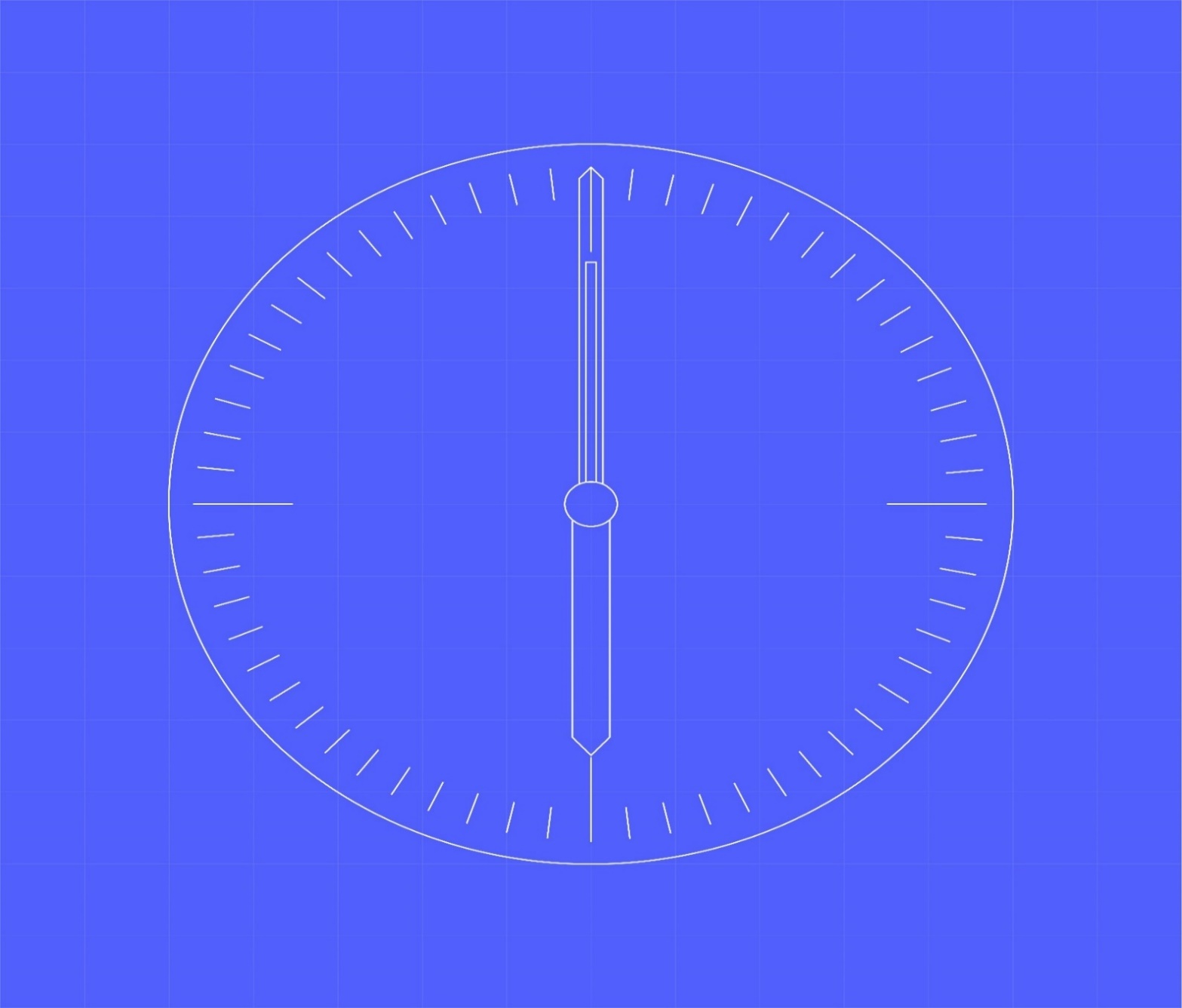
****CIT SI Test Completion Report**** 

|  |  |  |
| --- | --- | --- |
| Document owner | Document number | Version |
| **Nigel Hunt** | **MHHS-DEL2257** | **1.0** |
| Status: | Date | **Classification** |
| **Approved** | **11 March 2024** | **External** |

|  |  |  |
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| Document owner | Document number | Date |
|  |  |  |

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|  |  |  |  |
| --- | --- | --- | --- |
| Date | Author | Version | Change Detail |
| 02-Feb-24 | Nigel Hunt | 0.2 | Original draft |
| 12-Feb-24 | Nigel Hunt | 0.3 | Updated document following SRO feedback |
| 14-Feb-24 | Nigel Hunt | 0.4 | Updated document following SI feedback |
| 15-Feb-24 | Nigel Hunt | 0.5 | Updated document following SRO Walkthrough |
| 22-Feb-24 | Nigel Hunt | 0.6 | Updated document following SRO formal feedback |
| 11-Mar-24 | Fraser Mathieson | 1.0 | Approved as v1.0 by SIT Advisory Group (SITAG) |

