

## Smart Metering Implementation Programme

### A Consultation on New Smart Energy Code Content and Related Licence Amendments – July 2015

01 September 2015

## 1 Executive Summary

1. Smart DCC Ltd, known as the Data and Communications Company or DCC, welcomes the opportunity to respond to the consultation 'Smart Metering Implementation Programme: a consultation on New Smart Energy Code and Related Supply Licence Amendments', released on 16 July 2015.
2. DCC holds the licence, granted by the Department of Energy and Climate Change (DECC), to establish and manage the data and communications network to connect smart meters to the business systems of energy suppliers, network operators and other authorised users of the network.
3. DCC broadly welcomes the proposals in the consultation and broadly supports the proposed changes to the Smart Energy Code (SEC), subject to specific areas for further consideration. DCC would like to stress the importance of having stable requirements under the SEC, this would allow the DCC Plan to proceed with a greater level of certainty which ultimately benefits all parties and increases overall confidence in delivery.
4. DCC consulted on its current plan and delivery strategy in late 2014. The DCC Plan was approved by the Secretary of State on 5<sup>th</sup> March 2015. DCC's Statement of Scope (published 19<sup>th</sup> March 2015) describes the baseline for DCC Release 1.0. It is appreciated that changes, such as some of the proposals made in this consultation, will be encountered over the course of the implementation of Release 1.0. These changes will be managed via the change control process, assessed, prioritised and impacted appropriately. Proposed changes which are to be adopted, will be scheduled for implementation into an appropriate release beyond DCC Release 1.0.
5. Where any changes may be required, DCC looks forward to working with DECC and industry as appropriate to schedule these changes into releases.
6. DCC's response to the questions raised in the consultation are set out in the sections which follow. If you have any questions regarding any part of this response please contact
7. DCC's response is non-confidential with the exception of DCC's response to question 9, bullet number 3.

## 2 DCC's response

### 2.1 DCC Enrolment Mandate

**Q1** Do you agree with the legal drafting of the proposed amendment to the electricity and gas supply licence conditions? Please provide a rationale for your views.

**A1** DCC agrees with the proposed amendment to the supply licence conditions and stresses the importance of ensuring that no other arrangements are in place for remote communications with SMETS2 meters. This will help to ensure that the benefits of SMETS2 meters are fully realised.

**Q2** Do you agree that this legal duty should take effect when DCC's enrolment services are first available?  
Please provide rationale for your views.

**A2** DCC agrees that this obligation should take effect when DCC's enrolment services are first available.

### 2.2 DCC Enrolment and Communication Services

**Q3** Do you have any comments on the proposed drafting in these new subsidiary documents?

**A3** **Service Request Processing**

DCC broadly agrees with the drafting in the Service Request Processing document. DCC has, however, identified some misalignments between the proposed legal text and the DCC solution, which has been designed and built. We suggest that these sections of text are amended to ensure the subsidiary document aligns with the DCC solution. This will avoid the need for additional change requests and subsequent Impact Assessments which may add risk to meeting DCC Live. DCC's concerns are set out below:

- Clause 6.2: DCC notes that it does not understand the rationale for part (a), in terms of how clause 6.1(f) applies to 6.2(a), and would welcome further clarification on the proposed legal text.
- Clause 7.1: DCC suggests that clause 7.1 is amended to include the text as follows, 'DCC shall send an Acknowledgement to the User and (whether before or after such Acknowledgement is sent) apply the following checks...'. This amended drafting would reflect the fact that some checks are performed by the DCC solution prior to the

Acknowledgement and some post Acknowledgement. This principle has been reflected in the drafting of clause 6.1, as a result of past recommendations by the DCC. For consistency, DCC suggests that the wording in clause 6.1 and 7.1 is aligned.

- Clause 7.1: DCC seeks clarity on the proposed legal text of part (e) of clause 7.1. Is the intent of the clause to check only the Certificates Within the XML part of the Signed Pre-Command or the entire Signed Pre-Command format, including the GBCS Payload? The DCC solution currently only checks Certificates within the XML format part of the Signed Pre-Command (as per the Service Request check set out in clause 6.1(e)). Any certificates contained within the GBCS Payload part of the Signed Pre-Command are not checked, as this would require the reading of the GBCS payload and introduce an additional requirement on the DCC for GBCS payload packet inspection of certificates.
- Clause 15.1: DCC seeks clarification as to the meaning of clause 15.1. DCC is keen to understand whether this is intended to refer to:
  - a) all Alerts received from Communications Hubs
  - b) all Alerts received from Communications Hubs as defined by GBCS
  - c) subsets of Alerts as defined by DUIS in the DCC Alerts section
  - d) otherThe DCC solution aligns with option c) as only some Alerts are appropriate to forward on to Users where GBCS defines an Alert as being sent to the ACB rather than the WAN provider. DCC Alerts AD1, N24, N25 and N39 are the only DCC Alerts generated when a Communications Hub's Alert is received by the DCC. DCC suggests that it would not be appropriate to forward all Alerts received from the Communications Hub, as some Alerts are only relevant to the WAN Provider who will take action on behalf of these Alerts. DCC proposes that the legal text is amended to reflect this position.
- Clause 15.2: the DCC solution does not support the sending of Responses to multiple Parties, a Response is sent to a single party (the sender of the original Service Request) as defined in the GBCS. DCC proposes that clause 15.2 is amended to reflect this.
- Clause 15.3: DCC notes that this is a new requirement added to the SEC that imposes new obligations on the DCC. There is no functionality within the DCC systems to send Alerts to this effect. DCC suggests that this requirement is removed or considered for inclusion in a later release of the DCC systems if required.
- Clause 16.1: DCC suggests that part (c) of clause 16.1 is amended to enable DCC to have the ability to implement a form of Anomaly Detection on Read Inventory Service Requests. This will help to prevent data mining of the Smart Metering Inventory by a User.
- Clause 16.1: DCC notes that part (d) of Clause 16.1 does not reference all of the non device services and DCC seeks clarification of what happens when successful for the following Service Requests:

