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by email
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Ofgem consultation: DCC Review: Phase 1 Consultation

Dear Ayena

The SEC Security Sub-Committee (SSC) welcomes the opportunity to provide a response to the recent consultation on the principles, scope and next steps for the review of regulatory arrangements for the Data Communications Company (DCC).

The SSC has regulatory obligations under the SEC to provide effective security governance for the end-to-end smart metering system, conducting risk assessments, putting security control mitigations in place and carrying out regular and at least annual security assurance of smart metering organisations, including the DCC.

Although it is not classed as an Operator of Essential Services under the NIS Directive, the DCC has a major and vital role in ensuring the security of the end-to-end smart metering system and protecting Critical National Infrastructure (CNI).

The main thrust of the SSC response to the consultation is to ensure that, whatever option is chosen for the future operation and governance of the DCC Licence, that, as a minimum, the existing security obligations contained in the licence should be maintained. These include a range of important security controls designed to prevent any adverse impact on the supply of energy to domestic and non-domestic consumers.

The SSC response is set out below. If there are any questions or you would like further clarification on any of the responses, please don't hesitate to contact me.

Yours sincerely,



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Response from the Smart Energy Code (SEC) Security Sub-Committee (SSC)

Question 1: Which of the two broad models do you think we should adopt as the basis for our design of the future regulatory framework for DCC and why? What are the features of your preferred option that lead to you to this choice?

Either option could be made to work from a security perspective provided that there are adequate security controls, security assurance and security governance provided through, as a minimum, the security obligations contained in the existing DCC Licence and SEC being maintained.

Question 2: Do you agree with the way we have applied the principles in our analysis of the options? Please state your reasoning.

Security is currently mentioned once in Principle 1 *“Drive delivery of a quality, cost-efficient and secure service: ensure customers receive efficient, reliable, **secure** and coordinated smart metering service; equip and incentivise DCC to deliver value for money, anticipate and manage change, and deliver against its strategic goals”*

The DCC currently provides a range of security controls that need to be maintained in any future structure, governance and Licence, including:

- A Parse and Correlate function to ensure that messages sent by DCC Users e.g. energy suppliers, network operators and other users that can adversely affect the supply of energy are accurately formatted to be digitally signed and sent to Devices;
- An Anomaly Detection function to quarantine and prevent messages being sent to Devices that have the potential for adverse effects on energy supply for consumers;
- A countersigning function (a Message Authentication Code – MAC) that confirms the DCC User is entitled to send that message and will be rejected without the MAC;
- Management of cryptographic solutions across the DCC to ensure authentication, integrity, confidentiality, availability and non-repudiation of critical commands that can adversely affect supply;
- Independent assurance of security controls during the Design, Build and Testing of any new or changed DCC System components;

Question 3: With regard to Option A, to what extent do you think that changes to the DCC licence alone could provide incentives that result in a third party investor controlled DCC Board providing the quality and cost of service that DCC customers require, and managing DCC effectively?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 4: With regard to Option B, how effective do you think a non-profit-making, stakeholder-controlled or independent DCC Board would be in providing the quality and cost of service that DCC customers require, and managing DCC effectively?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 5: Do you have any views on the details of Options A and B?

To enable the essential security controls in either option, it is important that the existing security obligations in the current DCC Licence are, at a minimum, maintained in their current format or enhanced to reflect any new or changed DCC roles.

Security obligations are embedded throughout the Licence e.g. Condition 6 6.5 (c) Enabling Services (as to which, see paragraph 6.6), being services that fulfil an enabling role (including making provision for the testing of services and equipment, and **for ensuring the security of services**) relating to the provision of Core Communication Services and Elective Communication Services,

In addition, the whole of Licence Condition 8 applies to security controls and elements of Licence Condition 13A and the whole of Schedule 5 Annex 2.

