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Interim Project Nexus Steering Group [PNSG]

09 January 2017

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Agenda

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Minutes can be found on the **Ofgem** website at:
https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/project-nexus

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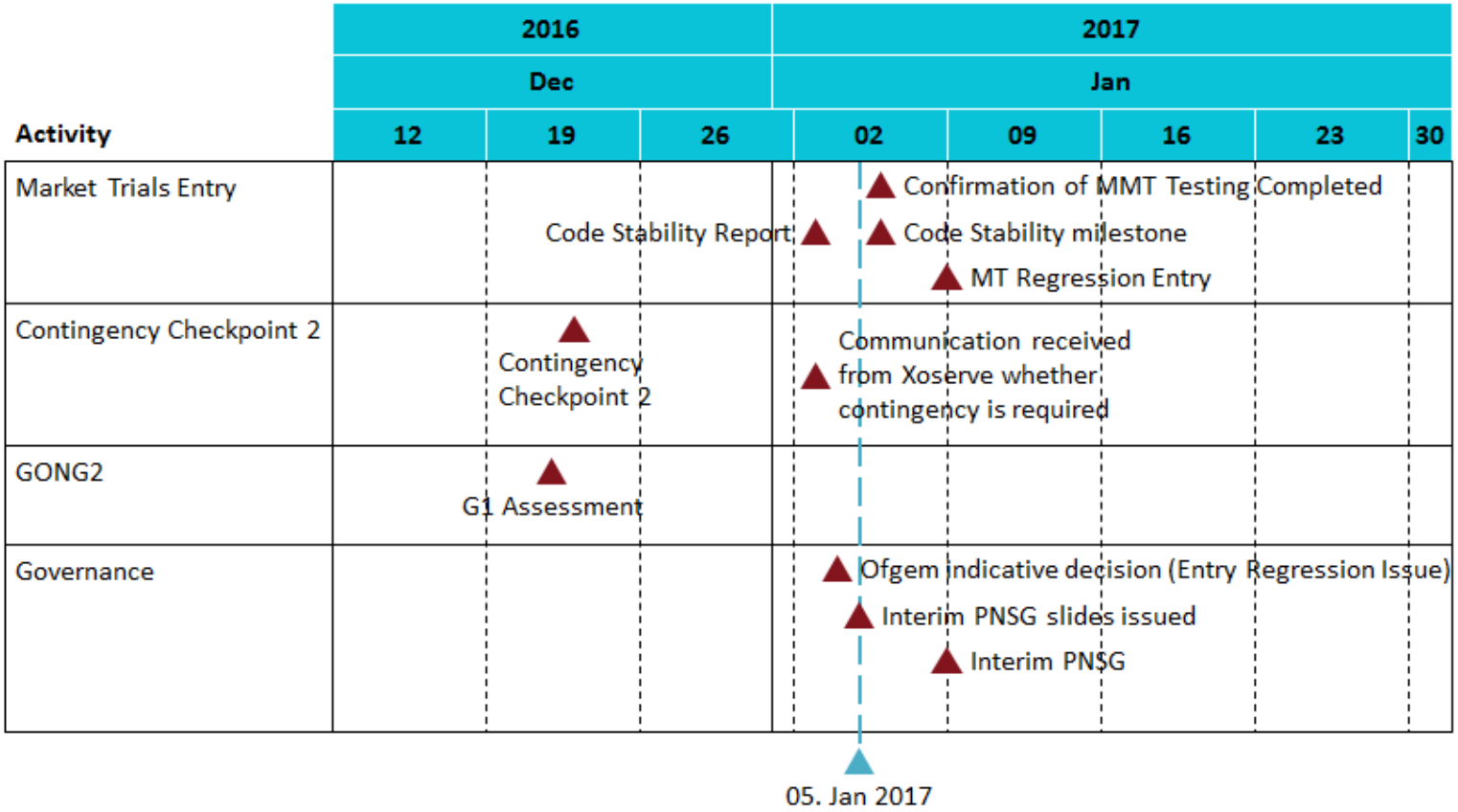
Key activities ahead of Interim PNSG



- **22 Dec 16** - GONG G1 Assessment
- **23 Dec 16** - Contingency checkpoint 2 milestone. Note: information for the 4 criteria from Xoserve will be shared with Ofgem and PwC in the first week of January ahead of an indicative decision being made by Ofgem

- **No later than 03 Jan 17** - Code stability report from Baringa
- **W/C 03 Jan 17** - Ofgem indicative decision (entry reg) issued
- **05 Jan 17** - Interim PNSG slides issued including MT Regression entry assessment and confirmation of MMT testing completion status
- **09 Jan 17** - Interim PNSG held to speak to G1 assessment, Contingency Checkpoint 2 and start of Regression

Source: PwC

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Decision – MT Regression Entry

☒ Decision causes a milestone date change on the Plan on a Page

☒ Decision impacts the go-live date

☑ Programme decision with no impact to POAP

Decision 014

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D014	Market Trials Regression is planned to start 09 Jan 17. Entry criteria has been established and this is outlined in the comments section. There are a small number of exceptions related to meeting participant specific entry criteria, which are outlined Pages 5 to 8. These are exceptions are not considered to impact market entry to phase. Ofgem issued an indicative decision on 05 Jan 17 outlining the position taken based on the information available at the time. This include participant readiness as outlined in the Portal submissions on 09 Dec 16 and 04 Jan 17, Xoserve's readiness (as outlined on Page 28) and progress towards achievement of MT Code Stability (as outlined in D014). This PNSG is asked to approve the entry to the phase pending confirmation that code stability is achieved.		09 Jan 17	Market Trials	The Market Trials Regression Entry Criteria is into market wide and participant specific criteria. It includes: **Market Wide:** ● Achievement of code stability ● Regression test approach (including support approach), scope, life cycle and defect management approach approved ● Risks and assumptions related to regression phase accepted. ● Market exit of L3/4 MT achieved prior to regression entry ● Code freeze applied and exception process agreed ● Market coverage of C1/C2 scenarios sufficient to prove regression across processes **Participant Specific:** ● Market Participant MT Regression plan defined ● Resources are identified and available to support MT Regression ● Awareness / understanding of scope and approach ● Required dummy data defined and provided for regression testing **Xoserve Specific:** ● Xoserve MTR Entry Readiness	

Source: PwC

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MT Regression Entry Summary

Ofgem made an indicative decision to enter Market Trials Regression (MTR) on 05 Jan 17 for ratification by PNSG on 09 Jan 17. This was based on the current assessment against the MTR entry criteria.

- The **MTR entry criteria were approved by the industry** via the Market Trials Working Group on 28 Sep 16. The entry criteria split into market wide (A) and participant specific (B) criteria:

A

Achievement of Market Wide Entry Criteria (see Page 6)

- Achievement of code stability remains a key area of focus and has been reported separately by Xoserve / Baringa on Page 9.
- Other criteria have been achieved pending review of key MTR risks and assumption by PNSG (see Page 6)

B

Achievement of participant specific entry criteria (see Page 7):

- Participant self assessment against the MTR entry criteria supports entry to the phase.
- A small number of exceptions for individual market participants have been identified and will be handled through the PwC / Ofgem Account Managers.

Overview of MTR Entry Portal Submission

Assessment of participant specific entry criteria is based on participants' self assessment via the PwC Assurance Portal submissions on 09 Dec 16 and 04 Jan 17.

The MT Regression Entry portal submission included responses from **36 participants**, which equates to **98% Annual Quantity ('AQ')** and **98% of supply points.**

37	Participants confirmed intention to participate in MT Regression
36	Participants completed portal self assessment
36	Participants have an agreed MT Regression test plan

Source: PwC

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Market Wide Entry Criteria

Achievement of Code Stability is the key remaining MTR market wide entry criteria to be achieved. Other market wide entry criteria have been achieved pending review of key MTR risks and assumptions by the PNSG.

Market wide MT Regression Entry Criteria	Key Assessment metrics	Pass / Fail	Supporting Evidence
1. Regression test approach (including support approach), scope, life cycle and defect management approach approved.	MT Regression Approach approved by PNSG	PASS	• MT Regression approach approved by industry through MTWG on 28 Sep 16, as communicated at PNSG on 05 Oct 2016 with the associated milestone M2.1 marked as complete.
2. Risks and assumptions related to regression phase accepted.	Risks and assumptions signed off by PNSG	PENDING	• Key risks and assumptions captured in Project Nexus Risk and Assumption logs reviewed at RIAG / PNDG. • Summary of key risk and assumptions provided on Page 22.
3. Market exit of L3/4 MT achieved prior to regression entry	Final Market Exit position signed off by PNSG	PASS	• L3/4 Market Exit approved by PNSG with caveats on 21 Nov 16. • Latest position of L3/4 residual testing captured below.
4. Code freeze applied and exception process agreed.	Code freeze and exception process agreed at PNSG	PENDING	• See Xoserve / Baringa slides on Page 9.
5. Market coverage of C1/C2 scenarios sufficient to prove regression across processes	PwC review of consolidated MT Regression entry submission	PASS	• Review of consolidated tests plans demonstrates sufficient coverage across the C1 / C2. See table below.

