



November 21 Major Release

Data Cleansing Approach

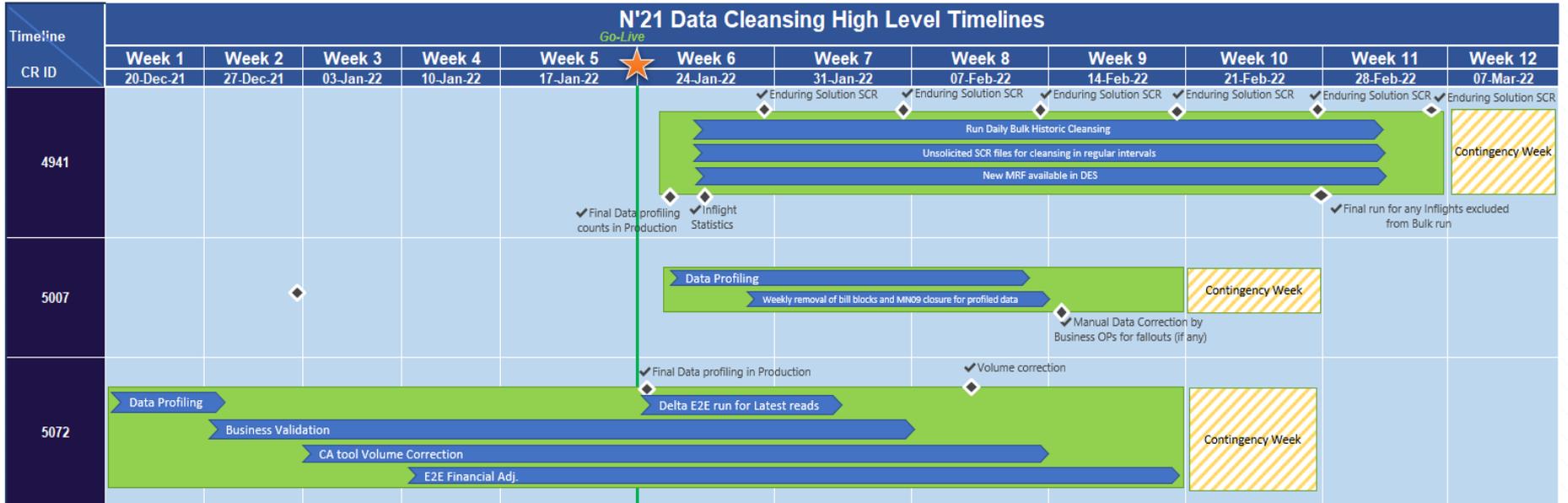
Background

- November 21 Release project is a major UK Link release consisting of 6 changes, approved by ChMC.
- An additional regression testing cycle currently in progress, planned to complete 13th January 22, to ensure no changes since the deferred implementation date decision.
- Out of 5 remaining changes to be implemented for November 21 release, 3 changes require a data cleanse activity where existing UK Link data needs to be profiled and amended as part of project activities.
- These slides will cover the approach to data cleansing for all remaining November 2021 changes and aims to provide you with the approach being taken for each.
- This will include, list of planned activities, impacted applications, dependencies and a schedule for each change.
- Below is a complete list of all changes within November 21 and where data cleansing is required.
- XRN5142 data profiling and cleansing has been completed and data was updated on the 5th November 2021.

#	XRN Reference	Description	Data Profiling & Cleansing Required	Business Process Area
1	4941	MOD0692 - Auto updates to meter read frequency	Y	SPA
2	5007	Enhancement to reconciliation process where prevailing volume is zero	Y	Metering
3	5072	Application and derivation of TTZ indicator and calculation of volume and energy – all classes	Y	Metering
4	5142	New allowable values for DCC Service Flag in DXI File from DCC	Y	SPA
5	5180	Inner tolerance validation for replacement reads and read insertions	N	Metering
6	4780C	Inclusion of Meter Asset Provider Identity (MAP Id) in the UK Link system	N	SPA, RGMA

November 21 Data Cleansing - Proposed Timeline

- High Level Timelines for Data cleansing are shown below.



XRN5072 has commenced earlier than the deferred go live date to not impact the Formula Year AQ run in April and to ensure all AQ corrections are completed by mid-February – consumption adjustment information will be provided once validation is completed

Data Cleansing Approach - XRN4941

This change will allow the CDSP to update the Meter Read Frequency (MRF) for Class 4 Supply Meter Point's (SMP) when one of the following trigger points is met and a site does not currently have a monthly MRF:

- Where a Supply Meter Point's AQ value is amended to 293,000 kWh or above on the Supply Point Register.
- Where a Supply Meter Point has AMR Meter installed on the Supply Point Register.
- Where a Supply Meter Point is operational smart meter where a DCC Service Flag is 'Active' on the Supply Point Register.

