



Amendment Invoice Task Force Update

24th July 2019

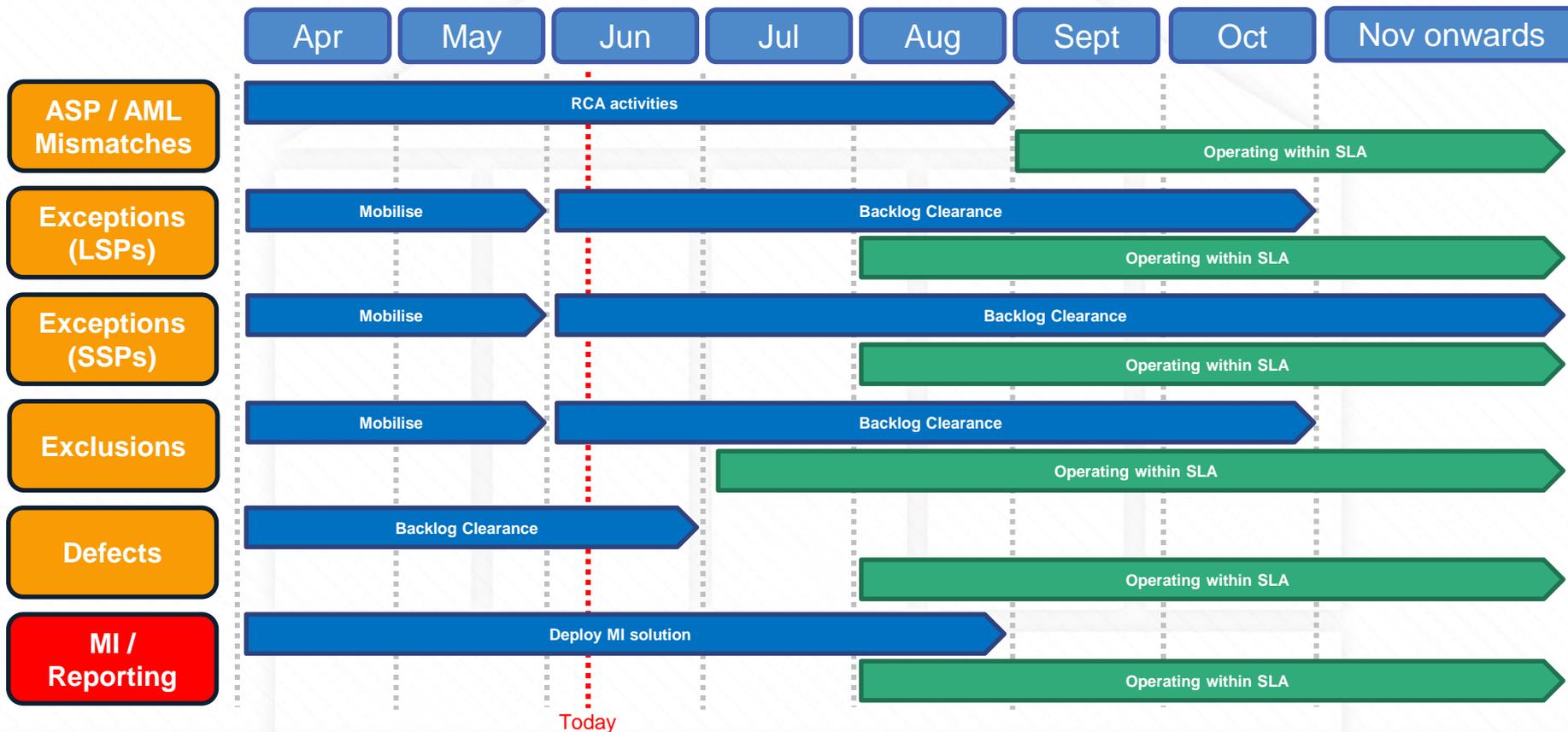
Contents

- Key Achievements/Progress since Last Update
- Summary Resolution Plan
- Latest progress on
 - Supporting Information Mismatches (ASP)
 - Supporting Information Mismatches (AML)
 - Exceptions
 - Exclusions
 - Defects
 - MI / Reporting
- Summary Resolution One Pager
- Summary
- Appendices

Progress since Last Update

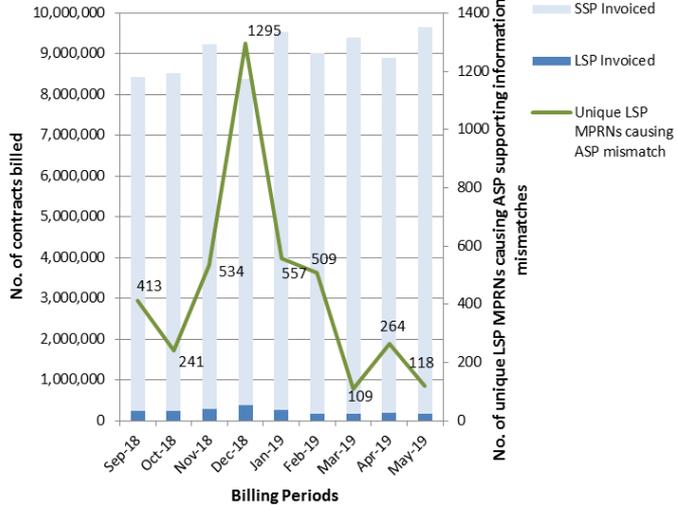
- We continue to monitoring the SLA's agreed in the variation contract with our 3rd party supplier and have regular update meetings to discuss progress.
- In January 2019 we started to monitor the invoice cycle to ensure stability of the process and month on month we have continued to see a reduction in mismatches on the supporting information files. For June billing month the MPRN mismatch was at its lowest of **65** with a total of 17 shippers affected, 5 of those shippers having only one MPR affected. Xoserve will be striving to build on this progress over the coming months.
- Our invoicing team have been working hard to reduce the backlog of ASP correction files. In June they successfully produced and issued approx. 92% of ASP correction files before the payment due date and hope to improve on this going forward.
- Defects are deployed every week, the defect resolution plan is shared and updated on Xoserve.com.

