

UKLP Go-Live Readiness

A CSA review of Xoserve's GONG G3 submission

Client Xoserve
Date: April 2017



Contents



Content	Slide
Executive Summary	3-4
Question 1 - Have Xoserve achieved their internal Go live readiness criteria?	5
GONG G3 Summary Position	6
Industry GONG Criteria Status Assessment – Xoserve / Baringa comparison	7
Question 2 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 1 - Solution Meets Industry Requirements?	8-9
Question 3 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 2 - Solution is Stable?	10-11
Question 4 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 3 - Solution is sustainable?	12-13
Question 5 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 4 - Solution Enables a Positive Consumer Experience?	14
Question 6 - IDL Process Assessment	15
Question 7 - Non Functional Testing Status	16
Conclusions	17
Appendix A: Supporting information for Question 1	19-23
Appendix B: Historic CSA Recommendation Status Summary	24-27
Appendix C: Non Functional Requirement Validation supporting information	28-32

Executive Summary



Context

- ▶ GONG G3 marks the third assessment point that build towards a final Go/No-Go decision for Project Nexus on the 19th May 2017
- ▶ In order to assess progress towards the final milestone at each of these points, a set of Industry wide assessment criteria has been formed by Ofgem. Xoserve have submitted a status against these criteria at each GONG assessment point
- ▶ Xoserve have continued to review their status against established internal GONG criteria. These internal criteria have been mapped to the Industry criteria to provide a consistent view of readiness
- ▶ Ofgem have requested that Baringa provide commentary against Xoserve's readiness and validate the level of risk that Project Nexus is carrying towards Go Live. This report builds on the view presented by Baringa at GONG2 and presented to PNSG on the 6th April.

Scope

- ▶ Presented upon completion of the G3 milestone this assessment reports on whether GONG associated activities have been completed as expected for G3 and provides an updated position on any risks to the Final Go Live Decision that exist, with associated mitigating actions. In addition, this report makes a recommendation on whether Xoserve are on track to achieve Go-Live. The following specific questions are to be answered:
 1. Have Xoserve achieved their own internal go live readiness criteria?
 2. Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 1 - Solution Meets Industry Requirements?
 3. Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 2 - Solution is Stable?
 4. Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 3 - Solution is sustainable?
 5. Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 4 - Solution Enables a Positive Consumer Experience?
 6. IDL Process Assessment:
 - a) Do Xoserve have the appropriate IDL file processes, procedures and controls to be reliably produce them in production?
 - b) What validation does Xoserve do of IDL files, and are appropriate and robust processes and procedures in place to remediate any issues in production?
 7. Non Functional Testing Status:
 - a) Have Xoserve proven that the Production environment is suitably sized to meet the expected Industry volumes?
 - b) Do Xoserve have suitable frameworks in place to support scalability in line with Industry forecasts/demand?
- ▶ The above analysis contributes to an overall conclusion on the accuracy of Xoserve's own assessment of risk profile as the Programme continues towards Go Live
- ▶ NB Data points quoted within this report are as at the G3 check point (20th April) unless otherwise stated.

Executive Summary



Our Approach

- ▶ Baringa have been independently reviewing Xoserve's GONG management process since its inception in 2015
- ▶ Baringa's assessment of risk has been established based on our involvement in this process, and a detailed review of the data submitted against each GONG criteria
- ▶ Where required, additional deep dive reviews of supporting documentation, or workstream activity, have been performed to support the assessment of risk. This, however, has not been performed across all criteria, only those where the perceived risk profile requires it.

Conclusions

- ▶ In conclusion, Baringa agree with risk profile submitted by Xoserve as part the G3 portal submission
- ▶ Analysis performed has uncovered no critical risks/issues that should stop progression towards Go Live at this time. The current Green/Amber status is driven by pockets of localised risk that have formed and there is a need to ensure that robust mitigation plans are tracked through to, and following, a Go Live decision
- ▶ Data Migration is still a key risk area and on the critical path with defects needing rapid triage and resolution, however a positive trend has been seen in the number of recent Delta cycle DM defects. Establishing resolution plans for residual Meter Read and Easy Billing Framework (EBF) defects is key to continued success
- ▶ Wider key risk areas sit within the Sustainability category with demonstrable progress needed in establishing the readiness of the Xoserve Post Implementation Support (PIS) Structure in the weeks leading up to Go Live
- ▶ Baringa have identified a number of lower level GONG criteria statuses that we believe to be currently overstated and are working with Xoserve to address these disparities
- ▶ There are also a number of key recommendations that are yet to be completed, despite in most cases progress is being made. Critical activities for pre and post Go Live have been listed within this report
- ▶ The detailed criteria status indicates a transfer of risk from Programme/delivery to Operational risk for Xoserve. The process is now in place by which appropriate Business Acceptors and Executive sponsors must sign on to the acceptability of the risk profile – Part of which will be ensuring that robust mitigation plans are in place. Baringa will ensure that any Client Side Adviser (CSA) recommendations are also embedded within the associated criteria mitigation plans
- ▶ Xoserve have also responded to Baringa's challenge to provide more focus on the GONG process itself, with additional administrative support being provided and improved engagement in GONG governance fora
- ▶ Baringa forecast that Xoserve's GREEN/AMBER status should be preserved through to Go-Live as long as the Programme continue to hit IDR3/Cutover plan milestones and key risk mitigations are put in place ahead of /post Go Live.

Question 1 - Have Xoserve achieved their internal Go live readiness criteria?



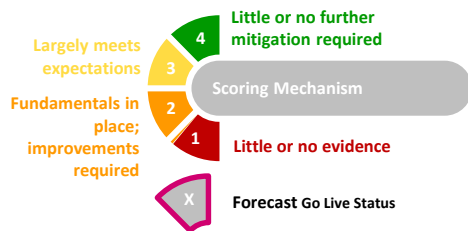
- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
Status against each internally defined criteria and the associated risk to Xoserve's ability to go live and the potential impact on Market Participants.		<ul style="list-style-type: none"> • 219 internal criteria have been defined (1 additional criterion added since G2) • G3 Status: 61 Accepted, 21 complete, 113 Green, 21 Amber, 3 Red • Positive progress made in securing Business Acceptance of completed criteria • Evidence has been uploaded for 28 of the 61 accepted items • Red items are related to Archiving, MI and Operational Reporting • All criteria have been aligned with a 'need date' classification to provide a temporal view of status • 21 criteria have passed their indicative need date yet remain reported as 'Green' • 69 criteria aligned to G/L minus 1 month are reported as Green – Baringa expects the status of these items needs to polarise in the next two weeks • Baringa believe that a number of additional GONG criteria should also be marked as Amber – See appendix A1.1 • No further criteria are judged to be RED status. 	<ul style="list-style-type: none"> • Validate need dates and/or challenge stats of overdue Green criteria • Quantify the impacts of AMBER / RED criteria – see below • Continue focus / effort required to close evidence gaps • Resolve RAG disparities as part the internal GONG review cycles. 	
The effectiveness of the internal go live decision making process and governance.		<ul style="list-style-type: none"> • Internal GONG process embedded and progressing in line with the Industry Day by Day Governance plan • Increased administrative support provided for the GONG process to drive progress • Internal decision making process defined inc. dress rehearsals – risk based approach to be used supported by a framework for quantifying the impacts of any GONG criteria which remain 'open' at go-live. 	<ul style="list-style-type: none"> • Continue with the scrutiny / focus of GONG metrics in governance meetings to drive progress. 	
How the Xoserve internal go live readiness criteria maps to the industry GONG framework highlighting any areas of misalignment.		<ul style="list-style-type: none"> • No areas of misalignment - Criteria are fully mapped to external criteria • All required Industry evidence has been added to internal criteria tracking • Internal decision making process aligned with the industry process timeframes. 	<ul style="list-style-type: none"> • N/A 	

GONG G3 Summary Position



- ▶ Baringa assess Xoserve’s GONG G3 status as GREEN/AMBER and forecast that this status will be unchanged through to Go-Live on the basis that the Programme continue to hit IDR3/Cutover plan milestones and key risk mitigations are put in place ahead of, and post, Go Live
- ▶ There are not judged to be any showstopper issues that would prevent Go Live at this stage
- ▶ Data Migration is still a key risk area within the GONG criteria with defects needing rapid triage and resolution within IDR timelines (dependent on source), however a positive trend has been seen in terms of the number of Delta cycle DM defects
- ▶ Wider key risk areas sit within the Sustainability category with demonstrable progress needed in establishing the readiness of the Xoserve Post Implementation Support (PIS) Structure in the weeks leading up to Go Live
- ▶ *The below RAG scoring and commentary is a summary of an assessment against a series of specific questions posed by Ofgem. Detailed questions and responses are covered on slides 8-14.*



Success Factor 1 - Solution meets industry requirements

Findings

- ✓ MT Regression Test activities have now concluded, with the final defect position understood
- ✓ Positive progress made with recent IDR3 Delta migration cycles with reducing defect rates
- ✗ Meter read (MR) and EBF defects represent specific areas of data risk
- ✗ Holistic workarounds are yet to be fully quantified in terms of FTE impact.

