

SEC Modification Proposal, SECMP0080

Ensuring a Managed Move to DUIS Version 3.0 or later (Managing DUIS Uplifts)

Preliminary Impact Assessment (PIA)

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1 Document History

1.1 Revision History

Revision Date	Revision	Summary of Changes
January 2020	0.1	Initial version, internal DCC review
3/02/2020	0.2	2 nd version, Proposer and SECAS review, DCC Design Authority review

1.2 Associated Documents

This document is associated with the following documents:

Ref	Title and Originator's Reference	Source	Issue Date
1	SECMP0080-Business-Requirements	SECAS	29/11/2019

1.3 Document Information

The Proposer for this Modification is Helen Metcalfe of SmartDCC. The original proposal was submitted on 6th August 2019.

The Preliminary Impact Assessment was requested of DCC on 20th November 2019. A first Preliminary Assessment was provided in January 2020. Following liaison with the SEC MOD Proposer, a second Preliminary Assessment is now provided, for consideration at the SECAS Working Group session on 5th February.

The title of the Modification was originally "Ensuring a managed move to DUIS version 3.1" and all records are retained under that title on the SECAS website. However the working title for the Modification is now "Managing DUIS Uplifts" as it includes future DUIS changes.

2 Executive Summary

1. This preliminary assessment recommends:

- Remove DUIS V1.1 and DUIS V2.0 with effect from November 2021;
- Removal to be zero or minimal cost with no technical or system change, simply removal of these versions from the SEC Document;
- DUIS Versions within the SEC to be included within Technical Specification Applicability Tables which will state an associated validity period.

BACKGROUND

2. At the time of writing, there are four active versions of the DCC User Interface Specification (DUIS) and Schema alongside the supporting Message Mapping Catalogue (MMC) and Schema and Parse and Correlate (P&C) software versions. Of these, only one version, DUIS V3, supports DCC Services for both SMETS 1 and SMETS 2 meters. (The latest DUIS¹ always includes functionality introduced in earlier versions, so there is no functional benefit to any DCC Customer resulting from DCC continuing to maintain and support all previous versions.)
3. The reasons for putting forward this SEC Modification Proposal are threefold:
 - a. Firstly, many DCC Customers still have early or transitional DUIS Software (DUIS 1.1 and DUIS 2) versions that do not support SMETS 1 meters. This means that, if a SMETS 1 meter churns, it could lose smart functionality until these DCC Customers uplift to DUIS V3 or later versions.

Whilst DCC notes that this issue may be one to be considered as a separate regulatory matter, this issue directly affects consumers. Recent government statements to the press indicate this problem would be solved when meters are connected to the DCC². This is not strictly true until all DCC Customers are using DUIS V3 or later in the live production environment. This SEC Modification Proposal if successful would enable us to collectively agree a proposed route and timeframe to address this issue for consumers with SMETS 1 meters.
 - b. Secondly, an independent report published in 2019 projected that “a strategy to retire older versions of the DUIS could potentially represent a medium sized piece of work and could realise a reduction of the System Integration Testing timelines by an estimated 10%”³. DCC undertook to validate this

¹ For DUIS, please read as DUIS with corresponding Message Mapping Catalogue (MMC) and Parse & Correlate software (P&C) as applicable.

² <https://www.telegraph.co.uk/bills-and-utilities/gas-electric/hallelujah-finally-able-demand-fix-dumb-smart-meter-christmas/>

³ SEC Modification and BEIS Mandated Change Review, 24th May 2019 5.5.4 2nd para.

contention with DSP as part of the preliminary impact assessment process so that this proposal could be considered from a cost savings point of view.

- c. Thirdly, an enduring solution to manage ‘retiring’ older versions of DUIS going forwards is desirable as part of ‘business as usual’ processing. This would be a regular annual activity, ensuring appropriate notice and routine planning to manage this type of activity is in place with a ‘new DUIS in – oldest DUIS out’ process.

4. To address these, DCC assessed:

1. Uplift all DCC Customers on to DUIS V3.0 or later in order to ensure all Customers have capability to provide business services for both SMETS 1 and SMETS 2 meters (interoperability);
2. Remove DUIS V1.1 and DUIS V2 as this incurs time and costs with DCC regression testing with no associated increased functionality;
3. Introduce a ‘business as usual’ processing pattern, whereby historic versions of DUIS can be routinely subject to removal of DCC regression testing and maintenance support as we anticipate a new version of DUIS becomes available annually.

