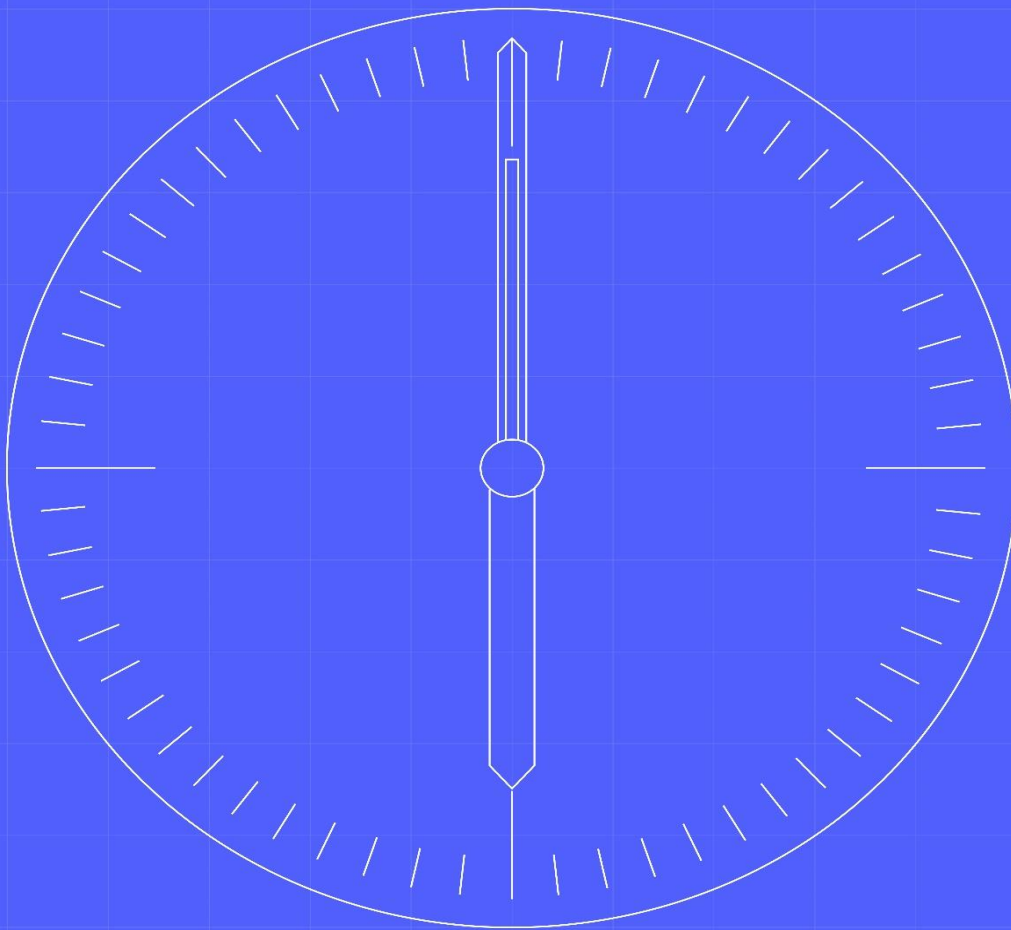


MHHS Design Release Note

Interim Release 5.2

Release Date: 13/12/23



Document owner

Design Team

Status:

Final

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DEL1275

Date

13/12/2023

Version

V1.0

Classification

Public

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1.1 Change Record

Date	Author	Version	Change Detail
04/12/2023	MHHS Design Team	0.1	Initial Draft
13/12/2023	MHHS Design Team	1.0	Final

1.2 Reviewers

Reviewer	Role

2 INTRODUCTION

These are the release notes for Interim Release 5.2 of the MHHS Design.

Use Release Notes to keep up with what's going on. Release notes provide a summary of what's new and what issues have been resolved within the design.

3 OVERVIEW

Interim Release 5.2 is a patch to Interim Release 5.

Improvements:

- Changes to correct Swagger
- Changes to correct E2E001 – End-to-End Solution Architecture
- Changes to correct DES-138 Interface Catalogue

Interim Release 5.2 constitutes updated versions of Swagger, the E2E001 – End-to-End Solution Architecture artefact and the DES-138 Interface Catalogue which have been uplifted to address found misalignments.

The below DINs delivered the changes in Swagger.

- MHHS-DIN-772
- MHHS-DIN-773
- MHHS-DIN-777
- MHHS-DIN-783
- MHHS-DIN-784
- MHHS-DIN-791
- MHHS-DIN-798
- MHHS-DIN-808
- MHHS-DIN-809
- MHHS-DIN-810
- MHHS-DIN-813
- MHHS-DIN-814
- MHHS-DIN-815
- MHHS-DIN-816
- MHHS-DIN-818
- MHHS-DIN-820
- MHHS-DIN-831
- MHHS-DIN-834
- MHHS-DIN-840
- MHHS-DIN-841

Further guidance on the Release.

Versioning:

Interim Releases are NOT a blanket updating of all the design artefacts and models to the next release number. Each Document artefact is separately version controlled and tracked. Interim releases are a collection of updated artefacts which are updated. The version number depends on the last revision of the artefact. Thus, an interim release will

publish and consists of documents at different version numbers. Some documents contain multiple models, interfaces, or report definitions which each have a version number. The artefacts' own document version number may contain different objects at different version numbers depending on the changes made to the artefact.

Versions of design artefacts with tracked changes is available on the Red-Lined Design Artefacts page.

JSON/YAML:

The best online tool we recommend verify the extent of the changes is: <https://www.textcompare.org/yaml/>. Comparing the YAML between versions 1.5 and 1.5.2 are clearly shown.

