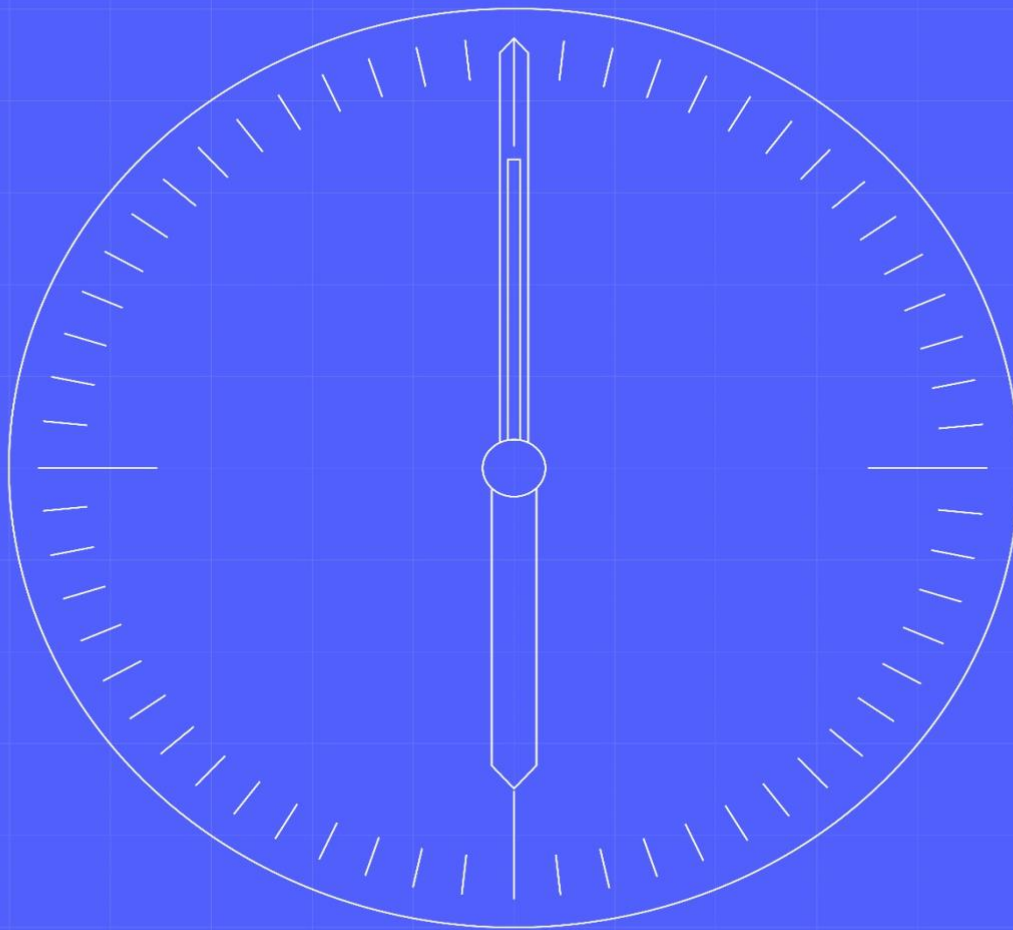


MHHS Design Release Note

Interim Release.06

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Document owner

Design Team

Status:

Final

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V1.0

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Public

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1.1 Change Record

Date	Author	Version	Change Detail
25/10/2023	Berlinda Kugara	0.1	Initial Draft
01/11/2023	MHHS Design Team	1.0	Final Version

1.2 Reviewers

Reviewer	Role

2 INTRODUCTION

These are the release notes for Interim Release 6 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

Here's what's new or updated within **Interim Release 6**

Improvements:

- Changes to align DES138 Data Interface catalogue and the Swagger definitions
- ECS reports (ERI011A & B) have also had several corrections to improve.
- Changes to the EDI021 ISD Entities documents are included in this release.

Fixes:

- Several corrections have been applied for various process models, descriptions and method statement details.

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.

Design Models:

Design Models available on the collaboration are also updated in line with the published artefact models within the release. Design models now support relationship with requirements allowing users to drill from process through to requirements.

