MHHSP – Business Process – Version History
MHHSP-BPM011- Change of Connection Type and /or Market Segment

Version	Description	Author	Date
0.01	First draft based on AWG Consultation Documentation	MHHS Programme	23/09/2021
1.00	Issued for Working Group Review	MHHS Programme	20/06/2022
3.00	Issued for T4 Review	MHHS Programme	05/08/22
3.5	Issued for Industry Review	MHHS Design Team	14/10/22
4.0	Baselined DAG Approval	MHHS Design Team	31/10/22
4.5	issued for M5 Work Off Plan assurance review	MHHS Design Team	16/12/22
4.6	issued for M5 Work Off Plan approval	MHHS Design Team	20/01/23
5.0	DAG Baseline	MHHS Design Team	16/02/23
5.1	MHHS-DIN-65	MHHS Design Team	31/03/23
5.2	MHHS-DIN-83	MHHS Design Team	11/05/23
5.3	MHHS-DIN-383	MHHS Design Team	04/07/23
5.4	MHHS-DIN-579	MHHS Design Team	14/09/23

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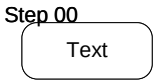
MHHSP – Business Process - Key

Item	Description
	Process
	Task
	Decision gateway
	Initiate multiple steps
	Collapsed sub-process
	Message
	Start BPM
	End BPM
	Sequence flow
	Message flow

MHHSP-BP011A – Change of Connection Type and/or Market Segment - OVERVIEW DIAGRAM – v5.2

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Business Process Description
This BPMN diagram describes an overview of the End-to-End process for a Change of Connection Type & Market Segment. For a detailed description of each step in the BPM, please refer to the accompanying Business Process Descriptions [BPD] document for this Business Process.

Actors
Supplier
Registration Service
Data Integration Platform
Data Service Existing/Old (SDS, ADS)
Metering Service Existing/Old (MSS, MSA)
LDSO
Central Settlement

MHHS Interfaces
IF-031 – Supplier Service Appointment Request
IF-032 – Registration Response to Service Appointment Request
IF-033 – Registration Request for Service Appointment
IF-034 – Service Provider Response to Appointment Request
IF-035 – Registration Service Appointment Status Notification
IF-036 – Registration Service Notification of Service Appointment & Supporting Info
IF-037 – Notification of De-Appointment
IF-005 - Metering Service MTD Updates to Registration
IF-006 - Registration Service Notification of MTD Updates
IF-043 – Notification of Change of Connection Type

Publication List
PUB-031 – Supplier Service Appointment Request
PUB-032 – Registration Response to Service Appointment Request
PUB-033 – Registration Request for Service Appointment
PUB-034 – Service Provider Response to Appointment Request
PUB-035 – Registration Service Appointment Status Notification
PUB-036 – Registration Service Notification of Service Appointment & Supporting Info
PUB-037 – Notification of De-Appointment
PUB-005 - Metering Service MTD Updates to Registration
PUB-006 - Registration Service Notification of MTD Updates
PUB-043 – Notification of Change of Connection Type

BPM included as part of the process
MHHS-BP002- Change of Agent-Metering Services
MHHS-BP003- Change of Agent- Data Service
MHHS-BP009- Change of Meter

BPM Entry
N/A

Exit BPM
MHHS-BP011B – Change of Connection Type / Market Segment Re-Evaluation

Supplier
LDSO
Registrations Service
Data Integration Platform
Metering Service (NEW)
Metering Service (OLD)
Data Service (NEW)
Data Service (OLD)
Central Settlements

Determine Work & Agree Target Work Date
Put in place New Service Providers
Update Connection Type (if required) & Process New Meter Details
Process Meter Exchange
Conclude Service Provider Appointment

Step 10 Agree Work Required & Proposed Work Date with Required Parties
Change of Segment Only (Whole Current)
Change of Connection Type Required
Step 15 Request Change of Meter with Proposed MS
Step 20 'Target' Date Agreed
Email / Telephone
Email / Telephone
Step 25 Agree Add / Remove / Upgrade CT
Supplier-MS Formal Confirmation Via bilaterally agreed mechanism
D0142 OR Agreed Mechanism
D0002/D0221 OR Agreed Mechanism

