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MP178

‘Removing DSP validation against the SMI join status for SR8.8.x’

Modification Report

Version 0.9

9 May 2023

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About this document

This document is a Modification Report. It sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions and views.

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This document also has six annexes:

- **Annex A** contains the full responses received to the request for information (RFI).
- **Annex B** contains the business requirements for the solution.
- **Annex C** contains the full Data Communications Company (DCC) Impact Assessment response.
- **Annex D** contains the process flow diagrams relating to this modification.
- **Annex E** contains the full responses received to the Refinement Consultation.
- **Annex F** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.

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1. Summary

This proposal has been raised by David Walsh from the DCC.

Installation and Commissioning (I&C) of Smart Metering Systems (SMS) or exchange of Devices within a SMS are failing due to on-site installers being unable to 'unjoin' Devices.

There are occasions when the initial join is unsuccessful or there was an issue with the Devices being joined, and therefore the engineer will need to unjoin the Devices before attempting to re-join them again. Alternatively, when a Device is being exchanged it needs to be un-joined before the new Device can be joined.

The unjoin request currently requires validation of the initial join. However, where the join has not been processed properly, the unjoin command will fail. When this occurs the only way to complete the I&C process is a manual update of the Smart Metering Inventory (SMI) database. This is completed by the DCC at a cost of £2,000 per update, and this cost is then socialised across SEC Parties in Fixed Charges.

The Proposed Solution will remove the Data Service Provider (DSP) validation of Join status in the SMI when sending an Unjoin Service Request. This will allow the processing of unjoin commands irrespective of the join status held in the SMI.

This modification will impact Suppliers, Other SEC Parties and the DCC. The DCC cost to implement is £40,404. This modification is targeted for the June 2024 SEC Release and is being progressed as a Self-Governance Modification.

2. Issue

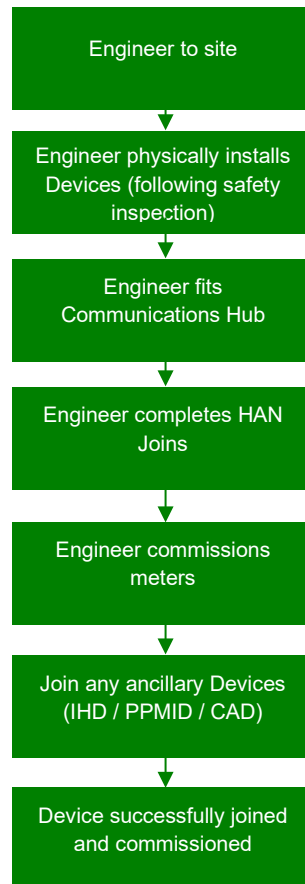
What are the current arrangements?

During the I&C process, an engineer is on site and installs the Devices. Communications Hub Commissioning of the meter is done by the Service User sending a series of Join Commands (Service Reference Variants (SRV) 8.7.x) to connect the meter(s) and any other Devices to the Communications Hub, thereby completing the I&C process.

There are occasions when the initial join is unsuccessful or there was an issue with the Devices being joined, and therefore the engineer will need to unjoin the Devices before attempting to re-join again. Alternatively, when a Device is being exchanged it needs to be un-joined before the new Device can be joined.

An issue has been raised whereby the on-site Device I&C process fails because the DSP does not receive successful messages for SRVs 8.7.x. Because the validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that a Device is joined to the SMI, if this has not completed properly the Service User cannot send an Unjoin command. This results in Devices failing the I&C process. The current 'work-around' is to manually update the SMI database.

The flow diagram below sets out the current step-by-step procedure of the on-site Device I&C process:



What is the issue?

It has been reported by Suppliers that the on-site I&C process for Devices can fail where the DSP does not receive successful messages for joins of SRVs 8.7.x. For example, there may be problems joining a Consumer Access Device (CAD) to Electricity Smart Metering Equipment (ESME).

When this occurs, currently, the only way to complete the I&C process is a manual update of the SMI database, which is completed by the DCC. This is because:

- it is not possible to continue the I&C process by retrying the Join; and/or
- there have been instances where the Device will reject the retry of the Join command (SR8.7.x) if a previous Join was already successfully completed.

Between August 2020 and July 2022 there have been five cases (across different Suppliers) where the response to the SRV 8.7.2 'Join Service (Non-Critical)' is not received by the DSP despite the join working within the ESME. Hence, the Service User is unable to send an Unjoin command as the DSP validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that only Devices joined in the SMI may be un-joined. Although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of the issue occurring where manual correction was not requested.

There are instances where if the Service User sends SRV 8.7.2 again to the ESME then this will pass through the DSP, but it is then rejected at the ESME as it is already joined.

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SEC Schedule 8 'GB Companion Specification' (GBCS) mandates that Devices should accept a re-send of the Service Request (SR) 8.7.x 'Join Service' command, even if the Device is already joined (for example, it is already in the Device Log).

The DSP currently updates the SMI and sets up the join relationship depending on the response to the Join command. As part of the Unjoin command, SRV 8.8.2 validates the SMI join relationship. For example, the system only allows the Unjoin command (SR 8.8.x) if Devices are already joined to each other, otherwise the DSP will reject the Service Request with the following error code:

DCC User Interface Specification Response Codes	
Response Code	Response Code Description
E080801	According to the DCC Systems Smart Metering Inventory the 'Other Device' is not joined to the Business TargetID Device

It should be noted that there are no Smart Metering Technical Specifications (SMETS), GBCS, Security or any other SEC requirement mandating that the DSP must apply such validation other than the detail in the DCC User Interface Specification (DUIS).

What is the impact this is having?

If the issue is not addressed, there will be:

- Further I&C failures; and
- an ongoing cost to manually correct the SMI database to allow Users to reuse any Devices.

Each manual database correction is charged to the DCC at an average of £2,000, which is socialised within Fixed Charges.

Up to July 2022 there have been five known instances, and further incidents are expected. DCC Users have noted there are more instances of the issue occurring where manual correction was not requested, due to cost and extensive length of time required to fix the issue, therefore most DCC Users replace the Device.

Impact on consumers

If the issue is left unresolved, more Devices will not have been commissioned and will therefore not be providing smart functionality and benefits of smart features to consumers.

3. Solution

The Proposed Solution will remove the DSP validation of Join status in the SMI when sending an Unjoin Service Request. This will allow the successful processing of unjoin commands irrespective of the join status held in the SMI. This solution would prevent the Response Code E080801 from being created in association with an unjoin command.

The validation of SRV8.8.1 Unjoin Service (Critical) and SRV8.8.2 Unjoin Service (Non-Critical) in DCC's system will be modified to remove the check that the Device from the SRV is flagged in the SMI as being joined to the target Device of the SRV. Any other validation will remain unchanged.

The change will apply to SMETS1 and SMETS2 Devices, and to all existing DUIS versions which are operation today.

The full redlined changes to the SEC required to deliver the Proposed Solution are in Annex F.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
	Electricity Network Operators		Gas Network Operators
✓	Other SEC Parties	✓	DCC

Breakdown of Other SEC Party types impacted			
✓	Shared Resource Providers	✓	Meter Installers
	Device Manufacturers		Flexibility Providers

Only Suppliers and Other Users can send SRVs 8.8.1 and 8.8.2. Based on the Refinement Consultation responses; one Supplier noted they would be directly impacted; however another Supplier stated that as it is a DSP only change and no adaptor upgrade is needed, they will not be impacted. The Smart Energy Code Administrator and Secretariat (SECAS) believes this modification will impact any Party that sends these Commands as they will not encounter failures due to the join status of the Device, thereby reducing the failures and follow up actions that may be required.

Shared Resource Providers (SRPs) and Meter Installers work on behalf of Suppliers to install and send SRVs during the I&C process, therefore this modification will reduce I&C failures and reduce time on site.

The DCC will need to make system and internal process changes.

