

# **Project Nexus Steering Group [PNSG]**

[Interim Report]

06 February 2017

ofgem

# 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>

# Checkpoint 3 (CC3) - Overview

- **23 Jan 17 - PNSG** - Report to include slides from Xoserve indicating their final position on the iGT criteria and an interim position on the Delta criteria.
- **27 Jan 17 - CC3 Milestone.**
- **31 Jan 17 - Release of Xoserve's final position on Delta criteria** - Updated PNSG slides reflecting the completed position against the CC3 criteria.

- **01 Feb 17 - Ofgem's indicative decision issued.**
- **06 Feb 17 - PNSG** - held to ratify the indicative decision.

**Refinements Made to the Criteria**  
 Since the Contingency Checkpoints were introduced, the criteria has been enhanced. Additional criteria were included on Checkpoint 2 and 3. These have been noted in *blue, italic font* below.

Activity	January											Feb						
	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	
Programme Milestone						▲ Contingency Checkpoint 3												
Governance Meeting		▲ PNSG								▲ Ofgem Indicative Decision Issued						▲ PNSG Ratification		
Documentation		▲ Xoserve Issues Final Position on iGT Criteria							▲ Xoserve Issues Final Position on Delta Criteria									

- Checkpoint #1 - 19 Nov 16**
- Successful completion of Delta Test Cycle 3
  - Successful completion of Market Trials Exit

- Checkpoint #2 - 23 Dec 16**
- Successful completion of Delta Test Cycle 4
  - On track for Market Trials Code Stability
  - *IGT loads is progressing against scheduled delivery timeline*
  - *US loads is progressing against scheduled delivery timeline*

- Checkpoint #3 - 27 Jan 17**
- Successful completion of first Delta Test Cycle contingency run (if required)
  - *Successful completion of Data iGT Test Cycle 5 (TC5 demonstrating that Xoserve can complete an accurate iGT data migration within the timescales for a 9 NED period. Evidence should be provided showing how TC5 was able to meet the migration timescales*

# 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 021

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D021	<p>The third of three contingency checkpoints scheduled within the Project Nexus programme was reached on 27 Jan 17.</p> <p>Based upon the successful completion of Delta and iGT TC5s and evidence provided by Xoserve, Ofgem 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.</p> <p>The PNSG are requested to endorse the recommendation not to invoke the planned contingency at this checkpoint.</p>		06 Feb 17	Data	<p>The checkpoint #3 decision criteria are:</p> <ul style="list-style-type: none"> <li>• Successful completion of first Delta Test Cycle contingency run (if required)</li> <li>• Successful completion of iGT Test Cycle 5 (TC5 demonstrating that Xoserve can complete an accurate iGT data migration within the timescales for a 9 NED period. Evidence should be provided showing how TC5 was able to meet the migration timescales)</li> </ul> <p>Ofgem issued an indicative decision on 02 Feb 17.</p> <p><b>Ofgem’s indicative decision is that Project Nexus remains on track to Go Live on 01 June 2017, and as such the contingency at Checkpoint 3 should not be invoked.</b></p> <p>Ofgem’s indicative decision was based on the information and advice provided at the time of making this decision. Should new information become available, this decision may be subject to change.</p>	



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# PNSG CP3 Data Delta Solution Report

31 Jan 17



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# Executive Summary

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- During Project Nexus re-planning, Data was recognised as the 'backbone' of the critical path leading to IDRs and Cutover, and also as a high risk area, particularly Delta, which was least stable at that time.
- Consequently, three checkpoints were included in the June re-plan to monitor progress of the Delta solution to assess whether to retain a June implementation date, or utilise contingency and consequently move to a July implementation.
- **Following multiple test cycles and a continually improving quality position, Xoserve recommend that the additional contingency that would result in a July implementation is not required**
- **The Delta solution is anticipated to achieve production-readiness ahead of IDR Prep - All outstanding defects are due to be fixed and retested by 03/02/2017**
- What helped us achieve this:
  - Defects targeted to be fixed in each cycle were met
  - Defect fix success rates improved and met or exceed target levels
  - New defect detection rates continually reduced other than one cycle (TC3)
- The following slide provides an overview of the last test cycle (TC5b)

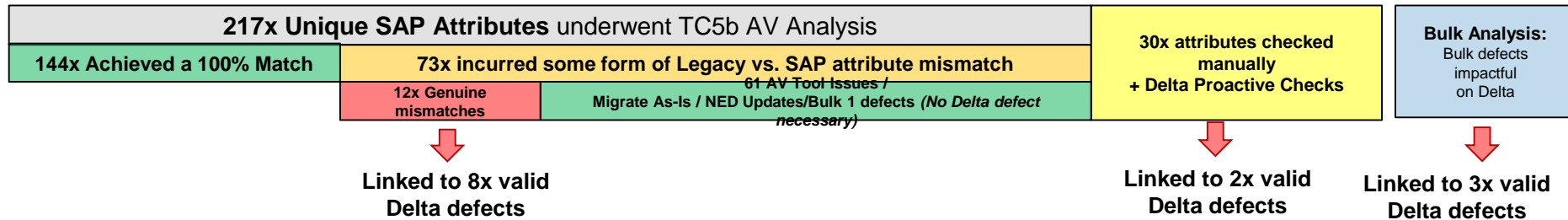
Xoserve



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# Delta TC5b Summary

- Delta TC5b completed Load on Friday 20<sup>th</sup> January, on schedule.
- Validation commenced on Monday 23<sup>rd</sup> January, utilising Auto Validation tool, proactive manual checks, and defect retests for fixes done in cycle for further validation.
- The last test cycle (TC5b) had the remaining 6 open Delta defects to fix. These were fixed, and they have been proven as passed following 'defect retest' validation
- Delta TC5b Validation inc. Bulk 'Impact' Results Breakdown:



