



Virtual WAN Solution

Consultation on the SEC Variation Testing Approach Document

Issued: 12 December 2024

Respond by: 17:00 on 16 January 2025

Contact: consultations@smartdcc.co.uk

Classification: DCC Public

Table of Contents

- 1. Background and context..... 3**
 - 1.1. The VWAN 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 VWAN SVTAD 4**
 - 2.1. General requirements and SVTAD change mechanism 4**
 - 2.2. Lower-level testing documentation 5**
 - 2.3. Test completion 6**
- 3. Designation of the VWAN SVTAD..... 6**
- 4. Next steps 6**
- 5. Consultation questions and how to respond 7**
- 6. Attachments 7**
- Appendix A – VWAN SVTAD draft direction text 8**

1. Background and context

1. Following a Direction from the Secretary of State, DCC has prepared a draft Smart Energy Code (SEC) Variation Testing Approach Document (SVTAD) for the Virtual Wide Area Network (VWAN) Programme, which is available in Attachment 1 to this document. We are seeking your views on this document ahead of its submission to the Secretary of State for approval and designation into the SEC. This consultation will close at **17:00 on Thursday 16 January 2025**.

1.1. The VWAN Programme

2. There is an increasing demand from consumers wanting a smart meter. However, some areas fall outside of cellular/radio coverage resulting in a lack of a Wide Area Network (WAN). Premises that fall outside the scope of the cellular/radio coverage are known as No WAN premises. At present those living in No WAN premises are not able to benefit from the functionality of a smart meter. This can lead to consumers being both frustrated and disappointed by the current options available to them.
3. DCC has been working with its Service Providers and with the Department for Energy Security & Net Zero (DESNZ) (the Department) to develop a VWAN Solution, to address the challenge of No WAN. Manufacturers are developing a VWAN Device (VWD) to enable, with their consent, a connection to a consumer's internet service.
4. DCC commenced the launch of the next generation 4G Communications Hub (CH) in December 2024. This will form the basis for the development of the VWAN Solution.
5. The development of a Virtual WAN Solution will help to address the challenge of No WAN premises, enabling all those who want a smart meter and who have and are prepared to use their internet connection to have one. Energy Suppliers have voiced their support for the development and delivery of a solution as quickly as possible.

1.2. Direction to produce the SVTAD

6. On 26 November 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 VWAN Solution (the 'VWAN SVTAD').
7. 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.
8. The Direction received from the Secretary of State requires that the VWAN SVTAD should provide for the detailed test approach that will enable DCC to introduce an Internet-based Smart Metering Solution using the consumer's broadband and for this to be set out in associated documents to be developed by DCC.
9. The Direction also sets out that the SVTAD should:
 - Set out the process for deciding which types of VWAN Devices will be selected for use (during testing);
 - Provide for the detailed test approach to be set out in an associated Testing Approach Document (TAD); and
 - 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).

10. 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 31 January 2025.

1.3. Scope and structure of this consultation

11. We have prepared a draft VWAN SVTAD 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.
12. 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.
13. The consultation is expected to be of interest to SEC Parties where consumers do not have a WAN connection. DCC will also be reaching out to manufacturers of VWDs to understand their intent to submit a VWD for consideration as a Pre-Integration Testing (PIT) device and participate in device test events in January and February 2025.
14. This consultation will close at **17:00 on Thursday 16 January 2025**. Following this, DCC will provide a report to the Department by 31 January 2025 containing its consideration of the responses and its conclusion on the SVTAD to be designated for the VWAN Programme. We will publish this conclusions document on the DCC website at the same time.

