



DCC conclusions on updates to the Wide Area Network Selection Arrangements

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1. Introduction and context

1.1. Purpose of this document

1. The purpose of this document is to conclude on the Data Communications Company's (DCC's) recent consultation on its proposed updates to the Wide Area Network Selection Arrangements (WANSA) document.¹
2. Based on stakeholder feedback, DCC is proposing amendments to the WANSA drafting that was consulted upon.

1.2. The WAN Selection Arrangements

3. The Virtual Wide Area Network (VWAN) arrangements enable smart meter installations in areas with no Smart Metering Wide Area Network (SM WAN) coverage by securely routing data through the consumer's home internet to the DCC. This is managed by a VWAN Communications Hub (VWCH), which automatically switches between 4G cellular (SM WAN) and the home internet (the Virtual WAN) depending on Wide Area Network (WAN) link assessments.
4. The WANSA document sets out the VWCH configuration settings and associated VWCH logic by which VWCHs will determine whether to communicate with the DCC via the SM WAN or via the Virtual WAN.
5. The VWCH configuration settings referred to in the WANSA cover areas such as link quality for the WAN interfaces, which is the amount of time a link quality is bad before it is considered poor enough to switch. The WANSA rules set out how VWCH operational data relating to link quality is used in combination with the settings to determine when switching should occur.
6. The Department for Energy Security and Net Zero (DESNZ) (the Department) consulted on the initial version of the WANSA in July 2025 and subsequently concluded on it in September 2025. The Department anticipated that this document would evolve during the VWAN soft launch period and beyond as DCC refines configuration data items based on live operational experience to find the optimal settings. The Department also noted that additional data fields might be introduced over time. Consequently, this consultation presented updated proposals derived from the soft launch insights, establishing the version that will apply to VWCHs that meet the requirements of version 1.7 or later of SEC Schedule 10 'Communications Hub Technical Specifications' (CHTS).
7. In conjunction with the Department, we have shared the impact and scope of these parameters through the Technical and Business Design Group (TBDG) and its respective sub-groups.

1.3. Consultation responses and next steps

8. This consultation, which ran from 30 June 2026 to 27 July 2026, sought views on the proposed updated drafting for the WANSA, which included:
 - Separating the content relating to WAN selection logic, link state assessment and configuration parameters into distinct sections; and
 - Improving the readability and ensure consistent terminology throughout the document which is aligned with wider SEC terminology.

¹ [Consultation on the Wide Area Network Selection Arrangements \(WANSA\) | Smart DCC](#)

9. A summary of the comments received, and DCC's responses are set out in section 2 of this document.
10. Based on stakeholder feedback, DCC is not proposing any fundamental amendments to the WANSA drafting that was consulted upon. However, to enhance clarity and readability, we have carefully considered and incorporated several improvements suggested by respondents into the updated WANSA. A summary of these changes is set out in section 3 of this document.
11. DCC will submit its conclusions to the Secretary of State for approval on 26 August 2026.

2. Analysis of responses

12. DCC received eight written responses to this consultation: five from Large Suppliers, one from a Small Supplier, one from a Device Manufacturer and one from the SEC Panel.
13. DCC has analysed the feedback provided. This section sets out an overview of the responses received to this consultation and DCC's response.

2.1. Question 1

14. DCC sought views on the proposed drafting of the WANSA.

Q1

Do you agree with the proposed approach to WAN selection and WAN interface switching algorithm? Please provide any comments you may have on the proposed changes and your rationale for your views.