Recommendations

- ▶ Implementation of intended burn down functional defect reporting
- ▶ Finalise Post Go-live deployment schedule
- ▶ Conclude the approach for Meter Read data fixes and EBF retest plans
- ▶ Finalise workaround FTE impacts and assess against operational team capacity.

Success Factor 2 - Solution is stable

Findings

- ✓ Non functional testing is now complete
- ✓ Code stability maintained over the course of MT Regression test
- ✓ Low Level Cutover Plan (LLCP) rebaselined for IDR3 embedding lessons learned
- ✗ Business Readiness Test actions require resolution ahead of Go Live
- ✗ CR delivery timelines now extend towards Go Live.

Recommendations

- ▶ Residual action required to close out NFR traceability & BW report performance optimization – Inc. early post Go Live performance monitoring
- ▶ Agree timings for residual DR activities and priority Penetration test actions
- ▶ Publish finalised LLCP ahead of Cutover
- ▶ Publish regression test outputs
- ▶ Implement granular reporting to close out all BRT actions and track CR progress.

Success Factor 3 - Solution is sustainable

Findings

- ✓ Training / KT progresses to plan
- ✓ Post Go-Live (PGL) release definition continues in line with wider PGL stream plans
- ✗ Local Work Instruction development continues to be slow but now prioritised
- ✗ PIS structure and detailed processes still represents a risk however new manager appointed and gap analysis is in flight
- ✗ Exceptions RCA process not yet fully defined
- ✗ PGL environment strategy definition in progress.

Recommendations

- ▶ Strengthen links between Market Trials team (Performing initial Workaround/LWI engagement) with the Business operational teams
- ▶ Clarify the governance processes that sit around PGL activities
- ▶ Finalise PIS management roles & responsibilities, completing operational gap analysis
- ▶ Document and prove the Exception RCA processes
- ▶ Finalise PGL environment strategy

Success Factor 4 - Solution enables a positive consumer experience

Findings

- ✓ Market Trials Info. Library maintained
- ✓ PIS exit criteria agreed within Xoserve
- ✓ Day 1 FOM in place and Xoserve people transition agreed for all teams
- ✗ Further detailed WoW / control / handoff points to be defined for PIS incidents
- ✗ Management Information clarity is growing through Command Centre reporting structure and PIS process clarity but still represents a risk area.

Recommendations

- ▶ Ways of working (WoW) to be agreed between Internal comms teams & nominated Industry Reps for each Industry Governance group
- ▶ Xoserve to articulate the E2E MI/reporting suite to be used at Go Live
- ▶ Confirm date for sharing the PIS exit criteria with Industry.

GONG Industry Criteria – Assurance Delta View



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017. Note – The ‘delta’ views expressed within this table relate only to risk areas that drive a perceived status difference in the Industry GONG criteria, as seen below.

Pillar	Ref.	G3 Criteria	Xoserve	Baringa	Reason for Delta	Mitigation Actions Required
Meets industry requirements	1.5	Bulk and Delta Data Loads	G	A	<ul style="list-style-type: none"> Data fix activity is required to rectify outstanding Delta Defects related to Meter Reads. 	<ul style="list-style-type: none"> Ensure that the Meter Read data fix mechanism is fully tested and results validated by the business ahead of usage in Production.
	1.6	C1 / C2 Process built and tested in MT	G	G		
	1.8	Cutover plans aligned to low level design	G	G		
	1.9	Requirements Traceability	G	G		
Stable	2.1	Non-functional testing	A	A	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
	2.2	Process to manage code stability	G	G		
	2.3	Business Continuity and Disaster Recovery	A	A		
	2.4	Detailed system cutover plan	G	G		
	2.5	Data migration testing (Dress Rehearsals)	G	G		
	2.6	Data migration defects	A	A		
Sustainable	3.2	Business process documentation	A	A	<ul style="list-style-type: none"> The iGT File processing issue identified in IDR3 has identified some communication channels/routes of escalation that require additional control points adding for Incident Management Timelines for delivery of planned PGL activities are challenging, with Programme focus continuing to be on critical path activities ahead of Go Live Greater clarity is needed over how the PIS environment approach will support the Post Go-Live release plan and ‘fix on fail’ requirements. 	<ul style="list-style-type: none"> Perform root cause analysis and implement additional control points to ensure effective comms and escalation of cutover incidents Appoint a delivery lead to take overall delivery accountability for Post Go Live workstream activities and establish appropriate governance within Xoserve to support delivery Increase clarity of environment provision & planning within Programme governance.
	3.3	Knowledge Transfer	G	G		
	3.4	Post go-live release plan	G	A		
	3.5	Data governance	G	G		
	3.6	Cutover governance defined	G	A		
	3.7	Hypercare IT support processes	A	A		
Consumer Experience	4.1	FAQs and Communications	G	G	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A
	4.2	Hypercare exit criteria	G	G		
	4.3	Organisational Structure	A	A		
	4.4	Training	G	G		

Question 2 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 1 - Solution Meets Industry Requirements?



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
a) Whether the data requirements and the approach to data migration has been documented, reviewed and updated where appropriate.	Yellow	<ul style="list-style-type: none"> Data migration approach baselined Source to Target documents created yet not rigorously maintained which has led to testing inefficiencies. 	<ul style="list-style-type: none"> Continue to focus on Data defects rather than shift focus to retrospective document updates. 	Yellow
b) The final position on Data transformation rules and confirmation that they have been communicated to all Market Participants.	Green	<ul style="list-style-type: none"> All externally impacting Transition Rules agreed via Ind. Govn. T-Rule details available on Xoserve.com. 	<ul style="list-style-type: none"> Continued engagement with industry to close out cleanse activity. 	Green
c) The final bulk and the applicable delta data load for each assessment has demonstrated that data has loaded and produced an acceptable volume of fall out MPRN's which has been assessed by the relevant Market Participants.	Yellow	<ul style="list-style-type: none"> Bulk 2 complete with zero defects The Delta defect position is improving (32 Open Defects @ 21/04) with positive fix success rates seen in IDR3 Cutover Fall Out Management Approach utilised successfully during IDR2 & 3 to determine appropriate remedial action for issues identified during the phase Production data fix activity required to address residual IDR2 Meter Read defects. 	<ul style="list-style-type: none"> Retrospective meter read (MR) data fix mechanism requires testing and business validation ahead of usage in Production Where possible, prioritise ETL fix solutions for remaining defects to minimise planned data fix activity required at cutover and ensure capacity is available to address any newly identified issues. 	Yellow
d) Whether Xoserve have demonstrated that they have achieved the applicable Market Trials exit criteria and have completed all internal functional testing.	Green	<ul style="list-style-type: none"> Market Trials Exit approved via PNSG with caveats and MTR contingency phase now closed UAT complete (aside from CRs) UAT closure report status inc HPQC reconciliation is in progress and targeted to complete by 28/4. 	<ul style="list-style-type: none"> Finalise UAT closure report in order to formally capture residual risk items/actions – ensure outputs feed into GONG tracking. 	Green

Question 2 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 1 - Solution Meets Industry Requirements? (Continued)



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
e) The final defect position evaluating the volume and impact of all internal defects that remain open as well as the proposed fix plan post go live.		<ul style="list-style-type: none"> Defects continue to be assessed via the established industry governance process in order to determine fix necessity / allocate to a Post Go Live release (PGL) Defect position @ 19/04 – 107 defects open (15 externally raised) Final defect fixes are targeted to be deployed by 8/5 – granular defect reporting is required to provide visibility progress against plan 81 Defects have been assigned to a Post Go Live release. A 'plan for a plan' has been published to give industry stakeholders sight of when details of the release schedule will be published. <i>NB – defects stats quoted are all non data defects as per the PNSG defect reporting process</i> 	<ul style="list-style-type: none"> Employ defect burndown tracking to monitor defect closure trajectory Allow recent Defect reporting refinements to embed, taking further Industry feedback if clarity of position is not judged to have improved. 	
f) The extent of manual activity/ workarounds that will be maintained post go live and whether the resources and processes to support them are in place		<ul style="list-style-type: none"> 149 work arounds are recorded within the BC&R consolidated workaround tracker 68 have undergone analysis to assess Operational Impacts of which only 17 have been identified as having any FTE impacts and only 2 deemed to have a High impact A quantified FTE assessment has however not yet been completed 81 yet to have any Ops IA conducted however impact is expected to be low. 	<ul style="list-style-type: none"> Analyse and plan for any operational impacts in FTE terms by team Appoint a dedicated Workaround Manager to oversee the end to end delivery cycle for all workarounds and clarity of upward reporting Commence BC&R assessment of workarounds which are pending industry approval to safeguard overall 'workarounds complete' milestone. 	
g) The final requirements traceability matrix to determine whether a clear mapping exists between requirements, design and test cases so that it can be demonstrated that all requirements have been completely tested.		<ul style="list-style-type: none"> Source Rule coverage mapped within Programme's traceability toolset Change Request impacts on SR coverage is being iteratively assessed yet no formal programme milestone is being used to time box this activity. 	<ul style="list-style-type: none"> Set a programme milestone for producing a final traceability status position Agree any remedial actions required via programme governance. 	