SR12.1	Request WAN matrix
SR8.13	Return Local Command Response
SR8.14.1	Communications Hubs Status Update - Install Success
SR8.14.2	Communications Hubs Status Update - Install No SM WAN
SR8.14.3	Communications Hubs Status Update - Fault Return
SR8.14.4	Communications Hubs Status Update – No Fault Return

### Inventory Enrolment and Withdrawal Procedures

DCC broadly agrees with the drafting in the Inventory Enrolment and Withdrawal Procedures document. DCC has, however, identified some misalignments between the proposed legal text and the DCC solution, which has been designed and built. We suggest that these sections of text are amended to ensure the subsidiary document aligns with the DCC solution. This will avoid the need for additional change requests and subsequent Impact Assessments which may add risk to meeting DCC Live. DCC's concerns are set out below:

- Clause 4.6: DCC suggests that in part (d) of clause 4.6, the SMI Status of 'Pending' should be added to the list of SMI Status. The clause as drafted precludes a User from joining a Type 1 device to a smart meter using Local Command Services, without having to sequentially request each Service Request from the DCC only after the Command has been applied locally to the Device, as it would need to wait for the SMI status update before sending the next Service Request to DCC. Feedback received from Users in the DUIS industry consultations during 2015 and DCC Design Forums run during 2014 and 2015 indicate that the use of Local Command Services should be made available for batches of Services Requests, sent in advance, that will enable a working HAN to be created when commands are applied locally.
- Clause 4.7: DCC agrees with the intent of clause 4.7 and suggests that the drafting is amended to ensure the SMI Status for Gas Proxy Function is set to 'Commissioned' in all cases. This is to prevent the possibility that the SMI Status remains at a SMI Status of 'Installed not commissioned'. DCC has also identified that if the amendment to clause 4.7 is not corrected, clause 4.8 will not work as intended.
- Clauses 4.7, 4.10, 4.11 and 4.14: DCC broadly agrees with the intent of these clauses, which is to ensure changing the SMI status of a higher level Device changes the status of the lower level Devices (associated with that Device). However, DCC is concerned that the changes made in the proposed legal text do not align with the DCC

solution. DCC proposes that the legal drafting is amended to align with the DCC solution. Our specific comments are set out below:

- a) In the DCC solution, the action set out in clause 4.12 is unique and the action of a successful Commission Device Service Request only updates the SMI Status of the specified Electricity Smart Meter or Gas Smart Meter to 'Commissioned'. The SMI Status is not changed for any other Device as part of this process.
  - b) Clauses 4.10 and 4.11: DCC considers that part (b) of each of these clauses is not consistent with the DCC solution:
    - i. Clause 4.10b, in order to commission a Type 1 device, only the successful execution of a Join Service Request will change the SMI Status to 'Commissioned'. Commissioning the other Device will not have the effect of also Commissioning the Type 1 Device as a direct result.
    - ii. Clause 4.11b, in order to commission a GPF, only the successful execution of a Join Service Request will change the SMI Status to 'Commissioned'. Commissioning the GSME will not have the effect of also Commissioning the GPF as a direct result.
  - c) Clause 4.14: DCC considers that part (b) and (c) of this clause are not consistent with the DCC solution. The successful execution of a Commission Device Service Request will only update the SMI Status of the specified ESME or GSME to 'Commissioned'. No other Device SMI Status is changed as part of this process.
- DCC suggests that clause 4.9 is amended to include Type 2 Devices that are CADs. This is to ensure that the SEC is in alignment with the DCC User Interface Services Schedule and DUIS, which specify that an Other User is an Eligible User for Join Service (Non-Critical) Service Request to join Type 2 Devices for CADs.
  - DCC proposes that any references to accessing reports via the SSI, for example in clause 5.9 are removed to align with the DCC system. The DCC solution is not designed to deliver this functionality.

**Q4** Do you have any specific comments on the proposed revised approach to dealing with Post-Commissioning Obligations including the proposal to delete Sections M2.7 and M2.8?

**A4** DCC agrees with the principle of setting out arrangements in relation to Post-Commissioning Obligations in the Inventory Enrolment and Withdrawal Procedures document. We have no specific comments on the proposed legal text.

**Q5** Do you have any comments on the proposed approach?

**A5** DCC agrees with the proposed approach and has no specific comments on the proposed legal drafting.

**Q6** Do you have any comments on the proposed drafting changes to Sections F2, G, M2 and A?

**A6** In principle, DCC agrees with the proposed approach but has a number of concerns about how the approach has been reflected in the proposed legal text.

#### **Section F2 – CPL Requirements Document**

DCC proposes the following amendments to the legal text, in order to align Section F2 to the DCC solution:

- DCC suggests that under clause 7.1 ‘...Digitally Signed so as to reasonably...’ is amended to make it clear that there will be two signatures, each one provided by the Authorised Responsible Officers of SECAS. We propose the legal text reads ‘...Digitally Signed by two Authorised Responsible Officers of SECAS so as to reasonably...’.
- DCC suggests that under clause 7.2 the legal text is amended to read ‘Digital Signature’, replacing ‘Digital Signatures’.

#### **Section A**

DCC would like to note the following issues:

- The changes that have been proposed to the definition of Device Type and Device Model will mean that the definition in the proposed legal text is misaligned to the Smart Metering Inventory design definition (within the DSP solution) and the Read Inventory Service Request definition. The misalignment created by the proposed definitions will create confusion and will result in the definitions in the SEC not being in line with the DCC design assumptions. DCC’s specific comments on the proposed definitions are set out below:
  - a) In the proposed definition of Device Type there is now no separate device type for the Gas Proxy Function, the implication will be that a Communications Hub will have two device identifiers and it will not be possible to see which one is a CHF and which is the GPF. Similarly the ESME definition has three separate device types rather than the previous single ESME with a separate variant identifier in the DCC solution design.
  - b) Device Model definition - the DCC solution does not currently store the hardware version within the Smart Metering Inventory, but it does store the other three parts of the Device Model definition. There is also no definition within the SEC for what this hardware version represents or the format of this identifier. Firmware version is defined in the GBCS. DCC would request a definition of hardware version in the SEC.
- The proposed changes to the CPL under clause 2.1 of the CPL Requirements Document will result in misalignments with the Smart Metering Inventory design within the DSP solution and the Read Inventory and Device Pre-Notification Service Request. DCC suggests

that feedback from all Parties on the impact of the change is reviewed before the changes are concluded on.