3.1 Release Feedback

Any queries or feedback on this release or the contents of this release note please contact us via Design@MHHSprogramme.co.uk

4 Impacted Artefacts

The following table contains a list and versions of design artefacts/documents which have been updated.

Artefact	Version Number	Theme	Impact
DES-138 Interface Catalogue	V5.5.4	Meter to Bank, Metering Changes, MPAN Ownership	Interface corrections
E2E001 – End-to-End Solution Architecture	V3.5.1	Supporting Documents	Additional Solution Design Details
MHHSPPROGRAMME-DataCatalogue-1.5.2-domain.json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-DataCatalogue-1.5.2-domain.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-DataTypes-1.5.2-domain.json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-DataTypes-1.5.2-domain.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-Interfaces-EventCodes-1.5.2-domain.json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-Interfaces-EventCodes-1.5.2-domain.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-RealCommonBlocks-1.5.2-domain.json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-RealCommonBlocks-1.5.2-domain.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-SubmitEvents-1.5.2-resolved.json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-SubmitEvents-1.5.2-resolved.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPPROGRAMME-SubmitEvents-1.5.2-swagger.json	V1.5.2	Supporting Documents	Updated Swagger definitions

MHHSPROGRAMME-SubmitEvents-1.5.2-swagger.yaml	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPROGRAMME-Examples-0.3-domain (1).json	V1.5.2	Supporting Documents	Updated Swagger definitions
MHHSPROGRAMME-Examples-0.3-domain (2).yaml	V1.5.2	Supporting Documents	Updated Swagger definitions

5 Resolved Issues

All fixes Design Issue Notifications (DINs) and the Request for Change (RFCs) to MHHS Design since the last release that have been resolved in this release are included in the list below:

DIN/RFC Ref	Description	Status
MHHS-DIN-772	For IF-043 the validation is failing due to the Custom Block. The required property name is 'CustomBlock' but the actual name is 'IF-043-CustomBlock' so Swagger needs to be updated to align to be CustomBlock.	Fixed
MHHS-DIN-773	Swagger for IF-026 for variant IF-026-SSCandProfileClass contains incorrect enumeration for IF-025. This needs to be updated in the list of enumerated value to be IF-026.	Fixed
MHHS-DIN-777	The required fields on the common block are set to commonblock and customblock, they need to be set to S1 etc.	Fixed
MHHS-DIN-783	Schema Bug - DI-487-Total-Number-Energised-MPANS.maxLength should not have a maxLength validation attribute as it is an integer type. This means the schema itself does not validate against the rules for these types of schemas.	Fixed
MHHS-DIN-784	SchemaBug - DipMessage.payload is not a required property; therefore, different property names will pass validation without being checked - this means if you spell it "Payload" with a capital P instead it will effectively skip validation resulting in a false positive.	Fixed
MHHS-DIN-791	Update regex patterns for the following data type: DI-123	Fixed
MHHS-DIN-798	E2E001 Architecture document will be updated to reflect the adherence to case sensitivity on the inbound messages, and the removal of the statement in Swagger relating to case insensitivity.	Fixed
MHHS-DIN-808	IF-007 EnergisationStatusChange/Failure CustomBlocks missing required attribute	Fixed
MHHS-DIN-809	IF-008 EnergisationStatusChange, common block for R0 and CustomBlocks for B025 block missing required attribute	Fixed
MHHS-DIN-810	IF-004 common block M0 required attribute is missing	Fixed
MHHS-DIN-811	IF024 SNVacant CustomBlock required B057 IF024 SNRemoteEnabled CustomBlock required B057, B069 IF024 SNSupplierAC CustomBlock required B057, B058	Fixed
MHHS-DIN-813	There is no customblock on IF-015	Fixed
MHHS-DIN-814	For IF-045 the validation is failing due to the Custom Block. The required property name is 'CustomBlock' but the actual name is 'IF-045-CustomBlock' so Swagger needs to be updated to align to be CustomBlock.	Fixed
MHHS-DIN-815	DI-838-Supplier-Proposed-Consent-Granularity requires a null enum	Fixed
MHHS-DIN-816	IF-001 Custom Block missing additional properties false attribute	Fixed
MHHS-DIN-818	IF-014 should contain a B900 block, not a B900 array. This change was made in IR5 for IF-021 but was only applied to IF-014 in IR6. This DIN is to align with IF-021 for IR5 and ensure that B900 used, not an array of B900's.	Fixed
MHHS-DIN-820	IF-041 contains B06465list that uses anyOf when this should be one of either B064 or B065 to align with DES-138. This needs to be updated so that this list contains wither a B064 list OR B065 list.	Fixed
MHHS-DIN-831	DI-120 was made non nullable in IR5.1 in Swagger. This needs to be corrected so that DI-120 is used in multiple places and needs to be mandatory nullable.	Fixed
MHHS-DIN-834	IF-014 - to align with IF-021: Update DES138 to match swagger	Fixed
MHHS-DIN-840	[MeterUpdate]) to be added to data item B039 heading for IF-006	
MHHS-DIN-841	Routing table to include LDSO for IF-018	Fixed

Refer to additional change information below and the published DIN log for further information on DINs listed.

5.1 Additional Change information

5.1.1 MHHS-DIN-772

Description of change

Update IF-043 so that it uses the required property name of 'CustomBlock' rather than what is currently defined as 'IF-043-CustomBlock'. Swagger has been updated to use CustomBlock.