Question 3 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 2 - Solution is Stable?



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
<p>a) Whether Xoserve have demonstrated that they have achieved the applicable exit criteria and have completed all internal non-functional testing. For example (but, not limited to): PT, Gas Day Testing, Volume Testing, Large File Testing, Security Testing</p>	<p>Yellow</p>	<ul style="list-style-type: none"> • Non Functional Requirement NFR traceability is 84% complete • Required volumetrics broadly evidenced via Performance Test / Gas Day Testing and frameworks are in place to support scalability • See Question 7 for detailed CSA NFR traceability and evidence sampling review • BW Report performance validation exercise in progress – 21% of reports still require action to improve performance • Final Pen Test complete - 51 observations identified with 33 resolved to date, and 3 planned post Go Live • DR4 awaiting sign off from IS Ops pending clarity on post go-live DR testing plans. 	<ul style="list-style-type: none"> • Close out NFR traceability inc. required governance to approve any requirement compromises • Identify environment options for to concluding report validation activities and prioritise externally facing reports • Finalise plans for further DR test activity during PIS. 	<p>Yellow</p>
<p>b) Whether Xoserve have appropriately maintained their Nexus Solution and maintained code stability between the completion of MT Regression and go-live. This includes:</p> <ul style="list-style-type: none"> • How any Nexus change requests have been impact assessed and implemented between MT Regression and go-live should they be required. • The approach for impact assessing any business as usual changes, SAP upgrades (service packs or patches), projects or production 'fixes' (incident management) and, if required, how they will be deployed; • How internal regression will be managed prior to and go-live. • The outcome of any SAP Go Live readiness assessment and the status of any associated recommendations 	<p>Green</p>	<ul style="list-style-type: none"> • Change Control processes remain in force to ensure only go-live critical CRs are progressed • 11 CRs have been raised since the G2 report of which 7 remain under assessment for delivery ahead of go-live • CR delivery schedules now extend up to Go-Live (previous final drop point was 12/05) • The Release Deployment Board (RDB) (the governance mechanism for deployments) is transitioning to Production arrangements (CAB) and accordingly controls are tightening • A regression testing process is now established. Defects are being assessed for regression impacts and a regression test scope is being devised accordingly – details yet to be shared externally • At 20/04 all completed regression test cases had passed successfully • SAP Readiness Assessment findings under review to determine which require remedial action. 	<ul style="list-style-type: none"> • Ensure the breadth of the Regression Test Working Group (RTWG) covers all change sources notably remaining CR deliveries • Publish details of regression test activities to provide visibility to external stakeholders • Contingency analysis needed to establish impacts of CR delivery slippages • Action plan needs to be formally agreed and any technical update approved via RDB change control. 	<p>Green</p>

Question 3 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 2 - Solution is Stable? (Continued)



► Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
c) Xoserve's post go-live business continuity and IT disaster recovery procedures and whether they have been appropriately tested.	Green	<ul style="list-style-type: none"> • 4 rounds of Disaster Recovery & failover testing have now been completed • Functional testing successfully completed following failover with no issues encountered • End to end failover timings in line with associated Non Functional Requirement (not including Production shutdown planned activities). This also included a 12hr delay for a encryption password/access issue – Otherwise would be comfortably within SLAs. • Xoserve's existing 22 BCM have been reviewed and reduced to 13 core scenarios (as a result of new UK Link platform introduction) • BCM plans for these 13 scenarios are in the process of being reviewed with Business owners and are on track for testing to be complete by 15th May • Business readiness testing (BRT) has now completed (16 workshops held and 150 scenarios tested), with c250 open actions being tracked through to completion, and prioritised for Go Live • Central mgmt. support is in place to monitor the ongoing risk position based on action closure. 	<ul style="list-style-type: none"> • Agree the plan/scope of further DR process refinement through Internal Governance – Carrying out residual activity within PIS • Refine of the Environment checklist to include associated access checks to avoid further delays during planned DR activities • Implement granular 'burn down' style reporting to close out all BRT actions • Complete planned residual testing workshops in critical areas e.g. Command Centre (Crisis Management), ensuring actions are captured within the same process. 	Green
d) Xoserve have documented a detailed system cutover plan that has been approved and successfully rehearsed in IDR 2 and IDR 3.	Green	<ul style="list-style-type: none"> • LLCP rebaselined ahead of IDR3 including IDR2 lessons learned • Key variations between IDR2/3 and cutover are known and understood – The perceived risk that these place on Cutover processes is low • At the time of writing 28 lessons have been captured in IDR3 (as of 25/04) – These are largely process learnings rather than LLCP learnings • Data migration (defects) represents the key risk to cutover success with Delta defects still being encountered, and a decision on whether to fix or risk greater fall out in Production. 	<ul style="list-style-type: none"> • Produce a summary of changes to LLCP post IDR3 • Baringa recommend attempting to lock down the baselined IDR3 LLCP given that there is significant benefit to be achieved by executing a 'practised' plan, even if not quite optimal. 	Green
e) The materiality of unresolved Data migration defects.	Yellow	<ul style="list-style-type: none"> • Positive progress made across the overall defect landscape with total open defects numbers 131 at 21/04 (compared with 217 at 21/03) • Acceptance criteria utilised effectively to assess defect materiality with profiling input from the Auto Validation solution • Fall Out Management Approach devised to enable material defects identified at cutover to be addressed – approach tested during IDR2 and 3 • Unique Sites has seen positive progress made in terms of defect fixes – and now only has 9 open defects • EBF migration activity has been brought forward into the NED window, and represents a complex area within which defects still exist. 	<ul style="list-style-type: none"> • Baseline EBF plans for remaining test/defect resolution activity. 	Yellow

Question 4 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 3 - Solution is sustainable?



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
a) The completeness of the Design documentation specifically covering how the critical industry processes will operate.	Green	<ul style="list-style-type: none"> Business Process Design Documents and Functional spec.'s exist for all business processes Design document updates due to CR/defects may not yet have been reflected – A plan is in place to complete the required updates ahead of Go Live, although this is currently marginally behind plan and not judged to be Go Live critical. 	<ul style="list-style-type: none"> Revise document update plan, prioritizing critical processes ahead of Go Live. Define a clear plan for any residual activities Post Go Live, to be managed via PIS action tracking. 	Green
b) The end-to-end process guides and documents confirming that they have been updated and are available to the Market Participants as required.	Yellow	<ul style="list-style-type: none"> LWI updates & workarounds continue to be delivered however progress remains slow due to business resource availability Additional management focus has been added to increase delivery rates Workarounds with external impacts have been defined and are in the process of being approved via industry governance. 	<ul style="list-style-type: none"> Strengthen links between Market Trials team (Performing initial Workaround engagement) with the Business operational teams. 	Yellow
c) Completeness of the Knowledge transfer activity from Programme to key operational teams (key users) and IT Support teams.	Green	<ul style="list-style-type: none"> Training Needs Analysis complete System training scheduled for all users & in progress Dependency risk exists on LWI/manual workaround readiness to ensure all KT can be completed by Day 1, as well as an associated risk that Training materials/KT may be inaccurate/ incomplete due to design changes/ workarounds not being clearly cascaded. 	<ul style="list-style-type: none"> N/A – LWI/Workaround recommendations covered in b). 	Green
d) The Post go-live release plan and change management processes address immediate post go-live fixes (across industry processes, where applicable).	Yellow	<ul style="list-style-type: none"> 6 Post Go Live streams of activity have been defined, with accountable owners and high level plans defined Overall accountability /governance gaps exist with a lack of clarity on how this activity sits alongside wider PIS Programme activity Engagement continues on PGL release planning although code drop dates and content are still to be confirmed – These must be aligned to Future Release principles Greater clarity is needed over how the PIS environment approach will support the Post Go-Live release plan and 'fix on fail' requirements. 	<ul style="list-style-type: none"> Continue to deliver the PGL plans in line with committed Industry timelines Clarify the governance processes that sit around PGL activities, with clear accountabilities and dependency management processes in place Increase clarity of environment provision & planning within Programme governance Establish mechanisms to clearly report fix progress for the PGL defect list. 	Yellow

