Extraordinary DSG Meeting
CSS Consequential Change

13th May 2019

Agenda

- Welcome and introductions
- Change Background / Programme Update
- High Level Consequential Design Recap
- Detailed Design Process Overview and Plan
- Detailed Design Solution Discussion
  - APIs
  - Nomination Enquiries
  - Referable Registration Nomination
  - Shipper Transportation Rates
  - Address Updates
  - MAM Updates
  - MAP Updates
- Future Topic Design Questions
- Data Cleansing
- AOB

Change Background

The Ofgem switching programme has been running for a number of years with the goal being to provide faster more reliable switching for end consumers.

The programme has broadly been focussed in two areas. The creation of the retail energy code (REC) which forms the over-arching governance arrangements across the new switching service. Secondly, the development of the central switching service. The development of both has been an Industry wide activity.

Requirements for the switching service design has been captured within a suite of documents and the detailed switching design repository (ABACUS) representing the new end to end switching arrangements. This documentation has been published by Ofgem via their dedicated switching programme website.

CSS Scope

The current scope of the central switching service does not include switching for the following meter point types:

- NTS Directly Connected Sites

All switching processes for out of scope sites remain Shipper driven through UK Link

Please note that discussions are ongoing with Ofgem to confirm if Shared Supply Meter Points and LPG sites are also out of scope of CSS processes

High Level Consequential Design Recap

- As a consequence of the Ofgem Switching Programme, Xoserve systems and processes need to be updated to support the changes to the switching processes that are being introduced as part of this programme. Xoserve has stood up a CSS Consequential (CSSC) programme of work to meet this objective.
- We started our high level design in November 18, this phase ran until the end of March 19. A series of industry design workshops were held in order to work collaboratively with our customers to analyse and discuss solution options to be taken forward into detailed design. These workshops were extremely successful and well attended resulting in proposed designs being recommended for approval at DSC Change Managers Committee.
- Changes to Uniform Network Code (UNC) were also required as a consequence of the switching programme requirements. Revised business rules were discussed and developed through these workshops with recommendations being taken through the 630R modification group.

Heat Map Assessment – High Level Design Analysis

UK Link

- Disable switching functionality for sites in scope of CSS
- Retention of switching functionality for sites out of scope of CSS (e.g. NTS)
- Include new data items & interfaces
- Modification & decommissioning of existing interface files to shippers

DES & BW

- Real time replication of data into BW
- Inclusion of new data items (REL, Switch Status)
- Inclusion of new interfaces, screens & access controls
- Definition of solution options to meet NFRs

Data

- **Cleansing**
- Shipper-Supplier relationship
- Address Data
- Supplier ID association
- **Build of new data items**
- MAP ID, REL, Switch Status
- **Migration to CSS Provider**
- Impacts to Transformation & Validation to be assessed when solution known

Comms Networks

- IX install required should electricity suppliers chose IX
- IX installs required for CSS Provider
- Message Routing

Gemini

- Modification of processes from D-2 to ~D-7 hrs and their impacts
- Engagement with stakeholders on impacts to their processes and subsequent impact to Gemini

MIS

- Real time replication to MIS database from DES/UK Link
- Inclusion of new data items (REL, Switch Status)
- Inclusion of new APIs

NFRs

- Infrastructure /architectural changes (1 hr RTO requirement)
- Realignment of batch processing timelines
- Current requirements have perceived gaps/inconsistencies

Processes

- Maintain Gas Industry Stakeholders
- Maintain Supply Point Meter Register
- Predict, Allocate & Balance Daily Energy
- Settle Meter Point Consumption
- Invoice & Collect Charges

CMS

- High Level Design continues to hold the position that CMS is not impacted

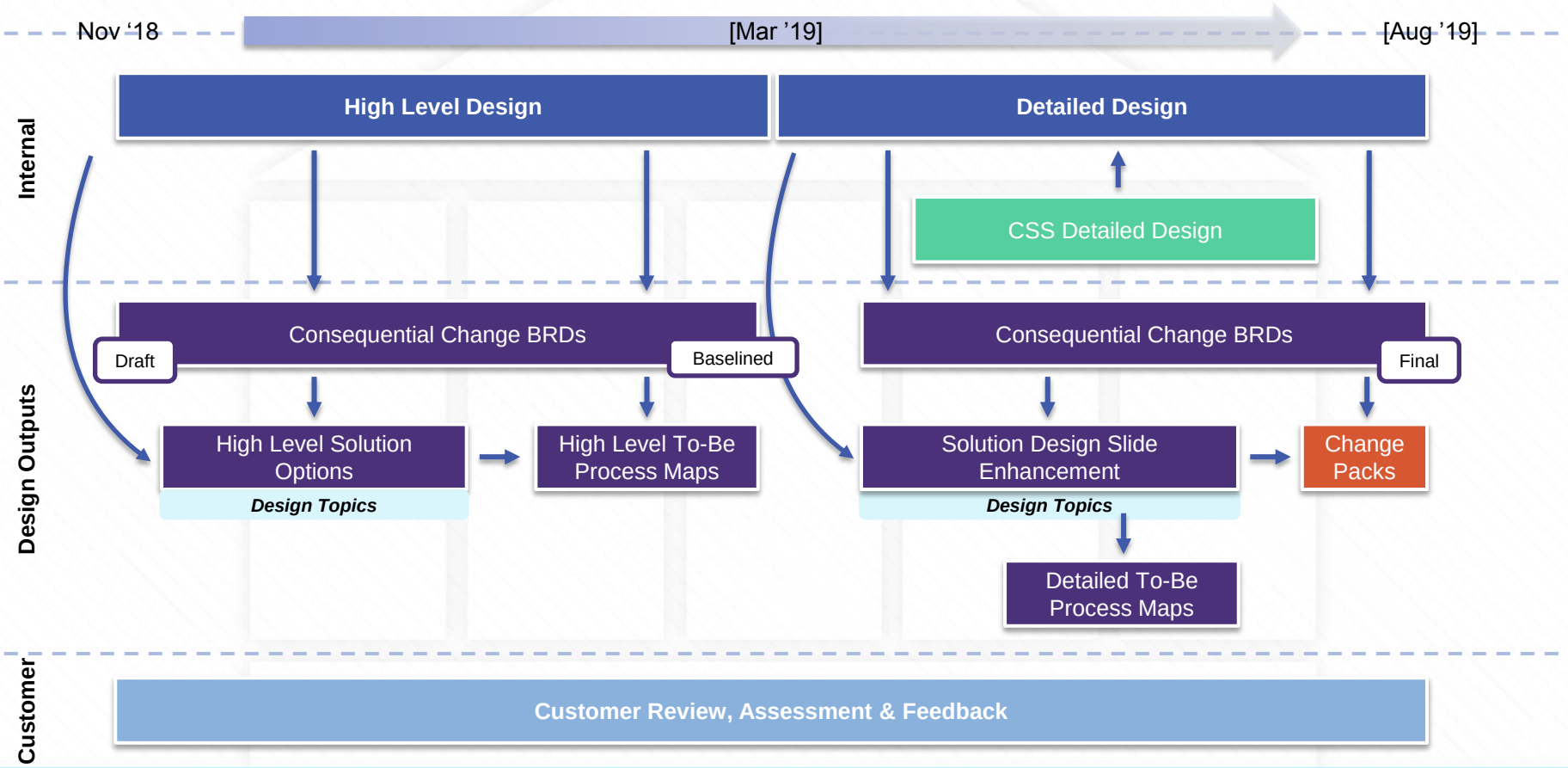
Operation

- Business Change – Process changes, new exceptions
- Transitional arrangements – Process Definition
- Service Management – scope impacts

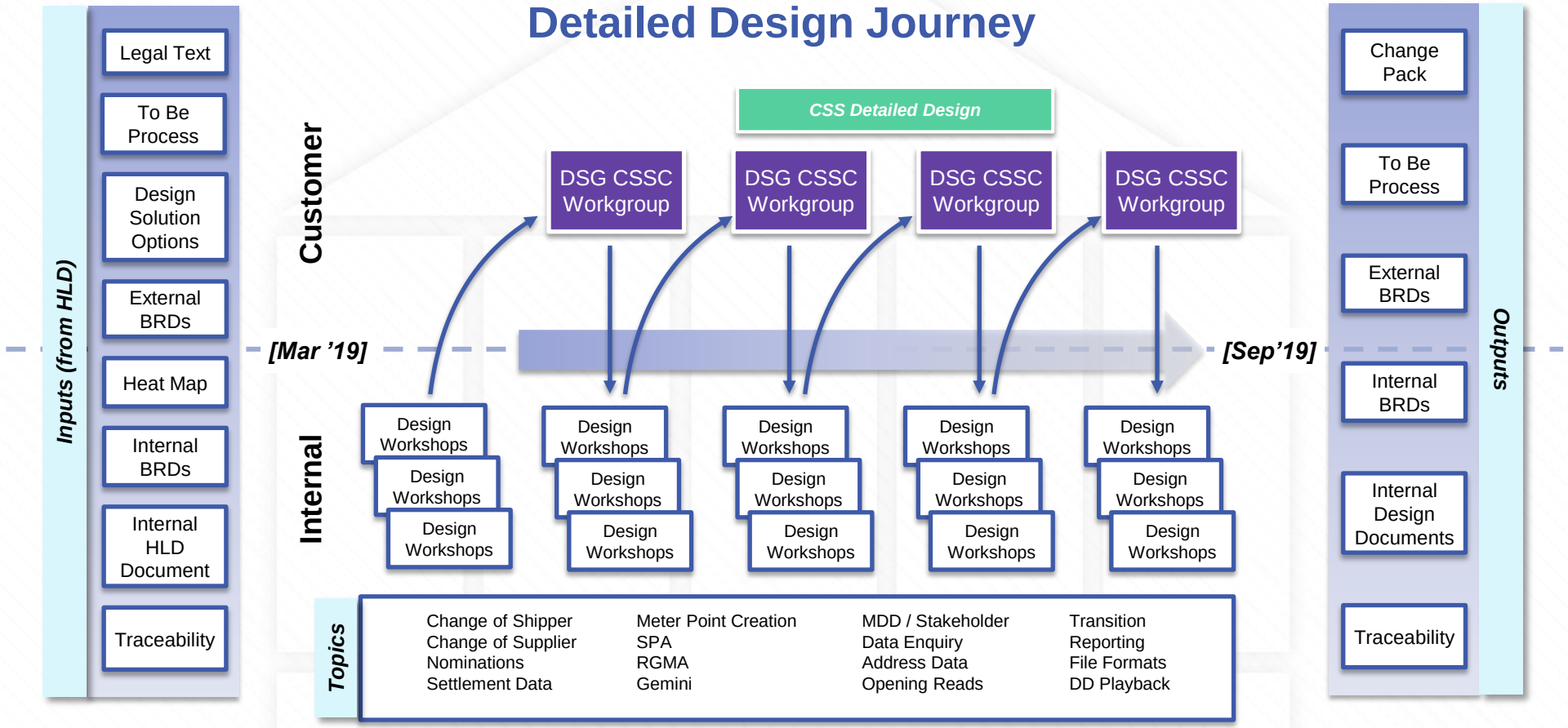
Complexity Levels:

- Not Impacted
- Low
- Medium
- High

Collaborative Design Journey



Switching Programme Consequential Detailed Design Journey

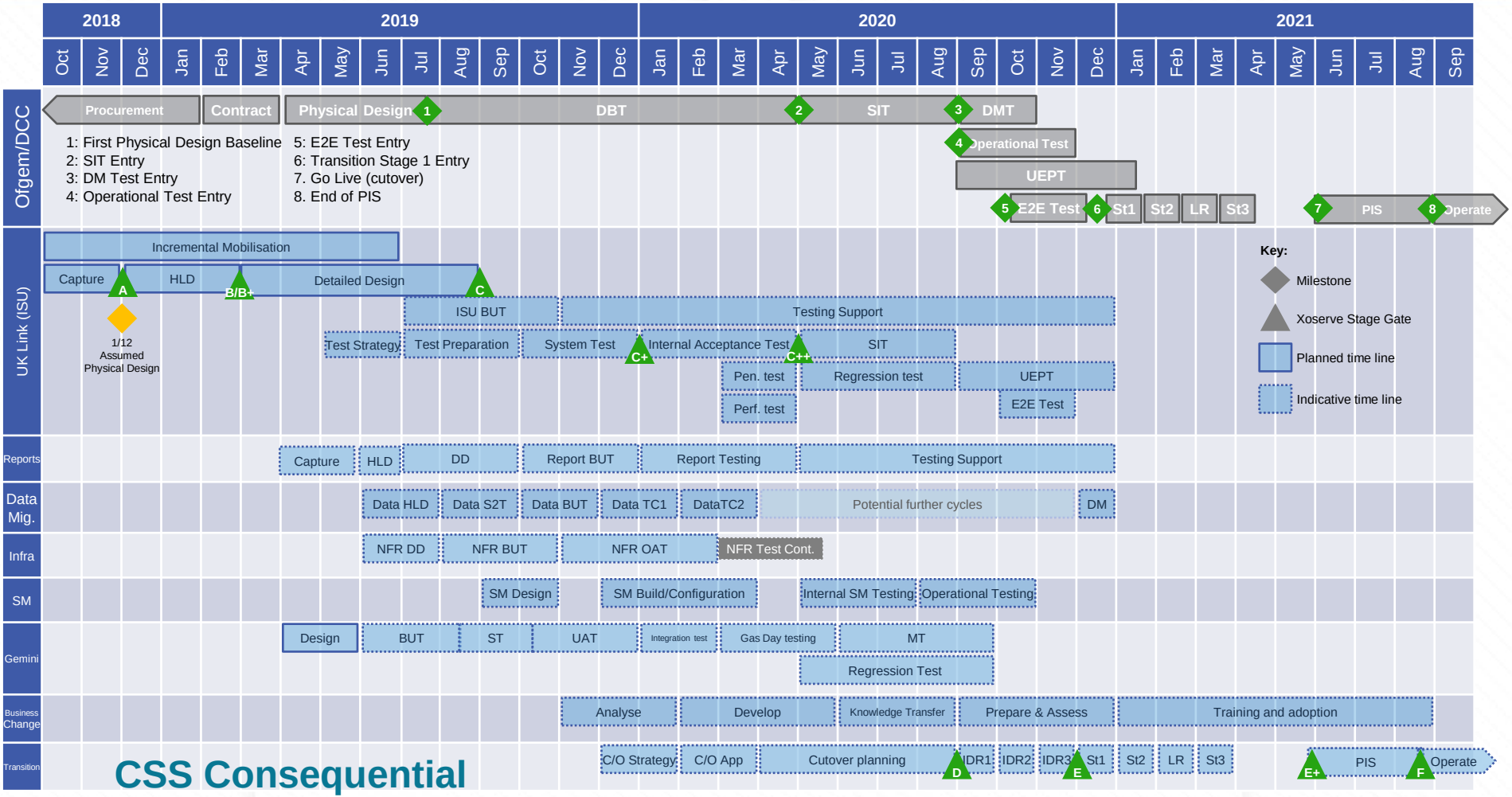


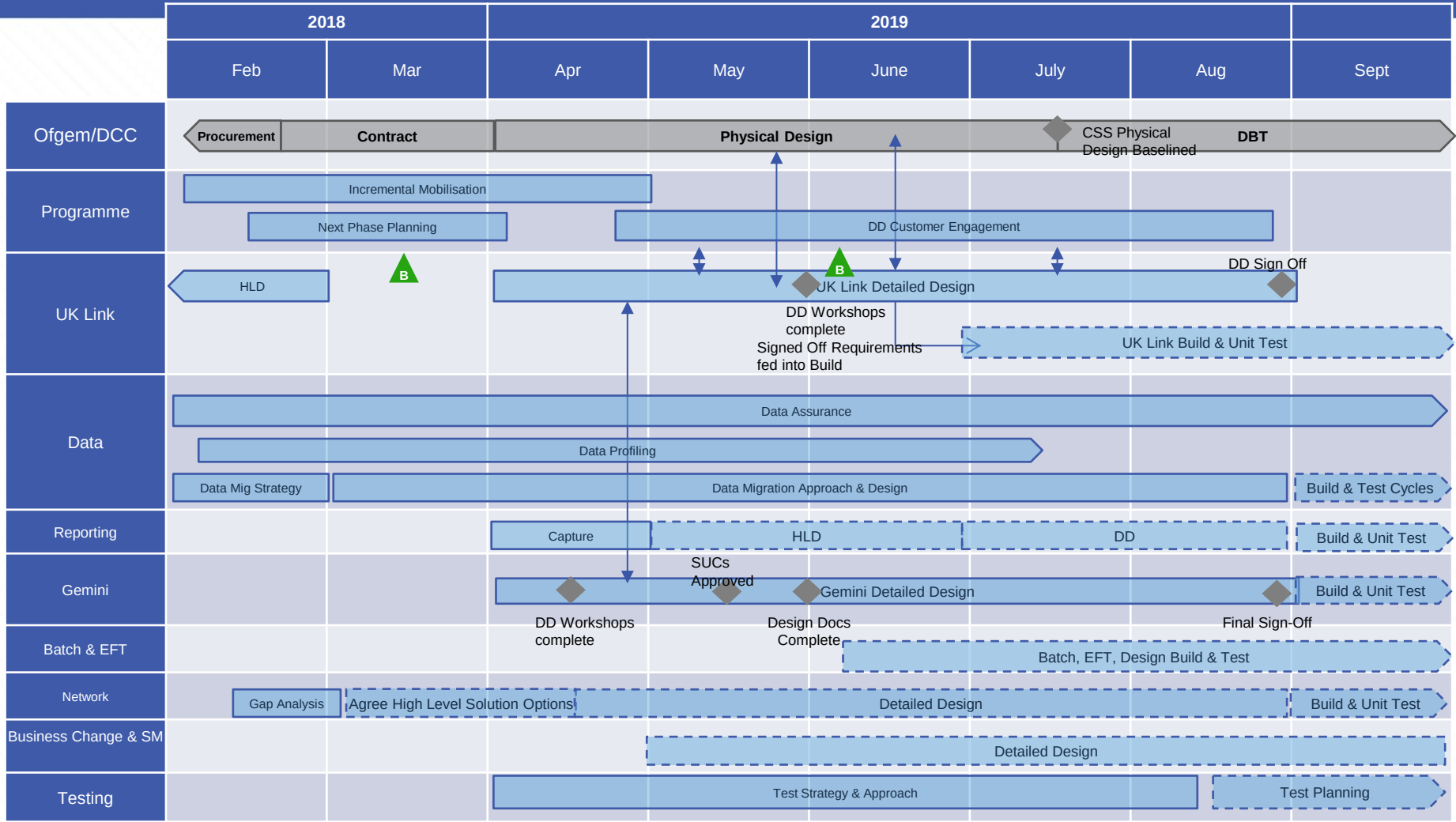
Detailed Design Approach

- Our consequential programme is now in detailed design, this phase commenced on the 2nd April and will run until the end of September.

- Internal Xoserve detailed design workshops are in flight, to date nineteen have taken place.

- The output of these workshops will feed into these CSSC DSG meetings to support the collaborative design journey.


2018
2019
2020
2021
Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
Ofgem/DCC
Procurement
Contract
Physical Design
1
DBT
2
SIT
3
DMT
4
Operational Test
UEPT
5
E2E Test
6
St1
St2
LR
St3
7
PIS
8
Operate
1: First Physical Design Baseline
2: SIT Entry
3: DM Test Entry
4: Operational Test Entry
5: E2E Test Entry
6: Transition Stage 1 Entry
7. Go Live (cutover)
8. End of PIS
UK Link (ISU)
Incremental Mobilisation
Capture
A
HLD
B/B+
Detailed Design
C
1/12
Assumed
Physical Design
ISU BUT
Testing Support
Test Strategy
Test Preparation
System Test
C+
Internal Acceptance Test
C++
SIT
Pen. test
Regression test
UEPT
Perf. test
E2E Test
Key:
Milestone
Xoserve Stage Gate
Planned time line
Indicative time line
Reports
Capture
HLD
DD
Report BUT
Report Testing
Testing Support
Data Mig.
Data HLD
Data S2T
Data BUT
Data TC1
DataTC2
Potential further cycles
DM
Infra
NFR DD
NFR BUT
NFR OAT
NFR Test Cont.
SM
SM Design
SM Build/Configuration
Internal SM Testing
Operational Testing
Gemini
Design
BUT
ST
UAT
Integration test
Gas Day testing
MT
Regression Test
Business Change
Analyse
Develop
Knowledge Transfer
Prepare & Assess
Training and adoption
Transition
C/O Strategy
C/O App
Cutover planning
D
IDR1
IDR2
IDR3
E
St1
St2
LR
St3
E+
PIS
F
Operate
CSS Consequential


