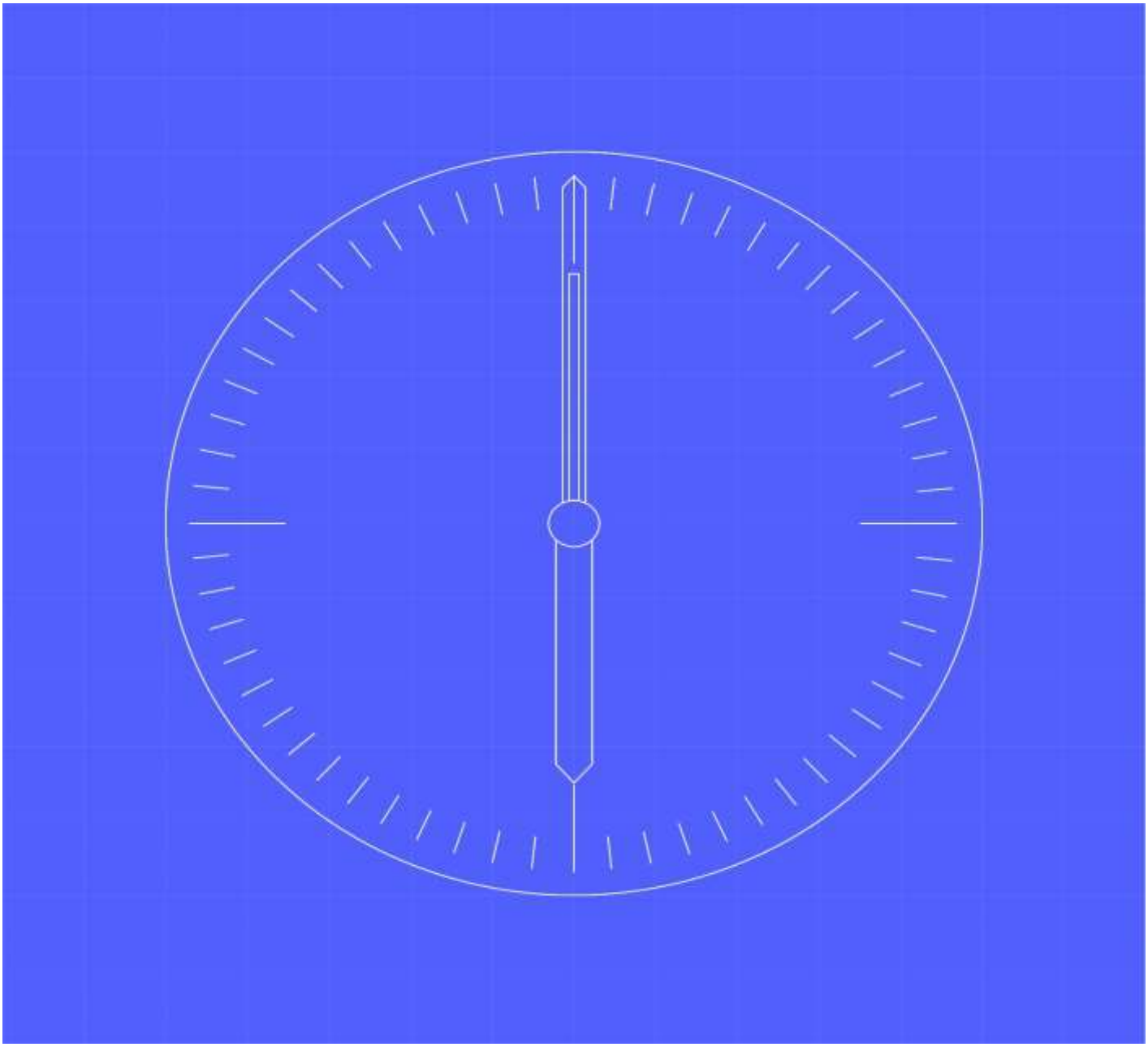
[01] MHHS Migration Framework Foundations



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1 Contents

1.1 Table of Figures

1.2 Change Record

Date	Author	Version	Change Detail
18/03/2024	Migration Team	v0.1	Draft for Industry Consultation
19/04/2024	Migration Team	V0.2	Revised Draft for Assurance Meeting
08/05/2024	Migration Team	V1.0	Version uplifted to reflect Interim Approved by MCAG

1.3 References

Document	Publisher	Published	Additional Information
REF-1 [01] Migration Framework Foundations v1.0	Migration Team	08/05/2024	Migration FW
REF-2 [02] Migration Framework - Principles and Guidelines v1.0	Migration Team	08/05/2024	Migration FW
REF-3 [03] Migration Capacity Calculations - Method Statements v1.0	Migration Team	08/05/2024	Migration FW
REF-4 [03a] Migration Capacity Calculations – Parameters v1.0	Migration Team	08/05/2024	Migration FW
REF-5 [04] Migration Requirements and Processes v1.0	Migration Team	08/05/2024	Migration FW
REF-6 [04a] Migration Business Process Models v1.0	Migration Team	08/05/2024	Migration FW
REF-7 MHHS-DEL961 – Migration Design Document v1.0	Migration Team	03/04/2023	
REF-8 MHHS-DEL953 – Data Assessment Report v1.0	Migration Team	21/02/2023	
REF-9 MHHS-DEL1128 – Migration, Cutover and Data Strategy v1.0	Migration Team	02/06/2023	
REF-10 MHHS-DEL1648 - Migration Thresholds Document v1.0	Migration Team	20/11/2023	
REF-11 MHHS-DEL813 – Overarching Test Data Approach and Plan v1.0	Testing Team	19/07/2023	
REF-12 MHHS-DEL1181 – Data Cleanse Plan v2.0	Migration Team	24/02/2024	
REF-13 MHHS-DEL1792 - M15 Acceptance Criteria v1.0	Migration Team	13/12/2023	

1.4 Terminology

Term	Description
ADS	Advanced Data Services
BSC	Balancing and Settlement Code
Central Services / Systems	MHHS Programme term referring to the parties and systems that comprise the supporting infrastructure for MHHS business processes and services, namely the Elexon Central Services, Electricity Enquiry Service, Data Service Provider, Central Switching Service, Data Transfer Network, and the Data Integration Platform
CoA	Change of Agent
CoS	Change of Supplier
Core Migration Window	A six-month period of full allocation of Migration capacity before tapering down
CSS	Central Switching Service