L3/4 Residual Testing (@ 4 Jan 17)

	Total	Complete	Test lines remaining	Deferred to Regression	De-scoped
MMT TEST LINES	**49**	**21**	**6**	**21**	**1**
iGT RGMA	*9*	*2*	*1*	*6*	*0*
Defect Re-Testing	*23*	*15*	*4*	*4*	*0*
Invoices	*10*	*1*	*1*	*8*	*0*
AQ Validations (NRL)	*4*	*2*	*0*	*1*	*1*
CR176 / CR182	*2*	*1*	*0*	*1*	*0*
Unique Sites	*1*	*0*	*0*	*1*	*0*

*MMT test lines due to complete prior to MTR

MTR C1 / C2 Scenario Market Coverage (@ 4 Jan 17)

	Large Shippers	I&C	Challengers	iGTs	GTs	Total Test Lines (Provisional)	Total Test Cases (Provisional)
No. of applicable MTR Scenarios	*14*	*14*	*14*	*6*	*5*		
No. Scenarios with 2 or more constituents testing	14	14	14	6	4	1476	5150
No. Scenarios with 1 or less constituents testing	0	0	0	0	1*	1	1

*PwC to Clarify applicability to GT's

Source: PwC

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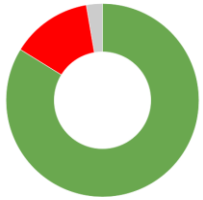
Participant Specific Entry Criteria

Participant self assessment against the MTR entry criteria supports entry to the phase. A small number of exceptions for individual participants have been identified and will be handled through the PwC/Ofgem Account Managers

Participant Specific MTR Entry Criteria	Participant Self Assessment	Exception Commentary
1. Market Participant MT Regression plan defined	 Participant test plan provided and in line with objectives of MT Regression (36) Participant test plan not provided (1)	• 36 of the 37 who declared intent to enter regression have submitted a test plan. • One challenger has not responded to follow-up and will receive no PwC / Xoserve support during MTR. **Exceptions not considered to impact market entry to MTR**
2. Resources are identified and available to support MT Regression	 Resources are in place to support MT regression (36) No response (1)	• For the one non-respondent, confirmation of resources being in place was obtained through the MTR kick-off call. **Exceptions not considered to impact market entry to MTR**
3. Awareness / understanding of scope and approach	 Participant confirmed understanding of MTR scope and approach (36) No response (1)	• For the one non-respondent, confirmation of the their awareness and understanding of the scope and approach was obtained through the MTR kick-off call. **Exceptions not considered to impact market entry to MTR**
4. Required dummy data defined and provided for regression testing.	 Dummy data requirements met (31) Dummy data requirements not met (5) No response (1)	• Exceptions relate to specific dummy data issues for the individual participants and are not considered pervasive. • For exceptions, PwC and Xoserve have worked with participants to resolve issues as required. **Exceptions not considered to impact market entry to MTR**

Source: Portal Submission 04 Jan 16

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Xoserve MTR Entry Readiness

Area	Status at 05 Jan 17	Anticipated for 09 Jan 17	Comments
Lessons Learned	Complete	Complete	• All lessons learned workshops, internal and external, complete • Key actions in place and ready for Regression
MT Information Library	Green	Complete	• Pilot held on 14th December – positive feedback • Launch planned for 6th January 2017 • This will be a living document enhanced throughout the regression test period
Resources	Complete	Complete	• Resources are in place aligned to the agreed support structure
Invoice Supporting Information	Complete	Complete	• Schedule of invoice supporting information for the Regression period was formally issued on Friday 16th Dec to the participant community
Portfolio Reports	Complete	Complete	• Test run on large files (EQL,IQL ,DDS) has taken place • Schedule provided to the industry for the distribution of reports
Data preparation	Green	Complete	• Unique sites data is planned to be completed by 6th January • Some dummy MPRNs created for MT have been used in production(consequence of the extension of MT which was not appreciated earlier). Any impacted MPRNs will be replaced, numbers affected are low
Defect Resolution	Amber	Complete	• Daily defect burn down report being shared with industry • The number of defects that will not fixed are being reported daily these defects will be taken through the workaround group, part of the MTWG • Defect position was reviewed on 4th Jan with Ofgem and will be reviewed with industry in the Market Trials Defect review call on 6th Jan.
Environment readiness	Green	Complete	• Final change and defect deployment window is scheduled for 6th Jan • Deployments in progress in line with defect burn down chart • Final Smoke testing for 4th – 8th Jan is planned
Industry Communication	Complete	Complete	• Reminders have been sent to all organisations on : ○ Defect management process, Lifecycle, In day activity, SSMP process
Code Stability management	Complete	Complete	• Following the start of Regression testing new changes or defects raised will follow the assessment process agreed by MTWG to determine what action is required to address them or adopt a workaround.

Source: Xoserve

Market Trials Code Stability

A review of readiness to enter MT Regression Test: Updated Report

Client: Project Nexus
Date: 05/01/17
Version: V2.2

Reputation built on results

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Executive Summary

Scope of Document

Baringa have been requested by Ofgem to provide an assurance point of view on the degree of confidence in achieving MT code stability, that answers:

1. Have Xoserve achieved a level of functional code stability that is sufficient for MT Regression to start?
2. Do Xoserve have adequate controls and processes in place to ensure the ongoing maintenance of functional code stability through MTR and go-live?

In addition, Baringa had an action to describe the scale of wider functional change that exists on the Programme, and articulate the level of risk to the achievement of Market Trials code stability.

This report has been updated based on the data available on the 5th January 2017. Any changes to commentary or data has been highlighted in BLUE text.

Conclusions

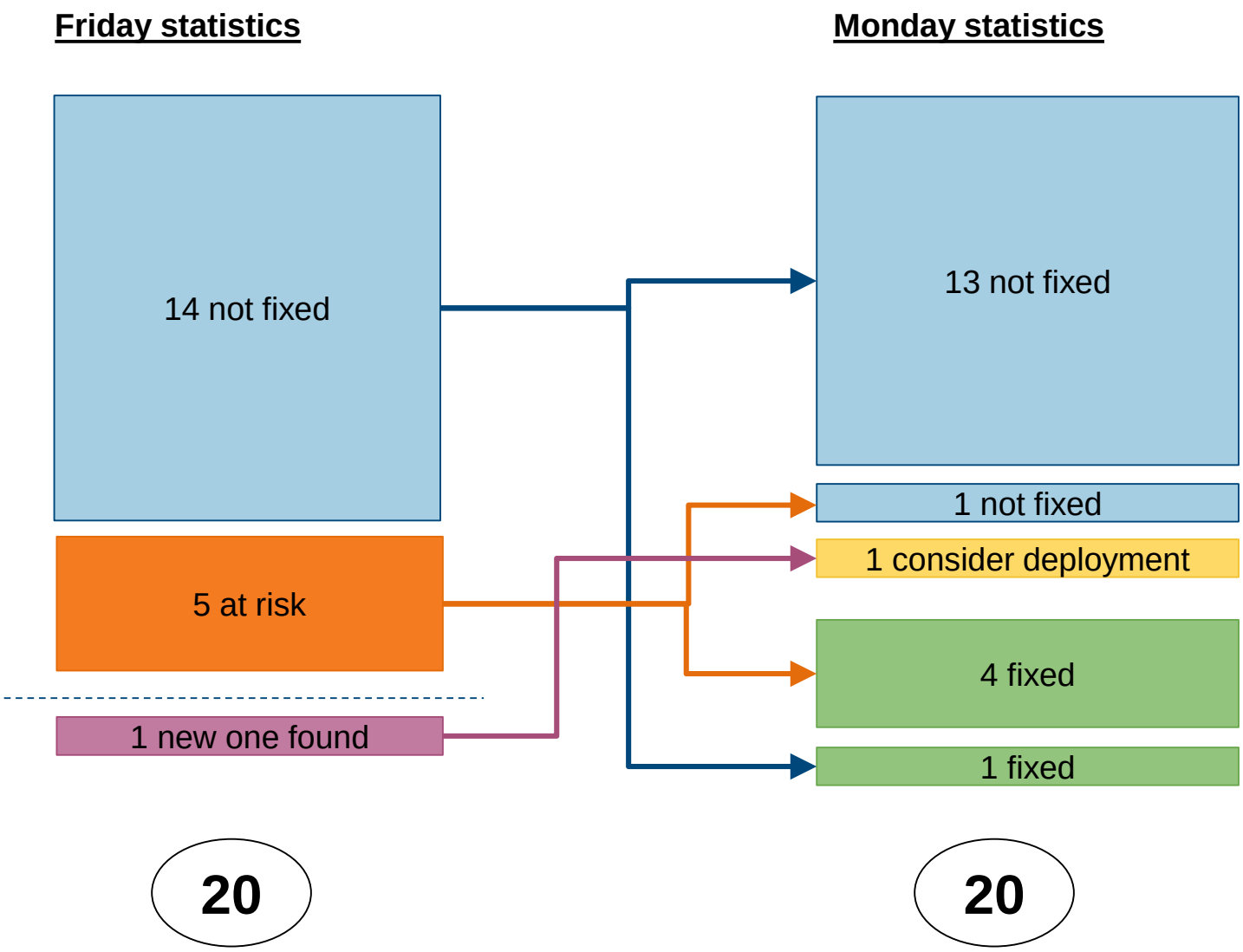
- Baringa believe that Xoserve are on track to meet code stability criteria by the 9th Jan to a satisfactory level – Supporting a decision for the Programme to enter Market Trials Regression Testing. This is based on comprehensive access to defect and CR data, and Baringa recognise the progress that Xoserve have made in the clarity of status reporting over the course of Market Trials
- Xoserve have demonstrated action against the identified workaround process gaps, and are in progress with the execution of the recommended functional 'smoke / mini-regression' tests, which are due to conclude prior to MT Regression test commencement
- With 6 months to go until Go Live, it is not unreasonable for there to still be functional change required – However governance processes must be used to minimise the level of this change, and ensure that change is delivered in a controlled manner to the Industry.