Please refer to the screenshots below for change:

Before update:

```
7246 # IF 043 - Registration Service Notification of Change in Connection Type
7247 # 25/8/22 ok
7248
7249 IF-043-Payload:
7250   description: IF-043 Registration Service Notification of Change in Connection Type
7251   type: object
7252   additionalProperties:
7253     false
7254   required:
7255     - CommonBlock
7256     - CustomBlock
7257   properties:
7258     CommonBlock: #
7259
7299
7300 IF-043-CustomBlock:
7301   description: IF043 Custom data block
7302   type: object
7303   additionalProperties:
7304     false
7305   required:
7306     - B023
7307   properties:
7308     B023:
7309     $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B023'
7310
```

After update:

```
7249 IF-043-Payload:
7250   description: IF-043 Registration Service Notification of Change in Connection Type
7251   type: object
7252   additionalProperties:
7253     false
7254   required:
7255     - CommonBlock
7256     - CustomBlock
7257   properties:
7258     CommonBlock: #
7259
7299
7300 CustomBlock: # DIN-772
7301   description: IF043 Custom data block
7302   type: object
7303   additionalProperties:
7304     false
7305   required:
7306     - B023
7307   properties:
7308     B023:
7309     $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B023'
7310
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.2 MHHS-DIN-773

Description of change

Swagger for IF-026 for variant IF-026-SSCandProfileClass contains incorrect enumeration for IF-025. This needs to be updated in the list of enumerated value to be IF-026 in Swagger. Please refer to the screenshots below for change:

Before update:

```
4268 IF-026-SSCandProfileClass:
4269   type: object
4270   additionalProperties:
4271     false
4272   required:
4273     - CommonBlock
4274     - CustomBlock
4275   properties:
4276     CommonBlock:
4277       description: MHHS Common Block for IF-026 for SSCandProfileClass
4278       type: object
4279       additionalProperties:
4280         false
4281       required:
4282         - S0
4283         - S1
4284         - M0
4285         - R0
4286       properties:
4287         S0:
4288           description: Sender Header block
4289           type: object
4290           additionalProperties:
4291             false
4292           properties:
4293             interfaceID:
4294               type: string
4295               enum: ['IF-025']
4296             schemaVersion:
4297               description: Version of the message schema used in the exchange
4298               type: string
4299               example: '009'
4300               enum:
4301                 - '009'
4302             eventCode:
4303               type: string
4304               enum:
4305                 - '[SSCandProfileClass]'
4306           required:
4307             - interfaceID
4308             - schemaVersion
4309             - eventCode
```

After update:

```
4270 IF-026-SSCandProfileClass:
4271   type: object
4272   additionalProperties:
4273     false
4274   required:
4275     - CommonBlock
4276     - CustomBlock
4277   properties:
4278     CommonBlock:
4279       description: MHHS Common Block for IF-026 for SSCandProfileClass
4280       type: object
4281       additionalProperties:
4282         false
4283       required:
4284         - S0
4285         - S1
4286         - M0
4287         - R0
4288       properties:
4289         S0:
4290           description: Sender Header block
4291           type: object
4292           additionalProperties:
4293             false
4294           properties:
4295             interfaceID:
4296               type: string
4297               enum: ['IF-026']
4298             schemaVersion:
4299               description: Version of the message schema used in the exchange
4300               type: string
4301               example: '009'
4302               enum:
4303                 - '009'
4304             eventCode:
4305               type: string
4306               enum:
4307                 - '[SSCandProfileClass]'
4308           required:
4309             - interfaceID
4310             - schemaVersion
4311             - eventCode
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.3 MHHS-DIN-777

Description of change

IF-001-ChangeOfSupplier required fields on CommonBlocks are incorrect. The required fields on the common block are set to CommonBlock and CustomBlock, they need to be set to S1 etc. Please refer to the screenshots below for change:

Before update:

```
166 IF-001-ChangeOfSupplier:
167   description: IF001 Message
168   type: object
169   additionalProperties:
170     false
171   required:
172     - CommonBlock
173     - CustomBlock
174   properties:
175     CommonBlock:
176       type: object
177       additionalProperties:
178         false
179       required:
180         - CommonBlock
181         - CustomBlock
182       properties:
183         S0:
184           description: Sender Header block
185           type: object
186           properties:
187             interfaceID:
188               type: string
189               enum: ['IF-001']
190             schemaVersion:
191               description: Version of the message schema used in the exchange
192               type: string
193               example: '009'
194               enum :
195                 - '009'
```

After update:

```
166 IF-001-ChangeOfSupplier:
167   description: IF001 Message
168   type: object
169   additionalProperties:
170     false
171   required:
172     - CommonBlock
173     - CustomBlock
174   properties:
175     CommonBlock:
176       type: object
177       additionalProperties:
178         false
179       required: # DIN-777
180         - S1
181         - A0
182         - M0
183       properties:
184         S0:
185           description: Sender Header block
186           type: object
187           properties:
188             interfaceID:
189               type: string
190               enum: ['IF-001']
191             schemaVersion:
192               description: Version of the message schema used in the exchange
193               type: string
194               example: '009'
195               enum :
196                 - '009'
197             eventCode:
198               type: string
199               enum:
200                 - '[ChangeOfSupplier]'
201             required:
202               - interfaceID
203               - schemaVersion
204               - eventCode
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.4 MHHS-DIN-783

Description of change

DI-487-Total-Number-Energised-MPANS.maxLength should not have a maxLength validation attribute as it is an integer type. This means the schema itself does not validate against the rules for these types of schemas. DI-487-Total-Number-Energised-MPANS.maxLength attribute should be length as it is an integer type. Please refer to the screenshots below for change:

Before update:

