

Business Principles

for

Non-functional Requirements

Xoserve Project Nexus

Submitted to

Project Nexus Workgroup (PN UNC)

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1. Glossary

Term / Acronym	Definition
DCC	DataCommsCo
DECC	Department Energy Climate Change
LDZ	Local Distribution Zone
LSP	Larger Supply Point
SME	Small & Medium Sized Enterprises
SMIP	Smart Metering Implementation Programme
SSP	Smaller Supply Point

2. Document Purpose

The purpose of this document is to ensure that the business principles associated with the referenced change have been accurately captured and to clearly specify these requirements to the Project Nexus UNC Workgroup (PN UNC). Adequate information should be provided to enable the industry to approve the documented requirements for Cost benefit Analysis at a later stage. The business principles will be used to inform the GTs & Xoserve strategic architecture requirements and enable the proposed principles to be incorporated into system requirements for Xoserve's investment decisions.

The contents refer to the business scope of the change and provide descriptions of the business requirements.

Until the approved version, this document will contain draft principles for the different options identified by PN UNC around non-functional aspects. These options have been documented for further discussion and clarification at the meetings of the PN UNC Workgroups.

2.1. Intended Audience

- Xoserve
- Gas Shippers/Suppliers
- Gas Transporters
- Customer Representative

3. Executive Summary

3.1 Introduction to the change

This document defines the principles for the requirements relating to non-functional aspects.

The document has been based on presentations and discussions at the Project Nexus UNC Workgroup. The principles have been documented for further discussion and clarification. All areas within the document are yet to be agreed and finalised.

All square brackets: [] represent areas for clarification which must be resolved by the Workgroup prior to the business rules being finalised.

3.2 Implementation Timescales

Implementation of the developed solution will be confirmed once all requirements are captured following the Project Nexus Requirements Definition Phase.

3.3 Change Drivers and Business Goals

3.3.1 Drivers

3.3.2 Business Goals

3.4 Change Background

The changes have been identified as a result of Xoserve's Project Nexus consultation for the replacement of UKLink systems and following DECC's consultation on Smart metering and Supplier licence obligation for the installation of advanced meters.

3.4.1 Areas Identified in the Initial Requirements Register (IRR)

IRR Reference	Requirement	Workgroup Outcome
1.2	Improved timeliness of supply point transfers. Faster Enquiry and Nominations process.	
1.3	Removal of restrictions on bulk transfers.	
1.9	Consideration should be given to having an online interface with the database.	
4.1	Removal of volume quota and improved processing time.	
8.10	Internet access to the supporting data behind any of the	

IRR Reference	Requirement	Workgroup Outcome
	transportation invoices.	
11.5	A single industry wide database to include DNO and IGT Market Domain Data as well as possibly some Transactional Data.	
12.5	Greater obligations on all industry parties to ensure data quality and accuracy and more common data formats and structures.	
13.1	More open access for the registered Supplier to current and historical data through the internet	
13.4	Provide single interface to view data.	
13.5	No system limitation on the timings of files.	
13.6	Data formatting should be consistent, stored by a single authoritative body and subject to formal control which is managed within agreed validation routines and set data quality framework	
13.13	Access to historical data.	
13.14	Development of User documents. These need to be developed, along the lines of the SPAA Schedules, held in a single place for Users to access detailing the information that is available and the file formats.	
13.15	Specification of refresh rates for the data.	
13.16	Specification of file formats, data compression and interface solutions.	
13.17	A data dictionary for gas similar to the Data Transfer Catalogue in electricity which sets out the allowed values and formats for all gas data items.	
13.19	A robust file transfer mechanism	
13.20	A uniform industry communication format for AMR and Smart Metering, including meter readings, asset, registrations and removals.	
13.21	No wholesale changes to file formats, file types and file flows.	
13.22	Direct amendment of data held in xoserve's database.	
13.23	Simple data access which can be used in reasonable bulk	
13.24	Real-time file flows.	
13.28	Simplified interface to the data held on sites and meters.	
14.1	Meter reading warehouse that is memory extendable.	

IRR Reference	Requirement	Workgroup Outcome
14.4	Future systems can adapt and accommodate changes.	

