MHHS – IF015-016 Design Note
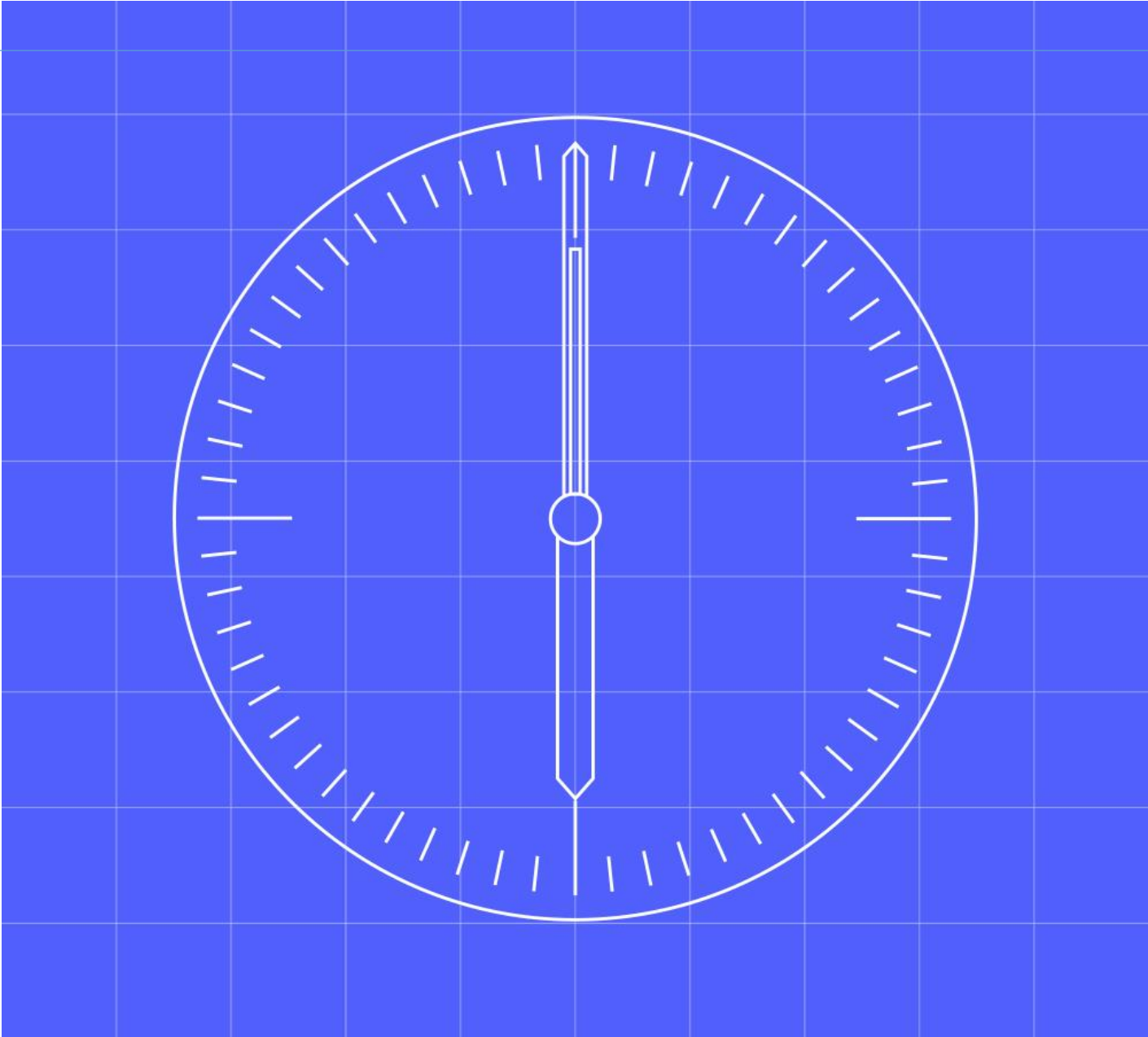
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1 Contents

1.1 Change Record

Date	Author	Version	Change Detail
17 October 2023	RG	0.1	First draft
19 October 2023	RG/MF	0.2	Updates after internal review