Question 1 – Xoserve achieved a level of functional code stability that is sufficient for MT Regression to start (Part 1)?

- Summary findings documented below are based on data extracted from Xoserve's source systems on 14th December, with updates highlighted in Blue based on data available on the 5th January 2017
- The forecast RAG articulates a predicted status as of 9th January, assuming that recommendations are implemented

Question	RAG 14/12	RAG 05/01	Current Findings	Recommendation	F'cast RAG 9/1	Xoserve Approach	Xoserve Action
• Have all the items on the dashboard been closed down? *Dashboard included in Appendix A - MT Code Stability - Confidence Check Points Exceptions to the*			**The current defect position against the dashboard items is as follows:** • 15 MT defects • 11 UAT defects • 9 Back billing defects • GDT functional defects have now either been closed established as not being functional **Outside of this, there are:** • **1 defect** identified during Xoserve Regression Testing • **5 defects** aligned to SMART/other functionality and not judged to be MT process impacting • **14 defects** confirmed as not being fixed prior to MT Regression Test (5 externally raised, 9 internally raised). Baringa has not validated the internal workarounds/ cosmetic nature of these but can validate that appropriate SME/functional lead review has been carried out. • **12** of the above defects do not yet have a confirmed deployment date and hence represent a risk to code stability	• Establish a clear 'line in the sand' for target defect fixes – A prioritised list of those defects being, fixed / worked-around / deferred – *Prioritisation ongoing* • Take the 3 known (plus any new) defects through the MT workaround process – *Complete / In flight for defects not to be fixed* • Complete impact assessments for the defects without fix plan to understand any risk to MT Processes / code stability – *Ongoing – IA pending for 10 defects*		Accept	• All defects that will not be fixed will follow the MT workaround process to confirm their future handling. Five defects have already been published to the workaround group. • List of defects not to be fixed for start of regression testing issued to Ofgem with descriptions on 23rd Dec 16 and updated 3rd Jan 17. • Meetings scheduled with Ofgem for 4th Jan 17 to review list of defects not to be fixed for MT Regression.
• If they have not, are there mitigation steps in place?			**Mitigation steps are in place** Prioritisation and tracking of fix plans are being actively managed	• Fix & test teams to provide realistic deployment dates for 'TBC' defects – *In Progress*			
• Do these mitigation steps place functional code stability at risk?			**The mitigation steps themselves do not risk code stability** There is an inherent risk that any defects yet to be impact assessed might contain unexpected MT Reg test process impacts	• Carry out process/code impact analysis of defects without a fix date to determine criticality of fix – de-prioritise non-MT impacting ones – *In progress*			

Defect Update



Question 1 – Xoserve achieved a level of functional code stability that is sufficient for MT Regression to start (Part 2)?

- Summary findings documented below are based on data extracted from Xoserve's source systems on 14th December, with updates highlighted in Blue based on data available on the 5th January 2017
- The forecast RAG articulates a predicted status as of 9th January, assuming that recommendations are implemented

Question	RAG 14/12	RAG 05/01	Current Findings	Recommendation	F'cast RAG 9/1	Xoserve Approach	Xoserve Action

• Is the extent and quality of regression testing performed by Xoserve when functional items are delivered sufficient to ensure any new defects are identified and fixed prior to MT Regression?			**Dedicated regression activities are performed for CR deployments**
			Each defect is tested through its own system and UAT test cycles however limited regression testing is performed on individual defect deployments
				• Execution of comprehensive smoke/regression test prior to commencement of MT Regression Test – *Plans in place between the 4th and 8th January, to be comprised of:*
				  • *Lifecycle functional regression tests (to support Back Billing)*
				  • *Code comparison between UAT & MT environments*
				  • *Non-invasive smoke testing of Market Trials environment*
				• Definition of a standard regression pack for use ahead of each code release – *Plans yet to be provided, however not considered an issue for MT Regression Test start*
				• Inclusion of all functional changes in release notes not just MT raised – *Internal defect transports are recorded as part of Deployment planning, however details are not published externally*
						Partially Accept	• Smoke testing runs 4th – 8th Jan.
							• There is no standard template for regression testing. Each defect or change is assessed if regression is needed and where it is testing is built into the delivery plan.
							• Broader regression in the MT environment has taken place with standard processes run through Smart and back billing tests. The MT environment has been kept up to date by continuing to run core operations, e.g. monthly invoicing, when external testing stopped ensuring the environment continues to be operational.

Question 1 Conclusions

- Baringa believe that Xoserve are on track to meet code stability criteria by the 9th Jan to a satisfactory level –Supporting a decision for the Programme to enter Market Trials Regression Testing
- Baringa's review has been based on comprehensive access to defect and CR data, and Baringa recognise the progress that Xoserve have made in the clarity of status reporting over the course of Market Trials
- Xoserve have demonstrated action against the identified workaround process gaps, and are in progress with the execution of the recommended functional 'smoke / mini-regression' tests, which are due to conclude prior to MT Regression test commencement
- When considering if the risk profile associated with these outstanding gaps is high enough to warrant a 'No-go' decision for MT Regression test, it is important to consider the alternative options that are available:

Option	Impact	Baringa View
Start MT Regression Test but allow incremental code drops	• Reduces the value gained from Regression testing • Creates additional complexity within Regression Test plans	• Baringa would support this option in order to preserve the critical path for the overall Programme • Any incremental code drops must clearly identify impacted scenarios to aide retesting.
Delay start of MT regression test, utilising the back-end contingency in the Regression Test plans	• Extension of MT Regression test • Test lifecycle needs consideration i.e. Is a day-by-day slip is possible versus impacting whole invoicing months. • Back-loads risks into Programme delivery plans	• This is now considered less feasible due to the volume/duration of testing requested by participants within their submitted test plans • Baringa recommend commencing MT Regression Test on plan and utilising contingency based on test performance.
Delay start of MT regression test and call off of Go Live contingency	• Go-live delay from June to July 2017	• Not preferable given recent positive progress of the Programme and the contingency remaining in the downstream plans • Baringa do not consider this as an effective mitigant to the outstanding risks, given the cost to industry of a Programme extension.

- With 6 months to go until Go Live, it is not unreasonable for there to still be functional change required – However governance processes must be used to minimise the level of this change, and ensure that change is delivered in a controlled manner to the Industry.

Question 2 – Do Xoserve have adequate controls and processes in place to ensure the ongoing maintenance of functional code stability through MTR and go-live?

- Summary findings documented below are based on data extracted from source systems on 14th December. Updates have been made and highlighted blue based on data available on the 5th January 2017
- The forecast RAG articulates a predicted status as of 9th January, assuming that recommendations are implemented.

