



Extraordinary DSG Meeting CSS Consequential Change



25th July 2019

Agenda

- Welcome and introductions
- Action Review
- Detailed Design Solution Discussion
 - Gemini Consequential Changes
 - Opening Reads
 - API Discussion
 - Meter Point Creation and Amendments
 - RMP Status
 - Market Sector Code Updates
- Future Topic Design Questions
 - Erroneous Confirmation (ECO) Process
- Data Cleansing Update
- Market Trials
- AOB

Action Review

Date Raised	Reference	Action Description	Action Assigned To	Target Date	Open	Date Closed
10/06/2019	XDSG-100619-019	Determine the feasibility of introducing an acknowledgement to Shippers follow CSS acceptance of stakeholder amendment requests	Xoserve	25/07/2019	Open	
10/06/2019	XDSG-100619-025	BRN continued discussions to understand projected submissions	All	25/07/2019	Open	
10/06/2019	XDSG-100619-024	Xoserve to look at other downstream processes where the shipper reference is used by next meeting	Xoserve	25/07/2019	Open	
26/06/2019	XDSG-260619-037	Explore the option of including a delay between the processing of the CSS registration sync message and generating of the outbound ASN file.	Xoserve	25/07/2019	Open	
26/06/2019	XDSG-260619-038	Attendees to review revised UNC code (issues as part of Ofgem SCR) to determine if changes are needed to the process and raise UNC change if required.	Attendees	25/07/2019	Open	
26/06/2019	XDSG-260619-040	Describe what is stated in the updated UNC for the submission of settlement data (BRN file)	Xoserve	25/07/2019	Open	
26/06/2019	XDSG-260619-041	Meter read frequency change- check the status of this XRN and assess the impacts and our consequential design.	Xoserve	25/07/2019	Open	
26/06/2019	XDSG-260619-042	Provide a comparison between existing S files and the T record formats for the proposed new BRN/BRR/ASN files.	Xoserve	25/07/2019	Open	

Action Review

Date Raised	Reference	Action Description	Action Assigned To	Target Date	Open	Date Closed
11/07/2019	XDSG-100619-051	Xoserve to look at bringing the K12 & K14 records into the nomination enquiry response file.	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-100619-052	DA to review the impacts the RRN submission decision will have on the updated UNC	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-100619-053	Xoserve to consider the inclusion of a new rejection code where a shipper's opening reading is not accepted due to the acceptance of a subsequent shippers opening reading	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-260619-054	Shippers to consider the opening reading proposal to start the Read Window at D, rather than D-5 for Class 4 Opening Meter Readings and provide feedback at the next meeting	Attendees	25/07/2019	Open	
11/07/2019	XDSG-260619-055	Xoserve to consider the inclusion of adding a delay into the process of sending an ASN file to enable the incoming shipper time to submit a BRN file, only for the registration effective date is more than one day in the future	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-260619-056	Xoserve to provide a view of the default rules that will be applied for a forced or initial registration where no BRN has been provided	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-260619-057	Add timings onto the sequence maps for the change of shipper and supplier scenarios	Xoserve	25/07/2019	Open	
11/07/2019	XDSG-260619-058	Consider the 3 options discussed for the sending of the current TRF/MRI data and confirm preferred option at the meeting	Attendees	25/07/2019	Open	

Action Review

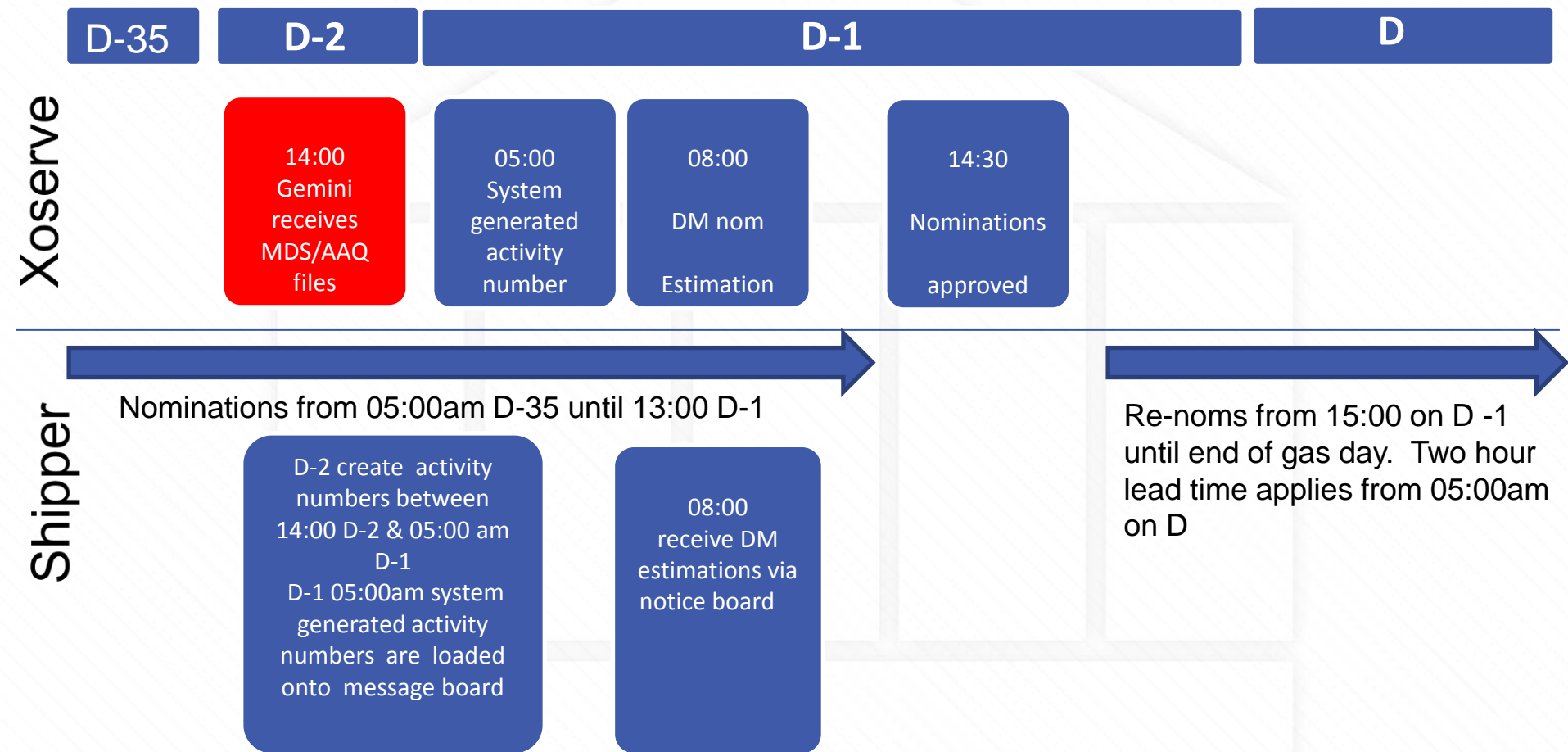
Date Raised	Reference	Action Description	Action Assigned To	Target Date	Open	Date Closed
11/07/2019	XDSG-100619-059	Shippers to think about who will have to attend the Market Trials session in August	Attendees	25/07/2019	Open	
11/07/2019	XDSG-100619-060	Confirm how Ofgem are engaging with the MAM's	Xoserve	25/07/2019	Open	