- 13x delta defects cover the known AV mismatches, failed Delta TC5b proactive validation checks and Bulk defects impactful on delta, of which:
  - 7x have been fixed, retested and passed by the business
  - 6x have fixes in progress (due to complete by 03/02/17)
- There is high confidence in this closure plan

# Delta Conclusions

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## Conclusions:

- Delta Test cycles has seen a continuing improvement in defects and improvement in quality
- The final test cycle (5b) has revealed 13 further defects (7 passed & 6 in progress) which are on track to be closed by 03/02/17
- Data migration and validation teams are satisfied with activities that confirm the solution will be production-ready for planned usage in IDR Prep

## Residual risk:

- Whilst extensive validation has been undertaken to achieve a production-readiness position, we are dealing with vast amounts of data and further defects may be identified. Validation will continue through IDRs and Cutover and governed fixes can be deployed if required. Defects will be discussed at DMG.

## Recommendation:

- PNSG to recognise anticipated production-ready position of Delta and support progression through CP3.

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# Appendix

Supporting validation and defect positions

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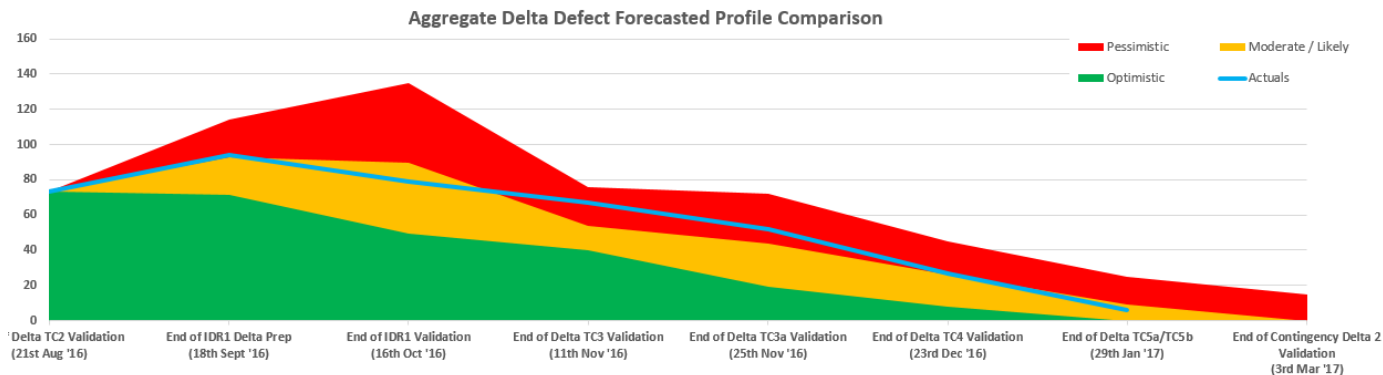
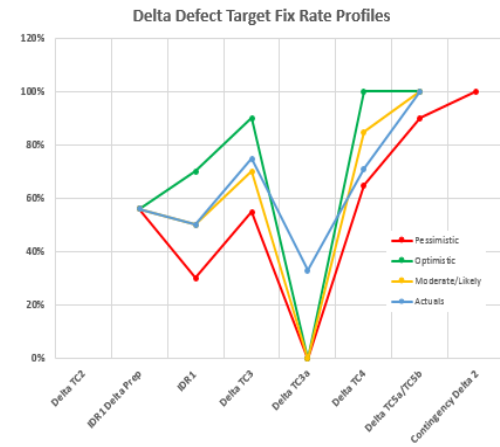
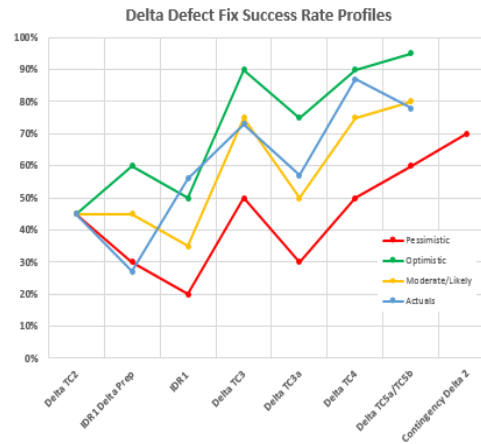
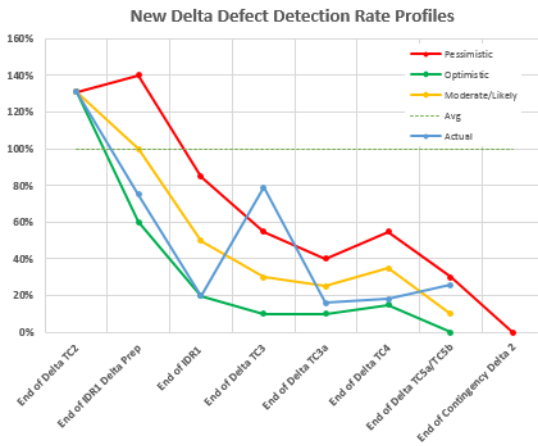
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# Delta Data Defect Update (31<sup>st</sup> Jan)