Question 6: What are your views on the options identified and the associated trade-offs for a possible licence extension?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 7: What are your views on the assumptions we have made for Options A and B transition periods?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 8: In your view, which of the considerations we have identified for the transition period are the key dependencies and why? Are there any other dependencies that should be considered?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 9: What is your view on implementing incremental changes to the regulatory framework during a transition period? Which parts of the regulatory framework would be most suitable for such changes and why? Do you have suggestions for their implementation?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 10: Do you agree with our proposed scope of future DCC Core Mandatory Business?

The existing security controls and assurance regime is aimed at the end-to-end smart metering system as currently designed. Any changes to the scope would need to undergo a security risk assessment and assurance during Design, Build and Test as set out in the DCC Licence Schedule 5 Annex 2.

Question 11: Should the future framework, permit DCC to carry out any services additional to its Core Mandatory Business? What are your views on the concepts of ‘mandated services’, ‘ancillary services’ and ‘additional services to users’?

The existing security controls and assurance regime is aimed at the end-to-end smart metering system as currently designed. Any changes to the scope would need to undergo a security risk assessment and assurance during Design, Build and Test as set out in the DCC Licence Schedule 5 Annex 2.

Question 12: Do you agree with our proposed drivers for a controlled change in DCC’s role? What are your views on the ways in which evolution of DCC’s role can be managed?

Any changes to the DCC role would need a security risk assessment. The existing security controls and assurance regime is aimed at the end-to-end smart metering system as currently designed. Any changes to the scope or to the DCC role would need to undergo a security risk assessment and assurance during Design, Build and Test as set out in the DCC Licence Schedule 5 Annex 2.

Question 13: Do you agree that the future framework should enable exploration of re-use of DCC’s infrastructure? What are your views on the specific conditions and measures that may need to be in place to enable it?

Any re-use of the DCC infrastructure would require a security risk assessment. The existing security controls and assurance regime is aimed at the end-to-end smart metering system as currently designed. Any changes to the scope or to the DCC role would need to undergo a security risk assessment and assurance during Design, Build and Test as set out in the DCC Licence Schedule 5 Annex 2.

Question 14: Do you consider that a hybrid model, where some costs are regulated under an *ex-ante* regime and some under an *ex-post* regime based on the level of cost uncertainty, would be appropriate for DCC?

From a security perspective, any need for an unscheduled Cryptographic (SMKI) Recovery Exercise; any unscheduled security incident management exercise; any emergency security fix and firmware rollout etc would need *ex-post* arrangements since these costs cannot be accurately predicted and are essential to protect the supply of energy to consumers.

Question 15: What elements of DCC’s Allowed Revenue are stable (with low risk of forecasts being either under- or over-estimated) and would benefit most from an *ex-ante* approach by 2025?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 16: What are your views on the different ways in which risk (i.e. the benefit of underspending and the cost of overspending) can be shared between the DCC and its customers under an *ex-ante* regime?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 17: What are your views on whether DCC can be effectively incentivised to reduce costs at scale under an *ex-ante* regime?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 18: Do you think that moving to an *ex-ante* regime could adversely affect the quality of service? What mechanisms could be used to reduce the risk of underperformance under an *ex-ante* regime (eg provisions to allow clawback in case of delivery failing to meet specifications)?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained and any need for an unscheduled Cryptographic (SMKI) Recovery Exercise; any unscheduled security incident management exercise; any emergency security fix and firmware rollout etc has *ex-post* arrangements since these costs cannot be accurately predicted and are essential to protect the supply of energy to consumers.

Question 19: What are your views on how best to assess costs under an *ex-ante* approach? For example: What level of detail on costs and benefits would be appropriate? How early should DCC share details of costs with customers? How should this information be shared and evaluated?

Not directly relevant to security provided the existing security controls and governance in the Licence and SEC are maintained.

Question 20: Do you agree with our initial view that an *ex-ante* model has the potential to reduce the resource burden both for Ofgem and DCC? Please state why.

From a security perspective, any need for an unscheduled Cryptographic (SMKI) Recovery Exercise; any unscheduled security incident management exercise; any emergency security fix and firmware rollout etc would need *ex-post* arrangements since these costs cannot be accurately predicted and are essential to protect the supply of energy to consumers.