2018
2019
Feb
Mar
Apr
May
June
July
Aug
Sept
Ofgem/DCC
Procurement
Contract
Physical Design
CSS Physical Design Baselined
DBT
Programme
Incremental Mobilisation
Next Phase Planning
DD Customer Engagement
UK Link
HLD
B
B
DD Sign Off
UK Link Detailed Design
DD Workshops complete
Signed Off Requirements fed into Build
UK Link Build & Unit Test
Data
Data Assurance
Data Profiling
Data Mig Strategy
Data Migration Approach & Design
Build & Test Cycles
Reporting
Capture
HLD
DD
Build & Unit Test
Gemini
SUCs Approved
Gemini Detailed Design
Build & Unit Test
DD Workshops complete
Design Docs Complete
Final Sign-Off
Batch & EFT
Batch, EFT, Design Build & Test
Network
Gap Analysis
Agree High Level Solution Options
Detailed Design
Build & Unit Test
Business Change & SM
Detailed Design
Testing
Test Strategy & Approach
Test Planning

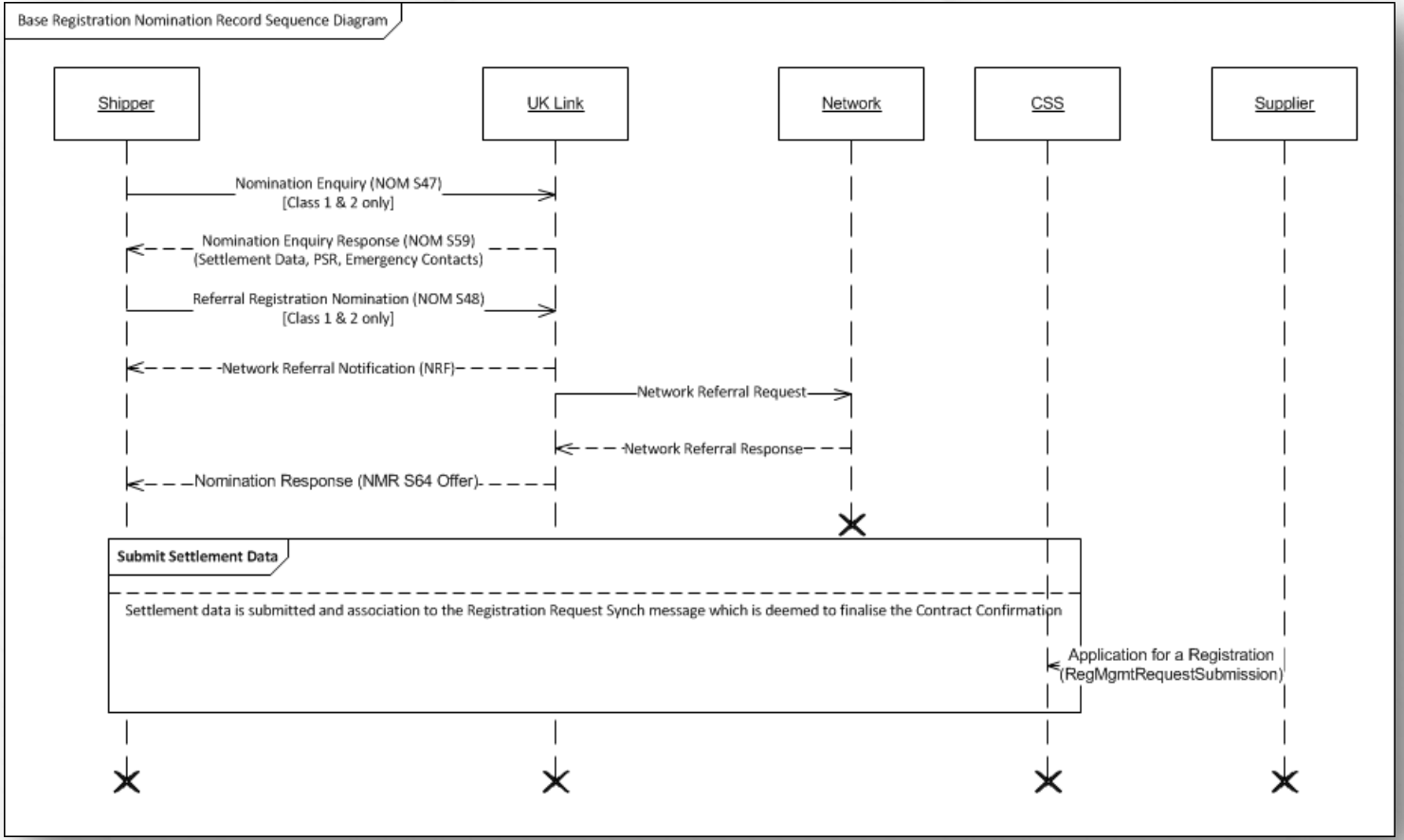
DSG CSSC Meetings and Proposed Topics

DSG Meeting		Provisional Agenda
1	13/05/2019	API
		Nomination Enquiry
		Nomination (RRN)
		Address Updates
		MAM Updates
		MAP Updates
2	10/06/2019	Settlement Data Submission
		Stakeholder Management
		Switching Domain Data Updates
		Gemini
		RGMA
		SPA Updates

DSG Meeting		Provisional Agenda
3	26/06/2019	Meter Point Creation
		Reporting
4	11/07/2019	Supplier Switching
		Change of Shipper
		Opening Reads
5	25/07/2019	Shipper Withdrawals
		Forced Registration
		Bulk Transfers
6	16/08/2019	Data Enquiry
		File Formats & APIs
7	*04/09/2019*	*Contingency*
8	*17/09/2019*	*Contingency*

Detailed Design Solution Discussion

New Switching Process Sequence Flow Diagram



API Discussion

Nomination Enquiries

Nomination Enquiry Change Overview

Nomination Enquiry

A Nomination Enquiry can be submitted by a proposing Shipper to obtain information about a meter point (as per the rules defined in UNC Section G) ahead of a CSS registration.

A proposing Shipper may continue to submit a Nomination Enquiry Request, as per the current process and file, independently to a CSS registration to enable them to obtain information for a Supply Meter Point.

In addition to the current file based process the data will be made available via an alternative technologies allowing for quickly access to the meter point data (e.g. via an API service) independently to a CSS registration.

HLD DSG Preferred Solution Option

- Continue with the current file process Nomination Enquiry request, as per the current process and file (NOM - S47).
- Introduce a new Nomination Enquiry API service

High Level Impact Assessment

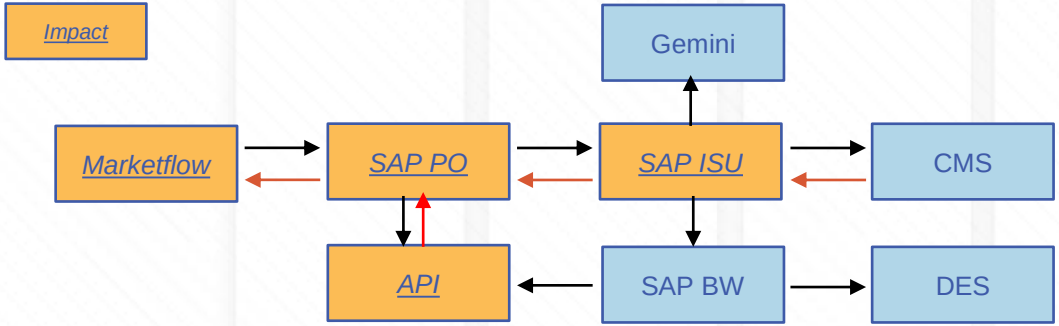
Nomination Enquiry Process via new API service or existing File

Nomination Enquiry process will be received from a proposing Shipper via the existing NOM file or via a new API service. UK Link will allow the proposing Shipper to submit S47 segment in a NOM file to obtain the Supply Meter Point details.

All the current validations will continue to be applied on S47 segment, change will be made to S68 segment validation to no longer validate the post code information provided.

Changes to file format with respect to withdrawal flag sent in the response (S59 segment) are required.

Impacted Systems



Overall Impact

Medium

Design Considerations / Assumptions

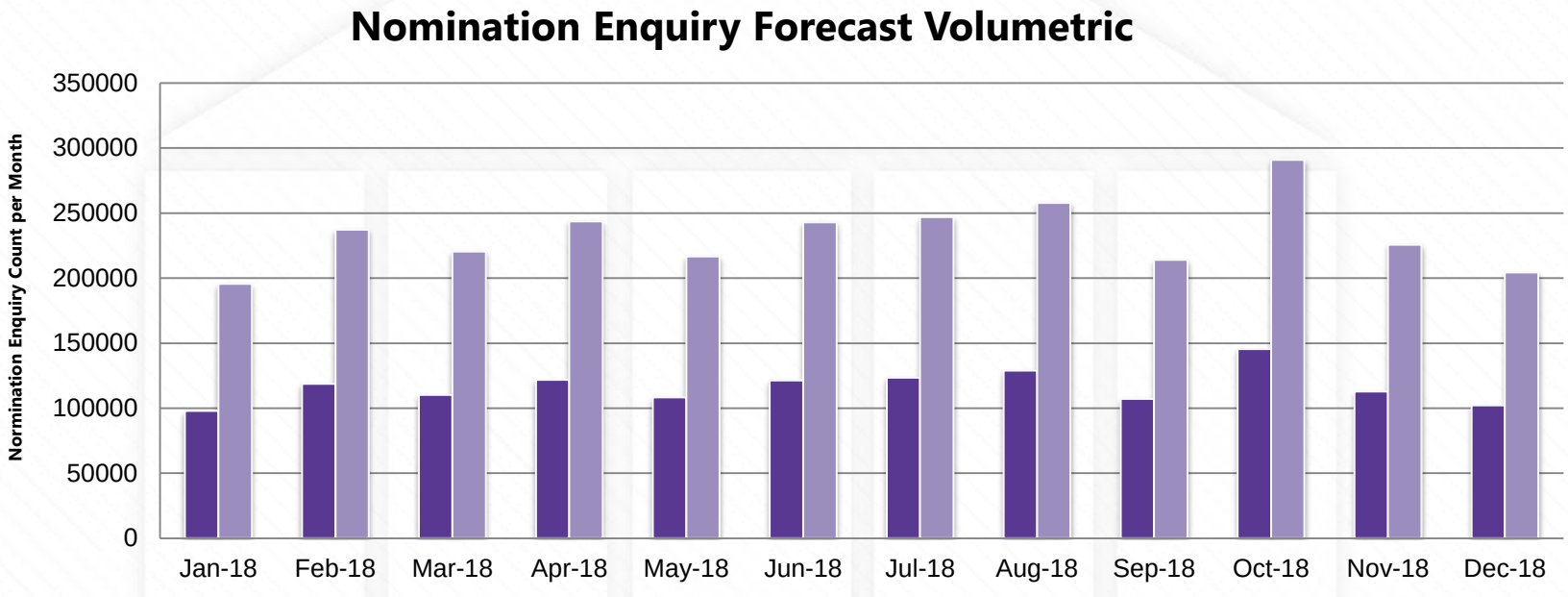
- In case Post code received in S68 NOM segment does not match with UK Link held post code, the response S70 Address segment will relay back the UK Link held post code
- Data elements and validation for the new API service will mirror the existing file