Question	RAG 14/12	RAG 05/01	Current Findings	Recommendation	F'cast RAG 09/01	Xoserve Approach	Xoserve Action
• Do the processes integrate with the industry-wide processes developed by MTWG?			The strategy to date has been to fix all defects ahead of MT regression test Process linkages have now been demonstrated for externally raised defects that are not intended to be fixed for MT Regression Test	• Establish individual accountabilities and triggers to link external 'post-MT Reg. test start' code management processes and Xoserve release deployment processes - *Complete* • Prove process integration by taking the 3 defects known to not be deliverable for MT Regression Test through the process - *Complete*		Accept	• The defects not being fixed for Regression have started to be submitted to the workaround group for review. • Defects that are C1 or C2 process affecting and severity 1 or 2 will go directly into the fix cycle. • Defects that are agreed to be fixed either by the workaround process or due to their nature will uses the existing standard defect management and release controls that are in use at the moment.
• Are sufficient controls in place to ensure that changes to code, that could impact functional code stability, are properly identified and managed?			Governance is in place through RDB Manual code management processes have not yielded significant issues to date	• Demonstration of manual code control processes to provide confidence to Xoserve stakeholders – *Demonstration yet to be scheduled* • Define the route to implementation of the full SolMan CHARM solution to provide Production code control – *No action taken to date*		Accept	• Code Control Processes: Demonstration to be scheduled ASAP. • ChaRM Deployment: The full ChaRM solution will be enabled in the environments once stability has been achieved. Due to the changes in the environments to date it has not been possible to achieve this. There is engagement with the provider of the MarketFlow product suite to ensure integration of their product into ChaRM.
• Is there appropriate governance of changes which do not impact functional code stability?			Baringa consider there to be appropriate governance, albeit with the need to set up a flash impact assessment group	• Establishment of a dedicated group of resources to provide assessment of defects and changes against the MT Code stability criteria – *Clarification completed of accountabilities held within the incident management process to ensure that code stability impacts are validated early in the process*		Accept	• Nominated resources carry out flash assessments of changes and defects on receipt. Specialist SMEs are engaged for the assessment where necessary.

Conclusions

- Good groundwork has been performed in establishing processes both within the Xoserve central programme and within industry forums
- These processes are now being 'used in anger' for defects identified as requiring workarounds. If any new defects are raised or the fix plan proves overly optimistic, there is still a risk of late identification of workarounds, however this is now diminishing
- Further assessment of required manual code management control points will be carried out once the processes have been demonstrated to the Programme – However, Baringa are comfortable that the Release Deployment Board (RDB) acts as a reasonable safeguard, and should not prevent entry to MT Regression test
- These control points must however have been validated ahead of Go-Live, along side a clear plan on how Xoserve intend to implement the enduring code management solution.

Holistic Defect & Change Landscape

Baringa's assessment of wider sources of change on the UK Link Programme

Client: Project Nexus
Date: 05/01/2017
Version: V2.2

Reputation built on results

Assessing wider Programme sources of change

Context

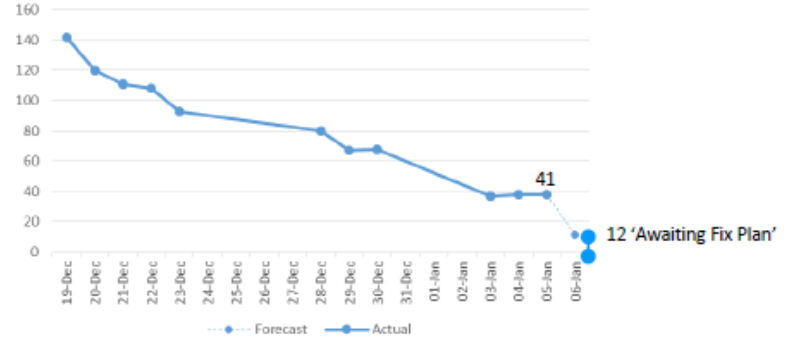
- At PNSG on the 21st November, Baringa highlighted that there is a wider landscape of functional change that contains some risk to the achievement of Market Trials code stability. Baringa were asked to provide a summary report of the scale of this change. Data has been updated as of the 5th January 2016, with changes in blue.

Defects

Risks

- A number of defects (12) still require full analysis to determine a fix and deployment date
- Any additional defects raised (through Back Billing and residual MT testing) will add strain to an already full fix pipeline and may lead to unfixed defects

Defect Burndown Graph



Mitigations

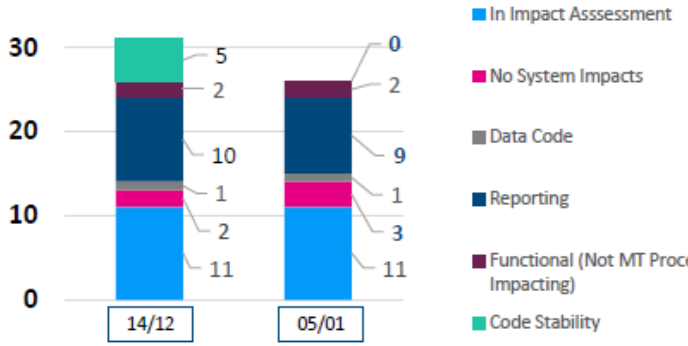
- Fix & test teams to provide realistic deployment dates for 'TBC' defects
- Carry out process/code impact analysis of defects without a fix date to determine criticality of fix – de-prioritise non-MT impacting ones
- Agree any defects to be de-scoped with a workaround
- Continue to track progress against burndown plan on a regular basis

Change Requests

Risks

- There is a risk that new code stability impacting CRs might be raised – 5 new CRs raised since the previous assessment of which 2 are now deferred
- Detailed IAs of existing CRs might identify unforeseen code stability impacts (albeit that initial assessments have not raised concerns)

CR Classification



Mitigations

- CR IA process to continue to rigorously test the necessity of each CR and identify workarounds wherever possible
- Heighten regression test requirements – in particular for any functional CRs
- Ensure regression test needs are comprehensively assessed as part of an IA and validated within Business Acceptance Testing

Conclusions

- 41 (previously 144) functional defects exist across all sources, with 12 currently being awaiting fix date confirmation. There is a risk that delays to this delivery plan impacts Xoserve's achievement of code stability criteria however this is diminishing given the number of residual defects.
- Having reviewed the wider set of CRs to understand their scope, Baringa are comfortable that there is very limited functional risk. Where this has not yet happened (11) there remains an element of risk, but initial evaluations suggests that this is very low.

MT Regression Readiness Confidence

9th Jan 2017

respect › commitment › teamwork

Source: Xoserve

Environment Stability for Regression Testing

Code Synchronisation

UAT

Pre-Regression Testing

Normal Business day processes spanning across SPA, Reads & Billing Planned by 6th Jan

- Class-2 Large supply point, Confirmation request for MPRN followed by Asset Installation into billing
- Class-4 Isolated and Withdrawn MPRN, confirmation request, asset installation once site is confirmed through to billing
- Class-4 Isolated and Withdrawn MPRN, confirmation request, asset installation before site is confirmed through to read upload and billing

MT

Smoke Testing

Tests Marketflow layer and its integration with SAP IS-U in MT followed by billing runs Planned by 7th Jan

- Class 4 – Nomination request for invalid MPRN. Request rejected with appropriate response reason
- Class 4 – Class change from class 4 to class 1 for invalid MPRN, Request rejected with appropriate response reason
- Class 4 - Confirmation request for invalid MPRN. Request rejected with appropriate response reason
- Class 1 – Capacity change for invalid MPRN. Request rejected with appropriate response reason
- Class 4 – ONJOB (meter removal) request for invalid MPRN. Request rejected with appropriate response reason
- Class 4 – Read upload for invalid MPRN (UMR). Request rejected with appropriate response reason
- Class 1 – Read upload for invalid MPRN (DLC). Request rejected with appropriate response reason
- Capacity Run for Dec'16
- Commodity Run for Dec'16

Source: Xoserve

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MTR Risks and Assumptions

Summary of key MTR risks and assumptions, as captured in the Project Nexus Risks and Assumptions logs reviewed through RIAG and PNDG:

MT Regression Risks	Current Mitigation Score/Risk Rating	Status / Mitigations
R058 - Risk that code stability will not be achieved because there may not be sufficient time to meet the definition.	12	• Achievement of code stability reported by Xoserve / Baringa on Page 9.
R068: The pace of testing within MT regression may not allow for testing to be completed by MT2.6. This could be due to: 1) it not being possible to execute agreed scope within planned timescales 2) a high number of defects 3) repeat of challenges during L3/4 MT phase (e.g. test data; partnering).	12	• A managed approach is being taken to the phase • Test plans reviewed for appropriateness and agreed with participants by PwC. • Close monitoring of test execution through managed approach. • MT Lessons Learned Workshop held and output built into preparation activity and approach to MT Regression.
R069: A high number of defects are identified during the MT Regression phase, which results in a requirement to suspend the test phase.	12	• The managed approach and weekly defect calls support close monitoring to allow early identification and escalation.
R070: A lack of understanding of business process causes an increase in the number of incorrectly raised defects / queries.	12	• Xoserve knowledge library launched

