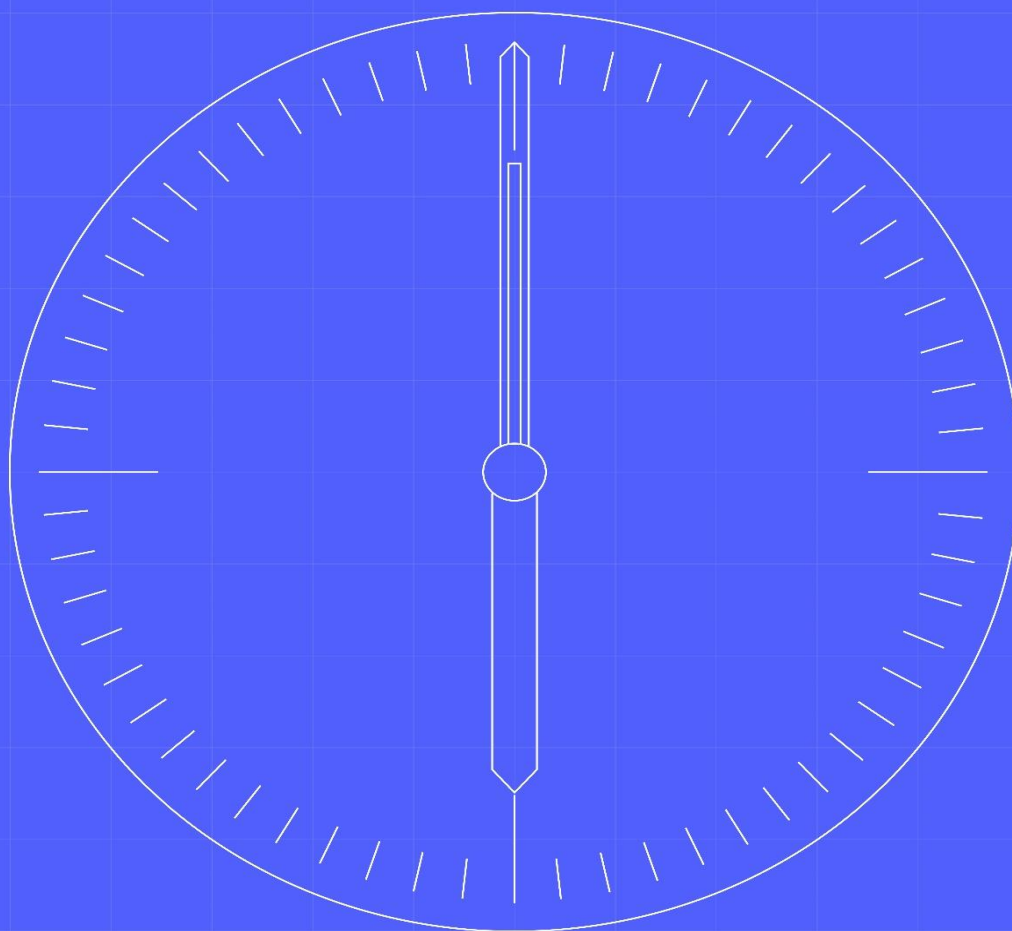


[03] Migration Capacity Calculations - Method Statements



Document owner
MHHS Programme
Status:
Approved by MCAG

Document number
MHHS-DEL2428
Date
29 April 2025

Version
4.0
Classification
Public

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1.1 Change Record

Date	Author	Version	Change Detail
18/03/2024	Migration Team	0.1	Draft for Industry Consultation
19/04/2024	Migration Team	0.2	Revised Draft for Assurance Meeting
08/05/2024	Migration Team	1.0	Version Uplifted following MCAG Interim Approval
13/06/2024	Migration Team	1.1	Draft for Industry Consultation 2
27/06/2024	Migration Team	1.2	Updated following Industry Consultation comments
25/07/2024	Migration Team	2.0	Version Uplifted following MCAG Interim Approval
26/11/2024	Migration Team	2.1	Draft for Industry Consultation 3
31/01/2025	Migration Team	2.2	Updated following Consultation 3 Industry Review
25/02/2025	Migration Team	3.0	Interim Approved by MCAG
14/03/2025	Migration Team	3.1	Draft for Industry Consultation 4
11/04/2025	Migration team	3.2	Updated following industry Review
29/04/2025	Migration Team	4.0	Upversioned following MCAG Approval