3.4.2 Business Issues Raised during the PN UNC Workgroups

Source	Requirement	Workgroup Outcome
Settlement BRD	No limits or system constraints	
Settlement BRD	Requirement to transfer large number of meter points between Products or Meter Read Frequency	
Reconciliation	Parameterise values in the system to enable them to be amended easily	

3.5 Licence and Contract Impacts

3.5.1 UNC Impacts

[Not identified](#)

3.5.2 Licence Impacts

[Not identified](#)

3.6 Related Documents

Document Title	Location
PN UNC Workgroup	Joint Office Website

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4. Benefits

These will need to be aligned with the Transporters' relevant objectives.

4.1 Industry Benefits

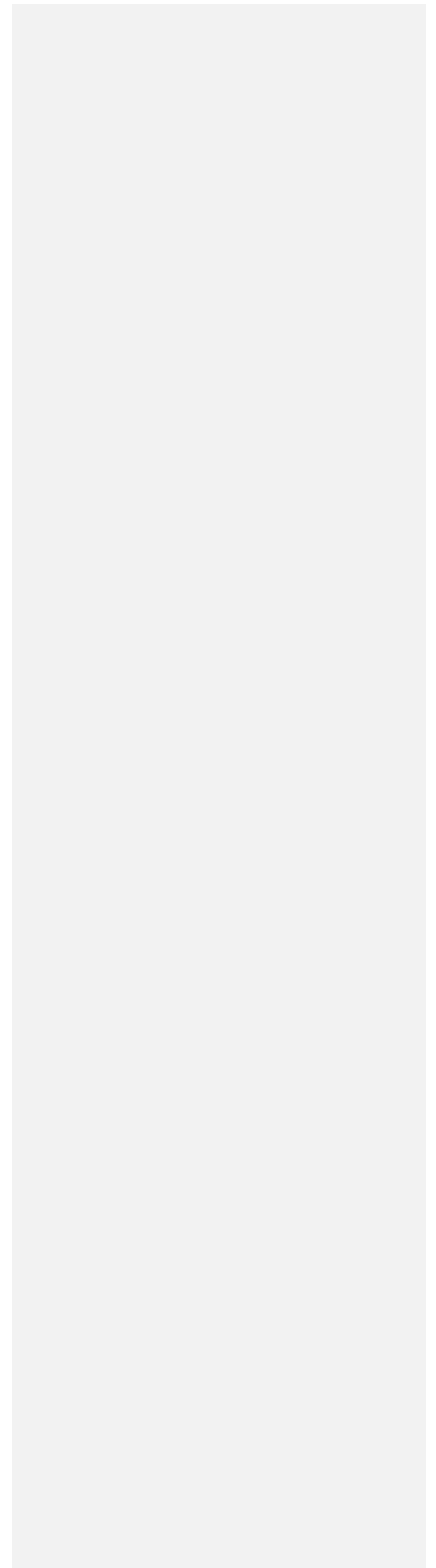
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4.2 Disadvantages

4.2.1

| [Not specified](#)



5. **Change Scope**

5.1 **In Scope**

- Design Principles

5.2 **Out of Scope**

- Technical solutions
- Volumetrics: Will be assessed by Ofgem in conjunction with Shippers, GT and GT agent.

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Business Principles

6. Assumptions

6.1 Project Assumptions

- 6.1.1 The business rules will need to be appropriate for dumb metered sites as well as remotely read sites
- 6.1.2 Continual monitoring to take place of SMIP developments to ensure alignment with parties obligations and DCC services
- 6.1.3 The scale of changes indicated in this document may require a scale of small to large changes to current systems or a partial or complete re-write.
- 6.1.4 Non-functional principles/requirements have equal priority. It is not possible to assign a priority to individual non-functional principles and requirements at this stage since the benefits of each are not yet known.
- 6.1.5 Volumetric will be assessed by Ofgem in conjunction with Shippers, GT and GT agent.
- 6.1.6 Peak volumes and profiles will be influenced by the take-up of and subsequent migration between the four products.

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6.2 Process Assumptions

Not applicable

6.3 Dependencies

Not separately identified

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7. Risks/Issues

- 7.1.1 There may be opposition to any potential Modifications raised, particularly because not all Shippers/Suppliers/Transporters attend the Workgroups or are represented.
- 7.1.2 There may be a difference between larger and smaller Suppliers in the impacts/costs that would be acceptable.
- 7.1.3 The principles for audit trails have not been defined (ie. If required, are look-ups audited within the Shipper system or GT agent system).
- 7.1.4 The operation of the 'to be' AQ process could lead to large numbers of reads being held back until the "last minute" giving unrealistic/unnecessary peak loads.