Gemini Consequential Changes



Current Gemini Nomination Process



Nomination / Re-Nomination Timeline Post CSS

D-1 post 17:00

D

Xoserve

- **17:00** CSS sends message to UK Link
- **17:30** UK Link receives sync message from CSS

21:00
Gemini
receives
MDS/AAQ
files

- **22:00** nom/re-nom cancellation
- **22:30** Activity number generated
- **22:45** DM Nomination Estimation runs

Shipper

DM re-noms D-1 22:45 onwards

- **22:30** Shippers receive Activity number via notice board
- **22:45** Shippers receive DM Noms estimation via notice board
- **22:45** Shippers able to re-nom from this point on D-1
- The D-1 23:59 NDM/UG nominations run will reflect the updated Portfolio and AQ values

- New file to be created and issued containing information detailing the meters that have switched timing TBC
- Changes to the Deemed to flow process to replace the existing fax process.

All timings are indicative subject to CSS physical design finalisation

Changes in Gemini – Daily Processes

Change in timing	<ul style="list-style-type: none">• Loading of the MDS/AAQ file• Monitoring to check if MDS/AAQ files have been received
New processes	<ul style="list-style-type: none">• Cancel approved gas nominations/re-nominations for DM meters where a switch has taken place• New Shipper notification to aid gas nominations for newly gained sites
Additional run of existing jobs	<ul style="list-style-type: none">• Create activity numbers in Gemini• DM nominations to create estimates

Changes in Gemini – Daily Processes

- Consequential impact to files received from UK Link

MDS

Daily file

Meter ID

Portfolio Changes

AAQ

Daily and Yearly file

AQ updates

- Currently sent at 14:00 on D-1
- Post CSS will be sent to Gemini at 21:00
- Critical files required on a daily basis for the Gas nomination process, Allocation process and accurate calculation of UIG.

Impacted Parties

Industry Role	Impact
Shippers	<ul style="list-style-type: none">• Nominations• Re-nominations on D-1• New notification to aid gas nominations for newly gained sites
NG GNCC	<ul style="list-style-type: none">• Increased deemed to flow requests
DNs	<ul style="list-style-type: none">• Change to timing of the GMD file received on D



Opening Meter Reads



Change Overview

Summary of changes for Class 3 and Class 4

The window for transfer reads is D-5 to D+10 for Class 4 and D to D+10 for Class 3.

In case of a CSS switch notification on a class 3 or 4 site, if the read provided is not for transfer date (D) but is for a date within the read window, the read for transfer has to be estimated based on the given read and/or read history.

The window to obtain a transfer read is up to D+10 but the window closes as soon as a activity that requires a read (such as RGMA, class change, LDZ change, etc.) [current process] ... or subsequent shipper activity takes place

Read from a subsequent shipper within the read window is not to be used in transfer read estimate

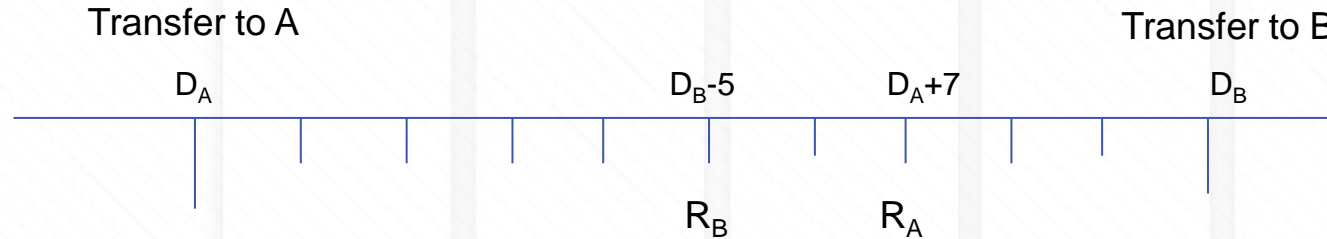
Inner tolerance is not applied for Opening reads (i.e., any O read received within the read window or any N read between D to D+10 which would be used to either fulfill or estimate a transfer read). Inner tolerance will be applied to replacement Opening reads.