1.2 References

Document	Publisher	Published	Additional Information
REF-01 MHHS-DEL2426-[01] Migration Framework Foundations v4.0	Migration Team	29/04/2025	Migration FW
REF-02 MHHS-DEL2427-[02] Migration Framework - Principles and Guidelines v4.0	Migration Team	29/04/2025	Migration FW
REF-03 MHHS-DEL2428-[03] Migration Capacity Calculations - Method Statements v4.0	Migration Team	29/04/2025	Migration FW
REF-04 MHHS-DEL2429-[03a] Calculations Monitoring and Control – Parameters v4.0	Migration Team	29/04/2025	Migration FW
REF-05 MHHS-DEL2430-[04] Migration Requirements and Processes v4.0	Migration Team	29/04/2025	Migration FW
REF-06 MHHS-DEL2431-[04a] Migration Business Process Models v4.0	Migration Team	29/04/2025	Migration FW
REF-07 MHHS-DEL2762-[05] Migration Choreography v4.0	Migration Team	29/04/2025	Migration FW
REF-08 MHHS-DEL2763-[06] Migration Governance and Escalation Framework v4.0	Migration Team	29/04/2025	Migration FW
REF-09 MHHS-DEL2764-[07] Migration Data Requirements and Reports v4.0	Migration Team	29/04/2025	Migration FW
REF-10 MHHS-DEL961 – Migration Design Document v1.5	Migration Team	26/03/2025	
REF-11 MHHS-DEL953 – Data Assessment Report v1.0	Migration Team	21/02/2023	
REF-12 MHHS-DEL1128 – Migration, Cutover and Data Strategy v1.0	Migration Team	02/06/2023	
REF-13 MHHS-DEL1648 - Migration Thresholds Document v2.0	Migration Team	25/02/2025	
REF-14 MHHS-DEL813 – Overarching Test Data Approach and Plan v1.0	Testing Team	19/07/2023	
REF-15 MHHS-DEL1181 – Data Cleanse Plan v4.1	Migration Team	01/04/2025	
REF-16 MHHS-DEL1792 - M15 Acceptance Criteria v2.0	Migration Team	25/02/2025	
REF-17 MHHS-DEL3359 – Terminology and Glossary v4.0	Migration Team	29/04/2025	Migration FW

1.3 Terminology

Please see REF-17 MHHS-DEL3359 – Terminology and Glossary

2 Supplier Migration Capacity Calculations: Method Statement

2.1 Introduction

This document details the calculations required to set the Scaled Supplier Capacity Envelopes within each LDSO Region (defined by the Supplier Market Participant Identifier: MPID_{XR}). These envelopes will inform Suppliers of the Capacity within which it is expected that they shall submit their Migration Schedules. The calculations use the Parameters defined in MHHS-DEL2429-[03a] Calculations Monitoring and Control – Parameters v3.0

This document, and supporting documents as listed in the References section, together with the migration timetable, form f the MHHS Migration Plan that details the obligations, as defined in Section C12 of the Balancing and Settlement Code Section C, that defines the obligations on MHHS Market Participants relating to participation in the Migration of MHHS Metering Systems.

2.2 Load Contention

The calculations accommodate competing ‘thresholds’ set out in the Migration design artefact MHHS-DEL1648-Migration Threshold Documentv1.0. Thresholds are set for both Central System Parties (200-300K per Migration Date) and by each LDSO Region (10-40K per Migration Date).

See the following documents for the actual values MCC controlled parameters including Central Systems Thresholds and LDSO Thresholds:

- MHHS-DEL2427-[02] Migration Framework - Principles and Guidelines v4.0
- MHHS-DEL2429-[03a] Calculations Monitoring and Control – Parameters v4.0

2.3 Approach

These calculations shall be undertaken for each LDSO Region and Supplier combination. The approach set out in the calculations below initially adjust the Central Service Migration Threshold to accommodate small LDSO Market Participant Identifiers (MPIDs) with MPAN Volumes that are below a De Minimis Threshold. An Adjusted LDSO Migration Threshold is then calculated to include capacity that is reserved for re-tries and re-migrations following reverse Migration activity. The Adjusted LDSO Migration Threshold also excludes Supplier MPIDs that have portfolios that are below a De-Minimis Supplier Threshold. The Adjusted LDSO Migration Threshold Capacity is then split proportionally between qualified Suppliers within the LDSO Region weighted to ensure late qualifying Parties have sufficient capacity to complete their Migration activities by the ‘M15’ Milestone.

