Changes to the DCC User Interface Specification (DUIS) and Message Mapping Catalogue (MMC) ahead of the November 2020 SEC Release Conclusions Document

DCC conclusions and response to consultation.

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# Introduction and Context

The DCC User Interface Specification (DUIS) and the Message Mapping Catalogue (MMC) are documents that set out the technical requirements for the management of communications to and from smart metering devices via the DCC User Interface.

DCC published a consultation on 28 April 2020 concerning certain proposed changes to these two documents ahead of the SEC Release scheduled for November 2020. This document is the DCC’s conclusion and response following consideration of the replies to that consultation.

# Stakeholder Engagement

On 28 April 2020, DCC published a consultation document entitled ‘Consultation on changes to the DCC User Interface Specification (DUIS) and Message Mapping Catalogue (MMC) ahead of the November 2020 SEC Release’.

The scope of the consultation covered the following matters:

* changes to the DUIS and MMC to deliver against three recent BEIS proposals to change the SEC. The consultation sought feedback on the technical changes to DUIS and MMC to give effect to these proposals.
* technical changes to the DUIS in order to deliver two defect fixes. The consultation sought feedback on these changes.
* technical amendments to be included in the November 2020 SEC Release, required to deliver SEC modifications that have already been accepted.

The consultation document was accompanied by a release note in respect of each of DUIS and MMC.

Stakeholders were invited to respond by Friday 19 May 2020.

# Consultation Questions & Respondents

Stakeholders were asked to respond to six questions set out at para 1.4 of the consultation, and to provide a rationale for any views expressed. The questions asked are set out in Table 1 below.

| Number | Topic | Consultation Question |
| --- | --- | --- |
| Q1 | BEIS mandated changes related to SMETS1 | Do you agree with the changes we are proposing to the DUIS regarding the Change Re-Scaling of Gas Flow rate in SRV6.7 for SMETS1? If not, please provide your rationale. |
| Q2 | BEIS mandated changes related to SMETS2 | Do you agree with the changes we are proposing to the DUIS and MMC regarding Auxiliary Proportional Controllers? |
| Q3 | BEIS mandated changes related to SMETS2 | Do you agree with the proposed N58 alert structure changes, which have been updated to include two additional optional data items “ESMEVariant” and “DeviceGBCSVersion”, as outlined in section 5.1 of the DUIS release note? If not, please provide your rationale. |
| Q4 | Defect Fixes | Do you agree with the proposed DUIS change regarding the defect to Install Code Length 8.11, 2nd part to reinstall the validation for SMETS2? If not please provide your rationale. |
| Q5 | Defect Fixes | Do you agree with the proposed DUIS change regarding the defect fix ‘DUIS inconsistency for GCS01a’? If not please provide your rationale. |
| Q6 | General question | Are you aware of any possible consequential changes that may be required to the SEC if these changes to the DUIS and MMC are made? |

Table 1 – Consultation Questions

DCC received nine responses to this consultation, three of them from large supplier SEC Parties, one small supplier and one Other SEC Party. A copy of each response was provided to the Secretary of State once the consultation had closed.

# Consultation responses by question, along with DCC’s conclusions against each.

DCC has analysed the feedback provided by each respondent. Where appropriate, DCC has engaged with respondents to clarify comments.

The analysis of responses set out in this section is structured by question. The DCC responses include details of changes that have been made to the versions of DUIS and MMC.

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| Question 1 | 1 Do you agree the changes we are proposing to the DUIS regarding the Change Re-scaling of Gas Flow rate in SRV6.7 for SMETS1? If not, please provide your rationale. |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DUIS Updated** | **Section** | **Page**[[1]](#footnote-2) | **MMC Updated** | **Section** | **Page** |
| OVO | Although we agree with the changes, we would like to understand the timing of this as it does not form part of the IOC device specific behaviours to enable us to fully understand the impact to our systems in relation to a SMETS1 specific change. There is no linked deliverable for IOC, or MOC for that matter, that ties into the Nov 2020 Release. This need drawing out and the impacts collated. Ensuring the implementation of these changes on certain devices made by different manufacturers are not for DUIS to consider but must be looked at somewhere to ensure it does not cause a problem elsewhere. | Due to delivery priorities and given that there are few use cases for changing these settings, DCC is not delivering this change in the November 2020 release. The DUIS drafting has been amended accordingly. | YES | DUIS Table 2 and section 1.4.7.10 | 18 and 22 | N/A | N/A | N/A |
| Scottish Power | Yes, we agree with the proposed changes to the DUIS regarding the Change Re-scaling of  Gas Flow rate in SRV6.7 for SMETS1. |
| EDF | Yes, this is desirable, given the constraint currently on the ability to set a value and its alignment with SMETS2 gas meters for uncontrolled gas flow rate. |