MT Regression Key Assumptions	Confidence	Additional commentary
ASS16 - During MT Regression testing, only P1 and P2 defects will be considered to be fixed by Xoserve.	High	• Communicated in MT Regression Approach
ASS17 - MT Regression Testing will require a reduced level of support from Xoserve compared with Market Trials Execution	Medium	
ASS37 - P1/P2 defects can be resolved and retested within the MTR window	Medium	• Will depend on number of defects and when they are found. • Expectation is that P1/P2 defect numbers will be limited.
ASS50 - BW release 2 reports will not be included in MT or MT Regression Testing	High	
ASS55 - Xoserve have assumed that the volume of queries in Market Trials Regression will be negligible versus what was seen in Market Trials	Medium	

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Decision – MT Regression Entry

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Decision 014

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D014	Market Trials Regression is planned to start 09 Jan 17. Entry criteria has been established and this is outlined in the comments section. There are a small number of exceptions related to meeting participant specific entry criteria, which are outlined Pages 5 to 8. These are exceptions are not considered to impact market entry to phase. Ofgem issued an indicative decision on 05 Jan 17 outlining the position taken based on the information available at the time. This include participant readiness as outlined in the Portal submissions on 09 Dec 16 and 04 Jan 17, Xoserve's readiness (as outlined on Page 28) and progress towards achievement of MT Code Stability (as outlined in D014). This PNSG is asked to approve the entry to the phase pending confirmation that code stability is achieved.		09 Jan 17	Market Trials	The Market Trials Regression Entry Criteria is into market wide and participant specific criteria. It includes: **Market Wide:** ● Achievement of code stability ● Regression test approach (including support approach), scope, life cycle and defect management approach approved ● Risks and assumptions related to regression phase accepted. ● Market exit of L3/4 MT achieved prior to regression entry ● Code freeze applied and exception process agreed ● Market coverage of C1/C2 scenarios sufficient to prove regression across processes **Participant Specific:** ● Market Participant MT Regression plan defined ● Resources are identified and available to support MT Regression ● Awareness / understanding of scope and approach ● Required dummy data defined and provided for regression testing **Xoserve Specific:** ● Xoserve MTR Entry Readiness	

Source: PwC

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Contingency Checkpoint 2

☒ Decision causes a milestone date change on the Plan on a Page

☒ Decision impacts the go-live date

☑ Programme decision with no impact to POAP

Decision 015

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D015	The second of three contingency checkpoints scheduled within the Project Nexus programme was reached on 23 Dec 16. Based upon the successful completion of Delta TC4, good progress demonstrated on iGT loads and US loads, as well as Xoserve's information and the Baringa report on how Market Trials code stability is tracking towards the 06 Jan 17 due date, Xoserve are recommending that there is no requirement to invoke the use of the planned contingency period and delivery will continue against a 01 Jun 17 go-live date. The PNSG are requested to endorse the recommendation not to invoke the planned contingency at this checkpoint.		09 Jan 17	Data Market Trials	The checkpoint #2 decision criteria are: • Successful completion of Delta Test Cycle 4 (TC4) • iGT loads is progressing against scheduled delivery timeline • Unique Sites (US) loads is progressing against scheduled delivery timeline • On track for Market Trials Code Stability	

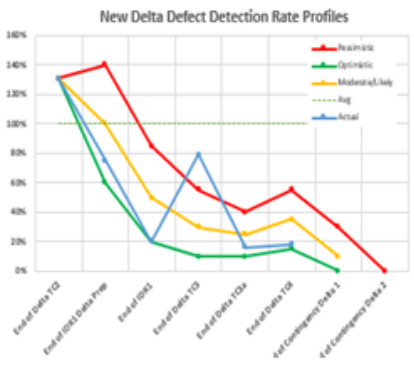
Delta summary position

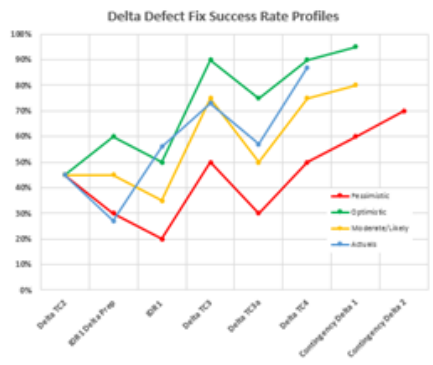
- Delta is the key component of assessing whether to retain a June implementation date, or utilise contingency and consequently move to a July implementation
- Delta solution health is being regularly monitored to support contingency decisions
- **Based on the TC3 Delta testing to the end of November the current measurement of the Delta solution indicates that additional contingency that would result in a July implementation is <u>not</u> required.**
    - All 73 known open Delta defects were fixed in Delta TC3 and TC3a
    - The defect fix rate within TC3 and TC3a continue to be in line or better than our planned levels
    - We were hopeful that newly identified defects would be low following the trend we had witnessed, however, a late spike in proactive validation during TC3 fell outside of our planned levels
    - **Delta TC4 completed to plan on 23rd Dec; solid performance has returned the forecast to the moderate/likely band**
    - Auto validation phase 2 may identify more defects, so we remain cautiously optimistic of the Delta solution's stability at this stage
    - Defect materiality (e.g. business impact and volume of MPRNs affected) is to be more understood late-Dec
    - TC5 in January will utilise two agile stages to increase likelihood of meeting acceptance criteria
    - The above factors lead us to conclude February contingency is not required; we continue to monitor

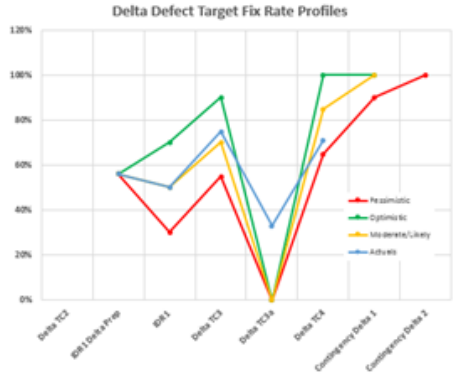
Source: Xoserve

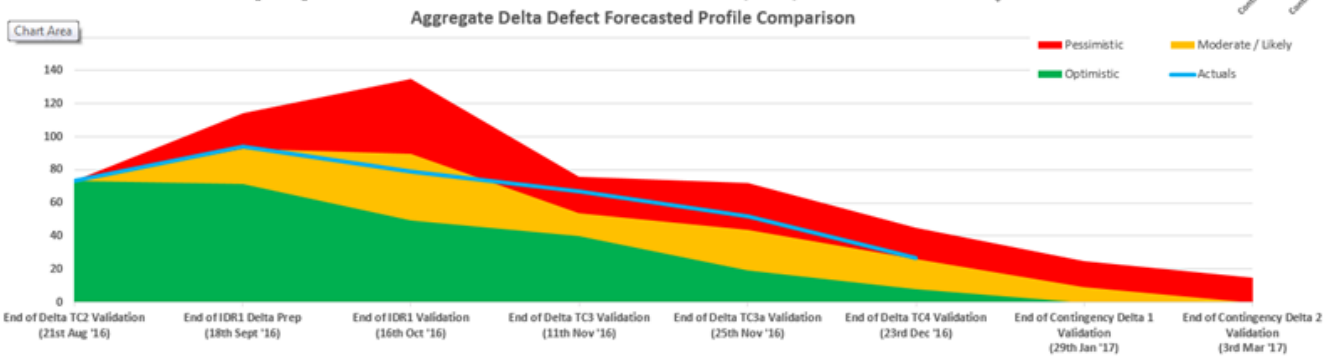
Delta Data Defect Update (23rd Dec)

- Following Delta TC4 defect retesting, the delta defect actual vs. forecast position has improved with the actual volume of delta defects now tracking against the Moderate/Likely forecast.
- Delta TC4 has achieved better than expected results for its New Defect Detection Rate (18%) and Defect Fix Success Rate (87%).
- **The results from Delta TC4 continue to reiterate that 6th Feb Delta 'Need Date' (for IDR2 Delta Prep) is realistic and that a Delta Contingency TC2 cycle in Feb 2017 will not be required.**