In the above circumstances, the MRF of the SMP with product class 4, will be amended to monthly by the CDSP.

As part of this change, along with developing an enduring solution, a new historic data cleansing program has been developed to cleanse existing data in the UK Link system, for which, the approach is outlined below:

- The Data Cleanse job includes the capability to split the volumes of updates required based on each of the three identified trigger points.
- There is the ability to pause and resume this activity if required to focus on other critical BAU activities e.g. SOLR events
- Exclude any SMP's that have inflight SPA activities where the effective date is within the next 2 days or have a 'CO' status from the bulk data cleanse activity. The MRF for these sites will be corrected post completion of the SPA activity.
- This will be an activity run in production during Post Implementation Support
- The unsolicited S03 records will be sent in a staggered manner to minimise impacts to Customers systems. From the volumes seen in the Implementation Dress Rehearsal and the planned timescales to complete the data cleansing for this change, it is forecast that circa 100k S03 records will be produced daily.
- Current SCR generation schedule (4 times a day) will support the inclusion of the unsolicited S03 records without impacting current operational response timescales.
- Additional instances of the SCR generation schedule (potentially 2 instances if required) to be added temporarily for the period of data cleanse activities when required.

What does it mean for you?

- Shippers may receive an increased number of SCR files on a given day. The number of S03 records within a single SCR file will be within the File Hierarchy record occurrence limit of 10k and may contain a combination of BAU processing records that relate to SPC files that Shippers have supplied as well as those related to the Data Cleansing activity.
- For clarity, the record occurrence limit is per transaction type. The S03 record is relevant to MRF and meter reading batch frequency changes where as, for example, the X09 is a Class Change response record. Therefore, should Shippers, for example, submit Class Change requests at the same time as the cleanse activity is being executed the response records will be included within the same SCR file but not be included in the same occurrence count, reducing the risk of multiple files.

XRN4941 - Details of CDSP Data Cleansing Activities

#	List of Activities	System	Dependencies	Remarks
1	Final Data profiling in Production before running the Historic cleansing for Class 4 non-monthly MRF sites for: 1. AQ = >293,000 2. DCC_STAT = A 3. AMR device LIVE	SAP ISU	SQL queries have been developed & will run to identify the exact volumes	These will be run on 16 th January in Production (Estimated Volumes for cleansing based on the output from IDR is as follows 4.7M – AQ ~ 5K, DCC ~ 4.5M AMR ~ 160K
2	Schedule the Adhoc Historic Cleansing job in Production for each trigger in PIS period	SAP ISU	Volumetric for each of the trigger types	
3	SCR files with unsolicited S03 records will be sent to Customers daily	SAP ISU		Files will only contain 10,000 records, any more updates could result in multiple files in one day
4	Monitor the bulk Auto MRF data flow to the SAP BW system	SAP BW	Historic job completion for a day (point 2)	
5	A daily execution summary will be completed by the Project team to validate that all planned cleansing activities have completed successfully (internal use only)	SAP ISU	Completion of historic job run	Daily and Final counts
6	Acknowledgment will be sent to Customers to advise that all data cleansing activities for this change have been completed	SAP ISU	Completion of all data cleanse activities.	

Data Cleansing Approach - XRN5007

This change was raised to address an issue being experienced by the CDSP, where a period has been reconciled to a zero position and then a valid read related to that period is received and re-reconciliation takes place. At this point a divide by zero error is encountered as the prevailing metered volume is zero, as a result an MN09 exception is generated. The scenarios identified that are causing this issue are as follows:

- Re-reconciliation of a zero reconciled period triggered by a site visit or replacement reading.
- A breaking rec (where a previously reconciled period is split as a result of an inserted read) on a non-consuming period.

The data cleansing approach for this change is outlined below:

- Post implementation of the enduring code changes in Production, for all sites with outstanding MN09's in the UK Link system and therefore currently excluded from the Amendment invoicing process, the flag to exclude these from the Reconciliation process will be removed and they will be re-processed through the new reconciliation factor calculation process (as per the enduring solution).
- Reconciliation will be re-run for all the impacted MPRNs and will utilise the deemed volume rather than the prevailing volume to calculate the Reconciliation Factor (as per the enduring solution).
- In the instance of any remaining MN09 exceptions, these will be categorised into different scenarios which would have led to the site not being resolved, to be looked at manually. These scenarios may include:
 - A Data Issue.
 - Any other exception raised after MN09 resolution.
 - Any other exception already present for the site.
 - Corruption of data caused by a previous attempt to resolve the MN09 exception.

