

Future Service Management

Consultation on the SEC Variation Testing Approach Document

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Table of Contents

- 1. Background and context..... 3**
 - 1.1. The FSM Programme 3**
 - 1.2. Direction to produce the SVTAD 3**
 - 1.3. Scope and structure of this consultation 4**
- 2. Structure and content of the SVTAD..... 4**
 - 2.1. General requirements and SVTAD change mechanism 4**
 - 2.2. Lower-level testing documentation 5**
 - 2.3. Test completion 6**
 - 2.4. Mandated User testing 7**
- 3. Designation of the SVTAD 7**
- 4. Next steps 7**
- 5. Consultation questions and how to respond 8**
- 6. Attachments 8**
- Appendix A – FSM SVTAD draft direction text 9**

1. Background and context

1.1. The FSM Programme

1. The DCC Service Management System (DSMS) is a critical part of DCC's infrastructure, used to track and resolve issues across the smart metering network. Customers use DSMS to request DCC services, raise incidents, and access reporting and diagnostics information. This system handles a high volume of activity, with around 25,000 separate requests or incidents raised through it each month. The current DSMS service is supported under the existing Data Service Provider (DSP) contract.¹ However, the tool is now coming to the end of its life and a new solution is required to mitigate service and security risks to the smart meter network.
2. The Future Service Management (FSM) Programme was initiated in June 2023 to competitively procure and implement a replacement tool ahead of the new DSP service commissioning in 2026. The scope of this programme is to replace the existing scope of DSMS including:
 - The Self Service Interface (SSI);
 - The Self Service Management Interface (SSMI); and
 - Incorporating Order Management System (OMS) capabilities for the ordering of 4G Communications Hubs (CHs) and the returns of all Smart Metering Equipment Technical Specifications 2 (SMETS2) CHs.
3. In addition to replacing the tool, DCC is intending to retire the use of User Interface (UI) DCC Key Infrastructure (DCCKI) personnel certificates to access the DSMS and replace them with multi-factor authentication (MFA). MFA is a widely used and trusted approach to authenticating the person logging in to a site by requiring them to provide two or more pieces of evidence (for example entering a password, using a security token or authenticator device, or using biometrics).
4. The current DSMS service is provided through the Remedy platform which is an IT Service Management tool. The support contract for Remedy is due to expire in October 2025 and DCC is implementing a new platform as a replacement for the existing DSMS. Following it being recommended by all bidders during our procurement exercise, DCC has selected ServiceNow as the platform to be used for FSM. ServiceNow is a flexible cloud-based 'software as a service' tool offering several Service Management aspects either 'out-of-the-box' or via configuration or customisation.

1.2. Direction to produce the SVTAD

5. On 17 September 2024, in accordance with SEC Section X11.4, the Secretary of State directed DCC to develop a draft SEC Variation Testing Approach Document (SVTAD) for the variations to the SEC being considered to enable the introduction of the FSM Programme (the 'FSM SVTAD').
6. The general requirements for the contents and development of an SVTAD are set out in SEC Section X11. These include testing objectives, the testing to be undertaken, and the environments to be used.
7. The Direction received from the Secretary of State requires that the FSM SVTAD should provide for the detailed test approach that will apply to enable DCC to introduce and transition to the FSM arrangements (being (a) a new service management and incident management system, (b) a new 4G CH forecasting and ordering management system, and (c) a system to support the returns process for all CH) and for this to be set out in associated documents to be developed by DCC.

¹ The DSP and other services delivered under the data services contract sit right at the heart of the smart metering infrastructure, by providing data services that connect DCC Users (such as Energy Suppliers, Network Operators and Other Users) to Devices at their consumers' premises.

The Direction also sets out that the SVTAD should provide for DCC to revise these documents in accordance with any request made by the Secretary of State and provide for where these documents need to be submitted to the Testing Advisory Group (TAG) for approval (with any disagreement being submitted to the Secretary of State for final determination).

8. In accordance with SEC Section X11.6, any SVTAD developed by DCC needs to be submitted to the Secretary of State following consultation with SEC Parties and the TAG. DCC has been directed to complete this by 27 December 2024.

1.3. Scope and structure of this consultation

9. We have prepared a draft SVTAD for the FSM Programme which we propose be incorporated into the SEC as a new SEC Appendix. This consultation seeks your views on this draft document ahead of its submission to the Secretary of State for approval and designation into the SEC. Section 2 of this consultation document provides further commentary on our drafting, and the draft SVTAD is available in Attachment 1.
10. This consultation also seeks your views on the proposed designation date for incorporating this SVTAD into the SEC, which would bring it into legal effect. Section 3 of this consultation document sets out the proposed date and rationale for this.
11. This consultation is expected to impact all SEC Parties that use the DSMS or that use the OMS for ordering 4G CHs or returning SMETS2 CHs.
12. This consultation will close at **17:00 on Friday 8 November 2024**. Following this, DCC will provide a report to the Department by 6 December 2024 containing its consideration of the responses and its conclusion on the SVTAD to be designated for the FSM Programme. We will publish this conclusions document on the DCC website.