JSON/YAML:

JSON and YAML files published for V1.6 are in line with the latest version of the DES138 Data interface catalogue, these files will continue to be aligned with future releases.

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
MHHSP - ERI011A – ECS Reports - Internal	V5.5	Supporting Documents	Data Correction
MHHSP - ERI011B – ECS Reports - External	V5.5	Supporting Documents	Data Correction
MHHSP_EDIO21 - ISD_Entities	V5.4	Supporting Documents	Data Correction
MHHSP-BP002 - Change of Service- Metering Service	V5.4	MPAN Ownership	Process Correction
MHHSP-BP003 - Change of Service - Data Service	V5.5	MPAN Ownership	Process Correction
MHHSP-BP009 - Change of Meter	V5.4	Metering Changes	Process Correction
MHHSP-BRS002-Metering Service requirements	V5.5	Supporting Documents	Requirement Correction
MHHSP-BRS003 - Registration Service requirements	V5.4	Supporting Documents	Requirement Correction
MHHS-DEL961 - Migration Design Document	V1.1	Migration Documents	Requirement Correction
DES138-Interface Catalogue	V5.6.1	Meter to Bank, Metering Changes, MPAN Ownership	Interface corrections
MHHSP-METH004_ UMSDS_EM_Functions	V5.3	Supporting Documents	Statement correction
JSON/YAML files	V1.6	Supporting Documents	Updated Swagger definitions
MHHSPROGRAMME-Examples-0.4-domain.json	V0.4	Supporting Documents	Updated Swagger definitions
MHHSPROGRAMME-Examples-0.4-domain.yaml	V0.4	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-425	Migration Meter Reading	Fixed
MHHS-DIN-500	ISD Entity M17 Example Correction	Fixed
MHHS-DIN-634	Update UMSDS Method Statement with correct comments for Null value	Fixed
MHHS-DIN-678	ISD Entities Updates	Fixed
MHHS-DIN-680	Update to DI-322/DI-323 MHHS data type	Fixed
MHHS-DIN-682	Remove commissioning flows sent to Data Service on BP009	Fixed
MHHS-DIN-701	Clarification on population of IF-036	Fixed
MHHS-DIN-705	Clarify that sending of [IMS-SendMTD] event code on IF-035 should also apply in the case of SEG	Fixed
MHHS-DIN-709	IF-021 and IF-014 custom block differences	Fixed
MHHS-DIN-710	IF-016 requires update to include IF-013 variant	Fixed
MHHS-DIN-711	IF-035 Obsfucation/routing contradiction	Fixed
MHHS-DIN-712	De-appointment and re-appointment date order	Fixed
MHHS-DIN-716	Update to ISD entity 23	Fixed
MHHS-DIN-717	LSS needs to be removed from the obsfucation column in DES138 - IF001	Fixed
MHHS-DIN-721	Control needed with MPID's associated to a metering role	Fixed
MHHS-DIN-726	Data Type/Example errors in ECS reports data catalogue	Fixed
MHHS-DIN-728	DES138 and ECS Reports misalignment	Fixed
MHHS-DIN-729	DI-838 to include null on the enum values	Fixed
MHHS-DIN-730	Update to Company name in Entity 1	Fixed
MHHS-DIN-731	Swagger does not resolve ECS reports	Fixed
MHHS-DIN-732	Routing update on IF-026 not updated	Fixed
MHHS-DIN-733	Update IF-026 Routing for Change of Consent	Fixed
MHHS-DIN-734	Update IF-018 Routing for Dom Premise Indicator	Fixed
MHHS-DIN-735	Remove referene to BP007 as input into BP002 and BP003	Fixed
MHHS-DIN-736	Removing step 36 from BP003	Fixed
MHHS-DIN-738	Update Schema Version Data Item DI-992 Length	Fixed
MHHS-DIN-739	Validation of Supplier DIP ID / MPID for IF-035 [SDS-MDRUpdate]	Fixed
MHHS-DIN-740	IF-018 Routing	Fixed
MHHS-DIN-741	Clarification on end dating MDR functionality	Fixed
MHHS-DIN-743	IF-036 Optionality Update	Fixed
MHHS-DIN-748	Schema Bug - DI-487-Total-Number-Energised-MPANs.maxLength should not have a maxLength validation attribute as it is an integer type. This means	Fixed

	the schema itself does not validate against the rules for these types of schemas.	
MHHS-DIN-749	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