DCC System

Security Impact

This change impacts on the conduct of DCC Access Control Broker (ACB) validation checks, de-activating a current check. It does not impact the security posture of the service or its infrastructure, but, as with any change to security related code, its implementation will be security assured by the DCC throughout.

Technical Specifications

The DCC Impact Assessment confirmed that the changes will apply to both SMETS1 and SMETS2 Devices and to all existing versions of DUIS which are in operation today. The removal of this validation check will require a change to the documentation, but the related error code will remain in the DUIS schema. Therefore, this change on its own does not require a DUIS schema uplift. A change will be made to update Annex 8 of DCC User Gateway Interface Design Specification (DUGIDS) to remove the validation check associated with Response Code E080801 from SRVs 8.8.1 and 8.8.2. No updates to the DUIS schema will be made as a result of this documentation change.

The full impacts on DCC Systems and DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex C.

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Appendix AD 'DCC User Interface Specification' (DUIS)

The changes to the SEC required to deliver the Proposed Solution can be found in Annex F.

Technical specification versions

This modification will impact DUIS.

Other documentation

This modification will impact DUGIDS. The Business Architecture Document (BAD) and Business Architecture Model (BAM) will need to be updated following SECAS articulating the as-is and to-be processes in Annex D.

Devices

Devices impacted			
✓	Electricity Smart Metering Equipment	✓	Gas Smart Metering Equipment
	Communications Hubs	✓	Gas Proxy Functions
✓	In-Home Displays	✓	Prepayment Meter Interface Devices
	Standalone Auxiliary Proportional Controllers	✓	Home Area Network Connected Auxiliary Load Control Switches
✓	Consumer Access Devices	✓	Alternative Home Area Network Devices

No Device behaviour will be impacted by this modification. However, DUIS lists that the above Device types are applicable for SRV 8.8.1 and SRV 8.8.2, and therefore will be impacted.

Consumers

Consumers will benefit from this modification. The improved I&C success rate would ensure Devices are able to be commissioned, provide smart functionality and benefits of smart features to consumers.

Other industry Codes

There will be no impact on other Codes from this modification.

Greenhouse gas emissions

There is no impact on greenhouse gas emissions for this modification.

5. Costs

DCC costs

The DCC implementation costs to implement this modification is £40,404. The breakdown of these costs are as follows:

Breakdown of DCC implementation costs	
Activity	Cost
Design, Build and Pre-Integration Testing (PIT)	£39,055
Systems Integration Testing (SIT)	£0
User Integration Testing (UIT)	£0
Implementation to Live	£1,349
Application Support	£0

Any testing executed during SIT would be a repeat of a subset of the testing executed during PIT. Therefore, no SIT execution is proposed for this modification, because there are no changes for DCC Users when not in receipt of the error code, we believe no UIT is needed. An element of regression testing will be carried out as part of the SEC Release that includes this change.

More information can be found in the DCC Impact Assessment response in Annex C.

SECAS costs

The estimated SECAS implementation cost to implement this as a stand-alone modification is one day of effort, amounting to approximately £600. This cost will be reassessed when combining this modification in a scheduled SEC Release. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SEC Party costs

As this modification will reduce the number of failures for an unjoin request, SECAS believes that there will be a reduction in Parties' time and effort spent troubleshooting and retrying commissioning activities. SECAS also believes there will be no additional costs to SEC Parties to facilitate implementation. One Large Supplier Refinement Consultation respondent agreed that they would not incur any costs. However, another Large Supplier respondent stated they were unable to determine they would incur any costs due to this modification.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **27 June 2024** (June 2024 SEC Release) if a decision to approve is received on or before 27 September 2023; or
- **26 June 2025** (June 2025 SEC Release) if a decision to approve is received after 27 September 2023 but on or before 26 September 2024.

During the Refinement Process, Large Suppliers advised that if approved, the modification should be implemented as soon as possible. Parties also indicated that they would not require any lead time to implement this modification. This modification will impact the DUIS. For efficiency, it should be implemented in a scheduled SEC Release along with other DUIS changes, also minimising SEC Party costs. Therefore, the June 2024 SEC Release is the earliest available Release whilst allowing the DCC sufficient time to complete the required build and testing.

7. Assessment of the proposal

Observations on the issue

During the Development Stage, this proposal was presented to the Sub-Committees and had no initial comment, however the Proposed Solution was agreed to be presented to the Technical Architecture and Business Architecture Sub-Committee (TABASC) for comment during the Refinement Process.

SECAS initial investigation

SECAS investigated the issue with the Proposer. The DCC commented that it is difficult to understand why the SRVs do not reach the DSP as the Suppliers are responsible for sending them rather than the DCC or the DSP. The DCC further advised that if the DSP is not aware the SRV has or hasn't been sent, it will be extremely difficult for the DSP to investigate the root cause any further.

The manual database correction costs are socialised within Fixed Charges therefore, implementing the modification would save costs for all Suppliers and Network Parties.

Request for information responses

SECAS received three responses to the RFI (two Large Suppliers and one Other SEC Party). Two of the three respondents stated that the issue impacts their organisation.

The respondent that was not impacted (a Large Supplier) stated that their organisation's orchestration does not rely on the unjoin being successful when removing a Device. This is because the command could be failing because the Device is faulty. They advised that the cost of any Proposed Solution developed should be compared to the number of manual corrections being requested by Users.

The second Large Supplier stated that it was supportive of the need to address the issue but is concerned as to why the DSP is not receiving the keys in the second 8F12 Alert. The DCC stated that this issue is not related to this modification as it involves the Communications Services Providers (CSPs) and their Alert delivery success. The Large Supplier commented that a preferred solution would be to reduce the current £2,000 cost to amend the SMI. This would allow the validation to remain in place. One respondent was not convinced that the cost-benefits to the DCC for the proposed approach will outweigh the security benefits of the current approach. At this time the DCC did not believe there was an increased security risk by removing the validation.

The Other SEC Party commented that successful SR 8.7.2s are not always registered within the DSP systems, which prevents, the subsequent SR 8.8.2 from succeeding. It stated that it is directly impacted when it attempts to add or remove Type 2 In Home Displays (IHDs) or CADs. It felt the need for a SEC modification to address the issue as it results in a negative customer experience as it can take a long time, possibly several weeks, for the SMI to be updated.

Refinement Consultation responses

One respondent to the Refinement Consultation queried the scenario where the Device does not join and the User tries to Unjoin, and if there was no response code. They asked how Users would know if the Device did not join and an Unjoin is attempted. SECAS noted that there will be the same response code returned as when a User sends an Unjoin for a Device that is not currently joined. The respondent also queried why this modification should go ahead as there has only been five occurrences. SECAS noted, although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of the issue occurring, however no manual correction was requested.

Another respondent was supportive of the modification and considered it would be a positive change which will benefit Suppliers during I&C when problems arise with Device joins. The respondent also noted that the issue occurs more frequently than requests for the manual updates to the SMI. This is due to the cost and time spent to update the SMI, therefore there is no statistics on how this occurs, and the Devices are exchanged instead. The Working Group agreed that the frequency of issues with this is recognised as being higher than originally noted in the Modification Report and requested the report be updated to reflect this. If a Device install does stall for this reason, the process to sort it out should be smoother, which will benefit consumers who might otherwise have needed a further visit. It was also noted that this is a DSP only change, so the DSP will stop applying the check and no adaptor upgrade is required.

Solution development

The Proposer advised that there have been multiple requests to manually update the SMI status, which cost £2,000 per request. Removing the unnecessary DSP validation rule would be a low impacting DUIS change that could resolve the issue. The Proposer also confirmed it is only proposing to remove the DSP validation rule for the Service Requests mentioned in the problem statement, not all Service Requests.

Validating the 'Join'

A Requirements Workshop attendee questioned if there was a reason this DSP validation was originally put in place. Attendees could not identify why this DSP validation was in place but agreed it should be removed. The Working Group also queried why the GBCS has no requirement for the validation and why the current DCC implementation requires it. They also highlighted that there is no validation for a join request.