- DCC notes that the 'Auxiliary Load Control' definition has been removed and seeks clarification on why it has been removed from the SEC. The DCC system's design assumptions are based on the definition provided in the previous (concluded) version of the SEC.
- DCC suggests the definition of 'Commissioned' is amended to reflect the essential criteria that a device can only be commissioned if there is a SMWAN connection.
- DCC seeks more information on why the following definitions have been changed: 'HAN Connected Auxiliary Load Control Switch', 'IHD' and 'Pre-Payment Meter Interface Device'. The DCC's solution aligns to the previous definitions in the SEC and we are concerned as to the misalignment that the proposed changes will create between the DCC solution and the SEC.
- The definition of 'PPMID Technical Specification' is incomplete, 'means the document(s) set out in Schedule [TBC]'. DCC would ask the definition is confirmed.
- DCC notes that the definition of 'Smart Metering System' excludes any Type 2 devices that are on the HAN. We seek clarification on whether this is intended as we believe that they are still part of the Smart Metering System.
- DCC notes that the definition of 'Successfully Executed' is incomplete as it excludes Service Request and a Non Device definition, as in Non Device Service and Transform Service meaning of 'Successfully Executed' for a Service Request.
- DCC seeks clarification on why there is a different approach to the definitions of 'Type 1 Device' and 'Type 2 Devices'. DCC would suggest that both need to map back to the technical specifications (i.e. SMETS).
- For the definition of 'Valid' DCC suggest that this should not be a defined term in its own right and that the defined term should be replaced with 'Valid Technical Specification' as per the term Valid Communications Hubs, which sits directly below this defined term.
- The definition of 'Technical Specification' in the SEC has been revised to include each of the CHTS, the HCALCS Technical Specification, the IHD Technical Specification, the PPMID Technical Specification, and the SMETS. As for current definitions we have CHTS v1.46 and SMETS v1.58, the others do not have explicit version numbers as they are in fact contained within the SMETS as different sections. DCC seeks clarification as to whether the intention is to create new separate documents and versions of the HCALCS Technical Specification, the IHD Technical Specification, the PPMID Technical Specification and leave SMETS to define only the Gas Smart Metering Equipment Technical Specifications and Electricity Smart Metering Equipment Technical Specifications. DCC notes that because of this the proposed definition of Technical Specification is different to the definition used in

the DCC design assumptions and does not align with the documents currently included as part of the baseline. In any case, a Device Model included as part of the CPL may not have a version of a technical specification under this definition and so the wording should say 'where appropriate or applicable' to make this clear.

## Section H

DCC would like to note the following issues with section H:

- **Clause H3.9:** DCC agrees with the intention of this clause, however notes that the proposed legal text does not align with the DCC solution and implies more direct checks than have been designed and built for. Within the DCC solution this is not a direct check but instead occurs as a result of indirect checks and as a result of other validation rules within the solution. This is not explicit in the Device status check currently defined within the DCC solution and the checks applied are the same for both User Role sets in parts a) and b). The DCC solution aligns to part a) SMI Status values for all User Roles. There is no overlay of the User Role within the Device status validation check. DCC would recommend that the legal text is amended to align with the DCC systems.
- **Clause H6.6:** DCC notes that this is a new requirement and is not currently supported by the DCC solution. The DCC solution provides a Decommission Device Service Request to be used by Users for a specified Device in order to decommission that device. No other wider SMI Status updates are made to decommission other devices as requested by this clause. There is a strict one to one mapping to only decommission the device specified within the Service Request as per the User request. DCC notes that allowing the DCC to automatically update other SMI Status values would not be appropriate and that this should be left to the User to manage as per the requirement in Clause H5.6.
- **Clause H6.8:** DCC notes that part (c) of this clause is a new requirement and is not currently supported by the DCC solution. DCC is concerned that part (c) is not appropriate and should be removed from the legal text. DCC is not expecting to manage the Device Log of the Communications Hub function directly as this is for Users to manage via the Update HAN Device Log Service Request. There is no provision within the DCC solution to communicate directly with a Communications Hub upon de-enrolment of a smart metering system. This request will only change the SMI Status of the Communications Hub within the DCC Smart Metering Inventory.
- **Clause H6.9:** DCC seeks clarification on the intent of this clause. The DCC solution currently has no direct check to support this. If a SR 8.5 – ServiceOptOut is received from either an Import Supplier or a Gas Supplier, the DCC shall update the Smart Metering Inventory and set the Device SMI Status of the specified Device contained in the header to 'Withdrawn'. The standard registration checks are carried out to

ensure that the sender of the Service Request is a Responsible Supplier for that Device only. It is unclear from this clause how the DCC is expected to manage a request to withdraw a Communications Hub Function if that Communications Hub Function forms part of more than one Smart Metering System as this would imply that two Users would both have to give consent which is not possible from the existing Service Request definitions.

**Q7** Do you agree with the proposal to move some of the technical details in F2 into a subsidiary document in line with the approach taken in relation to Sections H4, H5 & H6?

**A7** DCC considers this would be appropriate given this approach has been taken elsewhere.

## 2.3 SEC amendments to support Smart Metering Testing

**Q8** Do you support the proposed changes to Section T to ensure that the testing objectives reflect a more up to date version of the SEC?

**A8** DCC notes that the previous drafting in T2.3, T3.3 and T5.3 would have required DCC to test against the SEC4 consultation version published on 30<sup>th</sup> June 2014. DCC recognises that as a result the wording of these clauses needed to change to reflect the fact that a number of changes have since been made to the relevant sections of the SEC, many of which as a result of DCC feedback.