Respondent views

15. The majority of respondents broadly agreed with the approach to WAN selection and the WAN interface switching algorithm.
16. One respondent suggested amendments to the titles and the criterion within the SM WAN interface link state assessment section. They also suggested the WAN interface viability evaluation be configurable rather than performed every minute and for the terminology used in section 2.4 be consistent with its usage elsewhere in the document, and with SEC Schedule 8 'GB Companion Specification' (GBCS) terminology.
17. One respondent noted the arrangements were unsuitable for prepayment customers and requested that failed Service Requests (SRs) are retried using the non-active communications channel, or that Suppliers be given some control over which channel is used. This would ensure a prepayment or vulnerable customer does not experience an otherwise preventable interruption to their supply because the WANSA channel check had not triggered a change of communication.
18. One respondent stated the wording could be improved to better explain what would constitute a deterioration that would trigger the return to default value for adaptive heartbeat functionality.

DCC response

19. We have reviewed the suggested changes relating to the SM WAN interface state link assessment, and we do not propose to amend Criterion 1. This criterion is intended to identify circumstances where the VWCH is operating for a sustained period below the configured RSRP and RSRQ thresholds and, where available, enable consideration of a transition to the alternate WAN interface. It is not intended to replace or override the native radio, cell-selection and

connection management capabilities of the 4G modem of the VWCH. The 4G modem continuously assesses radio conditions, including signal strength, signal quality and other network factors, and is designed to establish, maintain and restore a cellular data path wherever possible. Criterion 1 operates in addition to these modem capabilities and provides a way to detect deterioration of cellular performance prior to the 4G modem disconnecting.

20. DCC also notes that Criterion 1 is only one element of the overall SM WAN interface link-state assessment. The WANSAs additionally considers the frequency of cellular disconnections (Criterion 2) and the connection availability and data-path validation (Criterion 3).
21. These criteria are intended to provide a holistic assessment of cellular link performance rather than relying solely on radio signal measurements. For example, a cellular connection may continue to provide a stable and operational data path despite signal measurements remaining below the configured thresholds for periods of time. Conversely, issues associated with signal quality may also be identified through Criteria 2 and 3.
22. For these reasons, DCC considers the proposed Criterion 1 approach remains appropriate.
23. The titles "signal quality degradation", "frequent disconnections" and "insufficient connection availability and data path validation" are intended as descriptions of the conditions being assessed, rather than indicators of a "good" state. Therefore, we do not propose amending the titles, but we will consider whether alternative headings improve readability in future revisions without changing the underlying assessment logic.
24. DCC notes the suggestion that WAN interface viability evaluation should be configurable rather than performed every minute. The one-minute assessment frequency has been selected to ensure timely evaluation of the underlying measurements and events (e.g. signal measurements and connection state changes). However, the criteria themselves are assessed over configurable monitoring intervals, such as *CellularSignalStrengthMonitoringInterval*, *CellularDisconnectionEventMonitoringInterval* and *CellularConnectionMonitorInterval*. Consequently, a WAN route transition is not triggered solely based on a single one-minute assessment. We consider the proposed approach provides an appropriate balance between responsiveness and stability.
25. DCC agrees the terminology used in section 2.4 of the WANSAs should be consistent with the rest of the document and with the GBCS. We have replaced the terms "Cellular" and "VWAN" within the WANRoutePriority decision table and replaced them with "SM WAN interface" and "VWAN interface", as appropriate, to improve consistency and avoid ambiguity.
26. We note the comment received from one respondent in relation to prepayment customers and the suitability of the WANSAs. We would like to clarify that the VWAN arrangements and the WANSAs were not intended to serve as a solution targeted at prepayment customers. Instead, the VWAN arrangements and the WANSAs targets customers who are entirely unable to access smart metering or those experiencing highly intermittent signal coverage. Furthermore, regarding the request for Suppliers to dictate channel selection or force manual overrides, this functionality was never part of the core system design. Granting external parties' direct access to or control over the communication channels introduces significant security risks and compromises network integrity. However, we always welcome further collaboration to explore mitigations for vulnerable customers.
27. We have updated section 2.6.2 of the WANSAs, covering the heartbeat over the VWAN interface, to clarify that a deterioration that would trigger the return to the configured value would be due to there being no incoming packets (for VWAN) or where there had been a disconnection (for VWAN or SM WAN).