Summary Resolution Plan

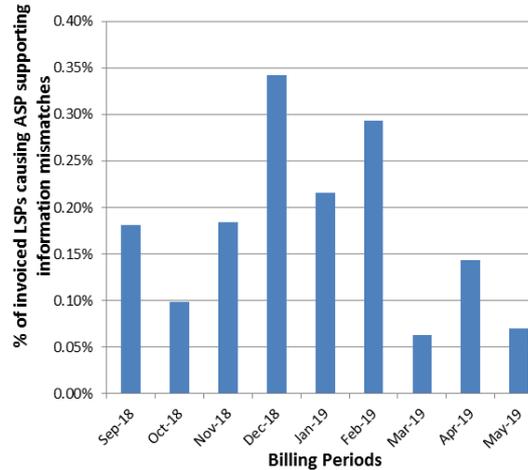


Supporting Information Mismatches (ASP)

Trend of unique LSP MPRNs causing ASP supporting information mismatches overlaid upon the number of billed contracts (LSP & SSP) per billing cycle



% of invoiced LSPs causing ASP mismatches



c.116,267 LSPs billed in June (May billing period) on the Amendment Invoice



c.118 LSP MPRNs incurred ASP mismatches in May billing period



Current average of 0.07% of billed LSPs incurring K88/89 mismatches each month

SLA

- Mismatches are corrected 'in cycle' and associated defects are cleared in time for the second following cycle from detection.
- Correction of mismatches should be invisible to shippers. During transition to this any correction files issued are delivered within **3 business** days of payment due date issue and meet communicated quality and format requirements on first delivery.
- There should be no unresolved causes to mismatches of more than **2 invoice cycles** in age.

Target Date to operate within SLA

September 2019

Current SLA RAG Status (ASP only)

Amber

RAG Justification

- 92% of ASP mismatch correction files issued to customers ahead of the payment due date .

Supporting Information Mismatches (ASP)



Downward trend of total number of shippers impacted by ASP supporting information mismatches



92% ASP offline correction files issued to customers ahead of payment due date

(c. 15% 6 months ago)

Planned Automations

Phase One

- Replace the current manual effort associated with producing monthly offline ASP correction files.
- Aims to deliver full K88/89 records, for MPRNs that previously incurred a mismatch within the online system generated ASP file. K88 record will contain full net off position.
- Expectation that customers will receive their ASP correction file immediately after receipt of their online ASP file.
- Currently in UAT, expecting to parallel run automation outputs during March'19 billing cycle, in readiness for a phased roll-out commencing from the April'19 billing cycle.

Phase Two

- Completely remove the need for mismatch correction files by accommodating any mismatches found (as a result of process error/system defects) into the online system generated ASP files issued to customers.
- Forecasting complete removal of ASP correction files by January 2020.

SLA

- Mismatches are corrected 'in cycle' and associated defects are cleared in time for the second following cycle from detection.
- Correction of mismatches should be invisible to shippers. During transition to this any correction files issued are delivered within **3 business** days of payment due date issue and meet communicated quality and format requirements on first delivery.
- There should be no unresolved causes to mismatches of more than **2 invoice cycles** in age.

Target Date to operate within SLA

September 2019

Current SLA RAG Status (ASP only)

Amber

RAG Justification

- 92% of ASP mismatch correction files issued to customers within SLA of PDD -3 days

Supporting Information Mismatches (AML)



c.8.7m SSPs
billed each month
on the Amendment
Invoice



0.06% of billed SSPs
MPRNs incurred AML
mismatch in May's
billing cycle



92% of AML offline
correction files issued to
customers ahead of
payment due date

*(Warning: Most within 2-3days of payment
due date – not within defined SLA)*

SLA

- Mismatches are corrected 'in cycle' and associated defects are cleared in time for the second following cycle from detection.
- Correction of mismatches should be invisible to shippers. During transition to this any correction files issued are delivered within **3 business** days of payment due date issue and meet communicated quality and format requirements on first delivery.
- There should be no unresolved causes to mismatches of more than **2 invoice cycles** in age.

Target Date to operate within SLA

September 2019

Current SLA RAG Status (AML only)

Amber

RAG Justification

- Awaiting accurate MI to demonstrate AML mismatches per MPRN per shipper, work is currently in progress and on track for completion.

Exceptions

What is an exception?

- Business or Technical processing errors generated within our system, that cause reconciliations at individual sites, to be held back off the Amendment Invoice until resolved.



Approx. 112,016 distinct MPRNs currently have unresolved exceptions within our systems



Less than 1% Percentage of gas consuming sites in Britain with open exceptions blocking reconciliations from the Amendment Invoice



Currently no accurate mechanism available to quantify value of reconciliation held back from the invoice.



Reporting initiatives underway, in-line with MI SLAs, to provision customers with all MPRNs within their portfolio held back from the monthly invoice owing to unresolved exceptions.

SLA

- Known exceptions are corrected 'in cycle'; new exceptions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is any defect that caused the exception.
- Exception backlogs should be no more than **2 invoice cycles** old.

Target Date to operate within SLA

August 2019

Current SLA RAG Status

Amber

RAG Justification

- Exception backlog clearance on track
- On track for achieving SLA

Exclusions

What is an exclusion?

- Until permanent system fixes are deployed to address charge calculation errors, monthly profiling of new reconciliations received that relate to the scenario of the open defect is performed, with “bill blocks” applied to that MPRN to safeguard the accuracy of the amendment charge calculations by exclusion from the AMS.



5043 distinct MPRNs currently have bill blocks placed upon them



Currently no accurate mechanism available to quantify value of reconciliation held back from the invoice.



40% reduction over the last 2-months in the number of distinct MPRNs bill blocked/excluded from the AMS



Reporting initiatives underway to provision customers with all MPRNs within their portfolio held back from the monthly invoice as a consequence of bill blocks.

SLA

- Known exclusions are executed 'in cycle'; new exclusions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is the defect that caused the exclusion.
- Exclusion backlogs should be no more than **2 invoice cycles** old.
- Correction of billed exclusions should be performed no later than **2 invoice cycles** after detection.