Question 4 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 3 - Solution is sustainable? Baringa

(Continued)

- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
e) The suitability of ongoing data governance processes confirming that they have been defined and are operational.	Green	<ul style="list-style-type: none"> The Data Management Group is the first group Project Nexus Governance forum which will transition to its Interim form. The group is already broadly operating as it will under interim arrangements i.e. Xoserve led. 	<ul style="list-style-type: none"> N/A 	Green
f) The cutover and post go-live governance to determine if it provides an appropriate framework to support decision making in the event of an issue at go-live and during the Hypercare period.	Green	<ul style="list-style-type: none"> Governance processes for cutover are expected to replicate those demonstrated in IDR3 The Industry Issue Resolution Group is now active in the run up to Go Live The iGT File processing issue identified in IDR3 has identified some communication channels/routes of escalation that require additional control points adding for Incident Management The governance processes for PIS and Stabilisation are still in process of being defined as part of Post Go Live holistic planning exercise. This area is being bolstered with increased management resource A proposed Governance 'stand still' period is likely to provide stability of the current Programme governance through to the end of June. 	<ul style="list-style-type: none"> Perform root cause analysis and implement additional control points to ensure effective comms and escalation of cutover incidents Establish internal Xoserve governance and control structures to manage dependencies and changes to PGL workstream plans Continued Xoserve delivery to the communicated PGL governance plans to ensure a smooth transition post governance freeze. 	Green
g) The Post go-live / Hypercare IT support processes to determine whether the resources are available and arrangements are in place and understood.	Yellow	<ul style="list-style-type: none"> PIS structure maturity still represents an area of risk to Xoserve's readiness for Go Live PIS Programme manager has now been appointed and efforts are in flight to establish bounds of responsibility versus wider Programme and Operational management roles A series of PIS Operational gap analysis workshops are underway, due to complete at the end of April, that will likely identify a number of actions required in order to fill gaps in low level processes, handoffs and roles and responsibilities Exceptions management process definition is now better defined, however there is a gap in the definition of how exception root cause analysis will be performed across teams. Scalability factored into exceptions resourcing model to enable resource levels to flex based exceptions volumes. 	<ul style="list-style-type: none"> Confirmation required of PIS management boundaries of accountability, and formalisation of associated delivery plans Complete PIS operational gap analysis and ensure a clear plan for all residual actions Consider identifying readiness report checkpoints ahead of key business process pinch points Document and prove the Exception RCA processes. 	Yellow

Question 5 - Have Xoserve demonstrated that they have achieved the GONG criteria associated with Success Factor 4 - Solution Enables a Positive Consumer Experience?



- Summary findings documented below are based on a review of ongoing GONG management processes and Xoserve GONG status as submitted for Gate 3 on 20th April 2017.

Sub-Question	RAG 28/04	Current Findings	Recommendation	F'cast GL RAG
a) Whether Appropriate FAQs and messages have been captured and disseminated to appropriate internal and external stakeholders. This may include messages to key customers around Non-effective days.	Yellow	<ul style="list-style-type: none"> • Market Trials Information Library maintained to provide Market Participants with key business process details • Improving clarity of Internal/External Comms process for PIS incidents however further detailed WoW to be confirmed • Comms Single Point of Contacts now agreed • Template Comms for key incidents in development • Command Centre looking at escalated comms planning through scenario testing (April-May). 	<ul style="list-style-type: none"> • Comprehensive comms approach required detailing roles and responsibilities, handoffs, channels of communication and to be communicated with wider PIS teams. • WoW to be agreed between Internal comms teams & nominated Industry Reps for each Industry Governance group. 	Green
b) The Hypercare exit criteria and the degree to which they will support a controlled exit from Hypercare and are focused on system stability.	Green	<ul style="list-style-type: none"> • PIS exit criteria have now been agreed between the Programme and Xoserve operational stakeholders • Post Go live Industry governance and planning is underway. 	<ul style="list-style-type: none"> • Communicate agreed PIS Exit criteria to Industry • Xoserve should continue developing its plan for Industry governance Post Go Live, making Industry engagement activities clear. 	Green
c) The readiness of the new Organisational structure.	Yellow	<ul style="list-style-type: none"> • People Transition in progress for Day 1 FOM, with many individuals already placed into new Day 1 roles • Clarity on R&R/ways of working (WoW) across PIS teams (Xoserve/ TCS/Wipro) growing but further work is still required • Clarity on the Wipro detailed org structure and sizing is also growing – This is required to conclude detailed WoW • Day 1 internal MI requirements defined (PIS & Bus Ops) some delivered and in early Productionisation • Some MI gaps are likely to be filled via manual workarounds for Go Live • Set up of the offshore Exceptions support team & associated reporting is working to challenging timelines. 	<ul style="list-style-type: none"> • Add more focused resource to lead WoW across PIS teams • Appoint a dedicated Xoserve PIS Reporting/MI manager to drive forward MI gaps and enable delivery cross PIS teams into Command Centre dashboard reporting • Gain greater detail of 3rd party structures to assure confidence in “right sizing” and WoW with Xoserve/TCS • Ensure Xoserve & Wipro/TCS SMEs are embedded across PIS teams structures (Technical and Business) to drive quick/right 1st time decisions • Escalate the required TCS Exception team set up actions (Port opening, Access roles) within appropriate service providers. 	Yellow
d) Business readiness activity focused on the People impacted by changes by the Project Nexus go-live have received appropriate training.	Green	<ul style="list-style-type: none"> • 61/150 courses now run with 79% knowledge check pass rate • 134 people trained across sessions to date, equating to 2125hrs of learning. 	<ul style="list-style-type: none"> • Continued mgmt. attention on SME and business resourcing to enable LWI & manual workaround definition. • Tight mgt & timely notification to business change team of any workarounds agreed requiring training/KT. 	Green

Question 6 – IDL Process Assurance



Context

- ▲ The performance of IGT Daily Delta File (IDL) file and associated processes have been subject to significant scrutiny over the course of Market Trials and Regression Test (MTR)
- ▲ A number of defects were identified within the early stages of Market trials related to the logic of the file production, and due to delays in the root cause analysis and fix time for these defects, there were subsequent impacts to some IGT participants' ability to perform key testing within MTR
- ▲ The ensuing lack of confidence in IDL file performance has led to 2 questions being asked of Baringa, as the Programme heads towards Go Live:
 1. Do Xoserve have the appropriate IDL file processes, procedures and controls to be reliably produce them in production? – Automated process, no manual interventions – No intentions to break the automated process for manual validation
 2. What validation does Xoserve do of IDL files, and are appropriate and robust processes and procedures in place to remediate any issues in production?

1- Do Xoserve have the appropriate IDL file processes, procedures and controls to be reliably produce them in production?

- ▲ Internal testing by Xoserve has comprehensively tested the component parts of the IDL file production processes, and the representation of system data therein (51 defects raised in MT, 7 in MRT)
- ▲ Market trials has subsequently proven the end to end processes via the defined Partnering approach – Noting that this level of transparency will not exist in Production
- ▲ IDL file generation will be system driven in Production, with no manual intervention
- ▲ Any failures in the associated Batch jobs to generate a file will be subject to standard alerting and monitoring processes – 2 day SLAs have been defined for the response to such a failure as detailed in the 'Performance Standard' column within the Data Services Contract.

2 - What validation does Xoserve do of IDL files, and are appropriate and robust processes and procedures in place to remediate any issues in production?

- ▲ There is no manual intervention / validation of the IDL files in Production
- ▲ System validation of the data structures held within the file is performed by the AMT Marketflow integration layer
- ▲ There is a risk that record level data errors would not be picked up until identified within associated invoicing activities
- ▲ Standard query and incident management processes have been defined for these point issues to be resolved, against associated SLAs depending on severity
- ▲ A quarterly refresh process is also in place to ensure that any gaps in processing (either for shipper or IGT) should not go more than 3 months without being identified.

Conclusions

- ▲ Baringa believe that testing should have proven the core operations of the process, and that should defects be encountered within the Production environment, processes are in place to ensure that resolution is timely
- ▲ Xoserve must complete communications of the PIS service management processes to Industry stakeholders – explaining engagement points and timings for the query and issue management processes
- ▲ The in flight MOD (IGT097) to enable billing on estimated data will reduce any potential commercial risk on IGTs of incorrect invoicing, one that is partially mitigated, or limited, by the quarterly data refresh. This risk can be further mitigated via continued efforts by IGTs to ensure data alignment is established ahead of Project Nexus Implementation or as soon as practicable thereafter
- ▲ Issues of process understanding may still exist across the Industry – with a potential need to continue to offer dedicated resource for IGT knowledge transfer. Consideration could be given to the level of enhanced support that can be provided to IGTs through the PIS period, although noting the standard support arrangements in place (Business partners / data contacts, contract management process etc).