Inner tolerance will be applied to any subsequent reads after the opening read has been fulfilled (including N reads received in the D+1 to D+10 period but excluding RGMA reads)

Discussion points

Discussion points

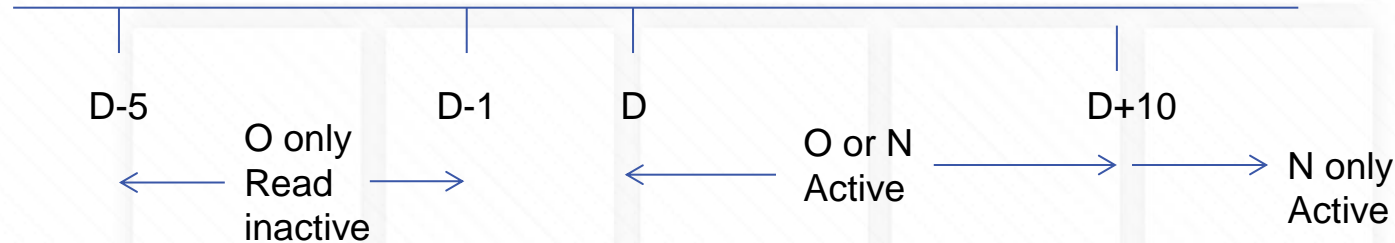
1. Should D-1 to D-5 window be removed? Due to risk of read contention.
2. In the scenario shown below, should read from A (R_A) be used to estimate B's opening read? (This scenario is not relevant if D-1 to D-5 window is removed.)



Proposed treatment

Opening read processing

Proposal for allowed read reason and Active/Inactive status of reads
(Inactive reads are not used for the validation of subsequent reads) -



Possible rejection scenarios

A replacement read for the period D-1 to D-5 from the proposing shipper would be rejected since the transfer read would already have been fulfilled using the D-1 to D-5 read, and the replacement would not trigger a re-estimation [current process]

An opening read submitted after the transfer read has been fulfilled will be rejected [current process]

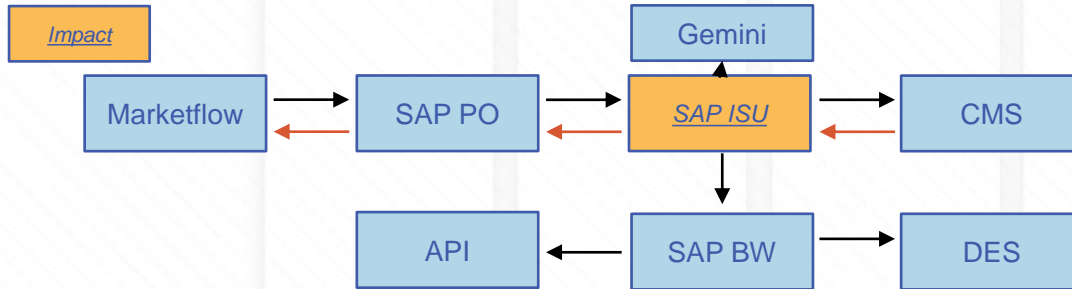
High Level Impact Assessment

Changes in estimation program and read processing programs

There is no change in the estimation logic currently in place – either for estimation using last valid read or for estimating a read in between two reads. The change is in the scenarios that trigger estimation and in the determination of reads to be used for estimation.

In read processing, the change is to apply the new rules for read reason and for inner tolerance check.

Impacted Systems



Design considerations

Design Considerations & Assumptions

- If no read is received till D+10, estimation will be done using last valid read
- Existing logic for last valid read determination can be used as is, if D-1 to D-5 window is removed
- If read provided is in the D+1 to D+10 window, that read along with last valid read before transfer date will be used to estimate the transfer read
- Additional changes in read selection logic for estimation will be required if the recommendation to remove D-1 to D-5 window is not accepted.
- Change of supplier only will be treated similar to re-confirmation in UKLINK.
- For Class 3 reads, estimation will be triggered when a read is received from the proposing shipper for a date after D.
- If the D-5 to D-1 window is removed, then reads from the outgoing shipper for the period D-5 to D-2 should not be marked as inactive (Change to June 19 release XRN4676)

Assumptions/Clarifications

- All the scenarios are specific to Class 4 to Class 4 switches
 - Class 3 'Read Window' starts at D; rather than at D-5.
- Current baselined rules:
 1. Read Window for C4 – Reads may be obtained from D-5
 2. Readings provided by the Incoming User on or after D (i.e. once the Registered User) but within their ownership
 3. Readings provided by the Registered User to be used to generate the Opening Meter Reading estimate (OPNT), if provided for a date other than D, and submitted by D+10
 4. Read Submission Window ends at:
 - a. Meter reading being submitted by the Registered User
 - b. Registered User triggering a process that requires a Meter Reading in order to be effective – e.g. Class Change; LDZ Change, RGMA* etc.
 - c. Subsequent Shipper submitting a Meter Reading or an activity which requires a meter reading eg, RGMA
 - d. D+10, if none of the above events take place
 5. Readings provided by a Subsequent User will prompt the generation of outstanding OPNT(s), but the Read not be used to generate the OPNT(s) value
- All focus was on the processing against Subsequent Users – rather than Reading contention against previous Shippers
- Little / no thought was provided against retention of the D-5 window due to the focus on subsequent switches

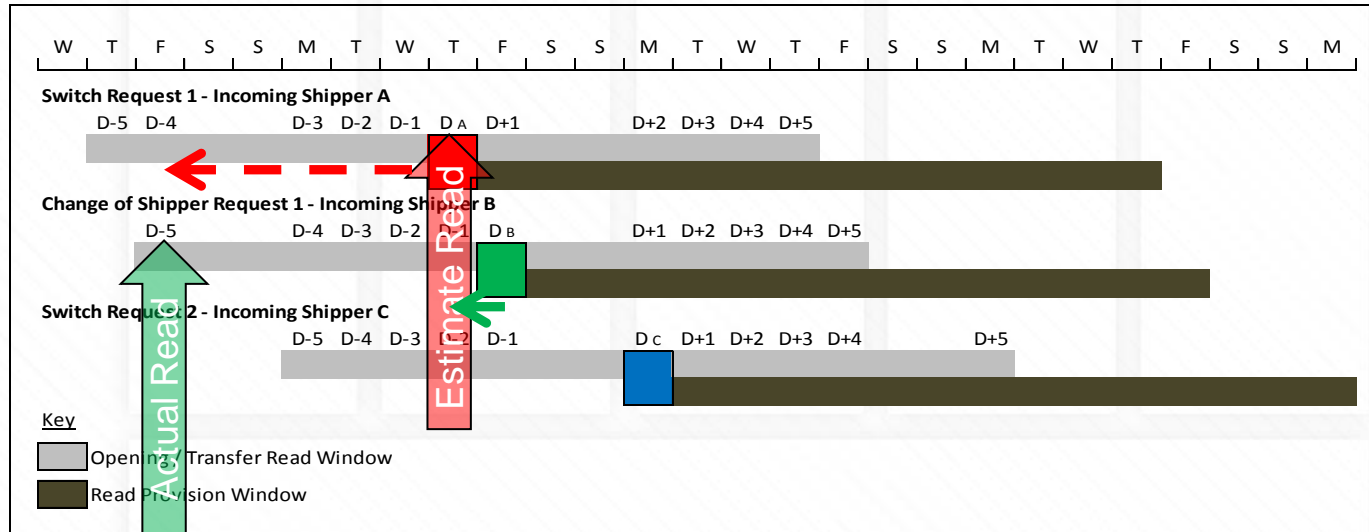
* RGMA transactions will be accepted in the CO (D-1) window from the proposing user