- With the Delta Contingency TC1 cycle nearing completion (TC5a complete, TC5b in-progress), the delta defect actual vs. forecast position continues to track against the Moderate/Likely forecast, with all open defects at the time of slide publication expected to be resolved by Friday 3rd Feb.
- Delta Contingency TC1 (TC5a and TC5b) achieved in-line/better than expected results for all forecast variables except for the identification of 13x new Delta defects off the back of TC5b auto-validation, all of which are on track for resolution by Friday 3rd Feb.
- With 6x open Delta defects remaining (at the time of publication), all targeted for resolution by Fri 3rd Feb, it remains the expectation of Xoserve that a second Delta Contingency Cycle in Feb 2017 will not be required.

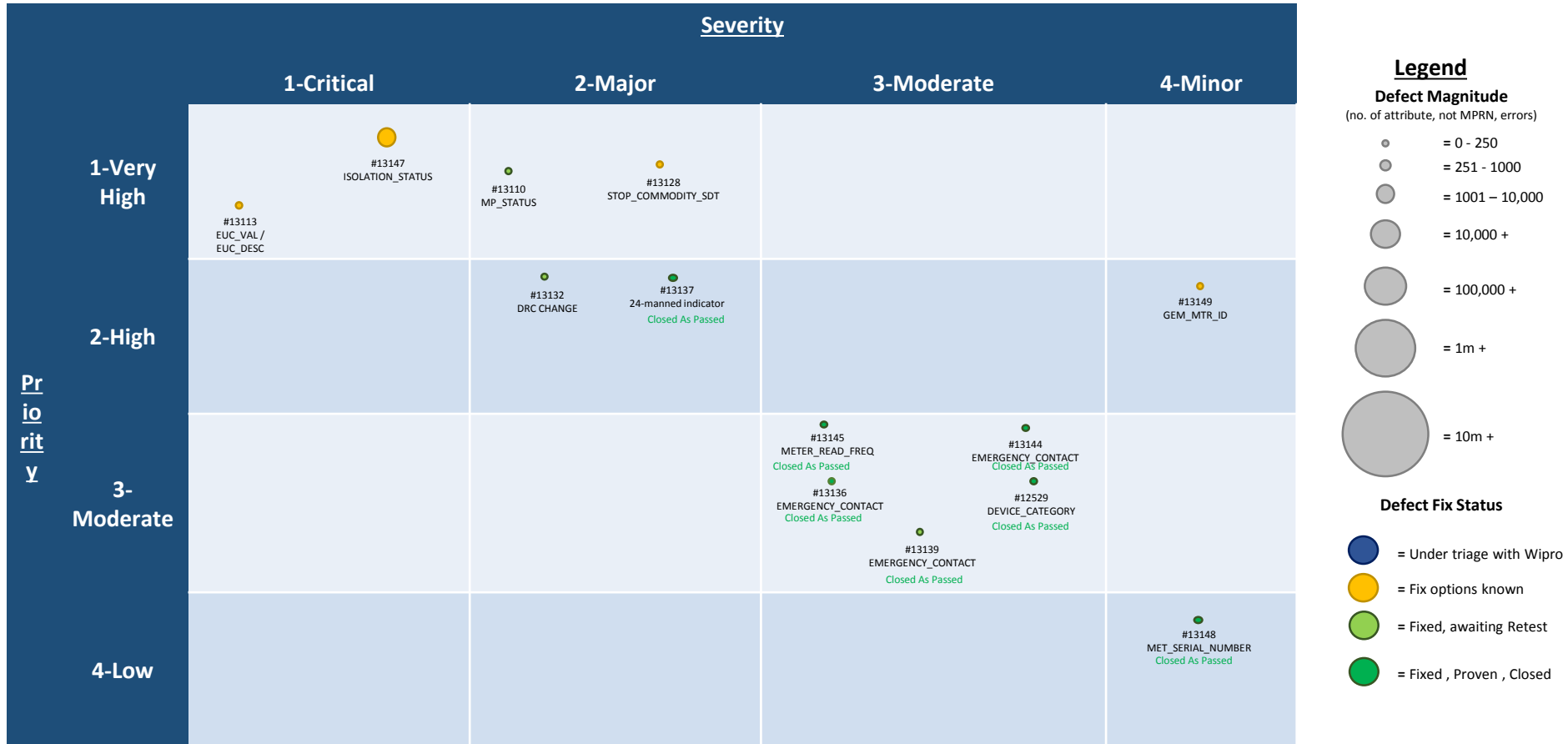


# Delta TC5b Mismatch analysis

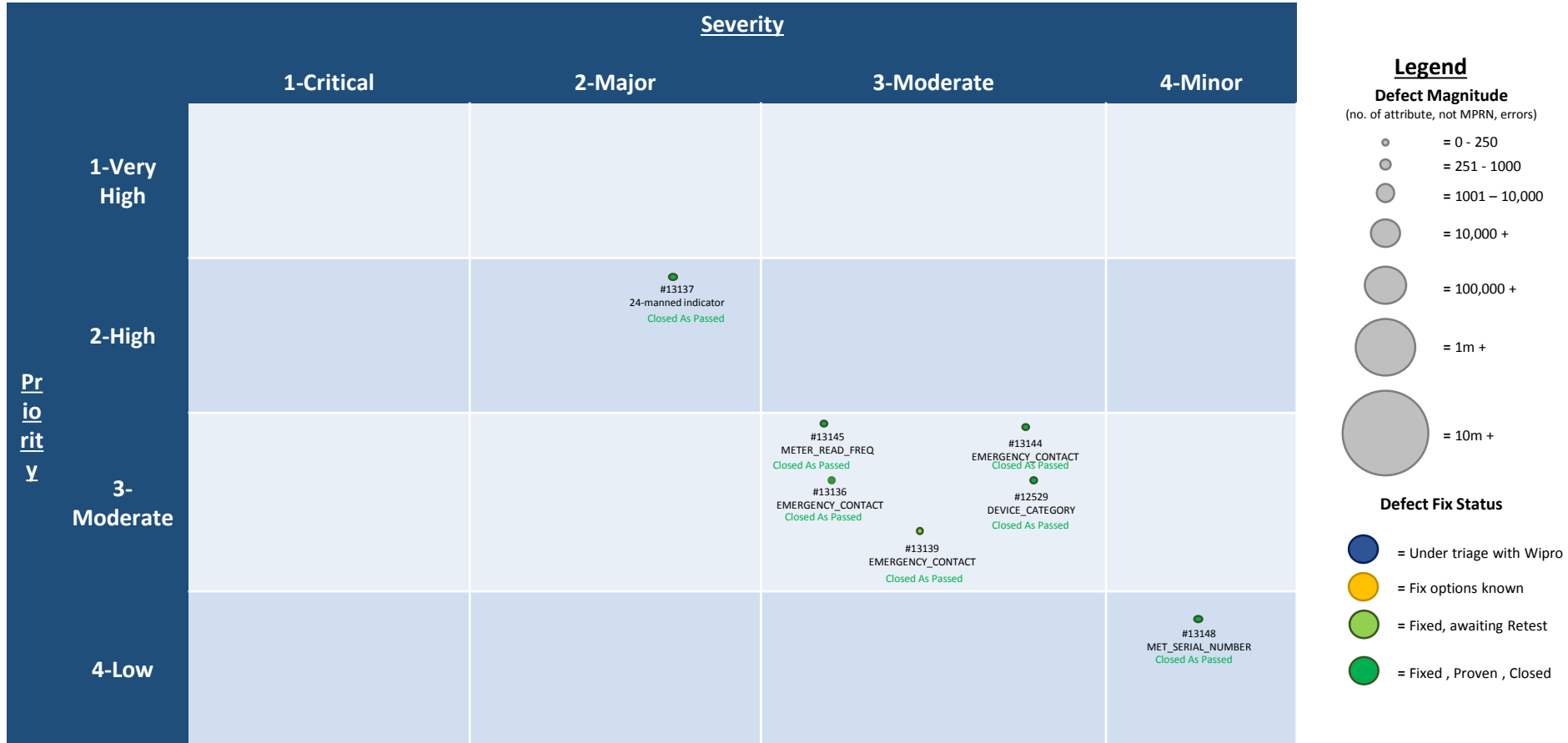
		<u>Severity</u>			
		1-Critical	2-Major	3-Moderate	4-Minor
Pr io rit y	1-Very High	<b>2 x Mismatch...</b> 1 generating 1946 attribute errors & 1 generating 0 attribute errors (i.e. not seen to date)	<b>2 x Mismatches...</b> generating a combined 0 attribute errors (i.e not seen to date)		
	2-High		<b>2 x Mismatches...</b> generating a combined 85 attribute errors		<b>1 x Mismatch...</b> generating a combined 2 attribute errors
	3-Moderate			<b>5 x Mismatches...</b> generating a combined 734 attribute errors	
	4-Low				<b>1 x Mismatch...</b> generating a combined 3 attribute errors

NB: An "attribute error" is referring to an individual incidence of an incorrect data item e.g. Meter Read.