## Document Review

|  |  |
| --- | --- |
| Reviewer | Role |
| Lee Cox | LDP Test Manager |
| Kevin Davis | Test Architect |
| Dominic Mooney | LDP SIT Manager |
| Jason Brogden | Industry Programme Expert |
| Kiran Raj | SRO SIT Functional Test Lead |
| Adrian Ackroyd | SRO Client Programme Test Manager |
| Smitha Pichrikat | SRO Client Delivery Manager |

## References

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reference | Documents | Publisher | Published | Additional Information |
| REF-01 | [MHHS-DEL1258 SIT Component Integration Testing Approach & Plan](https://mhhsprogramme.sharepoint.com/sites/Market-wideHalfHourlySettlement/Testing%20Documents/Forms/All%20Documents%20v2.aspx?id=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents%2FMHHS%2DDEL1258%20SIT%20Component%20Integration%20Test%20Approach%20%26%20Plan%20v1%2E0%2Epdf&parent=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents) | SI Testing | 19th July 2023 |  |
| REF-02 | [MHHS-DEL852 - Pre-Integration Test Guidance](https://mhhsprogramme.sharepoint.com/sites/Market-wideHalfHourlySettlement/Testing%20Documents/Forms/All%20Documents%20v2.aspx?id=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents%2FMHHS%2DDEL852%20%2D%20%20Pre%2DIntegration%20Testing%20Guidance%20v2%2E1%2Epdf&parent=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents) | SI Testing | 18th August 2023 | Not referenced in document – but adjacent artefact for parallel reading |
| REF-03 | [MHHS-DEL1064 - Placing Reliance Policy](https://mhhsprogramme.sharepoint.com/sites/Market-wideHalfHourlySettlement/Testing%20Documents/Forms/All%20Documents%20v2.aspx?id=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents%2FMHHS%2DDEL1064%20%2D%20Placing%20Reliance%20Policy%5Fv1%2E0%2Epdf&parent=%2Fsites%2FMarket%2DwideHalfHourlySettlement%2FTesting%20Documents) | SI Testing | 27th April 2023 | Not referenced in document – but adjacent artefact for parallel reading |
| REF-04 | [MHHS-DEL466 - Defect Management Plan](https://mhhsprogramme.sharepoint.com/sites/Market-wideHalfHourlySettlement/Testing%20Documents/MHHS-DEL466%20-%20Defect%20Management%20Plan%20v1.2.pdf?web=1) | SI Testing | 23rd May 2023 | Not referenced in document – but adjacent artefact for parallel reading |
| REF-05 | [MHHS-DEL1332 - Test Management Tool User Guide](https://mhhs-prod-webapp.azurewebsites.net/uploads/685c607f-3c6c-461a-99c4-bf032a4040ff/MHHS-DEL1332_-_Test_Management_Tool_User_Guide_v1.0.pdf) | SI Testing | 16th June 2023 | Not referenced in document – but adjacent artefact for parallel reading |
| REF-06 | [MHHS-DEL1309 - CIT Test Data Approach & Plan](https://mhhs-prod-webapp.azurewebsites.net/uploads/238a5b27-4a45-4c80-bafd-672e6efb96ff/MHHS-DEL-1309-_SIT_CIT_Test_Data_Approach_&_Plan_v0.3.pdf) | SI Testing | 19th July 2023 | Not referenced in document – but adjacent artefact for parallel reading |
| REF-07 | [Secondary Routing\_Additional Testing v0.2.pptx](https://mhhsprogramme.sharepoint.com/:p:/r/sites/MHHS-Internal/Shared%20Documents/General/06.%20SI%20Workstream/3.%20Testing/SIT/Component%20Integration%20Test/CIT%20Scope_Secondary%20Routing/Additional%20Secondary%20Routing/Secondary%20Routing_Additional%20Testing%20v0.2.pptx?d=w2741d76f5ae74dfa891b0e53759eb853&csf=1&web=1&e=09hTbl) | SI Testing | 17th January 2024 |  |
| REF-08 | [MHHS CIT Stub Overview.pptx](https://mhhsprogramme.sharepoint.com/:p:/r/sites/MHHS-Internal/Shared%20Documents/General/06.%20SI%20Workstream/3.%20Testing/SIT/Component%20Integration%20Test/CIT%20Approach%20%26%20Plan/CIT%20Stubs%20and%20Test%20Harnesses/MHHS%20CIT%20Stub%20Overview.pptx?d=w9ed016909be34c2d931cde66261061a4&csf=1&web=1&e=zC696J) | SI Testing | 30th October 2023 |  |
| REF-09 | DES138 Interface Catalogue v5.2.1 | SI Design | 15th February 2024 |  |

## Terminology

|  |  |
| --- | --- |
| Term | Description |
| Various | For terminology, see Programme glossary on the MHHS portal:  [Programme Glossary (sharepoint.com)](https://mhhsprogramme.sharepoint.com/sites/Market-wideHalfHourlySettlement/SitePages/Programme-Glossary.aspx) |

# Introduction

The Market-wide Half Hourly Settlement programme (MHHS) when completed will contribute to a more cost-effective electricity system, encouraging more flexible use of energy and helping consumers lower their bills.