Term	Description
Daily Planned Migration Threshold	This is an industry-wide limit on the maximum planned for number of migrations that can take place on a given day under normal circumstances.
Data Cleanse Plan	The approach and activities required to improve and populate data prior to Migration start
DC	Data Collector
DCC	Data Communications Company
DIP	Data Integration Platform
DNO	Distribution Network Operator
DS	Data Service
DSP	Data Services Provider
DTN	Data Transfer Network
ECS	Elexon Central Services
EES	Electricity Enquiry Service
ESO	Electricity System Operator
Export MPAN	An MPAN that exports energy to the grid from a premises
Forward Migration	The process through which MPANs will move from legacy arrangements to MHHS arrangements
IDNO	Independent Distribution Network Operator
Import MPAN	An MPAN that imports energy from the grid to a premises
ISD	Industry Standing Data
LDSO	Licensed Distribution System Operator
LDSO Portfolio Thresholds	Limits set for each LDSO based on the size of their portfolio, ensuring balanced migration across different operators See MHHS-DEL1648 - Migration Thresholds Document v1.0
Legacy Arrangements	The existing arrangements set out under the BSC and REC. For the purposes of the Migration Design, this is primarily the REC Metering Services Schedule and the Balancing and Settlement Procedures related to Data Collection
MCC	Migration Control Centre
MCAG	Migration and Cutover Advisory Group
MFW	Migration Framework
MHHS	Market-Wide Half-Hourly Settlement
MHHS Arrangements	The new MHHS arrangements as set out in the MHHS Core Design Artefacts.
Migration Design	The technical articulation of how MPANs will move from legacy to new MHHS arrangements. See MHHS-DEL961 – Migration Design Document v1.0
Migration Period	The period denoted by the Programme as occurring between the M11 and M15 milestones
Migration Planning and Management Tool (MPMT)	Application to be developed for use by the MCC to manage the end-to-end migration process
MOP	Meter Operator
MPAN	Meter Point Administration Number
MPID	Market Participant Identifier
MS	Metering Service
MSA	Metering Service (Advanced)
MSS	Metering Service (Smart and Non-Smart)
MWG	Migration Working Group
NFR	Non-Functional Requirement
Primary MPAN	The MPAN, within a Related MPAN arrangement, for which a Switch is initiated, or a forward migration (via an IF-031) is initiated
PSG	Programme Steering Group
Qualified Supplier	A Supplier recognised in ISD as both having passed the relevant BSC qualification requirements; and declared that their service is operational within the MHHS arrangements

Term	Description
Registration Service	The Registration Service is the LDSO service that holds Meter point standing data information about each MPAN within its Distribution Region. It also includes information on the type of customer, the Measurement Class, Energisation Status and Line Loss Factor Class
REC	Retail Energy Code
Reverse Migration	The process through which MPANs will move from MHHS arrangements to legacy arrangements by a non-MHHS qualified Supplier
SDS	Smart Data Services
SIT	Systems Integration Testing
Secondary MPAN	The MPAN, within a Related MPAN arrangement, for which a forward migration occurs when an IF-031 is received for a Primary MPAN
Switch	The process by which a new Supplier Registration supersedes an existing Supplier Registration, managed by the CSS
Upper Migration Threshold	This is an industry-wide limit on the maximum number of migrations that can take place on a given day under exceptional circumstances. See MHHS-DEL1648 - Migration Thresholds Document v1.0
Supplier Capacity Envelope	A profile covering the whole migration period detailing the maximum number of daily migrations a given Supplier in a LDSO may undertake
Supplier Submission	A Supplier's forward view of planned migrations at LDSO level that falls within the Supplier Capacity Envelope provided and includes all MPANs within their portfolio
TOM	Target Operating Model
UMS	Unmetered Supplies
UMSDS	Unmetered Supplies Data Services
UMSO	Unmetered Supplies Operator

1.5 Programme Milestones

The below Programme milestones are referenced throughout this document.

M9 – Start of System Integration Testing (SIT)

M10 – Go live of new services

M11/12 – Start of Migration for UMS / Advanced / Smart / Non-Smart

M14 – All Suppliers must be able to access MPANs under the new TOM

M15 – Full transition complete

M16 – Cutover to the new Settlement timetable

1.6 Intended Audience

These parties are:

- The Registration Services (including Service Providers);
- Suppliers;
- Data Collectors / Aggregators;
- Meter Operators;
- The DIP Service Provider;
- Metering Services (i.e., MSS, MSA);
- Data Services (i.e., SDS, ADS, UMSDS);
- EES;
- LDSOs (i.e., DNOs and iDNOs);
- Meter Administrators;
- The DCC, operating Smart Metering and CSS;
- ESO;
- Elexon Central Services (ECS);
- Electralink (DTN);
- REC and BSC Performance Assurance Boards;
- UMSOs

2 Introduction

2.1 Document purpose

The purpose of this document is to define the approach and high-level framework for managing the migration of Meter Point Administration Numbers (MPANs) from the legacy settlement arrangements to the new MHHS arrangements, and in accordance with the following approved MHHS documents:

- MHHS-DEL961 – Migration Design Document v1.0
- MHHS-DEL1128 – Migration, Cutover and Data Strategy v1.0
- MHHS-DEL1648 - Migration Thresholds Document v1.0
- MHHS-DEL1181 – Data Cleanse Plan v2.0
- MHHS-DEL1792 - M15 Acceptance Criteria v1.0

This document should be read in conjunction with the following supporting artefacts.

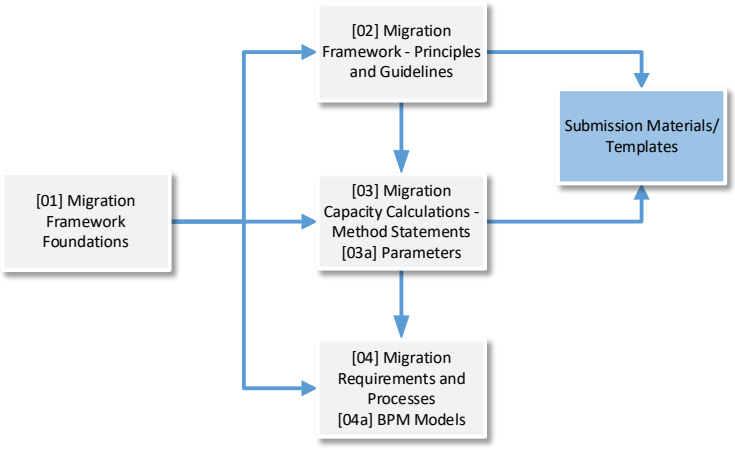

Figure 1 - Migration Framework Document architecture

2.2 Migration Working Group collaboration and industry consultation

These documents have been developed in collaboration with the Migration Working Group (MWG). As communicated at the Programme Steering Group (PSG) and Migration & Cutover Advisory Group (MCAG), Participants were expected to attend the MWG meetings to contribute to these discussions. The Migration framework is being developed incrementally and the MWG will seek to not revisit key principles agreed in previous MWG meetings during the industry consultations, unless changes are required for good reason.