1.2 Reviewers

Reviewer	Role
MHHS Programme	SRO
Avanade	DIP SP

1.3 References

Document/Link	Publisher	Published	Additional Information
MMHS-DES138 Interface Catalogue	MHHS	V5.1	

1.4 Terminology

Term	Description
ARP	Advanced Retrieval and Processing Service
AWG	Architectural Working Group
BSCCo	Balancing and Settlement Code Company (Elexon Limited)
COS	Change of Supplier
DEV	Development
DIP	Data Integration Platform
DIPSP	DIP Service Provider
DCC	Data Communications Company
DNO	Distribution Network Operator
DPIA	Data Protection Impact Assessment
DTN	Data Transfer Network
DTS	Data Transfer Service
DWG	Design Working Group
ECOES	Electricity Central Online Enquiry Service
ESO	Enduring Service Owner, i.e. the party with overall responsibility for the DIP
EDA	Event-Driven Architecture
HHR	Half Hour
HHS	Half-Hourly Settlement
HTTP	Hypertext Transfer Protocol
iDNO	Independent Distribution Network Operator
ISD	Industry Standing Data
JSON	JavaScript Object Notation
LDSO	Licensed Distribution System Operator
LSS	Load Shaping Service
MDR	Meter Data Retrieval Service
MDS	Market-wide Data Service
MHHS	Market-Wide Half-Hourly Settlement
MPAN	Metering Point Administration Number
MRS	Meter Reading Service
MSA	Metering Service (Advanced)
MSS	Metering Service (Smart)
mTLS	Mutual Transport Layer Security
obo	On Behalf Of

PRE-PROD	Pre Production
PROD	Production
PSS	Processing Service (Smart)
RECCo	Retail Energy Code Company (Retail Energy Code Limited)
RFP	Request for Proposal
SD	Settlement Day
SDS	Smart Data Services
SIT	System Integration Test
REGS	Registration Service
SP	Settlement Period
SUP	Supplier
SUR	Sender Unique Reference
SVA	Supplier Volume Allocation
SWIKI	Switching Public Key infrastructure
TLS	Transport Layer Security
TOM	Target Operating Model
UIT	User Integration Test
UMDS	Unmetered Supplies Data Service
UMSO	Unmetered Supplies Operator Service
VAS	Volume Allocation Service

2 Introduction

2.1 Objective & Context

The objective of this document is provide an understanding of how the IF-015 & IF-016 Interfaces will work. A separate design note is required as these interfaces do not act in the standard pattern of message exchange, they provide a bespoke query/response type of pattern.

2.2 Assumptions

All consumption related messages processed in the last 90 days will be replayed. Participants should note occurrences where event codes [ActivePower]/[ReactivePower] are accompanied by a revised [ActivePower]/[ReactivePower] event and/or related rejection/ default events based on the timestamps within the S2 section of the message, in order to derive the correct consumption history. It is the responsibility of the message recipient to ensure that the messages are sequenced in the correct order, i.e. to ensure later amendments overwrite earlier submissions, and they cannot rely on the order in which the data is written over the interface to establish the correct history.
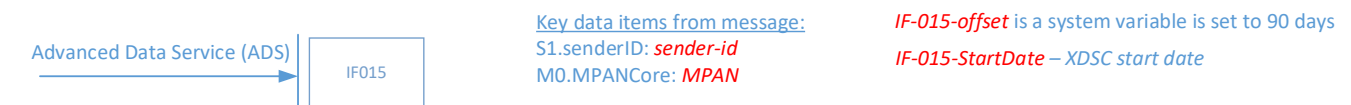
2.3 Principles

None.

3 High Level Design

3.1 Background – IF015- IF-016 Interface

An IF015 message will be sent by a Market Participants with the Advanced Data Service (ADS) role. This message is a request for messages previously sent for the MPAN in question on the IF-021, IF-013 & IF-014 message channels to be relayed back to the requesting party.

