

## MHHS Testing and Migration Advisory Group Actions and Minutes

Issue date: 25/05/22

Meeting number	<b>TMAG005</b>	Venue	<b>Virtual – MS Teams</b>
Date and time	<b>18 May 2022 1000-1200</b>	Classification	<b>Public</b>

### Attendees

#### Chair

Chris Welby (CW) MHHS IM SRO

#### Industry Participants

Badruddin Khan (BK) Elexon Representative (as central systems provider)  
 Ian Hall (IHal) Supplier Agent Representative  
 Ian Hatton (IHat) Western Power  
 Nickie Bernsmeier-Rullow (NBR) DCC Representative (as smart meter central system provider)  
 Stacey Buck (SB) iDNO Representative

#### MHHS IM members

Adrian Ackroyd (AA) Test Manager  
 Jason Brogden (JB) Industry Expert  
 Kate Goodman (KG) Test Architect  
 Martin Cranfield (MCra) PMO Governance & Secretariat Lead  
 Miles Winter (MW) PMO Governance & Secretariat Support  
 Nigel Hunt (NH) Testing QA

#### Other Attendees

Martin Crozier (MCro) MHHS IM IPA Stage-Based Assurance Lead  
 Sinead Quinn (SQ) Ofgem (as observer)

#### Observers

Chandrani Ghosh (CG) Elexon Test Manager  
 Santosh Vasudevan (SV) Elexon Test Lead

### Actions

Area	Action Ref	Action	Owner	Due Date	Update
<b>Test stubs and harnesses</b>	TMAG05-01	Validate with constituents the Programme's assumption that Programme Participants have a way of injecting the Programme's generated data into their systems. Share feedback from constituents with PMO ahead of next TMAG	TMAG members	15/06/22	Agenda item for next meeting

<b>MWG</b>	TMAG05-02	Share MWG Headline Report with TMAG members	Programme (PMO)	19/05/22	Shared with meeting minutes
<b>Other</b>	TMAG05-03	Share updated slide pack (inc. updated slides as presented and updated slide 14 to change ARP to ADS)	Programme (PMO)	19/05/22	Shared with meeting minutes

## Decisions

Area	Dec Ref	Decision
<b>Test Data Strategy</b>	TMAG-DEC09	The Test Data Strategy was approved.

## RAID Items

RAID area	Description
None raised	

## Minutes

### 1. Welcome

The Chair welcomed all to the TMAG 005 and ran over the agenda. The Chair invited attendees to introduce themselves.

### 2. Minutes and Actions

The minutes from April 20 April 2022 were **APPROVED**.

The Chair ran through the actions as per the slides. The Chair noted TMAG04-02 would be discussed in today's TMAG.

### 3. Governance Group Updates

MW provided an overview of the Governance Group updates as per the slide, highlighting CR001 approval from Ofgem at PSG and progression of Design tranche 1 and 2 documentation through DAG. CW highlighted an ask for constituency representatives for the PSG, DAG and TMAG.

### 4. Test Data Strategy

KG provided an overview of the Test Data Strategy review cycles and action taken by the Programme following these as per the slides. KG gave some background to the purpose of the Test Data Strategy, including an objective to minimise testing and data requirements on Programme Participants. This included the need for a refreshed data cut to be taken by the Programme in future due to the degrading nature of data over time. KG asked TMAG for approval of the document on this basis.

The Chair asked for questions before moving to formal approval. BK asked if the Test Data Strategy would go to PSG for final approval. KG clarified this was the final stage of approval – the L4 working groups develop the content and then make a recommendation to the advisory group to make a decision. CW confirmed this was the way of working for the whole Programme. CW noted if there was an issue with approval at TMAG then it could be escalated to PSG. KG added that the Test Data Strategy and E2E T&I Strategy would both be reviewed following M5.

CW asked if anyone did not wish to approve Test Data Strategy. No comments received.

**DECISION TMAG-DEC09 – Test Data Strategy APPROVED**

### 5. E2E Testing and Integration Strategy

KG outlined the process so far as per the slides. KG reiterated that the document will be reviewed following M5 to see if it needs any revision. KG asked for comments. None received.

## 6. Test stubs and harnesses

KG introduced the topic as per the slides. KG noted that Test Harnesses was covered in the main TMAG slide pack, but Test Stubs are also used to mean any software that the Programme may need to build for the testing of the system that will not be used in any BAU running. This applies across PIT, SIT and UIT. KG noted the Programme was currently unsure what form consumption data generation will take but that it is likely to be a .csv. MHHSP will be changing the quantity and nature of data, so it makes sense to provide Programme Participants with a data generator.

### Test harnesses in PIT

IHal asked a question on ADS data generation if this would be at site or meter level. KG clarified the approach would be whichever is the most appropriate at the time. Data would be generated in a way to exercise systems and process functionality. IHal added that all data was currently at site level and that only DCC see meter level. It may be necessary to sum at meter level. NBR queried if this takes into account interaction with CSS as CSS data would need to be 'live'. KG clarified this would depend on the MPANs being used and all test data will need to be consistent and coherent, including CSS data. CSS would not see consumption data. NBR queried if this made SIT become UIT. KG responded that Programme Participants would lead their own PIT. NBR asked if the Programme's PIT would be the same as Programme Participants UIT – within UIT there will be a number of environments and CSS would need to be aligned/ring fenced for this specifically. KG responded that this was dependent on the environments required. Programme Participant PIT and SIT activities would need to be aligned with the overall programme approach, and some Programme Participants would need to do some activities in their UIT environments, but that is to consider against the requirements of the different MHS test phases. When the Programme moves into SIT, the Programme will be distributing data across the ecosystem and therefore Programme Participants would need to refresh their data from their own UIT/PIT.