Participants can access the content and recordings of the MWG meetings and workshops that took place in January – March 2024 on the Programme Collaboration Base.

The Migration framework will continue to be developed until Q3 2024 (calendar year) whereby it will be baselined and enter change control under the MCAG. Three industry consultation rounds are planned to systematically review and agree on all elements of the framework prior to baselining.

2.3 Document scope

The MHHS Migration Framework is comprised of six components. This document version includes Component 1 and 2 and the remaining components will be included in this document and consulted on in future consultations.

#	Component	Included in Consultation 1?
01	Initialise Schedule	Yes
02	Maintain Schedule	Yes

#	Component	Included in Consultation 1?
03	Control and Monitor migration	No – To be included in future consultations
04	Manage Unused Capacity Allocation	No – To be included in future consultations
05	Data Analytics and Reporting	No – To be included in future consultations
06	Close Down Migration	No – To be included in future consultations

3 Executive summary

3.1 Introduction

As per the baselined Programme plan, industry will be required to migrate circa 33M MPANs from the existing legacy arrangements to the new MHHS operating model between April 2025 and October 2026.

The MHHS Central Systems and all LDSO's will go-live at M10, and shortly thereafter Suppliers and Agents who have completed Systems Integration Testing (SIT) will start their migration at M11/12. The non-SIT participants (those following the Qualification testing route) will commence their migration from 30 September 2025 onwards.

3.2 Migration objectives

The purpose of the MHHS Migration Phase is to complete the migration of MPANs to the new settlement arrangements in a manner that:

1. Seeks to accelerate the realisation of the MHHS benefits
2. Is fair and transparent
3. Is in accordance with the MHHS Programme plan and prevents unnecessary overrun costs to Balancing & Settlement Code (BSC) parties and consumers
4. Achieves the M15 acceptance criteria
5. Does not adversely affect the industry or consumers

3.3 Migration complexities

1. **Fixed timeline:** The migration must be completed by M15 otherwise legacy settlement operations will need to be maintained for longer than expected which will come at significant cost. In addition, any future industry change will be delayed / complicated due to an extended change freeze. Mitigations and incentives will be required to contain this risk.
2. **Finite migration capacity:** The MHHS migration phase has a finite migration capacity due to the daily migration thresholds and the fixed timeline. This means that daily capacity should be used as much as possible and 'back loading' of the migration should be avoided at all costs.

   The process of migration requires multiple interactions between Suppliers, Agents, Registration Services and Central Services. These interactions are subjected to daily capacity constraints as defined in the Threshold Document and approved by the Testing & Migration Advisory Group (TMAG). The key challenge for capacity allocation and planning will be to ensure the migration schedule does not breach any element of these constraints.

   A process is necessary to equitably distribute capacity among suppliers, facilitating reliable planning. This process must include the collection of each party's plans and their consolidation into an initial baseline plan, against which changes may be managed.
3. **Differing approaches:** Participants will most likely have differing approaches to completing their migration and their preferred schedules may not align with the migration capacity availability. Due to the finite migration capacity, and the need for fair allocation, participants will be required to be flexible and align with the available migration capacity.

4. **Ecosystems:** Supplier and Agent qualification must be co-ordinated in order that qualified Suppliers may commence migration with their associated Agents.
5. **Ramp-down:** Suppliers may have complex elements within their portfolio and may be impacted by industry data issues that could lead to a long tail of MPANs which are difficult and time consuming to be readied for migration.
6. **Qualification dependency:** The Programme recognises that a key driver for volatility within the migration plan will be the entry point of Suppliers and Agents into the migration process following Qualification. The migration processes must therefore be able to respond to changes to the qualification plan to re-validate the schedule and adjust where required.

3.4 Migration Framework

To manage the migration complexities and set the Migration phase up for success a Migration Framework is required. The Framework will be developed and agreed with industry and will guide the Migration Control Centre activities.

This framework will logically describe the process that will be undertaken during the whole migration process which will be managed by the Migration Control Centre. This framework will subsequently underpin any technical activity that will be required i.e. Migration Planning and Management Tool, communication patterns etc.

The Migration Framework comprises of 6 components

#	Component	Description
01	**Initialise Schedule**	Steps to develop and agree v1 of the Migration schedule.
02	**Maintain Schedule**	After the creation of the v1 of Migration schedule. Regular updating and adjusting the MHHS Migration schedule to reflect changes such as Qualification progress and migration outturn, ensuring it remains realistic and achievable.
03	**Control and Monitor migration**	Monitoring and managing migration execution according to the Daily MHHS Migration Schedule. Reviewing MHHS Migration Schedule vs Actual Supplier Migration performance and identifying and addressing deviations promptly. Managing migration constraints, risks and resolving issues.
04	**Manage Unused Capacity Allocation**	Sharing identified excess capacity to ensure optimal use of the available capacity.
05	**Data Analytics and Reporting**	Analyse migration data to provide insights and regular reports on migration progress, challenges, and achievements. Includes the collection, aggregation, analysis, and dissemination of migration data, reports and analytics to support a data-led decision making and control process for MHHS Migration.
06	**Close Down Migration**	Close-down reporting and decommission MCC, and finalise documentation.

The underlying principles of the framework will be documented in:

[02] Migration Framework - Principles and Guidelines

The operational details of each component of the framework will be documented in:

[04] Migration Requirements and Processes

[04a] Migration Business Process Models

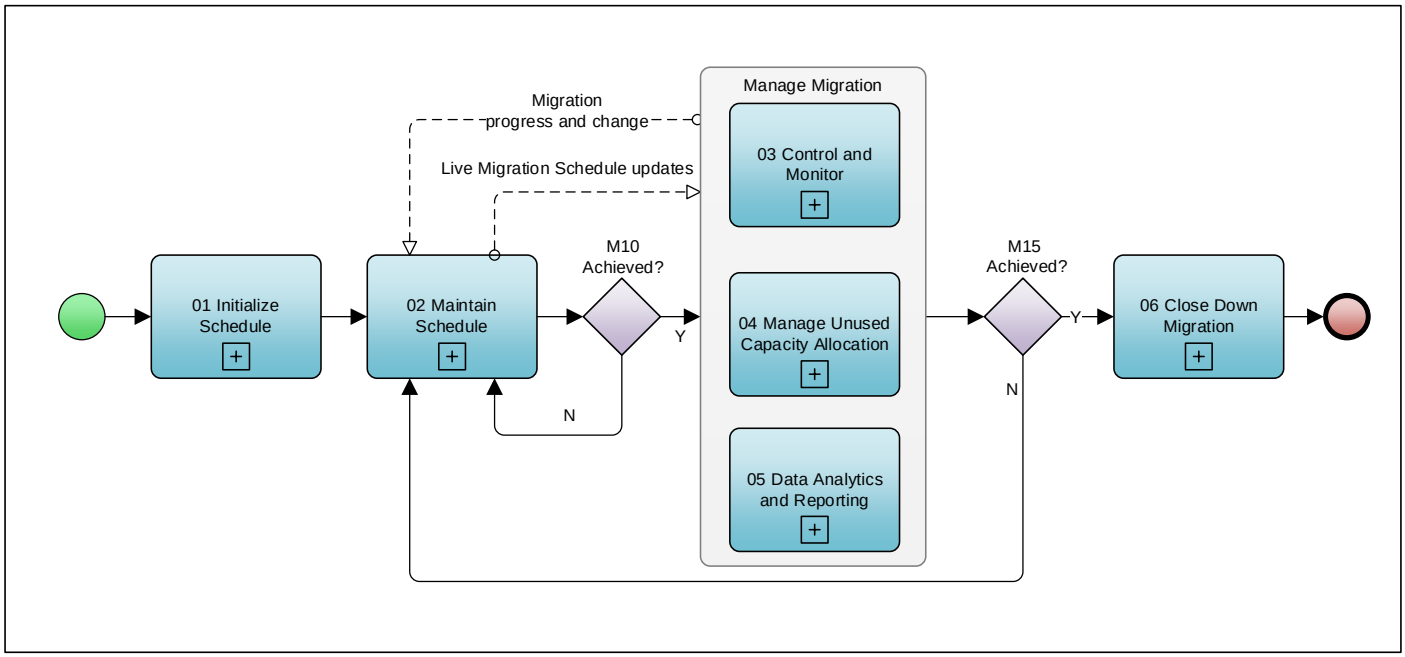

Figure 2 - E2E Migration Control Centre Process

4 Migration Control Centre

4.1 The Migration Control Centre

The Migration Control Centre will be the business function within the MHHS Programme that manages the Migration Process and orchestrates the execution of the Migration Framework. The current Programme Migration team, with the incorporation of the necessary resources and technology, will evolve into the MCC.

4.1.1 Responsibilities

The Migration Control Centre will be responsible for:

1. Planning, managing and coordinating the migration activity required by all involved parties to successfully conclude the migration of all MPANs from the old arrangements to the MHHS arrangements by M15, and in accordance with the Migration Framework
2. Communicating with and supporting Programme participants
3. Managing deviations against plan and escalations through appropriate governance where deviations are material and cannot be resolved by MCC intervention
4. Managing and supporting any required tools
5. Agreeing any changes to the Migration Framework / Tooling as may be required during migration execution
6. Reporting on migration progress, participant performance, trends, exceptions etc.

4.2 Delegated authority

The MCC will have delegated authority to execute the processes and apply the principles contained within the Migration Framework.

The MCC has the authority to halt or pause migration activities under exceptional circumstances to protect central systems and LDSOs, as well as the overall migration and settlement processes.

5 MHHS Migration Schedule

5.1 Introduction

The Migration Schedule will be the foundation for the Migration Framework. It is a composite of all individual Suppliers' Migration plans and will provide the forward view of the migration volumes that will be required to be undertaken to migrate all MPANs by M15.

The creation and maintenance of a Migration Schedule is a complex balance between flexibility for supplier preferences, adherence to established system thresholds, and the overarching goal of completing the migration by the M15 deadline.

The Migration Control Centre must ensure the Migration Schedule does not breach any agreed threshold or regulatory constraint and have processes in place to cater for industry events e.g. SOLR.

The Migration Schedule is required to balance the requirement for Suppliers to control as far as is possible their own migration schedule whilst at the same time ensuring the overall Migration Schedule adheres to industry constraints articulated in the previously agreed Migration Thresholds document.

The Migration Control Centre will subsequently manage the key activities, which are described in the Migration Framework These will be the Initialisation of the Migration Schedule and, thereafter the maintenance of the scheduler, which could require action in response to changes to circumstances i.e. changes to qualification timelines and deviation from schedule.

5.2 Key MHHS Migration Schedule Concepts

5.2.1 Supplier Led and Levelled Approach

Challenges are likely to arise when Suppliers submit schedules based solely on their preferences and without consideration of the known constraints, potentially leading to:

1. Aggregate migration schedules across all Suppliers surpassing system thresholds, necessitating substantial levelling activities, and resulting in deviations from suppliers' preferred migration profiles
2. Uneven distribution of migration activities, increasing the risk of heightened activity toward the end of the migration window, coinciding with all parties migrating, thereby placing further constraints on individual party capacities
3. Non-utilisation of finite migration capacity, posing a risk to the critical M15 completion milestone

In response to these challenges, the following principles will be applied:

1. Supplier preferences will be allocated whenever system constraints allow and in a fair manner.
2. Scheduling must strike a balance between the principle of supplier flexibility and requirement for migration activity to remain within agreed system thresholds noting that there is finite migration capacity.
3. A mechanism is therefore required that apportions capacity fairly amongst Suppliers noting the differential entry points into the migration process and differing portfolio sizes.
4. The MCC will communicate a Supplier's share of capacity at daily granularity per LDSO. This will represent the share of overall capacity, not merely sufficient capacity to migrate the Supplier's portfolio. This profile will subsequently be referred to as the 'Capacity Envelope'.

NOTE: Supplier Capacity Envelopes and Supplier Plan Submissions, and Supplier Migrations Plans will be defined at the Supplier MPID and LDSO MPID Level. See following sections for more information.

5. Capacity envelopes will be calculated such that in aggregate all Supplier's Capacity Envelopes do not exceed any LDSO or Central Service threshold.

6. Assuming a low volume industry ramp-up (this allows for systems, which includes Central Systems and LDSOs, validation and performance assessment) and non-migration days covering contract rounds and change freezes the total available migration capacity is circa 52M MPANs. This therefore leads to headroom within the capacity allocations of approximately 40%. (Assuming migration takes place five days a week)
7. Suppliers will subsequently submit plans that adhere to the daily limits within the Capacity Envelope and will encompass their whole portfolio within the given LDSO.
8. Suppliers are free to profile their migration as they see fit within the constraints of the Capacity Envelope and adhere to submission SLAs defined in Thresholds document.
9. Later sections provide more detail on these principles and a method statement is provided detailing the methodology for calculating the Capacity Envelopes.
10. A subsequent section will consider Suppliers with smaller portfolio sizes for whom capacity envelopes would be small and potentially impractical.

For further detail:

- See [02] Migration Framework - Principles and Guidelines.
- See [03] Migration Capacity Calculations - Method Statements

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5.2.2 Capacity Allocation Methodology

The Capacity Allocation Methodology is a framework designed to allocate migration capacity to suppliers based on their market share within a Local Distribution System Operator (LDSO) area. The framework also takes into consideration the maximum migration total and individual LDSO maximum daily totals as defined in the thresholds document. The Capacity Allocation methodology will ensure these values are not exceeded.