However, the current DCC Plan (as approved by the Secretary of State on 5<sup>th</sup> March 2015) and Release 1.0 functionality is baselined on the SEC Stage 4 consultation conclusions as of January 2015 together with agreed design assumptions. Further changes to the relevant sections of the SEC have been proposed in this consultation; we have provided our comments on these changes elsewhere in this response. DCC does not consider it appropriate for any unanticipated additional obligations to be included within the testing objectives. This is particularly the case for the SIT Objective, where SIT has begun at the beginning of September 2015.

On 10<sup>th</sup> August DECC published the first version of the Testing Baseline Requirements Document which outlined the technical and procedural requirements supporting the relevant sections of the SEC.

In addition, DCC is currently considering the best approach to implementing a number changes to DCC systems in order to address IRPs issued for GBCS and some discrepancies between DCC's contracted

solution and SEC drafting. This is being actively discussed through SMDG.

DCC's delivery strategy, with a number of releases, may, for example, require the ability for DCC to complete SIT for a release, recognising that SIT may again be required for a later release. Once the approach has been agreed, this may require wider consideration of the drafting within Section T.

In addition, DCC notes that the current drafting of T2.3/T3.3/T5.3 does not recognise any transitional variations that may be included within Section X. DCC recognises that this drafting may itself be varied by any transitional variation within Section X to ensure alignment.

**Q9** Do you agree with the proposal that the DCC should offer a testing service for prospective Non-Gateway Suppliers?

**A9** In principle, DCC considers that it is appropriate that such a testing service should be available. However, there are a number of practical implications that need to be considered. These are set out below:

- DCC notes that the proposed Non-Gateway Interface Specification was submitted to the Secretary of State as a draft SEC Subsidiary Document on 28 May 2015. It stresses that there are ongoing discussions about the appropriateness of proceeding with the solution set out in the draft SEC Subsidiary Document. DCC therefore reminded its stakeholders at the end of August 2015 that the Non-Gateway Interface Specification was published as a draft, for information only, and that the Secretary of State has yet to conclude on its suitability in its current form and the solution is therefore subject to change.
- The ongoing discussions cover issues over the cost of the solution, when considered in relation to its benefits, the amount of time for which the solution would be relevant and the number of Users likely to make use of such a solution.
- ~~XX~~
- DCC is concerned that there is insufficient time to allow the current consultation on these obligations to be concluded, run a consultation to develop the detail of the Non-Gateway Interface Tests, develop the service in line with the consultation outcome and implement the service during the period of transitional testing. If this requirement were to be imposed a practical and acceptable method to work-around this process would be needed.
- DCC anticipates that this testing service would be required alongside Interface Testing. We would ask for this to be confirmed. If this is the case, it will have a number of implications. These include bringing forward the delivery of the Non-Gateway Interface to enable testing and additional support for Non-Gateway Suppliers at the same time as supporting other test phases and testing participants. Users of this service may also have concerns

regarding the timing of new obligations.

- DCC seeks clarification on whether testing participants would be mandated to use this service. DCC considers the possible options to include, a) all Suppliers being mandated, on the basis that DCC Live and change of supplier for a customer with a SMETS2 device operated via DCC could occur with only two Suppliers capable of using the DCC, b) all small Suppliers being mandated – on the basis that large Suppliers have an obligation to be ready to commence (but not complete) UEPT as soon as reasonably practicable, c) no Suppliers being mandated – on the basis that all Suppliers will have an incentive to become DCC Users within a given period of time.
- DCC seeks clarity on whether this is an enduring requirement (e.g. will new Suppliers in the future have a grace period where they could be Non-Gateway Suppliers before becoming a DCC User) or if it is a transitional requirement (e.g. it only exists to support the
- DCC anticipates that SEC Subsidiary Documents (such as the Enduring Testing Approach Document) will require revision to include this new testing service. This document is due to be submitted to the Secretary of State before the date that we understand this consultation will be concluded.

**Q10** Do you intend to test only Devices (and not User Systems) against the DCC Systems? If so, how and when do you intend to do this? Is it your intention to: become a SEC Party and establish a DCC Gateway Connection; rely on other parties to interact with the DCC for the purposes of testing Devices; or another means (e.g. direct connection without being a SEC Party)?

**A10** DCC's response is in relation to the proposal to allow non-SEC Parties to test Devices with the DCC System.

DCC notes that there are many practical reasons that require any organisation that wishes to test interoperability of Devices with the DCC to become a SEC Party and to do so via a DCC Gateway Connection (or to do so with the support of an organisation that meets these requirements). We have consistently highlighted and explained these reasons, which include:

- Testing interoperability of Devices with the DCC requires testing with DCC Systems, which includes the DCC User Interface.
- Use of the DCC User Interface requires a DCC Gateway Connection, use of SMKI and DCCKI and the ability to send Service Requests. This requires an organisation to become a SEC Party.
- Procurement of a DCC Gateway Connection requires the organisation to become a SEC Party.

DCC notes that the additional cost and effort to become a SEC Party is not excessive and should therefore not be an impediment to an organisation wishing to test Devices with the DCC with the aim of selling those Devices into the GB market.

DCC also notes that there are several organisations that are SEC Parties and are developing the ability to send Service Requests to Devices. It is practical and likely to be economical, if there are non-SEC Parties who wish to test Devices, for these organisations to make arrangements to test Devices.

In summary, DCC notes that there are very real considerations against enabling non-SEC Parties to test Devices with the DCC System, which make this an impractical requirement.

## 2.4 Public Key Infrastructure

Q11	Do you agree with the proposals, and associated legal drafting in relation to the SMKI Recovery Procedure Guidance document? Please provide a rationale for your view.
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A11 DCC's understanding is that this question relates to the SMKI Recovery Key Guidance document referenced in the legal text. DCC agrees with the principle of development and consultation on a series of guidelines that the SMKI PMA will apply in order to determine whether DCC should utilise the Contingency Private Key or Recovery Private Key in order to recover from a Compromise. This will provide clarity and certainty regarding the likely circumstances in which these DCC Keys will be utilised as part of the SMKI Recovery Procedure.