Target Date to operate within SLA

July 2019

Current SLA RAG Status

Green

RAG Justification

- Exclusion backlog clearance on track
- On track for achieving SLA in July Cycle

Defects



17

Defects currently open and awaiting fix deployment



54 days

Average fix timescales for AMS/ASP/AML impacting defects



Fixes prioritised based on perceived impact upon AMS charges and ASP/AML mismatches.



Defects can also require 'data fixes', particularly those impacting charge calculation, which can be complex.

SLA

- Defects, including associated data fixes, within the gift of Xoserve and its partners to resolve should be cleared within **2 invoice cycles** of being raised.

Target Date to operate within SLA

August 2019

Current SLA RAG Status

Amber

RAG Justification

- Defect backlog clearance on track
- Defect fix turnaround timescales currently tracking at c.54 calendar days
- Revisit of defect process completed and improvements implemented

MI / Reporting



ASP financial mismatch communicated to customers within 24hours of AMS delivery.



- Real-time internal MI available for **defects**.
- Defect fix register published weekly for customers on Xoserve.com



Accurate MI currently unavailable for **AML** mismatches but work is currently under way and on target to meet the SLA



Accurate MI currently unavailable for **exceptions** and **exclusions**, at an individual site level per shipper immediately after AMS delivery.

SLA

- All MPRN recs received are accounted for and valued; allocation across invoices, exceptions, exclusions and mismatches is shared at shipper level with individual shippers at the end of each invoice cycle
- Exceptions, Exclusions and mismatches are communicated within **2 business days** following invoice receipt.

Target Date to operate within SLA

August 2019

Current SLA RAG Status

Amber

RAG Justification

- MI Reporting requirements agreed and in delivery

Amendment Invoice – SLA Delivery Status

<u>Mismatches</u>	<u>Exceptions</u>	<u>Exclusions</u>	<u>Defects</u>	<u>MI / Reporting</u>
<ul style="list-style-type: none"> Mismatches are corrected 'in cycle' and associated defects are cleared in time for the second following cycle from detection. Correction of mismatches should be invisible to shippers. During transition to this any correction files issued are delivered within 3 business days of payment due date issue and meet communicated quality and format requirements on first delivery. There should be no unresolved causes to mismatches of more than 2 invoice cycles in age. 	<ul style="list-style-type: none"> Known exceptions are corrected 'in cycle'; new exceptions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is any defect that caused the exception. Exception backlogs should be no more than 2 invoice cycles old. 	<ul style="list-style-type: none"> Known exclusions are executed 'in cycle'; new exclusions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is the defect that caused the exclusion. Exclusion backlogs should be no more than 2 invoice cycles old. Correction of billed exclusions should be performed no later than 2 invoice cycles after detection. 	<ul style="list-style-type: none"> Defects, including associated data fixes, within the gift of Xoserve and its partners to resolve should be cleared within 2 invoice cycles of being raised. 	<ul style="list-style-type: none"> All MPRN recs received are accounted for and valued; allocation across invoices, exceptions, exclusions and mismatches is shared at shipper level with individual shippers at the end of each invoice cycle Exceptions, Exclusions and mismatches are communicated within 2 business days following invoice receipt.
Target Date to operate within SLA				
September 2019	August 2019	July 2019	August 2019	August 2019
Current SLA RAG Status				
Amber	Amber	Green	Amber	Amber
RAG Justification				
<ul style="list-style-type: none"> 92% of ASP mismatch correction files issued to customers within SLA of PDD -3 days 	<ul style="list-style-type: none"> Exception backlog clearance on track On track for achieving SLA 	<ul style="list-style-type: none"> Exclusion backlog clearance on track On track for achieving SLA in July Cycle 	<ul style="list-style-type: none"> Defect backlog clearance on track Defect fix turnaround timescales currently tracking at c.54 calendar days Revisit of defect process completed and improvements implemented 	<ul style="list-style-type: none"> MI Reporting requirements agreed and in delivery

In summary...

- As progress continues to be made month-on-month Xoserve remain committed to monitoring and improving our processes. We understand there is still work to be done to get the amendment files to a place that our customers will be happy with and are encouraged by the positive feedback we have received.
- Please feel free to contact Deborah.Coyle@Xoserve.com should you have any questions or queries you would like to discuss.



Appendices

What is the Amendment Invoice?

The Amendment Invoice is used to adjust both the energy and transportation charge positions that were previously invoiced.



Shippers

- Shippers receive actual meter readings from sites within their portfolio, confirming their actual gas consumption.



Meter Readings

- **Readings are submitted into Xoserve**, which dependent upon the read type trigger a “reconciliation”.
- Inputs include:
 - DMSP or Shipper Check Reads for Class 1-4
 - Cyclic & RGMA Reads for Class 1-4
 - Estimates between actuals for Class 1 and 2
 - Class Change reads
 - Shipper Transfer reads
 - Non read triggers including CMS queries (RFA, DMQ, TOG and Back Billing)
- Invalid meter reads are rejected back to the originator



Consumption

- Once reads or a consumption adjustment are received, a variance period is created that shows the exact amount used by that particular meter point.
- This value can be reconciled against what has been invoiced previously.
- **For DM sites** – consumption is available based on daily actual reads or estimated reads.
- **For NDM sites** – consumption is estimated daily for billing and demand forecasting. This estimated consumption is reconciled upon receipt of actual reads.



Charges

- Energy and Transportation charges are calculated based upon the actual and deemed energy positions for each site.
- **For DM sites** – reconciliation charges are only performed when there has been estimated reads derived or a drift has been noted on a site visit.
- **For NDM sites** – reconciliation charges are calculated between estimated and actual consumption, with the difference converted to financial values (credit or debit).