More specifically capacity is allocated to each Supplier MPID that has been qualified and has planned migration volumes for a given period for each LDSO MPID.

The factors that inform the Capacity Envelope creation are as follows:

1) Suppliers' portfolio share within an individual LDSO
2) Scaling Factors; modelling has indicated that there is a mechanism required to factor into the rate at which suppliers migrate their portfolios at a high level. This is required to ensure capacity is released by parties entering the migration process earlier to those coming in later to ensure equitable access to capacity.
3) Overall Central Services Capacity apportioned to each individual LDSO to ensure no Central Service Threshold is breached

This methodology considers the number of suppliers qualified under MHHS in each migration period. By incorporating headroom into the overall capacity, the methodology provides each supplier with a fair share of the capacity, reducing the likelihood of significant levelling due to capacity contention among different migrating parties.

For further detail:

- See [03] Migration Capacity Calculations - Method Statements

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5.2.3 Scaling Factors

Scaling factors, within the context of Migration Capacity Allocation, are multipliers used to adjust the access to migration capacity over time for suppliers. A principle embedded within the scaling factors is the assumption of a six-month Core Migration Window (based on modelling assumptions that were used to create Thresholds) for suppliers to conclude the bulk of their migration.

These factors consider the need for a ramp-up period and the overall migration timeline, spanning a six-month Core Migration Window period of full allocation of capacity before tapering down. The core migration window follows the ramp-up period.

After this peak period (Core Migration Window), the capacity is reduced, creating more availability for suppliers who qualify later in the migration timeline. The intent is to provide proportional access to capacity, taking into consideration

both earlier and later participants joining the MHHS migration. While indicative in nature, scaling factors will be agreed upon in a future Consultation once the Qualification Waves have been confirmed and there is a better understanding of the potential Migration profile.

We expect there may be some variation with the six-month window if a particular window is co-incident with a high number of non-migration days.

For further detail:

- See [03] Migration Capacity Calculations - Method Statements
- See [03a] Migration Capacity Calculations – Parameters

5.2.4 Central Services Capacity Apportionment

The input to any LDSO/Supplier level Envelope creation will be informed in the first instance by the values calculated for the “Share of Central Systems Capacity Value”; either “Standard” or “Exceptional”, 200k and 300k daily migrations respectively.

The Capacity Envelope creation will therefore apportion Central Service capacity proportionally based upon the portfolio size of the LDSO.

By sharing the Central Systems Capacity in this way, we can ensure no breach of either Central System or LDSO thresholds in the aggregated Envelopes.

Initial planning will proceed with the use of the ‘Standard’ 200k daily threshold. Once further clarity emerges regarding qualification timelines and migration out-turn there may be a requirement to consider the use of the 300k ‘exceptional’ threshold if required to meet the M15 timescales. A period of stable running at 200k may also lead to the MCC considering the use of the exceptional threshold to accelerate progress.

A subsequent consultation will seek to clarify the conditions that would need to be met to invoke the use of the 300k ‘exceptional’ threshold.

NOTE: A subsequent section will consider LDSOs with smaller portfolio sizes.

5.2.5 Supplier Capacity Envelope

The Supplier Capacity Envelope sets the supplier’s upper limits per LDSO over time within which a supplier can plan their Migration Plans for a given Supplier MPID, at weekly granularity. It is designed to account for all MPANs that need to be migrated within the supplier's responsibility while providing headroom flexibility when deciding each day’s migration volume. A Supplier Capacity Envelope defines the maximum migration capacity available to a supplier over the whole migration window from the Supplier’s migration start date, tailored over time to ensure fair and proportional access throughout the entire migration period.

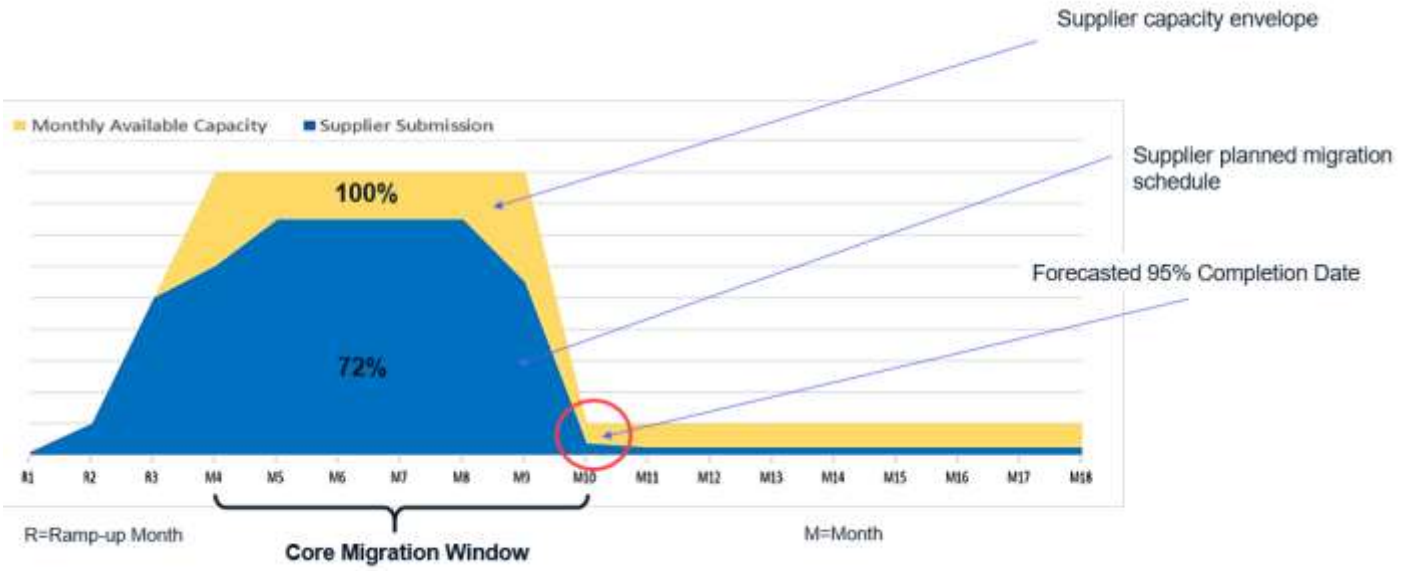

Figure 3 - Supplier Capacity Envelope example

The Supplier Capacity Envelope has three distinct phases:

1) **Ramp-up:** A gradual increase in capacity (a) as part of the **industry ramp-up** for SIT participants, and (b) individual **supplier ramp-up** for remaining non-SIT participants.
2) **Core Migration Window:** A designated period for Suppliers to execute the bulk of their migrations from their portfolio (tbc 6 months) to allow later participants fair access to migration capacity.
3) **Ramp-down:** The decrease of capacity to allow for newly qualifying suppliers to have access to migration capacity.