Assumptions/Clarifications

- Additional analysis has highlighted scenarios where previous Shipper readings may cause Reading contention with the readings from the registered shipper
- This has been circumvented by XRN4676 – implemented June 2019 – Readings provided by the previous Shipper are set to 'inactive' where these are received in D-5 to D-1 window
 - Post CSS, will not know whether we are in D-5 to D-2 window since we may not know about the switch until D-1!
- Currently the estimation routine considers the last valid Meter Reading when generating an estimate
 - It does not consider who has provided this Meter Reading
 - Where the estimation job is interpolating between two Readings, under the current rules we will need to ensure that a Subsequent User reading is ignored for estimation of outstanding OPNTs for previous Registered Users

Change of shipper/Change of shipper and supplier

- Scenario 1:** Green sends a read dated $D_B - 5$ and there are outstanding OPNTs for Red and Green
 - After $D_B - 5$ – Green will submit Reading which will get loaded at $D_B - 5$ and marked as inactive.
 - Red's estimation will then be triggered utilizing green's read – **Breach of Rule 5**
 - Subsequently, Green's estimation will utilize red's estimate instead of green's read at $D_B - 5$ – **Breach of Rule 3**



Proposal

- In considering the use of the D-5 window, this is inconsistent with the fact that once superseded the Shipper cannot obtain a Meter Reading in a subsequent shipper's ownership
- The D-5 window creates additional issues regarding 'ownership' of Meter Readings – about what can / cannot be used for estimation
 - Ideally removing this complexity would be beneficial
- Propose to limit the ability to obtain Meter Readings outside period (i.e. D +/-) when you are the Registered User*
 - + Brings all Classes into line – i.e. Reading only obtained from D
 - + Opportunity to provide Reading maintained until D+10 – so circa two week window to obtain Meter Reading
 - Requires change to customer letter, where Consumer Reading is sought
 - Current stats on opening reads received from Go-Live to Jan'19, show that 71% of the reads obtained were for D date, while 15% were within D-1 to D-5 window and 14% within D+1 to D+5 window. Majority (75%) of these reads were the end consumer reads (source E).
- DSG are asked to support the proposal to start the Read Window at D, rather than D-5 for Class 4 Opening Meter Readings
- Views?

* applies to RGMA transactions as well

System Impact Assessment

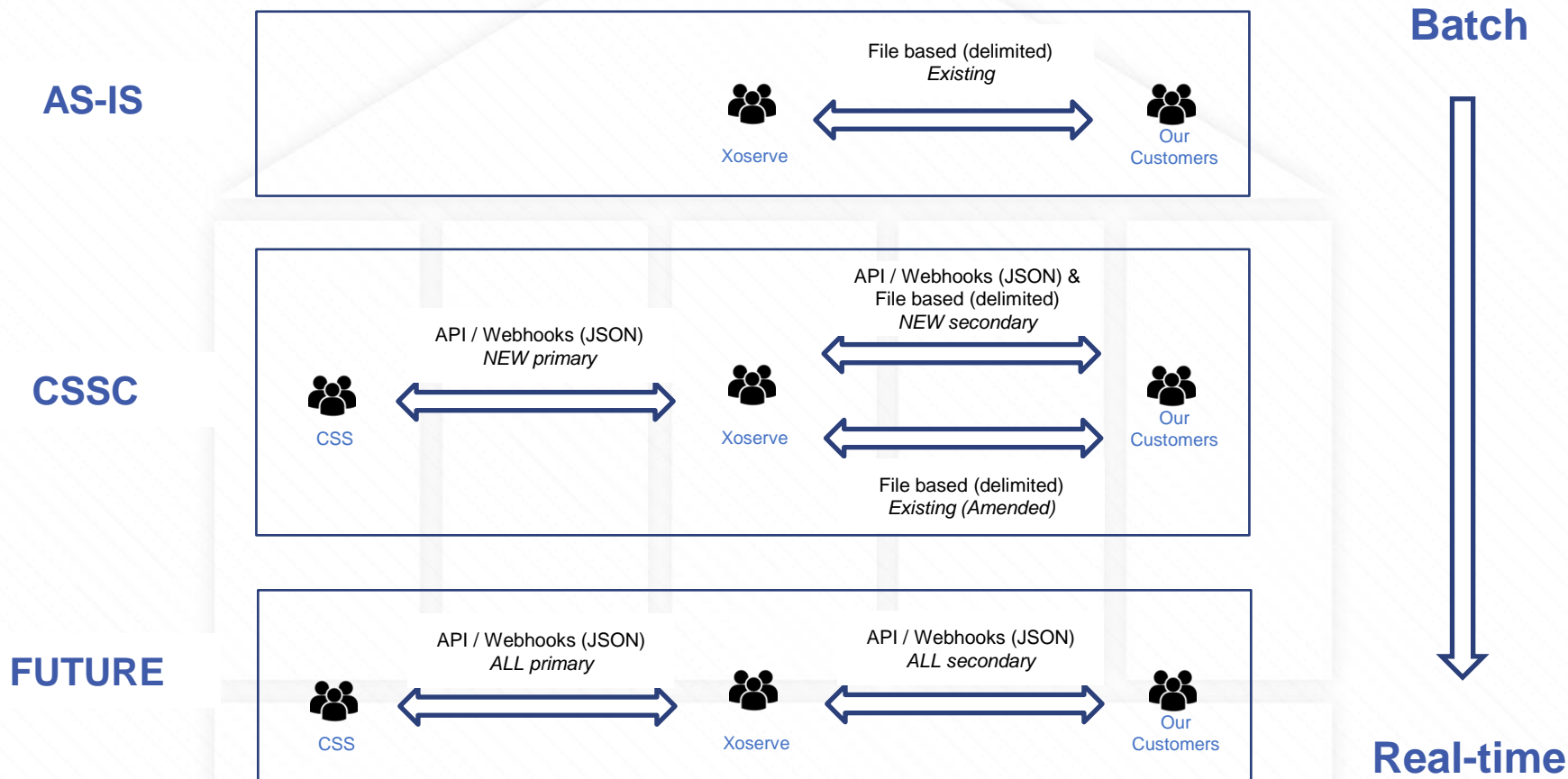
	SAP ISU
System Component:	Meter reads
Development Type:	Code Change
Impacted User(s):	Shippers
Build Type:	Program changes
Change Description:	1.Change validations in UMR ,UBR and UDR processing
	1.Change transfer read estimation trigger in RGMA, Class change and LDZ change programs
Requirement Clarity:	A
Change Complexity:	A
Integration Complexity:	A
Test Data Prep Complexity:	A
Test Execution:	G
Regression Testing Impact:	G
Performance Impact:	G



