



Ofgem Switching Programme UK Link File Format Change Summary



Ofgem Switching Programme Design Forum

27th August 2019 – Final Draft

Introduction

- Walkthrough of the consequential interface changes required by UK Link and other Xoserve systems to gas industry participants to support central switching
- Provide clarity on interface changes, supporting documentation and change governance processes

File Format and Interface Framework

- The **UK Link Manual** provides the framework for interfacing to UK Link along with all agreed file and record formats
- This is governed by the gas Uniform Network Code and the Data Services Contract

UK Link Manual

The UK Link Manual comprises of:

- (a) the document which contains a description of UK Link (Description Document);
- (b) the documents which set out the terms and conditions on which UK Link Users have access to and use of UK Link (UK Link Access Documents), comprising:
 - (i) UKLAD1 – UK Link Terms and Conditions;
 - (ii) UKLAD2 – UK Link Required Equipment; and
 - (iii) UKLAD3 – UK Link File Transfer Definition;
- (c) the documents which set out details of how UK Link will be made available to UK Link Users, and when it may not be available (UK Link Business Documents), comprising:
 - (i) UKLBD1 – UK Link Security Operating Framework;
 - (ii) UKLBD2 – UK Link IS Service Definition;
 - (iii) UKLBD3 – UK Link Standards Guide; and
 - (iv) UKLBD4 – Active Notification System Supplementary Document;
- (d) the documents which set out in relation to Code Communications which are to be sent as UK Link Communications details of how such UK Link Communications are to be made, including in relation to the requirements of GT D Sections 5.6 and 5.8 (UK Link Communications Documents), comprising:
 - (i) UKLCD1 – Code Communications Reference;
 - (ii) UKLCD2 – CDSP Retention Policy;
 - (iii) UKLCD3 – UK Link Interface; and
 - (iv) UKLCD4 – UK Link Gemini User Guide;
- (e) the document which contains procedures to be followed in the event of Code Contingency (UK Link Contingency Document); and
- (f) the documents which set out a glossary of terms used in the UK Link Manual and which identify all references to the UK Link Manual in the UNC (UK Link Miscellaneous Documents), comprising:
 - (i) UKLMD1 – UK Link Manual Glossary; and
 - (ii) UKLMD2 – Other References to the UK Link Manual.

Agreed Interface Design Principles

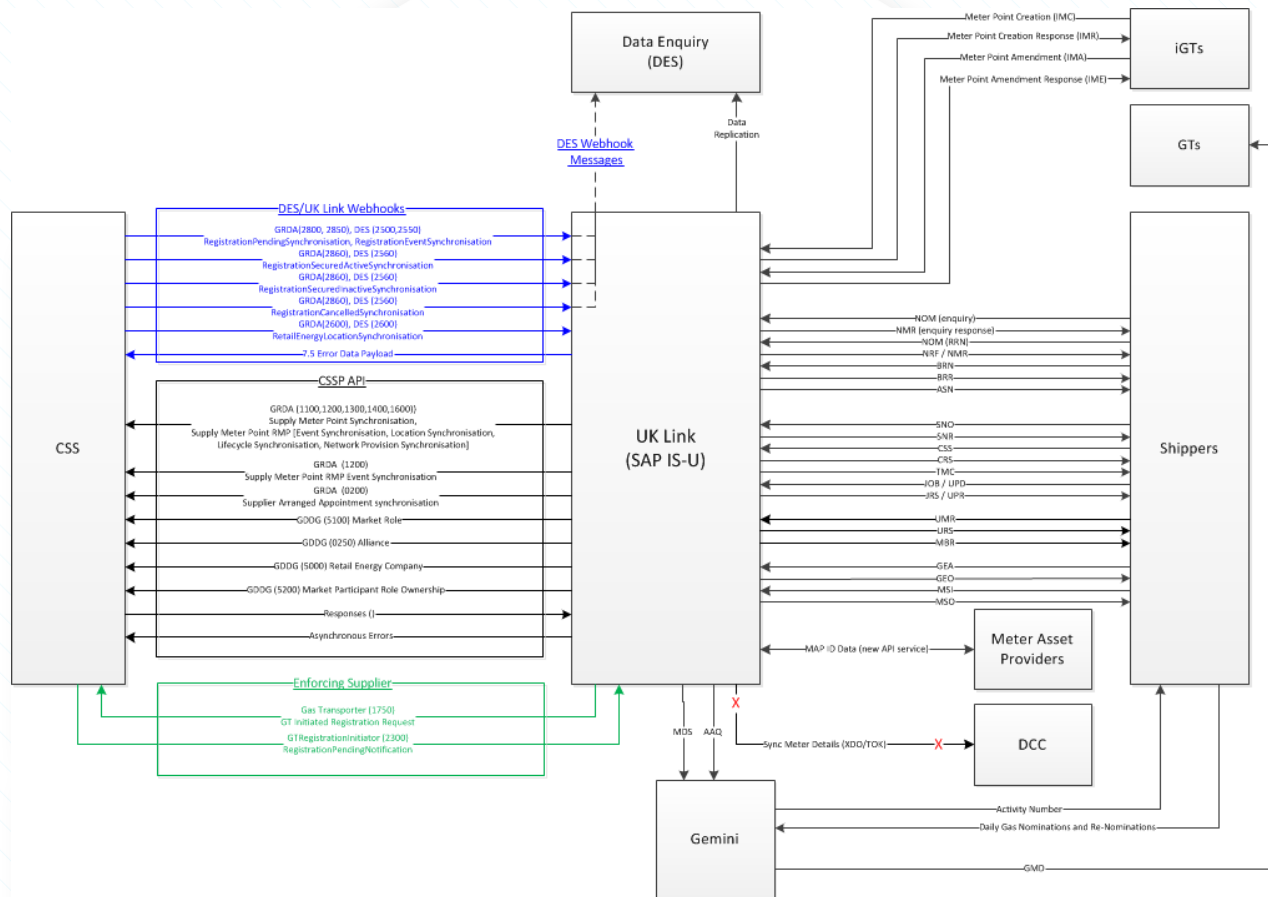
- Changes to file formats for retained switching processes to be minimised and only updated where essential.
- Where possible current file / record formats should be reused to minimise industry change.
- Where possible CSS data will be transformed by UK Link to align to current gas data formats to reduce change:
 - e.g. Domestic Indicator (Boolean) will be transformed to the Market Sector Code allowable values (D or I)