JB added that PIT is Programme Participants test phase in advance of coming into the Programme's SIT. NBR clarified that UIT will follow PIT, with the code-base from PIT being transferred into the Programme's SIT. AA clarified that PIT is for Programme Participants to deliver their own internal testing, supported by the Programme. NBR clarified that DCC will undertake PIT and then SIT, before transferring their code into UIT. AA noted there is no logical environment for PIT, while SIT and UIT will be combined. Harnesses will assist Programme Participants in the execution of their PIT testing, particularly for other Programme Participants that are not as advanced as DCC. NBR asked if the SIT environment is the ecosystem code is deployed into. KG confirmed this was the case and that these questions would be addressed in the environments working group standing up in July 2022. This is important for integration across PIT and SIT. NBR queried if an independent CSS solution was required for SIT. KG confirmed there is potential for more open environments TBC through ECMWG.

KG noted further detail is to be defined for harnesses in Advanced and Unmetered supplies. KG asked for feedback. None received. KG queried the assumption on 'injecting' these processes into PPs systems. CW asked constituency representatives to test this with their constituencies.

**ACTION TMAG05-01 TMAG members to validate with constituents the Programme's assumption that Programme Participants have a way of injecting the Programme's generated data into their systems. Share feedback from constituents with PMO ahead of next TMAG**

KG moved to discuss simulators. This has developed slightly from the TOM. In the TOM, there is a process for data to move into the MDS via the DIP. It would therefore be helpful for simulators to support testing this transfer into MDS. Another interface in the TOM was on load shaping at the interface between SMART and LSS load shaping. This would be a simple interface to test. KG noted another level of detail has been added to the TOM (e.g. industry standing data interface) with a question of how simulators should be provided to be more generalised. The Programme is currently exploring more generalised simulators to support any interactions with the DIP. KG asked for comments, none received. JB added on load shaping input data that inputs in Advanced and Unmetered have now been developed through development of the TOM.

### Test harnesses in SIT

KG noted a number of objectives in SIT. Firstly, there is a need for enough test harnesses to support SIT. The Programme are not expecting all systems to communicate from the off but to start with the DIP and Central Services and then build outwards. Given the volumes of data in the Programme, the Programme thought it would be best to use software to build emulators to take consumption data and produce settlement period data. The software needs to be developed and tested

stringently to ensure the outputs are correct. KG asked for comments, noting this is most applicable for central services. None received.

CW queried if the definitions of these terms (e.g. emulators) are in the Programme glossary. KG confirmed they should be. JB added simulators are there to support testing and emulators are to ensure consistency in expected results. IHaI noted the ADS Emulator would be highly complex and likely to have problems. KG agreed and invited input from ADS providers. IHaI added there were a large number of fields for them to understand. JB added this was important for creating a baseline to compare results against. AA queried if IHaI was planning something along these lines for their testing. IHaI responded not yet, but may do it in UAT/developing new code. AA added doing this in collaboration across the Programme and Programme Participants would aid the process.

### **Test harnesses in UIT**

KG noted qualification and E2E sandbox testing would take place in the Programme's UIT. Many test environments would be costly. If difficult to have test CSS presence, the Programme could seek to develop a simple simulator (this requires discussion with CSS). The Programme does not intend to have a DSP simulator and needs to work closely with DCC to define this. KG invited comments. None received. The Chair invited members to share feedback with KG or the PMO should they have further comments.

### **7. Migration Working Group (MWG) update**

AA introduced the slide and activity undertaken at the recent MWG. 23 parties attended across a range of roles and organisations with strong engagement. AA presented the topics discussed as per the slides and commented that the quality of discussion was good. AA added that the outputs of the MWG will inform the Migration, Cutover & Data Strategy.

AA noted some additional topics were discussed including sunseting and unmigrated MPANs at end of migration phase. A post-meeting comment had been received on whether all new connection MPANs should go straight to the new arrangements. Principles are beginning to emerge from these discussions. AA commented that all information from the MWG is available in the MWG Headline Report if TMAG members would like to see this.

<b>ACTION TMAG05-02 – share MWG Headline Report with TMAG members</b>
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CW commented that some of the discussions at MWG are feeding into the replan exercise. CW emphasised that the MWG is open to all as an L4 group and invited members to attend if they are interested.

### **8. Environments working group mobilisation**

AA introduced the item, noting that environments are important for delivering Test and Migration in the Programme particularly due to their high cost and time taken to stand up. To address environments, the Programme intends to establish the Environments and Configuration Management Working Group (ECMWG). This will define the environments approach and plan (e.g. intended environments, constituent parts, requirements of PPs). Meetings are intended for the first Tuesday of the month, starting on 05 July 2022.

CW noted environment experts may not be up to speed with the Programme and invited PPs to speak to the Programme if there's anything the Programme can do to help bring people onboard. KG noted the first meeting should include a catch up of where we are. CW added the agenda could include an overview of MHHS and why environments/purpose are important.

<b>ACTION TMAG05-03 Programme to share updated slide pack (inc. updated slides as presented and updated slide 14 to change ARP to ADS)</b>
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### **9. Summary and next steps**

MW ran through the actions as per the action summary table above. The Chair noted action TMAG05-01 should be an item for next month. The Chair provided an overview of planned agenda items for next month.

The Chair invited any AOBs. None raised. The Chair closed the meeting.

**Date of next TMAG: 15 June 2022**