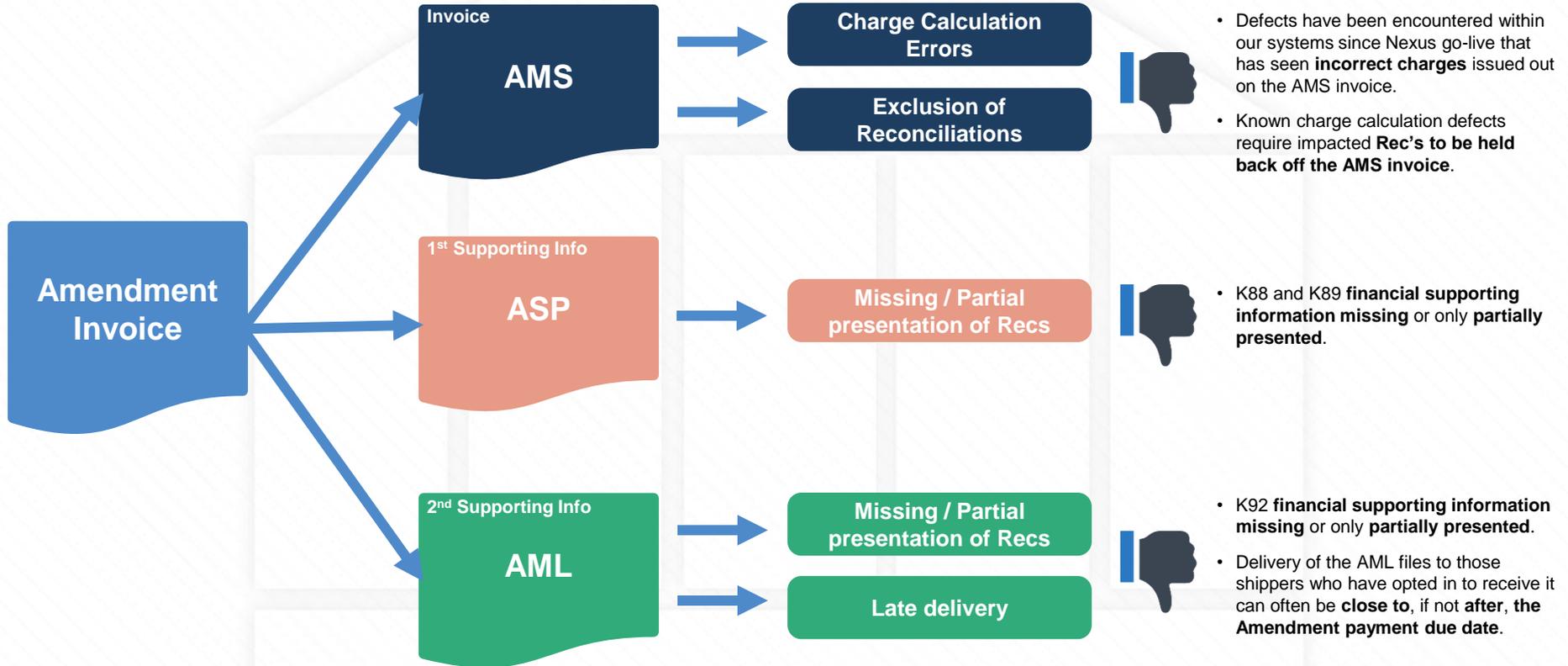
Invoice

- The Amendment Invoice (.AMS) is issued to all shippers on a monthly basis, on the 18th business date of each month.
- The invoice contains numerous elements, with charges identified by relevance to site type.
- The AMS also serves as a vehicle to redistribute unidentified gas (UIG) through the network and across all shippers, as well as allowing for any other consumption adjustments.

Key timings



Why is the Amendment Invoice such a hot topic?



Our understanding of the impact upon our customers....



COMMERCIAL DECISION MAKING

- Missing or incomplete view of invoicing supporting information creates uncertainty for shippers to price their own customer contracts accurately.
- Difficulties with the ability to conduct future business planning, including price strategy modelling, without complete and trustworthy historical view of amendment invoice supporting information.



CASHFLOW MANAGEMENT

- Limited visibility of site specific reconciliations excluded from the monthly Amendment Invoice cause difficulties in predicting cash flow forecasts for both credit and debit invoices.
- Timely receipt of ASP correction files and AML online/offline files cause challenges with subsequent validation of the monthly Amendment Invoice ahead of the payment due date.



GREATER WORKFORCE COSTS

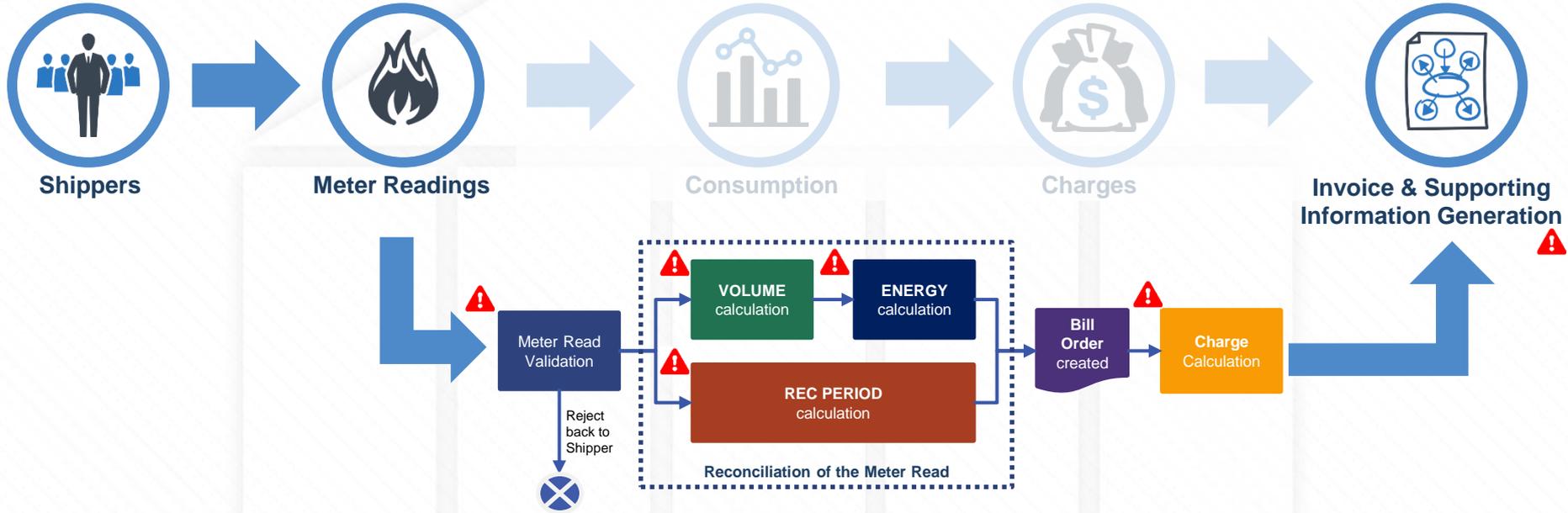
- The delivery of offline correction files for ASP and AML files, post the delivery of the system generated online files, may require manual intervention by some shippers to load them into their own billing systems.
- A mistrust of the supporting information files since Nexus go-live has led to greater emphasis on the validation of each monthly invoice, leading to greater labour costs.