System Impact Assessment

	SAP ISU	SAP PO	Marketflow	API
System Component:	Process Code	Configuration & File Formats	File Formats	Configuration
Development Type:	Code Change	Configuration Change	Configuration Change	Configuration Change
Impacted User(s):	Shippers	Shippers	Shippers	Shippers
Build Type:	New	New	Existing	New
Change Description:	New Interface to be built for Nomination Enquiry via API	New interface to be built in order to receive the Nomination Enquiry file via API. File format change with respect to withdrawal flag	File format change with respect to withdrawal flag	New interface to be built in order to receive the Nomination Enquiry.
Impacted File Format(s):	NOM (S47 &S59)	NOM (S47 &S59)	NOM (S47 &S59)	N/A

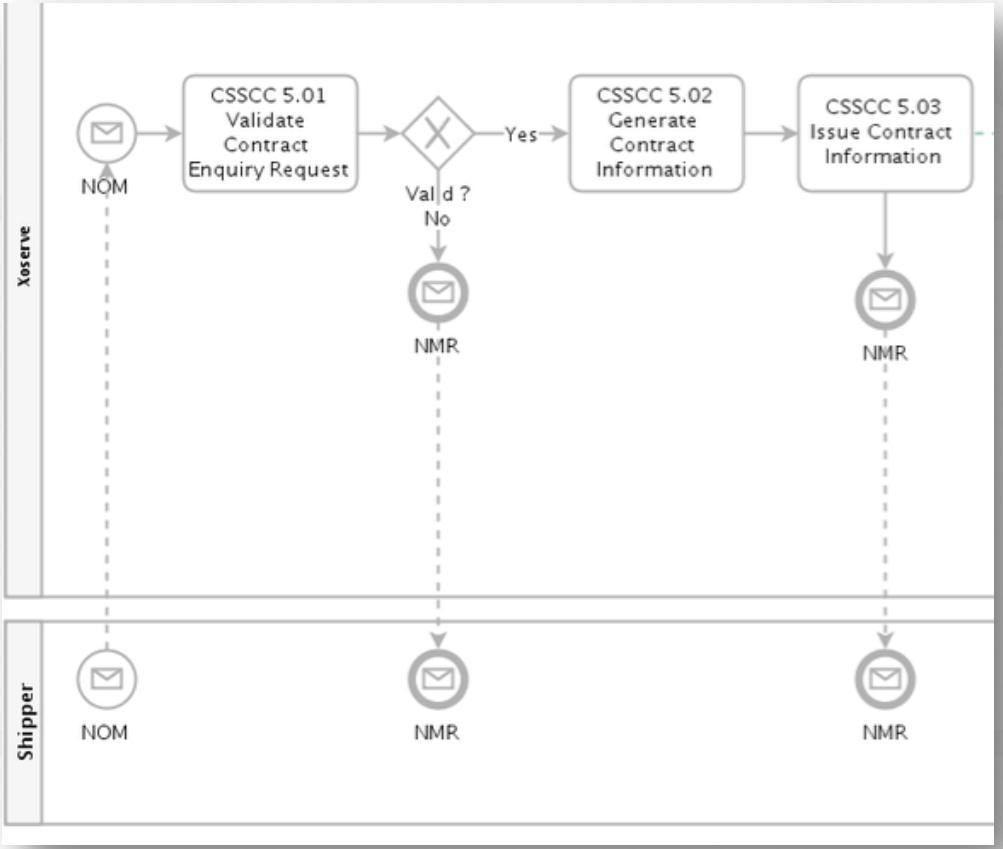
Requirement Clarity:	A	A	G	A
Change Complexity:	G	G	G	G
Integration Complexity:	A	A	G	A
Test Data Prep Complexity:	A	A	G	A
Test Execution:	A	A	G	A
Regression Testing Impact:	G	G	G	G
Performance Impact:	A	A	G	A

Nomination Enquiry Current Vs Forecast Volumetric



	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Current Volumes	97756	118607	110206	121806	108249	121373	123399	128897	106999	145380	112850	102132
Forecast Volumes	195512	237214	220412	243612	216498	242746	246798	257794	213998	290760	225700	204264

Nomination Enquiry Process Map



Summary of Key Changes

- Introduction of a new Nomination Enquiry API.
- Removal of post code validation from inbound Nomination Enquiry request (S68 record) for sites in scope of CSS switching.
- Amendment of the optionality of the WITHDRAWAL_STATUS field in the S59 response record. For CSS sites this will always be left blank.

Referable Registration Nomination

Nomination Process Change Overview

Nomination Process

Currently UK Link requires the proposing (or current registered) shipper to submit a Nomination Request (NOM) to obtain details of the Transportation charges, to support Network referrals and for changes to Class, batch frequency or MRF on the MPRN for the large competitive supply meter points.

Post CSS the “Referable Registration Nomination” (NOM) will be used for DM sites (Class 1 and 2) to support Network appraisal (referrals). If “Referable Registration Nomination” is not submitted by the Shipper, default rates will be applied for Class 1 and 2 sites.

The “Referable Registration Nomination” offer will still be Subjected to the same expiry rules which currently exist.

HLD DSG Preferred Solution Option

- Continue with the current Nomination file process for the submission of Referable Registration Nominations

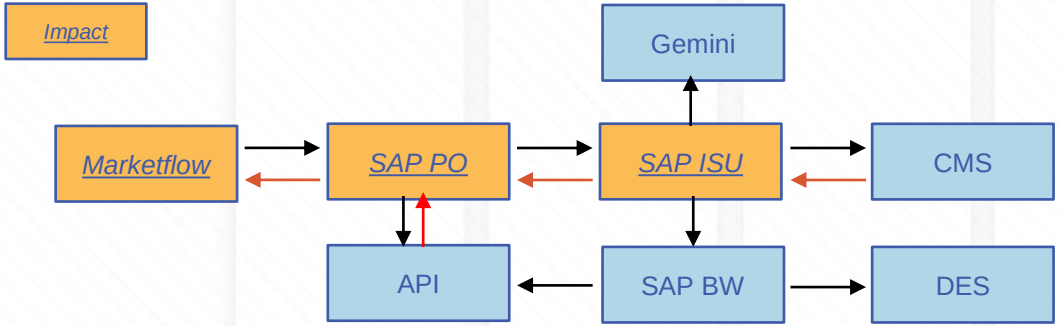
High Level Impact Assessment

Referable Registration Nomination Process

UK Link will still need to allow for a proposing (or current registered) shipper to submit a “Referable Registration Nomination” (NOM) independent of a CSS switch request to enable the transporter to assess the impact on the changes where necessary.

Changes to File format is that the withdrawal flag will be sent as blank in the Nomination offer (S64 segment).
MAP information will be send in K85 Org notification segment.

Impacted Systems



Overall Impact

Low

Design Considerations / Assumptions

- No Impacts to Nomination cancellation process
- UK Link will continue to send the relevant notifications to the DMSPs(GCC file)
- Shippers can still send multiple Nomination request.
- If “Referable Registration Nomination” is not submitted by the Shipper, default rates will be applied for Class 1 and 2 sites .
- Post CSS UK Link will not carry out the Post code validation sent in the S69 segment as UK Link is not mastering the switch process
- In case Post code received in S69 NOM segment does not match with UK Link held post code, the response S70 Address segment will relay back the UK Link held post code

Proposed Option for Referable Registration Nomination

Proposed Option (Use Existing Nomination interface and workflow to accommodate “Referable Registration Nomination”)

- To cater to the requirement of “Referable Registration Nomination” for DM sites (Class 1 and 2) existing Nomination file interfaces will be used
- NTS sites will continue to use the existing Nomination file format as per the current process
- **Class** will be used to determine whether it is eligible for Referable Registration Nomination request
- The existing ‘NOM’ file structure will be used for Referable Registration Nomination and Nomination Enquiry

Pros

- File format is consistent with non-CSS Sites (NTS)
- Minimal changes to Xoserve and shipper systems

Cons

- Non-relevant data items send for CSS sites example METER_READ_BATCH_FREQUENCY will is relevant for Class 3)

Assessment of File format rationalisation

We have accessed the option of rationalising the file formats for nomination by removing non relevant data items for CSS sites

Pros

- Comprehensive files which has only relevant information

Cons

- Changes to Xoserve systems (SAP ISU, PO, AMT and EFT) and also to shipper systems
- Defining of new file/record formats to cover the following:
  - RRN – Referable Registration Nomination
  - RRR – Referable Registration Response
  - RRF - Referable Registration Referral
- Complexities in differentiating and having separate data flows for CSS and Non-CSS sites

Conclusion

- There are very few fields identified which fit the criteria of non-relevant fields . This is not a recommended option as it requires extra effort to change the UKLink and Shipper system to align to new file format. The next 2 slides details the identified fields

NOM fields which are not relevant post CSS

Segment	Fields	Optionality	Justification
Z1ISU_S48_SMP_NOM_REQ	METER_READ_BATCH_FREQUENCY	Optional	Not relevant for in Referable registration Nomination as this a class 3 data item. If populated the existing validation can be ignored
Z1ISU_S48_SMP_NOM_REQ	MRF_TYPE_CODE	Optional	
Z1ISU_S69_NOM_MPRN	POSTCODE_OUTCODE POSTCODE_INCODE	Mandatory	Address not relevant post CSS

NMR/SNR/NRF fields which are not relevant post CSS

Record	Fields	Optionality	Justification
RT_S64_OFFER_DETAILS	WITHDRAWAL_STATUS	Mandatory	Not Required for LDZ CSS sites
RT_S64_OFFER_DETAILS	METER_READ_BATCH_FREQUENCY	Optional	Not relevant for in Referable registration Nomination as this a class 3 data item. If populated the existing validation can be ignored
RT_S69_NOM_MPRN	POSTCODE_OUTCODE POSTCODE_INCODE	Mandatory	Remove the address data

Passing the MAP information in the Referable Registration Nomination Response

As part of the **Referable Registration Nomination** MAP details can be populated in the **Referable Registration Nomination** response files (NMR,NRF,SNR).

The MAP details could be passed through the K85 Generic Org Notification, is this required?