However, DCC has some concerns which are set out below:

- DCC has a significant role in the provision of information upon which the SMKI PMA would form its opinion. It is therefore important that the DCC has early opportunity to provide input to the development of the initial version of the SMKI Recovery Key Guidance document.
- With regard to the scope of the SMKI Recovery Key Guidance document, DCC considers it critical that the scope should include:
  - a) clarification that any decision by the SMKI PMA would relate to i) whether the Contingency Private Key or Recovery Private Key should be used, ii) which of the steps in the SMKI Recovery Procedure should be executed and iii) timescales within which the SMKI Recovery Procedure should be executed; and
  - b) recognition that the decision of the SMKI PMA will be in the context of the available recovery functionality that can be utilised as part of the DCC Systems.

DCC considers that these additions to the scope of the SMKI Recovery

Key Guidance are critical to ensure that the decision of the SMKI PMA can be implemented and is sufficiently flexible to allow the recovery process to address different circumstances, for example, in certain situations the risk assessment may be such that the suspension of communications with Devices may not be required.

- DCC notes that the inclusion of clause L10.11 introduces duplication in the legal text in relation to the SMKI Recovery Procedure, in respect of obligations to provide information to support SMKI PMA decisions on whether certain procedures should be executed.
- DCC notes that there appears to be a typographical error in the drafting of clause L10.12(d); the legal text should read 'as initially determined by it' rather than 'as initial determined by it'.

DCC strongly recommends that the SMKI Recovery Key Guidance document is not published, either for consultation or when finalised and approved, as it can provide valuable information to a potential attacker in relation to when the SMKI Recovery Procedure will be executed in certain circumstances. However, recognising that the guidance information will need to be made available to Parties impacted by the SMKI Recovery Procedure, DCC suggests that the SMKI PMA conduct a closed consultation and only with Parties who are Subscribers to Organisation Certificates (both initially and on an ongoing basis). Each Subscriber should have an obligation to treat the SMKI Recovery Key Guidance document as confidential (and therefore not to share the document outside its organisation). Prior to the issuing of Live SMKI Certificates, DCC suggests that this is a closed consultation involving all Parties.

**Q12** Do you agree with the proposed drafting on how changes to the SMKI Recovery Key Guidance are managed, or do you think it should be a SEC Subsidiary Document and open to the SEC modification process? Please provide a rationale for your response.

**A12** DCC agree with the requirement for the SMKI Recovery Key Guidance document, however DCC does not consider it appropriate that the document should be a SEC Subsidiary Document.

DCC suggests that the approval and governance of the SMKI Recovery Key Guidance document is managed through the SMKI PMA formal governance process and the documents security requirements are considered in the associated procedures (as set out in DCC's response to question 11). This approach would be consistent with the principle duty of the SMKI PMA which is to manage the requirements for the SMKI (SMKI PMA Terms of Reference, v1.1).

We would also recommend that the document includes defining the criteria which will be applied in order to determine if the Contingency Private Key or Recovery Private Key should be used to recover from a Compromise or suspected Compromise.

**Q13** Do you agree with the proposals, and associated legal drafting in relation to the SMKI Recovery Procedure Liabilities? Please provide a rationale for your view.

**A13** DCC does not agree that the proposals and associated legal drafting in relation to the SMKI Recovery Procedure Liabilities are appropriate in their current form. DCC has some concerns which are set out below:

- In association with the proposed obligation on DCC to assess reasonable costs:
  - a) in the case of a Recovery Event, as a Party DCC would in most cases incur Recovery Costs. The implication of this is that DCC will be assessing its own costs. It may not be appropriate for DCC to assess its own costs related to recovery claims.
  - b) DCC notes that it does not intend to maintain the in-house expertise to assess the validity of losses and their values, and will need to rely on external professional help on this matter.As a result, DCC recommend that the obligation for determining reasonable costs should sit with the SEC Panel and support the principle in L10.20 that an external and independent body is appointed to verify if costs requested by Parties are fair and accurate.
- Cash flow requirements: the proposed approach will place significant cash flow requirements on DCC. Whilst the drafting in clause L10.24 allows payment of costs to be deferred upon decision by the Panel, it is still likely that Recovery Costs (which may be in the tens of millions of pounds, and significantly more in extreme circumstances) will need to be paid to affected Parties before the costs can be recovered through DCC's charging regime. DCC considers that these are the options available to address this issue:
  - a) DCC intentionally plans an over recovery through the Charging Statement in order to fund a 'float' for any potential Recovery Costs. This would essentially be a form of industry self-insurance (captive). DCC does not support this approach as the event should be low in likelihood, yet the size of the 'float' may need to be significant, identifying the size of the required float will be challenging and this approach would be add odds with the proposals on which Ofgem are consulting to deter over recovering by DCC.
  - b) Once costs are determined, DCC will reclaim the costs from Users and will only provide agreed costs to affected Parties once sufficient monies are received. This could consist of either:
    - i. Amending the Charging Statement in year, however the ability to amend the Charging Statement during the year is limited to the provision of three months' notice, unless the Authority agrees to a shorter notice period (note that this is an Authority decision, where L10.24 proposes a Panel decision). In addition, dependent upon how many months remain within the Regulatory Year, this may lead to either an

- extended period to recover the cash required, or an over-recovery in the remainder of the year; or
- ii. The ability for DCC to introduce a one off payment (in a single month, or spread over a number of months proportionate to the value) to increase the cash available to pay the Recovery Costs is introduced.
- c) DCC procures insurance or adopts another risk management approach (either for part of the potential cost or entire exposure). DCC expects that such insurance is likely to be high:
- i. The extent of liability is very difficult to assess as to how far DCC's exposure extends. The terms of any insurance contract would put strict limits on what its policy will cover with any residual losses not covered being managed through Users' own policies.
  - ii. The current obligations do not place obligations on Parties (other than DCC) to secure their key material using FIPS accredited HSMs. This obligation would reduce the overall risk and the associated insurance cost.

In light of these issues DCC would welcome the opportunity to discuss with DECC how the obligations in respect of cost recovery following a Recovery Event can be best managed.