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| Question 2 | Do you agree with the changes we are proposing to the DUIS and MMC regarding Auxiliary Proportional Controllers |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DUIS Updated** | **Section** | **Page** | **MMC Updated** | **Section** | **Page** |
| OVO | We agree with the changes although we would like to understand exactly how the APC will be stored on the SMI and how they will be returned on when we read the inventory. The concerns over these being ‘disguised’ as an ESME are causing problems in being able to establish business processes. These is still confusion as to how they will behave if they are a SAPC and get confused or mistaken for a HCALCS. If all the processing factor ensuring there is no confusion or the ability to target the wrong device die to not being able to work out what it is, then this will ensure a reduction in issues going forward. We are hoping to see the BPDs relating to this Release and how this all ties together operationally within the DCC Ecosystem. For us to be able to support SMETS2 v5 devices, how they will look and feel in the DCC must be made clear. This is the first instance of a new device type being added and it is not additionally, the management of them is conditional depending which device version and DUIS version you are operating on. This is a completely new and complicated way of operating. We will need assistance from the DCC to decipher this and ensure our customers are not impacted by any wishing to have these devices in their properties. | In relation to how the APC will be stored and returned in the SMI, SR8.2 read inventory will return the APC type using the new ESME variant type defined in DUIS table 229.  The Business Process Diagrams (BPDs) relating to this Release will be updated and published to industry at the November 2020 release. | N/A | N/A | N/A | N/A | N/A | N/A |
| Scottish Power | We are concerned by the lack of clarity in relation to the industry roles and responsibilities for the installation, maintenance and operation of Auxiliary Proportional Controllers and are therefore unable to confirm if the proposed changes are adequate to support these emergent requirements.  In classifying all SAPCs as ESME variants, only the Registered Import Supplier will be able to whitelist and join the Auxiliary Proportional Controllers to the HAN and, in so doing, link the SAPCs to the Import MPAN. It is also not clear how, or when, the security credentials for the new Load Controller role will be added or updated on the devices. We are therefore unable at this stage to say if the inherent restrictions with this model will adequately meet the developing industry requirements in this area or if further changes to DUIS are going to be required. | On the question as to how and when security credentials are updated.  As per the legal drafting in the June BEIS Consultation ([https://smartenergycodecompany.co.uk/latest-news/beis-consultation-on-changes-to-smart-energy-code-technical-specifications-and-subsidiary-documents/](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsmartenergycodecompany.co.uk%2Flatest-news%2Fbeis-consultation-on-changes-to-smart-energy-code-technical-specifications-and-subsidiary-documents%2F&data=02%7C01%7Ckevin.atkin%40beis.gov.uk%7C11337a99842444b3a3f208d83eac5c29%7Ccbac700502c143ebb497e6492d1b2dd8%7C0%7C0%7C637328257281953143&sdata=OwwjWrk2mK%2Bk2kRO5ES4p1Z7c34a660OS56iRMZnfQg%3D&reserved=0)), before installation, SEC Appendix AC clause 3.2 requires that one of the following will need to be placed in the Load Controller cells:  ‘(a)        one of the relevant [installing] Supplier Party's Organisation Certificates;  (b)         a DCC Access Control Broker Certificate;  (c)         (where the consent of that other Supplier Party has been given) one of that other Supplier Party's Organisation Certificates.’  Once the Device is installed, as per the drafting in DUIS 4.0, the security credentials could only be changed by the Device’s current supplier (see the Update Security Credentials (KRP) Service Request drafting).    As per SEC Section L3.18 (specified in the legal changes for <https://smartenergycodecompany.co.uk/latest-news/beis-consultation-response-government-response-to-6-april-2020-consultation-and-outstanding-matters-from-14-january-2020-consultation/>), no party will be able to subscribe for Organisation Certificates with a Remote Party Role of Load Controller. Therefore, the credentials placed in the cells on Devices by suppliers cannot be for Load Controllers, as detailed in that consultation and consultation response. | N/A | N/A | N/A | N/A | N/A | N/A |
| EDF | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| SSE | The new ESMEVariants added for Auxiliary Proportional Controllers is currently NOT aligned with industry flow bring challenge to industry to use Auxiliary Proportional Controllers  Data item J0483. Defined as Meter Type in the Data Transfer Catalogue. Back in 2012 it was updated to include the SMETS Meter Type variants as per the ESMEVariant data item in DUIS.  <https://dtc.mrasco.com/DataItem.aspx?ItemCounter=0483&searchMockItems=False>  I cannot locate whom requested this update but this needs to be flagged to BEIS as this was done as there are cross code impacts. The MRA is managed by GemServ so would expect some assistance on this from SECAS too… being they’re the same Code Administration organisation… This would have gone via IREG to agree the update… but the additional ESMEVariants will make the list VERY long  What I do not know is how the Meter Type can be updated in the Registration systems if it is incorrect.  **ultimately the Meter Type in the Registration System needs to align to that held in the SMI and vice versa.** Suppliers use it although it could be challenged that we should be using the DCC service for everything. I believe this was also deemed out of scope of the CSS which is also disappointing. | DCC acknowledges the fact that in terms of the ESME variant the SMI has not been, and will not be after this change, aligned with Registration Data in terms ESME variant. When DCC notify Registration data of a new installed device, that notification has never included ESME variant. This will continue to be the case when November 2020 release goes live. DCC will not notify Registration data for installation of SAPC. Therefore, there is no impact on Registration data from the DUIS change. | N/A | N/A | N/A | N/A | N/A | N/A |
| Utiligroup | As discussed at DRF yesterday, here are my concerns regarding the new ESMEVariants to support (S)APCs and their mapping back to the MeterType data item in traditional registration data flows.  Currently, MeterType (J0483) has meter variants that only go up to S2CDE (SMETS2 Polyphase with ALCS and Boost). The APC changes introduce a new set of ESMEVariants that should map back to J0483 so that all systems are aligned. I’m assuming that SAPCs, not being a meter, would be ‘invisible’ to the traditional metering data system because they do not function as a meter and the Meter Operator would not have to send out technical details for these in the traditional sense (D0149/D0150 data flows) – however I could do with understanding whether this assumption is correct.  The issue is with ESMEs that have APC functionality built in. These will be seen in the traditional metering data system and meter technical details will be sent out by the Meter Operator with MeterType populated; this will not include any indication that these ESMEs have APC capability as the new ESMEVariants have not been included in J0483 and I don’t believe there is any change request currently raised to update them either. Suppliers will therefore have a mismatch between their traditional data flows and the Smart Metering Inventory. For example, the MeterType in a D0149/D0150 may state meter type of ‘S2A’ but actually be ESMEVariant in SMI of ‘ADF’ or ‘ADEF’.  I believe there is therefore a gap that has not been considered with how ESMEVariant maps back to the DTC element J0483 and this needs to be taken forward for further consideration by the relevant industry group to implement a DTC change to support the new ESMEVariant/Meter Types so that all systems are aligned. | See response above | N/A | N/A | N/A | N/A | N/A | N/A |