Step 35 Trigger SP Appointment(s) for Target Wk. Date
Validation Rules would need to be updated to Allow Proposed Appointment to bypass Metering Checks if Appointment Type is 'SEG'
IF-031
Step 75 Validate Initial SP Appointment Request(s)
PUB-032
Step 80 Issue Initial SP Appointment Request Response(s)
Step 95 Issue Request SP Proposed Appointment Validation
PUB-0031
IF-032
IF-033
Step 70 Publish Initial Appointment Request(s)
Step 85 Publish Initial SP Appointment Reponse(s)
Step 100 Publish Proposed SP Appointment Validation Request(s)
PUB-033
IF-034
Step 105 Manage MS Proposed Appointment Validation Request
Step 110 Respond to MS Proposed Appointment Request
Step 50 Manage Work Request
Step 65 Accept or Reject Work Request
NOTE:
1. Metering Service would validate Supplier Contract & Metering Serviceability. Responding with Acceptance or Rejection.
2. PUB-033 will provide details of all Linked MPANs & associated metering
3. Metering Service should be aware Acceptance will result in the transfer of *ALL* Linked Export and/or Related MPANs
4. Where appointment scenario is 'SEG' Metering Service may wish to check for the existence of an agreed work requiest prior to accepting the appointment.

Step 90 Manage SP Appointment Response(s)
Step 150 Determine Processing Treatment
Request Accepted
ALL
All Responses
Non-Smart Accepted (MS)
Step 140 Manage SP Prospective Appointment Response
Step 155 Issue MS Prospective Appointment Notification to Existing MS
Step 200 Issue SP Prospective Appointment Outcomes
PUB-034
IF-035 (Traditional & Advanced Only) NOT REQUIRED FOR SEG
IF-035
Step 130 Publish Proposed SP Appointment Validation Responses
Step 160 Publish Prospective Appointment to Incumbent MS
Step 195 Publish Prospective Appointment Outcome Responses
PUB-035
Step 211 Manage Appointment Response
Step 210 Manage Appointment Response

NOTE: LDSO Update should take place as speedily as possible following completion of the work on-site
Step 205 ACTION Physical Connection Type Change
Step 220 Update Registration
Step 215 Manage Connection Type Change
D802 or agreed communication method
IF-043
Step 225 Issue Connection Type Change
Step 226 Change of Connection Type
Step 230 Publish Connection Type Change Notification
PUB-043
Step 290 Manage Connection Type Change

Note: It is of particular importance in cases of 'Change of Connection Type' / 'Change of Segment' that the Supplier monitors to ensure that the expected updates are submitted by the Incoming Metering Service and/ or LDSO in a timely fashion, and follows up if these flows are not received
Validation Rules would need to be updated to Allow Incoming MS to update MTDs if there is a 'Prospective App' for Metering Service with reason 'SEG'
Step 240 Meter Change Validation
Accept
Rejected
IF-006
PUB-005
Step 245 Publish Metering Change Request from MS
IF-005
Step 185 Issue Meter Exchange Details
Step 180 ADV Only Issue D268 & Meter Read(s) (As Required)
Step 260 Publish Metering Change Request from MS
PUB-006
Step 270 Manage Rejection of Metering Update Rejection
Step 265 Publish Metering Change Request from MS
Step 275 Receive Confirmation of Metering Update
Step 190 ACTION METER EXCHANGE
Step 250 Update Metering Information
Step 251 Re-Evaluate Market Segment
Step 295 Manage Metering Information Update
IF-006
PUB-006

Retro/ Same Day
Retro/Same Day
Step 300 Hold in Appointment Queue
WAIT for CSS Daily Batch
Prospective Queue processing amended so as to 'skip' Lapsing of 'SEG' appointments for +[3] Working Days after Prospective Appointment Start Date to allow for Connection Type and/or MEX update
Step 310 CSS Secured Notification
Step 305 Review & Re-Validate Prospective Appointment(s)
All Outcomes
CONFIRMED APPOINTMENT
LAPSED / VOID
IF037
Step 315 Issue MS De-Appointment Notification
Re-Evaluate Market Segment
Step 314
Step 365 Issue MS Prospective Appointment Outcome Responses
Step 360 Notify Prospective Appointment as Effective
IF-036
Lapsed / Rejection Not Shown here for simplicity. But would update 'Supplier' & Incoming MS and/or DS – if appointment were to Lapse/be rejected.
PUB-036
PUB-037
Step 320 Receive Appointment Notification & MTDs
Step 330 Manage MTD Discrepancies if required
Step 325 Receive MTDs
Step 335 Issue MTDs via DTN
Step 370 Agent Appointment Confirmation & MTDs

