

MARKET OPERATOR SERVICES LIMITED (“MOSL”)

Minutes of a meeting of the Technology Advisory Group to MOSL (the “TAG”) held by videoconference on 29 March 2023 at 10:00 a.m. (the “Meeting”)

Members Present:	John Davies (JD) Quentin Gallagher (QG) Stuart Reid (SR) Wesley Thomas (WT) Samuel Barber (SB) Paul Tate (PT) Sean Brookfield (SBR) Dean Garvey-North (DGN) David Halliday (DH) Margaret McLay (MM) Samantha Dawson (SD) Clare Garland (CGA)	MOSL CIO and TAG Chair Portsmouth Water Castle Water Anglian Water Wave Utilities – Until 10.45 a.m. Waterlevel – From 11.55 a.m. Water Plus Thames Water – Until 10.45 a.m. Northumbrian Water Group (NWG) Business Stream Delegate Portsmouth Water – Item 2 United Utilities Delegate
Other Attendees:	Harriet George (HG) Charlotte Green (CG) Martin Hall (MH) Matt Labrum (ML) Ricardo Wissmann-Alves (RWA) John Briggs (JB) Subhash Marti (SMA) Anthony Chan (AC)	MOSL Governance and Projects Administrator MOSL Governance Manager MOSL Market Improvement Lead MOSL Market Improvement Lead MOSL Head of IT Operations & Cyber MOSL Chief Architect MOSL Lead Business Intelligence Analyst MOSL Data Analyst
Apologies:	Mark Adams (MA) Louise Rutherford (LR) Stephen Speirs (SS) Stuart Mercer (SM) Rob Smith (RS) Dhiraj Sood (DS) Neil Pendle (NP) Darren Thresh (DT) Jacob Tompkins (JT)	Severn Trent Water United Utilities Business Stream Southern Water South East Water South East Water Waterscan Yorkshire Water Water Retail Company

1 Introductions and Welcome

1.1 JD opened the Meeting and welcomed new Members. The focus of the Meeting would be market data quality and MOSL’s target architecture. Presentations would be given on mobilisation of MOSL’s Central Data Cleanse programme, and MOSL’s recently published Data Model and Data Dictionary. The Meeting would then discuss MOSL’s plans for rehosting CMOS and its subsequent modernisation, before considering the transformation of the rest of MOSL’s IT estate. Members would have an opportunity to look ahead to topics the group wished to cover in 2023/24.

1.2 The Meeting was declared quorate.

1.3 **The minutes of the meeting of 22 November 2022 were confirmed as accurate.**

2 Central Data Cleanse – Programme Mobilisation and Outline Plan

SD entered the Meeting.

2.1 ML delivered a presentation on the Central Data Cleanse programme, providing an overview of the phased delivery plan for 2022/23 and beyond, and asked Members to consider the following:

- Would they, or other representatives from their respective organisations, be available to join an industry working or steering group overseeing programme delivery including examining the business case for the 2024/25 phase of the programme; and
- How they would like to be kept up to date with key milestones.

2.2 The Chair invited comments and questions from Members. The following points were discussed:

- A question was raised as to whether there was scope for the “ineligible premises” cleanse to include those premises that were beyond economic repair and those that were derelict/inhabitable. It was acknowledged that this was worthy of consideration and that in Q1 the Central Cleanse working group would take such points forward in refining the programme’s scope.
- Members queried whether MOSL was anticipating an increase in USR requests should wholesalers start to deregister several residential supply points, or if indeed there would be a new process put in place to deal with this. Though it was not yet clear whether an increase in USRs would be seen as a result of cleanse activity, MOSL had seen a general and steady increase in USRs over the last 18-24 months and that trend might continue. This was something which should be explored with the working group in Q1. In parallel, there was the need to commission a separate piece of work examining the USR process and whether it could be more efficient. Members agreed that, aside from settlement, there was a clear need for trading parties to work together collaboratively with MOSL to ensure large-scale de-registrations were managed effectively, without undue customer detriment.
- It was questioned whether the 2023/24 phase of the programme would look to identify when a premises had become non-eligible. JD explained that there were data sources that could identify, albeit with varying degrees of confidence, when the occupancy/status changed but that these were typically costly. It was proposed that this might be tested as part of the work in Q2 and Q3. However, when considering adding to the programme’s scope, there was a need to ensure that the benefits to the market justified the costs.
- Members discussed how potential suppliers to the Central Data Cleanse programme would be remunerated; would a fixed rate be offered, or would suppliers be rewarded based on the number of matches cleansed? In the first year the scope of the services with the third-party data services supplier will be defined in terms of data entities, use cases, outputs/deliverables, and the number of data quality assessments. In later years, as this becomes an enduring assurance service, we will consider alternative models if appropriate.
- It was acknowledged that in the initial stages, some use cases might not prove effective due to low success rates or high costs. In the long-term, the scope of the programme would be defined, key deliverables agreed, and a feedback mechanism established with trading parties. As the service matured, it was envisaged that high confidence assessment findings would be automatically adopted by trading parties.