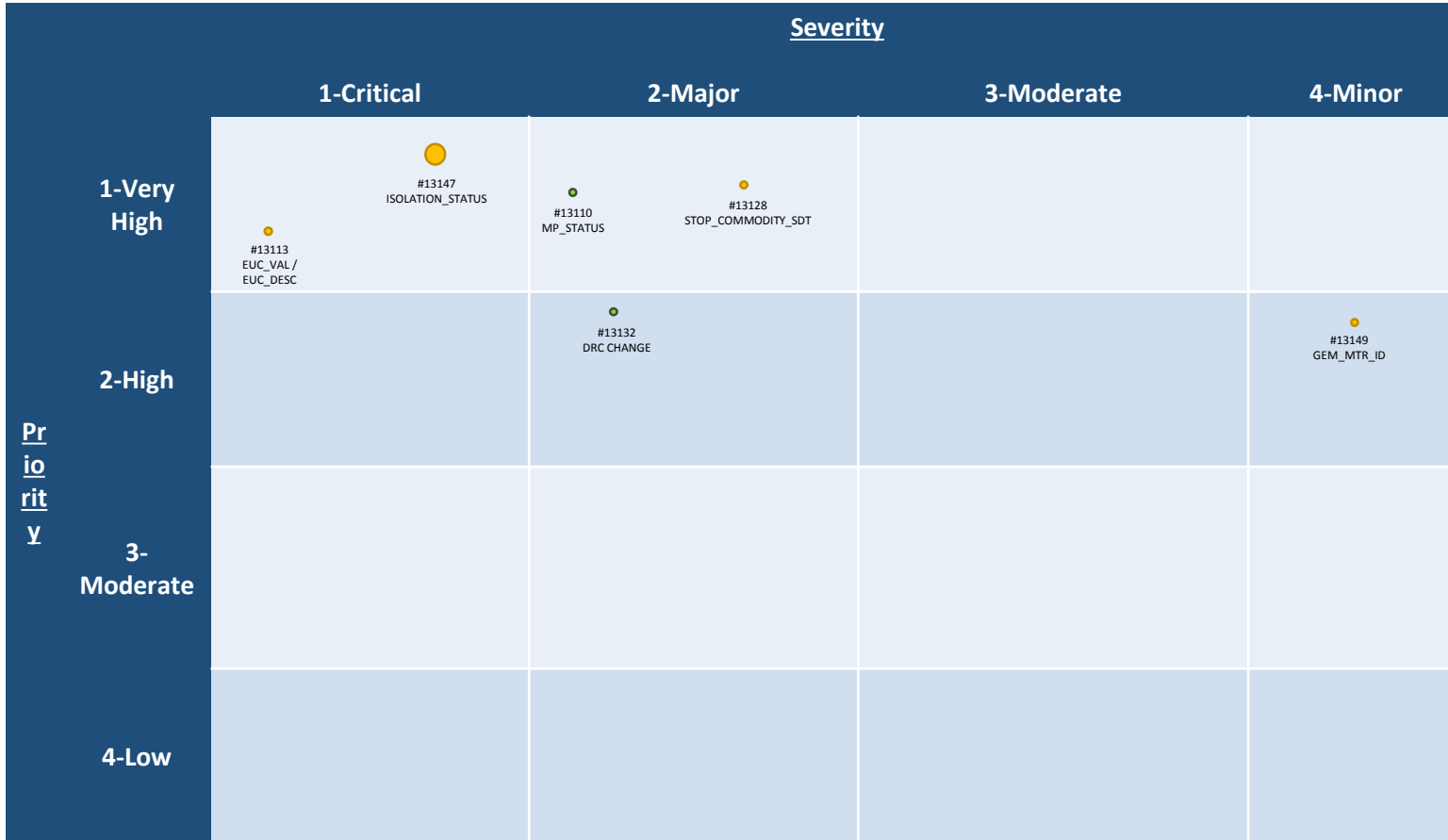
# Overall Delta Defect Landscape (x13 Defects)



# Delta Resolved Defect Landscape (x7 Defects)



# Delta Open Defect Landscape (x6 Defects)



**Legend**

**Defect Magnitude**  
(no. of attribute, not MPRN, errors)

- = 0 - 250
- = 251 - 1000
- = 1001 - 10,000
- = 10,000 +
- = 100,000 +
- = 1m +
- = 10m +

**Defect Fix Status**

- = Under triage with Wipro
- = Fix options known
- = Fixed, awaiting Retest
- = Fixed, Proven, Closed



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# IGT TC5 DM Performance Report

16 Jan 17



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# Executive Summary

- During the first UKLP Implementation Dress Rehearsal (IDR1) and IGT Test Cycle 4 (TC4), IGT data migration has exceeded the time scales needed with the 7(+2)\* Non-Effective Day (NED) cutover period.
- Following industry UKLP discussions and during UNC Modification 602/602A development, the NED was proposed to be extended to allow adequate time for this activity to be performed.
- Two options were considered; 9(+3) or 12(+4). Following these discussions, PNSG concluded on a 9(+3) NED window.
- IGT TC5 was scheduled to run 3-13/1/17 and its performance was to be measured to inform the PNSG's 3<sup>rd</sup> checkpoint (CP3). The Extract, Transform and load (ETL) stages of the plan had previously overrun.
- **IGT TC5 has performed to the required plan within the 9(+3) NED window:**
  - A production-like environment (e.g. comparable storage, CPU etc.) was used for TC5; this means the results are more directly comparable to those to be experienced in IDR2/3 and cutover and any variance is likely to be further improvement on plan performance.
  - Additionally script tuning and plan improvements were made ahead of the cycle
  - Extract commenced on plan, and final load activities ended to plan
  - At task level, some improvement to plan was observed, as was some failure to meet plan; this was largely due to a database issue encountered
  - NED validation commenced and concluded ahead of plan, leaving ~1 day of unused contingency

\* - where (+N) refers to the number Variant Non-Business Days to allow for catch up activities.