UNC Service Provision Failure

- Missing or incomplete ASP and AML information constitutes a failure of Xoserve, as the CDSP, to adequately provision accurate invoicing supporting in accordance with Section S of the UNC TPD, which are GT UNC obligations.

Pain points in the process



System Defects

- Code or configuration issues within our UK Link system. All defects identified since Jan'19, following the task force refresh, under categorisation as with:
 - AMS Charge Calculation
 - ASP/AML Financial Mismatch
 - ASP/AML Non-Financial Mismatch

Exceptions

- Business or Technical processing errors generated within our system, that cause reconciliations at individual sites to be held back off the Amendment Invoice until resolved.

Exclusions

- Any system defects impacting the functionality of the above processing are categorised as 'charge calculation' defects.
- Until permanent system fixes are deployed, monthly profiling of new reconciliations received that relate to the scenario of the open defect is performed, to safeguard the accuracy of the amendment charge calculations by exclusion from the AMS.

Facts and Figures



c.9 million
MPRNs billed
each month on the
Amendment
Invoice



0.22%
of billed Large Supply
Points (LSPs) incur
ASP K88/89
mismatches each
month



75%
of ASP mismatch
correction files issued
ahead of the monthly
payment due date



1.1%
Percentage of
gas consuming sites in
Britain with open
exceptions blocking
reconciliations from the
Amendment Invoice



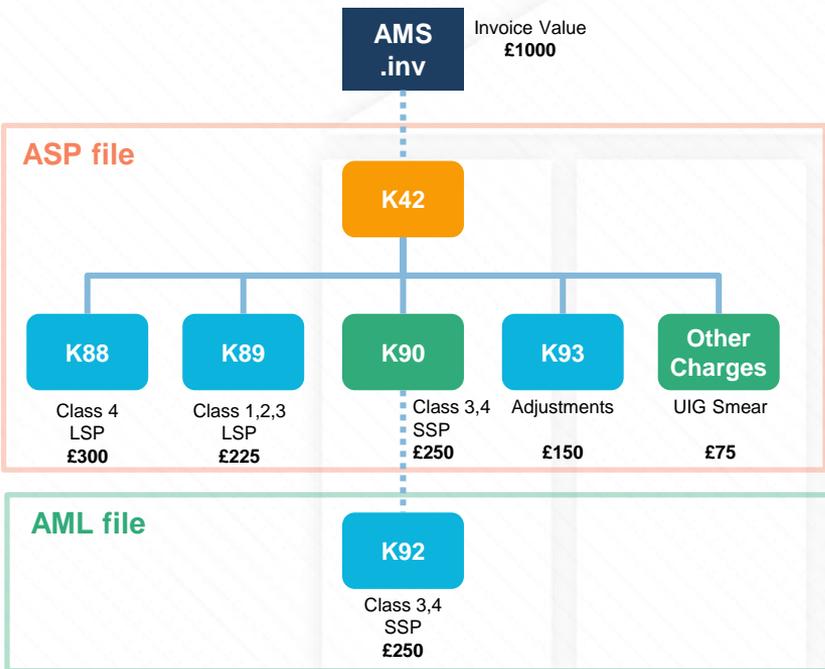
- **0.6%** of LSP
population currently
bill blocked
- **0.08%** of SSP
population currently
bill blocked



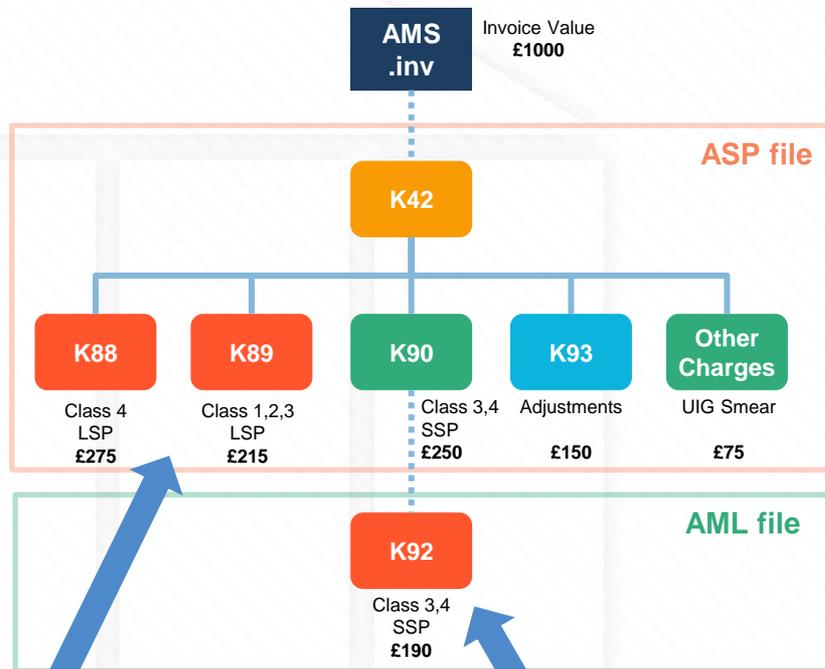
54 days
Average fix timescales
for AMS/ASP/AML
impacting defects

ASP and AML mismatches...