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| Question 3 | Do you agree with the proposed N58 alert structure changes, which have been updated to include two additional optional data items “ESMEVariant” and “DeviceGBCSVersion”, as outlined in section 5.1 of the DUIS release note? If not, please provide your rationale. |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | |
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| **DUIS Updated** | **Section** | **Page** | **MMC Updated** | **Section** | **Page** |
| OVO | We agree with the proposed changes to the N58 alert structure. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scottish Power | The N58 alert is issued to the Electricity Distributor so we are unable to comment on these changes. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| EDF | Yes, in principle, given the needs of future proportional control devices appearing as a new class of ESME device. EDF will assess the impact, if any, upon normal ESME device management when assessing the impacts of adopting DUIS v4.0 in detail for back end software changes. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

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| Question 4 | Do you agree with the proposed DUIS change regarding the defect fix to Install Code Length 8.11, 2nd part to reinstall the validation for SMETS2? If not, please provide your rationale. |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | |
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| **DUIS Updated** | **Section** | **Page** | **MMC Updated** | **Section** | **Page** |
| OVO | We agree with the proposed change to the Install Code Length. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scottish Power | Yes, we agree with this change. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| EDF | Yes, this correction is desirable in principle. EDF will assess the impact, if any, upon device management when assessing the impacts of adopting DUIS v4.0 and MMC v4.0 in detail for back end software changes. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

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| Question 5 | Do you agree with the proposed DUIS change regarding the defect fix ‘DUIS inconsistency for GCS01a’? If not, please provide your rationale. |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | |
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| **DUIS Updated** | **Section** | **Page** | **MMC Updated** | **Section** | **Page** |
| OVO | We agree with the proposed DUIS change to fi the inconsistency. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scottish Power | Yes, we agree with this change. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| EDF | Yes, this correction is desirable in principle. EDF will assess the impact, if any, upon device management when assessing the impacts of adopting DUIS v4.0 and MMC v4.0 in detail for back end software changes. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

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| Question 6 | Are you aware of any possible consequential changes that may be required to the SEC if these changes to the DUIS and MMC are made? |

| **Respondent** | **Comment** | **DCC Response** | **DUIS Updates** | | | **MMC Updates** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DUIS Updated** | **Section** | **Page** | | **MMC Updated** | **Section** | **Page** |
| OVO | Other than the items highlighted in Question 2, we have no additional consequential changes to raise at this time. | See response related to Q2 above | N/A | N/A | N/A | | N/A | N/A | N/A |
| Scottish Power | The DUIS document references a new Load Controller Known Remote Party role for the security credentials that can be applied to devices, however this role is not currently defined in the SEC. | With regard to the Load Controller Known Remote Party role, proposals to enable this functionality for future use are contained in the BEIS consultation dated 18 June entitled “BEIS Consultation Response: Government response to 6 April 2020 consultation and outstanding matters from 14 January 2020 consultation ”. This specific point is covered in Paragraph 60 of the above document:  *“In addressing the concerns raised by the two respondents around the security credentials on SAPC devices and secondary ESMEs being limited to those of the Responsible Supplier, BEIS confirmed in its response to its August 2019 consultation that an override functionality will be included in the specification as a future proofing measure to allow the potential for proportional load control devices to act on a message from a user other than a supplier to curtail load. However, this override functionality will remain dormant until industry, Ofgem and/or Government determines it desirable or necessary following further consultation****.”***  There are no drafting issues arising from the responses to this question. | N/A | N/A | N/A | | N/A | N/A | N/A |