SL No	Data Items	Example Data
1	TRANSACTION_TYPE	K85
2	SUPPLY_METER_POINT	12345
3	ORGANISATION_SHORT_CODE	XXX
4	ORGANISATION_TYPE	MAP
5	EFFECTIVE_DATE	01.09.2019
6	STATUS	A

New Rejection code

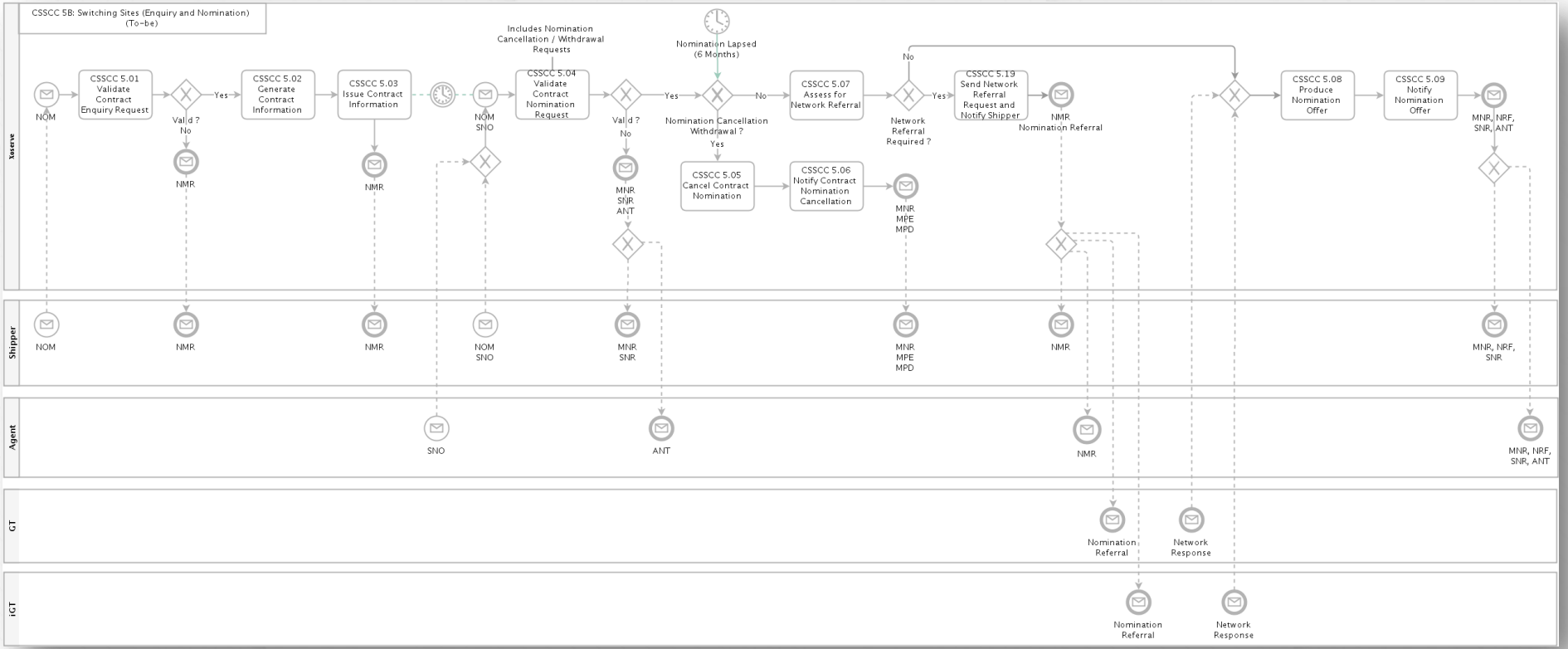
Referable Registration Nomination” for DM sites (Product Class 1 and 2) will be used to support the Network appraisal (referrals). Post CSS if a shipper tries to places a Nomination referral specific to class 3 and 4 site following error message is proposed to be returned

REJ_CODE	Proposed Description
MPO00700	Referable Registration Nomination is not allowed for the MPRN

System Impact Assessment

	SAP ISU	SAP PO	Marketflow
System Component:	SPA	File Formats	File Formats
Development Type:	Code change	Configuration Change	Configuration Change
Impacted User(s):	Shippers	Shippers	Shippers
Build Type:	Existing	Existing	Existing
Change Description:	Code changes will be done related to withdrawal flag and extraction of the MAP details and removal of post code validation	File format change with respect to withdrawal flag and MAP details populated into the K85 Generic Org Segment	File format change with respect to withdrawal flag and MAP details populated into the K85 Generic Org Segment
Impacted File Format(s):	NOM	NOM	NOM
Requirement Clarity:	G	G	G
Change Complexity:	G	G	G
Integration Complexity:	G	G	G
Test Data Prep Complexity:	G	G	G
Test Execution:	G	G	G
Regression Testing Impact:	G	G	G
Performance Impact:	G	G	G

Referable Registration Nomination Process Map



Summary of Key Changes

- NOM file only required for Class 1 and 2 sites, and no longer accepted for any other large supply point.
- Introduction of a new rejection code to support the above.
- Removal of post code validation from inbound Nomination Enquiry request (S69 record) for sites in scope of CSS switching.
- Changes to the optionality of the current NOM record formats (S48, S64 & S69) for data items that are no longer relevant under the new process:
  - METER_READ_BATCH_FREQUENCY
  - MRF_TYPE_CODE
  - WITHDRAWAL_STATUS
  - POSTCODE_OUTCODE
  - POSTCODE_INCODE

Shipper Transportation Rates

Shipper Transportation Charges Change Overview

Shipper Transportation Charges

Shipper users will be able to access transportation charges, this will be an extract of existing transportation rates.
If shipper needs any specific rate with respect to change of Class, MRF, batch frequency and any referrals, the Shipper must use correct process in order to obtain an offer.

Shippers will query transportation rates via a new API Service. Validation rules will be build within UK Link to restrict the invalid requests.

This services will only provide data for transportation rates for Large supply meter points.

HLD DSG Preferred Solution Option

- Transportation rate extract to shippers via new API Service (Supporting multiple MPRNs)

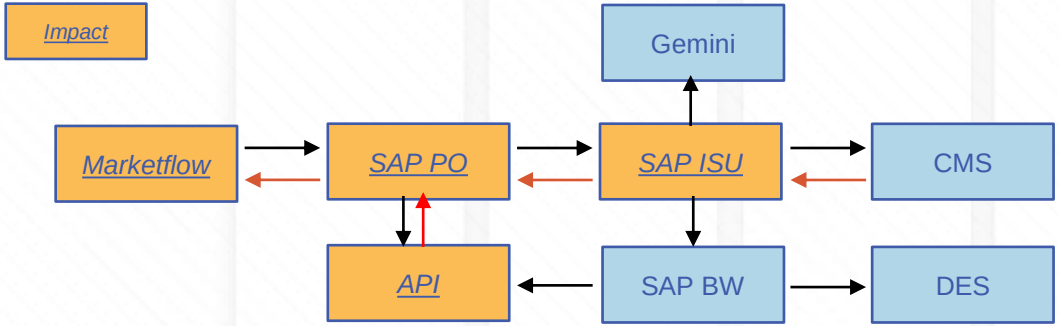
High Level Impact Assessment

Transportation rate extract to shippers via new API Service (Supporting multiple MPRNs)

Shipper API service will be designed to provide facility to extract current transportation rate values.

This service will enable Shippers to query data from UK Link for multiple MPRNs.

Impacted Systems



Overall Impact

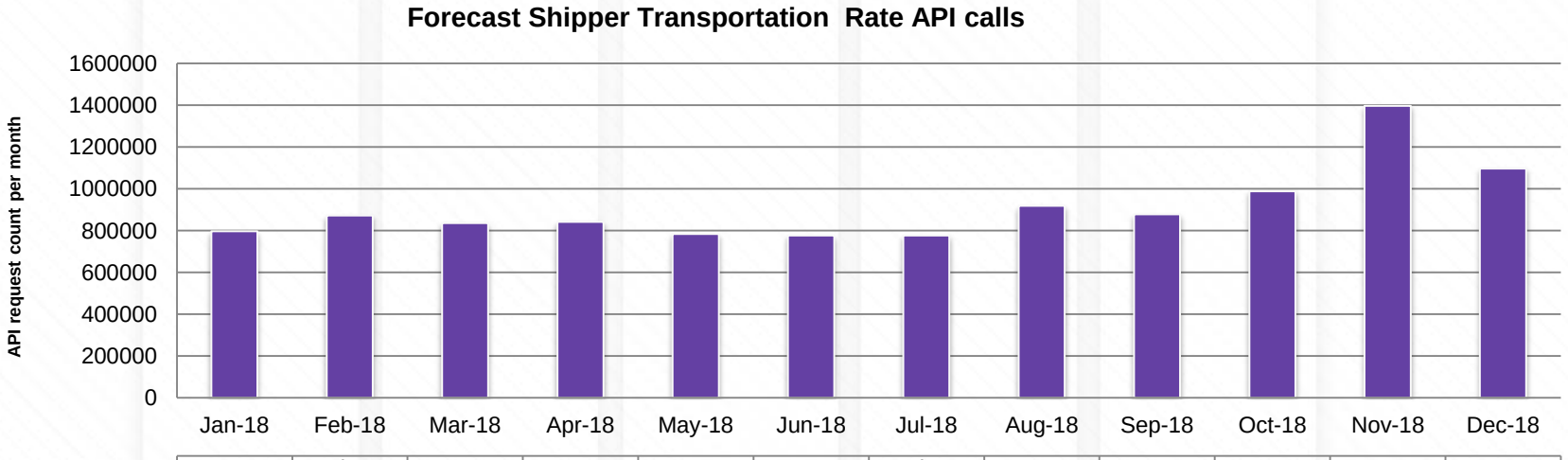
Medium

Design Considerations / Assumptions

- Any shipper can request for transportation rate data for LSP sites even if the site is outside of their portfolio
- Existing business rules will be applied around querying transportation rate data through API service route**(**Nomination Request Equivalent)
- Any changes to existing MRF, Batch, Class, Capacity will still be received via Nomination request
- Real time transportation rates will be provided without validity period and are subjected to change based on existing business rules

Shipper Transportation Rates Forecast Volumes

The forecast volumes have been derived by extrapolating the Number of Switch request UKLink currently receives. Due to faster switching we considered 50% increase in the volume in switch request due to which the Shippers would need to enquire the Transportation rates



	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Forecast Count of API calls	797520	872978	836012	843087	784676	776619	776972	919451	878063	989457	1397379	1097967

Inputs for Shipper Transportation Interface

Below are the Inputs fields which shippers may need to provide while accessing Shipper Transportation Rates Interface

Record	Level	Input Fields
RT_S48_NOMENQ	Level 1	NOMINATION_SHIPPER_REF REQUESTED_DM_SOQ REQUESTED_DM_SHQ MRF_TYPE_CODE CSEP_INFORMATION SUPPLY_METER_POINT_CLASS METER_READ_BATCH_FREQUENCY SEASONAL_LSP_INDICATOR SEASONAL_LSP_PERIOD_START_MONTH SEASONAL_LSP_PERIOD_END_MONTH SITE_WORKS_REFERENCE
RT_S69_MPRN	Level 2	METER_POINT_REFERENCE
RT_U72_LDZ_RAT	Level 3	LDZ_OPTIONAL_RATE_APPLICABLE POSTCODE_OUTCODE POSTCODE_INCODE SPECIFIED_EXIT_POINT GRID_REFERENCE_ENTRY_POINT GRID_REFERENCE_EXIT_POINT