4.1 Uplift for all DCC Customers to DUIS V3.0 or later versions (interoperability)

From a DCC point of view, uplift to a new version of DUIS is a straightforward process to facilitate for our DCC Customers, and those who have adopted DUIS V3.0 thus far have provided positive feedback on the process.

From a Customer point of view, there is effort required in terms of back-end testing to ensure that end to end integrations remain in place for Customer business processing. DCC is informed that Customers would not wish to embark on this activity unless there is a business incentive to do so, or in order to meet a regulatory obligation (no regulatory obligation is in place to ensure all DCC Customers can operate both SMETS 1 and SMETS 2 meters).

DCC is informed that an implied responsibility exists, whereby at Device level, all reasonable steps must be taken to operate any meter enrolled in the DCC and Suppliers have an obligation to migrate SMETS 1 meters within 12 months of eligibility. DCC is advised for this reason, it would not be feasible to implement an effective deadline to uplift all Customers to DUIS V3.0 or later, before July 2021 at the earliest. The projected date for the next DUIS uplift following July would be November 2021.

4.2 Remove DUIS V1.1 and DUIS V2 as these historic DUIS versions incur costs for DCC Customers with no associated increased functionality.

DCC has liaised with DSP in order to obtain details of projected SIT savings identified in an independent report in 2019. We have informal DSP estimates of

reduction in time (and therefore costs) against regression testing undertaken in the November 2019 Release and projected against known scope for the November 2020 Release. DCC is informed that following changes made during 2019 to automate testing, regression testing time for DUIS V1 and DUIS V2 was approximately 4-5 days for the November 2019 SEC Release, and following further enhancements already made, approximately 1 day for the November 2020 Release.

It appears then, that removing DUIS V1.1 and DUIS V2 will provide a very small quantified time and cost benefit at this stage. This is insufficient benefit to justify (in itself) to justify implementing this change.

4.3 Introduce a 'business as usual' processing pattern, for routine planned removal of historic DUIS versions as new DUIS versions become available.

DCC and SECAS propose a straight-forward process by which any version of DUIS would have a validity period via the Technical Specification Applicability tables. A SEC Modification proposal can be swiftly progressed to ensure all SEC Parties and DCC Customers are aware, notified and can prepare for the end of a validity period. Following expiry of any DUIS validity period, any obligations on DCC and DCC Service Providers to undertake regression testing of such 'expired' DUIS versions at future releases of new DUIS capability would cease.

Preliminary assessment for technical changes recommended by CGI indicated a cost of £500,000 which has been rejected (Critical Software confirmed no costs). Instead, a solution involving no technical change has been reviewed by DCC Design Authority. Removal of associated DUIS Version web address (URL) is considered optimal, as this would remove Customer access to DUIS versions that are no longer supported. However, it is deemed acceptable to forgo URL removal initially, DCC may remove the URL later, once we confirm that all Customers have completed their uplift.

Timing for implementation to remove DUIS V1.1 and DUIS V2.0

5. As it is straightforward for a Customer to uplift from DUIS V1 direct to DUIS V3 or later, a phased transition for Customers on DUIS V1.1 to DUIS V2 and then DUIS V3.0 is not required.
6. The latest point at which eligible SMETS 1 meters must be 'migrated' or operated is July 2021. Thus, a recommendation on effective date for implementation for the removal of DUIS V1.1 and DUIS V2 from the SEC is as soon as feasible following July 2021. The projected date for the next new DUIS version following July 2021 is November 2021, and so this is the recommended implementation date for this SEC Modification proposal.

7. This should provide all DCC Customers, including Smaller Suppliers, enough time to plan, execute and complete back-end testing to ensure that end to end integrations are in place for Customer business processing.

CONCLUSION

8. The recommended solution addresses all elements identified within the problem statement. Following implementation in November 2021:
 - a. All DCC Customers will have a DUIS Version that enables them to send and receive messages to and from both SMETS 2 and SMETS 1 meters.
 - b. In terms of cost and time benefits projected in an independent report in 2019, these have already been achieved via some automation of PIT and SIT processes. Modest additional time and cost savings will be made with this change.
 - c. A business as usual process will be in place to manage retirement of historic older versions of DUIS going forwards from November 2021.

3 Context and Requirements

The context, issue statement, and requirements have been provided by SECAS and the Proposer.

