Project Nexus

Recommendation to change key industry milestones

Version 1.1

Note: Updated 'red line' changes to the version 1.0 presented at the 18^{th} December 2015 PNSG meeting

Project Nexus Steering Committee

08 January 2016



Contents

Summary	3
Background to this change	4
The current industry plan	
Why a change is needed	4
How we have arrived at a recommendation	5
The recommended option	 7
Analysis of the impact on other key milestones	8
Appendix 1	10

Summary

The PNSG is asked to **approve** the recommended change to the Nexus industry plan, comprising:

- Movement of the completion date of all Xoserve's core UAT, including invoicing, to the 31st March 2016.
- Movement of the start date for full L3/L4 trials (as per the approach determined by the MTWG) to 1st March 2016.
- Introduction of the following new or changed milestones and sub-milestones into the plan:
 - A preliminary go / no-go decision L3/L4 MT staggered entry on 8th January 2016 (focused on the progress of required UAT and the data load results);
 - Required Xoserve SPA, Reads and L4 relevant UAT complete by 31st January 2016; and
 - Required RGMA UAT complete by 29th February 2016; and
 - L3/L4 MT ramp-up and staggered start from 1st February 2016.
- Primary support for core market trials ending 30th June 2016, with introduction of a contingency period for core market trials during July 2016.

Since the 18th December PNSG, Xoserve have reported growing confidence in the progress made towards completing the requisite UAT for the commencement of a staggered start to market trials on the 1st February 2016. This change paper also assumes that the PNSG approve the deferral of RAASP functionality from the plan.

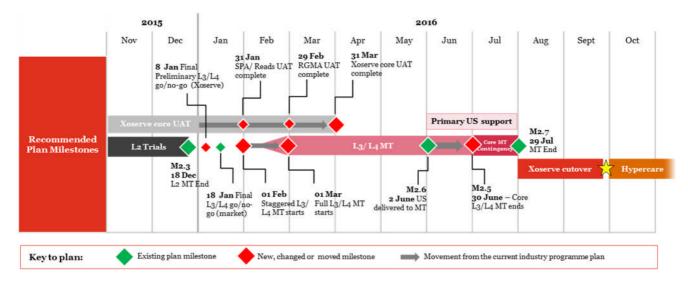


Figure 1: Summary of the recommended plan changes

Background to this change

The current industry plan

- Under the current industry plan, Xoserve were forecasting to exit User Acceptance Testing ('UAT') on the core Nexus functionality at 31st December 2015.
- There is then a month contingency and preparation time before Level 3 / Level 4 ('L3/L4') market trials commend on the 1st February 2016. Core market trials ends on the 31st May 2016, with attention switching to trialling Retrospective Adjustements for Assets and Supply Points ('RAASP') and Unique Sites ('US') when this functionality is forecaset to be delivered into market trials by Xoserve at the start of June 2016.
- In line with the timeline set for market trials completion, we understand that the Xoserve market trials environment is planned to be migrated to a 'fix on fail' environment from 31st July 2016.

Why a change is needed

- Xoserve have experienced a delay in the execution of their core UAT due to a slower than expected 'run rate' on testing and defect resolution. Xoserve's current forecast predicts that their UAT activity will end at the end of February 2016 (best case) and more likely during March 2016.
- Based on information presented by Xoserve up to the 14th December 2015, Xoserve UAT activity is forecast to end on the dates set out in **Figure 2** for the key areas of functional process. However, Xoserve have stated that their experience to date makes achievement of this plan unlikely and a February end date for the pre-invoicing elements is more likely. That said, Xoserve believe that good progress is being made in the SPA and Read tranches and these areas, or significant proportions thereof, are likely to be ready for trialling at the start of February.
- A profile of the Xoserve UAT activity (excluding invoicing testing) is shown in Figure 3. Xoserve's key area
 of concern is the testing of RGMA functionality, which is taking more time than forecast and is highlighting
 higher than expected defect volumes.