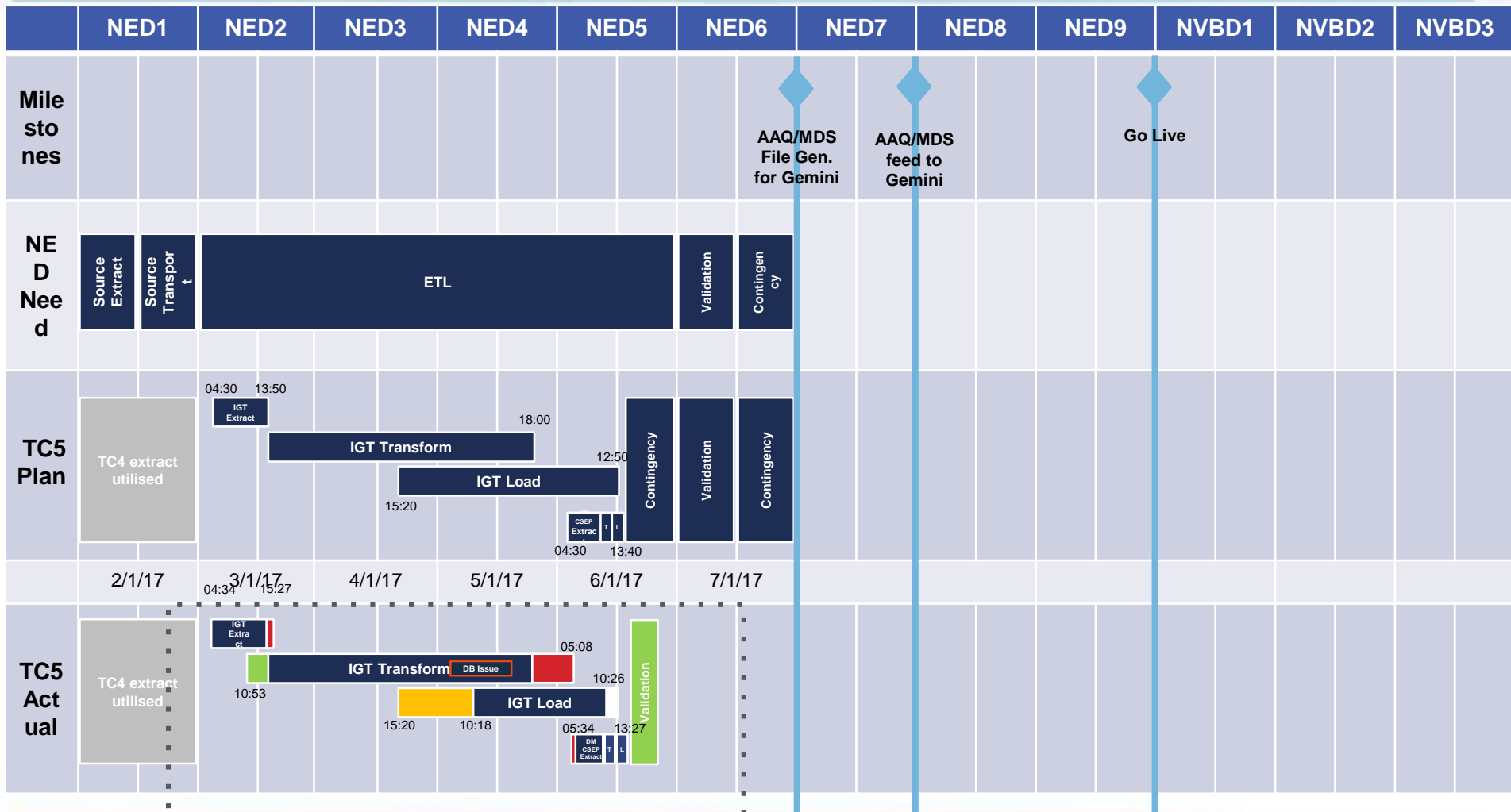
**Xserve**



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# IGT Performance



Started early    Finished early    Exceeded Plan

See next slide for detail



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# Planned Vs Actual Performance

- IGT TC5 performed to the required plan within the 9(+3) NED window. This was measured from the start of IGT NDM extraction, to the completion of NED validation, which were to or ahead of planned timescales.