The Programme has a defined set of documentation which will be produced to support the preparation and conduct of each System Integration Test (SIT) stage. This Component Integration Test (CIT) SI Test Completion Report document specifically relates to the CIT stage, describing the associated objectives, scope summary, Testing Milestones, Exit criteria, Defect Summary and Recommendations of the overall CIT test stage. This is a child document of [REF-01] MHHS-DEL1258 SIT Component Integration Testing Approach & Plan and therefore it is recommended that for context both documents are read in conjunction.

The objective of the CIT SI Test Completion Report is to provide an overall closure position of CIT for the MHHS solution. The aim of the document is;

* To provide an overall Test Execution Summary for CIT test phase.
* To provide information on defects identified during the CIT test phase and any outstanding defects that can hamper the progress into SIT Functional.
* To assess the outcomes of the phase against the Test Exit Criteria as highlighted in [REF-01] MHHS-DEL1258 SIT Component Integration Testing Approach & Plan; and
* To provide information on defects identified and resolved during testing and any defects that remain open at the end of the test phase.

# Requirements

## Requirements Traceability Summary

Requirements mapping is auditable from the Test Case Repository in Azure DevOps (ADO), where each of the Test Cases explicitly references the Interfaces that they cover. The details include date, Event Code and segment variants.

These Test Cases all map to the [REF-09] DES138 Interface Catalogue v5.2.1.

See Appendix F for full traceability from Interface to Test Case.

# CIT Test Execution Summary

## CIT Testing Executive Summary

The objective of the Component Integration Test (CIT) stage is to demonstrate that each Market role in scope, which directly integrates with the Data Integration Platform (DIP), can bi-laterally interface with the DIP successfully and the DIP can then route interface messages to the correct recipients based on IF message sender and payload conditions. The purpose of this testing is to build confidence for, and de-risk, the subsequent SIT Functional Test stage where full E2E business process tests involving all roles will be executed.

The objective of CIT was to execute and pass all test scenarios / cases in scope of the Test Stage without exception.

## In scope test scenarios

See Appendix E for full list of “In Scope” Test Cases by Interval.

## Out of scope test scenarios

See Appendix E for full list of “Out of Scope” Test Cases by interval.

Interfaces that were agreed as “Out of Scope” are:

* IF-015
* IF-016
* IF-050

## CIT Testing Milestones Planned vs Actual

See Appendix B for planned versus actual status as of the date of publication of this document,

## Final Overall Execution Status

The table below shows the summary of Final Overall Execution Status.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** | **Interval** | **No Run** | **Paused** | **Passed** | **Blocked** | **Failed** | **N/a** | **Run** | **Total** |
| Stark | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| SSEN | Interval 5 - UMSO | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 9 |
| SSEN | Interval 6 - REGS | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 11 |
| SSEN | Interval 5 - LDSO | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 19 |
| SSEN | SSEN Tests | 0 | 0 | 15 | 0 | 1 | 0 | 16 | 16 |
| SMS | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| SMS | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| ProCode | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| Kraken | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| Kraken | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| Kraken | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| Itron | Interval 3 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 26 |
| IM Serv | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| IM Serv | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| Energy Assets | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| Elexon (Helix) | Helix CIT | 0 | 0 | 29 | 0 | 0 | 0 | 29 | 29 |
| Callisto | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| Callisto | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| BUUK | Interval 5 - UMSO | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 9 |
| BUUK | Interval 6 - REGS | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 11 |
| BUUK | Interval - LDSO | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 19 |
| BUUK | BUUK Tests | 0 | 0 | 15 | 0 | 1 | 0 | 16 | 16 |
| ENSEK | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| ESG Global | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| ESG Global | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| Power Data Associates | Interval 6 | 0 | 0 | 13 | 0 | 0 | 4 | 17 | 17 |
| Recco | Interval 6 | 0 | 0 | 13 | 0 | 0 | 1 | 14 | 14 |
| Seaglass | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| TMA | Interval 3 | 0 | 0 | 51 | 0 | 0 | 0 | 51 | 51 |
| Tym Huckin Ltd | Interval 6 | 0 | 0 | 15 | 0 | 0 | 2 | 17 | 17 |
| Utilita | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| Utilita | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
| Utiliteam | Interval 5 | 0 | 0 | 32 | 0 | 0 | 1 | 33 | 33 |
| Wheatley | Interval 4 - nPower | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 |
| Wheatley | Interval 4 - Stark | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 |
| Wheatley | Interval 4 | 0 | 0 | 36 | 0 | 0 | 1 | 37 | 37 |
|  |  | **0** | **0** | **1060** | **0** | **2** | **20** | **1082** | **1082** |