Question 7 - Non Functional Testing Status



1. Have Xoserve proven that the Production environment is suitably sized to meet the expected Industry volumes?

Xoserve's ability to meet expected industry volumes at Go Live has been broadly proven in Performance Test and Gas Day Testing phases. Furthermore, SAP were engaged over the course of the Programme lifecycle to assure the correct system sizing has been applied to process the required volumes.

2. Do Xoserve have suitable frameworks in place to support scalability in line with Industry forecasts/demand?

Xoserve's solution has been designed to be scalable and leverages virtual machine (VM) technology to provide the necessary platform to support industry demands. An Alerts & Monitoring (A&M) solution is in place to allow close monitoring of system utilisation and an Infrastructure as a Service model has been employed to allow capacity to be scaled to business / industry needs. Further work needed to establish how operational reporting aggregates to provision essential Management Information.

Ofgem question	Detailed Findings
Review the scope of the originally defined Non-functional requirements	<ul style="list-style-type: none"> The UK Link Programme's Non Functional Requirement (NFR) Catalogue contains 121 requirements. Requirements are categorised using the industry standard FURPS+ model. The NFR catalogue was baselined in 2014, in line with High Level Design. Details of its composition can be found in Appendix C Since the NFRs were set, the programme go-live date has twice been revised (to October 16 and then June 17) and the Smart Meter Implementation Programme (SMIP) go-live also revised (initially September 15 and then October 16). A number of the volumetric related requirements are impacted by these macro factors and whilst they have not been re-baselined it's anticipated that Day 1 volumes will be considerably lower than stipulated in the original NFRs.
Assess the degree to which these have been proven through Performance Test and other Non-functional test phases	<ul style="list-style-type: none"> A traceability exercise assessing NFR test coverage has been undertaken by the Programme's Design Authority and validated by the CSA team. Current traceability is 84% complete and residual actions summary can be found in Appendix C Test evidence for a sample of volumetric specific NFRs was assessed by the CSA team and findings are outlined in Appendix C NFR volumes and times are broadly proven across the sample, either explicitly in the evidence provided or by extrapolating results seen in Performance Test (PT) and / or Gas Day Testing (GDT).
Confirm that infrastructure capacity monitoring processes are embedded and strategies for meeting performance goals are identified and know including, performance issues resolution	<ul style="list-style-type: none"> Infrastructure capacity is actively monitored via the overall Alerts and Monitoring solution The A&M solution has been iteratively improved throughout the programme lifecycle and in particular via learnings captured in Market Trials The A&M design is detailed within the Service Management Handover Document and is in phased adoption by IS Operations as part of Early Productionisation of infrastructure, with formal acceptance expected at the end of the Post Implementation Support period. All NFRs related to solution scalability have been validated and marked as closed as part of the DA team's NFR traceability exercise Infrastructure as a Service (IaaS) model is employed to support live operations and so the commercial framework is in place to allow capacity to be scaled to business/industry need, with lead times of 2 – 3 months depending on the changes needed.

Recommendations

- Finalise NFR traceability exercise inc. formally agreeing descoped / partially met requirements via appropriate governance (see Appendix C for full details)
- Capture any residual risk items appropriately within the Programme GONG framework
- Establish a series of industry 'checkpoints' to provide stakeholder visibility of actual volumes vs. NFR projections
- Bolster proactive monitoring of appropriate capacity KPIs for 'first runs' in production to support quick identification and resolution of any performance issues should they be encountered and establish how operational reporting aggregates to provide essential Management Information.

Conclusions



- ▶ In conclusion, Baringa agree with risk profile submitted by Xoserve as part the G3 portal submission
- ▶ Analysis performed has uncovered no critical risks/issues that should stop progression towards Go Live at this time. The current Green/Amber status is driven by pockets of localised risk that have formed and there is a need to ensure that robust mitigation plans are tracked through to, and following, a Go Live decision
- ▶ Baringa have identified a number of lower level GONG criteria statuses that we believe to be currently overstated and are working with Xoserve to address these disparities
- ▶ The detailed criteria status indicates a transfer of risk from Programme/delivery to Operational risk for Xoserve. The process is now in place by which appropriate Business Acceptors and Executive sponsors must sign on to the acceptability of the risk profile – Part of which will be ensuring that robust mitigation plans are in place. Baringa will ensure that any Client Side Adviser (CSA) recommendations are also embedded within the associated criteria mitigation plans
- ▶ There are also a number of key recommendations that are yet to be completed, despite in most cases progress is being made. A short list of critical activities for pre and post Go Live are detailed below against each of the Project Nexus Success Factors:
 - ▶ **Meet Industry Requirements**
 - ▶ **Prior to Go Live:** Articulate the plan/approach for Data Migration defect resolution for Meter Reads and EBF residual defects. Clarify functional defect deployment schedules & Confirm holistic workaround sustainability for Xoserve operations.
 - ▶ **Post Go-Live:** Ongoing communication mechanisms for regression test outcomes and continuation of defect burn-down reporting
 - ▶ **Solution Stability**
 - ▶ **Prior to Go-Live:** Closure of Business Readiness Testing actions and close out of non functional requirement traceability
 - ▶ **Post Go-Live:** Heightened monitoring of early BW report performance & agreement of timing for residual DR activity
 - ▶ **Solution Sustainability**
 - ▶ **Prior to Go-Live:** Finalise PIS management roles and responsibilities and complete the operational PIS process gap analysis. Clarify the governance processes that sit around PGL activities and the PGL environment strategy
 - ▶ **Post Go-Live:** Complete residual design document updates & consider identifying readiness report checkpoints ahead of key business process pinch points
 - ▶ **Impacts to Consumer**
 - ▶ **Prior to Go-Live:** Confirm the PIS Incident Management communications approach, expedite offshore exceptions team set up & Xoserve to articulate the E2E MI/reporting suite to be used at Go Live
 - ▶ **Post Go-Live:** Establish the accountability for monitoring and refinement of the E2E MI/reporting suite & Confirm date for sharing finalised PIS exit criteria
- ▶ Xoserve have also responded to Baringa's challenge to provide more focus on the GONG process itself, with additional administrative support being provided and improved engagement in GONG governance fora
- ▶ Baringa forecast that Xoserve's GREEN/AMBER status should be preserved through to Go-Live as long as the Programme continue to hit IDR3/Cutover plan milestones and key risk mitigations are put in place ahead of /post Go Live.



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Appendix A

Supporting information for Question 1

A.1.1 Internal GONG Criteria Comparison (13/04/2017)



The table below details the G3 position for the Xoserve internal GONG criteria and compares it to a Baringa assessment across the same criteria:

		A. Solution, System and Data	B. Business Readiness									C. Transition Readiness					D. Industry Readiness			E. Other							
		G	G									G					G			G							
		Solution Integrity	Delivery pre requisites	Leadership	Governance	Ways of Working	Process	Structure	Capability (including Training, Engagement)	Management Information	Performance Management	Service Management	Exceptions	Business Benefits	Transition and Cutover	Facilities & Assets	Post Implementation Support	BAU Operations	Go Live Controls	Comms and Training	Data Cleanse	Transition	Accreditation	Reporting	Licences	Contracts	SAP Findings
Prog. RAG	G	G	G	G	G	G	G	G	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
	B	28	13	7	0	0	2	5	1	0	1	5	1	1	4	0	5	2	0	1	0	0	1	0	1	4	0
	G	15	11	3	4	2	4	8	7	0	1	7	3	0	10	2	13	6	1	5	1	2	0	1	0	6	1
	A	4	1	0	1	1	4	0	1	0	0	0	4	0	0	0	3	0	0	0	1	0	0	1	0	0	0
CSA RAG	R	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	G	G	G	G	G	G	G	G	A	G	G	A	G	G	G	G	G	G	G	G	G	G	G	G	G	G	A
	B	28	12	7	0	0	2	7	1	0	1	5	1	1	5	0	5	2	0	0	1	1	1	0	1	4	0
	G	11	8	3	3	2	3	4	7	0	1	3	1	0	8	2	9	6	1	5	1	1	0	1	0	6	0
RAG Counts Comparison	A	8	5	0	2	1	5	2	1	1	0	4	6	0	1	0	8	0	0	1	0	0	0	1	0	0	1
	R	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

RAG Counts Comparison	
Prog.	CSA
82	85
113	86
21	47
3	1

- ### Explanation of Status Differences
- ▶ **Solution Integrity** – Design update plan slippages seen, SAP CHARM implementation plan not yet finalised
 - ▶ **Delivery Pre-reqs** – Non functional test close out pending, increased visibility / tracking of CR delivery plans needed
 - ▶ **Management Information** – Operational reporting gaps identified and priority action in progress to collate Day 1 essential MI
 - ▶ **Service Management** – Operational SLAs need finalising. Hand offs between substreams within the Incident Management process require clarification
 - ▶ **Exceptions** – Challenging timelines for offshore Exception handling team set up, and the approach for Exceptions Root Cause Analysis (RCAs) during PIS needs fully defining
 - ▶ **SAP Findings** – Plan to close out SAP readiness observations yet to be formalized.