```
1654 DI-487-Total-Number-Energised-MPANS:  
1655   description : The Total number of Energised MPANS by Settlement Period.  
1656   type : integer   #DIN-410  
1657   maxLength : 10  
1658
```

After update:

```
1654 DI-487-Total-Number-Energised-MPANS:  
1655   description : The Total number of Energised MPANS by Settlement Period.  
1656   type : integer   #DIN-410, #DIN-748, #DIN-783  
1657   minimum: 0  
1658   maximum: 999999999  
1659
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.5 MHHS-DIN-784

Description of change

DipMessage.payload is not a required property; therefore, different property names will pass validation without being checked - this means if you spell it "Payload" with a capital P instead it will effectively skip validation resulting in a false positive. Therefore 'payload' needs to be a required attribute for the DIPMessage object. Please refer to the screenshots below for change:

Before update:

```
597
598 # Interface defintions found in interfaces file
599
600 DIPMessage:
601   description: DIP message - multiple payloads mapped into single object
602   type: object
603   properties:
604     payload:
605       oneOf:
606         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.5.2#/components/schemas/IF
607         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.5.2#/components/schemas/IF
608         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.5.2#/components/schemas/IF
609         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.5.2#/components/schemas/IF
```

After update:

```
598 # Interface defintions found in interfaces file
599
600 DIPMessage:
601   description: DIP message - multiple payloads mapped into single object
602   type: object
603   required: # DIN-784
604     - payload
605   properties:
606     payload:
607       oneOf:
608         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfac
609         - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfac
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.6 MHHS-DIN-791

Description of change

Added regex patterns for the following data type: DI-123. Please refer to the screenshots below for change:

Before update:

```
880 - DI-123-SSC:
881   description : A legacy classification, retained solely for a subset of Traditional Meters, to
882   to individual Settlement Periods.
883   type : string
884   nullable: true
885   minLength : 4
886   maxLength : 4
887   example : 0123
```

After update:

```
DI-123-SSC:
  description : A legacy classification, retained solely for a subset of Traditional Meters, to assist with the allocation of gross
  consumption to individual Settlement Periods.
  type : string
  minLength : 4
  maxLength : 4
  #DIN-791
  pattern: ^\d{4,4}$
  example : '0123'
```

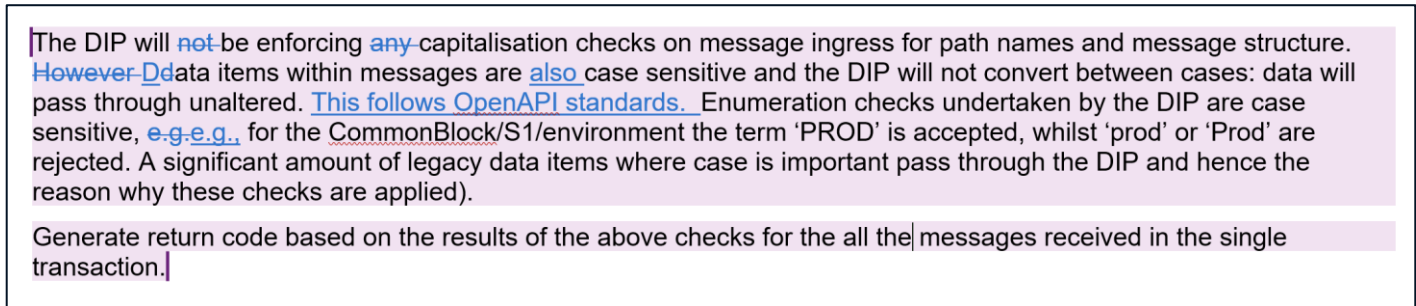
Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.7 MHHS-DIN-798

Description of change

Updated the E2E001 design document to enforce capitalisation checks on the JSON message submitted. The following screenshot shows the changes that have been made to section 4.4.3 of the E2E001 Architecture document.



The following screenshot shows the changes that have been made in Swagger.

```
# MMHS - Data Integration Platform
# SubmitEvents API
#
# ---- update notices -----
# December 2023
# -----
## Version 1.5.2 available for pre-release assessment
##
# October 2023
# -----
# Updates to include changes for interim release 1.5.1
# Changes to implement inconsistencies highlighted by internal audit. NO structural change to
# any objects. Changes to event codes and optionality of properties within objects
#
# September 2023
# -----
# Updates to include changes for interim release 1.5
# - see below for details
#
# August 2023
# -----
# Updates to include changes for interim release 1.4
#
# July 2023
# -----
# Updates to include changes for interim release 1.3
#
# April 2023
# -----
# Version 1.1 is now published and fixed.
# A version 1.2 will be created to pick up the next set of changes.
#
# ---- note on use of upper/lower case -----
# DIP will be enforcing capitalisation validation on JSON field names to align with Open API standards
#
# January 2023
# -----
# After consultation with the DIP SP there has been a significant change to the endpoint definitions for the submission of messages
# Instead of a single endpoint where all messages are submitted, each message interface will be submitted at a different endpoint
# The rationale for this change is primarily from a maintainability point-of-view as it allows maintainence on each interface in isolation from
# other interfaces and allows new message channels to be added without impact existing interfaces.
#
# outstanding work :-
# 1. replace swaggerhub domain with DIP domain name - to do
#
# none of these items affect the data format
#
# any comments please relay to design(@)mhsprogramme.co.uk
#
# Change history
# -----
# Ver   Date       Ref.   Description
# -----
# 1.5.2 30/11/2023  DIN-784  DIPMessage.payload add as a required property
#       30/11/2023  DIN-798  Removal of comment for relaxing capitalisation checks
# 1.5.1 6 Oct 23     Update links to examples 0.3
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR 5 (not yet started).