In addition to the general concerns described above, DCC would like to note the following:

- Clause L10.6: in relation to supporting the maintenance of the SMKI Recovery Procedure, DCC considers that this is extremely broad and that it would be difficult to establish how it would be determined that such costs would not otherwise be incurred. DCC recommends that the rationale for the recovery of costs for supporting the maintenance of the procedures and arrangements set out in the SMKI Recovery Procedure requires further consideration.
- Clause L10.13(d): the legal text contains a typo, 'initial determined by it' should read 'initially determined by it'.
- Clause L10.17: DCC is concerned that there is no criteria as to how it will be determined what costs have been reasonably incurred. For example, would consumer on-costs such as compensation to prepayment customers if affected be included. DCC is concerned that this could be a complex and lengthy forensic process.
- Clause L10.18: the legal text requires an entirely new set of processes to be developed by DCC. This is not currently within DCC's work plan for process development or cost projections.
- If this obligation were to eventually rest with DCC, we consider that the following amendments or additions to the SEC obligations would be required:
  - a) a) Provision of a forecast of costs at the time of notification of intent to submit a claim (L10.19 would need to be amended to include this). This would provide a basis for DCC to plan for its

- activities to assess, process and reimburse such costs.
- b) Updates to the forecasts provided in point a) on quarterly basis, up to the point at which a final claim is submitted.
  - c) An obligation to obtain a report from independent auditor on all occasions where a claim is submitted, which would require amendment to L10.23.
  - d) Ability for DCC to defer reimbursement of costs where its cash position does not allow it to occur.
- Clause L10.20: it is unclear how DCC would determine what information is required, as there is no criteria to define what 'reasonable' means.

Clause L10.21: the determination of reasonable costs is likely to be contentious, DCC recommends that the legal text is amended to reflect that an independent auditor is always to be involved rather than as determined to be reasonably required.

**Q14** Do you agree with the proposals, and associated legal drafting to use IKI for communications over the NGI and in relation to TAD? Please provide a rationale for your view.

**A14** DCC agrees that the definition of IKI should be expanded to include the concepts of File Signing Certificates used to digitally sign certain files required to be submitted to DCC in accordance with the SEC. This facility will support the obligations as set out in the baselined Threshold Anomaly Detection Procedure (TADP). It would also support the obligations in the current version of the Non Gateway Interface Specification (NGIS); DCC notes that the NGIS is currently the subject of ongoing discussions (as set out in response to question 9).

However, DCC would like to point out that the use of IKI to support digital signing of files will need to extend beyond the purposes set out in the consultation. For example, the recently consulted SMKI Recovery Procedure relies on digitally signed files (using File Signing Certificates) being submitted to the DCC by Subscribers to support the recovery procedures.

In this context, DCC considers that the definition of IKI should be amended so that it encompasses other uses of File Signing Certificates (issued under IKI) for digital signing. DCC recommends that a definition along the following lines would be appropriate:

*"means the public key infrastructure established by DCC for the purpose, among other things, of authenticating communications between:*

*Parties and the OCA and DCA;*

*Parties and the DCC where a Parties are required to provide files in accordance with the SEC that are Digital Signed using the Private key corresponding with a File Signing Certificate<sup>†</sup>*

In addition to the issue raised above, DCC notes the following issues:

- Clause L5.1: DCC can confirm that the IKI CRL and ARL will be required to support the use of IKI for file signing by the DSP.
- Clause L10.7: the consultation document refers to changes made to section L10.7 in relation to IKI alignment to SMKI. However, this section does not reference IKI.

**Q15** Do you agree that it is necessary for the PMA to be able to require Parties to nominate Key Custodians? Please provide a rationale for your response

**A15** DCC agrees that it is necessary for the SMKI PMA to be able to require Parties to nominate Key Custodians. Such Key Custodians are required in order to provide distributed protection of certain DCC Private Keys (i.e. the Contingency Private Key and the Recovery Private Key). As these Private Keys enable their User to replace all Organisation Certificates on Devices, DCC agrees that these keys should be securely stored and their use be subject to appropriate protection and controls.

Experience of DCC's Service Providers suggests that it is not always the case that users of a PKI are keen to nominate individuals to become Key Custodians. As set out in the consulted version of the SMKI Recovery Procedure, there are various obligations which apply to Key Custodians (or specifically the organisations on behalf of who they are acting). In addition, Key Custodians must to be available to respond outside working hours, for example, to attend a key ceremony required to utilise the Recovery Private Key.

In this context, DCC considers that it is appropriate for the PMA to have the ability to, where necessary, direct any Party to nominate an individual to become a Key Custodian.

**Q16** Do you agree with the proposals, and associated legal drafting to make clarificatory changes to the SMKI Certificate Policies? Please provide a rationale for your view.

**A16** DCC broadly agrees with the proposals. With respect to the proposed legal text DCC notes that that IKI CRLs and ARLs should be published to the

<sup>†</sup> DCC notes that a definition of File Signing Certificate will need to be raised from the TADP or NGIS to Section A of the SEC in order for this term to be used.

SMKI Repository in order to support DSP validation of Digitally Signed files utilising File Signing Certificates.

Where new provisions have been included and changes made to ensure technical correctness, DCC assumes that corresponding changes will need to be made and approved to the IKI Certificate Policy (by DECC and the SMKI PMA) where appropriate.

**Q17** Do you agree with the proposals, and associated legal drafting to allow the DCC to become an Eligible Subscriber for certain SMKI Organisation Certificates for the purpose of signing Registration Data? Please provide a rationale for your view.

**A17** DCC broadly agrees with the proposed legal drafting and notes the following:

- DCC may request Organisation Certificates for a Remote Party Role that is not specified in the GB Companion Specification for the purposes specified in the SEC Subsidiary Documents such as signing DCC Status Files sent to Registration Data Providers, signing DUIS XML, signing transformed commands and other future usages as may be specified from time to time in the SEC Subsidiary Documents.
- The DCC proposes that the SMKI PMA is notified of the Remote Party Role codes that the DCC may use from time to time.
- DCC proposes that the right to request Organisation Certificate for a Remote Party Role code that is not specified in the GB Companion Specification is extended to Parties for the purpose of signing DUIS XML as specified in the DCC User Interface Specification.

**Q18** Do you agree with the legal drafting to oblige Network Operators to establish their Organisation Certificates prior to DCC Live? Please provide a rationale for your view.