Step 280 Receive Meter Exchange MTDs & Readings
Step 281 Receive Meter Exchange MTDs & Readings
Step 285 Receive Meter Exchange MTDs & Readings
Step 340 De-Appointment Notification
Step 350 De-Appointment Notification
BP003C Transfer of Reads
D268 (D149/D150)
Step 345 Receive MTDs
Step 355 Receive Appointment Notification & MTDs

Note – Change of Service Provider(s)
This diagram, assumes that as part of the Change of Connection Type / Segment process a Change of Service Provider(s) is also required. However, it should be noted that there will be some circumstances – upgrades/downgrades within the Advanced Segment – where a change in Service Provider(s) is not always necessary.
In these cases obviously the Change of Service Provider elements of this diagram will not be required. However, the "Change of Connection Type" and "Meter Exchange" elements will remain and will drive assessment of whether a valid "ConnectionType – MeterType - Segment" combination exists, which will in turn drive Supplier Notification(s).

Notes – Arrangement of Work
* It is anticipated that the Supplier will liaise with interested parties (LDSO, Metering Service, Customer) to agree the nature of works and determine an agreed "Target Work Date". This will then be formally confirmed between the parties.
* There are several options available for formally agreeing work/date, between the Supplier and Metering Service. For example, E-Mail, MS Portal, D0142/ D002.
* As above, mechanism for agreeing work with the LDSO will be determined by each LDSO (E-Mail, Web Portal, etc.).
* In instances where work is scheduled, by a Supplier, for an 'anticipated' SSD – it is that Supplier's responsibility to inform interested parties (i.e. Cancel the work) where ownership of the supply is not 'secured'.

Note – Diagram Purpose
For the avoidance of doubt this diagram, is seeking to describe one possible way in which the BP002/3, BP011B, BP009 processes work in parallel to realise a successful Change of Connection Type / Segment.
Different types of Change of Connection / Segment will involve different execution paths of each of the processes referenced above.
Not all elements of these processes are shown here.

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MHHSP-BP011-B – Change of Connection Type & Manage Market Segment Re-Evaluation – v5.3

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Business Process Description
This BPMN diagram describes the 'Change of Connection Type' & Re-Evaluation of Market Segment Business Processes. For a detailed description of each step in the BPM, please refer to the accompanying Business Process Descriptions [BPD] document for this Business Process.

Actors
Supplier
Registration Service
Data Integration Platform
Data Service Existing/Old (SDS, ADS, UMSDS)
Metering Service Existing/Old (MSS, MSA, UMSO)
Central Settlements
EES

MHHS Interfaces
IF-043 – Notification of Change of Connection Type
IF-044 – Notification of Change in Market Segment
IF-045 – Notification of Invalid or No SP's Appointed

Publication List
PUB-043 – Notification of Change of Connection Type
PUB-044 – Notification of Change in Market Segment
PUB-045 – Notification of Invalid or No SP's Appointed

BPM included as part of the process
MHHS-BP002 – Change of Service Provider – Metering Service
MHHS-BP003 – Change of Service Provider – Data Service

BPM Entry
MHHS-BP009- Change of Meter
MHHS-BP010 – Change of Registrations Data

Exit BPM
MHHS-BP011C -Registration Service Monitoring & Notification Processes

Change of Connection Type

Market Segment Re-Evaluation

Supplier
LDSO
Data Integration Platform
Registration Service
Metering Service (Appointed)
Metering Service (Prospective)
Data Service (Appointed)
Data Service (Prospective)
Central Settlements
EES

Step 10 Determine that Change of Connection Type is Required
Change of Connection
Step 20 Engage with LDSO to agree change
Step 30 Agree Nature of Works & Target Work Date
Step 40 'Target' Work Date Agreed
New Serv. Prov. Required
Step 41 Appoint Service Provider(s)
Exiting Serv. Prov. Compatible
Step 42
Step 70 Re-Arrange Target Work Date
Work Failed to Complete Sucessfully
Step 60 COMPLETE ON SITE WORKS
NOTE: LDSO Update should take place as soon as possible (max 3wd) following completion of the work on-site
Works Completed Sucessfully
All Types
Advanced Only
Step 80 Issue Commissioning D-Flows
Step 85 Update Registration