Ideal ASP/AML file



ASP/AML file with mismatches



 Invoiced charges at MPRN level within ASP and AML

 Invoiced charges at aggregated level within ASP



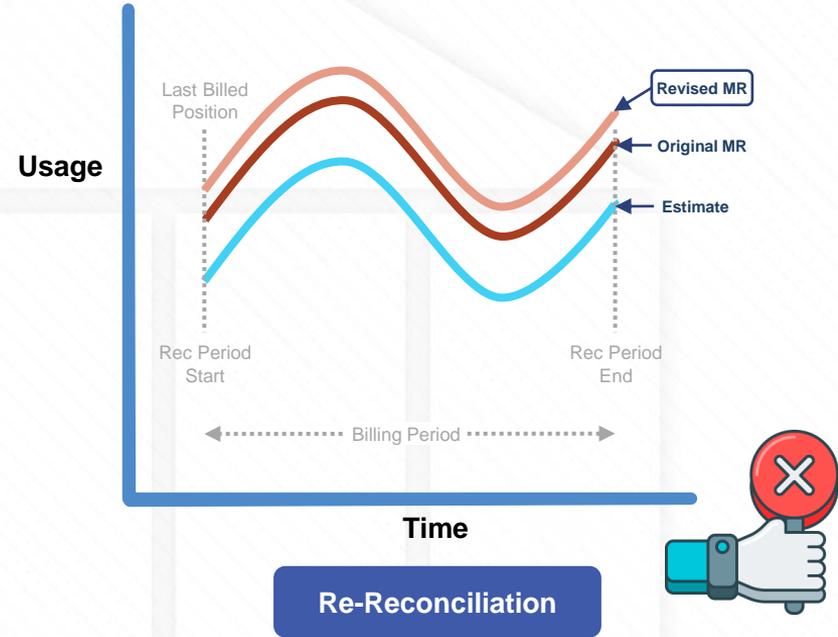
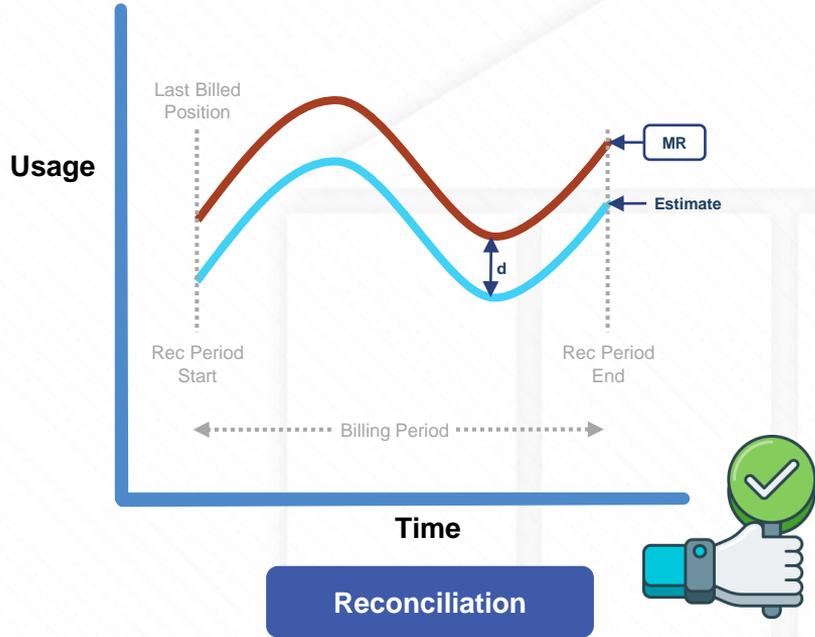
Workaround: ASP Offline Correction File issued after receipt of online file



Workaround: AML Offline Correction File issued at the same time as receipt of online file

Our understanding of the problem....

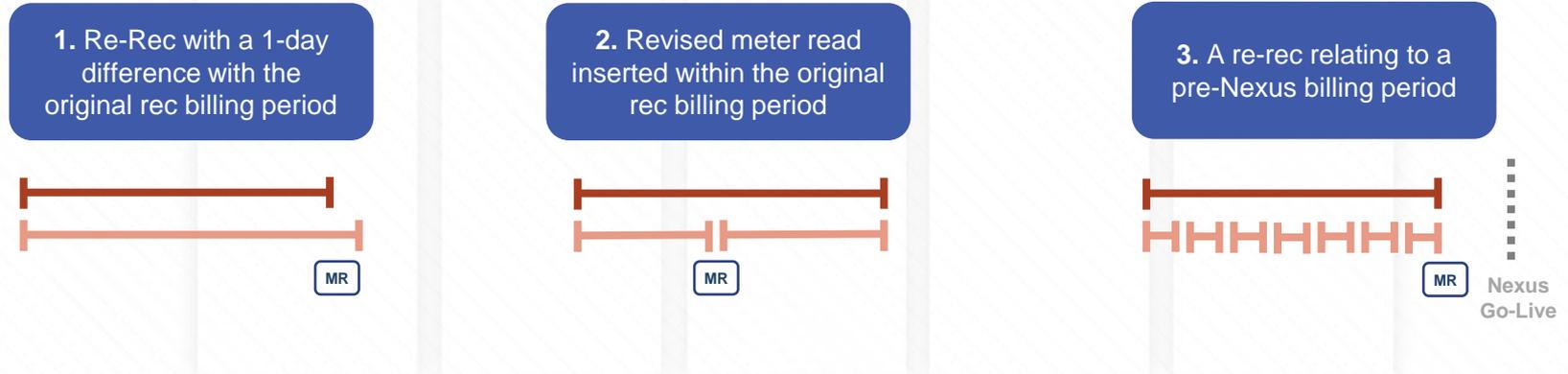
- Original Usage Allocation
- Usage following Rec
- Usage following Re-Rec



Root cause analysis conducted to-date suggests the majority of ASP and AML supporting information mismatches can be attributed to Re-Reconciliation scenarios.