| EDF | Without the detailed impact assessment of the changes in v4.0 of the DUIS and MMC that would be done as a project to evaluate the adoption by EDF of those uplifts, EDF is, at this time, unable to comment on any consequential changes that may be required to the SEC as a result of the proposed changes to the DUIS and MMC that have not already been identified in the release notes.    EDF would hope that sufficient analysis of the proposed changes has already been undertaken and that all consequential changes to the SEC have already been fully identified and set out in the release notes to communicate them. |  | N/A | N/A | N/A | | N/A | N/A | N/A |
| Critical Software | **Typo in** SR7.16 at DUIS, At section 3.8.102.2    The caption of table 223.4 is:    The issue is the “sr:SetAuxiliaryControllerState” that should be “sr: **LimitAPCLevel**” which would be aligned with the DUIS schema.  **Note:** the “sr:SetAuxiliaryControllerState” is for SR7.13 which is the equivalent SR for Suppliers.  Can you please confirm that this is a typo? | DCC agrees that the caption to table 223.4 in the consultation version of DUIS was incorrect. We are grateful to the respondent who pointed this out. The necessary correction is made in the accompanying version of DUIS, so that the caption now reads:  “Table 223.4: LimitAPCLevel (sr: LimitACPLevel) data items” | YES | Table 223.4 | 389 | | N/A | N/A | N/A |
| CGI | IRP629 Addressing Various Points Raised on GBCS 4.0 & SMETS 5.0, for change 5, MMC should be updated to match.  IRP629 Change 5 says that there wasn’t enough data to identify the command which the alert corresponds to. Presumably the scenario is where the ACB has generated the command, and it is the counter of the corresponding (original) service request from the service user.  There is a mismatch in MMC, in that for SupplementaryRemotePartyID MMC says “Where Supplementary Remote Party ID is present in the corresponding Command”, but it doesn’t say that for SupplementaryRemotePartyCounter, and it should. | MMC updated as suggested. | N/A | N/A | N/A | | YES | Table 276 | 155 |
| BEIS | In prior versions of DUIS all of the characters in valid ESMEVariant values (Table 229) related to a 'Part' within SMETS Section 5 (e.g. Part D = ALCS formaing part of an ESME). The extra combinations for SAPC in Table 229 at DUIS 4.0 cannot do this, including because SAPC is defined in SMETS Section 9, rather than section 5. Therefore, for these SAPC values only it may be helpful to add a footnote along the lines of:  'SAPC is defined in SMETS2 Section 9 Part G1; an ALCS forming part of an SAPC is defined in SMETS2 Section 9 Part G2 and a Boost Function forming part of an SAPC is defined in SMETS2 Section 9 Part G3.' | Footnote added as suggested | YES | Table 229 | 399 | | N/A | N/A | N/A |
| SECAS | There are further changes should be included as result of MP067 not approved by SECAS | SECMOD67 has not been approved, so the original text will remain unchanged. | YES | section 2.7 and Table 8 | 45 and 47 | | N/A | N/A | N/A |
| SECAS | MP120 approved by SECAS needs to be added into DUIS/MMC 4.0 for Nov 2020 SEC release implementation | MP120 has now been approved, so those changes are now included. | YES | Table 18 | 62 | | N/A | N/A | N/A |
| SECAS | MP124 approved by SECAS needs to be added into DUIS/MMC 4.0 for Nov 2020 SEC release implementation | MP124 has now been approved, so those changes are now included. | YES | table 243, and Section 3.8.113.3 | 426 and 427 | | YES | table 235-2, table 231, and table 232-1 | 136, 137 and 138 |
| SECAS | Section 3.8.78.4 wording is not exactly same as MP081 legal text. | In Section 3.8.78.4, the word ‘shall’ has been changed to ‘will’ to match the MP081 legal text | YES | 3.8.78.4 | 337 | | N/A | N/A | N/A |