Note: It is of particular importance in cases of 'Change of Connection Type' / 'Change of Segment' that the Supplier monitors to ensure that the expected updates are submitted by the Incoming Metering Service and/or LDSO in a timely fashion

Step 120 Manage Change of Connection Type Notification
PUB-043
Step 580 Manage Change of Segment
Step 650 Notification of Service De-Appointment
PUB-044
PUB-037

Step 545 Manage Change of Connection Type Notification
Step 590 Manage Change of Segment
Step 542 Publish Connection Type Change Notification
IF-043
Step 570 Publish Change of Segment Notification
Step 640 Publish De-Appointment Notification
NOTE: Date of De-Appointment should be triggering 'Event Date' (Connection Type Change or Meter Install Date) MINUS 1 Day

Notes – Arrangement of Work

* It is anticipated that the Supplier will liaise with interested parties (LDSO, Metering Service, Customer) to agree the nature of works and determine an agreed "Target Work Date". This will then be formally confirmed between the parties.

* There are several options available for formally agreeing work/date, between the Supplier and Metering Service. For example, E-Mail, MS Portal, D0142.

* Mechanism for agreeing work with the LDSO will be determined by each LDSO (E-Mail, Web Portal, etc.).

* In instances where work is scheduled, by a Supplier, for an 'anticipated SSD' – it is that Supplier's responsibility to inform interested parties (i.e. Cancel the work) where ownership of the supply is not 'secured'.

Agreed Mechanism
DB flow or agreed communication method
D0383 & D0384 (Advanced Only)

Step 90 Update Connection Type
Always
Step 91 Market Segment Re-Evaluation
If Required
Step 92 Change of DUOS Tariff ID

Step 100 Change of Metering
Step 101 Change of Connection Type
Step103 Related MPAN Update
Step102 Change of Metered Indicator
Step 500 Trigger Market Segment Re-Evaluation (& Set Mkt.Seg. Valid Indicator)
Step 530 VALID ISD Connection Type/ Meter Type Combination
Valid
Invalid
Step 510 INVALID ISD Connection Type/ Meter Type Combination
Segment No Change
Step 540 Segment is Un-Changed
Step 541 Issue Connection Type Change Notification (Service Providers)
Segment Changed
Step 550 Segment has Changed
IF-044
Step 560 Issue Change of Segment Notification
Step 620 Invalid Service Providers Already De-Appointed?
Step 621
Yes (No Invalid SP's Appointed)
No (Invalid SPs Appointed)
Step 630 Auto De-Appoint Invalid Service Providers
IF-037
Step 520 Invalid Service Providers Already De-Appointed?
Yes (No Invalid SP's Appointed)
Step 680 Registration Service Advisory Notifications
Step 690 Registration Service Advisory Notifications

Note: Business Requirements have been created to request St. Clements to restrict update of Connection Type to Primary MPANs/ Linked Import MPAN. The Connection Type change will then be automatically applied to all linked MPANs.

NOTE: Reference Registration Service Business Requirements – 'No Metering' scenarios should not trigger an invalid combination or 'Change of Segment', without a supporting 'Change of Connection Type'

PUB-043
PUB-044
PUB-037

Step 81 Receive Commissioning D-Flows
BP009 Change of Metering
SENT AS PART OF CHANGE OF METERING SERVICE (If Required)
Step 50 'Target' Work Date Agreed
Step 82 Receive Commissioning D-Flows
BP009 Change of Metering

Successful 3rd Party Supplier COS, with Change of Connection/Segment not fully resolved.

Where a 3rd Party Supplier (i.e. not involved in the change of Connection Type / Segment) completes a COS either:

a. during the [x] day update period (prior to completion of Connection Type and/or Metering Update notifications) OR
b. at any point after that where the completion of Connection Type and/or Metering Update notifications remain outstanding

This should be an incredibly rare occurrence!

Whilst, the 3rd Party supplier, will be able to appoint his proposed agent(s), they will immediately begin to receive "Segment Invalid Notifications". At this point, that supplier will need to liaise with previous Supplier/LDSO/Customer/Metering Services so as to problem-solve/investigate the Connection Type / metering on site and determine the data update(s) and/or physical meter works required to resolve the mismatch to that Supplier's satisfaction.