The Working Group was supportive for removing the unjoin validation as it would help with stranded Devices and Device reuse. A Working Group member stated that the tracking in the SMI should remain, as this is used for other business needs within industry. Another Working Group member highlighted that there are alternative ways to check the Device status via a Read Device Log.

The DSP confirmed that the removal of this validation is not something that will cross impact other parts of the DSP solution.

The Preliminary Assessment was presented to the TABASC, who noted that this change would only affect the DSP, with no impact on the CSPs. The TABASC agreed that the Proposed Solution was appropriate and considered that the Modification Proposal should proceed to Impact Assessment.

Is this a DCC defect?

Upon the return of the DCC Impact Assessment, most Working Group members were supportive of this modification going ahead, although one Working Group member queried why this was a modification and not being progressed as a DCC issue (defect). The DCC noted this will be a change of DSP behaviour and not design. The DCC added that within the DCC and past discussions at Working Groups no one knew why it was designed in this way initially. The Working Group agreed that a simple legal text addition was required in DUIS stating that the SMI is no longer checked for a join under SRV 8.8.1 and 8.8.2.

Business Processes

The Proposed Solution was presented to the TABASC, where there was concern about removal of the Response Code E080801 and the impacts on Parties Business Processes. SECAS provided two Process diagrams (refer to Annex D) which were circulated to the TABASC and Parties. The TABASC subsequently advised it does not see any impacts arising from the removal of the Response Code E080801. The Working Group and the Proposer decided to keep the response code but amend to clarify it's no longer used, as this was a cheaper option and would not impact DUIS Schema.

Testing requirements

Upon the return of the DCC Preliminary Assessment, Working Group members queried why there was no SIT or UIT. The DCC advised, for this modification there is no specific SIT or UIT, as there is no system impact. UIT would take place as part of the corresponding SEC Release and Users would be able to take part in that if they want to as usual.

Legal text

Working Group members reviewed and agreed the legal text is suitable.

8. Case for change

Business case

This modification will improve I&C success rates and reduce the number of stranded Devices. This will reduce instances where Devices are unable to be commissioned or provide smart functionality and those benefits of smart features to consumers. This will also save the ongoing cost and effort to manually correct the SMI database to allow Users to reuse any Devices. Those costs are on average £2,000 per manual correction, which is socialised via Fixed Charges, and can take over 12 months for the manual correction to take place.

There have only been five instances recorded and manually corrected by the DCC between August 2020 and July 2022. This low number is likely due to Parties exchanging stranded Devices instead of having them manually corrected by the DCC due to the cost. If this is the case, there is also an environmental impact of exchanging meters to be considered.

As the existing manual database correction costs are socialised within Fixed Charges, implementing the modification would save costs for all Suppliers and Network Parties over time. If 20 manual corrections are made in the SMI then the modification will break even. Considering the number of Devices is expected to double it is likely that will require more than 20 corrections going forward.

Views against the General SEC Objectives

Proposer's views

The Proposer believes that SEC Objective (a)¹ will be better facilitated as there is less likely to have issues on Devices when being commissioned. This will increase the instances of smart functionality and benefits of smart features to consumers.

Industry views

One respondent to the Refinement Consultation agreed with the Proposer's views and felt the modification better facilitated SEC Objective (a). The other respondent was opposed to the

¹ Facilitate the efficient provision, installation, operation and interoperability of smart metering systems at energy consumers' premises within Great Britain.

modification and did not believe that the modification better facilitated any SEC Objectives. The full responses to the Refinement Consultation can be found in Annex E.

Views against the consumer areas

Improved safety and reliability

This modification will be positive in this area, as issues with Devices being able to be commissioned should be reduced. Thereby providing smart functionality and benefits of smart features to more consumers.

Lower bills than would otherwise be the case

This modification will be positive in this area, as the improved I&C success rate would ensure Devices are able to be commissioned, provide smart functionality and benefits of smart features to consumers. Therefore, consumers can monitor their usage to help bring down their energy consumption which will lead to lower bills in the process.

Reduced environmental damage

This modification will be positive in this area, as this would ensure Devices previously unable to be commissioned won't require a site visit or replacement.

Improved quality of service

This modification will be positive in this area, as the improved I&C success rate would ensure more Devices are able to be commissioned, thereby providing smart functionality and benefits of smart features to consumers.

Benefits for society as a whole

This modification will have a neutral impact against this consumer area.

Appendix 1: Progression timetable

Timetable	
Event/Action	Date
Draft Proposal raised	15 Jul 2021
Presented to CSC for initial comment	27 Jul 2021
Problem Statement discussed with Sub-Committees	Aug 2021
RFI issued to industry	Aug 2021
Presented to CSC for final comment and recommendations	28 Sep 2021
Modification placed on hold	Oct 2021 – May 2022

Timetable	
Event/Action	Date
Business requirements developed with Proposer	Jun 2022
Business Requirements discussed with Working Group	3 Aug 2022
Modification discussed with TABASC	1 Sep 2022
DCC Preliminary Assessment requested	23 Sep 2022
DCC Preliminary Assessment returned	21 Oct 2022
Modification discussed with Working Group	2 Nov 2022
Refinement Consultation	8 Nov – 26 Nov 2022
Modification discussed with TABASC	1 Dec 2022
Impact Assessment costs approved by Change Board	21 Dec 2022
Impact Assessment requested	22 Dec 2022
Impact Assessment returned	1 Mar 2023
Modification discussed with Working Group	5 Apr 2023
Modification discussed with Working Group	3 May 2023
<i>Modification Report approved by CSC</i>	<i>16 May 2023</i>
<i>Modification Report Consultation</i>	<i>17 May 2023 – 7 Jun 2023</i>
<i>Change Board Vote</i>	<i>21 Jun 2023</i>
<i>Targeted Release</i>	<i>27 June 2024</i>

Italics denote planned events that could be subject to change

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
ACB	Access Control Broker
BAD	Business Architecture Document
BAM	Business Architecture Model
CAD	Consumer Access Device
CSC	Change Sub-Committee
CSP	Communications Services Provider
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
GBCS	Great Britain Companion Specification

Glossary	
Acronym	Full term
HAN	Home Area Network
I&C	Installation & Commission
IHD	In Home Display
PIT	Pre-Integration Testing
PPMID	Prepayment Meter Interface Device
RFI	Request for information
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specifications
SMI	Smart Metering Inventory
SMS	Smart Metering Systems
SR	Service Request
SRP	Shared Resource Providers
SRV	Service Reference Variant
TABASC	Technical Architecture and Business Architecture Sub-Committee
UIT	User Integration Testing

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DP178 ‘Removing DSP validation against the SMI join status for SR8.8.x’

Annex A

Request for information responses

About this document

This document contains the full collated responses received to the DP178 request for information.

Question 1: Does the issue identified under DP178 ‘Removing DSP validation against the SMI join status for SR8.8.x’ impact you?

Question 1			
Respondent	Category	Response	Rationale
Hildebrand technology Ltd	Other SEC Party	Yes	Successful 8.7.2 is not always registered in the DSP, preventing if required, a subsequent 8.8.2. This affects us directly as a 3rd party adding and removing our type 2 IHD/CADs.
British Gas	Large Supplier	No	Our orchestration does not rely on the unjoin being successful when removing a Device (because the command could be failing because the Device is faulty).
Octopus Energy	Large Supplier	Yes	We are supportive of the need to address the unjoin issue, but are concerned as to why the DSP is not receiving the keys in the 2nd 8F12 alert. It appears that the current volumes affected is small (we can confirm that we have had at least 5 issues). A preferred solution to maintain security protocols would be to investigate why a change to SMI incurs a £2,000 cost to DCC. If this cost was at a more sensible level, we could raise incidents to get this small volume resolved by DSP without the need for this validation change.

Question 2: Does the issue identified under this proposal warrant a modification?