Reconciliation is complex by nature

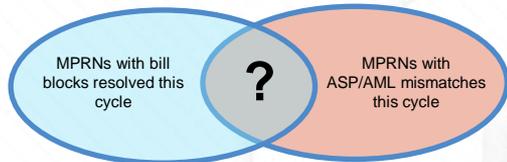
Specifically, root cause analysis has identified three core Re-Reconciliation scenarios that are the major contributors to monthly ASP/AML supporting information mismatches.



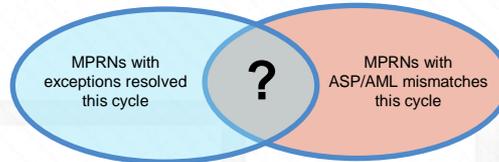
- RCA activity has identified numerous defects over the last two months in relation to these scenarios which all receive high fix priority.
- The RCA team has also introduced proactive checks in advance of AMS and ASP file generation to identify and exclude any impacted sites with 'Re-Recs' that are likely to cause mismatches.

Insulating customers from the issue carries an element of risk...

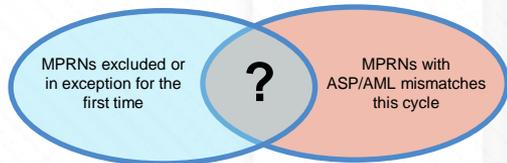
*“Releasing reconciliations held back as **exclusions** cause ASP/AML mismatches”*



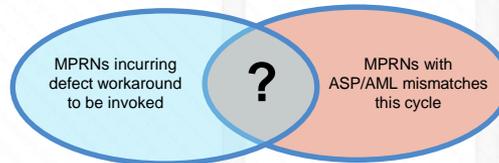
*“Resolving reconciliations held back as **exceptions** cause ASP/AML mismatches”*



*“Within cycle **bill blocking** of possible corrupt charge calculations isn't comprehensive enough”*



*“Within cycle **operation of workarounds** to insulate customers against known and unresolved system defects isn't comprehensive enough”*



RCA conducted upon the mismatches incurred within customer ASP files during the last three bill cycles has identified findings that have confirmed all four of these mismatch hypotheses.

Future mitigations, as well as closer in-cycle monitoring, have been identified, and agreed with our operational teams.

As with any IT system, especially one that processes in excess of 8million bills per month, any form of manual intervention carries an element of risk.

Task Force Structure



PROBLEM RESOLUTION

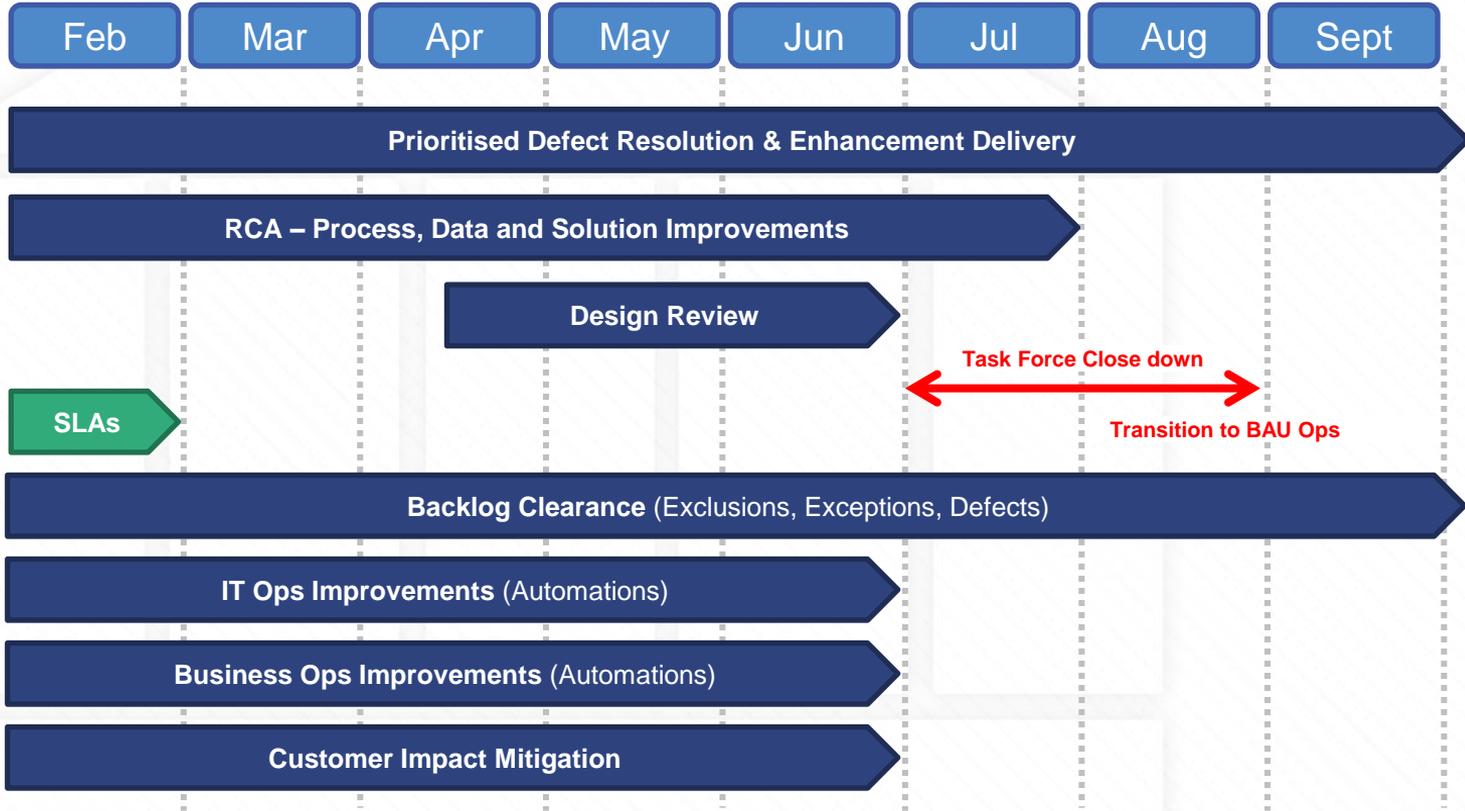


CUSTOMER INSULATION

Workstream	Objective
Prioritised Defect Resolution & Enhancement Delivery	<ul style="list-style-type: none">Continued delivery of prioritised functional defectsIdentification of delivery enhancements aimed at insulating customers from issue until enduring resolutions deployed
Root Cause Analysis	<ul style="list-style-type: none">Deep dive activities to identify root causes of mismatches incurred.Resolutions to root causes identified and proposed.Identification of workarounds for defects.
Design Review	<ul style="list-style-type: none">Review the Amendment Invoice solution design