Tranche	Processes Area	Forecast date	Defect levels to date
T1A	SPA Tranche	03/02/16	Low/Med
T1B	RGMA Tranche	29/01/16	High
T2A	Reads Tranche	01/02/16	Low
T2B	AQ/CWV Tranche	01/02/16	Med
Т3	Invoicing	твс	Low*
T4	CMS/Gemini Tranche	18/01/16	Low

Figure 2: Forecast / proposed UAT end dates (provided by Xoserve on the 10th December 2015)

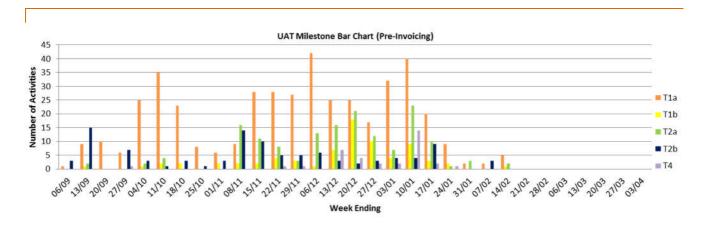


Figure 3: UAT activity profile by functional process area (excluding invoicing, provided by Xoserve on the **6**th **January 2016**). Historic dates are actual performance, future dates are planned.

- Xoserve have advised that their UAT should be considered in two key segements 'pre-invoice' activity (including SPA, RGMA, Reads, AQ) and invoice activity, with one logically following from the other. In the approved approach to L3/L4 trials, invoicing trialling similarly follows in later phases. Subsequent discussion at the 18th December 2015 PNSG highlighted that the 'pre-invoice' activity can be separated into two further tranches, with RGMA likely to complete UAT following SPA, Reads and AQ.
- Consequently, and as communicated at the PNSG meeting on 7th December 2015, the Xoserve core UAT completion milestone will be missed, which impacts the start date of L3/L4 market trials and has a wider impact on other plan milestones.

How we have arrived at a recommendation

• Xoserve presented three possible options (**Figure 4**) to the 7th December PNSG meeting for completing their core UAT and starting L3/L4 market trials. Following discussion of these options, the PNSG asked the Market Trials Working Group 'MTWG' for their opinion and expertise in determing the optimal approach to exiting Core UAT and starting L3/L4 trials.

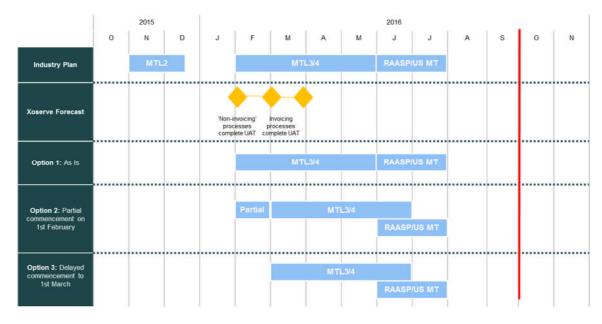


Figure 4: The three options presented by Xoserve at the PNSG on the 7th December.

• It is important to note that the PNSG asked for an unconstrained view from the MTWG and that they should not necessarily be bound by the three options presented by Xoserve.

- A meeting of the MTWG was held on the 10th December, with a clear recommendation resulting for discussion with their constrituencies. The minutes and supporting materials from the MTWG meeting are provided as **Appendix 1** of this document for reference purposes. The preferred option was subject to some outstanding questions and some key assumptions.
- There was a further teleconference with the MTWG on the 16th December to collate feedback on the preferred option. This has been supplimented with subsequent discussions with Xoserve around the dates that SPA and Reads functionality is forecast to be available for market trials.
- The preferred option was intitally highlighted to an extraordinary PNSG conference call on the 14th December 2015, with some discussion around the further information required to make a decision to change the market wide plan.
- Between the 14th December and the 18th December, a change was made to the preferred option to reflect feedback from Xoserve regarding the assumptions made by the MTWG around the time between UAT completing and the update of system code into the market trials environment. Xoserve expect that the code required to support the 'staggered start' for SPA, Reads and AQ to be largely present in the market trials environment from the 1st February. This brought the start date back to the 1st February from mid-February as determined by the MTWG.

The recommended option

A staggered start to L3/L4 market trials and running in parallel with UAT completion

• The MTWG and their consituents supported the option set out in **Figure 5** below, which is closest to Xoserve's 'Option 2'.