2. Structure and content of the SVTAD

13. The FSM SVTAD follows a similar format to other recent SVTADs developed for testing to support SEC change.
14. For the FSM Programme, DCC is taking a slightly different approach to governance, which has been agreed with the TAG and reflected in the SVTAD. As with previous programmes, the TAG will be required to approve the Testing Approach Document (TAD) for both the Pre-Integration Testing (PIT) and Systems Integration Testing (SIT) phases. However, the TAD for the PIT phase will only need to be approved before PIT exit, and the TAG will not be required to approve PIT exit (although it will be presented with the reports for information) – please see section 2.3 for further details.

2.1. General requirements and SVTAD change mechanism

15. Section 1 of the SVTAD sets out the definitions and interpretations that apply within the document.
16. Section 2 sets out the scope of the document, including:
 - the framework for the testing of the FSM arrangements;
 - the testing objective;
 - the timetable for testing;
 - the test entry criteria; and

- the arrangements that will apply for developing the lower-level documentation that sit below the SVTAD, which set out the testing approach and test coverage (see section 2.2 of this document for more details on these).
17. The framework for testing will follow DCC's standard testing approach, which has developed over time through learning from experiences from several testing cycles across different delivery programmes. DCC will continue to use a test lifecycle with three key phases:
 - Pre-Integration Testing (PIT) encompasses functional and non-functional system testing
 - System Integration Testing (SIT) tests the new code in an integrated environment as a whole system that includes other components within that environment with the purpose to ensure integration
 - User Integration Testing (UIT) allows DCC Users to undertake testing to verify the integration of the DCC Total System with their own systems and processes. DCC proposes that the FSM Programme will include Mandatory User Testing within a defined window – see Section 2.4 of this document for more details on this, though this will be subject to a separate consultation
 18. DCC is currently planning to deliver the FSM changes through a single release. However, as with previous programmes, we have developed the SVTAD to accommodate alternative approaches that may arise, such as splitting the changes across multiple releases. This will enable DCC and the TAG to agree to any alternative approach quickly should the need arise (for example a delay to some parts of the testing). It also enables the documentation to be combined or split for different test phases and/or releases. Finally, it allows for DCC to develop lower-level test documents for the PIT phase that relate solely to changes being delivered by a particular part of the DCC system (a 'Sub-System') if it is necessary and feasible to describe and complete this testing ahead of other testing being undertaken.
 19. The SVTAD also sets out that DCC shall not complete the PIT phase or commence any SIT tests until the documentation for each test phase has been approved by the TAG. This aligns with the approach to PIT for this programme that DCC has agreed with the TAG, and the usual approach to SIT – please see section 2.3 below for further details on this.
 20. Section 3 describes how the FSM SVTAD can be modified by DCC. The mechanisms for change are:
 - Following a Direction from the Secretary of State.
 - Following consultation with Parties and the TAG and submission to the Secretary of State.
 - Without consultation if changes are of a minor typographical nature or will not materially affect Parties' rights and obligations.

2.2. Lower-level testing documentation

21. Sections 4 and 5 of the FSM SVTAD cover the lower-level testing documentation that DCC is required to produce:
 - FSM Testing Approach Document (Section 4)
 - FSM Test Coverage Document (Section 5)
22. As noted above, DCC is planning to deliver the FSM changes via a single FSM Release. However, to enable flexibility should plans change, the SVTAD has been drafted to allow for multiple FSM Releases with separate lower-level testing documentation for each.
23. The FSM SVTAD requires an **FSM TAD** to include the approach to testing for each FSM Release, which will cover (among other things):
 - the proposed amendments to the SEC that that will be subjected to testing;

- the principles and approach that will apply to Systems Integration Testing (SIT);
 - the testing environments being used;
 - the Device types, if any, to be used in testing;
 - the process for Testing Issue resolutions, exclusions and thresholds;
 - the exit criteria and Completion Report; and
 - the approach for providing test assurance.
24. Each FSM TAD will include, if required: a Test Coverage Document (TCD); a Coverage Traceability Document (CTD); and a System Capacity Testing Document (SCTD).
25. The **FSM TCD** will be included as a sub-section of each FSM TAD, along with the CTD. It will set out the depth and breadth of testing required to validate the changes for each FSM Release. It will include:
- the scope (depth) and coverage (depth) of testing and traceability of testing against the requirements for each component of the FSM solution; and
 - any perceived risks associated with the scope and coverage and the proposed mitigations.
26. The FSM SVTAD sets out how each TAD, TCD and CTD will be approved and, where necessary, revised. It also provides a route of escalation to the Secretary of State where agreement cannot be reached between DCC and the TAG. DCC maintains a rolling forward plan of document and information sharing with the Testing Advisory Group (TAG). As noted above, we expect that the draft TADs, TCDs and CTDs will be shared with the TAG through this process in parallel with this consultation.
27. DCC is currently developing the FSM TAD and supporting documentation for the planned single FSM Release in collaboration with the TAG. This is taking place in parallel with this consultation to enable these to be approved following the SVTAD's designation into the SEC.