2.4 Detailed Calculations for Scaled Supplier Capacity Envelopes

The following Identifiers are used in this document:

Identifier	Data item
D	Migration Date
R	LDSO Region
X	Supplier

2.5 Setting the Central Service Migration Threshold

The daily Central Service Migration Threshold (CSMT_D) for Migration Date “D” shall have a default value of 200K. This value may be flexed up to 300K to accommodate peak Migration Periods.

2.6 Calculating the De Minimis LDSO Factor

Where for an LDSO Region “R” the LDSO Metering Point Count (LMPC_{RD}) is less than the De minimis LDSO Threshold (DLT_R) value then the De minimis LDSO Threshold Flag (DLTF_R) shall be set as follows:

```
If LMPCRD < DLTR
    then set the LDSO MPID “R” DLTFR = “T”,
else DLTFR = “F”
```

Then the De minimis LDSO Factor (DLFC) is calculated as follows:

$$DLFC = \sum_{R=1 \text{ to } n} LMPC_R / LMPC_N$$

Where LMPC_R is the LMPC where the DLTF equals “T” and LMPC_N is the total number of Metering Points across all LDSOs.

2.7 Calculating the De minimis Supplier LDSO Factor

Where for a Supplier “X” the Initial Supplier (Group) LDSO Portfolio (ISLP_{RX}) is less than the De Minimis Supplier LDSO Threshold (DSLTF_{RX}) value then the De minimis Supplier LDSO Threshold Flag (DSLTF_{XR}) shall be set as follows:

```
If ISLPRX < DSLTFRX
    then set the Supplier MPID “X” DSLTFXR = “T”,
else DSLTFXR = “F”
```

Then the De minimis Supplier LDSO Factor (DSLFC) is calculated as follows:

$$DSLFC_{DR} = \sum_{XR=1 \text{ to } n} ISLP_{RD} / ISP_{RND}$$

Where ISP_{RD} is the sum of active Suppliers on Migration Date ‘D’ where the DSLTF_R equals “T” and ISP_{RND} is the total number of Metering Points across all active Suppliers on Migration Date ‘D’.

2.8 Determining the Adjusted Central Service Migration Threshold

The daily Adjusted Central Service Migration Threshold (ACSMT_D) shall be determined using the Central Service Migration Threshold (CSMT_D) and the De-Minimis LDSO Factor (DLFC_D) as follows:

$$ACSMT_D = CSMT_D * (1 - DLFC_D)$$

2.9 Determining the Reserved Capacity

The daily Reserved Capacity (RC_{RD}) shall be determined using the Unadjusted LDSO Migration Threshold (ULMT_{RD}) and the Reserved Capacity Factor (RCFC_{RD}):

$$RC_{RD} = (ULMT_{RD} * RCFC_{RD}) - ULMT_{RD}$$

The UMLT_R will be calculated on each refresh of LDSO Metering point Count(LMPC).

2.10 Determining the Adjusted LDSO Migration Threshold

The daily Adjusted LDSO Migration Threshold ($ALMT_{RD}$) shall be determined using the Adjusted Central Service Migration Threshold ($ACSMT_{RD}$) the LDSO Metering Point Count ($LMPC_D$) the Deminimis Supplier LDSO Factor ($DSLFC_{RD}$) and the Reserved Capacity (RC_{RD}) as follows:

$$ALMT_{RD} = \text{Min}((ACSMT_D * (LMPC_{RD} / \sum LMPC_D)) * (1 - DSLFC_{RD}) + RC_{RD}, UMLT_{RD})$$

2.11 Determining the Scaled Supplier Capacity Envelope

Where the Supplier is below Small Supplier LDSO Portfolio Threshold (SSLPT), then the Daily Envelope for the migration date will be set to such Suppliers portfolio size within that LDSO region.

Else,

where the Supplier (De minimis LDSO Threshold Flag (DLTF) OR De minimis Supplier LDSO Threshold Flag (DSLPTF)) IS TRUE, then the Daily Envelope for the migration date will be set to the De minimis Submission Percentage (DSP) of the LDSO Threshold (LT_R).

Then,

the daily Scaled Supplier LDSO Capacity Envelope ($SSLCE_{XRD}$) shall be determined using the Adjusted LDSO Migration Threshold ($ALMT_{RD}$), the Initial Supplier LDSO Portfolio ($ISLP_{RX}$) and the Supplier LDSO Scaling Factor ($SLSF_{XRD}$) as follows:

$$SSLCE_{XRD} = ALMT_{RD} * (ISLP_{RX} * SLSF_{XRD} / (\sum_{x=1 \text{ to } n} (ISLP_{RX} * SLSF_{XRD})))$$

Where $SSLCE_{XRD}$ is for Supplier Group MPID "X" for whom the envelope is being calculated and "n" are all the qualified Suppliers migrating on Migration Date "D" and have a $DMLSTF_{XR} = "F"$. The Supplier LDSO Scaling Factor ($SLSF_{XRD}$) as defined in the MHHS-DEL2429 - [03a] Calculation Monitoring and Control - Parameters shall be configured for each Supplier for each Sprint.