Question 2			
Respondent	Category	Response	Rationale
Hildebrand technology Ltd	Other SEC Party	Yes	Currently there is a very bad experience for the Consumer as it takes weeks to get the DSP to manually update inventory to allow the 8.8.2, an extended support requirements on ourselves.
British Gas	Large Supplier	No	The cost of the modification should be compared to the number of manual corrections being requested by users. £2,000 per correction for a standard database update appears excessive given this is a repeatable update once applied once.
Octopus Energy	Large Supplier	No	This issue does need to be addressed and a solution delivered, but we're not convinced that the cost benefits to the DCC outweigh the security benefits.

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Annex B

Business requirements – version 0.4

About this document

This document contains the business requirements that support the solution for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The DCC will use this information to provide an assessment of the requirements that help shape the complete solution.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	Requirement
1	To remove the Data Service Provider (DSP) validation associated with the unjoin commands (SRV8.8.1 and SRV8.8.2) resulting in Response Code E080801
2	Update the DCC User Interface Specification (DUIS) to align with other Smart Energy Code (SEC) requirements of not mandating DSP validation of unjoin command

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

2.1 General

2.1.1 Background

The secure exchange of data between two Devices on the same Smart Meter Home Area Network (SMHAN) at the application layer requires pair-wise authorisation of the two Devices. The process of authorising two Devices to communicate is referred to as 'Joining' and the removal of the authorisation is referred to as 'Un-joining'. The following Service Reference Variants (SRVs) for joining and un-joining are available to DCC Users:

- 8.7.1 Join Service (Critical)
- 8.7.2 Join Service (Non-Critical)
- 8.8.1 Unjoin Service (Critical)
- 8.8.2 Unjoin Service (Non-Critical)

The DCC evaluates the responses from the Devices and tracks the status of the joining in the Smart Meter Inventory (SMI).

2.1.2 Issue

There have been cases observed where the response to the SRV 8.7.2 'Join Service (Non-Critical)' is not received by the DSP despite the join working within the Electricity Smart Metering Equipment (ESME). As a consequence, the Service User is unable to send an Unjoin command as the business validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that only Devices joined in the SMI may be un-joined.

2.1.3 Proposed solution

This solution aims to remove DSP validation of Join status in the Smart Meter Inventory (SMI) when sending an Unjoin Service Request. This will allow the sending of unjoin commands irrespective of the join status held in the SMI. This solution would suppress the Response Code E080801 from being created in association with an unjoin command.

This modification does not intend to alter current Security elements of the process.

2.2 Requirement 1: To remove the Data Service Provider (DSP) validation associated with the unjoin commands (SRV8.8.1 and SRV8.8.2) resulting in Response Code E080801

Use cases have arisen that would benefit from removing the DSP validation process, which is currently associated with the Unjoin command. The current manual workaround is costly and time consuming to update the SMI to reflect the correct status for each Device. This has led to unsatisfactory Consumer experience and costs.

A part of the Unjoin command, SRV8.8.2 validates the SMI Join relationship. The system only allows the Unjoin command (SRV8.8.x) if Devices are already joined to each other (in the SMI), otherwise the DSP will reject the Service Request with the following error code.

Response Code	Response Code Description
E080801	According to the DCC Systems Smart Metering Inventory the 'Other Device' is not joined to the BusinessTargetID Device

2.3 Requirement 2: Update the DCC User Interface Specification (DUIS) to align with other Smart Energy Code (SEC) requirements of not mandating DSP validation of unjoin command

The second requirement is about the delivery of the first requirement.

It should be noted that there is no Smart Metering Equipment Technical Specifications (SMETS), GB Companion Specification (GBCS), Security or any other SEC requirement mandating that the DSP must apply such validation other than what is defined in the DUIS Section 3.8.111.3 and 3.8.112.3. Therefore, this area of the SEC needs to be updated if this solution is approved.

3. Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
DCC	Data Communications Company
DSP	Data Services Provider
DUIS	DCC Users Interface Specification
GBCS	GB Companion Specification
ESME	Electricity Smart Metering Equipment
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specifications
SMHAN	smart meter Home Area Network
SMI	Smart Metering Inventory
SR	Service Request
SRV	Service Reference Variant

SEC Modification Proposal, SECMP0178, DCC CR4837

Removing DSP Validation against the Smart Metering Inventory (SMI) Join Status for SR8.8.x

Full Impact Assessment (FIA)

Version:

0.2

Date:

1st March, 2023

Author:

DCC

Classification:

Public

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1 Executive Summary

The Change Board are asked to approve:

- Total cost to implement SECMP0178 of £40,404, which comprises:
 - £39,055 in Design, Build and PIT costs
 - £1,349 in release costs (SIT, UIT and Implementation)
- A timescale to complete the implementation of three months
- Include SECMP0178 in the June 2024 SEC Release

Problem Statement and Solution

During the Install and Commissioning (I&C) process, an engineer installs Devices and a Communications Hub (Comms Hub). An engineer will commission an Electricity Smart Metering Equipment (ESME) by sending a series of Join Commands, Service Reference Variants (SRV) 8.7.x for Devices to connect to the Comms Hub, but there may be cases where the response to the SRV 8.7.2 'Join Service (Non-Critical)' is not received by the DSP despite the join working within the ESME. Hence, the Service User is unable to send an Unjoin command as the business validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that only Devices joined in the SMI may be un-joined. In these cases, the engineer will need to unjoin the Devices before attempting to re-join again.

Modification Benefits

The solution will remove DSP validation of Join status in the SMI when sending an Unjoin Service Request, which will allow the sending of unjoin commands irrespective of the join status held in the SMI, and will prevent the Response Code E080801 from being created in association with an unjoin command.

Implementing this solution will reduce the number of I&C failures, and remove ongoing costs to manually correct the SMI database to allow Users to reuse any Devices.

If the issue is left unresolved, more Devices will not be commissioned and will therefore not provide smart functionality and the benefits of smart features to consumers.

2 Document History

2.1 Revision History

Revision Date	Revision	Summary of Changes
28/02/2023	0.1	Initial compilation
01/03/2023	0.2	DCC review completed

2.2 Associated Documents

This document is associated with the following documents:

#	Title and Originator's Reference	Source	Issue Date
1	MP178-Modification-Report-v0.6	SECAS	24/08/2022
2	MP178-Business-Requirements-v0.4	SECAS	24/08/2022
3	SECMP0178 CR4837 - PIA - Remove Validation against SMI join SR8.8.x v0.21	DCC	24/10/2022

2.3 Document Information

The Proposer for this Modification is David Walsh of the Data and Communications Company. The Modification was raised by SEC in July 2021.

The Preliminary Impact Assessment (PIA) was requested of DCC on 3rd October 2022, and published on 21st October 2022.

This FIA was requested by SECAS on 9th January, 2023.

3 Solution Context and Requirements

In this section, the context of the Modification, assumptions, and the requirements are stated.

The problem statement and requirements have been provided by SECAS, the Proposer, and the Working Group.

3.1 Current Arrangements

It has been reported by Suppliers that the on-site Install and Commission (I&C) process for Devices can fail where the DSP does not receive successful messages for joins of SRVs 8.7.x, such as problems joining a Consumer Access Device (CAD) to Electricity Smart Metering Equipment (ESME). When this occurs, currently, the only way to complete the I&C process is a manual update of the Smart Metering Inventory (SMI) because:

- it is not possible to continue the I&C process by retrying the join
- there have been instances where the Device will reject the retry of the Join Command (SRV8.7.x) if a previous join was already successfully completed

3.2 Problem and Context

The secure exchange of data between two Devices on the same Smart Meter Home Area Network (SMHAN) at the application layer requires pair-wise authorisation of the two Devices. The process of authorising two Devices to communicate is referred to as 'Joining' and the removal of the authorisation is referred to as 'Un-joining'. The following SRVs for joining and un-joining are available to DCC Users:

- 8.7.1 Join Service (Critical)
- 8.7.2 Join Service (Non-Critical)
- 8.8.1 Unjoin Service (Critical)
- 8.8.2 Unjoin Service (Non-Critical)

The DCC evaluates the responses from the Devices and tracks the status of the joining in the Smart Meter Inventory (SMI).