This envelope shape is determined by applying scaling factors that are initially indicative in this document but will be refined through further discussions and consultation.

For further detail:

- See [03] Migration Capacity Calculations - Method Statements
- See [03a] Migration Capacity Calculations – Parameters

5.2.6 Unused Capacity Allocation process

As part of cyclic schedule baselining and schedule execution a periodic process will run to identify unused capacity and make available to parties for use if they so wish. The details of this process will be developed in future consultations.

5.2.7 Small Supplier & LDSO Portfolio Sizes

5.2.7.1 Supplier Considerations

When applying portfolio-based apportionment methodologies to the allocation of Central Systems and LDSO capacities a problem emerges regarding small portfolio sizes.

The smaller portfolio shares generate very small values in terms of the available envelopes for migration planning.

When considering an example LDSO the following was identified:

- 90% of MPANs are held by the 10 largest Supplier MPIDs. Furthermore 98% of the portfolio is held by 21 Supplier MPIDS. This leaves 70 Supplier MPIDs holding 2% of the portfolio and each with a Portfolio of 10k or less within the LDSO.

Assuming a portfolio of 10k for a Supplier MPID and a migration period of 300 days, the daily average envelope would be 33.33 MPANs per day.

- There are 70 MPIDS in the example LDSO under consideration. These MPIDS comprise a total of 81k MPANs.

Assuming this migration load is spread over 300 migration days this represents an average of 270 MPANs per day.

- This would represent less than 1% of the migration capacity for the LDSO in question.
- Capacity envelopes generated for Suppliers in this order would result in daily migration volume values in the range < 1 to 100.

Providing Capacity Envelopes of these magnitudes seems ineffective from a planning perspective and therefore suppliers with a portfolio size of <10k within an LDSO portfolio:

- Will not be provided envelopes but will rather be subject to a maximum daily migration value only
- Values will be created based upon bandings of portfolio size broadly aligning to assumption around the six month window for suppliers to complete the bulk of their migration.

Below is an example set of values for a Supplier with a small portfolio and related de-minimus values.

The scaling factors are expected to be refined and agreed with the remainder of the migration operational parameters closer to M11 when more is understood regarding the diversity of migration plans from suppliers.

For further detail:

- See [03] Migration Capacity Calculations - Method Statements
- See [03a] Migration Capacity Calculations – Parameters

Supplier MPID Portfolio Size	**De-Minimis Supplier Portfolio Daily Volume**
7,500-10,000	100
5000-7500	70
<5000	50

5.2.7.2 LDSO Considerations

Similarly, when an LDSO portfolio is < 100,000 MPANS the share of Central Services Capacity is the equivalent of < 1000 MPANs per day.

Therefore submissions for all suppliers within these LDSOs will conform to the same approach as for the previous supplier point. i.e. de-minimus value applied.

Analysis would need to be undertaken if at any point the LDSO thresholds were breached on any given day and re-profiling undertaken if required.

5.2.8 Reserved Capacity

It is understood that bandwidth will need to be reserved for the following:

- Reverse Migrations
- Failed Migrations

When generating capacity envelopes capacity will be held in reserve for these elements.

These will be considered as part of the Operational parameters. Close monitoring will be required in the migration period to ensure these values are appropriate. The MCC would as part of a subsequent consultation seek to use a proportion of the exceptional network headroom to cover these.

5.2.9 Agent Constraints

Under the Supplier Hub principle, BSC obligations are on the Supplier to manage their agents as set out under Section J of the BSC.

Suppliers and Supplier Agents will be qualified separately by the Code Bodies. To start migration, a Supplier will require all the agents assigned to an MPAN to be qualified and ready to migrate. It is the Suppliers' responsibility to ensure that their Agents are "Migration Ready" when they start MPAN migration. This should be part of the commercial arrangements a Supplier has with agents under the Supplier Hub principle.

As such any Supplier wishing to start migration (via SIT or early Qualification Wave) should ensure their Agents are on the same or similar qualification timeline and have sufficient capacity to execute the Suppliers Migration plans. Non-SIT Suppliers should work with their Agents to ensure their "minded to" Qualification Waves are consistent. Where a Supplier has multiple Agents, then during migration they will need to ensure they only migrate MPANs with Agents that are "migration ready".

The above notwithstanding the MCC will undertake an oversight activity to collect as part of Supplier Schedule submissions the volumes to be migrated at an agent level. The MCC will then calculate aggregate load profiles for each agent and separately validate with agents that these profiles are supported.

5.2.10 Capacity Considerations for the Initiation and Completion of Migration Messages

System thresholds are pertinent for both the initiation and completion of migration messages. Concentration of load on particular effective start dates will lead to threshold breaches and therefore initiations and completions need to be balanced. To balance this load there is a requirement that the **effective date** of all Forward CoA migrations is five working days after the migration initiation.

5.3 Migration schedule granularity

The MCC will seek to baseline the Migration schedule by September 2024. The Migration schedule will account for all MPANs.

Due to the numerous factors that will influence the MHHS migration (e.g. SIT progress, Qualification progress, Migration outturn, churn, etc.), it would be ineffective to maintain the Migration Schedule at a daily level of granularity for the entire migration phase.

The MCC will therefore maintain the Migration Schedule at a weekly granularity.