Table 1: Overall Test Execution Status by interval and role

# CIT Stub Tool

* To order support participants during the CIT test phase, the SI Test Team will need to act as sending and receiving market roles. To achieve this the SI will set up pseudo-organisations in the ISD data which will then enable them to set up the required pseudo end points in the test environment. When configured it enabled the CIT Participant to trigger IF messages from their test system to the DIP which will then transmits PUB messages to the relevant subscribed roles, and for the SI to receive the messages at each pseudo end point where a receiving participant is not yet onboarded in CIT
* The SI to trigger IF messages to the DIP to then transmit PUB messages to the CIT participant under test (in addition to validating routing to any other subscribed roles via receipt at the relevant SI pseudo end points)

See Reference [F-08] MHHS CIT Stub Overview.pptx for further details on the CIT Stub Tool.

# Outstanding Testing – Secondary Routing

During the early test intervals of CIT issues were found with Secondary Routing functionality. As a consequence, it was jointly agreed with the IPA and FTIG that the scope of CIT would be reduced to exclude the testing of Secondary Routing functionality. This had the effect of reducing the planned scope by approximately 66%. To mitigate the risk that the reduce scope introduced it has been agreed that additional Secondary Routing functionality testing be planned and executed. The following activities are in place and will cover:

* Full scope of Secondary Routing functionality testing will be conducted by Avanade in their PIT Environment between 12-Feb and 23-Feb
* SI Test Team will Test Witness this testing
* The SI Test Team will conduct additional confidence testing in SITA following deployment of the of the Avanade build containing the Secondary Routing functionality and prior to the commencement of the SIT Functional test phase

See Reference [REF-07] Secondary Routing Additional Testing v0.2.pptx for further detail of this testing of Secondary Routing functionality.

# DIP Onboarding

A number of issues were observed during the early intervals with regards to the new onboarding process which impacted on the ability of participants to commence testing. These issues were discussed during FTIG meetings over a number of weeks and additional help and support was provided by Avanade and the SI Test Team to enable participants to complete onboarding. To enable participants to enter CIT that had completed onboarding, ahead of their start test interval, the following decision was taken at FTIG and included in the FTIG 8th December meeting pack:

* PPs who complete onboarding and smoke testing to start CIT execution – dilute ‘intervalism’​

# CIT Assurance

### CIT Test Case and Defect Assurance

Assurance of CIT Test Execution is as follows:

* Risk based approach to sampling test results in ADO
* Assurance outcomes tracked via a spreadsheet on the MHHS programme Teams site
* Assessment includes:

1. Completeness of Test Step status recording
2. Accuracy of overall Test Status (Pass, Pass with Observations, Fail etc)
3. Provision of sufficient evidence uploaded to ADO and associated with Recorded Test Result

### CIT Participant Completion Assurance

All individual CIT Participant Test Completion Reports have been assured to confirm the following:

* The Final Overall Execution Status is correct
* Test Cases are correctly listed within “In Scope” and “Out of Scope” sections
* Defect Status is aligned to ADO Repository with work-off plans detailed when necessary
* Exit criteria have been met
* Qualifying party have signed off their report, even if a delegated party has populated the report

All associated documents are held in an MHHS repository and are available on request.

# CIT Testing Defect Summary

### Summary of Defects – Closure Reason

See Appendix D for summary of defect with closure reasons.

### Outstanding Defects and Work Off Plans

See Appendix A for Outstanding Defects and Work Off Plans, as of the date of publication of this document.

### Summary of Outstanding Defects by Severity

This section details the summary of defects raised by severity:

|  |  |  |
| --- | --- | --- |
| Severity | Number of Defects | Outstanding Defects |
| *S1 – Critical* | *5* | *0* |
| *S2 – Major* | *125* | *3* |
| *S3 – Minor* | *44* | *10* |
| *S4 – Low* | *19* | *7* |
| ***Total*** | ***193*** | ***20*** |

Table 2: Summary of Defects Raised by Severity

### Summary of Outstanding Defects by Priority

This section details the summary of defects raised by priority:

|  |  |  |
| --- | --- | --- |
| Priority | Number of Defects | Outstanding Defects |
| *P1 – Critical* | *11* | *0* |
| *P2 – High* | *116* | *3* |
| *P3 – Medium* | *43* | *10* |
| *P4 – Low* | *23* | *7* |
| ***Total*** | ***193*** | ***20*** |

Table 3: Summary of Defects raised by Priority

### Overall Defects by Interval

|  |  |  |
| --- | --- | --- |
| Interval | Number of Defects | Outstanding Defects |
| *Interval I* | *32* | *0* |
| *Interval 2* | *36* | *4* |
| *Interval 3* | *61* | *3* |
| *Interval 4* | *24* | *5* |
| *Interval 5* | *19* | *3* |
| *Interval 6* | *21* | *5* |
| ***Total*** | ***193*** | ***20*** |