3 Scaled Supplier Capacity Envelope: Worked Example

The following is a worked example for the Distribution Region 'XMPL_R' and for the Supplier 'MIGR_{RX}' for Migration Date 'D'. For the purposes of this example:

The Central Service Migration Threshold ($CSMT_D$) = 200,000

The Total LDSO Metering Point Count for active Suppliers who receive Envelopes on Migration Date 'D' = 19,000,000

LDSO Data

LDSO MPID	LDSO Metering Point Count (LMPC)	Unadjusted LDSO Migration Threshold (ULMT)	Deminimis LDSO Threshold Flag (DLTF)	Reserved Capacity Factor (RCFC)
XMPL _{RD}	2,511,500	30,000	F	1.02

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DSTB	70,000	10,000	T		N/A
DISTC	50,000	10,000	T		N/A
De minimis LDSO Factor (DLFC)	0.02 (2%)				

Supplier Data

Supplier MPID	Initial Supplier LDSO Portfolio (ISLP)	De-Minimis Supplier LDSO Threshold Flag (DSLTF)		Supplier LDSO Scaling Factor (SLSF)	Scaled Supplier Portfolio (ISLP * SLSF)
MIGR_{RX}	950,000	F		1.0	950,000
SUPB	578,500	F		1.0	578,500
SUPC	533,000	F		0.7	373,100
SUPD	450,000	F		0.7	315,000
SUPE	10,000	T		N/A	N/A
SUPF	5,000	T		N/A	N/A
Deminimis Supplier LDSO Factor (DSLFC)	0.06 (6%)				
Total Envelope ISLP_{RD}	2,511,500				
Total Scaled Supplier LDSO Portfolio					2,216,600

NOTE: The De Minimis values shown in the above tables are for illustration purposes only.

3.1 Determining the Adjusted Central Service Migration Threshold

The daily Adjusted Central Service Migration Threshold (ACSMT_D) shall be determined using the Central Service Migration Threshold (CSMT_D: 200,000) and the De minimis LDSO Factor (DLFC_{RD} 2%) as follows:

$$ACSMT_D = 200,000 * (1 - 0.02) = 196,000$$

3.2 Determining the Reserved Capacity for XMPL_R

The daily Reserved Capacity (RC_{RD}) shall be determined using the Unadjusted LDSO Migration Threshold (ULMT_{RD}: 40,000) and the Reserved Capacity Factor (RCF_{RD}: 1.02):

$$RC_{RD} = (30,000 * 1.02) - 30,000 = 600$$

3.3 Determining the Adjusted LDSO Migration Threshold

The daily Adjusted LDSO Migration Threshold ($ALMT_{RD}$) shall be determined using the Adjusted Central Service Migration Threshold ($ACSMT_{RD}$: 196,000) the LDSO Metering Point Count ($LMPC_D$: 2,511,500) the Deminimis Supplier LDSO Factor ($DSLFC_{RD}$ 0.6) and the Reserved Capacity (RC_{RD} : 600) as follows:

$$ALMT_{RD} = (196,000 * (2,511,500)/19,000,000) * (1-0.06) + 600 = 24,954$$

3.4 Determining the Scaled Supplier Capacity Envelope for Supplier $MIGR_{RX}$

The daily Scaled Supplier LDSO Capacity Envelope ($SSLCE_{XRD}$) shall be determined using the Adjusted LDSO Migration Threshold ($ALMT_{RD}$: 24,954), the Initial Supplier LDSO Portfolio ($ISLP_{RX}$: 950,000), the Supplier LDSO Scaling Factor ($SLSF_{XRD}$:1.0) and the Total Scaled Supplier Portfolio ($TSSP$: 2,216,600) as follows:

$$SSLCE_{XRD} = 24,954 * (950,000/2,216,600) = 10,695$$

3.5 Final Allocation for Suppliers in LDSO $XMPL_R$ for Migration Date D

Completing the calculations for all Suppliers in the Supplier Data Table above gives the following allocation of Scaled Capacity Envelopes.

Supplier MPID	Initial Supplier Portfolio
$MIGR_{RX}$	10,695
SUPB	6,513
SUPC	4,200
SUPD	3,546
Total Allocation	24,954