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-680

Description of change

Updated MHHS data types and definitions for DI-322 and DI-323 within the ECS Data catalogue and where it appears in the reports. The Min and Max values have also been updated due to the change in data type. This change has been made in Swagger. Data types have been updated to a String 20(±9.9).

```
# DIN-680 updated DT-026
DT-026-Group-Correction-Factor:
description: Group Correction Factor (Number 9,9) format
type: string
pattern: ^-?\d{1,9}\.\d{9}$
example: 20.123456789
```

5.1.2 MHHS-DIN-684

Description of change

Inclusion of MHHS-REP-003A to the ECS reports. Swagger has been updated to align with ECS reports catalogue with new reports interface REP-003a and associated common block, custom block and data catalogue items as per reports catalogue.

```
# DIN-684
REP-003A-Payload:
  description: Aggregated BM Unit Allocated Demand Volumes to Suppliers
  type: object
  additionalProperties:
    false
  required:
  - CommonBlock
  - CustomBlock
  properties:
    CommonBlock:
      description: MHHS Common Block for REP003
      type: object
      additionalProperties:
        false
      properties:
        S0:
          description: Sender Header block
          type: object
          additionalProperties:
            false
          properties:
            interfaceID:
              type: string
              enum: ['REP-003A']
            schemaVersion:
              description: Version of the message schema used in the exchange
              type: string
              example: '007'
              enum:
                - '007'
            eventCode:
              type: string
              enum:
                - '[AggregatedBMUnitAllocatedDemandVolumes]'
```

```
# REP003A - Aggregated BM Unit Allocated Demand Volumes to Suppliers
REP-003A-CustomBlock:
  description: REP003 Custom data block
  type: object
  additionalProperties:
    false
  properties:
    R013:
      # GSP Group
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R013'
    R007:
      # Settlement Run Execution
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R007'
    R002:
      # Settlement Run Info
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R002'
    R103:
      # Settlement Period Duration
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R103'
    R015List:
      description: Supplier(s)
      type: array
      items:
        $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R015'
    R024List:
      description: GSP Group correction factors
      type: array
      items:
        $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/R024'
```

5.1.3 MHHS-DIN-709

Description of change

Aligned IF-014 to IF-021 so that multiple B045 blocks are not allowed.

```
$ref: 'https://api.swaggerhub.com/domains/MHHS/PROGRAMME/RealCommonBlocks/1.6#/components/schemas/B067'
B900:
# DIN-709 updated from a list to a single item to match IF-021 interface
$ref: 'https://api.swaggerhub.com/domains/MHHS/PROGRAMME/RealCommonBlocks/1.6#/components/schemas/B900'
```

5.1.4 MHHS-DIN-710

Description of change

At present in DES-138 only the IF-021/14 variants are described in the IF-016 data, this needs to be extended to include the IF-013 variant. This change has been to be reflected in the Swagger. Added validation rules and response codes to IF-015 to be included in IF-016.

```
# INF 016 - UTC Settlement Period Consumption Data - REPLAY
# DIN-710
IF-016-Payload:
  description: IF-016 UTC Settlement Period Consumption Data - REPLAY
  oneOf:
    - $ref: '#/components/schemas/IF-016-ActivePower'
    - $ref: '#/components/schemas/IF-016-ReactivePower'
    - $ref: '#/components/schemas/IF-016-ActivePowerRejected'
    - $ref: '#/components/schemas/IF-016-ActivePowerDefaulted'
    - $ref: '#/components/schemas/IF-016-ConsumptionRequestRejected'

IF-016-ActivePower:
  description: IF-016 replay of IF-021 UTC Settlement Period Consumption Data
  type: object
  additionalProperties:
    false
  required:
    - CommonBlock
    - CustomBlock
  properties:
    CommonBlock:
      description: MHHS Common Block for IF-016 Active Power
      type: object
      additionalProperties:
        false
      required:
        - S0
        - S1
        - S2
        - M0
        - R1
      properties:
        S0:
          description: Sender Header block
          type: object
```