Activity	Plan Start	Plan End	Actual Start	Actual End	Commentary
iGT NDM Extraction	03/01/2017 04:30	03/01/2017 13:50	03/01/2017 04:34	03/01/2017 15:27	<ul style="list-style-type: none"> <li>Extract ran over by ~1h40m due to DB issue (resolved swiftly but some restart of jobs required)</li> <li>No impact to critical path or overall plan</li> </ul>
iGT NDM Transform	03/01/2017 13:50	05/01/2017 18:00	03/01/2017 10:53	06/01/2017 05:08	<ul style="list-style-type: none"> <li>Transform ran over by ~11h</li> <li>Due to DB outage</li> <li>Contingency within day (18 hour on, 6 hours contingency) and in wider plan allowed for recovery in overall plan</li> </ul>
iGT NDM Load	04/01/2017 15:20	06/01/2017 12:50	05/01/2017 10:18	06/01/2017 10:26	<ul style="list-style-type: none"> <li>Load start consciously delayed for plan efficiency</li> <li>Small number of tasks scheduled 4/1/17 moved to 5/1/17</li> <li>Improvement of end time due to Production-like performance being better than expected and no errors encountered (first time runs)</li> </ul>
DM CSEP Extraction	06/01/2017 04:30	06/01/2017 09:10	06/01/2017 05:34	06/01/17 07:43	<ul style="list-style-type: none"> <li>Start of DM Extraction is dependent on completion of IGT NDM Transformation, so knock on from earlier delay</li> <li>Extract improved baseline timings due to Production-like performance and DBA process improvements</li> </ul>
DM CSEP Transform	06/01/2017 09:10	06/01/2017 14:00	06/01/17 07:46	06/01/17 11:48	<ul style="list-style-type: none"> <li>Opportunity to start Transform early taken</li> <li>Transformation improved baseline timings due to Production-like performance</li> </ul>
DM CSEP Load	06/01/2017 11:10	06/01/2017 13:40	06/01/17 10:35	06/01/17 13:27	<ul style="list-style-type: none"> <li>Opportunity to start Load early taken</li> <li>Performance largely to plan</li> </ul>
Validation	07/01/2017 09:00	07/01/2017 12:00	06/01/17 16:00	06/01/17 18:55	<ul style="list-style-type: none"> <li>NED validation completed on NED day 5 leaving all of NED day 6 as contingency.</li> </ul>

# IGT TC5 Conclusions

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## Conclusions:

- TC5 has proven that IGT migration activities can occur within 9(+3) NED window
- DM improvements from TC4 to TC5 were effective
- Contingency is required to manage non-data issues (e.g. DB performance)
- TC5 had ~1 day contingency remaining with plan (subject to progress and accuracy of validation)

## Residual risk:

- Closure of defects to solidify data migration solution – small potential to impact timings until finalised

## Recommendation:

- **PNSG to retain 9(+3) NED window and Mod 602A to continue on that basis.**
- Monitor ongoing performance during IDR2 and IDR3.

# *Programme Risk Landscape*

# Programme Risk Landscape

The tables below provides an overview of the key areas of risk in relation to a Nexus go-live on 1 June 2017. This is based on our experience gained through our Project management roles, industry group roles and our assurance activities. The RAG status gives the current view of the status of that area, the trend describes the recent trend (improved, stable or deteriorated) and the outlook the expected trend going forward.

The overall landscape indicates a RAG of AMBER with some areas improving and some deteriorating. The outlook for most areas is expected to remain stable or improve, however, a couple of areas are at risk of further deterioration. The current status is not unusual at this stage for a programme of this complexity but deterioration from Amber, would be a cause for concern.

Area	Milestones Impacted	RAG	Trend	Outlook	Mitigations
<b>Market Trials Regression</b> - Ability to complete to schedule	MT2.6	Amber/Green	↑	↔	<ul style="list-style-type: none"> <li>Continue to monitor through MTR and escalate if required Inflights working group formed.</li> </ul>
<b>IDR – Inflight</b> - Ability to have inflight solution in place	D1.5	Amber/Red	↓	↔ or ↓	<ul style="list-style-type: none"> <li>Inflights working group formed.</li> <li>Xoserve/Wipro joint working in India.</li> </ul>
<b>IDR – Catch-up</b> - Clarity on volumes and procedures and volumes	T3.4	Amber	↓	↔ or ↑	<ul style="list-style-type: none"> <li>Requires action from Xoserve to clearly document catch-up batch process.</li> </ul>
<b>IDR – iGT Data Load performance</b> - Ability to support 9 NEDs	D1.2	Green	↑	↔	<ul style="list-style-type: none"> <li>Monitor during IDR2.</li> </ul>
<b>IDR – Delta</b> - Requirement for CP3 contingency	D1.4	Amber/Green	↑	↑	<ul style="list-style-type: none"> <li>Xoserve to report on status 31 Jan 17.</li> </ul>
<b>IDR – Bulk load</b> - Success of Bulk Load 2	D2.3	Green	↑	↑	<ul style="list-style-type: none"> <li>Monitor daily reports from Xoserve.</li> </ul>
↑ Improved/Improving ↓ Deteriorated/Deteriorating ↔ Stable					

# Programme Risk Landscape

Area	Milestones Impacted	RAG	Trend	Outlook	Mitigations
<b>IDR – Process</b> - Procedures used in IDR and cutover	T1.5, T1.6, T3.5	Amber	↔	↔	<ul style="list-style-type: none"> <li>Monitor during IDR2.</li> </ul>
<b>iGT Data reconciliation</b> - consistency between iGTs/Shippers and Xoserve	D3.4	Amber/Green	↑	↑	<ul style="list-style-type: none"> <li>Monitor through DMG.</li> </ul>
<b>iGT IIL files</b> - Production of files for test and cutover	T1.5, T3.5	Amber/Green	↑	↑	<ul style="list-style-type: none"> <li>Monitor through DMG.</li> </ul>
<b>Participant readiness</b> - readiness to operate	Post go-live	Amber/Green	↔	↔	<ul style="list-style-type: none"> <li>Monitor through GONG follow-up and G2.</li> </ul>
<b>Participant behaviours</b> - Appropriate behaviours during cutover	Post go-live	Amber	↔	↔	<ul style="list-style-type: none"> <li>Through GONG and TPG monitor expected behaviours</li> <li>Participants to follow transition principles</li> </ul>
<b>Xoserve post go-live operations readiness</b> - readiness to operate new systems and processes	Post go-live	Amber	↔	↔ or ↓	<ul style="list-style-type: none"> <li>Work is required by Xoserve to quickly confirm arrangements for post go-live releases, management, governance, processes and post go-live support.</li> </ul>
<b>Data variances between test and production</b> - due to delta, T-rule changes and iGT data	Post go-live	Amber/Green	↔	↔	<ul style="list-style-type: none"> <li>Various mitigations have been undertaken to review / validate / test the impact of these issues.</li> <li>Participants and Xoserve should assess the likelihood of exceptions and plan accordingly.</li> </ul>
<b>OVERALL</b>		Amber	↔	↔	N/A
↑	Improved/Improving				
↓	Deteriorated/Deteriorating				
↔	Stable				