- Note:- Existing business rules will be applied around querying transportation rate data through API service route**(**Nomination Request or Post CSS Referable Registration Nomination)

Output Rates Made available via Shipper Transportation Interface

Below are the Output fields that are expected to be provided for shipper to consume while accessing Shipper Transportation Rates Interface

Segment		Rate Fields	Required (Y/N)
RT_S64_OFFER_DETAILS	Level 1	EXIT_CAPACITY_LDZ_ECN	Y
RT_S64_OFFER_DETAILS	Level 1	NTS_COMMODITY_CHARGE	Y
RT_S64_OFFER_DETAILS	Level 1	LDZ_COMMODITY_CHARGE	Y
RT_S64_OFFER_DETAILS	Level 1	LDZ_CAPACITY_CHARGE	Y
RT_S64_OFFER_DETAILS	Level 1	LDZ_CUSTOMER_CHARGE	Y
RT_Q44_CSEP_DETAILS	Level 1	CSEP_ADMIN_CHARGE_RATE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_INFILL_CHARGE_RATE_EFF_DAT	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_INFILL_RATE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_METERING_RATE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_METER_CHARGE_RATE_EFF_DATE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANSPORTATION_RATE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANSPORTATION_RATE_TYPE	Y
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANS_CHARGE_RATE_EFF_DATE	Y

Output Rates Made available via Shipper Transportation Interface

Record	Level	Rate Fields	Required (Y/N)
RT_U71_NTS_OPT_RATE_DET	Level 1	NTS_OPTIONAL_RATE	N
RT_U73_LDZ_OPT_RATE_DET	Level 1	LDZ_OPTIONAL_RATE	N
RT_U74_CSO_DETAILS	Level 1	CSEP_ADMIN_CHARGE_RATE	N
RT_U75_METER_ASSET_DETAILS	Level 1	MAC_METER_ASSET_CHARGE_I MAC_METER_ASSET_CHARGE_M MAC_METER_ASSET_CHARGE_P CAC_CORRECTOR_ASSET_CHARGE_I CAC_CORRECTOR_ASSET_CHARGE_M CAC_CORRECTOR_ASSET_CHARGE_P DAC_DRE_I DAC_DRE_M DAC_DRE_P	N
RT_U90_SSMP_CHARGES	Level 1	SSMP_AGENT_NON_SETUP_CHARGE SSMP_AGENT_NON_TRANSFER_CHARGE SSMP_AGENT_NON_DAILY_CHARGE SSMP_AGENT_TELE_SETUP_CHARGE SSMP_AGENT_TELE_TRANSFER_CHARG SSMP_AGENT_TELE_DAILY_CHARGE SSMP_TRANS_NON_SETUP_CHARGE SSMP_TRANS_NON_TRANSFER_CHARGE SSMP_TRANS_NON_DAILY_CHARGE SSMP_TRANS_TELE_SETUP_CHARGE SSMP_TRANS_TELE_TRANSFER_CHARG SSMP_TRANS_TELE_DAILY_CHARGE	N

System Impact Assessment

	SAP ISU	SAP PO	API
System Component:	Process Code	Configuration	Configuration
Development Type:	Code Change	Configuration code	Configuration Code
Impacted User(s):	Shippers	Shippers	Shippers
Build Type:	New Service for Shippers	New Service for Shippers	New Service for Shippers
Change Description:	Code development to fetch transportation rate data from SAP ISU	System to make the configuration to pass Data to Shipper API	System to make the configuration for API to send data to Shippers
Impacted File Format(s):	N/A	N/A	N/A

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

Summary of Key Changes

- Introduction of a new Shipper Transportation Rate API.

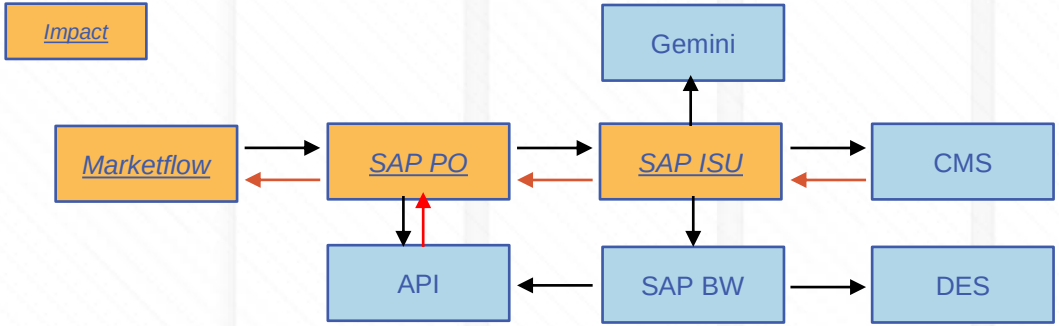
Address Updates

Address Data Change Overview

Address Data

- Current, address creation/amendments are done via CMS / IGT file / UK Link online screen and outbound notifications are issued to shippers and Networks will remain unchanged.
- When a new Meter Point address is created or changed in UKLINK, an update is sent to CSS so that CSS can create or amend the REL (Retail Energy Location) address. A new interface (Supply Meter Point Sync) will be built for this purpose.
- REL updates will be received into UK Link and DES from CSS as part of a new interface.
- UK Link and DES both will have capability to store the address in English and Welsh language as well.

Impacted Systems



Overall Impact

Low

Design Considerations / Assumptions

- All address update processes in current BAU world remain unchanged.
- NAC,EXZ & AES will be sent as per current BAU process (shippers / networks).
- All the address amendments considered are for meter point address only and not the REL.
- Any changes in LDZ/EXZ which invalidates an offer or updates the ongoing registrations will remain as is

Summary of Key Changes

- Introduction of the new Retail Energy Location in both UK Link and DES (these change will be discussed in more detail as part of a dedicated DES topic).
- Changes to outbound notifications to GT & IGTs for the provision of REL data.

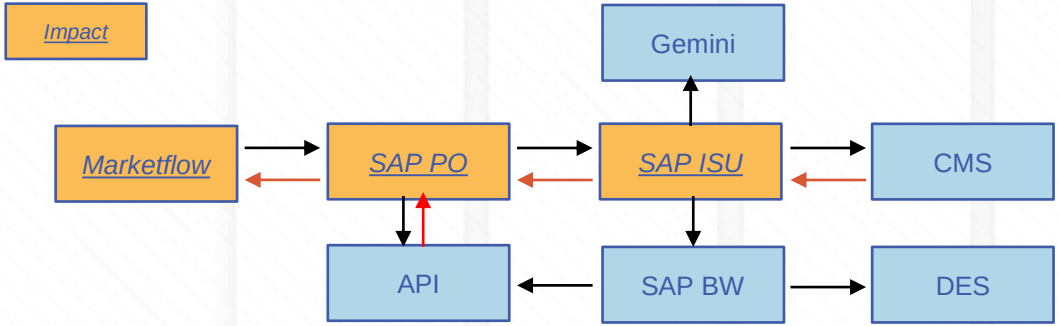
Meter Asset Manager Updates

MAM Details Change Overview

Meter Asset Manager Details

Currently MAM updates are received in UK Link from Shippers via the MAM file and are updated in the system from the requested effective date.
Post CSS implementation, whenever there is a change in MAM applied by the Shipper; the details will be provided by UK Link to CSS via the defined MEM Appointment interface. UK Link will update CSS only once the MAM is effective in UK Link. Proposing Shippers can provide MAM files from secured registration status in line with the current process.
MAM updates can also be received via the new settlement details file (BRN record) which will be applied along with the switch and CSS will be notified of the MAM changes within UK Link.

Impacted Systems



Overall Impact

Medium

Design Considerations / Assumptions

- No changes anticipated in terms of MAM service in UK Link and DES.
- Batch processing schedule will change.
- Any futuristic MAM updates pending post a switching effective date will be cancelled.
- No changes to existing file formats (MAM and MAS)
- CSS is expected to send a response to UK Link
- In case of unknown MAMs, CSS will not be notified

Summary of Key Changes

- Utilisation of the new CSS MEM Appointment interface for the provision of MAM data to the new CSS provider.
- Changes to validation rules to allow MAM updates to be provided by a proposing shipper once the CSS registration status reaches “Secured”.
- Inclusion of MAM information within the new Base Registration Nomination file (this will be discussed further in a future meeting).
- Any pending future dated MAM updates recorded against a meter point will be cancelled if a new CSS registration becomes effective prior to the requested MAM effective date

Meter Asset Provider Updates

MAP ID

- The main development of the change is being progress via XRN 4780 which is planned to implement the first phase of the change in the July 2019 minor release.
- The second phase (currently being planned) will incorporate the bulk population of data directly from MAP organisations.

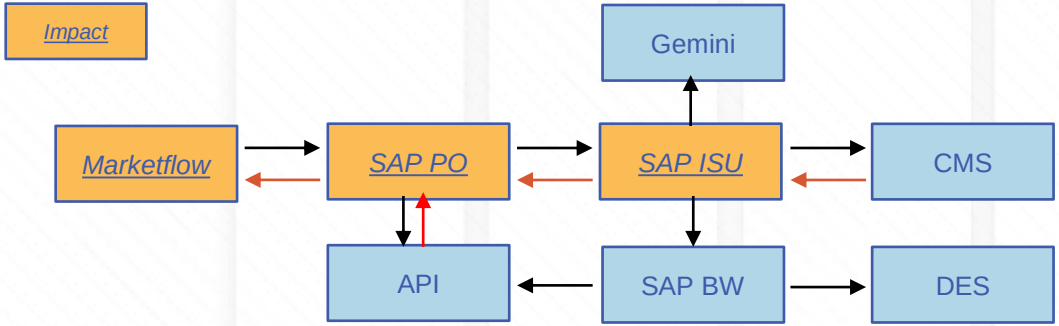
Meter Asset Provider Details Change Overview

MAP (Meter Asset Provider) Details

As part of E2E switching, CSS is responsible for notifications to MAP organizations as they are the owner of the asset installed at the meter point. However, these asset details are stored and managed at UK Link and post CSS implementation, any changes to the MAP details received in UK Link will be notified to CSS which will be a new interface. UK Link will receive MAP updates either as part of Bulk load from MAPs (New Interface) or via existing RGMA files as part of asset updates from the shippers.

UK Link is expected to master the MAP stakeholder data and associate them against an asset for a meter point prior to CSS implementation as part of data cleansing activity. MAP IDs can be maintained against all the assets present for a meter point and any changes to the associated MAPs will be notified to CSS as part of SupplyMeterPointSync message.