2. Structure and content of the VWAN SVTAD

15. The VWAN SVTAD follows a similar format to other recent SVTADs developed for testing to support SEC change.

2.1. General requirements and SVTAD change mechanism

16. Section 1 of the VWAN SVTAD sets out the definitions and interpretations that apply within the document.
17. Section 2 sets out the scope of the document, including:
- the framework for the testing of the VWAN solution arrangements;
 - the timetable for testing;
 - the testing objective;
 - 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).
18. 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. SIT will focus on one Device Model Combination (DMC) due to only 1,000 VWAN CHs being utilised during the soft launch.
 - **User Integration Testing (UIT)** allows DCC Users to test the integration of the DCC Total System with their own systems and processes, should they choose to. DCC confirms the VWAN Solution UIT window will not be mandatory and will be subject to a limited testing window of two weeks in the UIT-B environment. Please note the UIT window has a limited timeframe for Suppliers who wish to take part in the 'Soft Launch' to prove the chosen VWD with the 4G CH for those who demonstrated a NOWAN criteria.
19. DCC is currently intending to test against one DMC comprising a 4G CH, a Gas Meter, an Electricity Meter and a VWD in PIT and SIT. The VWAN SVTAD sets out alternative provisions for the use of emulators where a VWD is not available as well as associated exit criteria.
 20. The VWAN SVTAD also sets out that the device sets selected by DCC should comprise of the device set that was used for SIT testing of the 4G CH&N Arrangements with the addition of a DCC-selected VWD. The DCC's selection of the VWD will be subject to criteria that will be laid out in the TAD.
 21. Section 3 describes how the VWAN 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

22. Sections 4 and 5 of the VWAN SVTAD cover the lower-level testing documentation that DCC is required to produce:
 - VWAN Testing Approach Document (Section 4)
 - VWAN Test Coverage Document (Section 5)
23. The VWAN SVTAD requires a VWAN TAD to include the approach to testing, which will cover (among other things):
 - the proposed SEC changes that that will be the subject of this testing;
 - the scope of the VWAN Provider Release;
 - 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. The VWAN TAD will include, if required, a Test Coverage Document (TCD). The VWAN TCD will be included as a sub-section of the TAD. It will set out the depth and breadth of testing required to validate the changes for the VWAN Release. It will include:

- the scope (breadth) and coverage (depth) of testing against requirements for the relevant Sub-System (in the case of PIT) and the Modified DCC Total System (in the case of SIT), identified as groupings of functional and non-functional requirements; and
 - any perceived risks associated with the scope and coverage of testing and the proposed mitigations.
25. The VWAN SVTAD sets out how the VWAN TAD 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 TAG. We expect that the draft TAD will be shared with the TAG through this process.
26. DCC will be developing the VWAN TAD and supporting documentation. This will take place alongside this consultation to enable these to be approved following the VWAN SVTAD's designation into the SEC.

2.3. Test completion

27. Section 6 of the VWAN SVTAD sets out the arrangements for test completion for the VWAN solution.
28. 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 VWAN TAD has 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, DCC will need to either update the report and continue testing or refer any disagreement to the Secretary of State for resolution.

3. Designation of the VWAN SVTAD

29. DCC has discussed the designation of the VWAN 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 this into the SEC on 31 January 2025, or as soon as reasonably practicable within one month thereafter as a contingency measure if required. A draft direction for the designation of the VWAN SVTAD can be found in Appendix A of this consultation document.

4. Next steps

30. Following the closure of this consultation, DCC will assess respondents' views and will discuss these with the Department. It will then prepare an amended version of the VWAN SVTAD that it considers suitable for designation into the SEC by the Secretary of State, accounting for the responses received. Alongside this, DCC will prepare a report containing its consideration of the responses to this consultation and the proposed date for the designation of the VWAN SVTAD into the SEC. DCC will submit these to the Department no later than 31 January 2025 and will publish these on its website at the same time.

5. Consultation questions and how to respond

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

Q1	Do you agree with the proposed SVTAD for the VWAN Programme? Please indicate any areas of disagreement and your rationale for this
Q2	Do you agree with the proposed designation date for the VWAN SVTAD of 31 January 2025 or as soon as reasonably practicable within one month thereafter? Please provide your rationale

32. Please provide responses using the attached response form by **17:00 on Thursday 16 January 2025** to DCC at consultations@smartdcc.co.uk.
33. 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.
34. If you have any questions about this consultation, please contact us at consultations@smartdcc.co.uk.

6. Attachments

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

Appendix A – VWAN SVTAD draft direction text

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

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.

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 Virtual Wide Area Network (VWAN) Arrangements SEC Variation Testing Approach Document (SVTAD), and shall be incorporated into the SEC as Appendix [XX] with effect from 31 January 2025.

Consequential amendments:

Section A1.1 of the SEC is modified to additionally include, in alphabetic order in the list of definitions, the following entry:

Virtual WAN Arrangements SEC Variation Testing Approach Document (VWAN SVTAD)	means the SEC Subsidiary Document of that name set out in Appendix [XX].
--	--

This direction is also being notified to the SEC Administrator.