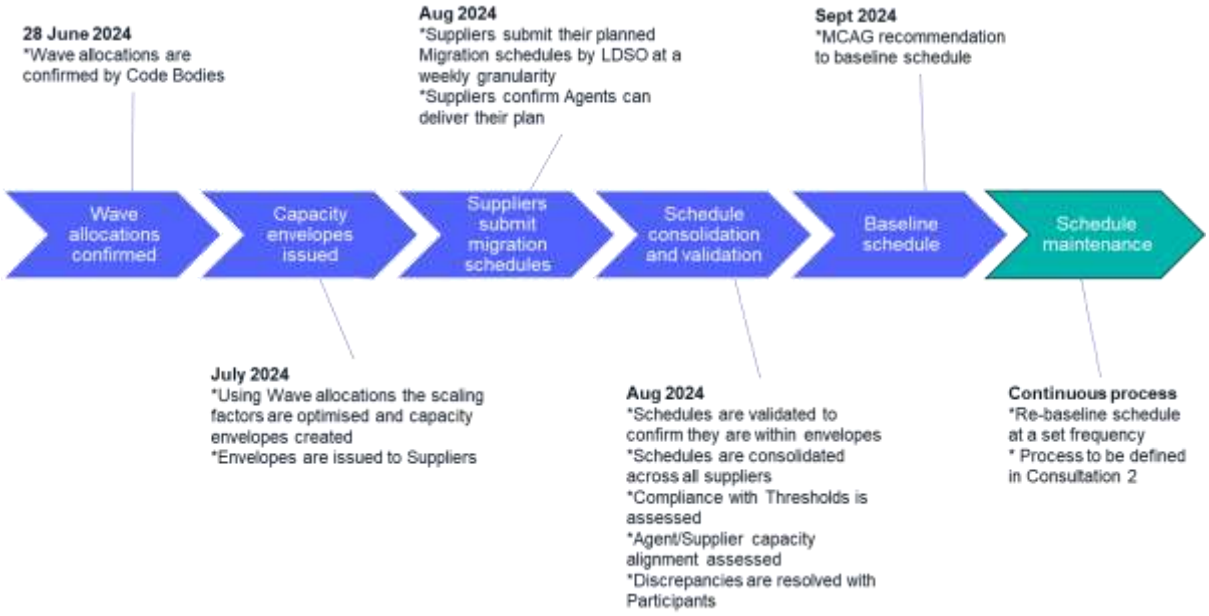

Figure 4 - High-Level MHHS Migration Schedule Timeline

5.4 Migration sprints and schedule re-baseline

There is a requirement to plan at a daily granularity nearer to Migration activity and the MCC will manage this planning using a series of nine sprints, each with a sprint duration of eight weeks.

Sprint planning will be undertaken with the relevant participants before each sprint to agree the daily migration plans per supplier per LDSO. Suppliers will be issued Capacity Envelopes per LDSO per day to guide their sprint planning.

As part of the sprint planning, the MCC will review the overarching capacity envelopes and Migration Schedule (i.e. the period beyond the Sprint to M15) to account for any material changes to participant plans due to the aforementioned reasons (SIT, Qualification progress etc). This will also provide an opportunity for participants to adjust their longer-term Migration Schedules should they require.

At the completion of each sprint planning period the relevant sprint plan will come under change control and the Migration Schedule will be re-baselined.

A sprint review will be completed after every sprint to analyse the effectiveness of the sprint and seek to identify improvements to be undertaken, as well as report on trends. This process would also include making recommendations for adjustments to the Migration Framework principles and parameters if necessary.

Note – The Sprint review reporting is not to be mistaken for Sprint Execution reporting which will report on Migration outturn, exceptions, capacity utilisation daily and weekly during the sprint.

Using the sprint approach provides participants with the flexibility to adjust their short and long term Migration schedules whilst remaining in their capacity envelopes.

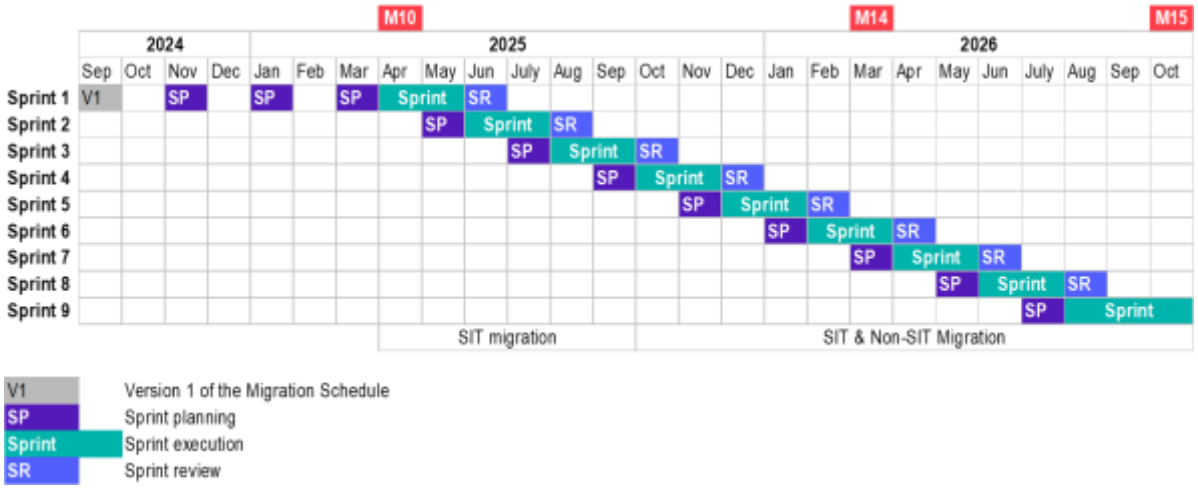

Figure 5 - Indicative example of MHHS Migration Sprints

6 Migration Schedule Compliance

6.1 Monitoring and Compliance

Suppliers are expected to adhere to the agreed sprint plans and achieve their daily migration targets. Suppliers should not exceed their planned migrations as this could result in the breaching of the LDSO and Central Services Thresholds. If participants seek to migrate more than planned for their sprint then additional capacity will be sought to be made available using the Unused Capacity Allocation process which will re-allocate excess capacity and will be agreed in future consultations. Similarly, we would also expect that exception rates be reasonable. The MCC will seek to engage if a high proportion of migrations result in exceptions. The MCC would also act as an escalation point for consistent issues with migration initiation.

6.2 Deviation from plan and exceptions

It is reasonable to expect ‘unplanned’ deviations from the sprint plan due to exceptions. If participants encounter migration issues and need to deviate from the sprint plan then the MCC must be informed as early as possible so that unused capacity can be reallocated.

If participants require additional capacity to recover ‘unused’ capacity, participants can use the Unused Capacity Allocation process or alternatively adjust their schedule in the next Sprint planning period.

6.3 Good faith and Systematic Deviations

Participants with occasional deviations and acting in good faith won’t typically lead to escalations. The MCC is more concerned about scenarios where participants continuously deviate from plan (i.e. trend versus ad-hoc). These patterns of deviation may result in corrective actions and escalations by the MCC to maintain the integrity of the migration process and fairness among all participants. The governance and reporting around Migration execution will be refined in future consultations.

6.4 Capacity Reallocation and Adjustment

Suppliers may request extra capacity through the Unused Capacity Allocation process if they would like to exceed their planned Sprint migrations.

If Suppliers expect to not achieve their planned sprint migrations then they must notify the MCC as soon as possible so that their capacity can be reallocated. Suppliers can also adjust their plans in the subsequent Sprint planning period.

6.5 Plan Submission and Revision

The MCC will issue revised Capacity Allocation Envelopes to all Suppliers in every sprint planning period based on participant progress though SIT and Qualification, as well as Migration outturn and other impacting factors.

Suppliers who will participate in the impending sprint will be required to submit their sprint schedules at a daily granularity per LDSO.

All Suppliers can adjust their overarching Migration Schedule (i.e. beyond the sprint to M15) during the sprint planning cycles as well, as long as changes are within the Capacity Envelopes.