**A18** DCC agrees with the principle of obliging Network Operators to establish their Organisation Certificates prior to DCC Live. However, DCC is aware that an issue remains outstanding in relation to placing Organisation Certificates on Devices for Network Operators (both DCC Users and non DCC Users). Given the structure of GBCS and the detail of the installation and commissioning process for a Device, the Responsible Supplier must place the relevant Network Operator's Organisation Certificate on that Device once they are installed.

As a result, a Network Operator will need to interact with the Responsible Supplier in order to:

- Receive notification that its Organisation Certificate has been placed on Devices; and
- Maintain a mapping of Organisation Certificates and the Devices on

which they have been placed.

This is particularly appropriate where Network Operators choose not to become DCC Gateway Connection users.

DCC therefore considers that additional SEC obligations may be required in order to ensure that this information is shared (i.e. from the Responsible Supplier to the Network Operator) and maintained (by the Network Operator). This is particularly relevant for the SMKI Recovery Procedure, when Subscribers are obliged (as part of the majority of the recovery procedures) to provide DCC with details of the Devices on which the affected Certificates are placed.

**Q19** Do you agree with the proposal and legal drafting in relation to the miscellaneous changes to the PKI content? Please provide a rationale for your view.

**A19** **Expanded the scope of the SMKI Code of Connection and the SMKI Repository Code of Connection**

DCC agrees with the expansion of the scope of the SMKI Code of Connection and the SMKI Repository Code of Connection.

**Expanded the scope of the SMKI RAPP to make provision for the means by which the DCC may verify the identity and authorisation of individuals and Parties for the purposes of the DCCKI Services.**

DCC agrees with the expansion of the SMKI RAPP, which aligns with the SMKI RAPP as submitted to the Secretary of State on 8 July 2015.

**Deleted from DCCKI requirement for the DCC to apply access controls to limit access to the DCCKI Repository, as access controls are not considered necessary for the security of the solution.**

DCC agrees that the access controls are not necessary for access to the DCCKI Repository.

**Specified in more detail which documents must be placed in the DCCKI Repository and require that the DCCKI PMA Function must approve the DCCKI Certificate Practice Statement.**

DCC agrees that the changes to the requirements in respect of:

- Lodging documents in the DCCKI Repository; and
- Obligation on the DCCKI PMA to approve the DCCKI CPS.

**Live Certificates may be used by DCC to complete Operational Acceptance Testing.**

DCC agrees that the drafting in respect of enabling DCC to use Certificates issued by 'live' Certificate Authorities to undertake its Operational Acceptance Testing. This is essential, as DCC will be using the production environment to perform this testing in order to ensure that this environment is ready for live operation.

**Authorised Subscribers must submit to the DCC a forecast of the number of Certificate Signing Requests it will send to the DCC in the next 8 months.**

DCC agrees with the legal drafting in respect of requiring Authorised Subscribers to submit CSR forecasts for the next eight months.

## 2.5 Security Independence Requirements

**Q20** Do you have any comments on the proposed drafting regarding the CIO independence requirements?

**A20** DCC agree with the proposed updates with regards to the independence requirements of the User security assurance provider.

## 2.6 Communications Hubs

**Q21** Do you agree with the proposals, and associated legal drafting (including the proposed changes to the CHIMSM at Annex D), which would permit Suppliers to re-use Communications Hubs that they have removed from consumer premises in certain circumstances?

**A21** DCC agrees with the principle that Suppliers should be able to re-use Communications Hubs in certain circumstances. DCC notes, however, that introduction of any such capability should consider the following constraints:

- To allow accurate tracking of DCC Communications Hub assets and to implement the proposed modifications to the DCC charging regime, DCC will require a change to DCC Systems so that Suppliers can inform DCC that a Communications Hub has been removed but is pending re-installation. Subject to a full impact assessment, these changes are expected to include (as a minimum):
  - a) Revisions to the Smart Meter Inventory to allow DCC to record a new asset state for Communications Hubs (i.e. removed pending re-installation).
  - b) Updates to DUIS and DCC systems to either add an additional Service Request or update an existing Service Request to provide a mechanism for Parties to inform DCC that a removed Communications Hub should be identified as being in this new state.
  - c) Changes to CSP network or Communications Hubs design to mitigate any potential issues arising from Communications Hubs connecting to the SM WAN from new or unexpected

- geographical locations (e.g. elements of the radio and network-layer design of the Region North solution assume some degree of static channel and IP-address allocation).
- d) The proposed addition to K7.5 (l) of the SEC in relation to the calculation of the CH stock level charge does not directly reflect the charging model for Communications Hubs in the CSP contracts. DCC may have to review the implications for the charging methodology, both in the CSP contracts and the SEC.
  - The changes in CHSM (Annex D of the consultation) are reasonable and reflect DCC's current view of the likely changes but these are subject to a full impact assessment of the Solution changes required. Given that the cost of implementing the changes required to support re-use will be borne by all Parties, but not all Parties may choose to utilise this capability, DCC believes that designation of the proposed drafting on re-use should not take place until this full impact assessment is complete. This would allow a rational assessment by all Parties as to whether the cost of implementation is justified by the potential benefits that would be enabled. Given that any resulting Solution changes will not be part of DCC Release 1, it should also be possible to further quantify these potential benefits through actual experience of Communications Hubs deployment.
  - In discussion with Parties, DCC has identified that some of these Parties are considering carrying out basic analysis or testing of Communications Hubs prior to re-use to verify that they are capable of being successfully re-installed. DCC recognises that this approach has potential benefits and notes that additional changes to CHSM may be warranted to allow for this.

DCC considers that the means by which Suppliers should ensure GPF consumption data is deleted should be more clearly set out, this is so that it can be verified that there is a sensible solution for meeting this condition for Communications Hubs re-use. In particular, it should be clarified when this condition should be applied (e.g. prior to removal or simply prior to re-use).

**Q22** Do you agree with the proposal, and associated legal drafting, for an obligation for Supplier Parties to respond to any reasonable request from the DCC for information pertaining to compliance with the CH Support Materials and for a reciprocal obligation to be placed on the DCC?