A1.2 GONG Exception Report (20/04/17)



Detailed internal criteria currently defined as Red status (3, down from 7 @ G2) – None of the items listed below directly map to External/Industry GONG criteria

Mapped Industry Ref	Internal Ref	Go / No Go Criteria	Status Comments	Return to Green Actions / Mitigations	
-	A2.12	Archiving (including retrieval mechanism) of data from solution components (for example Market Flow) has been defined, documented, agreed and tested	<ul style="list-style-type: none"> Lack of clarity on the delivery plan for archiving solution, however this is not a high impact item for Day 1 	<ul style="list-style-type: none"> Define archiving solution delivery plan 	Low
-	B7.1	Core MI requirements identified and communicated to the data owners and is available and accessible in the required format	MI / reporting requirements defined to date in operational silo's Scope needs clarification with supporting implementation plans required	Progress being made in ISOPS and BUS Ops/PIS teams to on gap analysis. Increasing levels of management resource being put on this activity however still a key risk and gap to go live.	Med
-	C.3.7	PIS Operational reports ready	Additional resource has been allocated in the BCR team to help support tracking and progressing the readiness of Day 1 reports. Increased resource and mgt attention to move to an improved status however given volume of risk and activity that still remains currently holding at Red status. The ability for all reporting to be defined is also dependent on understanding the industry requirements as a single set of dashboards are being created into CC to serve both internal and external reporting needs	Resolve CR delivery plan to enable all reporting requirements to be met (Exceptions & Bus ops reports) Continue to bolster team with additional resource.	High

A1.3 GONG Exception Report (20/04/17)



Detailed Xoserve internal criteria currently defined as Amber status (22 – Up from 19 @ G2)

Mapped Industry Ref	Internal Ref	Go / No Go Criteria	Status Comments	Return to Green Actions / Mitigations	GL Impact
-	A1.7.1	Legacy Data Archiving (Informatica) fully tested and signed off	Design documentation has been submitted to the business for review and approval. Implementation planned post Go Live.	Identify reporting/monitoring that will provide early visibility of capacity risks	Low
-	A1.7.2	Opentext Online Archiving fully tested and signed off	Implementation planned post Go Live.	Identify reporting/monitoring that will provide early visibility of capacity risks	Low
2.6-G1	A1.8.11	Xoserve has identified resolutions for critical and high impact data migration defects for data testing completed until G1	IDR2 fallout management report well received with Industry, with clear demonstration of Xoserve's ability to handle fallout as if IDR2 were Cutover/GL. All P1/P2 data defects requiring fix for IDR3 have seen enduring ETL code fixes developed. Defect PoC appointed within the Data workstream to ensure full control of closure to all necessary data defects prior to data source 'need dates' to prepare for G/L.	Approach to be determined for retrospective fixes for Meter Read defects & plan for EBF defect retest and resolution is required.	High
2.6-G2	A1.8.12	Xoserve has deployed all fixes for critical and high impact data migration defects including fixes for any such additional defects identified post G1	As per A.1.8.11, enduring fixes developed for all P1/P2 defects ahead of IDR3. IDR3 Delta 1 entry decision taken despite not taking production data correction action to address 13x Meter Read issues, however assumption based on confirmation from the Wipro Data Delivery team is that these datafixes can be applied post or within IDR3 to no further detrimental impact to the production dataset.	Continue to track daily fix progress of all open data defects in HPQC, in-line with data source production load 'need dates'. Approach to be determined for retrospective fixes for Meter Read defects	High
2.1-G2	A2.3	Performance Testing has been successfully completed, critical issues resolved and signed off	BW report optimisation ongoing. Also currently packaging residual NFRs to take to governance sessions	Complete residual BW optimisation.	High
3.6-3.6	B2.3	Implement changes to Governance Structures/processes/escalation for go-live	IDR & Cutover governance is clear, with links between internal incident management and Industry IRG group being tested. Post Go live governance terms of reference in review with Industry however transition plans are still TBC	Finalise PGL governance transition plan	Med
-	B3.1	Any recommendations for Ways of Working, have been identified	HL structures have been agreed however Implementation Plans and BRT recognise a number of gaps in the detailed ways of working definition between teams. Largely this refers to the way that PIS teams will interact with each other and BAU teams.	Mitigating actions in place through a series of workshops being held across PIS teams and then ISOPS technical Xoserve and Wipro teams. Monitoring of action progress through implementation plans as a result of BRT actions raised.	High
-	B4.2	Document all new processes for Day 1	Exception and Business Champion outstanding processes defined and currently in sign off. Delivery of LWI however has ben delayed due to business ops and SME resources and now plan is out to end May. List of workarounds also subject to the same time constraints and therefore Amber status retained.	Continue with greater management control over LWI. Still experiencing SME resource constraints however status of LWI completion improving Some small areas of outstanding process definition for new teams (e.g. Exceptions and Business Champions) however process definition in progress.	Med
-	B4.3	Update the processes that are changing as a result of UKL Programme	As per B4.2	As per B4.2	Med
3.2-G2	B4.10	Manual Processes (Business and People) and associated RACI have been documented, reviewed, signed off and communicated to Process Owners	As per B4.2	As per B4.2	Med
-	B4.12	Inclusion of all workarounds (from CRs, Defects) impact assessed and updated across FOM, Resourcing, Training, LWIs etc	Workaround process in place however could be made more robust. Holistic review of workarounds required to ensure business impacts are quantified.	Complete the workaround analysis that identifies FTE impacts. Improve linkage between Defect management team and Business change team for workaround IA.	Med
-	B6.6	Resources in place to fulfill the required business capabilities to support readiness of new UK Link (Inc FOM Day 1, PIS etc)	People Transition have now placed key Xoserve personnel into roles. PIS activities remain under review although management focus on this now increased.	Close out impact assessment of any changes on underlying PIS process definition performed to date, and ensure roles and responsibilities are clear.	Med
-	B10.1	Relevant stakeholders understand anticipated AVHTs, volumes and source of exceptions	Baselined exception and work item log with all SLA and AVHT is complete. Volumes have been modelled via intelligence gained from MT, testing, with sources now understood - all are being shared with all relevant stakeholders and seeking their sign off	Complete stakeholder review and approval	High
-	B10.4	All business exceptions have been allocated a prioritisation	Evidence of prioritisation in place and agreed. SLA review completed by Dean Johnson, Su Cullen and business process area SMEs. Based on UNC obligations and batch timing.	Completion of Wipro activity to load SLAs into SAP	High
-	B10.5	All technical exceptions have been allocated a prioritisation	Evidence of prioritisation in place and agreed. SLA review completed by Dean Johnson, Su Cullen and business process area SMEs. Based on UNC obligations and batch timing.	Completion of Wipro activity to load SLAs into SAP	High
-	B10.8	All technical exceptions have a clear resolution route via IT360 and their prioritisation agreed with IS Operations.	Technical exceptions generally managed via EMMA (SAP). Some technical exceptions may require IT360 involvement (e.g. handoff to a separate recover team). Resolution routes defined and shared with IS-Ops. Handoff processes and documents drafted.	CSA believes that the status for this should be Green.	High
3.7-G2	C.3.1	Post Implementation Support Commercials agreed, signed off and communicated	Commercials agreed. IS Ops acceptance of the proposed Wipro resourcing for PIS in place.	This criteria should now be marked as Blue/Complete.	High
3.4-G2	C.3.10.1	Xoserve release plan and change management processes complete and internally approved	MTRT defects analysis continues to build a detailed PIS release schedule with input from Industry	To be completed as part of PIS release approach	High
-	C.3.11	Environment Strategy documented and signed off (SAP client transport routes, schedules and protocols)	Currently with Wipro for commercial discussion with Xoserve.	Confirm and publish plan to industry.	High
-	D.2.1	Data Cleanse complete (within scope of Programme) and all migration blockers resolved	Data cleanse activities are ongoing and will continue post Go Live with all high priority topics on track. It has been accepted by DMG where cleansing activities have not been completed the T Rule will be relied upon.	Continue to prioritise activities through DMG	Low
-	E2.2	BW reporting day 1 ready	Post day 1 reports taken into account for PT. BW report optimisation ongoing.	Complete residual BW optimisation.	High