An issue has been brought to the DCC's attention whereby the on-site I&C process fails when the Data Service Provider (DSP) does not receive successful messages for joins of Service Reference Variants (SRVs) 8.7.x. This prevents the Service User from being able to send an Unjoin command as the business validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that a Device is joined to the Smart Metering Inventory (SMI) to allow it to be un-joined. For example, there may be problems joining a Consumer Access Device (CAD) to Electricity Smart Metering Equipment (ESME).

In these cases, the only way to complete the I&C process is a manual update of the SMI. This is completed by the DCC at a significant cost per update. This is because:

- it is not possible to continue the I&C process by retrying the Join; and/or
- there have been instances where the Device will reject the retry of the Join command (SR8.7.x) if a previous Join was already successfully completed.

In the 12 months after August 2020 there were four cases (across different Suppliers) where the response to the SRV 8.7.2 'Join Service (Non-Critical)' was not received by the DSP despite the join working within the ESME. Hence, the Service User is unable to send an Unjoin command as the business validation on the SRV 8.8.1 'Unjoin Service (Critical)' or 8.8.2 'Unjoin Service (Non-Critical)' commands check that only Devices joined in the SMI may be un-joined. Note that SRV 8.8.1 is used with Critical commands, while SRV 8.8.2 is used with non-Critical commands.

There are instances where if the Service User sends SR 8.7.2 again to the ESME then this will pass through the DSP, but it is then rejected at the ESME as it is already joined. Smart Energy Code (SEC) Schedule 8 'GB Companion Specification' (GBCS) mandates that Devices should accept a re-send of the SR 8.7.x 'Join Service' command, even if the Device is already joined (for example, it is already in the Device Log).

The DSP currently updates the SMI and sets up the join relationship depending on the response to the Join command. As part of the Unjoin command, SRV 8.8.2 validates the SMI join relationship. For example, the system only allows the Unjoin command (SR 8.8.x) if Devices are already joined to each other, otherwise the DSP will reject the Service Request with the following error code:

Response Code	Response Code Description
E080801	According to the SMI the 'Other Device' is not joined to the Business TargetID Device

There are no Smart Metering Technical Specifications (SMETS), GBCS, Security or any other SEC requirement mandating that the DSP must apply such validation other than what is defined in the DCC User Interface Specification (DUIS).

3.3 Impact of the Issue

If the issue identified under this proposal is not addressed, there will be:

- further I&C failures
- an ongoing cost to manually correct the SMI database to allow Users to reuse any Devices.

Each manual database correction has a significant charge to the DCC and any firmware fixes of meter defects normally take more than 12 months to deploy.

Up to July 2022 there has been five known incidences, and further incidents are expected.

If the issue is left unresolved, more Devices will not have been commissioned and will therefore not provide smart functionality and the benefits of smart features to consumers.

3.4 Business Requirements

The business requirements are as follows.

Requirement 1: Remove the DSP validation associated with the unjoin commands (SRV8.8.1 and SRV8.8.2) resulting in Response Code E080801

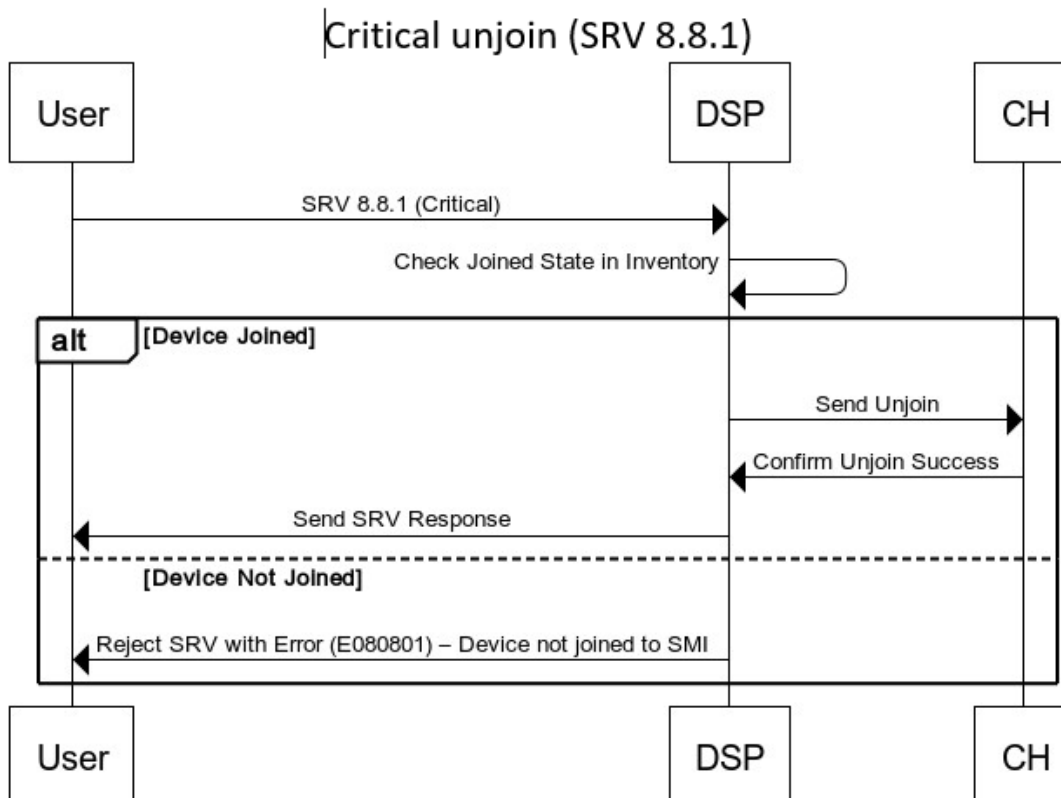
Use cases have arisen that would benefit from removing the DSP validation process, which is currently associated with the Unjoin command. The current manual workaround is costly and time consuming to update the SMI to reflect the correct status for each Device. This has led to unsatisfactory Consumer experience and costs.

A part of the Unjoin command, SRV8.8.2 validates the SMI Join relationship. The system only allows the Unjoin command (SRV8.8.x) if Devices are already joined to each other (in the SMI), otherwise the DSP will reject the Service Request with the error code: E080801.