Table 4: Outstanding Defects by Interval and Role

# Test Phase Exit Criteria Assessment

## CIT Test Exit Criteria

|  |  |  |
| --- | --- | --- |
| Exit Criteria | Status/Next Steps | Evidence/Work Off Plan |
| *All tests have been run to completion or any exceptions are documented and agreed;* | *Achieved* |  |
| *All tests have passed (please note that due to the nature of the CIT test stage there is no prioritisation of tests and intention is for all tests in scope to have been executed and passed, any exceptions will need to be documented and agreed).* | *See work off plan* | *Appendix A* |
| *There are no outstanding Severity 1 or 2 defects, or any exceptions are documented and agreed.* | *See work off plan* | *Appendix A* |
| *Any outstanding severity 3-5 defects on each system and the total number of severity 3-5 defects across all systems has been documented and agreed.* | *See work off plan* | *Appendix A* |
| *Work-off plan for any outstanding defects has been produced and agreed.* | *See work off plan* | *Appendix A* |
| *Test results and evidence has been captured in the test management tool.* | *Achieved* |  |
| *Defects have been captured in the defect management tool.* | *Achieved* |  |
| *Any required regression testing has been successfully completed.* | *Achieved* |  |

Table 5: CIT Exit Criteria Detailed Assessment

# 

# Recommendations

All testing has been completed to a satisfactorily standard and we recommend our Exit from CIT Testing.