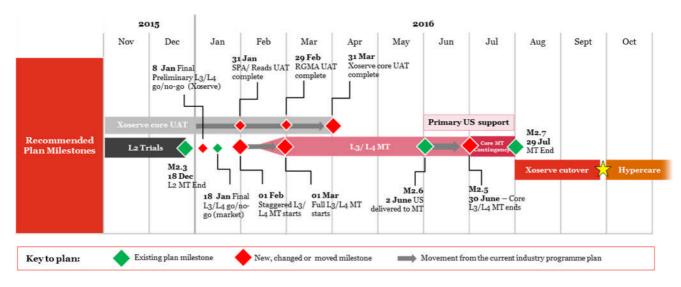


Figure 5: The recommended change to the Nexus industry plan

- The key features of this option are as follows:
- 1. L3/L4 trials start when key functional process areas are ready to be released into trials. This makes optimal use of the available time.
- 2. Based on Xoserve's current forecast, SPA, Reads and L4/Transfer of Ownership ('ToO') can commence trials from the 1^{st} February 2016.
- 3. This is accompanied by a steady ramp-up of participants and transactions during February in order to flush out issues that will impact all participants before wider participation. This is a key lesson learned from L2 trials. The 13th January 2016 MTWG meeting will condsider how this is approached.
- 4. Full trials on **core functionality** will commence from the 1st March 2016 and will operate to the existing phased approach determined by the MTWG, which requires a period of four months to complete. This period ends on the 30th June 2015.
- 5. The MTWG recognised that there will be no system limitation on participants trialling the core functionality up to 31st July 2016. Xoserve primary support for core trials ends on 30th June 2016*.
- 6. US was recognised as an area of functionality that should be treated as any other in the trials environment and maintaining a 'hard' cut-off between core and US functionality was artificial. Participants should be free to trail US functionality in the way that is most appropriate for them from the date that it is available in the market trials environment from 2nd June 2016.
- 7. Xoserve will load all system code into the market trial environment at the start of L3/L4 trials, with areas still underdoing UAT subject to update when complete. Participants should not trial the areas still undergoing UAT to avoid a potentially erroneous result.
- 8. There is a key assumption that dependencies do not exist between process areas / functionality that could invalidate testing performed at an earlier point in time.

Other considerations to note

- Xoserve are reporting growing confidence in the progress made towards the requisite UAT of SPA, Reads and AQ for the 1st February start. This is founded on RAG status reporting by functional area that considers the extent of successful UAT completion and the outstanding defects requiring resolution. The market trials data load validation is progressing, with ca. 61,000 meter points failing to load from a total of approximately 6.5 million meter points. Further validation and analysis is undergoing on a number of defects that are either new, or a previously attempted fix by Xoserve has failed to correct. Defect resolution will continue up to 1st Januray 2016 and Xoserve are considering contingency options for further data fixes in the market trials environment during February.
- The MTWG identified that under the current assumptions, the last available option to run a four month core market trials period is from the 1st April to the 31st July 2016. In order to be successful, this scenario is likely to require Xoserve to complete their UAT and enter trials with relatively low levels of defects, allowing their resource to focus on resolving defects identified by market trials.
- We understand that Xoserve has increased the incremental resource available for testing and defect resolution capability including sourcing a testing manager, defect manager, technical ABAP experts and experienced testing resource. Xoserve will report UAT activity and defect resolution on a weekly basis to the PNSG.
- That said, more granualar progress and defect data is required to safely determine the viability of the staggered approach to L₃/L₄ market trials. Xoserve are working towards providing this additional information.
- Based on this information and Xoserve's overall confidence levels, the MTWG proposed that a 'go/ no-go' decision, on starting trials on SPA, Reads and L4, is required 4 weeks before the 1stFebruary. This provides the minumum planning horizon required by pariticpants and would mean a decision point on the 4th January 2016. As there is a PNSG meeting on the 8th January 2016, we propose it is used as the forum in which to take this preliminary decision. This should be based on the progress made by Xoserve in UAT execution and the results of their data load analysis.
- The PNSG meeting on the 18th January 2016 will be used as the final go/no-go milestone meeting, based on the market wide L₃/L₄ entry assessment data from PwC.

Analysis of the impact on other key milestones

 We have identified the following key milestones as potentially impacted by adopting the recommended option.