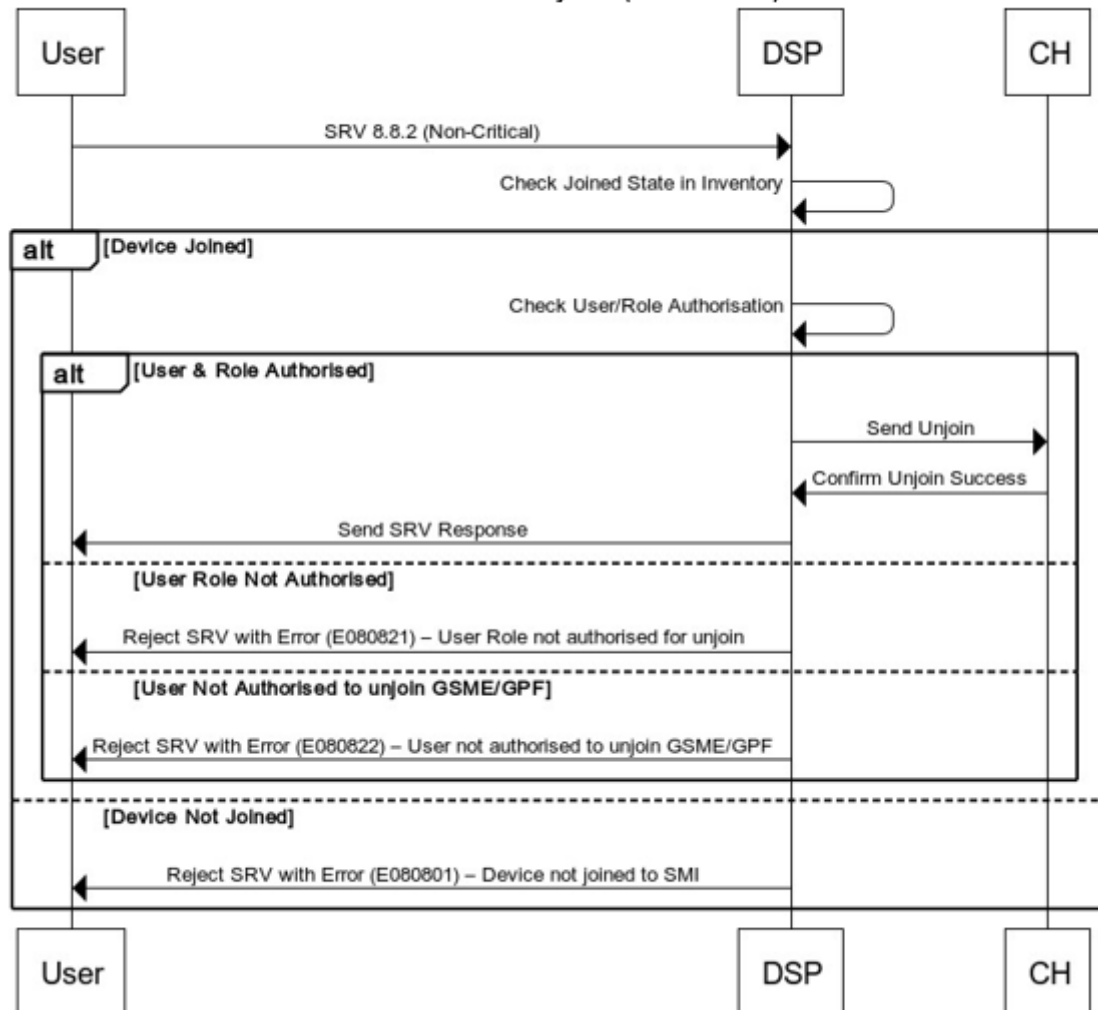
Requirement 2: Update the DCC User Interface Specification (DUIS) to align with other Smart Energy Code (SEC) requirements of not mandating DSP validation of unjoin command

This requirement defines the delivery mechanism.

Process diagrams for the Unjoin commands are shown following.



Non-Critical unjoin (SRV 8.8.2)



4 Solution Overview

DSP will modify the validation of SRV 8.8.1 Unjoin Service (Critical) and SRV 8.8.2 Unjoin Service (Non-Critical) to remove the check that the OtherDeviceID from the SRV is flagged in the SMI as being joined to the target Device of the SRV.

4.1 Functional and Technical Solution Changes

The solution for this Modification requires changes to the following components:

4.1.1 Request Manager

Remove the check that the OtherDeviceID from the SRV is already joined to the target Device of the SRV (subject to feature switch).

4.1.2 Data Management

On processing a successful Unjoin response from the device, the Join record in the database is removed. This removal will be amended to tolerate no record being present to be removed.

4.1.3 DUIS and DUGIDS Technical Specifications

The change will apply to SMETS1 and SMETS2, and to all versions of DUIS. The removal of this validation check will require a change to the documentation, but the related error code will remain in the DUIS schema. Therefore, this change on its own does not require a DUIS schema uplift.

A change will be made to update Annex 8 of DUGIDS to remove the validation check E080801 from SRVs 8.8.1 and 8.8.2. No updates to the DUIS schema will be made a result of this documentation change.

4.1.4 Other Impacted Components

There will be no impacts to:

- Performance
- Infrastructure
- Security, including penetration testing
- Disaster Recovery

5 Testing Considerations

This Full Impact Assessment includes the cost to develop, fully test and deliver this Modification.

5.1 Pre-Integration Testing (PIT)

The DSP PIT team will design and implement the functional updates required to the DSP for the change, and will test to ensure DSP functionality aligns with the solution described in this FIA

PIT testing will include testing both existing updated DSP Use Cases, and new Use Cases development for this change. A series of regression tests will also be run. Once PIT Complete status is achieved, the PIT team will support post PIT activities in the form of technical support and defect fixes to allow DSP to achieve its test exit obligations.

The updates to the DSP system and the timing of the PIT exit will be agreed with the DCC through updates, submission and review of the Solution Design documents.

5.2 System Integration Testing (SIT)

There is no System Integration Testing required, as the change is within a single component within the DCC Total System. A small amount of required System Regression testing will be required which will be covered by a Release CR for the selected SEC Release.

5.3 User Integration Testing (UIT)

A small amount of required System Regression testing will be required which will be covered by a Release CR for the selected SEC Release.

6 Implementation Timescales and Releases

This Modification is expected to be included in a SEC Release in June 2024. Implementation timescales will be finalised as part of the relevant SEC Release.

6.1 Change Lead Times and Timelines

From the date of approval (in accordance with Section D9 of the SEC), to implement Design, Build and PIT requires a lead time of approximately **three months**.

This Modification would be scheduled alongside other Modifications and CRs, and there might be a period of no activity for this Modification.

6.2 SEC Release Allocation and Other Code Impacts

This Modification is expected to be implemented as part of the June 2024 SEC Release, however the allocation to a release may be dependent on other Modification timings and the suitability of a release. No functionality overlap with other Modifications has been identified at the time of undertaking this FIA.

6.3 Costs and Charges

This section indicates the quote for all phases of application development stage for this Modification. Note these costs assume a release of just this SEC Modification without any other Modifications or Change Requests in the release, which is not truly reflective of what the post-PIT test costs or programme duration will look like. A calculation of those costs will be carried out when the contents of the future Release are finalised, and the post-PIT costs determined through a "Release CR" also referred to as a "Post-PIT CR".

£	Design, Build, and PIT	Integration Testing, SIT and UIT	TTO	Total
SECMP0178	£39,055	£0	£1,349	£40,404

Design	The production of detailed System and Service designs to deliver all new requirements.
Build	The development of the designed Systems and Services to create a solution (e.g. code, systems, or products) that can be tested and implemented.
Pre-Integration Testing (PIT)	Each Service Provider tests their own solution to agreed standards in isolation of other Service Providers. This is assured by DCC.
Systems Integration Testing (SIT)	All the Service Provider's PIT-complete solutions for a Release are brought together and tested as an integrated solution, ensuring all SP solutions align and operate as an end-to-end solution.
User Integration Testing (UIT)	Users are provided with an opportunity to run a range of pre-specified tests in relation to the relevant change.
Implementation to Live (TTO)	The solution is implemented into production environments and made ready for use by Users as part of a live service.

6.4 Changes to the Contract

The DSP contract updates will be detailed within the CAN and will impact the following schedules:

- Schedule 2.1 (DCC Requirements): addition of new requirements for this change
- Schedule 4.1 (Contractor Solution): solution design documents
- Schedule 6.1 (Implementation Planning): addition of new milestones
- Schedule 7.1 (Charges and Payment): revisions to incorporate charges and payment

Appendix A: Glossary

The table below provides definitions of the terms used in this document.

Acronym	Definition
BaU, BAU	Business As Usual
CAD	Consumer Access Device
CAN	Contract Amendment Note
Comms Hub	Communications Hub
CR	DCC Change Request
DCC	Data Communications Company
DSP	Data Service Provider
DUGIDS	DCC User Gateway Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FIA	Full Impact Assessment
GBCS	Great Britain Companion Specification
I&C	Install and Commissioning
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
RAID	Risks, Assumptions, Issues, and Dependencies
ROM	Rough Order of Magnitude (cost)
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SLA	Service Level Agreement
SMETS	Smart Metering Equipment Technical Specification
SMHAN	Smart Meter Home Area Network
SMI	Smart Metering Inventory
SR	Service Request
SRV	Service Request Variant
UIT	User Integration Testing

Appendix B: Assumptions

SECMP178-A1	The error code E080801, which is being removed from DUGIDS, will remain in the DUIS schema.
SECMP178-A2	System Regression testing for both SIT and UIT will be covered by the future post-PIT CR for the June 2024 SEC System Release (subject to agreement between the Parties).
SECMP178-A3	There will be no integration testing of the solution in the SIT environments on the basis that these would be a repeat of the testing carried out in PIT, which would not offer value for money for DCC.
SECMP178-A4	There will be no integration testing of the solution in the UIT environments on the basis that these would be a repeat of the testing carried out in PIT, which would not offer value for money for DCC.