The MPAN requested is specified in the M0.MPANCore block of the originating message. The DIP will check that the MPAN is known and that the Sender [CommonBlock.S1.senderDIPID] is the currently appointed Data Service (ADS) for the MPAN (i.e. considered as secondary addressing lookup). See DES138 Interface Catalogue v5.6.1for the format of the incoming IF-015 message.

Assuming that the SenderID matches the currently active Data Service (XDSC) in the secondary routing table for the given MPAN, then the Start Date of that record should be used as the reference point for the period (IF-015-StartDate).

Advanced Data Service (ADS) → IF015

Key data items from message:
S1.senderID: *sender-id*
M0.MPANCore: *MPAN*

IF-015-offset is a system variable is set to 90 days
IF-015-StartDate – XDSC start date

- Retrieve messages from the IF-021 archive, IF-014 Archive & IF-013 Archive where:

IF-021
- MPAN = *MPAN*
- IF-021-Payload/CustomBlock/B900/settlementDayConsumptionPeriods[]/settlementDay/settlementDayDate > *IF-015-StartDate – IF-015-offset*
- *All Event Codes: [ActivePower][ReactivePower]*

IF-014
- IF-014-Payload/CustomBlock/B920List/settlementDayConsumptionPeriods[]/settlementDay/settlementDayDate > *IF-015-StartDate – IF-015-offset*
- *Event code [ActivePowerRejected] only*

IF-013
- IF-013-Payload/CustomBlock/B920List/settlementDayConsumptionPeriods[]/settlementDay/settlementDayDate > *IF-015-StartDate – IF-015-offset*
- *Event Code: [ActivePowerDefaulted]*

Successful Request:

Where the request is successful the DIP will then update the contents of the original messages (CommonBlock) as follows:

S0	Interface ID	*IF-016*
	Schema Version	*Per current schema version*
	Event Code	*As per original [IF-021/IF-014/IF-013] message*
S1	[All]	*As per original [IF-015] message*
S2	[All]	*As per original S1 block on [IF-021/IF-014/IF-013] message*
A0	Primary Recipients	Only SenderId (S1.senderDIPID) from the originating IF-015 request message is required
	Always, Secondary Recipients	Not used
D0	Transaction ID	*As per original [IF-021/IF-14/IF-013] message*
	Transaction Timestamp	*As per original [IF-021/IF-14/IF-013] message*
	Publication ID	**PUB-016**
	DIP Correlation ID	Populated with sender correlation id from IF-015 (S1.senderCorrelationID)
	Replay Indicator	*False*

	Service Ticket URL	In context with the message
R1	Response Code	'A'
	Response Message	MSG0000 – Request successful
		MSG0000 – Request successful, however, only *X* days data in archive
M0	[All]	As per original IF-015 message (all retrieved messages will have the same MPAN)

The original Custom Blocks from the messages retrieved from archive remain unaltered.

Note, if a full 90 Days of MPAN consumption data are not available (i.e MPAN was only created or migrated less than 90 days ago) then all available data should be sent and the response message shall indicate that the entire period cannot be sent.

The full definition of the PUB-016 message is documented in DES-138 Interface Catalogue v5.6.1

The messages will be sent out on the IF-016 channel, hence the MP will require a corresponding webhook configured on the IF-016 interface in order to receive the messages.

Unsuccessful request

At present two error conditions are recognised and both would result in the request being rejected and the response block would inform the reason for the rejection:

S0	Interface ID	*IF-016*
	Schema Version	*Current version*
	Event Code	*[RequestRejected]*
S1	[All]	*As per the orginal IF-015 request message*
A0	Primary Recipients	Only SenderId from the originating IF-015 request message is required
	Always, Secondary Recipients	Not used
D0	Transaction ID	*As per the IF-015 request*
	Transaction Timestamp	*As per the IF-015 request*
	Publication ID	**PUB-016**
	DIP Correlation ID	Populated with sender correlation id from IF-015
	Replay Indicator	*False*
	Service Ticket URL	In context with the message
R1	Response Code	'R'
	Response Message	MSG1040 – Not currently appointed
		MSG1041 – MPAN not known
M0	[All]	As per original IF-015 message