SMETS1 Services shall be without prejudice to anything done under the DCC Licence or the SEC on or after this document first being designated, or to the continuing effectiveness of anything done under this document prior to its re-designation (which shall have effect as if done under the re-designated document).*

*This direction is also being notified to the SEC Administrator.*