5.1.8 MHHS-DIN-808

IF-007 EnergisationStatusChange/Failure CustomBlocks missing required attribute for B025 (in variant EnergisationStatusChange) and B040 (in variant EnergisationStatusFailure). Swagger update for inclusion of missing attribute in IF-007. There are two changes for this DIN, please refer to screenshots below:

Before update (change 1):

```
1514 IF-007-EnergisationStatusChange:
1515   description: IF007 Message for Energisation Status Change
1516   type: object
1517   additionalProperties:
1518     false
1519   required:
1520     - CommonBlock
1521     - CustomBlock
1522   properties:
1523     CommonBlock:
1524
1525
1526   CustomBlock:
1527     description: IF007 Custom data block EnergisationStatusFailure
1528     type: object
1529     additionalProperties:
1530       false
1531     properties:
1532       B025:
1533         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B025'
```

After update (change 1):

```
1514 IF-007-EnergisationStatusChange:
1515   description: IF007 Message for Energisation Status Change
1516   type: object
1517   additionalProperties:
1518     false
1519   required:
1520     - CommonBlock
1521     - CustomBlock
1522   properties:
1523     CommonBlock:
1524
1525
1526   CustomBlock:
1527     description: IF007 Custom data block EnergisationStatusFailure
1528     type: object
1529     additionalProperties:
1530       false
1531     required:
1532       - B025 #DIN-808
1533     properties:
1534       B025:
1535         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B025'
```

Before update (change 2):

```
1580 IF-007-EnergisationStatusFailure:
1581   description: IF007 Message for EnergisationStatusFailure
1582   type: object
1583   additionalProperties:
1584     false
1585   required:
1586     - CommonBlock
1587     - CustomBlock
1588   properties:
1589     CommonBlock:
1590
1591
1592   CustomBlock:
1593     description: IF007 Custom data block EnergisationStatusFailure
1594     type: object
1595     additionalProperties:
1596       false
1597     properties:
1598       B040:
1599         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.7#/components/schemas/B040'
```

After update (change 2):

```
1578 IF-007-EnergisationStatusFailure:
1579   description: IF007 Message for EnergisationStatusFailure
1580   type: object
1581   additionalProperties:
1582     false
1583   required:
1584     - CommonBlock
1585     - CustomBlock
1586   properties:
1587     CommonBlock:
1588
1589
1590   CustomBlock:
1591     description: IF007 Custom data block EnergisationStatusFailure
1592     type: object
1593     additionalProperties:
1594       false
1595     required:
1596       - B040 #DIN-808
1597     properties:
1598       B040:
1599         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B040'
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.9 MHHS-DIN-809

Description of change

IF-008 EnergisationStatusChange, common block for R0 and CustomBlocks for B025 block missing required attribute. Swagger update for inclusion of missing attribute in IF-008, please refer to screenshots below for change:

Before update:

```
1642 IF-008-Payload:
1643   description: IF008 - Registration Service Change of Energisation Status Notification
1644   type: object
1645   additionalProperties:
1646     false
1647   required:
1648     - CommonBlock
1649     - CustomBlock
1650   properties:
1651     CommonBlock:
1652       description: MHHS Common Block for IF-008
1653       type: object
1654       additionalProperties:
1655         false
1656       required:
1657         - S0
1658         - S1
1659         - M0
1660       properties:
```

After update:

```
1643 IF-008-Payload:
1644   description: IF008 - Registration Service Change of Energisation Status Notification
1645   type: object
1646   additionalProperties:
1647     false
1648   required:
1649     - CommonBlock
1650     - CustomBlock
1651   properties:
1652     CommonBlock:
1653       description: MHHS Common Block for IF-008
1654       type: object
1655       additionalProperties:
1656         false
1657       required:
1658         - S0
1659         - S1
1660         - M0
1661         - R0 #DIN-809
1662       properties:
1663         B025:
1664           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B025'
1665     CustomBlock:
1666       description: IF008 Custom data block
1667       type: object
1668       additionalProperties:
1669         false
1670       required:
1671         - B025 #DIN-809
1672       properties:
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR 5 (not yet started)

5.1.10 MHHS-DIN-810

Description of change

IF-004 common block M0 required attribute is missing. Swagger update for inclusion of missing attribute in IF-004, please refer to screenshots below for change:

Before update:

```
757 IF-004-Payload:
758   description: IF005 Message
759   type: object
760   additionalProperties:
761     false
762   required:
763     - CommonBlock
764     - CustomBlock
765   properties:
766     CommonBlock:
767       description: MHHS Common Block for IF-004
768       type: object
769       additionalProperties:
770         false
771       required:
772         - S0
773         - S1
774       properties:
775         S0:
776           description: Sender Header block
777           type: object
778           properties:
779             interfaceID:
780               type: string
781               enum: ['IF-004']
782             schemaVersion:
783               description: Version of the message schema used in the exchange
784               type: string
785               example: '009'
786               enum:
787                 - '009'
788             eventCode:
789               type: string
790               enum:
791                 - '[CommsHubInfo]'
792             required:
793               - interfaceID
794               - schemaVersion
795               - eventCode
796         S1:
797           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/S1'
798         A0:
799           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/A0'
800         D0:
801           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/D0'
802         M0:
803           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/M0'
804
805
```