Process and Secondary Interface Scope

The below processes and following slide describe our consequential design and secondary interface scope:

- Supply Meter Point Creation
- Provision of settlement and Supply Meter Point capacity requests for a new Shipper's registration period
- Notification of Supply Meter Point Details for a confirmed Shipper registration
- Shipper ceased responsibility notifications
- Opening / Transfer Meter Reads
- Asset updates for a pending registration
- Supply Meter Point updates for a pending registration
- Provision of Shipper portfolio changes for Energy Balancing (Gemini)
- Provision of Supplier portfolio changes for smart metering

Switching Interface Flow Diagram



Core Switching Process and File Formats

Process Area	Inbound Files	Outbound Files
Supply Meter Point Creation	IMC IMA	IMR IME
Provision of settlement and meter point capacity requests for a new Shipper registration period	NOM CNF BRN SNO CSS	NRF, NMR CFR BRR SNR CRS ASN
Notification of Supply Meter Point Details for a confirmed Shipper registration		TRF TMC TRS
Shipper ceased responsibility notification		TRF TMC TRS
Opening / Transfer Meter Reads	UMR	URS MBR
Asset updates for a pending registration	JOB UPD	JRS UPR
Supply Meter Point updates for a pending registration	GEA MSI WAO MAM	GEO MSO WOR MAS
Provision of Shipper portfolio changes for Energy Balancing (Gemini)		MDS AAQ
Provision of Supplier portfolio changes for smart metering		XDO TOK

Please note that changes to the network delta files for the inclusion of REL have been removed due to licence constraints around the use of this data

Impacted UK Link File Format Summary

Interface Name	UK Link Data Flow Direction	Industry Participant / External System	Consequential Design Impact	Includes CSS Data
NOM	Inbound	Shipper	Change to current file format & Process Change	N
NOM Enquiry (API)	Inbound / Outbound	Shipper	New API	N
NMR	Outbound	Shipper	Change to current file format & Process Change	N
NRF	Outbound	Shipper	Change to current file format & Process Change	N
CNF	Inbound	Shipper	Process Change	N
CFR	Outbound	Shipper	Process Change	N
BRN	Inbound	Shipper	New Interface File / New API	N
BRR	Outbound	Shipper	New Interface File / New API	N
ASN	Outbound	Shipper	New Interface File / New API	Y
Transportation Rate	Inbound / Outbound	Shipper	New API	N
SNO	Inbound	Shipper	Awaiting decision on Shared Supply Meter Points	N
SNR	Outbound	Shipper	Awaiting decision on Shared Supply Meter Points	N
CSS	Inbound	Shipper	Awaiting decision on Shared Supply Meter Points	N
CRS	Outbound	Shipper	Awaiting decision on Shared Supply Meter Points	N