Impacted Systems



Overall Impact

Low

Design Considerations / Assumptions

- Existing RGMA files provide for the MAP information but validation rules will be built around the MAP ID information
- Bulk updates as part of new interface will be an offline communication to UK Link
- MAPs will be only maintained against meters and not CORRECTOR/DRE
- Historic data will be maintained for MAP changes in UK Link
- MAP details are not required to be sent in portfolio files
- MAPs will be maintained against the NTS sites as well
- New Bulk Interface is not considered for overall complexity of MAP solution as this will be done prior to CSS implementation

Summary of Key Changes

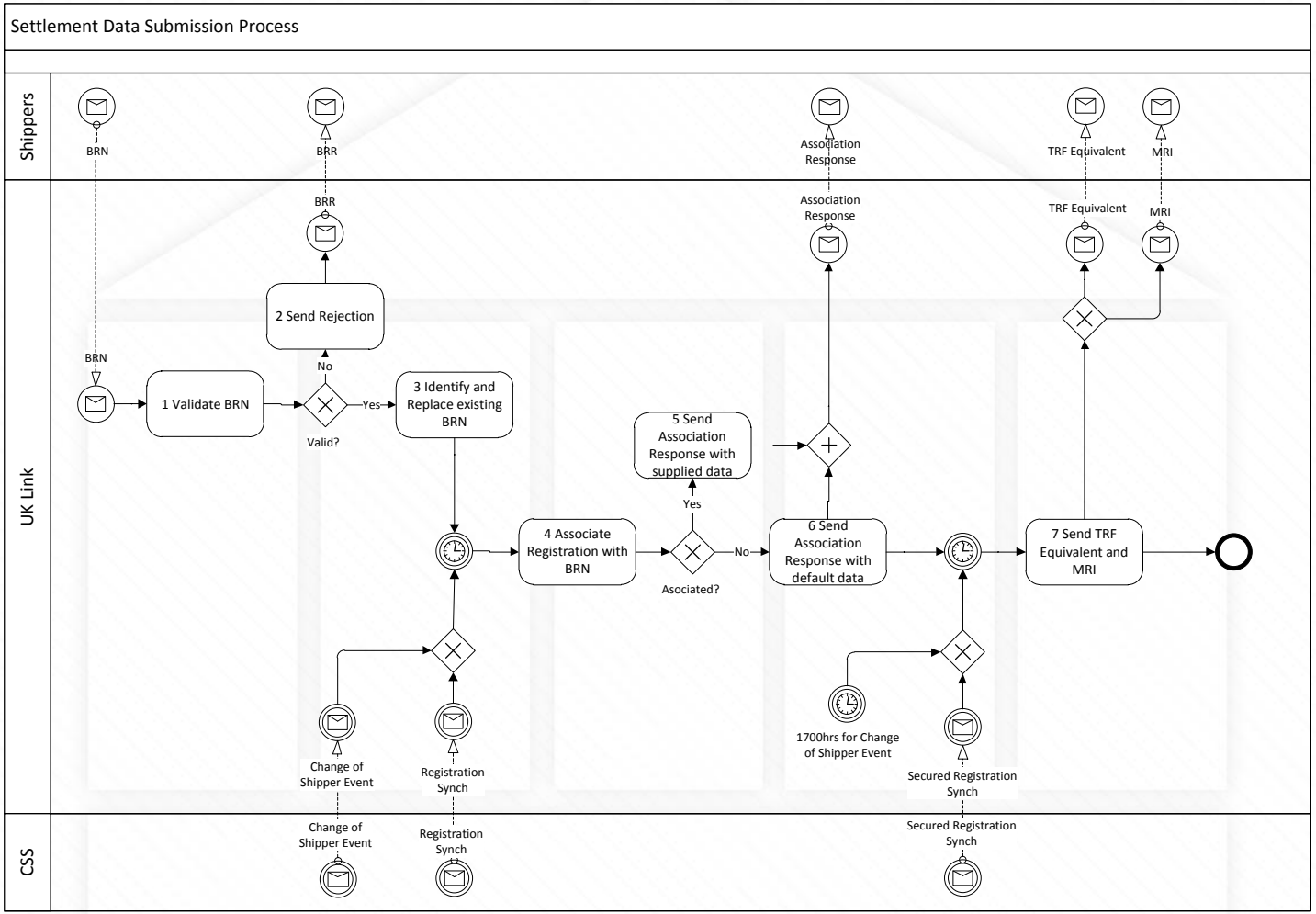
- Utilisation of the new CSS Supply Meter Point Sync interface for the provision of MAP data to the new CSS provider

Future Topic Design Questions

Provision of Settlement Data

As part of the development of the new settlement file processes we require clarity on how the system rules will work for the following areas:

- Recording of the latest settlement record
- Association of the settlement record to a CSS registration


Settlement Data Submission Process
Shippers
UK Link
CSS
BRN
BRR
Association Response
TRF Equivalent
MRI
BRR
Association Response
TRF Equivalent
MRI
2 Send Rejection
BRN
No
1 Validate BRN
Yes
3 Identify and Replace existing BRN
Valid?
5 Send Association Response with supplied data
Yes
4 Associate Registration with BRN
No
6 Send Association Response with default data
7 Send TRF Equivalent and MRI
Asociated?
Change of Shipper Event
Registration Synch
1700hrs for Change of Shipper Event
Secured Registration Synch
Change of Shipper Event
Registration Synch
Secured Registration Synch

Provision of Settlement Data

Below the an example of the data that is currently expected to be received as part of the settlement data file – defined in code as the Base Registration Nomination (BRN)

Base Registration Nomination	Optionality
Shipper Reference Number	M
MPRN	M
Shipper	M
Supplier	M
Registration Date	O
CSS Reference Number	O
Class - Rules	O
Response Reference (RRN)	O
Contact Details - PSR	O
Contact Details - Emergency/Large Site	O
MRF	O
Batch	O
Premises	O
MAM	O

Provision of Settlement Data - Example

Rules need to be defined as to how the new settlement data will be managed

		Arrival Sequence →								
Attribute	Optionality	1	2	3	4	5	6	7	8	9
MPRN	M	1234	1234	1234	1234	1234	1234	1234	1234	1234
Shipper	M	UVW	UVW	UVW	UVW	UVW	UVW	UVW	UVW	UVW
Supplier	M	XYZ	XYZ	XYZ	XYZ	XYZ	XYZ	XYZ	XYZ	XYZ
Eff Date	O	-	01/6/19	-	02/6/19	01/6/19	-	02/6/19	02/6/19	03/6/19
CSS Ref	O	-	-	-	-	-	9876	9876	-	-
RRN Ref	O	-	-	-	-	ABC	-	-	-	-
	Result	Replaced by 3	Replaced By 5	Available Replaces 1	Replaced By 8	Available Replaces 2	Replaced By 7	Available Replaces 6	Available Replaces 4	Available

Provision of Settlement Data

Rules need to be defined as to how the new settlement data will be associated to a CSS Registration message

	Association Priority			
	1	2	3	4
MPRN	✓	✓	✓	✓
Supplier	✓	✓	✓	✓
Shipper	✓	✓	✓	✓
CSS Ref	✓	✓	X	X
Eff Date	✓	X	✓	X

Association of Settlement Data - Example

CSS Registration Sync Message

CSS Ref	9876
MPRN	1234
Supplier	XYZ
Shipper	UVW
Eff Date	02/6/19

CSS Change of Shipper Event Message

CSS Reg Ref	9876
MPRN	1234
Event Eff. Date	02/6/19
Event Shipper	UVW

Supplier will be derived based on the registered supplier for the CSS Registration Reference provided

Association of Settlement Data - Example

Matches on all five key attributes

		Arrival Sequence				
Attribute	Optionality	3	5	7	8	9
MPRN	M	1234	1234	1234	1234	1234
Shipper	M	UVW	UVW	UVW	UVW	UVW
Supplier	M	XYZ	XYZ	XYZ	XYZ	XYZ
Eff Date	O	-	01/6/19	02/6/19	02/6/19	03/6/19
CSS Ref	O	-	-	9876	-	-
RRN Ref	C	-	ABC	-	-	-

Association of Settlement Data - Example

If 7 hadn't arrived and therefore we still had 6 'on the shelf' then a match is made on MPRN, Shipper, Suppler and CSS Ref

		Arrival Sequence				
Attribute	Optionality	3	5	6	8	9
MPRN	M	1234	1234	1234	1234	1234
Shipper	M	UVW	UVW	UVW	UVW	UVW
Supplier	M	XYZ	XYZ	XYZ	XYZ	XYZ
Eff Date	O	-	01/6/19	-	02/6/19	03/6/19
CSS Ref	O	-	-	9876	-	-
RRN Ref	O	-	ABC	-	-	-

Association of Settlement Data - Example

With neither 6 or 7 then match on MPRN, Shipper, Suppler and Effective Date

		Arrival Sequence			
Attribute	Optionality	3	5	8	9
MPRN	M	1234	1234	1234	1234
Shipper	M	UVW	UVW	UVW	UVW
Supplier	M	XYZ	XYZ	XYZ	XYZ
Eff Date	O	-	01/6/19	02/6/19	03/6/19
CSS Ref	O	-	-	-	-
RRN Ref	O	-	ABC	-	-

Association of Settlement Data - Example

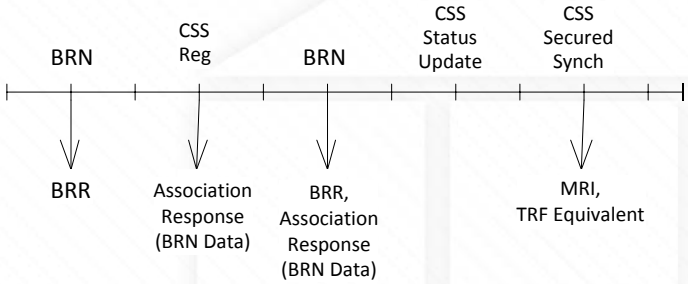
Without 6, 7 or 8 then match on MPRN, Shipper, Suppler only

		Arrival Sequence		
Attribute	Optionality	3	5	9
MPRN	M	1234	1234	1234
Shipper	M	UVW	UVW	UVW
Supplier	M	XYZ	XYZ	XYZ
Eff Date	O	-	01/6/19	03/6/19
CSS Ref	O	-	-	-
RRN Ref	O	-	ABC	-

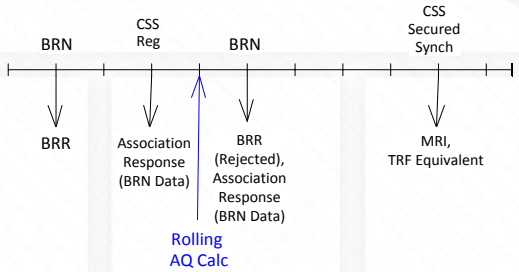
Finally if there is not match found then defaults will be applied

Switching / Settlement Data Timeline Scenarios

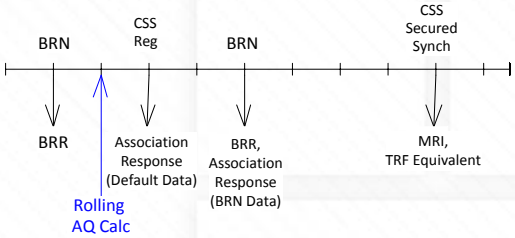
- Normal timeline with 2nd BRN submitted



- Invalidating event after BRN associated



- Invalidating event before BRN associated



Are there any specific rules we need to considers with these scenarios?