**A22** DCC supports the proposals to require Supplier Parties to provide evidence that they are complying with the requirements of CHSM. Without this mechanism, DCC will have no regulatory capability to investigate potential anomalies in performance related to the ongoing provision of Communications Hubs services. Although management information and reports may be used to identify potential issues, without support from Parties, detailed investigations to determine the cause of poor performance will be difficult, if not impossible. The CSP drafts of the CHSM provided at contract signature also anticipated a level of 'audit' rights being available to mitigate the commercial risks

associated with widespread deployment and maintenance of DCC assets (Communications Hubs) by Parties.

Similarly, DCC recognises that Parties also require support from DCC in identifying issues related to the CHSM processes and supports a reciprocal requirement being placed on the DCC. Regarding the proposed legal drafting, DCC notes that: F7.11 and F7.12 should not only apply to Supplier Parties, since the CHSM places obligations on other Parties (in particular, DCC expects that non-Supplier Parties) may Order and take receipt of Communications Hubs. DCC expects that these Parties are also required to provide evidence of CHSM compliance on request.

**Q23** Do you agree with the proposals, and associated legal drafting (including the proposed changes to the CHSM at Annex D), relating to visits by the DCC to consumer premises?

**A23** DCC agrees with the proposals relating to requests for the DCC to attend premises at which a Communications Hub is installed. Regarding the proposed legal text, DCC notes that:

F7.13, F7.14 and F7.15 place obligations on the Lead Supplier only. Where this is not the Party that installed the Communications Hub in that premises, and that Party is still a relevant Supplier for that premises, then it may be more equitable to allow these obligations to be placed on the installing Party.

**Q24** Do you agree with the proposal, and associated legal drafting, for Parties to be liable for all reasonable costs and expenses incurred by the DCC as a result of a delivery of Communications Hubs being prevented from taking place in accordance with the SEC, due to a breach of the SEC by that Party?

**A24** DCC agrees with the proposal and associated legal text.

**Q25** Do you agree with the proposals and associated legal drafting for the consequential changes to the SEC arising from the Communications Hub Support Materials?

**A25** DCC agrees in principle with the proposals as these largely reflect the provisions in the CSP Contracts but notes the following with respect to the proposed legal drafting:

- F7.18(b) needs to include an additional exclusion for where DCC has an agreed Network Enhancement Plan in place (for Regions Central and South only).
- F7.19(b) needs to include an additional exclusion for where DCC has an agreed Network Enhancement Plan in place (for Regions Central and South only).
- DCC could amend the current Charging Statement, to include the Explicit Charge for additional CH Ordering System accounts no earlier than three months following any designation of changes to Section K.

This is because of DCC's Licence obligation to provide a notice of no less than three months to amend the Charging Statement.

These exclusions were included in the CSP Regions Central and South Contracts at contract signature date. It is not possible for DCC to commit to an obligation to resolve coverage issues as proposed where these exceptions are in place.

**Q26** Do you agree with the proposals as described under the heading of "Miscellaneous Communications Hub issues" above and the associated legal drafting?

**A26** DCC agrees with the proposals and proposed legal text.

## 2.7 Incident Management

**Q27** Do you agree with the proposed changes to Incident Management? Please provide a rationale for your views?

**A27** DCC agrees with the changes and proposed legal text.

**Q28** Do you agree with the proposed approach to provide a more flexible governance for the Error Handling Strategy, set out above?

**A28** DCC agrees with the changes and proposed legal text.

## 2.8 Further activation of the SEC modification process

**Q29** Do you agree with the proposals in relation to the timing of the further activation of the SEC Modification Process? Please provide a rationale for your response.

**A29** DCC welcomes the proposal for the further activation of the SEC Modification Process, subject to the use of appropriate controls to ensure Modification Proposals do not add risk or delay to the achievement of DCC Live.

Whilst DCC is committed to the improvement of Services provided to Users, many SEC Modifications are likely to require input from the DCC throughout the Modification Process. DCC wishes to reiterate the risk of it being required to simultaneously produce complex Impact Assessments and participate in multiple Working Groups. Impact Assessments and Working Groups require the attention of experienced staff who are dedicated to delivering functionality for DCC Live and already agreed early releases. Diverting resources to develop and assess Modifications that are not critical to DCC Live will add risk

to DCC's programme.

DCC welcomes DECC's use of its Secretary of State's powers to Withdraw or Suspend relevant Modifications. DCC has included examples below of additional controls that it considers may minimise additional risk to DCC Live caused by SEC Modifications:

- DECC publish guidance in relation to the criteria it uses to determine whether to direct that a Modification be Suspended or Withdrawn. With this, a Party may better judge the likelihood of its Modification progressing, prior to a change being formally raised by that Party.
- Where sufficient detail is provided, DECC assesses a Modification's impact on DCC Live, and whether it should be Suspended or Withdrawn, during the Initial Consideration Phase (section D3, i.e. prior to a Modification progressing to the Refinement or Consultation phases).
- The Implementation Date of non-urgent SEC Modifications that are raised in accordance with section D is no earlier than release 2.0.

**Q30** Do you agree with the proposals and legal text in relation to the manner in which the SEC Modification Process is further activated, including the temporary performance of certain enduring Authority functions by the Secretary of State? Please provide a rationale for your response

**A30** Please see our response to question 29.

## 2.9 Miscellaneous

**Q31** Do you have any comments on the proposed drafting regarding the scope for the Threshold Anomaly Detection Procedures?

**A31** DCC has no specific comments on the proposed legal text.

**Q32** Do you agree with the proposed additional text to F3 to provide affected Supplier Parties or the DCC with the ability to appeal (to Ofgem) SEC Panel decisions relating to device non-compliance with the Technical Specifications and any associated remedial plan?

**A32** DCC supports the proposal and has no specific comments on the proposed legal text.

**Q33** Do you agree with the proposal, and associated legal drafting in relation to amending the definitions in preparation for the future introduction of technical specifications into the SEC? Please provide a rationale for your view.

**A33** DCC's comments on changes to definitions are covered in response to question 6.