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MP178 ‘Removing DSP validation against the SMI join status for SR8.8.x’

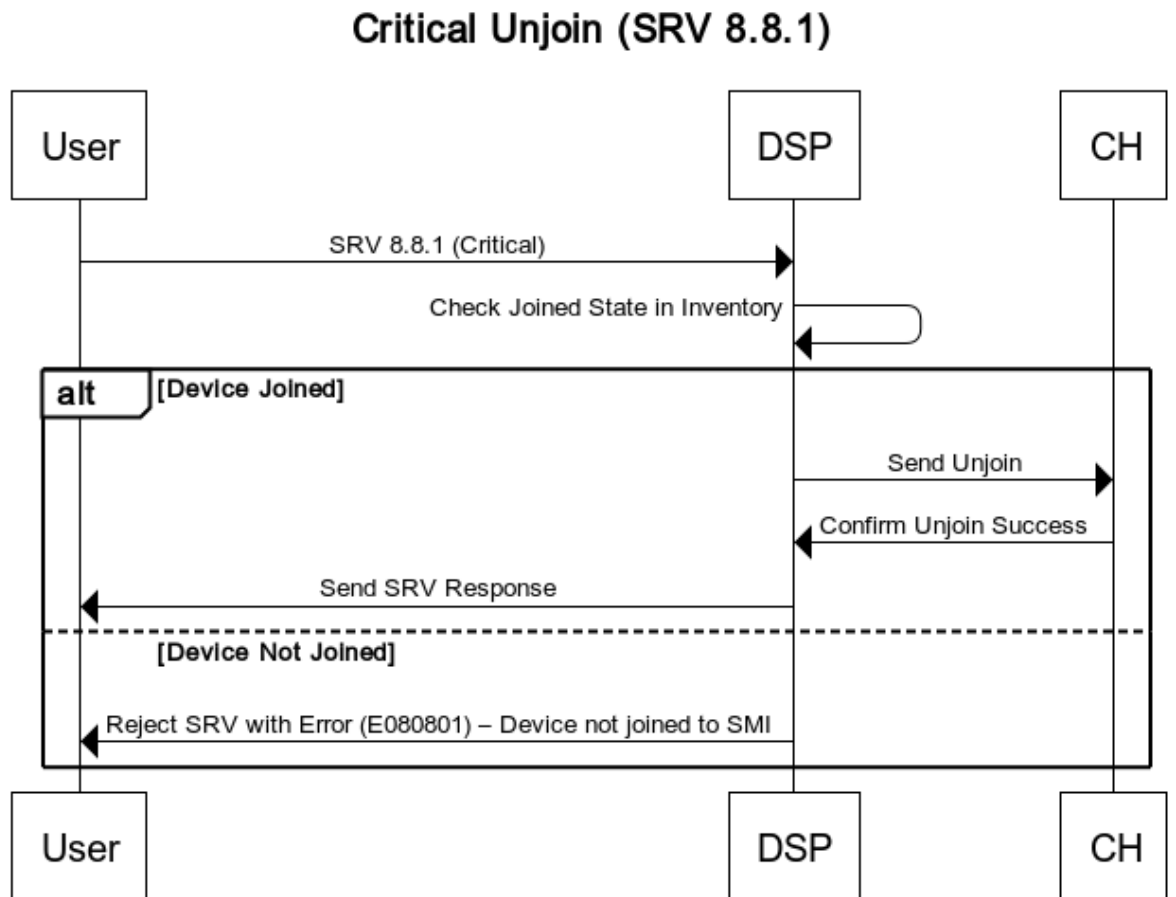
Annex D

Process flow diagrams

About this document

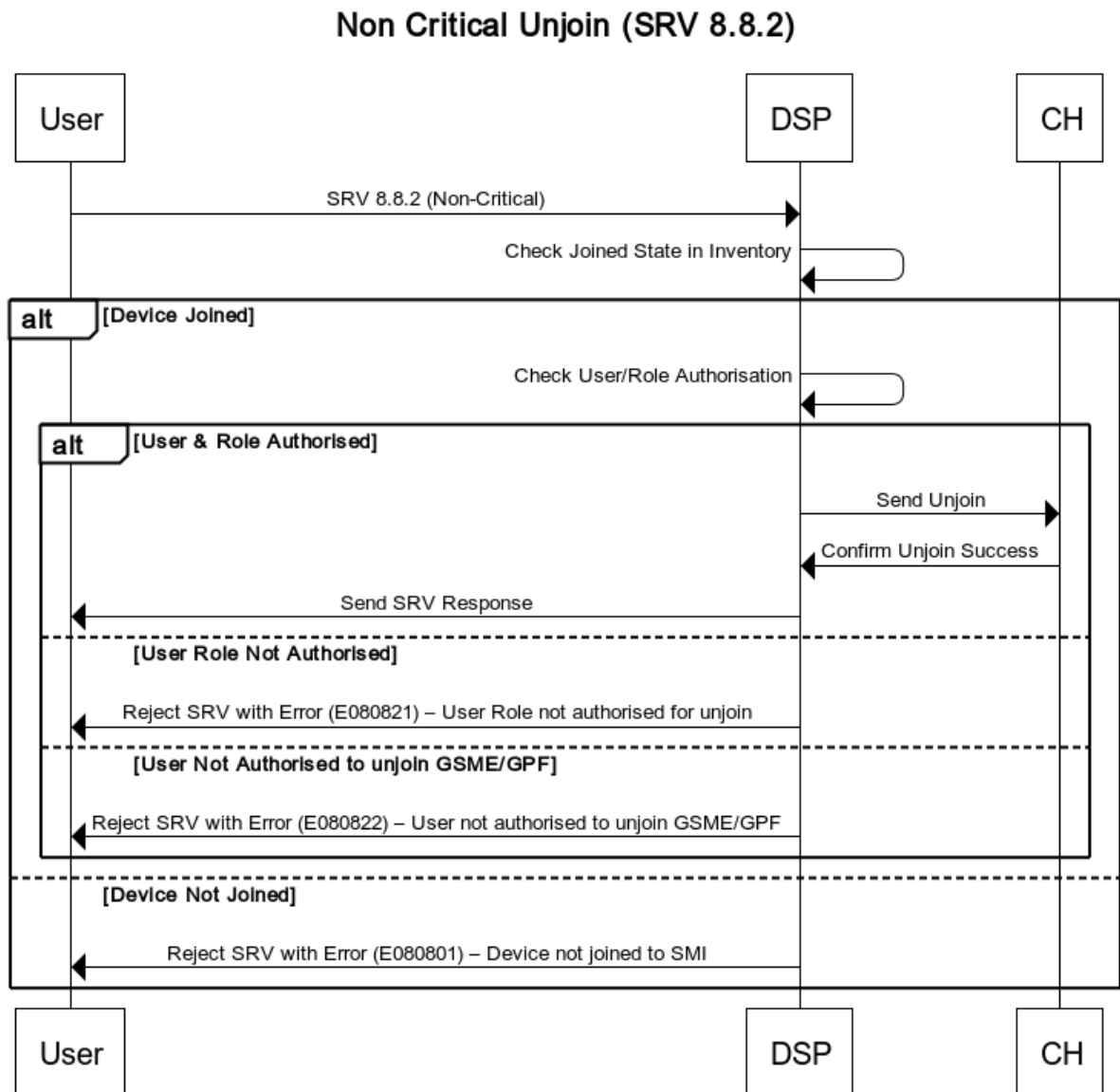
This document contains process flow diagrams relating to this Modification.