Impacted UK Link File Format Summary

Interface Name	UK Link Data Flow Direction	Industry Participant / External System	Consequential Design Impact	Includes CSS Data
TRS	Outbound	Shipper	Awaiting decision on Shared Supply Meter Points	N
TRF	Outbound	Shipper	Process Change	N
TMC	Outbound	Shipper	New Interface File	N
JOB	Inbound	Shipper	Process Change	N
UPD	Inbound	Shipper	Process Change	N
UPR	Outbound	Shipper	Process Change	N
JRS	Outbound	Shipper	Process Change	N
GEA	Inbound	Shipper	Change to current file format	N
GEO	Outbound	Shipper	Change to current file format	N
MSI	Inbound	Shipper	Change to current file format	N
MSO	Outbound	Shipper	Change to current file format	N
WAO	Inbound	Shipper	Process Change	N
WOR	Outbound	Shipper	Process Change	N
MDS	Outbound	Gemini	Process Change	N
AAQ	Outbound	Gemini	Process Change	N

Impacted UK Link File Format Summary

Interface Name	UK Link Data Flow Direction	Industry Participant / External System	Consequential Design Impact	Includes CSS Data
XDO	Outbound	Smart DCC	Decommission	N/A
TOK	Outbound	Smart DCC	Decommission	N/A
MAM	Inbound	Shipper	Process Change	N
MAS	Outbound	Shipper	Process Change	N
IMC	Inbound	iGT	Process Change	N
IMR	Outbound	iGT	Process Change	N
IMA	Inbound	iGT	Process Change	N
IME	Outbound	iGT	Process Change	N
UMR	Inbound	Shipper	Process Change	N
URS	Outbound	Shipper	Process Change	N
MBR	Outbound	Shipper	Process Change	N

Impacted Interface Summary

Change Type	Impacted File Format Count
Change to current file format	7
Decommission	2
New API	5
New Interface File	4
Process Change	23
Awaiting decision on Shared Supply Meter Points	6

Impacted Party	Impacted File Format Count
Shipper	32
iGT	4
Smart DCC	2
Gemini	2
Total	42

Amendments to Rejection Codes

[illegible]

REJECTION CODE	REJECTION DESCRIPTION	INBOUND FILE	OUTBOUND FILE
MPO00001	Meter Point does not exist	UDR,UMR,UBR,SFN,NOM,CNF, MAM,WAQ,MID,GEA,MAI,AQI, CNC,MSI,WRS,SNO	URS,SFR,NMR,CFR,MAS,WOR ,GEO,MIO,MIR,AQR,CNR,MSO, SNR

A0000025	AD Completion Date has not been provided	Rejection Code	MSO.CNF.SPC	SCR
A0000026	Minimum data has not been provided	Rejection Code	MSO.CNF.SPC	SCR
CNF000011	Sufficient notice given to change the class	Rejection Code	MSO.CNF.SPC	SCR
CL500001	Supplier invoice period for class does not exist	Rejection Code	MSO.CNF.SPC	SCR
CL500003	Substantive change request for class does not permitted	Rejection Code	MSO.CNF.SPC	SCR
CL500005	Class changing within 2 months of last Class Change not permitted	Rejection Code	MSO.CNF.SPC	SCR
CL500004	Outstanding request to change the class already exists	Rejection Code	MSO.CNF.SPC	SCR
CL500005	Outstanding class code requested in the file	Rejection Code	MSO.CNF.SPC	SCR
CL500001	Provided SDO does not match with the requesting SDO	Rejection Code	MSO.CNF.SPC	SCR
CL500001	Provided SDO does not match with the requesting SDO	Rejection Code	MSO.CNF.SPC	SCR
CL500009	Registered class type is same as current class	Rejection Code	MSO.CNF.SPC	SCR
CL500009	Registered class type is same as current class	Rejection Code	MSO.CNF.SPC	SCR
CNF000010	Confirmation reference not found	Rejection Code	MSO.CNF.SPC	SCR
CNF000001	Confirmation already exists	Rejection Code	MSO.CNF.SPC	SCR
CNF000002	Shipper Reference does not match that for the Confirmation reference	Rejection Code	MSO.CNF.SPC	SCR
CNF000010	Confirmation not owned by requesting System User	Rejection Code	MSO.CNF.SPC	SCR
CNF000011	Confirmation effective date does not allow the requested hold period	Rejection Code	MSO.CNF.SPC	SCR
CNF000014	Confirmation effective date is greater than maximum notice period	Rejection Code	MSO.CNF.SPC	SCR
CNF000015	Confirmation does not contain the Master Point reference provided	Rejection Code	MSO.CNF.SPC	SCR
CNF000016	Confirmation is still subject to an Objection	Rejection Code	MSO.CNF.SPC	SCR
CNF000018	Confirmation is not subject to a Withdrawal Notice on which an Objection may be made	Rejection Code	MSO.CNF.SPC	SCR
CNF000022	Confirmation has expired as it is still subject to an Objection	Rejection Code	MSO.CNF.SPC	SCR
CNF000024	Confirmation is not Live	Rejection Code	MSO.CNF.SPC	SCR
CNF000025	Confirmation does not have an effective Objection	Rejection Code	MSO.CNF.SPC	SCR