2.3. Test completion

28. Section 6 of the FSM SVTAD sets out the arrangements for test completion for the FSM Programme.
29. DCC has discussed the approach to reviewing test completion with the TAG. The TAG has agreed that test completion for PIT will be reviewed and approved by DCC's Testing Advisory Board (TAB), with the TAG receiving the Test Completion Report for information only. However, DCC values the view of the TAG on the scope of testing in the PIT phase and is still intending to seek TAG's approval of the FSM TAD covering the PIT phase prior to PIT completion. Taking the conventional approach of obtaining this approval ahead of PIT entry would add at least two months to the overall programme timeline. As such, to ensure the overall FSM Programme milestones can be achieved, DCC and the TAG have agreed to the approach of obtaining TAG approval of the FSM TAD ahead of PIT exit. DCC has carried out a risk-based assessment of this approach and has concluded that as the FSM solution is using an off-the-shelf product, there is a low risk of integration issues. The TAG will continue to review test completion for SIT as it has for past releases, to support the SEC Panel's decision on whether the SIT exit criteria has been met.
30. Test completion for SIT will occur once the SEC Panel, with support from the TAG, has determined that the exit criteria set out in the FSM TAD(s) have been met. DCC will support this completion process through the provision of a Test Completion Report to the Panel. Where the Panel supports the report, the test phase will be considered complete. Where it does not it will be necessary for DCC to update the report and continue testing or refer any disagreement to the Secretary of State for resolution.

2.4. Mandated User testing

31. DCC has also considered whether User testing for FSM should be mandated and has been in dialogue with stakeholders on this. DCC's current view is that some Mandatory User Testing will be required for FSM within a defined testing window, to ensure that existing DSMS users and participants that order or return CHs are able to smoothly transition to the replacement tool.
32. To facilitate this, Section 7 of the FSM SVTAD provides the ability for DCC to develop and consult upon an FSM User Testing Services Approach Document (UTSAD). This document would set out (among other things):
 - Which Users would be required to undertake testing;
 - the approach to testing and the arrangements and notification of test completion; and
 - the process for resolving testing issues.
33. Given that this document would impose principal obligations on other Parties, the SVTAD requires that, in developing an FSM UTSAD, DCC must consult with relevant stakeholders before submitting the document to the Secretary of State for approval. This would only become binding on the Parties referenced in it when the document is approved by the Secretary of State. It is usual to provide at least six months' notice of any User testing obligations. UIT is currently planned to begin on 14 July 2025, and so any FSM UTSAD is planned for approval by 14 January 2025.
34. DCC is currently developing an FSM UTSAD, and we are expecting to issue this for consultation at the end of October 2024. Further details on the proposed testing approach and the contents of the FSM UTSAD will be included in that separate consultation.

3. Designation of the SVTAD

35. DCC has discussed the designation of this SVTAD with the Department. We are proposing that, subject to the timely receipt of DCC's conclusions report on this consultation, the Department will designate the SVTAD on 20 December 2024, or as soon as reasonably practicable within one month thereafter as a contingency measure if required. A draft direction for the designation of the SVTAD can be found in Appendix A of this consultation document.

4. Next steps

36. Following the closure of this consultation, DCC will assess respondents' views, and amend the draft SVTAD as required. DCC will then submit an amended version of this document to the Department that it considers suitable for designation into the SEC by the Secretary of State.
37. DCC is aiming to provide a report to the Department by no later than 6 December 2024. This report will contain DCC's consideration of the responses to this consultation as well as the proposed updated version of the SVTAD and the proposed date for the designation of this into the SEC. DCC will publish its conclusions document on its website.

5. Consultation questions and how to respond

38. We are seeking your views on the following questions:

Q1	Do you agree with the proposed SVTAD for the FSM Programme? Please indicate any areas of disagreement and your rationale for this
Q2	Do you agree with the proposed designation date for the SVTAD of 20 December 2024 or within one month thereafter? Please provide your rationale

39. Please provide responses using the attached response form by **17:00 on Friday 8 November 2024** to DCC at consultations@smartdcc.co.uk.
40. Consultation responses may be published on our website (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 and the Gas and Electricity Markets Authority (the Authority). Information provided to the Department 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 the Department 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.
41. If you have any questions about this consultation, please contact us at consultations@smartdcc.co.uk.

6. Attachments

42. This consultation includes two attachments:
- Attachment 1: Proposed FSM SVTAD
 - Attachment 2: Consultation response template

Appendix A – FSM SVTAD draft direction text

This appendix contains the text that the Department plans to use for the designation of the FSM SVTAD.

This direction is made for the purposes of the smart meter communications 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.

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 the document set out at Annex [XX] to this direction is hereby designated as the Future Service Management (FSM) SEC Variation Testing Approach Document (SVTAD), and shall be incorporated into the SEC as Appendix [XX] with effect from 20 December 2024.

This direction is also being notified to the SEC Administrator.