- Members discussed whether the proposed pilot size, initially 100 samples per participating trading party per use case, was sufficient. It was agreed that this number was manageable to get started without it being too onerous for trading parties whilst large enough to produce meaningful results. It was confirmed that wholesalers and retailers would also receive a sample set of the high confidence/ low confidence matches, as part of the pilot, to review and understand the ask.
- The link between the outputs of the Central Data Cleanse programme and the development of the reformed Market Performance Framework, was reviewed. It was agreed that as market data quality and integrity would become a significant focus of the framework, the TAG should have the opportunity to comment on this. Therefore, an update on this aspect of the framework would be provided at a future meeting. Consideration would be given to the best timing for this.
- In response to ML highlighting that working group nominations were open until the end of the week, Members were forthcoming in offering to be involved or confirming that nominations had already been submitted. It was noted that a number of nominations had been received to date, with a good mix of wholesalers and retailers.
- Members reflected that the non-eligible cleanse would be the most complex and advocated that the working group should come up with a robust process for this. Members emphasised the importance of removing illegitimate supply points from the market first, otherwise time will be wasted in cleansing data for supply points that should not exist.
- Overall, it was acknowledged that a major part of the work this year would be defining and redefining the programme's business case on an ongoing basis and identifying the most important use cases. It was important to have customer impact in mind and be cognisant of any challenges which may be created for customers. In relation to this, it was proposed that there be a customer representation on the working group.

2.3 It was felt that Members had raised several good points and JD/ML would take these reflections forward for exploration with the working group in Q1. ML shared his contact details with the group, should they wish to reach out directly for information on nominations or for further conversations around the Central Data Cleanse programme.

**At 10.45 a.m., SB and DGN left the Meeting.
SD left the Meeting.**

3 Data Model and Data Dictionary

3.1 SMA delivered a presentation on the Data Model and Data Dictionary and the following points were raised:

- It was acknowledged that the work being undertaken on the Data Model and Data Dictionary was about broadening capabilities and producing a key set of data artifacts that could be used by the market.
- It was confirmed that no changes were being made to data transfer rules, since the interface was not being altered. Instead, the project's focus was on documenting the data held and how this was structured, to support both MOSL and trading party understanding.

It was noted that if interface changes were made in the future, as the result of market driven changes for example, the documents would be updated accordingly.

- It was suggested that the Data Model and Data Dictionary would also be valuable for third parties interfacing to Bilaterals/ CMOS.
- Members discussed practical lessons from data modelling within their own data architecture and the business value around undertaking this. A key challenge was the potential disconnect between the product development and consumption; products needed to be designed from a consumer perspective. MOSL should aim to make its products as valuable as possible to the consumer, to avoid it becoming an admin exercise.
- It was felt that it was worth investing in tools or products to ensure data artifacts were kept up to date, to avoid the work becoming onerous or residing as legacy documents. MOSL confirmed that documents were “living” and would be updated in line with the releases to CMOS/ MVI/ Bilaterals.