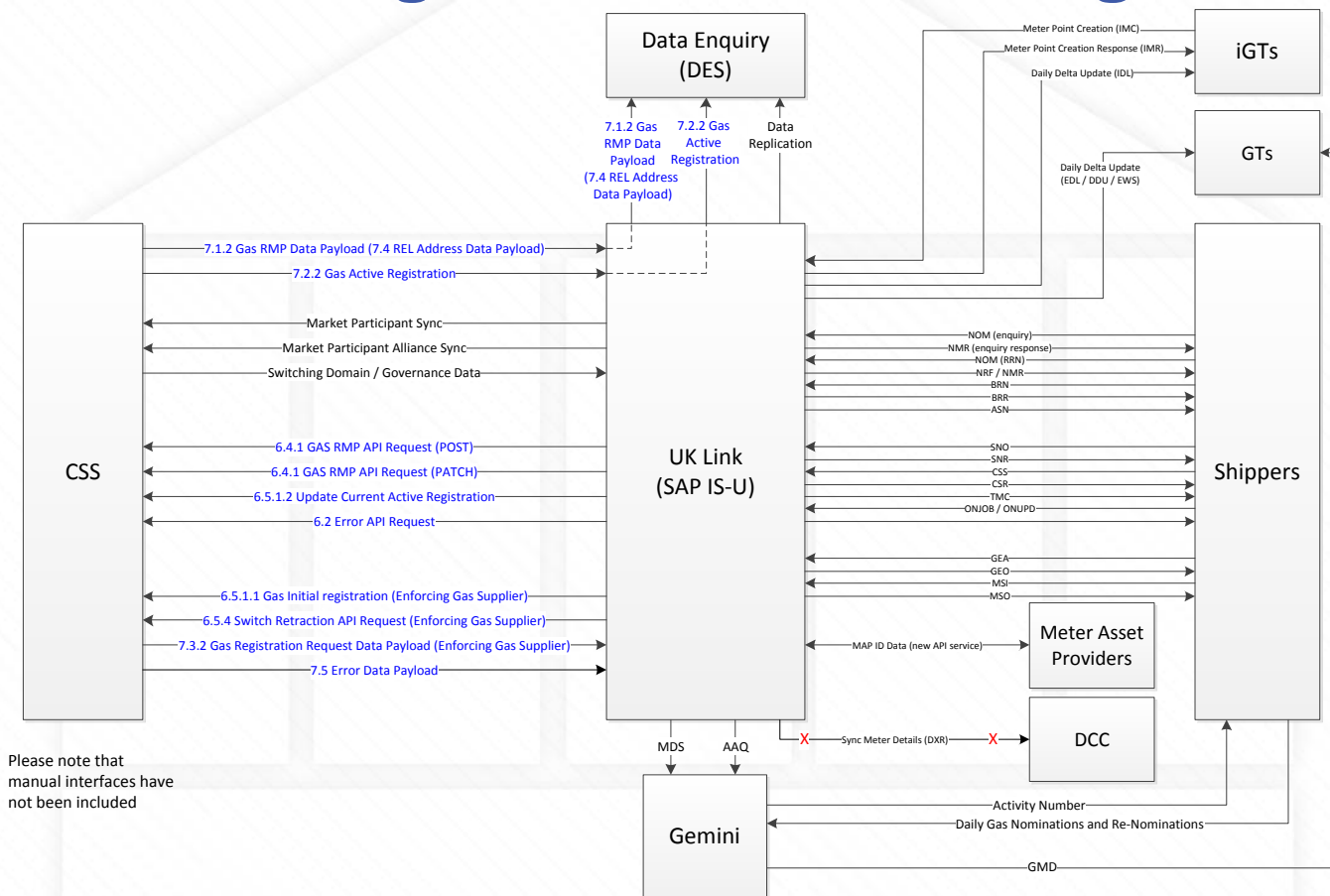
API Discussion



API & File interfaces



Switching Interface Flow Diagram



Proposed API Scope

Interface / File	Direction	Traditional File Format	API
Nomination Enquiry (NOM)	Inbound	Yes	Yes*
Nomination Enquiry Response (NMR)	Outbound	Yes	Yes*
Meter Point Transportation Rates	Inbound/ Outbound	No	Yes*
Settlement Data Submission (BRN)	Inbound	Yes	Yes
Settlement Data Submission Response (BRR)	Outbound	Yes	Yes
CSS Registration / Settlement Data Association (ASN)	Outbound	Yes	Yes

* = Current requirement for API delivery

Please note that the other amended file formats are not currently proposed to be replicated as APIs

API Landscape

- This landscape will deliver real-time architecture with support for existing file-based interfaces
- Our roadmap vision will look to transition from batch (file) to real-time (API) processing at a future point with full discussions with our customers via the relevant governance forums
- To provide architectural consistency across all market participants, Xoserve is proposing to mirror architectural patterns proposed by CSS physical design for API's and webhooks, alongside message formats (Open API) as well as security decisions around message signatures & headers.
- Given the above we recommend and welcome your analysis and review of the CSS physical design.