6.6 Future Consultations

The specific processes to manage deviations and the parameters for the Unused Capacity Allocation process will be detailed in future consultations, including supplier expectations to act within their capacity envelopes and the protocols for managing unused capacities and exceptions.

7 Migration Success Criteria

Migration Milestone	Category	Success Criteria
M10	Migration schedule	1) Migration schedule approved
	Migration governance	1) Migration Framework approved 2) MCC delegation of authority approved 3) Migration incentives implemented
	Migration readiness	1) MCC tested and ready
M11 + 3/6/9/12/15 months	Migration performance	1) Participants achieving 95% of their migration schedules 2) 95% of MPAN migration target achieved for the period 3) Migration forecast is on target to complete within timelines 4) Migration schedule and activities are in accordance with the Migration Framework
	Migration exception management	1) Migration activity not adversely affecting other industry processes 2) No material flaws in the migration design or process 3) No introduced customer detriment 4) All parties adhering to Non-Functional Requirements
	Migration experience	1) Participant experience has been without any major issues
M15	Migration performance	1) M15 Acceptance Criteria achieved See MHHS-DEL1792 - M15 Acceptance Criteria v1.0

8 Decision-making responsibilities

Phase	Body	Responsibilities
Pre-M11	Migration & Cutover Advisory Group (MCAG)	Assess and recommend for approval to the SRO: • Approve Migration Framework • Approve the Baseline Migration Schedule • Approve Migration start • Approve delegated authority to the MCC for M11-M15
M11- M15	Migration Control Centre (MCC)	Execute the processes and apply the principles contained within the Migration Framework.
M11- M15	Migration & Cutover Advisory Group (MCAG)	Monitor adherence to the Migration Framework by industry and the MCC Assess and recommend changes to the Migration Framework
M11- M15	Programme Steering Group (PSG)	Consider and action MCAG recommendations Monitor progress of participants to the Migration Schedule and Thresholds and achieving M15. Make recommendations to Ofgem if required

9 APPENDICES

9.1 Appendix 1: Example: Supplier Capacity Envelopes

9.1.1 Supplier's Capacity Envelope and weekly Migration Schedule for a particular LDSO

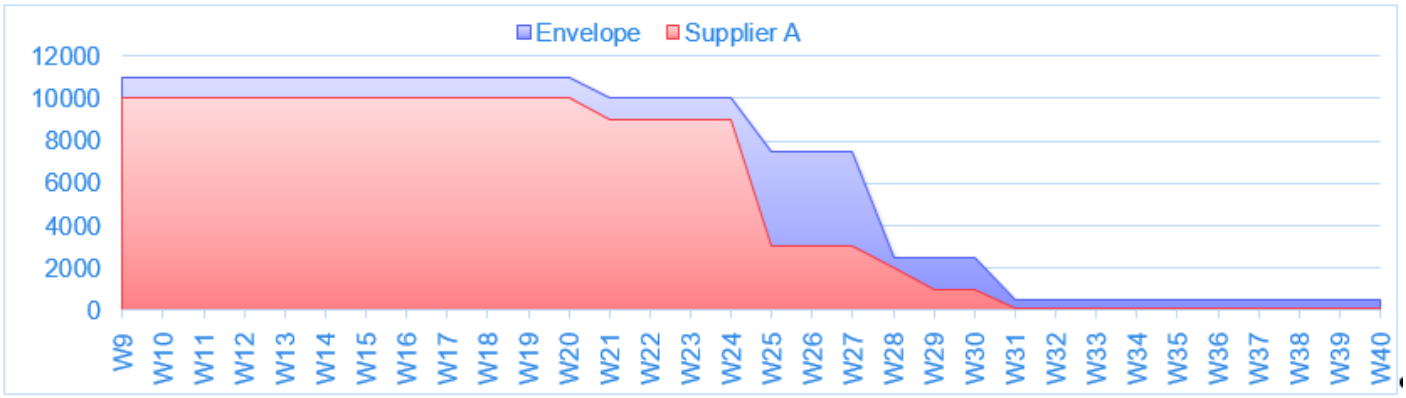

Figure 6 - Example Supplier Migration Envelope and weekly Migration Schedule

W = Week

W9 = Supplier Migration start week

In Figure 6 - Example Supplier Migration Envelope and weekly Migration Schedule.

- The blue area is the Supplier's **weekly Capacity Envelope** for a LDSO
- The red area is the Supplier's planned migrations for each week

9.1.2 Supplier's Capacity Envelope and daily sprint plan for a particular LDSO

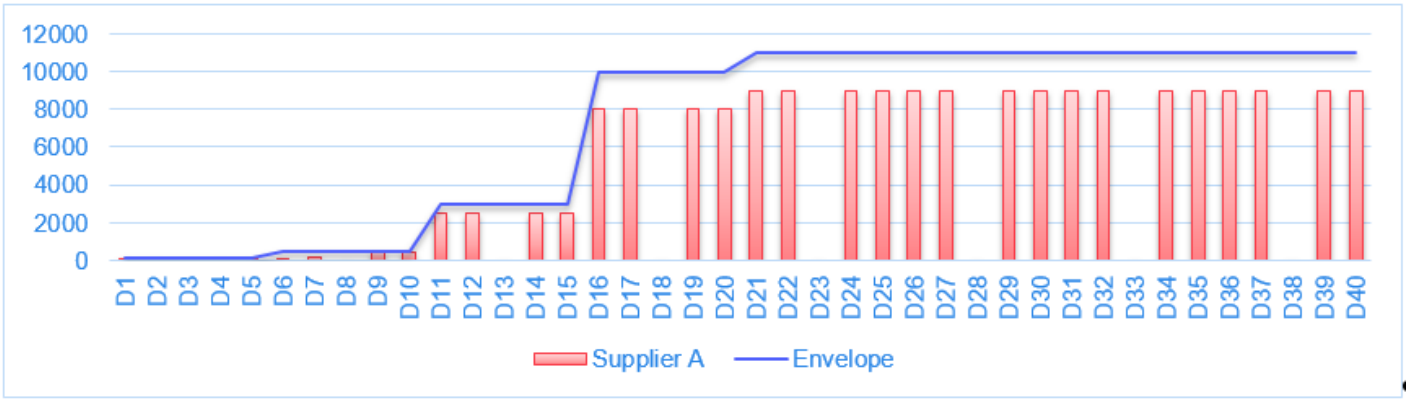

Figure 7 - Example Supplier Sprint Envelope and Daily Sprint Plan

D = Day

D1 = Supplier Migration Start Date.

In Figure 7 - Example Supplier Sprint Envelope and Daily Sprint Plan:

- The blue line is the Supplier's **daily Capacity Envelope** for a LDSO for a Sprint
- The red bars are the Supplier's planned migrations for each Migration Day D(n) in that period
- Supplier A has elected to have migrations only 4 days per week.