2.2. Question 2

28. DCC sought views on the approach to VWAN activation during Install & Commission (I&C).

Q2

Do you agree with DCC's proposed approach to VWAN activation during I&C? Please provide any comments you may have on the proposed changes and your rationale for your views.

Respondent views

29. One respondent had no comments, and the remaining seven agreed with the proposed approach to VWAN activation during I&C.
30. One respondent requested clarification on whether additional operational controls will be available to maintain VWAN during extended installation, or remediation activities where required. This was due to the current proposal stating that the earliest transition from VWAN to SM WAN can only occur after six hours.

DCC response

31. DCC notes the comment on additional operational controls. The solution includes technical controls that could be used to maintain VWAN as the active WAN interface for a longer period, including modification of the WANRoutePriority parameter.
32. Notwithstanding this, the current WAN selection arrangements are based on the principle that the SM WAN interface has priority over the VWAN interface by default. Accordingly, where the SM WAN interface is available and assessed as viable, the VWCH will transition to the SM WAN interface in accordance with the switching logic defined in the WANSA.
33. DCC has therefore not made any changes in response to this comment but will continue to monitor operational experience and consider whether any additional controls are required in future revisions of the WANSA.

2.3. Question 3

34. DCC sought views on the proposed VWCH parameters.

Q3

Do you agree with the proposed VWCH parameters as listed in Appendix A? Please provide any comments you may have on the proposed changes and your rationale for your views.

Respondent views

35. One respondent had no comments, with the remaining respondents broadly agreeing with the following points being in relation to the proposed VWCH parameters listed in appendix A of the WANSA.
36. One respondent requested DCC closely monitor operational data during the rollout phase to ensure the values do not unnecessarily delay switching in locations with persistently poor cellular service. Another respondent noted that they did not have visibility over the soft launch data and would therefore need to rely on DCC's own analysis on whether the revised parameters would result in improved VWAN performance. This sentiment was echoed by another respondent who noted that the parameters would need to be thoroughly tested and, if required, altered quickly and easily without incurring a lengthy process.

37. One respondent stated the parameters were suitable for a credit consumer but were not appropriate for a prepayment consumer due to the time sensitivity of the vend process.
38. In relation to the WANRoutePriority VWCH parameter, a respondent suggested it could be made clearer that the default value of 0 relates to SM WAN as it is inferred and only understood when viewing the table in section 2.2 of the WANSAs. The respondent suggested including the breakdown of the two values, as presented in section 2.2, would help clarify this point.

DCC response

39. We have noted respondents' comments and acknowledge the recommendations made for DCC to closely monitor operational data during the rollout. DCC will continuously monitor operational data and will determine whether these revised parameters will result in improved VWAN performance.
40. We note the comments regarding the prepayment consumer limitations.
41. We agree with the comments in relation to the WANRoutePriority VWCH parameter. The WANRoutePriority parameter description in appendix A of the WANSAs currently relies on the explanation provided in section 2.2. To improve readability and ensure that appendix A can be understood in isolation, DCC has updated the parameter description to include the meaning of each supported value:
 - 0 (default): The SM WAN interface is the primary WAN interface.
 - 1: The VWAN interface is the primary WAN interface.
42. This change is intended to improve clarity only and does not alter the WAN Selection Arrangements or associated switching behaviour.

2.4. Question 4

43. DCC requested any further comments on the proposed changes to the WANSAs.

Q4

Do you have any further comments on the proposed changes to the WAN Selection Arrangements?

Respondent views

44. One respondent suggested guidance be added for when a Supplier should activate the VWAN. They also noted that information could be provided to support when the VWCH first powers up or on restarts for the following: cellular interface link state; VWAN interface link state; and active WAN interface. This information could include what the initial values are, whether they are configurable at manufacture, and whether they persist through power cycles and won't change following VWCH firmware updates.
45. The same respondent noted the terminology used could be consistent with the CHTS and either use good/bad or viable/non-viable.
46. One respondent welcomed the clarity on the updated arrangements but noted that wider VWAN deployment increases reliance on customer broadband. They urged DCC, the Department, and industry to monitor the impact of broadband interruptions on customer outcomes.
47. A respondent requested further clarity on Alert behaviour, and behaviour during Home Area Network (HAN)-side firmware transfer.