Meter Point Creation and Updates



Change Overview

Meter Point Creation and Amendment

Currently Meter Point Creation (SMP) is done via CMS / IGT file / UK Link manual screen and notification is sent back to CMS / IGT's post creation of meter point .

Post CSS implementation , Meter point creation process in UK Link will remain largely as is, however, notification of the creation of meter point will also be extended to CSS for sites within their switching scope. This notification will contain the required meter point details along with meter point address.

For IMC/IMA files (iGT meter point creation and amendment files), there will be an additional validation on the combination of elected Shipper and Supplier details. If the combination is not valid based on the Shipper to Supplier mapping table, a rejection will be sent to the requesting iGT.

Where any of the meter point details provided to CSS are amended and additional update message will be sent to CSS

Solution

Notification for SMP Creation / Amendment to CSS

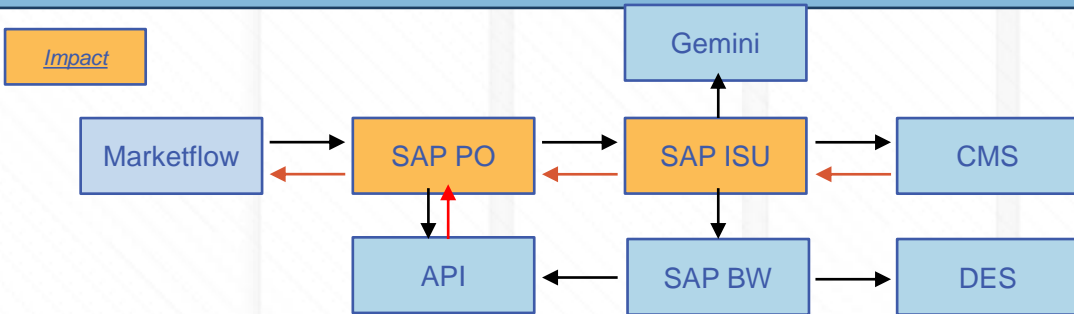
High Level Impact Assessment

1. Notification for SMP Creation to CSS and response

Current Meter point creation process in UK Link will remain as is with the additional validation of shipper/supplier combination for IMC/IMA files. Once the meter point is created, UK Link will notify CSS via new batched interface.

The same interface will also be used to communicate changes to Meter point data (such as address, DNO, DCC status, etc.)

Impacted Systems



Design considerations/Assumptions

- Meter point notification to CSS will contain MPRN, address, DNO and DCC status (as per CSS interface design)
- UK Link address will be known as Meter point location(MPL) address
- Supply Meter Point sync messages will not be sent for the creation of non-CSS sites
- Current plan is to schedule the batch interface 3 times daily.

New Error Messages

Error Code	Error Description	Impacted Files
CSS00005	Shipper Supplier combination provided is not valid	IMC & IMA

SMP Sync Tentative Schedule

File Name	Batch Process day	Batch Process time	Type of Job
SMP Sync for creation	Daily	9:00, 13:00 & 17:00	Cyclic
SMP Sync for updates	Daily	10:00, 14:00 & 18:00	Cyclic

Note: Batch process timings are subject to change

System Impact Assessment

	SAP ISU	SAP PO
System Component:	SPA	Configuration
Development Type:	Code change	Configuration Change
Impacted User(s):	CSS Provider	CSS Provider
Build Type:	New interface for CSS and its response	New interface for CSS and its response
Change Description:	1. New Interface and response to be built for Meter point creation notification	1. System to be configured to cater to 2 new interface

Requirement Clarity:	G	G
Change Complexity:	G	G
Integration Complexity:	G	G
Test Data Prep Complexity:	G	G
Test Execution:	G	G
Regression Testing Impact:	G	G
Performance Impact:	G	G



RMP Status



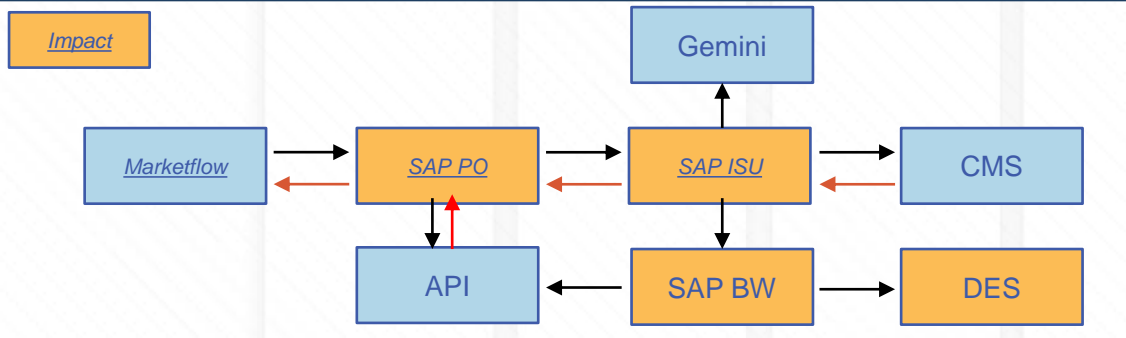
High Level Impact Assessment

Registerable Measurement Point (RMP) Status

Currently meter point statuses/meter asset statuses in UK Link are updated via CMS system, DN Portal, IMA file, online screens or RGMA files. Post CSS implementation, this process remains the same along with the meter point status values. However, where there is a change in the RMP status; UK Link will notify CSS via a Supply Meter Point Sync message to synchronise the meter point details.