3.2 Members were invited to raise further questions outside of the Meeting.

4 CMOS Rehost – Outline Plan and High-Level Design

4.1 RWA delivered a presentation on the rehosting of CMOS to the Microsoft Azure cloud. The following points were raised:

- Members raised questions on CMOS Release 14.5. Firstly, whether SSO would “go live” at the same time as this deployment. It was confirmed that SSO would not have the same timeline, with no date planned yet; this element of MO system modernisation would take longer to execute. Secondly, Members asked whether MVI-API was part of the release. JB explained that it was not since it was decoupled from CMOS. MVI-API was being developed in collaboration with Anglian Water who were currently piloting it, with a “go live” date for MVI-API planned for the next 6-8 weeks.
- Members discussed the with licencing fee increases in Microsoft Azure. Many third-party applications were only available in the Microsoft Azure cloud and thus many Member organisations felt forced or heavily incentivised to make the move to Microsoft Azure.
- The TAG highlighted the increasing cost of Microsoft Azure cloud services. This was in part a result of indexation applied year-on-year, quarter-by-quarter, and the impact of higher USD exchange rates. It would be prudent for MOSL to consider how it would manage the cost of high volume transactions post-rehost.

At 11.55 a.m., PT joined the Meeting.

4.2 JB expanded elaborated on the three-tier CMOS architecture, and the following points were raised:

- It was recognised that Jaspersoft, a reporting and analytics software embedded in the CMOS platform, did not support effective analytics and insight, and had a bad reputation with trading parties for reporting. MOSL had been limited in the improvements it could make to analytics reporting, due to the software and the current IT architecture. Members were assured that the rehost would unlock access to the CMOS databases and utilise the analytical tools available in Azure, enabling trading parties to perform the reporting they required. The TAG emphasised the importance of MOSL engaging with the market to understand the different use cases, in designing a reporting model that the market required.

- Members considered whether there was still a need for the MPS and MPS2 test environments, within MOSL's IT infrastructure. It was felt that the MPS environment was rarely utilised by trading parties. It would be useful to understand how much demand there was for the environment, so MOSL could determine whether to switch-off the environment or reduce availability, thus making cost savings.
- Members discussed the opportunity for reducing the availability of the MPS2 environment. Members were supportive of the proposal to switch-off MPS2 outside of core business hours but suggested that an exception process should be in place, enabling trading parties to request access outside of core business hours, if required. A similar approach might be adopted to enable capacity reduction in the disaster recovery environments.
- Members were keen to determine whether, given the decline in LVI transactions, MOSL was planning to make this interface redundant in the longer-term. It was confirmed that the LVI was necessitated by the Codes' requirements, and so would not be abolished. However, the way it was engineered would be evolved.

4.3 The Chair thanked RWA and JB for their presentation.

5 MO System Modernisation

5.1 JB delivered a presentation on MO system modernisation and the following points were raised:

- In light of the reporting services which were due to be released, and the MPF Reform programme, could reports be produced to show MPF failures, against the new framework metrics that would be rolled out, per SPID. Members were informed that this would not be available in time for the new releases. However, depending on the outcomes of the MPF Reform programme and the metrics required, there might be a business case to develop this capability.

5.2 The Chair thanked JB for his presentation.

6 AOB, Next Agenda and Close

4.1 It was agreed that future agendas should include:

- **An update report on the Central Data Cleanse programme, as a standing item in 2023/24;**
- **A discussion of the MPF metrics relating to market data quality and integrity, at the point at which the MPF Reform programme was consulting on performance metrics;**
- **Presentations on Member plans for smart metering and the evolving technologies being employed, as WRMPs were being finalised for submission in Autumn 2023;**
- **An examination of the ways Members were working with Microsoft to optimise Member organisation IT estates; and**
- **An update on MOSL's Technology Roadmap delivery.**

(Action: JD/ ML/ CG – June to October 2023).

6.1 There being no further business, JD thanked the presenters and attendees for their time and interest, and declared the Meeting closed at 12:50 p.m.

Glossary

API – Application Programming Interface

CMOS – Central Market Operating System

Codes/ MAC – Market Arrangements Code and Wholesale Retail Code as applicable

LVI – Low Volume Interface

MO – Market Operator

MPF – Market Performance Framework

MPS – Market Performance Standards

MVI – Medium Volume Interface

Q – Fiscal Quarter

SPID – Supply Point Identifier

SSO – Single Sign On

USD – United States Dollar

USR – Unplanned Settlement Run

WRMP – Water Resource Management Plan