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7.2 Constraints

See individual principles

7.3 Overview of Business Processes

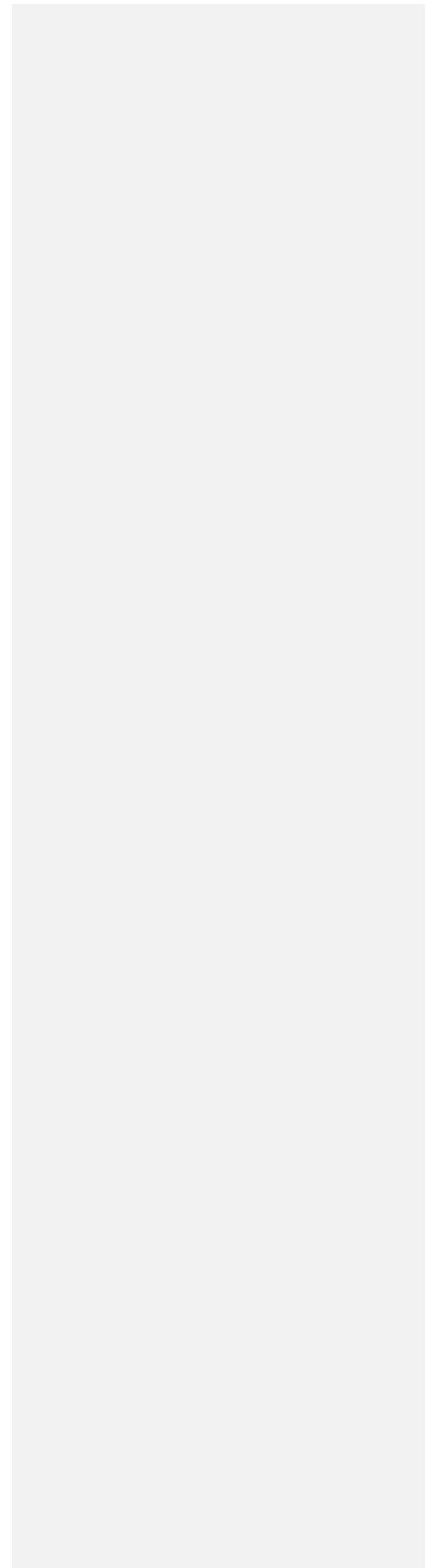
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7.4 Current Processes and Process Maps

Not applicable

7.5 To-Be Processes and Process Maps

Not applicable



8. Business Principles

The business principles below have been established via discussions at the Project Nexus UNC Workgroup with reference to the Initial Requirements Register.

These principles represent the current aspirations of one or more stakeholders, and are not yet supported by the consensus of the Workgroup.

8.1 Data Access

- 8.1.1 Direct access will be required to items of source data such as invoicing details, asset details, meter reads and supply point details, in order to enable verification of information and to support quotations [and other Shipper business processes](#). These might be similar to Data Lookup Services such as current IAD.
- 8.1.2 [Shipper business processes are developing towards the requirement for real time values for some data items](#).
- 8.1.3 Capability to select and copy source data (read only) held by Xoserve into external (Shipper) systems for analysis and reporting.
- 8.1.4 Capability to carry out analysis and reporting against source data on a common platform provided by Xoserve
- 8.1.5 Data access to be limited to the data the User is permitted to view / report on and have the appropriate controls and audit trail.
- 8.1.6 There should be a single entry point to data held by Xoserve (e.g. via web Portal/single sign on).
- 8.1.7 All [data lookup and update](#) services will be browser based, and avoid the need for deployment of client software.
- 8.1.8 Capability to update single data items directly (rather than transfer a complete file of redundant information currently required to make a single change), [subject to business rules](#).
- 8.1.9 [Single data items should be able to be updated in bulk \(eg by IX, FTP/web\) or individually \(eg. on-line\)](#).

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8.2 Data Transfer

- 8.2.1 File based data transfers should continue to be the core mechanism for data transfer.
- 8.2.2 Consideration should be given to minimising the changes required to Shipper/Supplier systems where file formats/contents changes are assessed.
- 8.2.3 File transfers must continue to be secure and auditable to ensure data is protected and traceable.