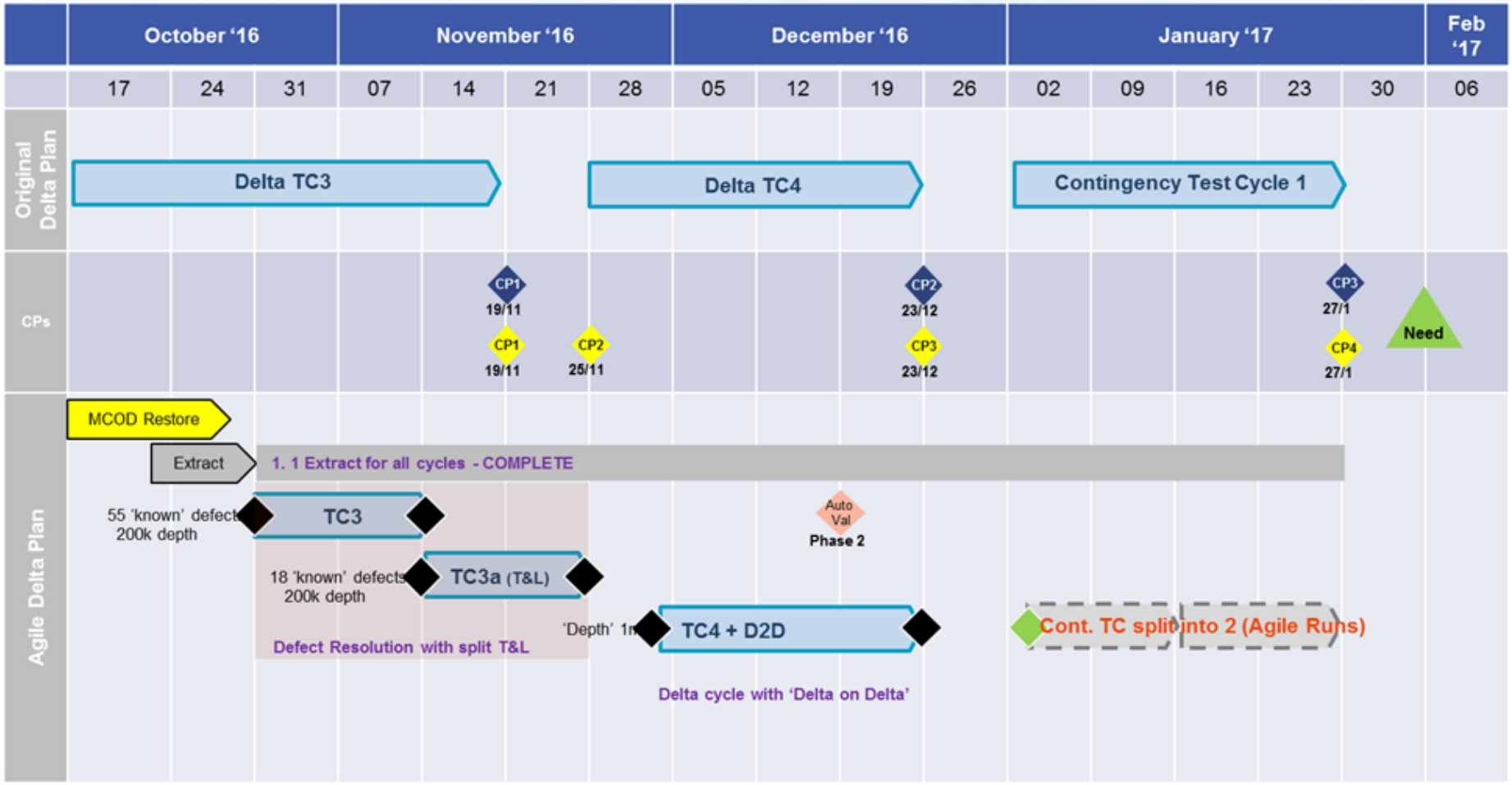
- What next?
  - Fix plan, including the thorough conduction of a RCA, for all remaining open Delta data defects finalised by 30th Dec.
  - **Day-by-day delivery plan for Delta Contingency Cycle 1 (running as 2x Agile ETL sub cycles) to be finalised by 30th Dec.**

xoserve

respect > commitment > teamwork

Source: Xoserve

Delta Plan (Revised)



respect > commitment > teamwork

Source: Xoserve

iGT & Unique Sites summary position

iGT update :

- iGT solution health is being regularly monitored to support IDR2 readiness
- **The current measurement of the iGT solution indicates that previously published plan still holds (2 iGT data cycles + 1 contingency cycle) with the contingency cycle within iGT (early February) likely to be invoked for achieving solution stability and clearing down defects.**
    - iGT Test Cycle 4 completed within published plan timescales but **did not** meet the NED window expectations (*transformation and load took longer*) that are needed within IDR2/3/Go Live
    - We remain in discussions with Transition and Industry on what this means for the NED window.
    - The defect fix rate within iGT TC4 is tracking to slightly below moderate/likely forecast levels
    - The Forecast Model predicted a lesser "new" defect detection rate, however, a higher than forecast rate has been witnessed in this cycle that is currently being evaluated and root cause analysis is being performed with a view to fix these for TC5
    - Auto validation phase 2 may identify more defects, so we remain cautiously optimistic of the iGT solution's stability at this stage
    - Next planned iGT cycle (TC5) is due to start early Jan '17.

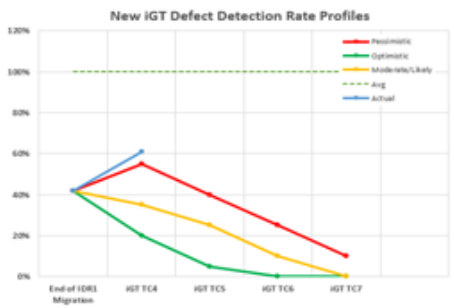
Unique Sites update :

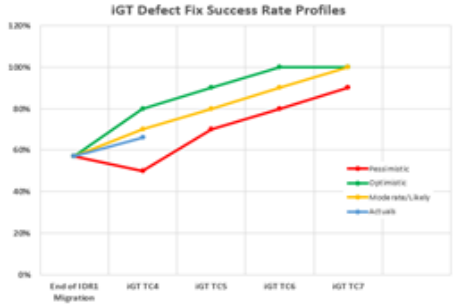
- Unique Sites solution remains key for achieving IDR2 readiness
- **The current measurement of the Unique Sites solution indicates good performance & confidence in timings as witnessed in IDR1. A number of 'Open' defects are being worked through with the intent to test the fixes in a planned cycle late January '17 in order to achieve clear down of known defects pre start of IDR2**

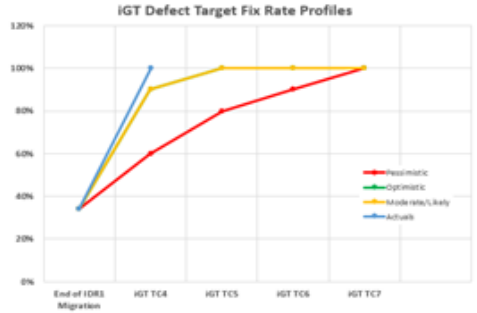
Source: Xoserve

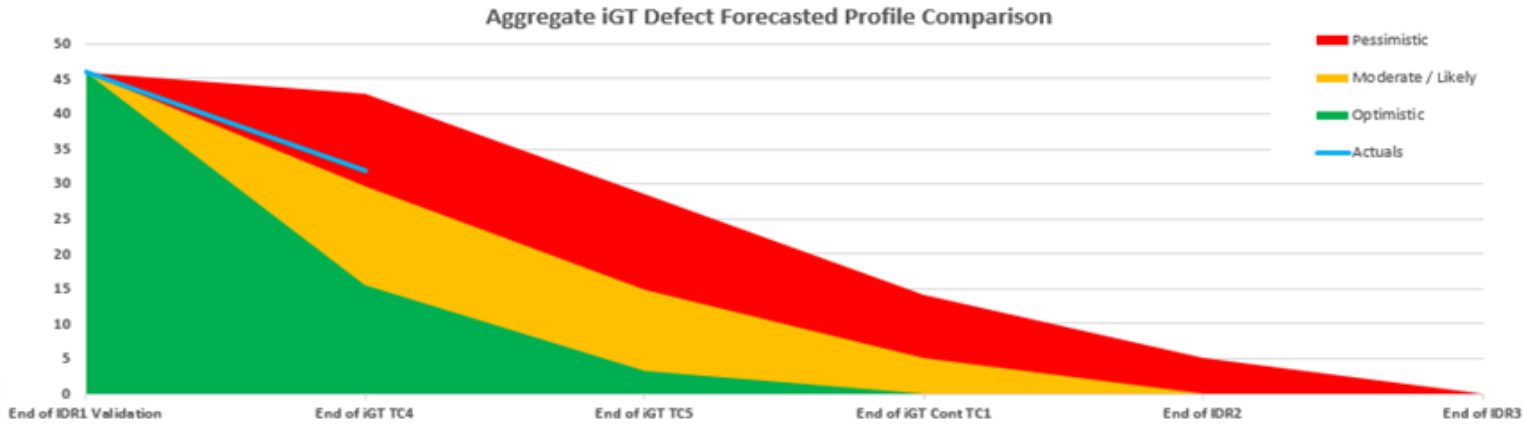
iGT Data Defect Update – 13th Dec midday

- Excluding iGT/DM CSEP defects current with Industry or Xoserve for cleanse, we are currently tracking slightly within the pessimistic forecast trend.
- iGT TC4 saw 22x new defects identified and these are being evaluated for root cause.
- iGT TC4 yielded a defect fix success rate of 66%.