3.1 Multiple DUIS Versions

The DCC User Interface Specification (DUIS) is contained in SEC Appendix AD and sets out the technical details for how Users send and receive data from the DCC. All versions, both current and past, of DUIS are contained within the SEC. As a new version is created the old versions remain. This means that at any point in time different Parties can be using different versions of DUIS and therefore that the DCC must maintain each historical version as well as the latest version.

Currently, there are four active versions of DUIS and Schema alongside the supporting Message Mapping Catalogue (MMC) and Schema and Parse and Correlate (P&C) software versions. The introduction of DUIS v3.1 as part of the November 2019 Release will result in a fourth DUIS version. This will likely increase to a fifth version in the November 2020 Release, with the potential for a new version of DUIS to be created every year.

3.2 The Issue

Two main issues were identified at the outset.

Firstly, a number of Users still use DUIS V1 or DUIS V2. Only DUIS V3.0 or later supports both Smart Metering Equipment Technical Specifications (SMETS)1 and SMETS2 meters. Therefore, Users who remain on DUIS versions V1 or V2 will not be able to communicate with SMETS 1 meters. This creates a risk that on a Change of Supplier event a SMETS1 meter could lose some Smart functionality. As a minimum therefore, a managed migration to DUIS V3.0 or later is recommended.

Secondly, Parties are incurring costs because the DCC is obligated to maintain all previous version of DUIS. All DCC Customers incur costs because DCC is obliged to maintain multiple versions of DUIS. These costs manifest themselves within day to day Operations Service Management, and within Testing for any Release as a result of regression test requirements for these older DUIS versions, in order to confirm these previous versions still operate satisfactorily. Given that there are no functionality changes to previous DUIS, Parties have been paying additional costs to support previous versions even though they remain unchanged. However, preliminary impact analysis indicates limited cost savings going forwards due to recent changes in regression testing processes.

A third issue was identified during Working Group discussion – the need to put an enduring business as usual process in place to address routine uplift and retirement of DUIS versions: hence the recommended name change for this SEC Modification proposal – to ‘Managing DUIS uplifts’.

SECMP0080 was raised by the DCC on 06/08/2019 to resolve this issue.

3.3 Business Requirements for this Modification

This section contains the considerations and assumptions for each business requirement as provided by the Proposer and SECAS.

Req.	• Requirement
1	• DUIS will be placed into the TSAT document under the SEC
2	• End dates for DUIS versions within TSAT will be set as part of a relevant modification after consultation
3	• The end dates for DUIS V1 and V2 (i.e. when they will stop being supported) will be 26 November 2021
4	• The end dates for DUIS V3.0 and V3.1 will become TBC on implementation of SECMP0080
5	• Any further changes to DUIS V3.0 or V3.1 end dates will require a separate Modification

Table 1: Business Requirements for SECMP0080

4 Description of Solution

Documentation management and technical changes required by the solution are identified in the following sections.

4.1 Solution Overview

The SECMP0080 solution can be split into two components:

Enduring DUIS governance

Mandating the first managed uplift via this proposed enduring DUIS Governance, e.g. uplift of all DCC Customers to DUIS V3.0 or later.

4.1.1 Enduring DUIS Governance

DUIS will be added to the Technical Specifications Applicability Tables (TSAT). Within TSAT each version of DUIS will have a relevant start and end date applied.

There will be no rule introduced that requires a set lead time for applying end dates to DUIS versions. The start and end dates in TSAT will be based upon industry consultation and the most appropriate dates applied on a case by case basis. It is however noted that Parties expect at least 2 versions of DUIS, for example V3.0 and V3.1, to be supported at any one time.

DUIS can only be amended by a SEC Modification or a BEIS designation (during the transition from BEIS to SECAS oversight). Therefore, if a Modification results in a new version of DUIS, the legal text changes for that Modification will include the required changes to the DUIS versions in TSAT. For example, if MPxxx impacts DUIS and requires a new DUIS version, then the legal text for MPxxx will include redline changes to the start and end dates of the new DUIS version and any previous DUIS versions. Equally any BEIS designation that impacts DUIS will include the required redline changes to the TSAT.

Placing DUIS in TSAT will ensure only relevant version of DUIS remain supported and it is clear to all Parties when there would be a required transition to the latest DUIS version.