8.2.4 Options for common standard file transfer mechanisms should be considered.

[Note: this has the potential to contradict 8.2.1, and the benefits case is not yet well understood].

8.2.4.1 Produce new file transfers using xml rather than csv.

8.2.4.2 Produce new file transfers in both 'xml' & 'csv', and allow the using organisation to specify which they prefer

8.2.4.3 Maintain old file flows in 'csv'

8.2.4.4 Maintain old file flows in 'csv', but also produce in 'xml' in parallel, and allow the using organisation to specify which they prefer.

8.2.5 The direction and requirements of Smart Metering Implementation Programme (SMIP) need to be considered with regard to file formats and transfer protocols.

8.3 Data Custodian/Validation

8.3.1 Establish a centralised industry wide database managed by one custodian to provide an integrated view of data and a single source of validation (AMR, SPA Smart Metering). This is required to improve data quality and efficiency of the administration of data and associated policies and procedures.

8.3.2 Standardised and consistent data formats for all processes

8.4 Data Update Lead Time

8.4.1 Reduce current timescales and tighten standards of service where possible. It is noted that some of these are restricted by business rules rather than system constraints.

8.4.2 Data updates resulting from files transferred to Xoserve should be 'live' within [1] working day of receipt. [Note: Contradicts 8.4.3]

8.4.3 Capability required to process file transfers 24*7*365 immediately upon receipt. Note: This supersedes 8.4.2.

8.5 Data Retention

8.5.1 Historical data not required for standard Shipper business processes will be retained and made accessible within reasonable timescales as a minimum to comply with the relevant statute of limitations back to 'line in the sand'. For standard Shipper processes, direct access to historical data will be maintained for up to [] years old and automated access to older data with [] days' delay (values to be specified, and may differ according to business area/domain)

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8.6 System Flexibility

- 8.6.1 Make systems flexible to enable additional/changed industry business requirements to be quickly and efficiently accommodated in core functionality.
- 8.6.2 Ensure that systems are designed and built to facilitate flexibility by the adoption of best practices such as parameterisation.

8.7 System Scalability (Volumes)

- 8.7.1 [System volumes \(data and process\) and peak time volume requirements will be assessed based upon the Ofgem/Shipper/GT/GT agent impact assessment.](#)
- 8.7.2 Systems will be designed and built in order to be scalable to cater for the growth in data volumes expected as a consequence of known industry initiatives.
- 8.7.3 The total number of registered users requiring access to a data lookup service (see 8.1.1, 8.1.2) is expected to be in excess of 10,000.
- 8.7.4 The total number of registered users requiring access to a reporting service (see 8.1.3, 8.1.4) is expected to be greater than 100 and less than 1000.

8.8 System Documentation

- 8.8.1 System documentation (for example file formats and validation routines) is publicly accessible as per Electricity and RGMA.
- 8.8.2 A single information rich data dictionary will be made available to all industry parties so that data items can be understood and easily communicated.
- 8.8.3 Define and document a standard, common and published set of error/validation messages.

8.9 Areas Not Yet Considered [\(not apparent from the IRR\)](#)

- 8.9.1 Concurrency of usage – Note: numbers of registered users are of very limited value on their own.
- 8.9.2 Average Response time required for online transactions.
- 8.9.3 Maximum response time at peak load.
- 8.9.4 Times between which any online systems are required to be available.
- 8.9.5 Changes to outages, availability, SLAs etc.
- 8.9.6 Interface requirements, look/feel characteristics etc.
- 8.9.7 Required compatibilities (eg Browser product and/or version)