Xoserve G3 Status Summary



Aggregate
G3.2 RAG G

The aggregate RAG status at G3.2 remains **GREEN**. The overall risk profile is however growing given the limited time available to apply mitigations ahead of go-live. Data defect close out remains a priority with fix efforts being focused by defect materiality. Fully defining detailed PIS processes is another key priority

Pillar	Ref.	G3 Criteria	G3.1	G3.2	Key Achievements	Residual Risk Areas
Meets industry requirements	1.5	Bulk and Delta Data Loads	G	G	<ul style="list-style-type: none"> MTR contingency on track to close by 21/4 Cutover plan updated with IDR2 learnings Traceability maintained for Change Requests 	
	1.6	C1 / C2 Process built and tested in MT	G	G		
	1.8	Cutover plans aligned to low level design	G	G		
	1.9	Requirements Traceability	G	G		
Stable	2.1	Non-functional testing	A	A	<ul style="list-style-type: none"> IDR3 commenced and tracking to plan Functional defects are being assessed to determine Regression Testing needs in order to safeguard solution stability Fall Out Management Approach in place to handle data issues identified during IDRs / Cutover 	<ul style="list-style-type: none"> NFR traceability on-going (albeit nearing completion) Penetration Test and Disaster Recovery Test outcomes require analysis to determine if any remedial actions is needed ahead of go-live Data migration defects persist with resolutions prioritised based on production 'need date' Production data fix activity required to address residual Meter Read defects
	2.2	Process to manage code stability	G	G		
	2.3	Business Continuity and Disaster Recovery	G	A		
	2.4	Detailed system cutover plan	G	G		
	2.5	Data migration testing (Dress Rehearsals)	G	G		
	2.6	Data migration defects	A	A		
Sustainable	3.2	Business process documentation	A	A	<ul style="list-style-type: none"> PIS release definition work progressing in line with communicated plan Industry engagement underway to define interim governance arrangements 	<ul style="list-style-type: none"> LWI plans remain challenging –prioritisation in place to focus on those which are required for Day 1 Hand offs between PIS substreams need to be clearly defined – workshops in progress to establish the next level of detail Operational Reporting / MI yet to be finalised
	3.3	Knowledge Transfer	G	G		
	3.4	Post go-live release plan	G	G		
	3.5	Data governance	G	G		
	3.6	Cutover governance defined	G	G		
	3.7	Hypercare IT support processes	A	A		
Consumer Experience	4.1	FAQs and Communications	G	G	<ul style="list-style-type: none"> Training underway and on plan PIS exit criteria approved 	<ul style="list-style-type: none"> Manual workaround understanding is there, further assessment is needed to determine full FTE implications Higher than anticipated volumes of exceptions may also have Ops impacts – scalable resourcing is being explored
	4.2	Hypercare exit criteria	G	G		
	4.3	Organisational Structure	A	A		
	4.4	Training	G	G		
Wider Risk Factors	<ul style="list-style-type: none"> Design documentation updates remain in progress (not deemed day 1 essential) Data archiving solution yet to be finalised (not deemed day 1 essential) 					

Appendix B

Historic CSA Recommendation Status Summary

Historic Recommendation Summary



Summary recommendation status from Baringa reports on Code Stability (1&2), IDR2 Entry, IDR2 Exit and GONG2

▲ Overall Status: 137 recommendations made in total

- ▲ 72 Complete & Closed
- ▲ 32 On track for closure
- ▲ 33 Open: tracking Amber or Amber/Green, open items listed below

Open Items (1/3)

Report	Recommendation	RAG Status	Commentary
Code Stability 1	Definition of a standard regression pack for use ahead of each code release	Amber	Regression test suite and working group established and operationalised but associated industry communications still being defined
Code Stability 1	Demonstration of manual code control processes to provide confidence to Xoserve stakeholders	Amber	Code Control Processes: Demonstration now scheduled wc 01/05
Code Stability 1	Define the route to implementation of the full SolMan CHARM solution to provide Production code control	Amber	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. CSA await visibility of the plan for full implementation
Code Stability 2	Any essential further functional changes should be bundled and scheduled to deploy at an appropriate juncture within the plan to drive regression test efficiencies	Amber	Defects are currently being bundled into releases however this is not necessarily driven by functional relationships
Code Stability 2	The scope and outcome of regression testing should be packaged and shared with Market Participants to provide confidence in solution stability and alleviate the need for further market led test activity	Amber	Regression Test Approach and evidence not yet communicated to Market Participants
IDR2 Exit	Control any subsequent essential changes to baseline plan through appropriate governance	Amber	Relevant governance not yet defined
IDR2 Exit	Clearly document areas of contingency at task level within the LLCPC once identified	Amber	Xoserve intend to capture contingency at phase level (rather than task level). Baringa are comfortable with this approach and await visibility of the plan post IDR3

Historic Recommendation Summary



Open Items continued (2/3)

Report	Recommendation	RAG Status	Commentary
IDR2 Exit	Materiality assessment needs finalising for Delta Reads defects with the fix plan updated if required	Yellow	Meter read defects and EBF residual activity both need resolution plans
GONG G2	Xoserve's GONG working group to take focused action on closing Red gaps by GONG G3	Green	In progress
GONG G2	Programme priority action required to upload evidence and complete business acceptor sign off for completed GONG criteria	Yellow	In progress
GONG G2	Resolve Exceptions operational dependencies alongside wider PIS operations	Yellow	Covered under PIS structure risks highlighted within G3 report
GONG G2	Address root causes and required data fixes to avoid reoccurrences in subsequent migrations	Green	Examples of recurring defects still being seen within IDR3
GONG G2	Complete any residual communications of Regression approach to Industry stakeholders	Yellow	Communication of Regression approach and outputs in progress
GONG G2	Employ agreed regression test suite and publish outputs for any further functional changes post MTR	Green	Suite employed but outputs not yet communicated
GONG G2	Finalise PGL deployment schedule (albeit detailed deployment dates will be dependent on post go-live stability)	Yellow	Action still required
GONG G2	Central tracking of workaround delivery (CR and defect) and holistic assessment of Day 1 Ops impacts	Green	Consolidated view being formed - better integration between MTR / defect management and business change teams required
GONG G2	Assess the need for BW report performance optimisation – this should be prioritised based on report criticality, with analysis in flight	Yellow	Need assessed, however action required to confirm number of BW reports requiring optimisation following performance test
GONG G2	Complete NFR traceability & perform content assurance review	Green	Assurance of NFR sample complete, findings included in G3 report. Traceability exercise completed however residual actions outstanding to ensure full test coverage
GONG G2	Establish a granular fix plan for all 'to be fixed' defects	Green	Plans being formed via defect management workstream
GONG G2	Maximise additional test cycles for sources where the production need date is cutover	Yellow	EBF test cycles commissioned but deprioritised over IDR3 activities. Load and validation activities have subsequently suffered
GONG G2	A consistent defect prioritisation mechanism needed for wider data sources	Green	Priority/Severity principles defined for data sources for which the Xoserve AV tool cannot accommodate (e.g. Unique Sites, EBFs, Customs). 4x4 matrix used for classification

Historic Recommendation Summary



Open Items continued (3/3)

Report	Recommendation	RAG Status	Commentary
GONG G2	Reinforce central Business change workstream control over LWI production	Yellow	Further reinforcement required ahead of Go Live
GONG G2	Prioritise SME time for LWI work to mitigate against plan slippages	Yellow	Further work required ahead of Go Live
GONG G2	Provide next level of detail on actions expected from Industry participants – E.g. Regression testing	Yellow	Industry requirements still tbc in terms of Regression test need for PIS period
GONG G2	Xoserve to publish a transition plan for Industry Governance fora, including relevant data management forum, and including how fall out will be managed to close down.	Green	In progress in line with communicated PGL plan on a page
GONG G2	Xoserve to provide a forward looking communications plan for sharing details of to-be industry governance model	Green	In progress in line with communicated PGL plan on a page
GONG G2	Finalise PIS organisation structure and impact assess on processes defined.	Yellow	PIS Programme manager appointed - work required to integrate streams of PIS activity
GONG G2	Complete actions/gaps raised by BRT	Yellow	Gaps persist with slow progress being made to close ahead of Go Live
GONG G2	Ensure alignment of PIS support with longer term (return to BAU) governance plan development.	Yellow	PIS programme manager appointed - work required to integrate streams of PIS activity
GONG G2	Xoserve should continue developing its plan for Industry governance Post Go Live, making Industry engagement activities clear	Green	In progress in line with communicated PGL plan on a page
GONG G2	Detailed ways of working between teams to be clarified further and tested	Yellow	WoW gaps exist within PIS structure
GONG G2	Ensure Xoserve & Wipro/TCS SMEs are embedded across PIS teams structures (Technical and Business) to drive quick/right 1st time decisions	Green	Growing clarity of Wipro PIS organisation structure - Links to Operations require clarity
GONG G2	Tight mgt & timely notification to training of any workarounds agreed requiring training	Green	Residual risk that training is misaligned due to inflight defects and CRs

Appendix C

Non Functional Requirement Validation supporting information

NFR Composition

- ▲ The UK Link Programme's NFR Catalogue contains 121 requirements.
- ▲ Requirements are categorised using the industry standard FURPS+ model.
- ▲ Details of its composition are shown in the following table.