- What next?
  - To return to a moderate/likely profile trend, RCA is required upon all open iGT/DM CSEP data defects particularly those newly discovered in iGT TC4 in order to improve the fix rates for iGT TC5 and stem the flow of further new/regression defects.

xoserve

respect > commitment > teamwork

Source: Xoserve

iGT Data Defect Update – 13th Dec midday

Source	Update
Delta	• TC4 completed to plan on 23rd Dec; solid performance has **returned the forecast to the moderate/likely band** • TC5 on track to commence 5/1/17; 18 targeted defects fixed
Bulk	• Progressing well; **ahead of plan by ~1 week** • Load complete 4/1/17 (small amount (520) of fallouts held/under investigation) • Should enable validation to commence early (probably 1 week early)
IGT	• Production-like environment assigned and prepared for TC5 • TC5 commenced and largely running to plan although DB issues encountered 5/1/17 have impacted Transformation progress • IGT contingency cycle to be used to establish strongest position ahead of final tests in IDR2 and IDR3
Auto validation	• Significant progress and AV tool in use; residual attributes in analysis • Runs against Delta TC4 and Pre-Bulk 2 identified only 1 new defect • To be used in all future cycles
Unique Sites	• US TC1 team have completed initial analysis that suggests cycle can be moved earlier; further detailed analysis required to confirm plans

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Contingency Checkpoint 2

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☑ Programme decision with no impact to POAP

Decision 015

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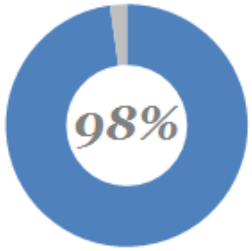
G1 Dashboard – Participants

The information is based on GONG self assessment information provided on the Nexus Assurance Portal on 16 Dec 16 as part of G1. This analysis covers 98% market coverage over both Annual Quantity and Supply Points and supports a representative market wide position at G1.

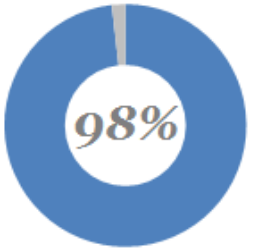
37	Market Participants provided a portal submission on 16 Dec 16.
06	Market Participants did not make any G1 portal submission (25 Nov 16 or 16 Dec 16).
07	Market Participants did not provide a projected overall RAG status for G2 and G3.
02	Market Participants made incomplete submissions at G1 and 24 made incomplete projections for G2 and G3.
21	Market Participants (of the 37 submissions) provided evidence to support some of the G1 criteria.

Market Coverage:

- The 37 of 43 Market Participants that provided a portal submission equates to 98% Annual Quantity ('AQ') and 98% of supply points coverage.

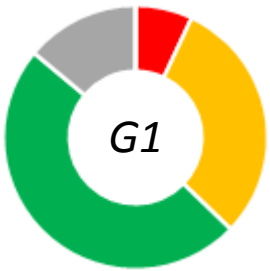


Market AQ %

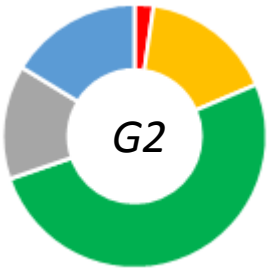


Market Supply Point %

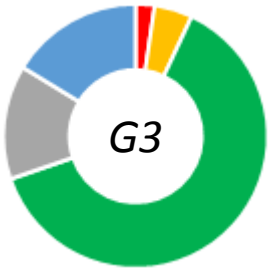
Market Participant self-assessed overall RAG status projections



G1 RAG status



G2 RAG status



G3 RAG status

- Attained or on track to attain
- Mitigating actions to bring back on track by next assessment
- Will not be attained and no mitigation plan to bring back on track
- Data missing – partial submission made
- No Submission

GONG criteria G1 self-assessment commentary:

- 6 Market Participants (MPs) who failed to make a submission have been escalated to Ofgem to make formal contact.
- 21 (35% AQ) MPs self assessed overall RAG status 'Green' at G1 and 27 (83% AQ) projected 'Green' by G3. This indicates mitigating actions can be completed prior to go-live.
- 13 MPs self assessed overall RAG status Amber at G1. This was driven by criteria relating to Transition readiness.
- Data was also consistently raised as a concern and a proposal for closer monitoring of MP data readiness is being defined.
- The level of evidence provided across the Market at G1 did not fully meet the requirements outlined in the GONG evidence questionnaire (4 Nov 16). Further guidance will be provided to MPs prior to the G2/G3 submissions.

Source: PwC

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G1 Assessment Milestone

Based on data received through the GONG self assessment submission on 16 Dec 16 and follow up activity conducted prior to this, the PNSG are requested to confirm that the G1 Assessment milestone is complete with the noted actions below required prior to G2.

Success Factor	Self Assessment (16 Dec)	Key Exceptions	Actions (Owner)
Solution meets industry requirements	MP 	• Finalisation of key transition deliverables is at risk due to outstanding decisions and information. • There is insufficient visibility of Market wide data readiness specifically relating to iGT data.	• Transition deep dive session on 10 Jan 17 (TPG) Targeted follow up with MP's 27 Jan 17 (PwC) • Develop data questionnaire to establish detailed market status on data readiness (PwC)
	Xoserve 	• Criteria relating to Market Trials and the achievement of code stability have been marked as Amber.	• Refer to Code Stability milestone content
Solution is stable	MP 	• Low level transition design (LLTD) documents need to be finalised to enable participants' to develop transition plans and test/rehearse them.	• Transition deep dive session on 10 Jan 17 (TPG) Targeted follow up with MP's 27 Jan 17 (PwC).
	Xoserve 	• Further data testing of non-Bulk elements required to ready all data sources ahead of production loads	• Continued monitoring of load performance, defects and delivery activities for inflights (Xos)
Solution is Sustainable	MP 	• Cutover governance, hypercare and post go-live release/change management processes need to be finalised to support participant transition planning.	• Finalise the transition single source document to align transition artefacts and support participant transition planning (PwC/TPG)
	Xoserve 	• Post go-live data governance processes need to be reviewed, which is underway.	• Conduct a review of BAU data governance to determine if and how it needs modifying (Xos)
Enables positive consumer experience*	MP 	• Degree of organisational change required varies and analysis is ongoing across the market.	• Continue to monitor GONG criteria at subsequent submissions.(PwC)
	Xoserve 	• All activity reported as on track in this area	• Continue to monitor GONG criteria at subsequent submissions.(PwC)

*Only 1 criteria has a G1 threshold.