After update:

```
757 IF-004-Payload:
758   description: IF005 Message
759   type: object
760   additionalProperties:
761     false
762   required:
763     - CommonBlock
764     - CustomBlock
765   properties:
766     CommonBlock:
767       description: MHHS Common Block for IF-004
768       type: object
769       additionalProperties:
770         false
771       required:
772         - S0
773         - S1
774         - M0 # DIN-810
775       properties:
776         S0:
777           description: Sender Header block
778           type: object
779           properties:
780             interfaceID:
781               type: string
782               enum: ['IF-004']
783             schemaVersion:
784               description: Version of the message schema used in the exchange
785               type: string
786               example: '009'
787               enum:
788                 - '009'
789             eventCode:
790               type: string
791               enum:
792                 - '[CommsHubInfo]'
793             required:
794               - interfaceID
795               - schemaVersion
796               - eventCode
797
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.11 MHHS-DIN-813

Description of change

IF-015 incorrect required Custom Block. Swagger update for removal of custom block in IF-015, as there is no CustomBlock on IF-015, please refer to screenshots below for change:

Before update:

```
2007
2008 IF-015-Payload:
2009   description: IF-015 Request Historic Consumption Replay (ADV Sites Only)
2010   type: object
2011   additionalProperties:
2012     false
2013   required:
2014     - CommonBlock
2015     - CustomBlock
2016   properties:
2017     CommonBlock:
2018       description: MHHS Common Block for IF-015
2019       type: object
2020       additionalProperties:
2021         false
2022       required:
2023         - CustomBlock
```

After update:

```
2004
2005 # INF 015 - Request Historic Consumption Replay (ADV Sites Only)
2006 # 25/08/22 - ok
2007
2008 IF-015-Payload:
2009   description: IF-015 Request Historic Consumption Replay (ADV Sites Only)
2010   type: object
2011   additionalProperties:
2012     false
2013   required:
2014     - CommonBlock
2015 # DIN-813 - CustomBlock
2016   properties:
2017     CommonBlock:
2018       description: MHHS Common Block for IF-015
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.12 MHHS-DIN-814

Description of change

For IF-045 the validation is failing due to the Custom Block. The required property name is 'CustomBlock' but the actual name is 'IF-045-CustomBlock' so Swagger needs to be updated to align to be CustomBlock. Swagger update for incorrect name of custom block in IF-045, please refer to screenshots below for change:

Before update:

```
7412 IF-045-Payload:
7413   description: IF045 Registration Service Reminder Notification
7414
7415   type: object
7416   additionalProperties:
7417     false
7418   required:
7419     - CommonBlock
7420     - CustomBlock
7421   properties:
7422     CommonBlock:
7464
7465     IF-045-CustomBlock:
7466       description: IF045 Custom data block
7467       type: object
7468       additionalProperties:
7469         false
7470       properties:
7471         B060:
7472           # Registration reminder additional information
7473           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B060'
7474
```

After update:

```
7412 IF-045-Payload:
7413   description: IF045 Registration Service Reminder Notification
7414
7415   type: object
7416   additionalProperties:
7417     false
7418   required:
7419     - CommonBlock
7420     - CustomBlock
7421   properties:
7422     CommonBlock:
7464
7465     CustomBlock: #DIN-814
7466       description: IF045 Custom data block
7467       type: object
7468       additionalProperties:
7469         false
7470       properties:
7471         B060:
7472           # Registration reminder additional information
7473           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B060'
7474
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.13 MHHS-DIN-815

Description of change

DI-838-Supplier-Proposed-Consent-Granularity requires a null value in the enumeration, Swagger update for DI-838 to allow null Enum value, please refer to screenshots below for change:

Before update:

```
2335 DI-838-Supplier-Proposed-Consent-Granularity:
2336   description : Supplier Proposed Domestic Indicator
2337   type : string
2338   nullable: true
2339   maxLength : 1
2340   example : H
2341   enum:
2342     - H # HH Consent Granted
2343     - D # Daily Reads Only
2344     - M # Monthly Reads Only
2345
```

After update:

```
2333 DI-838-Supplier-Proposed-Consent-Granularity:
2334   description : Supplier Proposed Domestic Indicator
2335   type : string
2336   nullable: true
2337   maxLength : 1
2338   example : H
2339   enum:
2340     - H # HH Consent Granted
2341     - D # Daily Reads Only
2342     - M # Monthly Reads Only
2343     - null # - DIN-815
2344
2345
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.14 MHHS-DIN-816

Description of change

IF-001 Custom Block missing “additionalProperties: false” attribute, Swagger update for inclusion of missing attribute in IF-001, this DIN has multiple changes so please refer to screenshots below for change:

Before update (change 1):

```
72 IF-001-InitialRegistration:
73   description: IF001 Message
74   type: object
75   required:
76     - CommonBlock
77     - CustomBlock
78   additionalProperties:
79     false
80   properties:
81     CommonBlock:
121
122     CustomBlock:
123       description: IF001 Custom data block
124       type: object
125       properties:
126         B013:
127           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B013'
128         B002:
129           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B002'
130 #         B003:
131 #         B004:
132 #         B005:
133 #           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B004'
134         B006:
135           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B006'
136         B022:
137           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B022'
138         B023:
139           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B023'
```

After update (change 1):

```
72 IF-001-InitialRegistration:
73   description: IF001 Message
74   type: object
75   required:
76     - CommonBlock
77     - CustomBlock
78   additionalProperties:
79     false
80   properties:
81     CommonBlock:
121
122     CustomBlock:
123       description: IF001 Custom data block
124       type: object
125       additionalProperties: #DIN-816
126       false
127       properties:
128         B013:
129           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B013'
130         B002:
131           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B002'
132 #         B003:
133 #         B004:
```