Design / Functional	46
Auditing	9
Guidelines / Online Help	3
Information Exchange	4
Reporting	5
Scheduling	2
Security	23
Implementation	4
Standards/legal compliance	4
Performance	35
Response Time	8
Service Demand Profile	12
Throughput	1
Volumetrics	14

Reliability	11
Availability	2
Business Continuity / Disaster Recovery	4
Recoverability	5
Supportability	16
Documentation	1
Localizability	2
Maintainability	2
Monitoring	2
Operational Processes	6
Scalability	3
Usability	9
Accessibility	1
Aesthetics	2
Channels	3
Consistency	1
Training	1
UI design	1

Current traceability status and residual actions summary



NFR Status	Description	Stats	Residual Actions Required
NFR Validated	Evidence provided / Coverage validated by the DA team / Pending formal descope	84%	<ul style="list-style-type: none"> Agree descope candidates via programme governance and update the NFR catalogue accordingly
Validation In Progress	Requirements for which test evidence and or validation of evidence is in progress (all are expected to be validated ahead of G/L)	10%	<ul style="list-style-type: none"> Continue to track close out plan – tracking overall completion via an appropriate plan milestone
NFR not validated	NFRs which will not be validated or only partially validated for G/L <i>See below table for details</i>	6%	<ul style="list-style-type: none"> Various – see below Capture relevant G/L risks via the GONG process

Details of NFRs which will not be fully validated for Go-Live

FURPS+	Category	Name	Current Status	Pre-G/L action required	Mitigating action detail
Performance	Volumetrics	Meter Readings per Day	<ul style="list-style-type: none"> Processing of 32m Meter Reads demonstrated in PT (64% of baselined NFR) PNSG governance decision taken that this is acceptable capacity for Day 1 and the immediate post go-live period 	NO	<ul style="list-style-type: none"> N/A
Performance	Response Time	Online Reports	<ul style="list-style-type: none"> Performance of BW reports currently undergoing further validation to assess whether all are available in line with their respective 'business need times' 31% of reports yet to be successfully tested due environment / data issues and defects 	YES	<ul style="list-style-type: none"> Identify environment options for to concluding report validation activities Prioritise scope focusing on externally facing / high volume / high frequency reports
Performance	Service Demand Profile	Handling the quantity of data	<ul style="list-style-type: none"> The archiving solution has three components (ILM, Opentext, Sybase) and only Sybase is planned for delivery ahead of G/L 	YES	<ul style="list-style-type: none"> Establish an indicative need date for the Archiving solution to support an internal governance decision concerning Day 1 necessity
Performance	Response Time	Archived Data Response Time	<ul style="list-style-type: none"> Archiving solution not deemed a Day 1 requirement yet indicative need date is unclear 	YES	<ul style="list-style-type: none"> Establish an indicative need date for the Archiving solution to support an internal governance decision concerning Day 1 necessity
Reliability	Business Continuity / Disaster Recovery	DR Capacity	<ul style="list-style-type: none"> No volume / performance test undertaken on DR estates however DR sizing / configuration is the equivalent to Production (which has undergone performance testing) 	NO	<ul style="list-style-type: none"> N/A
Reliability	Recoverability	System Recovery	<ul style="list-style-type: none"> Conflicting requirements exist concerning DR recovery timeframes. 24hr recovery period demonstrated via DR testing (pending IS Ops approval) 	YES	<ul style="list-style-type: none"> Secure IS Ops approval that DR recovery times achieved via DR testing are in line with Business needs Confirm onward plans for further DR testing post go-live
Usability	Accessibility	W3C WCAG Accessibility	<ul style="list-style-type: none"> W3C Web Content Accessibility Guidelines supported by product platforms but not built into the design. Risk and Compliance engaged to confirm that there is no legal obligation for this to be in place for G/L. 	NO	<ul style="list-style-type: none"> N/A

NFR Evidence Sample Findings



▲ In order to validate whether Xoserve’s production environment is sufficiently sized to meet expected industry volumes, test evidence for a sample of volume specific NFRs was assessed and findings are outlined below. Full details of the sample are on the [following slide](#).

▲ **Key Supporting Notes:**

- ▲ Baselined NFR volumes have not been re-baselined to factor delays to the Smart Metering roll out and are therefore likely to be overestimated
- ▲ At PNSG on 22 March 2017, it was agreed that expected meter read volumes can be accommodated within the proven performance levels of 32 million reads a day (64% of forecast 2018 peak volume as per the baselined NFR)
- ▲ In instances where the baselined NFR peak volume has not been met, the available evidence has been assessed against this precedent level

NFR	Smart / Class 3 dependency	VOLUME		TIME		SUPPORTING COMMENTS
		NFR baseline volume met	PNSG precedent volume met	NFR time fully met	NFR time met by extrapolation	
P8 - Meter exchanges	n/a	100%	n/a	✓	n/a	• Peak volume and timings met fully in PT
P9 - Change of Shipper transactions	n/a	100%	n/a	n/a	✓	• 93% of peak volume met in PT within time required • Peak volume and time fully met by extrapolating volumes processed in GDT
P13 - AQ calculations	✓	100%	✓	n/a	✓	• 85% of peak 2018 volume met in PT (well above PNSG meter read precedent) • Peak 2018 volume fully met by extrapolating volumes processed in PT • Volume tested processed in <48 hours, within the specified business need time of 2.5 days
P15 - SPA amendments	n/a	100%	n/a	✓	n/a	• Volumes and timings met fully met in PT
P10 - Meter readings	✓	64%	✓	✓	n/a	• 32 million reads processed within industry expected timeframe in PT: this was accepted at PNSG as posing no risk for Go Live • Proven volumes account for 64% of peak 2018 volumes in baselined NFR
P1 - Reconciliation transactions	✓	89%	✓	n/a	✓	• Volume of reconciliation transactions is dependent on meter read volume (see P10 above) • 49.6 million reconciliation transactions in 24 hour period proven by GDT extrapolation and accounts for 89% of peak 2018 volumes in baselined NFR • Time taken for PNSG precedent volume to be processed satisfies time requirement
P12 - Invoices and supporting calculations	Partial	97* – 100%	n/a	n/a	✓	• *Baselined NFR volumes are misaligned with the functional design for Capacity and Commodity billing (actual volumes expected to be significantly lower) • Capacity Billing: 97% of Day 1* volume proven in PT (no smart dependency) • Commodity Billing: 97% of Day 1* volume proven in PT (no smart dependency) • Reconciliation Billing: 100% of 2018 baselined volume proven via extrapolation of PT results (smart dependency)

▲ Details of the volume-specific sample NFRs assessed are below

ID	NFR Detail	ID	NFR Detail																																																									
P8	<p>The system will have the capability to process the following volumes of meter exchanges per day:</p> <table border="1"> <thead> <tr> <th>Period</th> <th>Daily Avg</th> <th>Est Peak Day</th> </tr> </thead> <tbody> <tr> <td>2015</td> <td>11,149</td> <td>33,447</td> </tr> <tr> <td>2018</td> <td>22,639</td> <td>67,917</td> </tr> <tr> <td>2020</td> <td>18,351</td> <td>55,054</td> </tr> </tbody> </table>	Period	Daily Avg	Est Peak Day	2015	11,149	33,447	2018	22,639	67,917	2020	18,351	55,054	P1	<p>The system will have the capability to process the following volumes of reconciliation transactions per day:</p> <table border="1"> <thead> <tr> <th>Period</th> <th>Daily Avg</th> <th>Est Peak Day</th> </tr> </thead> <tbody> <tr> <td>2015</td> <td>1,819,754</td> <td>24,015,064</td> </tr> <tr> <td>2018</td> <td>4,203,495</td> <td>55,474,582</td> </tr> <tr> <td>2020</td> <td>16,749,600</td> <td>221,085,365</td> </tr> </tbody> </table>	Period	Daily Avg	Est Peak Day	2015	1,819,754	24,015,064	2018	4,203,495	55,474,582	2020	16,749,600	221,085,365																																	
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P9	<p>The system shall have the capability to support an average of 2,500 Change of Shipper transactions per day, with an estimated peak day volume of 37,500.</p>																																																											
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