Critical Unjoin (SRV 8.8.1)



www.websequencediagrams.com

Non Critical Unjoin (SRV 8.8.2)



www.websequencediagrams.com

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MP178 ‘Removing DSP validation against the SMI join status for SR8.8.x’

Annex E

Refinement Consultation responses

About this document

This document contains the full collated responses received to the MP178 Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	No	Although we have no issues with the validation being removed, we do have concerns around when the join doesn't work. In the description it states that there have been instances where the response to the SRV 8.7.2 'Join Service (Non-Critical)' is not received by the DSP despite the join working within the ESME and the SU is unable to send an Unjoin command as only joined devices can be Unjoined, but what if the device doesn't actually join and the SU tries to Unjoin? Will there be no response code to advise of this? response code to advise of this? There have also only been 5 instances of this occurring.	There will be an error code returned as per the current process when a User sends an Unjoin for a Device that is not currently Joined. Although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of issue occurring, however no manual correction was requested.
British Gas	Large Supplier	Yes	We are supportive of this modification. It's a positive change that will benefit Suppliers during I&C when problems arise with device joins The problems that need this solution are more frequent than originally thought when the Mod was raised.	-

Question 2: Do you agree with the proposed implementation approach?

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	Yes	-	-
British Gas	Large Supplier	Yes	Seems sensible	-

Question 3: Will there be any impact on your organisation to implement MP178?

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	Yes	How will we know if the device didn't join and an Unjoin is attempted?	Same as the current process of when a User sends a Unjoin and the Device is not joined.
British Gas	Large Supplier	No	This is a DSP only change so DSP will stop applying check/logic. No adaptor upgrade is required.	-

Question 4: Will your organisation incur any costs in implementing MP178?

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	-	Unknown	-
British Gas	Large Supplier	No	See above answer to Question 3	-

Question 5: How long from the point of approval would your organisation need to implement MP178?

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	Immediately	.	-
British Gas	Large Supplier	-	None	-

Question 6: Do you believe that MP178 would better facilitate the General SEC Objectives?

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	No	See answer to Q1	-
British Gas	Large Supplier	Yes	We agree with the proposer that this will better facilitate SEC Objective (a).	-

Question 7: Do you believe there will be any impacts on or benefits to consumers if MP178 is implemented?

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	No	The number of occurrences is so minimal.	Although there are only five instances of Users requesting the manual correction by the DCC, Users have noted there are more instances of issue occurring, however no manual correction was requested.
British Gas	Large Supplier	Yes	If an install does stall for this reason, the process to sort it out should be smoother, which will benefit customers who might otherwise have needed a further visit.	-

Question 8: Noting the costs and benefits of this modification, do you believe MP178 should be approved?

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
OVO Energy	Large Supplier	No	The number of occurrences is so minimal we do not believe that the benefit outweighs the cost.	-
British Gas	Large Supplier	Yes	Yes, subject to checking costs (in the Final Impact Assessment), although costs should be reasonable, as it is only a DSP change. The revised solution should be much more workable than originally scoped.	-

Question 9: Please provide any further comments you may have

Question 10			
Respondent	Category	Comments	SECAS Response
OVO Energy	Large Supplier	-	-
British Gas	Large Supplier	We believe from Working Group discussions that the frequency of issues with this is recognised as being higher than originally in the Mod Report. Can the Mod Report be updated to reflect this, as on first reading it seems that the issues are so infrequent that a resolution shouldn't be required.	SECAS has updated the modification report to reflect this.

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MP178 ‘Removing DSP validation against the SMI join status for SR8.8.x’

Annex F

Legal text – version 0.1

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Appendix AD ‘DCC User Interface Specification’

These changes have been redlined against Appendix AD version 5.1.

Amend Clause 3.8.111 as follows:

3.8.111 Unjoin Service (Critical)

3.8.111.1 Service Description

Service Request Name	UnjoinService(Critical)
Service Reference	8.8
Service Reference Variant	8.8.1
Eligible Users	Import Supplier (IS) Gas Supplier (GS)
Security Classification	Critical
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) HAN Connected Auxiliary Load Control Switch (HCALCS)
Can be future dated?	No
On Demand?	Yes
Capable of being DCC Scheduled?	No
Command Variants applicable to this Request (Only one populated)	For Service Request 4 – Transform For Signed Pre-Commands, choice of: 5 – Send (Critical) 6 – Return for local delivery (Critical) 7 – Send and Return for local delivery (Critical)
Common Header Data Items	See clause 3.4.1.1
Data Items Specific to this Service Request	See Specific Data Items Below
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Response to Transform Request - PreCommand Format • Acknowledgement • Service Response (from Device) – GBCSPayload • Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this request
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes

GBCS Cross Reference	Electricity - ESME Unjoin from PPMID - HCALCS Unjoin from ESME	Gas GSME Unjoin from PPMID
GBCS MessageCode	0x000F	0x000F
GBCS Use Case	CS04AC	CS04AC

3.8.111.2 Specific Data Items for this Request

UnjoinServiceCritical Definition

Data Item	Description / Values	Type	Mandatory	Default	Units
OtherDeviceID	Device ID of the Device for which the details have to be removed from the BusinessTargetID Device Log	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A

Table 1 : UnjoinServiceCritical (sr:JoinOrUnjoinDevice) data items

3.8.111.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests and clause 3.10.2 for ‘Other Device’ Existence validation.

Response Code	Response Code Description
E080801	According to the DCC Systems Smart Metering Inventory the ‘Other Device’ is not joined to the BusinessTargetID Device This Response Code is not used. The DCC Systems Smart Meter Inventory is no longer checked for the join status of the ‘Other Device’

Amend Clause 3.8.112 as follows:

3.8.112 Unjoin Service (Non-Critical)

3.8.112.1 Service Description

Service Request Name	UnjoinService(Non-Critical)				
Service Reference	8.8				
Service Reference Variant	8.8.2				
Eligible Users	Import Supplier (IS) Gas Supplier (GS) Other User (OU) (Type 2 CAD Only) 1) The only Devices that Other Users may unjoin are Type 2 Devices that are not IHDs 2) Where a Gas Meter and Gas Proxy Device are to be unjoined, only a Supplier who is a Responsible Supplier for that site may request this Unjoin Service Request				
Security Classification	Non Critical				
BusinessTargetID - Device applicable to this request	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) Gas Proxy Function (GPF) PrePayment Interface Device (PPMID)				
Can be future dated?	No				
On Demand?	Yes				
Capable of being DCC Scheduled?	No				
Command Variants applicable to this Request (Only one populated)	1 – Send (Non-Critical) 2 – Return for local delivery (Non-Critical) 3 – Send and Return for local delivery (Non-Critical)				
Common Header Data Items	See clause 3.4.1.1				
Data Items Specific to this Service Request	See Specific Data Items Below				
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response (from Device) – GBCSPayload - Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this request				
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes				
GBCS Cross Reference	ESME Unjoin from Type 2 Device	GSME Unjoin from GPF	PPMID Unjoin from ESME	PPMID Unjoin from GSME	GPF Unjoin from PPMID or Type 2 Device

Managed by

GBCS MessageCode	0x0010	0x0010	0x000F	0x000F	0x0010
GBCS Use Case	CS04B	CS04B	CS04AC	CS04AC	CS04B

3.8.112.2 Specific Data Items for this Request

UnjoinServiceNonCritical Definition

Data Item	Description / Values	Type	Mandatory	Default	Units
OtherDeviceID	Device ID of the Device for which the details have to be removed from the BusinessTargetID Device Log	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A

Table 2 : UnjoinServiceNonCritical (sr:JoinOrUnjoinDevice) data items

3.8.112.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests and clause 3.10.2 for ‘Other Device’ Existence validation.

Response Code	Response Code Description
E080801	According to the DCC Systems Smart Metering Inventory the ‘Other Device’ is not joined to the BusinessTargetID Device This Response Code is not used. The DCC Systems Smart Meter Inventory is no longer checked for the join status of the ‘Other Device’
E080821	The User Role is not authorised to Unjoin <u>this</u> Device Type
E080822	The User is not authorised to Unjoin these Gas Smart Meter / Gas Proxy Function