Step 543 Manage Change of Connection Type Notification
Step 660 Manage De-Appointment Notification
BP003C Transfer of Reads
Step 544 Manage Change of Connection Type Notification
Step 670 Manage De-Appointment Notification
BP003C Transfer of Reads

Treatment of 'Missed' Connection Type Changes

In situations where it is identified that an existing Connection Type is not accurate. A Change of Connection Type Change should be agreed (Supplier/Metering Service/LDSO); and actioned by the LDSO with an Effective Date equal to that at which the discrepancy was identified i.e it should not be backdated.

The normal Change of Connection type processes will then take place, which may or may not lead to the Auto De-Appointment of existing Service Provider(s) and the need for the Supplier to appoint new 'appropriate Service Providers.

Any historic impact/implications on Settlement Submissions should be reviewed/assessed by the Supplier and a Consumption Amendment or Settlement Dispute raised as appropriate.

Treatment of Linked MPANs - Related MPANs and Associated Import/Export MPANs

Connection Type Changes ~ LDSO's should ensure that they have in place sufficient administrative checks so as validate that 'Connection Type Changes' received cover all grouped MPANs. i.e. All MPANs in 'the group' should maintain the same 'Connection Type' and 'Connection Type Effective From Date'

Market Segment Changes ~ the 'Market Segment Re-Evaluation Process' should operate and be applied to each MPAN [in a group] *in isolation*. A Reminder Notification will be sent to Supplier in instances where not all of the MPANs in the group 'resolve' to the same Market Segment.

PUB-043
PUB-044
Step 150 Manage Change of Connection Type Notification
Step 610 Manage Change of Segment
Step 151 Manage Change of Connection Type Notification
Step 611 Manage Change of Segment

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MHHSP-BP011-C – Registration Service Monitoring & Notification Processes v5.0

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Business Process Description
This BPMN diagram describes the Registration Service Monitoring & Notification Processes. For a detailed description of each step in the BPM, please refer to the accompanying Business Process Descriptions [BPD] document for this Business Process.

Actors
Supplier
Registration Service
Data Integration Platform
Data Service Existing/Old (SDS, ADS, UMSDS)
Metering Service Existing/Old (MSS, MSA, UMSO)
EES