Gemini Design Clarification

Gemini notifies of an activity number for DM/NDM and UG meters via the messages which appear as they log into Gemini.

Post CSS this will remain the same and the notifications will be generated on D-1 after [*20:00*] for effective D day. In order to identify those sites where a re-nomination is required it is important that the notifications when logging into Gemini are viewed.

Are there any issues with regards to the above?

Data Cleansing / DWG Update

Switching Programme – Data Working Group

- The Data Working Group is open to all those in industry who are required to participate in data cleansing, data population or data migration
- Six data working group meetings have been held to date
- Seventh meeting is being held on the 22nd May 2019
- The current priority is around data cleansing
- Further details can be found on Ofgem's website:
  - https://www.ofgem.gov.uk/electricity/retail-market/forums-seminars-and-working-groups/switching-programme-data-working-group

Data Prep and Migration Stages

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4
• Data Readiness	• CSS live and data migration	• Enquiry system interfaces live	• Go-Live	• Post implementation
• Creation and population of MAP ID in UK Link • Cleansing of meter point address data • Cleansing of Shipper to Supplier mapping	• Migration of meter point details from UK Link to CSS • Migration of current shipper & supplier registration from UK Link to CSS • Migration of Market Participant Data from UK Link to CSS	• Initial population of REL address details to UK Link, DES and MIS • Delta migration of meter point data • Delta migration of registration data • Potential decommissioning of UK Link to DCC interface[1]	• Delta migration of meter point data • Delta migration of registration data • Migration of in-flight shipper and supplier registration • Migration of in-flight meter point updates • Implementation of consequential changes to UK Link and DES	• Post implementation support

[1] Actual decommissioning timeline still to be defined by the programme

Stage 0 – Data Readiness

- **MAP ID**
  - Population of MAP ID within current UK Link
  - XRN 4780 allocated to July minor release
- **Data Cleansing**
  - Plot to postal addresses
  - Meter Point Address (structure)
  - Shipper/Supplier mapping
- **RMP Status** (meter point status)
  - Meter Point Status currently held within UK Link
  - Combination of meter point status and isolation status to be used for CSS value (RMP Status)

Stage 0 – Data Readiness

- **Domestic Premises Indicator**
  - Logic already held within UK Link (Market sector code I- Industrial or D - Domestic)
  - CSS requires a Y or N (Y = D, N = I)
  - Data will be mapped / transformed at migration

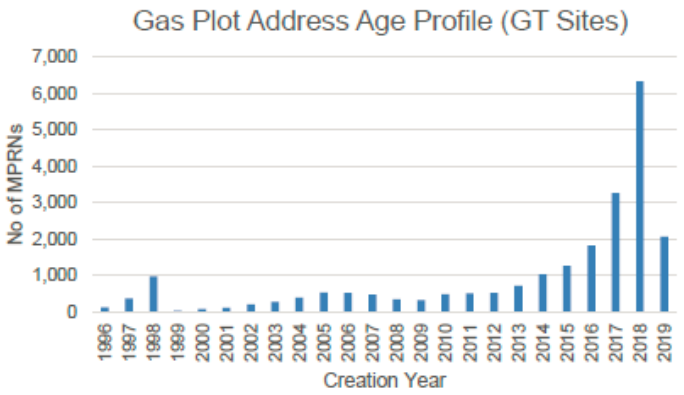
- **REC MDD data**
  - MDD data (industry participants) to be cleansed and migrated to UK Link for mastership

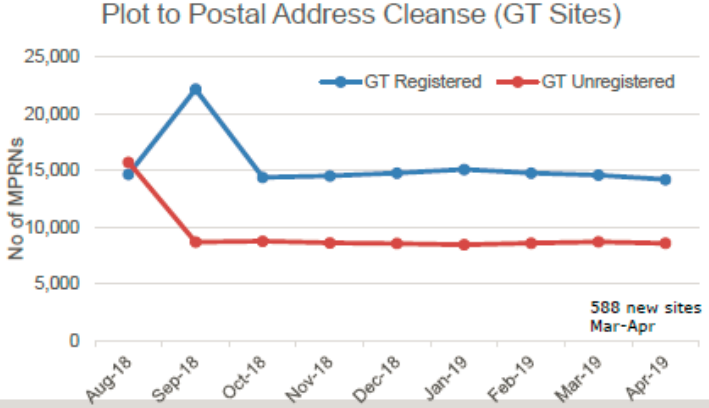
Data Cleansing Update

Data Topic	Responsibility	Current Status (April)
Plot to Postal Addresses	Shipper	BAU process (GT sites only) – monthly portfolio issue to Organisations where plot addresses exist within their portfolio Shipper Total – 14,205 Unregistered Total – 8,597
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.

Gas – Xoserve/AiGT (1)

Data Cleansing			
Plot to Postal Address	Baseline Apr-18	Current Apr-19	Commentary
GT Registered Sites	15,591	14,205	Existing monthly BAU plot to postal process whereby Shippers provide a 'better PAF registered address'. Proactively working with Shipper organisations via the Consequential workgroup to prioritise this cleanse activity. This will be an ongoing cleanse activity, pre and post this Programme.
GT Unregistered Sites	8,718	8,587	Working alongside GT's to agree the cleanse activity for this pot. Figures will fluctuate due to new meter points being created and not confirmed into a Shippers portfolio
IGT Sites	84,929*	90,097*	IGT organisations have a plot to postal process whereby developers and Utility Infrastructure Providers provide a 'better PAF registered address' where able. A change request is currently in flight where IGT's will have the ability to update 'plot addresses' held on UK Link in bulk in addition to the current process of individual updates.
MTD Cleanse	Baseline TBC	Current TBC	*iGT data from AiGT as at Jan 19 Commentary
Gas MTD Cleansing and tracking of progress will follow once the first reconciliation from CP17/411 is completed in April 2019 – See SPAA Update			





Significant Risk - Immediate mitigation required

Increased Risk - Urgent mitigation required

At Risk - Manageable with mitigation

On track - But being closely monitored

On track

Complete

Source: Ofgem/ Xoserve/AiGT

Discuss ofgem Making a positive difference for energy consumers

Gas – Xoserve (2)

Consequential Changes		RAG		Completion Date		Commentary
		MAR	APR	Baseline	Forecast	
MAP ID	Creation of MAP ID Field in UK Link	G	G	Jul-19	Jul-19	The change is currently proposed for Xoserve's July 19 release, however, approval for release is currently within the DSG Governance process
	Initial population of MAP ID detail within UK Link	G	G	Nov-19	Nov-19	Some MAP data has been provided to Xoserve, we are working with MAP organisations via CMAP to acquire as much MAP data as possible. Timeline of November 19 has been provided to CMAP as target date for data population.
	Ongoing population of MAP ID from MAPs	G	G	Jul-19	Jul-19	With the introduction of MAP ID to UK Link there will be the provision of ongoing updates via RGMA flows from Shipper Organisation. MAP's will be provisioned with a flow to also provide MAP ID updates on an enduring basis to UK Link. Architectural design solutions are currently being analysed.
Shipper/ Supplier Mapping	Cleansing activity for Shipper/Supplier mapping	G	G	Dec-19	Dec-19	This is an ongoing process with multiple Organisations to ensure the validity of Stakeholder associations. This activity will be ongoing until the migration of the process to Xoserve from SPAA
	Transfer of ownership of stakeholder data from SPAA to Xoserve	G	G	Feb-20	Feb-20	The transfer of ownership of Stakeholder data from SPAA to Xoserve is on track for a February 2020 delivery
RMP Status	Recognition & mapping of existing meter point status to new RMP values	AG	AG	Nov-20	Nov-20	Detailed design will confirm how the RMP status will be maintained within UK Link for provision to the new CSS Provider. Milestone of August 19 indicates the end of Xoserve's detailed design phase.
LEN Indicator	LEN indicator creation in UK Link	N/A	N/A	TBC	TBC	Detailed requirements to be defined for the enduring process and then to be scheduled into a change release
	LEN indicator data transformation/ update / operational processes	N/A	N/A	TBC	TBC	Detailed requirements to be defined for the enduring process in order define datasets to be held
	LEN site investigation	N/A	N/A	TBC	TBC	Need further information to understand this requirement

Address Cleansing	RAG		Completion Date		Commentary
	MAR	APR	Baseline	Forecast	
Profiling of address data held within UK Link	G	G	Jul-19	Jul-19	High level profiling has completed. Scope of profiling includes: - invalid/dummy postcodes - Addresses without a delivery point alias, building name or number - Missing street names and Post Towns of Unknown or Blank This output is being analysed and will be included in this report
Creation of portfolio reporting for cleansing activity	G	G	Nov-19	Nov-19	First portfolio reporting is due to be issued in May 19. These reports will provide individual Shipper Organisations the site detail to enable them to begin to cleanse the meter points within their individual Portfolios.

Significant Risk - Immediate mitigation required

Increased Risk - Urgent mitigation required

At Risk - Manageable with mitigation

On track - But being closely monitored

On track

Complete

Source: Ofgem/ Xoserve

Data Cleanse Requirements

- Continue to cleanse plot to postal address within your portfolio
  - These are issued to you monthly
  - Priority to be given to the aged addresses

- New reports are being created for address quality
  - First reports are due to be issued with your next plot to postal reports
  - Reports are focusing on address structure, e.g. missing post town

Outstanding Plot Address Age Analysis – April 19

GT Registered Site Position = 14,205
GT Unregistered Site Position = 8,587

Creation Year	No of MPRN's
1996	121
1997	365
1998	980
1999	40
2000	75
2001	107

Creation Year	No of MPRN's
2002	207
2003	278
2004	391
2005	536
2006	519
2007	475

Creation Year	No of MPRN's
2008	350
2009	318
2010	493
2011	502
2012	518
2013	723

Creation Year	No of MPRN's
2014	1038
2015	1266
2016	1825
2017	3257
2018	6341
2019	2067
Total	22792

AOB