What this means for you.

- Reconciliation charges will be included in the next applicable Amendment invoice.

XRN5007 - Details of CDSP Data Cleansing Activities

#	List of Activities	System	Dependencies	Remarks
1	Final Data profiling will be completed prior to running the Auto MN09 exception resolution in Production into categories of scenarios	SAP ISU	Reuse Existing report	These will be prior to Go-Live in Production (Approx. 3K)
2	Daily Reconciliation job run in Production post closing the linked MN09 exception and removing the bill block for sites with existing MN09	SAP ISU	Confirmation from business on profiling	
3	Sites where the MN09 exceptions are resolved and reconciliation has taken place successful will be automatically in the next bill run	SAP ISU		Automatic activity
4	Any MN09 sites with existing data issues or a new exception will be shared with internal business teams for standard resolution steps.	SAP ISU		To be determined as result of Data profiling and business validation
5	Should the volume of sites with an MN09 exception be high (greater than circa 5K) the volume to include in each billing month will be managed by the CDSP and communicated to the impacted Shipper Users	SAP ISU	Business Operations to determine the split based on Pre-prod statistics	Current volumes show this will not be applicable
6	A daily execution summary will be completed by the Project team to validate that all planned cleansing activities have completed successfully (internal use only)	SAP ISU	Completion of historic job run	Daily and Final counts
7	Acknowledgment will be sent to Customers to advise that all data cleansing activities for this change have been completed	SAP ISU	Completion of all data cleanse activities.	

Data Cleansing Approach - XRN5072

This change is looking to implement an enhanced formula to assess the Through The Zeros (TTZ) count and ensure the TTZ value is applied within the volume calculation correctly, based on the historic read activity for the MPRN in question. It will not amend the TTZ derivation logic for RGMA flows.

The Data Cleanse activity will review all volume calculations that involved a TTZ since Nexus go live or Line in the Sand (LIS), whichever is later, which will identify any inaccurate calculations and seek to address them.

This covers the following:

- Capability to split the volumes based on each of the different read sources (UMR, UBR, RGMA, and SFN)
- There is the ability to pause and resume this activity if required to focus on other critical BAU activities.
- Identify incorrect, and correct volume values, for correction via Consumption Adjustment(s) for each of the triggers.
- This activity will be run in production prior to and during post implementation support window.

What this means for you

- Shippers may see corrected consumption adjustments in subsequent amendment invoices
- Potential AQ updates both rolling and formula year
- Potential Financial adjustments in INR invoices

XRN5072 - Details of CDSP Data Cleansing Activities

#	List of Activities	System	Dependencies	Remarks
1	Indicative Data profiling will be completed, for each trigger, within Pre-prod prior to running the TTZ Volume correction program in Production	SAP ISU	New Data cleansing program run completion for each trigger	Pre-prod statistics will indicate the volumes
2	Schedule the Adhoc Data profiling program in Production based on agreed run time and Volumes for each of the trigger type in PIS period	SAP ISU		
3	Information relating to Consumption Adjustment charges can be shared with Customers in advance of them being processed	SAP ISU		
4	Feed the identified Data cleansing sites to the Consumption Adjustment (CA) tool for volume correction	SAP ISU		
5	<p>Post processing of the volume correction in the CA Tool, the revised volume will feed into the following downstream processes.</p> <ul style="list-style-type: none"> Consumption Adjustment Invoicing (un-invoiced CA's will be included within the amendment invoice where applied prior to cutoff) Rolling AQ correction (where required, calculated between 14th and 18th of the following month) Formula Year AQ correction (where required, effective from April) Financial Adjustments (completed by RTB through INR invoice) 	SAP ISU		Charge and AQ information cannot be shared in advance
6	Ensure that all data updated as part of the data cleanse activity flows to SAP BW successfully in order to support downstream reporting	SAP ISU	Completion of data cleansing job run (daily)	Daily and Final counts
7	A daily execution summary will be completed by the Project team to validate that all planned cleansing activities have completed successfully (internal use only)	SAP BW	Completion of data cleansing job run	Daily and Final counts
8	Acknowledgment will be sent to Customers to advise that all data cleansing activities for this change have been completed	SAP ISU	Completion of all data cleanse activities.	