Workstream	Objective
SLA Definition	<ul style="list-style-type: none">Development and agreement of SLAS for Invoice, ASP, AML production (turnaround, quality, Customer footprint impact etc.)
Backlog Clearance	<ul style="list-style-type: none">Clearance of residual mismatches/defects, exclusions, exceptions
IT Ops Improvements	<ul style="list-style-type: none">Delivery of improvements to IS operational processesDelivery of automations, MI to improve operational processes
Business Ops Improvements	<ul style="list-style-type: none">Delivery of improvements to business operational processesDelivery of automations, MI to improve operational processes
Customer Impact Mitigation	<ul style="list-style-type: none">Front of House for managing impact to customers and providing them with mitigations for known issues

Task Force High-Level Approach



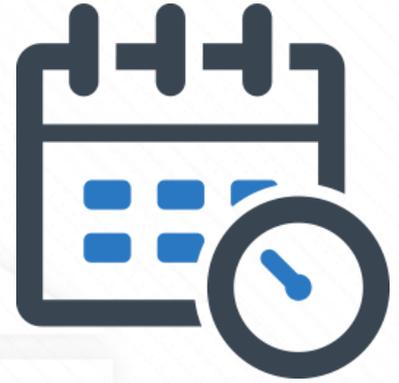
PROBLEM RESOLUTION



CUSTOMER INSULATION



Task Force SLAs



Mismatches

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- There should be no unresolved causes to mismatches of more than **2 invoice cycles** in age.

Exceptions

- Known exceptions are corrected 'in cycle'; new exceptions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is any defect that caused the exception.
- Exception backlogs should be no more than 2 invoice cycles old.

Exclusions

- Known exclusions are executed 'in cycle'; new exclusions within the gift of Xoserve and its partners to correct are cleared in time for the second cycle from detection, as is the defect that caused the exclusion.
- Exclusion backlogs should be no more than **2 invoice cycles** old.
- Correction of billed exclusions should be performed no later than **2 invoice cycles** after detection.

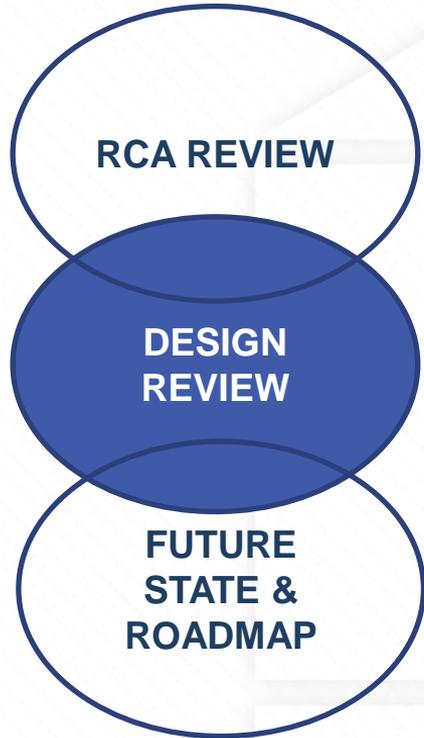
Defects

- Defects, including associated data fixes, within the gift of Xoserve and its partners to resolve should be cleared within **2 invoice cycles** of being raised.

MI / Reporting

- All MPRN recs received are accounted for and valued; allocation across invoices, exceptions, exclusions and mismatches is shared at shipper level with individual shippers at the end of each invoice cycle
- Exceptions, Exclusions and mismatches are communicated **within 2 business days** following invoice receipt.

Design Review



Objective

- Analysis of observed issues and systems behaviours to identify a comprehensive defect set for issues to date and proposed resolutions
- Review of design and code to identify inherent design issues proactively before impacting our customers.
- Review of design alignment to requirements
- Define the requirements for Amendment Invoices future state
- Define the target end state for Amendment Invoices
- Define the roadmap for getting there



Design Review Questions

- Has the Amendment Invoice solution been well designed, taking into account its intended and future use?
- Has the Amendment Invoice solution been designed in such a way that it will deliver the performance, quality and timeliness requirements of Xoserve's customers?
- Has the Amendment Invoice solution been designed with the scope, scale and characteristics of Xoserve's customers' data in mind?

Design Review - Keytree



Who we are



2006 - 2019

London, Swansea, Madrid,
Sydney, Toronto, Dubai &
Bangalore
Transformational Software



Focus on
Delivery, technical
depth, design,
innovation



Global Solution

Provider with an exceptional
track record



Close partnerships with
SAP, AWS, Microsoft, Apple &
over 30+ Awards
for quality & innovation



Fast growing

One of the UK's fastest
growing technology
companies



Recognised
by Gartner
as a "Cool Vendor"
& for User Experience



SAP

SAP Practices



Customer & User Experience

What we do



Cloud & Hosting



Engineering & Data



Research & Development



Managed Service

Some of our clients



nationalgrid

Cadent

ESSAR

Shell

UK Power Networks

WALES & WEST UTILITIES



xxserve

centrica



British Gas

Hydro Tasmania

SEVERN TRENT WATER



IBERDROLA

The logo for xserve, featuring a stylized 'x' composed of two overlapping blue shapes, followed by the word 'serve' in a blue sans-serif font. The logo is centered within a light gray window frame that is part of a larger house-like outline. The background has a subtle diagonal line pattern.

xserve