5.1.5 MHHS-DIN-729

Description of change

Updated Swagger DI-838 to ensure that null is a value in the enumerated list given this is a mandatory nullable field so that this now aligns to DES-138.

```
DI-838-Supplier-Proposed-Consent-Granularity:
  description : Supplier Proposed Domestic Indicator
  type : string
  nullable: true
  maxLength : 1
  example : H
  enum:
    - H # HH Consent Granted
    - D # Daily Reads Only
    - M # Monthly Reads Only
    - null # DIN-729 need to add null
```

5.1.6 MHHS-DIN-731

Description of change

Added a schema property to each ECS payload that defines the structure of the corresponding report. This will be an optional item, hence not populated, however it will present the resolved structure of the report. This screenshot below is an example to show one of the changes.

```
CustomBlock:
  description: MHHS Common Block for REP002, report adopts REP-002-CustomBlock format
  type: object
  additionalProperties:
    false
  required:
    - P03
  properties:
    P03:
      $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/RealCommonBlocks/1.6#/components/schemas/P03'
  schema:
    $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/ECS-Reports/1.6#/components/schemas/REP-002-CustomBlock'
# DIN-731 Add schema block to describe the format of the report in the compressed payload - not populated in actual message
```

5.1.7 MHHS-DIN-748

Description of change

DI-487-Total-Number-Energised-MPANS maxLength attribute should be length as it is an integer type.

```
DI-488-Total-Number-De-Energised-MPANS:
  description : The Total number of De-Energised MPANS by Settlement Period.
  type : integer
  minimum: 0 #DIN-748
  maximum: 999999999
```

5.1.8 MHHS-DIN-749

Description of change

'payload' needs to be a required attribute for the DIPMessage object

```
DIPMessage:
  description: DIP message - multiple payloads mapped into single object
  type: object
#DIN-749 - Add payload to the required
  required:
    - payload
  properties:
    payload:
      oneOf:
        - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.6#/components/schemas/IF-001-Payload'
        - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.6#/components/schemas/IF-002-Payload'
        - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.6#/components/schemas/IF-003-Payload'
        - $ref: 'https://api.swaggerhub.com/domains/MHHSPROGRAMME/Interfaces-EventCodes/1.6#/components/schemas/IF-004-Payload'
```

6 Unaffected Artefacts

The following table contains a list and latest version of design artefacts/documents which are under change control and have NOT been updated in this release.

Ref	Artefact	Version Number
MHHSP-BP001	Change of Supplier	5.1
MHHSP-BP003A	CSS and DCC Update	5.00
MHHSP-BP003B	Change of Existing Service Appointment Details	5.00
MHHSP -BP003C	Transfer of Reads - Change of Data Service	5.1
MHHSP-BP004	Data Collection	5.1
MHHSP-BP005	Data Processing	5.1
MHHSP-BP007	Disconnection	5.2
MHHSP-BP008	Change of Energisation	5.1
MHHSP-BP010	Change of Registration Data	5.4
MHHSP-BP011	Change of ConType andor Mkt Segment	5.4
MHHSP-BP013	Demand Disconnection Events	5.1
MHHSP-BP016	Consumption Amendment	5.00
MHHSP-BP018	Load Shaping Service (ECS)	5.00
MHHSP-BP019	Market-wide Data Service (ECS)	5.1
MHHSP-BP020	Volume Allocation Service (ECS)	5.1
MHHSP-BP021	Industry Standing Data (ECS)	5.1
MHHSP-BPD001	Change of Supplier	5.00
MHHSP-BPD002	Change Of Metering Service	5.2
MHHSP-BPD003	Change Of Data Service	5.1
MHHSP-BPD003A	CSS and DCC updates	5.00
MHHSP-BPD003B	Change of Existing Service Appointment Details	5.00
MHHSP-BPD003C	Transfer of Reads COS_CODS	5.1
MHHSP-BPD004	Data Collection	5.00