^{*} Xoserve have communicated they are currently planning secondary support for core market trials during July 2016. There are no defined SLAs for secondary support and this is on a best endeavours basis.

Appendix 1

Minutes from 7th December Market Trials Working Group

(Included for reference and should be read in conjunction with the whole document to reflect how information and decisions have progressed since).

Purpose

The purpose of this document is to record details of the meeting held and capture the key items discussed as well as any risks or follow on actions.

This MTWG meeting was specifically convened to discuss how L3/L4 market trials is most optimally approached given that:

- Xoserve will exit UAT on the core solution later than 31 December 2015, with completion more likely to be during February / March 2016 (dependent on the functional area); and
- Xoserve will close their MT environment on 31 July 2016.

Meeting Details

Meeting Name:	Market Trials Working Group (MTWG)		
Meeting Date:	10 th December 2015		
Meeting Time: 13:00 – 17:00			
Meeting Location:	Solihull Holiday Inn and Teleconference		
Attendees:	Blanka Caen (BG), , Darren Jackson (Xoserve), Derek Clark (CNG), Gareth Evans (ICoSS), Joanne Galloway (JG) (Xoserve), Katy Binch (ESP), Robin Howes (National Grid), Nandini Kundu (National Grid), Lisa Cutbill (DONG), Adrian Ackroyd (Npower), Jenny Rawlinson (Brookfield Utilities), James Marrington (NGN), Simon Bevis (Utilita), Sandi Bains (PwC) and Andy Sinclair (AS) (PwC)		
Recorded By:	Andy Sinclair		

Meeting Minutes and Actions

1.2.1 Introduction and purpose

- Following introductions, AS set out why the MTWG had been reconvened and thanked those in attendance for clearing their diaries at short notice.
- AS explained the debate at the 7th December 2015 PNSG meeting and that the MTWG are requested to identify a preferred option for approaching L₃/L₄ market trials, given the delay to Xoserve's UAT and aspects such as the lessons learned from L₂ market trials.
- Participants reiterated that they would need to seek feedback on any preferred option from their wider constituencies before making a final recommendation to the 18th December PNSG.
- MTWG agreed a follow-up call is required in the w/c 14th December 2015.

Action 1: PwC to set up a MTWG conference call on the 16th December 2015 to collate further feedback on the preferred option.

1.2.2 Key discussion points

(a) Xoserve's core UAT progress and staggering L3 /L4 market trials

• MTWG agreed that the 'best case' forecast UAT end dates for each functional area were useful (provided on slide 3 of their pack), but more granular information is required to evaluate the confidence of delivery.

Action 2: Xoserve to add confidence levels, 'Worst case' UAT completion dates should be identified and the dates that functionality would be actually available in the MT environment (could be up to a week later). **Data to be added for the 16**th **December teleconference, ideally by COP 15**th **December.**

Action 3: MTWG to revisit preferred option in light of the granular UAT/defect data.

• Xoserve (JG) shared a detailed mapping of data files to L3/L4 process scenarios, with a 'gut feel' confidence level (RAG) of the ability to complete UAT. MTWG agreed that this could play a role in monitoring UAT progress in each process area. However, objective criteria should be defined for the RAG status, based on the execution of test cases, defect severity and defect resolution.

Action 4: Xoserve to formalise the RAG confidence level based on objective criteria reflecting progress and defect resolution. JG to confirm how long this would take to put in place by **16**th **December teleconference**.

- Subject to these limitations, MTWG agreed that starting L3/L4 trials on process areas that are forecast to be ready in February is supportable in principle. On current forecast, this would be SPA, Reads (both L3) and Transfer of Ownership (L4). RGMA is the key area of concern due to a high number of significant defects.
- Transfer of Ownership (L4) trials would only be able to start if the necessary SPA files have passed UAT.
- JG / DJ discussed the Xoserve resource plan, highlighting that process SME resources are the key constraint, being spread thinly over UAT, MT and RAASP. However, the SMEs for SPA, RGMA, AQ and Reads are distinct from those needed to support invoicing.
- MTWG recognised this is dependent on progress made over the coming weeks and the market should be prepared to be flexible. There is a clear need for weekly review of the UAT progress in each area, with the plan changed if needed.
- Participants suggested a minimum planning horizon is required of 4 weeks, suggesting a 'point of no return' decision at the start of January, based on the UAT progress against forecast dates.
- MTWG explored whether market participants could collaboratively support Xoserve UAT with SME
 resource in problematic areas such as RGMA, or any other areas that would be useful. Mutual benefit could
 be achieved through this approach, with one participant making a direct offer of assistance during the
 meeting.