# Next Steps

1. The current DUIS/MMC versions will be published on the SECAS website for visibility. These versions will not be designated.
2. Other changes to the DUIS and MMC to support the implementation of functionality concerning pending SMETS1 capability releases, consulted upon separately, are expected to be incorporated in another version. These changes are SMETS1 PPMID firmware upgrades and typographic corrections only. The documents will be published on the SECAS website for visibility and will not be designated.
3. The amendments consulted upon in this consultation and the additional changes relating to SMETS1 capability releases referred to above will be combined into a single version of each of DUIS and MMC. It is understood that BEIS is proposing to designate these combined versions of DUIS and MMC for incorporation into the SEC as part of the package of changes for the November 2020 Release. It is further understood that immediately on their incorporation into the SEC, a number of SEC modifications will take effect which will modify further the documents that have just been incorporated by BEIS. This means that the versions designated by BEIS will not exist within the SEC for any meaningful period of time since they will be immediately modified by the SEC modifications administered by SECAS. Whilst it is expected that the changes made by BEIS will be published on the news section of the SECAS website, only the further consolidated versions of these documents will then be available under the Smart Energy Code section of the SECAS website.

# Attachments

* Attachment 1 –DUIS 4.0 clean



* Attachment 2 – DUIS 4.0 change marked against current SEC version



* Attachment 3 – DUIS 4.0 change marked against consultation version



* Attachment 4 – DUIS 4.0 release note



* Attachment 5 – MMC 4.0 clean



* Attachment 6 – MMC 4.0 change marked against current SEC version



* Attachment 7 – MMC 4.0 change marked against consultation version



* Attachment 8 – MMC 4.0 release note



1. **Please note, all page numbers in this document are based on versions marked against consultation version which is embedded at section 7 of the consultation response.** [↑](#footnote-ref-2)