MHHSP-BPD005	Data Processing	5.00
MHHSP-BPD007	Disconnection	5.2
MHHSP-BPD008	Change of Energisation Status	5.00
MHHSP-BPD009	Change of Metering	5.3
MHHSP-BPD010	Change of Registration Data	5.2
MHHSP-BPD011	Change of Con Type or Market Segment	5.2
MHHSP-BPD013	Demand Disconnection Events	5.1
MHHSP-BPD016	Consumption Amendment	5.00
MHHSP-BPD018	Load Shaping Service (ECS)	5.00
MHHSP-BPD019	Market-wide Data Service (ECS)	5.1
MHHSP-BPD020	Volume Allocation Service Business Process Descriptions	5.1.1
MHHSP-BPD021	Industry Standing Data Business Process Descriptions	5.1
MHHSP-BRS001	Data Service Requirements	5.4
MHHSP-BRS004	Supplier Overview	5.2
MHHSP-BRS005	LDSO Overview	5.2
MHHSP-BRS006	EES & SDEP Requirements	5.00
MHHSP-BRS007	Load Shaping Service Requirements (ECS)	5.00
MHHSP-BRS008	Market-wide Data Service Requirements (ECS)	5.00
MHHSP-BRS009	Volume Allocation Service Requirements (ECS)	5.00
MHHSP-BRS010	Industry Standing Data Requirements (ECS)	5.00
MHHSP-BRS012	Annual Consumption Requirements	5.00
MHHSP-BRS013	Demand Disconnection Events Requirements (ECS)	5.00
MHHSP-BRS014	ECS Registration Data Archive Requirements	5.00
MHHSP-METH001	SDS_Validation_Estimation	5.2
MHHSP-METH002	ADS_Validation_Estimation	5.3
MHHSP-METH005	LSS Method Statement	5.00
MHHSP-METH006	VAS Method Statement	5.2
MHHSP-METH007	MDS_Method_Statement	5.2
MHHSP-METH008	DDE Method Statement	5.00
MHHSP-METH009	UMSO Method Statement	5.1
MHHSP-METH010	Annual Consumption	5.2
MHHSP-EM021	ISD Entity Map	5.00
MHHSP-DES052	Logical Data Model	5.00
MHHSP-DES203	Traceability Matrix	5.1
MHHSP-DES229	IF005_UseCaseGuide	1.3
MHHS-E2E002	End to End Non Functional Requirements	3.01

MHHSP-DIP001	DIP Functional Specification	2.30
MHHS-DEL396		
MHHSP-DIP002	DIP Non Functional Requirements	2.20
MHHSP-DIP-003	End to End Security Architecture	1.20
MHHSP-DIP-004	Cyber Security Connection Guidance	3.00
MHHSP-DIP-005	End to End Security Requirements	1.4
MHHSP-DIP-005	End to End Security Requirements - excel version	1.4
MHHS-DIP094	Interface Code of Connection - DRAFT word document	0.2
MHHS-DES141	FFIEC Cyber risk assessment tool - Excel spreadsheet	3.4
MHHS-DES001a	Functional Specification - Transaction Volumes - Appendix A	0.20
MHHSP-DES196	D-flow and Interface Mapping	1.1
MHHS-DEL974	Migration Design Requirements Log	1.0
MHHS-DEL962	BPM-001 - Change Of Supply - Forward Migration	1.0
MHHS-DEL963	BPM-002 - Change of Service - Metering Service - Forward Migration	1.2
MHHS-DEL964	BPM-003 - Change of Service - Data Service - Forward Migration	1.3
MHHS-DEL968	BPD001 - Change of Supply (Forward Migration)	1.0
MHHS-DEL969	BPD002 - Change of Service - Metering Service (Forward Migration)	1.2
MHHS-DEL970	BPD003 - Change of Service - Data Service (Forward Migration)	1.1
MHHS-DEL965	BPM-001 - Change Of Supply - Reverse Migration	1.0
MHHS-DEL966	BPM-002 - Change of Service - Metering Service - Reverse Migration	1.0
MHHS-DEL967	BPM-003 - Change of Service - Data Service - Reverse Migration	1.0
MHHS-DEL971	BPD001 - Change Of Supply - Reverse Migration	1.0
MHHS-DEL972	BPD002 - Change Of Metering Service - Reverse Migration	1.0
MHHS-DEL973	BPD003 - Change Of Data Service - Reverse Migration	1.0
MHHS-E2E001	End-to-End Solution Architecture	3.5
MHHSP_OPC001	Operational Choreography	5.3

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.

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

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