Action 5: Xoserve to explore whether a collaborative approach to UAT is feasible under market rules and considering confidentiality of market data.

(b) The risk arising from the L3/L4 trials data cut

- The MTWG debated the risks arising from the Xoserve data load that is forecast to complete on the 14th December. Until this is fully analysed, Xoserve will not know how many historic transactions will remain to support the partnering matrix for L4 trials.
- The data load is running 1 to 2 days slower than planned, but more defect fixes have been applied. MTWG agreed that slightly slower progress is preferable if a better quality outcome is achieved.
- The risk arising is that there may be more participants that will need to use the dummy portfolio data for L4 trials. This is more likely to impact the intermediate size participants as the larger participants will still have an extensive number of transaction to utilise. Smaller participants are likely to already be using the dummy data set.

• MTWG determined that this is a risk to L3/L4 MT start, but appropriate mitigation exists through greater use of the dummy portfolio. MTWG requested that they be kept informed of the data load progress.

Action 6: JG/DJ to share information regarding the data load progress with MTWG on a weekly basis.

(c) A gradual ramp-up of MT activity is beneficial

- There was general consensus that pipe cleaning and a gradual ramp-up of participation in L2 trials was beneficial. This helped to flush out some market-wide issues before all participants took part.
- MTWG agreed that a similar ramp-up of participant activity should take place in L3/L4 trails. This can be achieved in two ways steadily increasing the number of participants entering trials and minimising the number of transactions trialled in the early stages.
- Steadily increasing participants is likely to happen naturally, dependent on participant desire to be a 'first mover'.
- Minimising the number of transactions (e.g. MPRNs or Transfer of Ownership events) trialled in the early stages will help protect the data set against being heavily used to identify defects (e.g. in L4 trials), with few transactions left to trial clean functionality in the later stages.

(d) Integrating RAASP into market trials:

- There is unlikely to be a discrete period of market trials solely for RAASP and Unique Sites ('US') during June and July, as participants are likely to be trialling core functionality to the 31 July 2016.
- There was consensus that plans should now show the overall market trials phase running to 31st July, with the delivery date of RAASP/US into trials highlighted as a milestone (currently 1st June 2016).

Action 7: Xoserve to confirm that they can effectively support market trials on core functionality to 31 July 2016. **Due date 16**th **December 2015.**

- It was recognised that not all participants are planning to use RAASP from the start and that participants should be free to determine the extent of trials they will perform in this area, subject to the below. It was also recognized that RAASP is not included in the critical processes required for go-live.
- RAASP trials will require specific consideration of data, files and partnering with at least one monthly invoice run to 'prove' the adjustments through to transportation invoices.

(d) Other questions / actions identified

Action 8: Xoserve to confirm the 31 July 2015 as the final end date of the market trials environment. **Due date 8**th **January 2016**

Action 9: Xoserve / participants to define a list of rarely used files (and process areas) and determine if these can be de-prioritised during early market trials. Xoserve to provide data on 8th January 2016, MTWG to discuss 13th January 2016.

Action 10: Xoserve / MTWG to update L3/L4 approach document to reflect approved option. **Due date 27**th **January 2016.**

1.2.3 Option analysis

- Based on the principles established above, MTWG summarised their thinking on the three options set-out by Xoserve at the 7th December PNSG. These are set out below, together with any changes identified.
- Clear consensus was reached that **Option 2** is the preferred option based on the assumptions identified. This is clearly dependent on Xoserve's UAT progress by functional process area and this must be kept under weekly review. The MTWG representatives will canvas opinion on this basis.
- Discussion around the worst case scenario that could still support a 1st October 2016 go-live was that a minimum of four months is required to trial the core functionality identifying 1st April 2016 as the latest start date for L3/L4 trials. This would not include time for a gradual 'ramp up' and would inherently require a high quality solution capable of supporting unconstrained trials from day 1.