UK Link will derive CSS RMP Status values from the current meter point status and the isolation status.

Impacted Systems



Design Considerations/Assumptions

- CSS RMP statuses will be derived at run time based on the mapping structure defined within UK Link
- SMP Sync interface covers MPL address, DNO and DCC status in addition to RMP status
- Batch job for the SMP Sync interface will be scheduled to run 3 times daily.

Derivation of CSS RMP Status

Meter Point Status (status of the service pipe)	Isolation status (the ability of meter to pass gas)	RMP status (as held by CSS)
LI	N (or blank)	Operational
LI	Y	Dormant
CA or CL	N (or blank)	Operational
CA or CL	Y	Dormant
DE	N (or blank)	Terminated
DE	Y	Terminated
EX	Y	Terminated
EX	Nil value	Terminated

System Impact Assessment

	SAP ISU	SAP PO
System Component:	SPA	Configuration
Development Type:	Code Change	Configuration code
Impacted User(s):	CSS Provider	CSS Provider
Build Type:	New Interfaces for CSS and Code change in UK Link	New Interfaces for CSS
Change Description:	2 New Interfaces - Interface to send change of RMP status and the response from CSS to ISU Code change to derive the new RMP Status based on the current Meter Asset Status and the Meter Point Status	2 New Interfaces System to make the configuration for 1 new interface from ISU to CSS and 1 Inbound from CSS to ISU
Requirement Clarity:	G	G
Change Complexity:	G	G
Integration Complexity:	G	G
Test Data Prep Complexity:	G	G
Test Execution:	G	G
Regression Testing Impact:	G	G
Performance Impact:	G	G



Market Sector Code



Change Overview

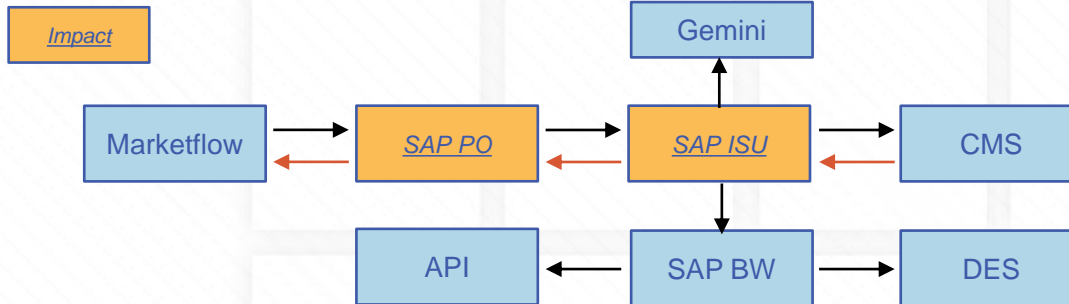
Market Sector Code/Domestic Indicator Update

Currently shippers can request a market sector code update as part of Registration process, MSI files or RGMA files for the sites. After CSS implementation, shippers will no longer be able to submit changes to the market sector code via existing MSI files (except for the sites out of scope of CSS) and any changes received via RGMA files will be ignored (except for the sites out of scope of CSS).

Assumption that LPG sites are out of scope for CSS has made it necessary to retain MSI (contrary to the earlier view that MSI can be de-commissioned.)

Market sector updates will need to be requested by the suppliers through the CSS processes either as part of a registration request or via a registration event

Impacted Systems



Design considerations/Assumptions

- MSI file received after CSS implementation will be rejected except for non-CSS sites
- MSO files will not be sent to shippers where market sector code amendments are part of registration request
- No file format change for MSI and MSO files
- No change in the current allowable values (D or I)

System Impact Assessment

	SAP ISU	SAP PO
System Component:	SPA	Configuration
Development Type:	Code Change	Configuration Change
Impacted User(s):	Shippers	CSS Provider
Build Type:	2 - New for CSS Provider	2 - New for CSS Provider
Change Description:	<ol style="list-style-type: none">1. New Interface to receive Reg. event sync2. New Interface to send rejection for the invalid Sync	<ol style="list-style-type: none">1. System to be configured to cater to 2 new interface

Requirement Clarity:	G	G
Change Complexity:	G	G
Integration Complexity:	G	G
Test Data Prep Complexity:	G	G
Test Execution:	G	G
Regression Testing Impact:	G	G
Performance Impact:	G	G

High Level Impact Assessment

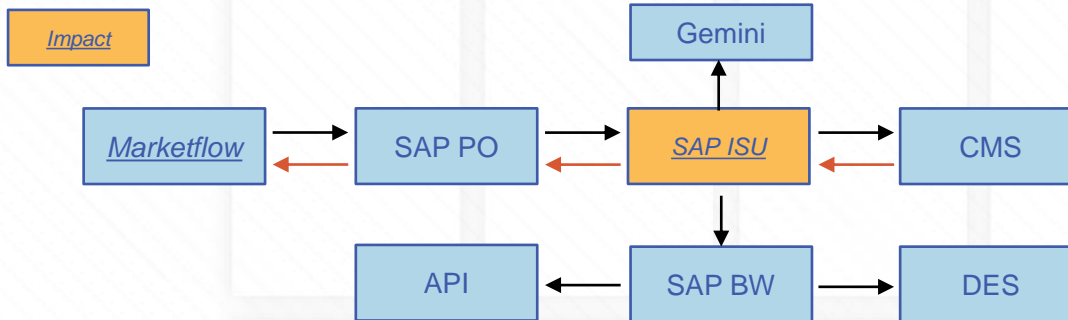
Change of Domestic Indicator event Notification to Shippers - MSO change effective date (No change in File Format)

UK Link system must allow for an update to the Domestic Indicator / Market Sector Code with an effective date within the current Supplier / Shipper ownership period.