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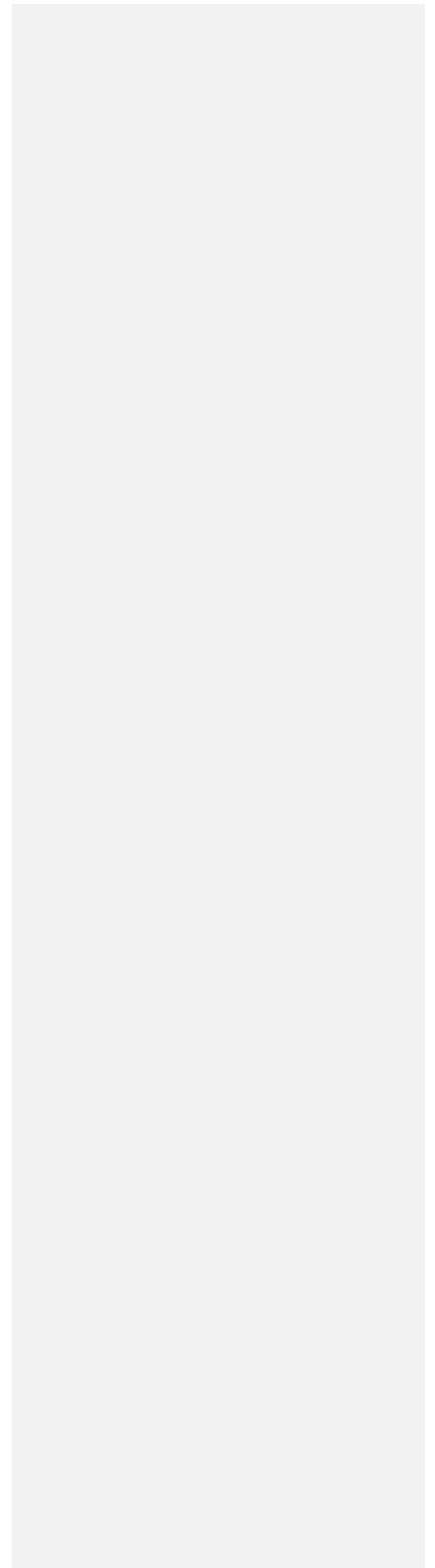
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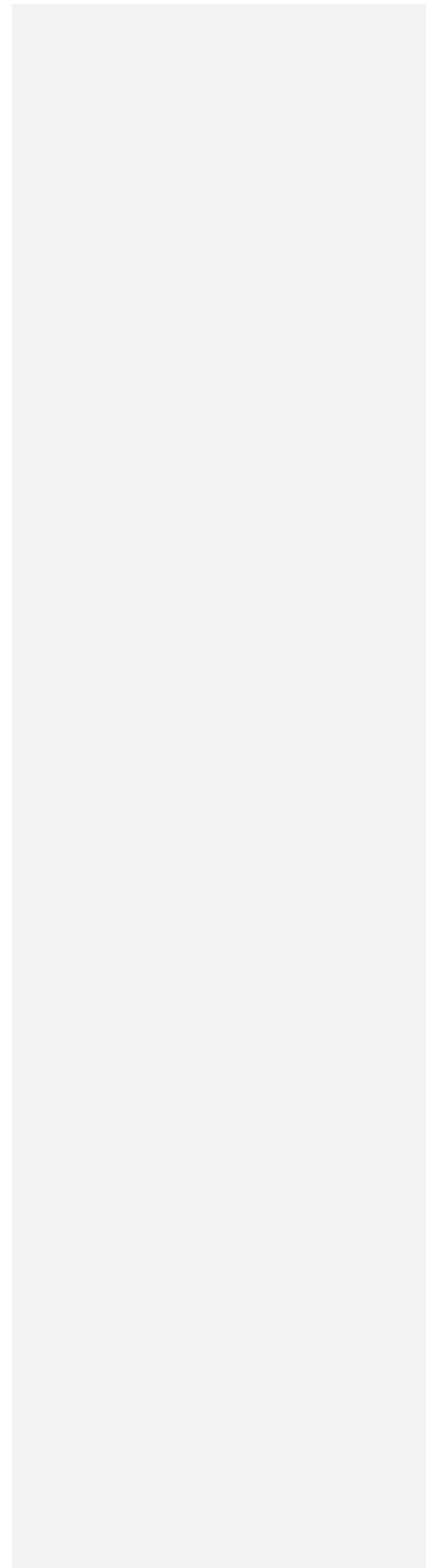
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9. Transitional Rules

Transitional rules may be required to deal with the period immediately before and after the implementation of these rules.



10. Appendices



11. Document Control

Version History

Version	Status	Date	Author(s)	Summary of Changes
0.1	Draft	20/12/2011	Xoserve	First draft
0.2	Draft	16/01/2012	Xoserve	Updated version following PN UNC on 10/01/2012

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Reviewers

Name	Version	Date
Workgroup attendees		

Approval

Name	Role	Date
Reconciliation Workgroup		
PN UNC		