# APPENDIX A – Outstanding Defects and Work Off Plans

*See embedded spreadsheet for full list Outstanding Defects and Work Off Plans.*

*Please open in App rather than Browser*



# Appendix B – CIT Testing Milestones Planned vs Actual

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **Smoke Test** | | **Formal CIT** | | | | |
| **Int** | **PP** | **Active CIT PP** | **Testing on Behalf Of** | **Role(s)** | **Sending** | **Receiving** | **Baseline Start** | **Forecast / Actual  Start** | **Baseline End** | **Forecast / Actual End** | **CIT Completion** |
| **1** | 1 | **Helix** | N/A | LSS / MDS | **Complete** | **Complete** | **30-Oct-23** | **01-Nov-23** | **10-Nov-23** | **11-Jan-24** | **Complete** |
| **2** | 1 | **St Clements** | BUUK | REG (Drop 1) | **Complete** | **Complete** | **13-Nov-23** | **28-Nov-23** | **24-Nov-23** | **31-Jan-24** | **Complete** |
| **2** | 2 | **St Clements** | SSEN | REG (Drop 1) | **Complete** | **Complete** | **13-Nov-23** | **18-Dec-23** | **24-Nov-23** | **06-Feb-24** | **Complete** |
| **3** | 1 | **Procode** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **19-Dec-23** | **08-Dec-23** | **15-Jan-24** | **Complete** |
| **3** | 2 | **Callisto** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **01-Dec-23** | **08-Dec-23** | **15-Dec-23** | **Complete** |
| **3** | 3 | **Kraken** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **20-Dec-23** | **08-Dec-23** | **11-Jan-24** | **Complete** |
| **3** | 4 | **Stark** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **13-Dec-23** | **08-Dec-23** | **05-Jan-24** | **Complete** |
| **3** | 5 | **TMA** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **19-Dec-23** | **08-Dec-23** | **05-Jan-24** | **Complete** |
| **3** | 6 | **SMS** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **01-Dec-23** | **08-Dec-23** | **18-Dec-23** | **Complete** |
| **3** | 7 | **Itron** | nPower Business Solutions | ADS | **Complete** | **Complete** | **27-Nov-23** | **09-Feb-24** | **08-Dec-23** | **21-Feb-24** | **Complete** |
| **3** | 8 | **Energy Assets** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **08-Jan-24** | **08-Dec-23** | **23-Jan-24** | **Complete** |
| **3** | 9 | **IMServ** | N/A | SDS / ADS | **Complete** | **Complete** | **27-Nov-23** | **05-Jan-24** | **08-Dec-23** | **25-Jan-24** | **Complete** |
| **4** | 1 | **Callisto** | British Gas | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **18-Dec-23** | **12-Jan-24** | **20-Dec-23** | **Complete** |
| **4** | 2 | **ESG** | EDF, Energy Assets, Ovo | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **09-Jan-24** | **12-Jan-24** | **23-Jan-24** | **Complete** |
| **4** | 3 | **IMServ** | N/A | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **08-Jan-24** | **12-Jan-24** | **25-Jan-24** | **Complete** |
| **4** | 4 | **Kraken** | Octopus Energy Services | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **20-Dec-23** | **12-Jan-24** | **02-Jan-24** | **Complete** |
| **4** | 5 | **SMS** | N/A | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **02-Jan-24** | **12-Jan-24** | **04-Jan-24** | **Complete** |
| **4** | 6 | **Utilita** | N/A | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **12-Jan-24** | **12-Jan-24** | **24-Jan-24** | **Complete** |
| **4** | 7 | **Wheatley** | E.ON, nPower BS, Stark | MSS / MSA | **Complete** | **Complete** | **11-Dec-23** | **15-Jan-24** | **12-Jan-24** | **23-Jan-24** | **Complete** |
| **5** | 1 | **Kraken** | Octopus, E.ON | SUP | **Complete** | **Complete** | **15-Jan-24** | **18-Jan-24** | **26-Jan-24** | **25-Jan-24** | **Complete** |
| **5** | 2 | **ESG** | E, Rebel Energy | SUP | **Complete** | **Complete** | **15-Jan-24** | **18-Jan-24** | **26-Jan-24** | **31-Jan-24** | **Complete** |
| **5** | 3 | **ENSEK** | British Gas | SUP | **Complete** | **Complete** | **15-Jan-24** | **25-Jan-24** | **26-Jan-24** | **30-Jan-24** | **Complete** |
| **5** | 4 | **Utiliteam** | Edgware | SUP | **Complete** | **Complete** | **15-Jan-24** | **16-Jan-24** | **26-Jan-24** | **23-Jan-24** | **Complete** |
| **5** | 5 | **Utilita** | N/A | SUP | **Complete** | **Complete** | **15-Jan-24** | **18-Jan-24** | **26-Jan-24** | **31-Jan-24** | **Complete** |
| **5** | 6 | **Seaglass** | Unify Energy | SUP | **Complete** | **Complete** | **15-Jan-24** | **19-Jan-24** | **26-Jan-24** | **23-Jan-24** | **Complete** |
| **5** | 7 | **BUUK** | N/A | Network Ops / UMSO | **Complete** | **Complete** | **15-Jan-24** | **12-Jan-24** | **26-Jan-24** | **29-Jan-24** | **Complete** |
| **5** | 8 | **SSEN** | N/A | Network Ops / UMSO | **Complete** | **Complete** | **15-Jan-24** | **29-Jan-24** | **26-Jan-24** | **06-Feb-24** | **Complete** |
| **6** | 1 | **St Clements** | BUUK | REG (Drop 2) | **N/A** | **N/A** | **29-Jan-24** | **-** | **23-Feb-24** | **30-Jan-24** | **Complete** |
| **6** | 2 | **St Clements** | SSEN | REG (Drop 2) | **N/A** | **N/A** | **29-Jan-24** | **-** | **23-Feb-24** | **31-Jan-24** | **Complete** |
| **6** | 3 | **RECCo** | N/A | EES | **N/A** | **Complete** | **29-Jan-24** | **17-Jan-24** | **23-Feb-24** | **23-Jan-24** | **Complete** |
| **6** | 4 | **Power Data Associates** | N/A | UMSDS | **Complete** | **Complete** | **29-Jan-24** | **24-Jan-24** | **23-Feb-24** | **25-Jan-24** | **Complete** |
| **6** | 5 | **Tym Huckin Ltd** | N/A | UMSDS | **Complete** | **Complete** | **29-Jan-24** | **14-Feb-24** | **23-Feb-24** | **15-Feb-24** | **Complete** |

Table 6: Test Schedule Planned vs Actual for CIT

# Appendix C – Defects Closed by Closure Reason

*See embedded spreadsheet for full list of Defects Closed by Closure Reason.*

*Please open in App rather than Browser*



# Appendix D – Closed Defects By Closure Reason

|  |  |
| --- | --- |
| **Closure Reason** | **Total** |
| **(1)    Fixed** | **85** |
| Fixed Root Cause - Sub Category | |
| Certificate Issues | 3 |
| Code Fix | 52 |
| Configuration | 18 |
| Data | 1 |
| Documentation | 2 |
| Environment | 6 |
| Infrastructure | 1 |
| Requirement | 2 |
| **(2)    CR** | **1** |
| No Sub Category | |
| **(3)    Rejected** | **80** |
| Rejected Root Cause - Sub Category | |
| Agreement not to fix | 2 |
| Cannot Reproduce | 2 |
| Duplicate (Different PP’t) | 2 |
| Invalid data | 8 |
| Invalid Defect | 15 |
| Payload | 27 |
| Pre-Requisite: Certificate | 7 |
| Pre-Requisite: URL / webhooks | 16 |
| Tester Error | 1 |
| **(4)    Withdrawn** | **7** |
| No Sub Category | |

Table 7: Closed Defects By Closure Reason

# Appendix E – List of Test Cases

*See embedded spreadsheet for full list of “In Scope” and “Out of Scope” Test Cases by Interval.*