Option	Key dates (forecast)	Pros	Cons	Key assumptions
Option 1: Continue with the existing plan	Xoserve core UAT completion at 31 December 2015 or 31 January 2016 (at the latest) L3/L4 market trials starts 02 February 2016	Maintains the originally planned MT duration of 6 months. Maintains the clear cut-off between core UAT and MT – reducing the resource stretch for Xoserve SMEs.	Xoserve UAT progress and defect resolution 'burn rate' are clearly not supportive of these dates. Option discounted by MTWG	Not applicable – option discounted.
Option 2: Parallel run of core UAT and the start of L3/L4 trials during February	 Xoserve core UAT completes 28 February (best case). Invoice UAT more likely to be complete by 31 March 2016. L3/L4 market trials starts 2nd February 2016 with phased ramp-up of 	 Incorporates learning from L2 trials (gradual rampup) Allows the MT 'ready' functionality to be trialled when ready. Participants focus resource on 	A shorter period of market trials, but still provides the minimum 4 months required for core market trials. Further core UAT slippage may require delay of MT start at short notice, with	 All Xoserve code / system is put live in MT environment, then updated as remaining defects are resolved. Participants only test what they are told is ready, even though other code is
MTWG selected Option 2 as their preferred option (subject to constituency consultation)	ramp-up of participants and processes that have passed core UAT at that time. • L4 trials start at same time if required SPA files have passed Xoserve UAT • 'Unrestricted' L3/L4 trials from 1st March. • RAASP and US functionality delivered into MT on 1st June 2016. • L3/L4 trials ends 31	supporting MT at the right time. Recognises that there will be no system limitation on performing core MT to continue through to 31 July 2016 – RAASP MT will be overlaid and is not a pre-requisite for golive on 1st October.	subsequent replanning of resource. • Xoserve resource stretched supporting both UAT and MT during parallel months.	 Weekly monitoring and governance of core UAT progress and defect resolution by process area. Xoserve MT environment is unavailable after 31 July 2016. Xoserve primary support to core MT ends on the 30 June 2016.

Option 3: Delayed exit from core UAT, but maintain clean cut-off to L3/L4 MT

- Xoserve core UAT completes 28th February (best case). Invoice UAT more likely to be complete by 31st March 2016.
- L3/L4 market trials starts 1st March 2016 with phased rampup of participants and processes that have passed core UAT at that time.
- 'Unrestricted' L3/L4 trials from 1st April.
- RAASP and US functionality delivered into MT on 1st June 2016.
- L3/L4 trials ends 31 July 2016.

- Incorporates learning from L2 trials (gradual rampup)
- Participants focus resource on supporting MT at the right time.
- Recognises that core MT likely to continue through to 31 July 2016 – RAASP MT will be overlaid and is not a pre-requisite for golive on 1st October.
- At best case, restricts 'unrestricted' core trials to the minimum 4 months.
- Any further slippage puts 01 October 2016 golive at risk.
- Lost time where MT 'ready' functionality is unavailable for trials.
- Further core UAT slippage may require delay of MT start at short notice, with subsequent replanning of resource.
- All Xoserve code /
 system is put live in
 MT environment,
 then updated as
 remaining defects
 are resolved.
- Participants only test what they are told is ready, even though other code is present.
- Weekly monitoring and governance of core UAT progress and defect resolution by process area.
- Xoserve MT environment is unavailable after 31 July 2016.
- Xoserve primary support to core MT ends on the 30 June 2016.

1.2.4 Feedback from constituents on 16th December 2016

- Action dates were firmed up and are as reflected in the above minutes.
- There was general consensus on the following:
 - 1. More granular Xoserve data is urgently required on the successful UAT execution by process area this needs to be closely monitored by the MTWG and PNSG over the coming weeks in order to build confidence in the proposed approach;
 - 2. As a result of the need to build confidence in the UAT delivery, some participants fed back that they would prefer **option 3** to be adopted as a more realistic plan from the start. However, it was agreed that **option 2** should be recommended to the PNSG for approval, with a clear understanding that this is subject to the required Xoserve UAT progress over the next two or three weeks; and
 - 3. There is a need to carefully communicate the thought process to the market and ensure that participants are aware that **option 2** carries risk and a further change may be required if Xoserve UAT progress does not support continuation with this plan.

Project Nexus Assurance

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