48. One respondent requested the new VWAN arrangements first be tested in the User Integration Phase (UIT) phase rather than being deployed straight into Production. They also requested DCC address any other bugs or issues that had previously been observed both in UIT and Production in the VWCH, VWAN Provider and Device Manager to ensure that the 4G Release 2 Initial Pallet Validation (IPV) is more successful than the VWAN Soft Launch phase. Another respondent also emphasised that successful delivery is dependent on rigorous scenario testing.
49. One respondent welcomed the improved structure, readability, and clarity of the WANSAs, noting that the consistent terminology, operational examples and flow diagrams support a more consistent understanding of the document. However, they noted that providing a tracked-changes version would have improved the review process, recommending both clean and tracked versions be provided in the future where feasible.

DCC response

50. In response to feedback on terminology, the document has been reviewed and updated to improve consistency, including the use of "good/not good" criteria outcomes and "viable/non-viable" WAN interface states, where appropriate. DCC also confirms that cellular interface and VWAN interface link state information does not persist through power cycles; only the active WAN route is retained. DCC has considered the request for additional guidance on VWAN activation. However, the WANSAs are intended to define the WAN selection arrangements and associated parameters, rather than provide operational guidance on when a Supplier should activate VWAN.
51. Additional clarification has been included regarding firmware download Alert behaviour, and the impact of WAN interface switching during firmware downloads and subsequent HAN transfer activities.
52. In response to the request for these new VWAN arrangements being tested first in UIT, DCC can confirm we are offering test participants six weeks to test in the UIT-B environment from 26 August to 6 October 2026, prior to it being deployed in Production. Test Participants will have the opportunity to test all WAN Switching scenarios over this period on the production configuration values. DCC is also offering Test Participants a window to test in the UIT-A environment for one week prior to Production Go-Live from 29 September 2026, when the 4G Release 2 software changes go live as part of the October 2026 Maintenance Release. However, DCC has welcomed test participants to test the firmware elements of the release in UIT-A from 26 August 2026, providing they over-the-air (OTA) update existing 4G Communications Hubs. The software elements of the Release won't go-live until the October 2026 Maintenance Release to allow the full suite of testing in the UIT-A environment, including any testing involving WAN switching.
53. DCC notes the recommendation regarding the provision of a tracked-changes version. While DCC's standard practice is to always provide tracked changes, on this occasion only a clean version was issued as an exception. This was because the volume of changes would have made the document complex and difficult to navigate. DCC remains committed to its standard approach and will endeavour to provide tracked-changes versions for all future consultations.
54. We welcome the remaining comments from respondents and appreciate the time taken to respond to this consultation.

3. Summary of drafting changes

55. After reviewing the responses received, DCC is not proposing any fundamental changes to the version of the WANSAs that was consulted upon.

56. There has been a small number of amendments to incorporate suggested clarifications. These are shown in redlined form in Attachment 1 to this document.

4. Next steps

57. DCC is of the view that it has had appropriate engagement and consultation with industry on the proposed drafting for the WANSA and has updated its proposed changes based on constructive feedback received. As the responses to the consultation and engagement with the industry were supportive of the proposed drafting, DCC will submit this to the Department for approval.
58. DCC has, where necessary, addressed the comments that have been received from industry. DCC does not believe that the views expressed result in fundamental amendments to the WANSA drafting and, as such, further consultation is neither necessary nor appropriate. DCC will therefore submit these proposed changes to the Department for approval.

5. Attachments

59. This document includes two attachments:
- **Attachment 1:** Proposed updated WANSA (track changes showing changes made following consultation)
 - **Attachment 2:** Proposed updated WANSA (clean)