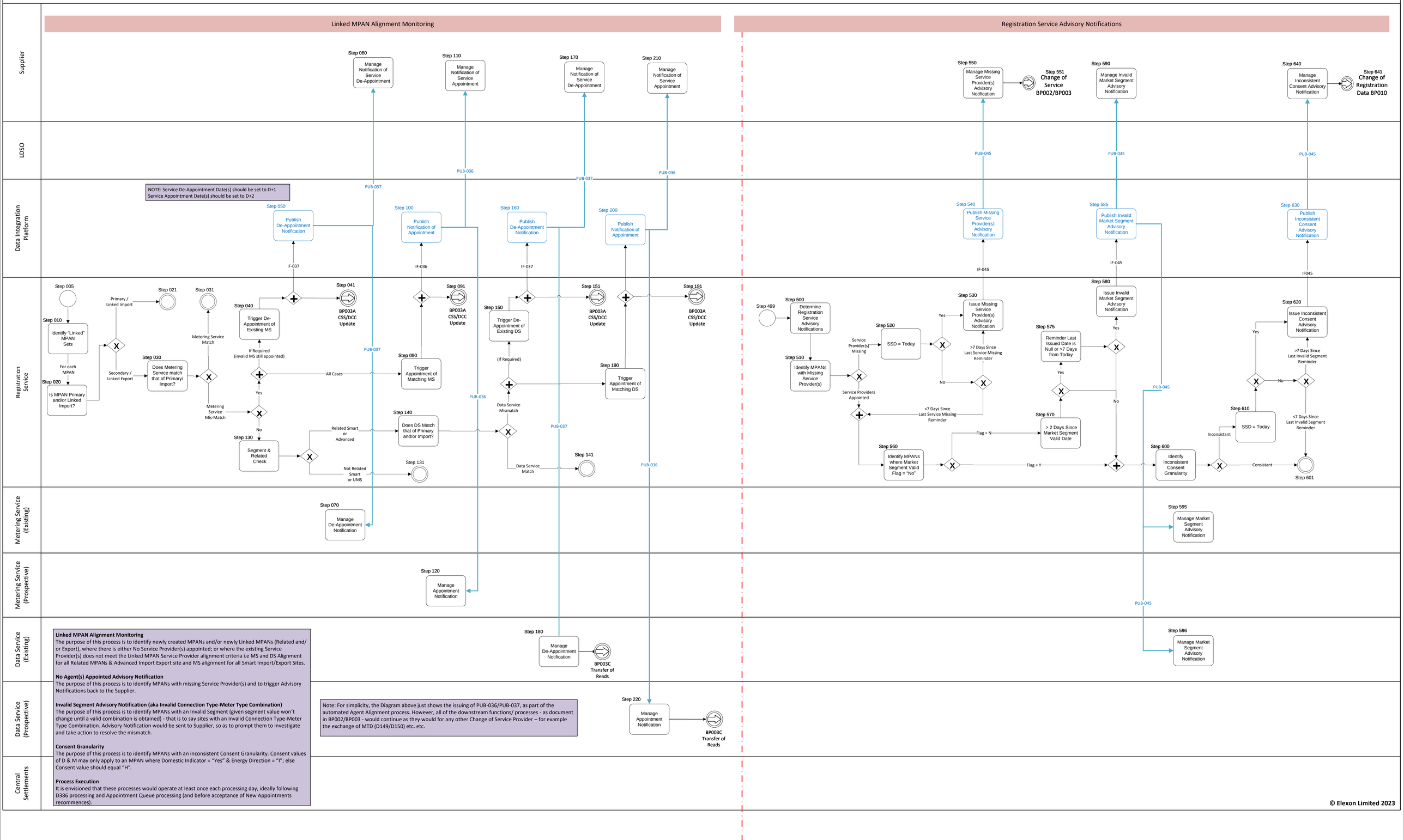
MHHS Interfaces
IF-045 – Registration Service Advisory Notification
IF-037 – Registration Service De-Appointment Notification
IF-036 – Reg. Serv. Notification of Service App. & Supporting Info

Publication List
PUB-045 – Registration Service Advisory Notification
PUB-037 – Registration Service De-Appointment Notification
PUB-036 – Reg. Serv. Notification of Service App. & Supporting Info

BPM included as part of the process

BPM Entry
MHHS-BP009- Change of Meter

Exit BPM
BP-003A – CSS/DCC Updates
BP-003C Transfer of Readings
BP-010 Change of Registration Data
BP-002 Change of MS Provider
BP-003 Change of DS Provider



Linked MPAN Alignment Monitoring
The purpose of this process is to identify newly created MPANs and/or newly Linked MPANs (Related and/or Export), where there is either No Service Provider(s) appointed; or where the existing Service Provider(s) does not meet the Linked MPAN Service Provider alignment criteria i.e MS and DS Alignment for all Related MPANs & Advanced Import Export site and MS alignment for all Smart Import/Export Sites.

No Agent(s) Appointed Advisory Notification
The purpose of this process is to identify MPANs with missing Service Provider(s) and to trigger Advisory Notifications back to the Supplier.

Invalid Segment Advisory Notification (aka Invalid Connection Type-Meter Type Combination)
The purpose of this process is to identify MPANs with an Invalid Segment (given segment value won't change until a valid combination is obtained) - that is to say sites with an Invalid Connection Type-Meter Type Combination. Advisory Notification would be sent to Supplier, so as to prompt them to investigate and take action to resolve the mismatch.

Consent Granularity
The purpose of this process is to identify MPANs with an inconsistent Consent Granularity. Consent values of D & M may only apply to an MPAN where Domestic Indicator = "Yes" & Energy Direction = "I"; else Consent value should equal "H".

Process Execution
It is envisioned that these processes would operate at least once each processing day, ideally following D386 processing and Appointment Queue processing (and before acceptance of New Appointments recommences).

Note: For simplicity, the Diagram above just shows the issuing of PUB-036/PUB-037, as part of the automated Agent Alignment process. However, all of the downstream functions/ processes - as document in BP002/BP003 - would continue as they would for any other Change of Service Provider – for example the exchange of MTD (D149/D150) etc. etc.

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