# Programme Risk Landscape

## In summary:

1. There remain some areas of concern but based on the information we have and our experience of managing similar project implementations there is nothing (that we are aware of) that we consider to be insurmountable at this point.
2. Moving to July (i.e. providing an extra month) is unlikely to materially reduce the risk profile on these items. Despite it being a planned contingency checkpoint such a move would inevitably require re-planning by both Xoserve and participants and would introduce disruption and uncertainty that could be counter-productive.
3. We believe the most appropriate course of action is to continue to push for June while monitoring and managing the above risks closely. Providing mitigating actions are taken and are successful then it should be possible to avoid any of the above risks becoming showstoppers.

# *Decisions*



# Decision - D3.4 Date Extension



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 019**

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D019	<p>PNSG are asked to endorse the PNDG ratified decision to approve an extension to milestone D3.4 iGT Data Reconciliation - Activities Completed to GONG Requirements delivery date.</p> <p><b>From:</b> 23 Feb 17</p> <p><b>To:</b> 24 Mar 17</p>		23 Jan 17	Data	<p>It has been identified that an additional iteration of data reconciliation is required between Shippers and Xoserve to clear data inconsistencies. Against current timelines this will not be ready until IDR3. Therefore an extension of 1 month is being proposed to better position us for the May cut over of iGT data.</p> <p>When considering ratification of this extension it should be noted that progressive cleaning will place us in a better position for the May cut over. This milestone has no dependencies.</p>	Open

# Decision - Regression Testing MS



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 020

#	Decision	Status	Due Date	Areas of Programme Affected	Comments	Outcome
D020	<p>PNSG are asked to ratify the recommendation by PNDG for a new milestone for to be included within the Market Trials POAP for the definition by Xoserve of a standard regression testing pack.</p> <p>The proposed Milestone is:</p> <ul style="list-style-type: none"> <li><b>MT2.7</b> - Standard Xoserve Regression Test Pack in place.</li> <li>With a completion date of 24 Feb 17.</li> </ul>		24 Feb 17	Market Trials	<p>The Baringa Market Trials code stability assurance report recommended that a standard regression test pack should be defined for use ahead of code releases.</p> <p>This pack is now being prepared by Xoserve and work will be completed by 24 Feb 17.</p> <p>Until that point stand alone test scripts for impacted processes or code areas will be used to regression test before code deployments.</p> <p>This milestone is not dependent on any others within the POAP.</p>	Open

# Appendices

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# Governance: Meetings

## RIAG Meeting Focus

15 Dec 16	19 Jan 17	02 Feb 17	16 Feb 17	02 Mar 17
<ul style="list-style-type: none"> <li>TBC</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Inflight transactions</li> <li>Catch up processing</li> <li>Objection window during cutover</li> <li>Tests outside of scope of Market Trials</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Cancelled</li> </ul>	<ul style="list-style-type: none"> <li>Key programme risks</li> <li>Risk log refresh with input from working group discussions (conducted ahead of time)</li> </ul>	<ul style="list-style-type: none"> <li>Participant data readiness</li> <li>Disengaged Market Participants and</li> <li>New market entrants framework</li> </ul>

## PNDG Meeting Focus

13 Dec 16	17 Jan 17	31 Jan 17	14 Feb 17	28 Mar 17
<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> <li>Code Stability</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Data &amp; Regression</li> <li>Introduce Day by Day plan</li> <li>MT Regression exit</li> </ul>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> </ul>

## PNSG Meeting Focus

19 Dec 16	09 Jan 17	6 Feb 17	20 Feb 17 (TBC)	29 Mar 17 (TBC)
<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>INTERIM</li> <li>GONG Assessment 1</li> <li>Contingency Checkpoint 2</li> </ul> <p><b>Complete</b></p>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> <li>Contingency CP 3</li> </ul>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> <li>Update on post Go Live release plans</li> <li>TPG Communications strategy</li> </ul>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> <li>GONG Assessment 2</li> </ul>

## PNSF Meeting Focus

17 Feb 17	Apr 17 (TBC)
<ul style="list-style-type: none"> <li>Contingency CP 3</li> <li>MT Regression</li> </ul>	<ul style="list-style-type: none"> <li>Programme Update</li> <li>Workstream Update</li> </ul>

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