4.1.2 Mandating the first managed Uplift to DUIS V3.0 or later

DUIS will be added to the Technical Specification Applicability Tables (TSAT) which will provide relevant information regarding start and end dates. For this Modification, it is proposed to apply the following dates in TSAT for DUIS V1.1 and DUIS V2.0:

DUIS Version	Start Date	End Date
v1.1	01/11/2018	26/11/2021
v2.0	05/06/2018	26/11/2021
v3.0	28/07/2019	<i>To be confirmed (TBC)</i>
v3.1	28/11/2019	<i>To be confirmed (TBC)</i>

These changes would mandate that all Parties are using either DUIS V3.0 or DUIS V3.1 by November 2021 and that both versions 3.0 and 3.1 are supported by the DCC until the dates in the table are amended in the future.

As new versions of DUIS are created in 2020 and 2021, appropriate end dates could be applied for DUIS V3.0 and V3.1 via a SEC Modification Proposal.

In terms of the SEC and subsidiary documents, the following parts of the SEC will be impacted:

- Schedule 11 'TS Applicability Tables' (addition of DUIS into the table),
- When the end date occurs, Appendix AD 'DCC User Interface Specification' (removal of DUIS V1.1 and DUIS V2.0 from the SEC and from the SECAS website.)

4.2 DCC Solution Overview, impact on process and people

No DCC system change will be made on the effective date of removal of DUIS V1.1 and DUIS V2.0 from the SEC. DCC Service Desk will be prepared in order to support any queries from DCC Customers in this regard. DCC will monitor use and may remove an associated DUIS Version web address (URL) once all DCC Customers have ceased using these versions of DUIS. As part of DCC In Life change process, where any forthcoming SEC Release has an associated uplifted version of DUIS in scope, the DCC Release Manager will raise a SEC Modification Proposal for the removal of older historic DUIS version going forwards as part of a business as usual process. As part of this process, DCC Compliance will initiate any required contractual schedule changes (e.g. minor contractual amendment to remove support for a particular DUIS version from the DSP contract).

5 Implementation Timescales and Approach

.For this first implementation, the recommended implementation is November 2021 for the removal of DUIS V1.1 and DUIS V2.0 from the SEC. It is likely there will be a 'grace period' of 4 weeks whilst DCC will monitor use, and once all DCC Customers have ceased use, a small change will be made to remove the DUIS web address associated with DUIS V1.1 and DUIS V2.0.

6 Costs and Charges

As there is no cost associated with this SEC Modification; removal of URLs is projected as very low cost (less than £50K), earliest projected date for these costs to be incurred is January 2022.

7 Risks, Assumptions, Issues, and Dependencies

In the following sections, Risks, Assumptions, Issues, and Dependencies have been identified.

7.1 Risks

Ref.	Area	Description	Accept
MP80-R01		<p>There is a risk that DCC Customers still using DUIS V1.1 and DUIS V2.0 will not plan to implement the uplift in time.</p> <p>In mitigation, SECAS and DCC will work to ensure that all SEC Parties are suitably informed. To note, there is a generous notice period in the lead up time to November 2021, and DCC will ensure communication both with DCC Customers and their Adaptor Providers.</p>	
MP80-R02		<p>There is a risk that, before November 2021, Consumers face the risk of loss of Smart functionality if they switch to a Supplier who is not already using DUIS V3.0.</p> <p>This is beyond the scope of this SEC Modification proposal. DCC would welcome additional action to support/address consumer needs in this regard.</p>	

7.2 Assumptions

Ref.	Area	Description	Accept
MP80-A01		Following changes made to automate regression testing in PIT and SIT, savings gained as a result of removing historic versions of DUIS are modest, circa 1 day in SIT per DUIS version (at most).	
MP 80- A02		Any Customer can 'uplift' to the latest version of DUIS, they do not need to plan to uplift to the next DUIS version. E.g. a Customer on DUIS V1.1 can uplift straight to DUIS V3.1 if they wish.	
MP 80-A03		The proposed Business as Usual process, whereby a SEC Modification Proposal should be raised to retire historic/older versions of DUIS going forwards, can be efficiently and economically processed.	

7.3 Issues

None at this time.

7.4 Dependencies

Ref.	Area	Dependency	Impact
MP80-DD01		DCC will not remove Web Location Address (URL) for DUIS V1.1 and DUIS V2.0 until all DCC Customers have uplifted to DUIS V3.0 or later.	Med

