XRN5180 – Inner Tolerance Validation for replacement reads and read insertions

High Level System Solution
Impact Assessment

Change Overview

XRN5180 - Inner Tolerance Validation for replacement reads and read insertions

In Shipper and Daily Metered Service Provider (DMSP) read files there is a provision for an override flag to be provided where the System User believes the consumption will fail the inner tolerance check. When a read is replaced or inserted, and there is a previous and subsequent read present for the provided read, the replaced/inserted read is validated against the previous and subsequent reads and energy tolerances are performed for the respective periods i.e. backwards as well as forwards.

In this scenario, should only one of the two periods fail the inner tolerance check and, therefore, require the override flag, and it has been provided, the read will be rejected as the other period validation does not require the override flag (MRE01030 - Override tolerance passed and override flag provided). Should the System User resubmit with the override flag not populated, as it is required for one of the periods, they would receive the opposite rejection code (MRE01029 - Reading breached the upper Inner tolerance value and no override flag provided) meaning it is impossible for the read to be accepted through the normal file process.

This change has been raised in order to address this scenario, reduce the number of read rejections seen by the System Users and, in turn, reduce the number of manual read requests submitted as a result of these rejections. This assessment provides a validation route that will allow reads, either replaced or inserted in between other valid reads, to be accepted where the inner tolerance check fails in at least one direction.

Solution Options

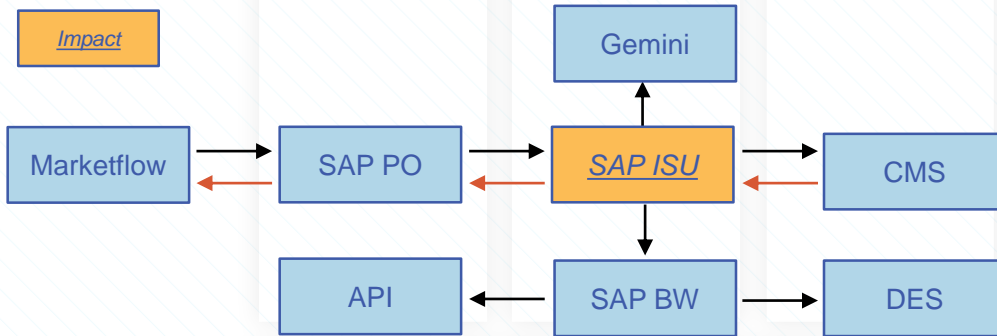| 1	Accept replaced or inserted read where the inner tolerance check fails in at least one direction and override flag is provided

Option 1 - High Level Impact Assessment

1 - Accept replaced or inserted read where the inner tolerance check fails in at least one direction and override flag is provided

SAP ISU: Code changes for override flag validation in below programs:
- Code Change to Class 1 read interface validation (DLC file)
- Code Change to Class 2 read interface validation (UDR file)
- Code Change to Class 3 read interface validation (UBR file)
- Code Change to Class 4 read interface validation (UMR file)
- Code Change to site visit read interface validation (SFN file)
- Code changes to Online read entry screen (SAP Internal Screen)
- Code changes to proxy validations for Site visit reads via DN Portal for Class 1(DMSP) & 2 (Shipper)
- Code changes to AQI file validation for U01 record.

Impacted Systems

Impact

Marketflow ↔ SAP PO ↔ *SAP ISU* ↔ CMS

Gemini ↑ (SAP ISU)

API ↔ SAP BW ↔ DES

SAP ISU ↓ SAP BW

Overall Impact	Release Type	High Level Cost Estimate
Medium	Major	70K to 150K GBP

Assumptions

- No change to the market breaker tolerance validations (outer tolerance)
- No changes to RGMA flow read validations (ONJOB/ ONUPD)
- No changes to Must Read and RD1 file validations
- If Shipper submits with the override flag not populated, as it is required, they would receive the opposite rejection code (MRE01029)
- No changes to BW reports or DES screens
- No data profiling and cleansing considered for this change
- Testing efforts are comparatively higher due to the nature of change and various critical files to be tested
- Efforts are based on very high level analysis, based on the discussion for requirement and solution, the stated efforts may change.

Option 1 - System Impact Assessment

	Reports	Interface	Conversion	Enhancements	Workflow	Data Migration
System Component:	n/a	**SAP ISU**	n/a	**SAP ISU**	n/a	n/a
Impacted Process Areas:	n/a	**Read Validations**	n/a	**Read Validations**	n/a	n/a
Complexity Level (per RICEFW item):	n/a	**High**	n/a	**Medium**	n/a	n/a
Change Description:	n/a	• **DLC Read upload program** • **UMR Read upload program** • **UBR Read upload program** • **UDR read upload program** • **SFN read upload program** • **AQI program U01 validations**	n/a	• **Manual read entry screen** • **Portal proxy changes**	n/a	n/a

	ISU	BW	PO	AMT	DES	API
Test Data Prep Complexity:	**High**	n/a	n/a	**Low**	n/a	n/a
Unit and System Test Complexity:	**High**	n/a	n/a	**Low**	n/a	n/a
Pen Test Impact:	n/a	n/a	n/a	n/a	n/a	n/a
Regression Testing Coverage:	**High**	n/a	n/a	**Low**	n/a	n/a
Performance Test Impact:	n/a	n/a	n/a	n/a	n/a	n/a
Market Trials:	n/a	n/a	n/a	n/a	n/a	n/a
UAT Complexity:	**High**	n/a	n/a	**Low**	n/a	n/a

Option 1 - Process Impact Assessment

Process Area	Complexity	File Formats	Exceptions	External Screens	Batch Jobs	Performance Test?	CSS Code Conflicts
SPA	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Metering (Reads)	**High**	**No**	**No**	**No**	**No**	**No**	**Yes**
Reconciliation	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Invoicing – Capacity	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Invoicing – Commodity	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Invoicing – Amendment	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Invoicing – Other	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rolling AQ	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Formula Year AQ	n/a	n/a	n/a	n/a	n/a	n/a	n/a
RGMA	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DSC Service (DN Portal)	**Low**	**No**	**No**	**No**	**No**	**No**	**No**