On successful validation of the CSS update message, a response will not always be sent to the shippers immediately. The MSO file will be sent to the registered shipper on relevant effective date to notify them of the market sector code change.

In case the requested date is retrospective, effective date will be defaulted to the UK Link processing date.

Impacted Systems



Design Considerations/Assumptions

- Retrospective updates will be effective immediately from system date and cannot be cancelled
- MSO files will only be sent once the domestic indicator change is effective in ISU system
- Futuristic change of domestic indicator requests can only be cancelled with subsequent sync message
- ISU system will maintain a log of all cancelled requests

System Impact Assessment

	SAP ISU
System Component:	SPA
Development Type:	Code Change
Impacted User(s):	Shippers
Build Type:	1- Existing MSI/MSO files for Shippers
Change Description:	1. MSO to notify shipper on change effective date
Requirement Clarity:	G
Change Complexity:	G
Integration Complexity:	G
Test Data Prep Complexity:	G
Test Execution:	G
Regression Testing Impact:	G
Performance Impact:	G



Future Topic Design Questions



Deactivation Requests for Erroneous Confirmations

Problem statement:

- CSS will only accept Supplier registration deactivation requests for RMPs with a RMP status of either Dormant or Terminated.
- Currently Shippers are able to withdraw a registration where an “erroneous” registration has been submitted for a Supply Meter Point where no meter activity has taken place.
- Views required on how this can be managed post CSS implementation.



Data Cleansing Update



Data Cleansing Update

Data Topic	Responsibility	Current Status (April)
GT Plot to Postal Addresses	Shipper	BAU process (GT sites only) – monthly portfolio issue to Organisations where plot addresses exist within their portfolio Shipper Total – 15,571 Unregistered Total – 8,590
Address Data - Quality	Xoserve	First reports are due to be issued with your next plot to postal reports
Shipper/Supplier Mapping	Shipper	Being progressed via Xoserve Customer Lifecycle Team and report through SPAA
MAP ID	Xoserve / MAPs	XRN 4780 allocated to July minor release to enable MAP ID to be stored against a meter where provided within an RGMA flow. Working with MAPs to establish initial population, currently targeted for Nov 19.



Market Trials



CSS External Testing Key Dates

2019						2020												2021
J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J

Testing
phase

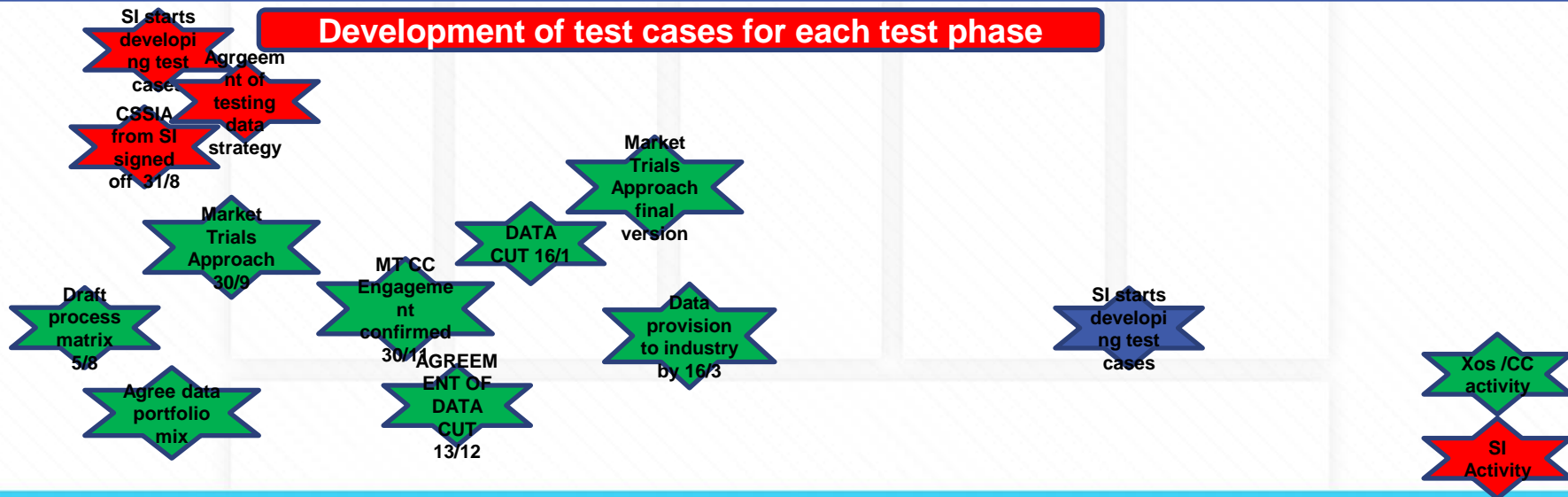
SIT

UEPT
E2E

Ping
test

Consequential change
Regression test

Development of test cases for each test phase



Considerations

- Data to be used across all test phases has yet to be discussed with the SI for CSS
 - Initial thoughts by SI were to use data migrated as a result of the Data migration testing, however, this does not take into consideration the requirements for the testing of all processes through UEPT, E2E and consequential change
 - Data masking needs to be agreed and consistent across all phases
- Data requirements for consequential change testing must be agreed to ensure that this is fed through to discussions regarding E2E testing
- Market Trials Approach for Consequential Change to be agreed in principle by 30th September, however, will be updated as required
 - Certain areas will have to be aligned to the SI CSSIA to ensure consistency and effective testing
- The appropriate forum for discussion regarding the MT Approach and any ongoing issues is yet to be agreed/established
- In the absence of a formal MT group, initial communications will be through DSG members

xserve

A.O.B.



Future DSG CSSC Meetings and Proposed Topics

DSG Meeting		Provisional Agenda
6	16/08/2019	Shipper Withdrawals
		Forced Registration
		Bulk Transfers
		MAM and MAP Updates
7	04/09/2019	Data Enquiry
		Address Data
		Reporting
		File Formats and APIs
8	17/09/2019	<i>Contingency</i>