Attained or on track to attain | Mitigating actions to bring back on track by next assessment | Will not be attained and no mitigation plan to bring back on track | Data missing – partial submission made | No Submission

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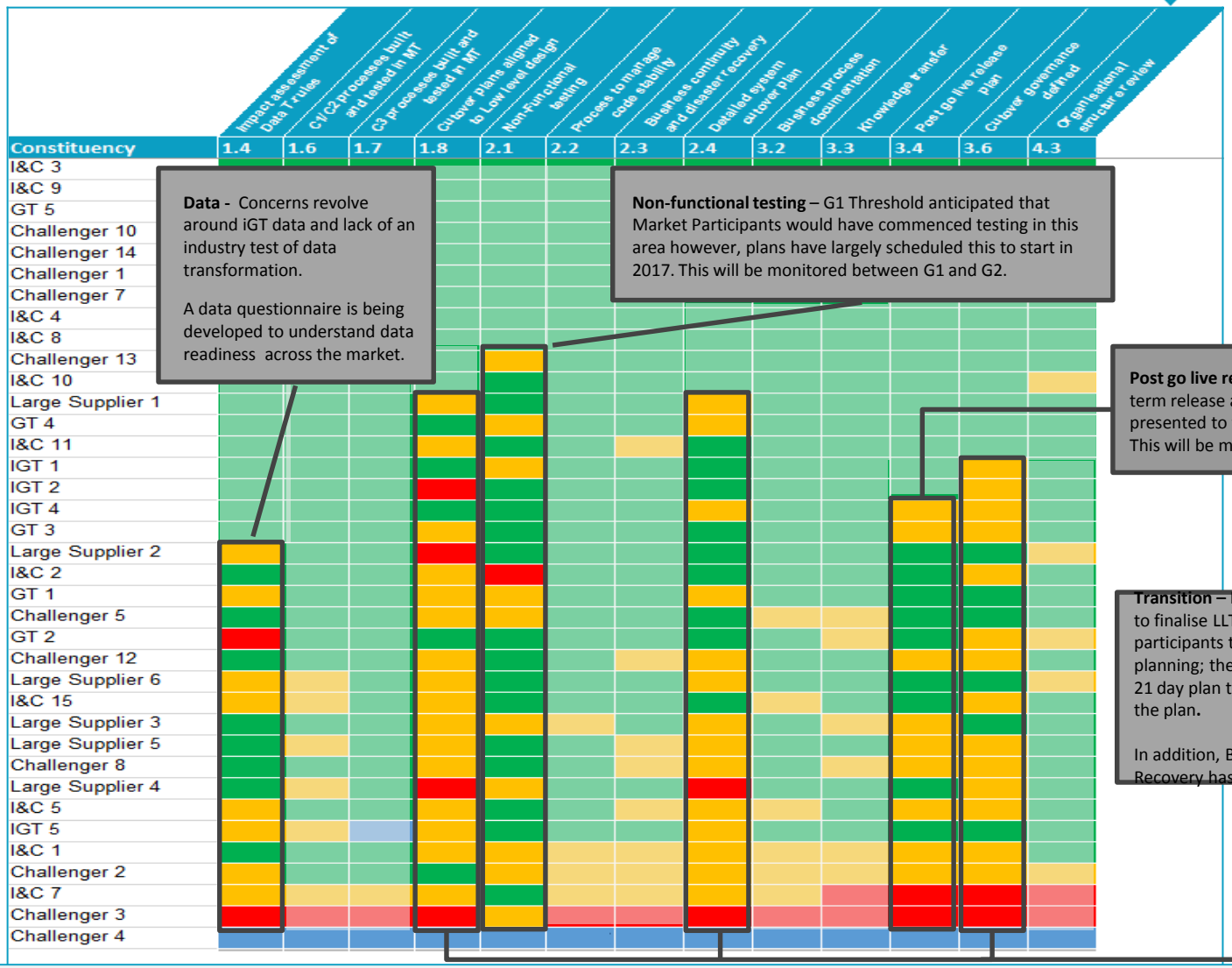
GONG G1 – Market Participants



Data - Concerns revolve around iGT data and lack of an industry test of data transformation.

A data questionnaire is being developed to understand data readiness across the market.

Non-functional testing – G1 Threshold anticipated that Market Participants would have commenced testing in this area however, plans have largely scheduled this to start in 2017. This will be monitored between G1 and G2.

Post go live release plan -the principles and near term release approach and schedule have been presented to the TPG for review and feedback. This will be monitored at TPG prior to G2

Transition – Key issues include; activity required to finalise LLTD before 20 Jan 17 to enable participants to commence their cutover planning; the lack of assumptions linking to the 21 day plan to LLTD and missing files (IIL) from the plan.

In addition, Business Continuity and Disaster Recovery has also been impacted by the LLTD.

Attained or on track to attain | Mitigating actions to bring back on track by next assessment | Will not be attained and no mitigation plan to bring back on track | Data missing – partial submission made | No Submission

*Note numbers are not sequential as not all criteria are applicable

Source: PwC

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Next Steps

1. Review supporting evidence uploaded for the G1 assessment point threshold and identify gaps to be addressed with Market Participants prior to the G2 assessment point.
2. Continue to monitor the progress of common blocking issues across the market and work with the appropriate governance body or cross programme workstreams (TPG and DMG).
3. Conduct a targeted GONG follow up by 27 Jan 17 to evaluate the effectiveness of mitigating actions taken (e.g. transition deep dive).
4. Establish regular contact with organisations via calls or site visits to actively provide support through the GONG process.

Source: PwC

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Action Log

Action #	Action	Progress	Owner	Status	Due	Forum
A123	Undertake a review of P3 defects to identify any that do not need to be fixed for go-live. Agree these with Market Participants.	In progress. This action has to be done in conjunction with the industry and this will be agreed through the defect management process. As part of this process, the workaround process has been defined and agreed at MTWG. UPDATE: Closure of defects is being tracked daily in the lead up to regression testing. Defects that are not fixed will be processed through the approval governance agreed by the MTWG. Propose to close this action.	Xoserve, PwC and Market Participants		23 Dec 16	Market Trial Problem Solving Session
A138	Xoserve to i) Confirm the final list of files and reports unchanged by Nexus. In addition indicate which are platform independent (CMS) and which are unchanged but now part of the SAP ISU solution. ii) Demonstrate the level of internal testing carried out, or planned to be carried out on these files and reports. iii) Share the above analysis with all participants to review and determine if they need to include in their MTR plans. Where participants do want to include files/reports in MTR plans they need to provide a rationale as part of their entry submission.	This work is ongoing and will be shared with the industry by 30 Nov 16. The due date has been updated to reflect this.	Xoserve		28 Sep 16 → 05 Oct 16 → 14 Oct 16 → 26 Oct 16 → 30 Nov 16 → 16 Dec 16	MTWG
A174	Xoserve to consider delivery of IIL file for testing prior to Go Live, with consideration given to whether it is possible to deliver as part of Regression Testing or as part of IDR2.	After review it was confirmed it was not appropriate to incorporate this activity in regression testing. One of the principles of the IDRs has been that it is not appropriate to share files with industry. Propose to close.	Xoserve		22 Dec 16	PNDG
A185	Provide detail on the two open UAT defects with high criticality.	Included in the final defect report. Propose to close.	Xoserve		13 Dec 16	PNDG
A188	Shippers to share evidence of [data] inconsistencies with Xoserve by 19 Dec 2016 (this has been raised at last 2 DMGs)	All of the information was received before the DMG on 15 Dec 16. This is now closed.	PwC		19 Dec 16	DMG

Source: PwC RAID Management

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Action Log

Action #	Action	Progress	Owner	Status	Due	Forum
A191	Publish daily report of defect counts as the programme approaches the code stability milestone (MT2.4)	These have been circulated on working days from 21 Dec 16 onwards.This is now closed.	Xoserve/ PwC/ Ofgem		06 Jan 17	PNSG
A192	Publish a list of the defects that fall into the following categories: 1) Confirmed fix and test plan ahead of the code stability milestone; 2) Awaiting a confirmed fix and test plan; and 3) Proposed not to be fixed prior to regression	Circulated to Market Participants on 05 Jan 17. Propose to close	Xoserve/ PwC/ Ofgem		23 Dec 16	PNSG
A193	Consider addition of tentative milestone for drop of code to regression	Weekly defect call will include a proposal of upcoming deployments as a means to understand any impact on Market Participant test plans, and to agree the release date of these. The process maps outline the steps and escalation activity for this. Propose to close.	Xoserve		09 Jan 17	PNSG
A195	Consider revising PNSG dates in January	Propose to move the PNSG from the 23 Jan 17 to the 01 Feb 17 or 06 Feb 17 to include the results of Contingency Checkpoint 3 - TO BE AGREED AT PNSG	Ofgem		09 Jan 17	PNSG
A196	Circulate process diagrams for management of code stability during MTR	These will be presented at the MTWG on 10 Jan 16 as well as the weekly defect call on 13 Jan 17.	PwC		06 Jan 17 → 13 Jan 17	PNSG
A197	Provide an update to the numbers of defects raised since 11 Nov 16 in the Baringa Assurance Report on Code Stability and in summary for the next PNSG Meeting.	There have been 171 functional defects raised since 11 Nov 16. Of these 27 of are still open. This action is now closed.	Xoserve		09 Jan 17	PNSG
A198	Develop two new risks to be managed through the programme's risk management process covering: - Risk of the requirement for slots to be assigned during catch-up batch - Risk to catch-up batch timescales of shippers cutting over early.	Still to be progressed. Propose to move date to after the delivery of the LLTD to take into account the final version of the document when developing the risk.	Scottish Power and Ofgem		09 Jan 17 → 14 Feb 17	PNSG

Source: PwC RAID Management