Before update (change 2):

```
174 IF-001-ChangeOfSupplier:
175   description: IF001 Message
176   type: object
177   additionalProperties:
178     false
179   required:
180     - CommonBlock
181     - CustomBlock
182   properties:
183     CommonBlock:
222
223     CustomBlock:
224       description: IF001 Custom data block
225       type: object
226       properties:
227         B013:
228           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B013'
229         B002:
230           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B002'
231         B003:
232           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B003'
233         B004:
234           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B004'
235         B005:
236           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B005'
```

After update (change 2):

```
176 IF-001-changeOfSupplier:
177   description: IF001 Message
178   type: object
179   additionalProperties:
180     false
181   required:
182     - CommonBlock
183     - CustomBlock
184   properties:
185     CommonBlock:
224
225     CustomBlock:
226       description: IF001 Custom data block
227       type: object
228       additionalProperties: #DIN-816
229       false
230       properties:
231         B013:
232           $ref: 'https://api.swaggerhub.com/domains/MHHSPPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B013'
233         B002:
234           $ref: 'https://api.swaggerhub.com/domains/MHHSPPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B002'
235         B003:
236           $ref: 'https://api.swaggerhub.com/domains/MHHSPPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B003'
237         B004:
238           $ref: 'https://api.swaggerhub.com/domains/MHHSPPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B004'
239         B005:
240           $ref: 'https://api.swaggerhub.com/domains/MHHSPPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B005'
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.15 MHHS-DIN-818

Description of change

IF-014 should contain a B900 block, not a B900 array. This change was made in IR5 for IF-021 but was only applied to IF-014 in IR6. This DIN is to align with IF-021 for IR5 and ensure that B900 used, not an array of B900's. Swagger update to IF-014 to align with IR6 implementation, please refer to the screenshots below for change:

Before update:

```
1933 # INF 014 - Rejected - UTC Settlement Period Consumption Data
1934 # 25/08/66 needs review - is it an array of B900 blocks?
1935
1936 IF-014-Payload:
1937   description: IF-014 Rejected - UTC Settlement Period Consumption Data
1938   type: object
1939   additionalProperties:
1940     false
1941   required:
1942     - CommonBlock
1943     - CustomBlock
1944   properties:
1945     CommonBlock:
1991
1992     CustomBlock:
1993       description: IF014 Custom data block
1994       type: object
1995       additionalProperties:
1996         false
1997       required:
1998         - B044
1999         - B067
2000         - B900List
2001       properties:
2002         B044:
2003           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B044'
2004         B067:
2005           $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B067'
2006         B900List:
2007           type: array
2008           items:
2009             $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B900'
2010
```

After update:

```
CustomBlock:
  description: IF014 Custom data block
  type: object
  additionalProperties:
    false
  required:
    - B044
    - B067
    - B900
  properties:
    B044:
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B044'
    B067:
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B067'
    B900: # DIN-818
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B900'
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.16 MHHS-DIN-820

Description of change

IF-041 contains B06465list that uses anyOf when this should be one of either B064 or B065 to align with DES-138. This needs to be updated so that this list contains either a B064 list OR B065 list, not both/either. Swagger update to align IF-041 to DES-138, please refer to screenshots below for change:

Before update:

```
7187 IF-041-Payload:
7188   description: IF041 Smart/Advanced Readings
7189   type: object
7190   additionalProperties:
7191     false
7192   required:
7193     - CommonBlock
7194     - CustomBlock
7195   properties:
7196     CommonBlock:
7247
7248   CustomBlock:
7249     description: IF041 Custom data block
7250     type: object
7251     additionalProperties:
7252       false
7253     properties:
7254
7255     #properties: # DIN-447 - Updated to be either OR
7256     # B064 or B065 block
7257
7258     B06465list:
7259       anyOf:
7260         #B064list
7261         - type: array
7262           items:
7263             # Conditionally Mandatory
7264             $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B064'
7265         #B065list
7266         - type: array
7267           items:
7268             # Smart Meter Configurable Register Readings (Optional)
7269             $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B065'
7270           maxItems: 48
7271
7272
```

After update:

```
7185 # IF 041 - Cumulative Register Reading
7186
7187 IF-041-Payload:
7188   description: IF041 Smart/Advanced Readings
7189   type: object
7190   additionalProperties:
7191     false
7192   required:
7193     - CommonBlock
7194     - CustomBlock
7195   properties:
7196     CommonBlock:
7247
7248   CustomBlock:
7249     description: IF041 Custom data block
7250     type: object
7251     additionalProperties:
7252       false
7253     properties:
7254
7255     #properties: # DIN-447 - Updated to be either OR
7256     # B064 or B065 block
7257     # DIN-820 remove anyOf pattern - revert to standard message pattern
7258
7259     B064list:
7260       type: array
7261       items:
7262         # Conditionally Mandatory
7263         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B064'
7264
7265     B065list:
7266       type: array
7267       items:
7268         # Smart Meter Configurable Register Readings (Optional)
7269         $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B065'
7270       maxItems: 48
7271
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.17 MHHS-DIN-831

Description of change

DI-120 was made non nullable in IR5.1 in Swagger. This needs to be corrected so that DI-120 is used in multiple places and needs to be mandatory nullable. Make DI-120 Additional Information Mandatory nullable in Swagger to align with DES-138. Please refer to the screenshots below for the change:

Before update:

```
861 DI-120-Additional-Information:
862   description : A free format character string for providing additional details.
863   type : string
864   example: This is an example for additional info
865 # DIN 689 remove      nullable: true
866   maxLength : 2000
867
```

After update:

```
861 DI-120-Additional-Information:
862   description : A free format character string for providing additional details.
863   type : string
864   example: This is an example for additional info
865 # DIN 689 remove      nullable: true
866 # DIN-831 add nullable: true  :-)
867   nullable: true
868   maxLength : 2000
```

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.18 MHHS-DIN-834

Description of change

DES-138 Interface Catalogue updated to not repeat B045 for each MQID in IF-014 so that it aligns with IF-021. Please refer to the screenshot below for the change where row 44 in DES-138 is crossed out '*>B045 Block below Repeated for each MQID as Required.*'

43	DI-016	Connection Type Effective FromDate	The date and time from which the metering point Connection Type is in effect.	LDSO	DT-003	String 25	M	M	
44	>B045 Block below Repeated for each MQID as Required								
45	> B045 - MQID								
46	DI-052	Measurement Quantity ID	Identifies the type of the quantity that is measured by the UTC Period ConsumptionValue.	Data Service		String~2	M	M	

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.19 MHHS-DIN-840

Description of change

DES-138 Interface Catalogue and Swagger updated to include [MeterUpdate] as Optional for B039 in IF-006. Please refer to the screenshots below for the changes.

Before update:

Swagger

```
properties:
  B906: # required
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B906a'

  B030: # optional
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B030'

  B905List: # optional
    type: array
    items:
      #074/075
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.1#/components/schemas/B905'
```

DES-138 Interface Catalogue

54	B039 - Removed Meter Information (Mandatory for Event Type [MeterRemoval], [MeterExchange]; Optional for Event [MeterHistoryUpdate])							
55	DI-053	Meter ID (Removed)	Serial number of the removed physical meter.	Metering Service	DT-029	String 10	M	M
56	DI-058	Meter Removal Date/time	The date when the meter was removed from a metering point.	Metering Service	DT-003N	String 25	M	O

After update:

Swagger

```
properties:
  B906: # required
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B906a'

  B030: # optional
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B030'

  B039: # optional DIN-840 addtion
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B039'

  B905List: # optional
    type: array
    items:
      #074/075
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.5.2#/components/schemas/B905'
```

DES-138 Interface Catalogue

54	B039 - Removed Meter Information (Mandatory for Event Type [MeterRemoval], [MeterExchange]; Optional for Event [MeterHistoryUpdate] & [MeterUpdate])							
55	DI-053	Meter ID (Removed)	Serial number of the removed physical meter.	Metering Service	DT-029	String 10	M	M
56	DI-058	Meter Removal Date/time	The date when the meter was removed from a metering point.	Metering Service	DT-003N	String 25	M	O

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

5.1.20 MHHS-DIN-841

Description of change

The optionality matrix in DES-138 Interface Catalogue shows that LDSOs can additionally receive Event Codes [AddressChg], [GSPChg] and [DUOSTariffIDChg]. The update for this DIN was to add LDSOs to IF-018 secondary routing for these three event codes in DES-138 Interface Catalogue. Please refer to the screenshot below for the change:

Routing Rules	Event Code(s) / Conditions	Always Routing	Primary Routing	Secondary Routing	Correlation ID Created
	[AddressChg]	EES		SUPC, XDSC, XMSC, LDSO	No
	[GSPChg]	MDS, EES		SUPC, XDSC, XMSC, LDSO	No
	[DUOSTariffIDChg]	MDS, EES		SUPC, XDSC, XMSC, LDSO	No
	[DomPremInd]	MDS, EES		SUPC, XDSC, XMSC, LDSO	No
	[EnergyDirection]	MDS, EES		SUPC, XDSC, XMSC, LDSO	No
	[DCCEnrolment]	EES		SUPC	No
	[MUMIndicator]	EES		SUPC, XDSC, XMSC, LDSO	No

Testing Impact

There is no testing impact as these changes relate to SIT functional testing for IR5 (not yet started).

6 Unaffected Artefacts

All the other Interim Release 5 files are unaffected by this Interim Release 5.2 patch.

7 Issues/Limitations

This section describes any known limitations and obstacles to the release and fixes implemented.

Certain artefacts cannot be change marked. Reference will be made to documents which identify where these changes exist within the artefacts. Artefact documents in PDF form will be issued with tracked changes on to highlight where the changes are in the document.

Certain artefacts do not include a version/change history record, change history section have been added in some cases and changes are tagged using comments to provide a reference of DIN changes made to the artefact. Within Excel while all changes are marked, not every cell is tagged with the DIN reference as it was not possible to tag groups of cells with a DIN ref.

Transition Design documents are not currently under design release, change and configuration control at this time.

If there are discrepancies following the Interim Release 5.2 changes in the Swagger/YAML, the DES-138 Interface Catalogue and E2E001 – End-to-End Solution Architecture versions; these are not going to be updated retrospectively for any previous Interim Releases.

8 Past Releases

Details of previous release please refer to the relevant release note for details:

Version Number*	Release Date	Release type
5.0	21/02/2023	Baseline
5.1	14/06/2023	Interim Release 1
5.2	05/07/2023	Interim Release 2
5.3	02/08/2023	Interim Release 3
5.4	30/08/2023	Interim Release 4
5.5	04/10/2023	Interim Release 5
5.2.1	11/10/2023	Interim Release 2.1
5.5.1	17/10/2023	Interim Release 5.1
5.6	01/11/2023	Interim Release 6
5.2.2	11/11/2023	Interim Release 2.2
5.2.3	29/11/2023	Interim Release 2.3

* Various version numbering occurs on different documents for each release for details see previous release notes.