*Please open in App rather than Browser*



# Appendix F – Full Traceability from Interface to Test Case

| **IF No** | **Test Case Name** |  | **IF No** | **Test Case Name** |
| --- | --- | --- | --- | --- |
| IF-001 | Ref#002 MHHSP-IF-001 TC#01 |  | IF-028 | Ref#0128 MHHSP-IF-028 TC#01 |
| IF-001 | Ref#001 MHHSP-IF-001 TC#01 |  | IF-028 | Ref#0128a MHHSP-IF-028 TC#01 |
| IF-002 | Ref#003 MHHSP-IF-002 TC#01 |  | IF-031 | Ref#0131 MHHSP-IF-031 TC#01 |
| IF-004 | Ref#004 MHHSP-IF-004 TC#01 |  | IF-032 | Ref#0133 MHHSP-IF-032 TC#01 |
| IF-004 | Ref#005 MHHSP-IF-004 TC#01 |  | IF-033 | Ref#0135 MHHSP-IF-033 TC#01 |
| IF-005 | Ref#008 MHHSP-IF-005 TC#03 |  | IF-033 | Ref#0135b MHHSP-IF-033 TC#01 |
| IF-005 | Ref#006 MHHSP-IF-005 TC#01 |  | IF-033 | Ref#0136 MHHSP-IF-033 TC#01 |
| IF-005 | Ref#011 MHHSP-IF-005 TC#01 |  | IF-033 | Ref#0136a MHHSP-IF-033 TC#01 |
| IF-006 | Ref#041 MHHSP-IF-006 TC#01 |  | IF-033 | Ref#0135a MHHSP-IF-033 TC#01 |
| IF-006 | Ref#042a MHHSP-IF-006 TC#01 |  | IF-033 | Ref#0136b MHHSP-IF-033 TC#01 |
| IF-007 | Ref#205 MHHSP-IF-047 TC#01 |  | IF-034 | Ref#0137b MHHSP-IF-034 TC#01 |
| IF-007 | Ref#051 MHHSP-IF-007 TC#01 |  | IF-034 | Ref#0137 MHHSP-IF-034 TC#01 |
| IF-007 | Ref#051a MHHSP-IF-007 TC#01 |  | IF-034 | Ref#0137c MHHSP-IF-034 TC#01 |
| IF-007 | Ref#052 MHHSP-IF-007 TC#01 |  | IF-034 | Ref#0137e MHHSP-IF-034 TC#01 |
| IF-008 | Ref#0156b MHHSP-IF-037 TC#01 |  | IF-034 | Ref#0137d MHHSP-IF-034 TC#01 |
| IF-008 | Ref#053b MHHSP-IF-008 TC#01 |  | IF-035 | Ref#0143 MHHSP-IF-035 TC#01 |
| IF-008 | Ref#057a MHHSP-IF-008 TC#01 |  | IF-035 | Ref#0146 MHHSP-IF-035 TC#01 |
| IF-009 | Ref#059 MHHSP-IF-009 TC#01 |  | IF-035 | Ref#0146a MHHSP-IF-035 TC#01 |
| IF-009 | Ref#060 MHHSP-IF-009 TC#01 |  | IF-035 | Ref#0143a MHHSP-IF-035 TC#01 |
| IF-013 | Ref#061a MHHSP-IF-013 TC#01 |  | IF-035 | Ref#0146b MHHSP-IF-035 TC#01 |
| IF-013 | Ref#062 MHHSP-IF-013 TC#01 |  | IF-036 | Ref#0154 MHHSP-IF-036 TC#01 |
| IF-013 | Ref#061b MHHSP-IF-013 TC#01 |  | IF-036 | Ref#068b MHHSP-IF-018 TC#01 |
| IF-014 | Ref#063a MHHSP-IF-014 TC#01 |  | IF-036 | Ref#0155 MHHSP-IF-036 TC#01 |
| IF-014 | Ref#064 MHHSP-IF-014 TC#01 |  | IF-036 | Ref#0154a MHHSP-IF-036 TC#01 |
| IF-014 | Ref#063b MHHSP-IF-014 TC#01 |  | IF-037 | Ref#0156 MHHSP-IF-037 TC#01 |
| IF-018 | Ref#068 MHHSP-IF-018 TC#01 |  | IF-037 | Ref#057b MHHSP-IF-008 TC#01 |
| IF-018 | Ref#137f MHHSP-IF-034 TC#01 |  | IF-037 | Ref#0157 MHHSP-IF-037 TC#01 |
| IF-018 | Ref#0143b MHHSP-IF-035 TC#01 |  | IF-037 | Ref#0157a MHHSP-IF-037 TC#01 |
| IF-018 | Ref#0154b MHHSP-IF-036 TC#01 |  | IF-037 | Ref#0156a MHHSP-IF-037 TC#01 |
| IF-018 | Ref#071 MHHSP-IF-018 TC#01 |  | IF-037 | Ref#0157b MHHSP-IF-037 TC#01 |
| IF-018 | Ref#069 MHHSP-IF-018 TC#01 |  | IF-038 | Ref#0160 MHHSP-IF-038 TC#01 |
| IF-018 | Ref#070 MHHSP-IF-018 TC#01 |  | IF-038 | Ref#0161 MHHSP-IF-038 TC#01 |
| IF-018 | Ref#072 MHHSP-IF-018 TC#01 |  | IF-038 | Ref#0164 MHHSP-IF-038 TC#01 |
| IF-018 | Ref#073 MHHSP-IF-018 TC#01 |  | IF-038 | Ref#0165 MHHSP-IF-038 TC#01 |
| IF-018 | Ref#068a MHHSP-IF-018 TC#01 |  | IF-038 | Ref#0161a MHHSP-IF-038 TC#01 |
| IF-019 | Ref#075 MHHSP-IF-019 TC#01 |  | IF-039 | Ref#0168 MHHSP-IF-039 TC#01 |
| IF-019 | Ref#078 MHHSP-IF-019 TC#01 |  | IF-039 | Ref#0171 MHHSP-IF-039 TC#01 |
| IF-020 | Ref#081 MHHSP-IF-020 TC#01 |  | IF-039 | Ref#0171a MHHSP-IF-039 TC#01 |
| IF-020 | Ref#090 MHHSP-IF-020 TC#01 |  | IF-039 | Ref#0168a MHHSP-IF-039 TC#01 |
| IF-020 | Ref#081b MHHSP-IF-020 TC#01 |  | IF-039 | Ref#0169b MHHSP-IF-039 TC#01 |
| IF-021 | Ref#102 MHHSP-IF-021 TC#01 |  | IF-040 | Ref#0174 MHHSP-IF-040 TC#01 |
| IF-021 | Ref#0102 MHHSP-IF-021 TC#01 |  | IF-040 | Ref#0174a MHHSP-IF-040 TC#01 |
| IF-021 | Ref#0100 MHHSP-IF-021 TC#01 |  | IF-041 | Ref#0175 MHHSP-IF-041 TC#01 |
| IF-022 | Ref#0108 MHHSP-IF-022 TC#01 |  | IF-041 | Ref#0178 MHHSP-IF-041 TC#01 |
| IF-022 | Ref#0108a MHHSP-IF-022 TC#01 |  | IF-041 | Ref#0181 MHHSP-IF-041 TC#01 |
| IF-022 | Ref#0108b MHHSP-IF-022 TC#01 |  | IF-041 | Ref#0178a MHHSP-IF-041 TC#01 |
| IF-023 | Ref#0109 MHHSP-IF-023 TC#01 |  | IF-041 | Ref#0191 MHHSP-IF-041 TC#01 |
| IF-023 | Ref#0109a MHHSP-IF-023 TC#01 |  | IF-041 | Ref#0195 MHHSP-IF-041 TC#01 |
| IF-024 | Ref#0110 MHHSP-IF-024 TC#01 |  | IF-041 | Ref#0177 MHHSP-IF-041 TC#01 |
| IF-024 | Ref#0110a MHHSP-IF-024 TC#01 |  | IF-043 | Ref#0199 MHHSP-IF-043 TC#01 |
| IF-024 | Ref#0110b MHHSP-IF-024 TC#01 |  | IF-043 | Ref#0199a MHHSP-IF-043 TC#01 |
| IF-025 | Ref#0115 MHHSP-IF-025 TC#01 |  | IF-044 | Ref#0200 MHHSP-IF-044 TC#01 |
| IF-026 | Ref#0119 MHHSP-IF-026 TC#01 |  | IF-045 | Ref#0201 MHHSP-IF-045 TC#01 |
| IF-026 | Ref#0125 MHHSP-IF-026 TC#01 |  | IF-045 | Ref#0201a MHHSP-IF-045 TC#01 |
| IF-026 | Ref#0124 MHHSP-IF-026 TC#01 |  | IF-047 | Ref#051b MHHSP-IF-007 TC#01 |
| IF-026 | Ref#0119a MHHSP-IF-026 TC#01 |  | IF-047 | Ref#0205 MHHSP-IF-047 TC#01 |
| IF-026 | Ref#0125a MHHSP-IF-026 TC#01 |  | IF-050 | Ref#0206 MHHSP-IF-050 TC#01 |
| IF-027 | Ref#0127 MHHSP-IF-027 TC#01 |  |  | Ref#0105 MHHSP-IF-021 TC#01 |
| IF-027 | Ref#0127a MHHSP-IF-027 TC#01 |  |  |  |
| IF-027 | Ref#127 MHHSP-IF-027 TC#01 |  |  |  |
| IF-027 | Ref#127b MHHSP-IF-027 TC#01 |  |  |  |

Table 8: Full Traceability from Interface to Test Case

# Appendix G – ADO Defect Charts

A screenshot of a computer screen

Description automatically generated

Figure 1: ADO Defect Charts