Amendments are being made to retained files to reject any requests for CSS managed meter points. This introduces a number of new rejection codes that will be issued to Shippers to:

- Reject confirmation requests
- Reject Supplier amendment submissions
- Reject changes to Market Sector Code

New Rejection Codes

The following new rejection codes are being introduced to support the introduction of new files and process changes:

REJ_CODE	Proposed Description	Impacted File
MPO00700	Nomination is not allowed for the MPRN	NOM, SNO
CSS00001	Confirmation cannot be submitted for CSS sites	CNF, CSS
CSS00002	Supplier change cannot be submitted for CSS sites via GEA process	GEA
CSS00003	Withdrawal request or objection cannot be submitted for CSS sites	WAO
CSS00004	MSI cannot be submitted for CSS sites	MSI
CSS00005	Shipper Supplier combination provided is not valid	IMC & IMA

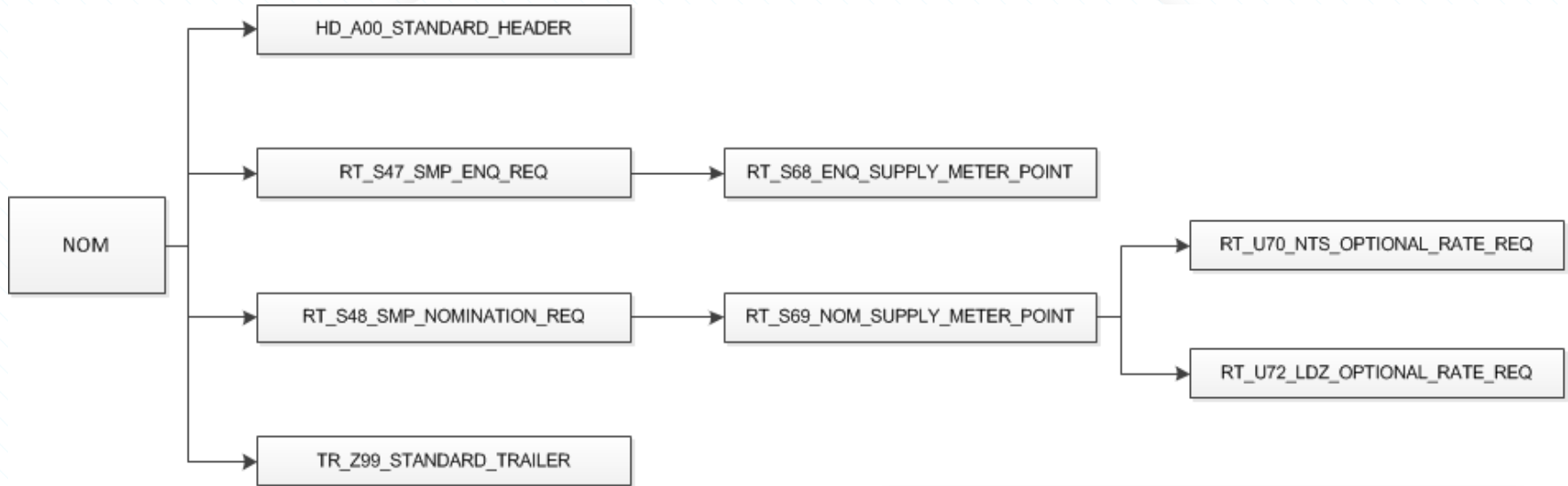
Where possible existing error codes will be used to support new validation failures



Impacted File Hierarchies

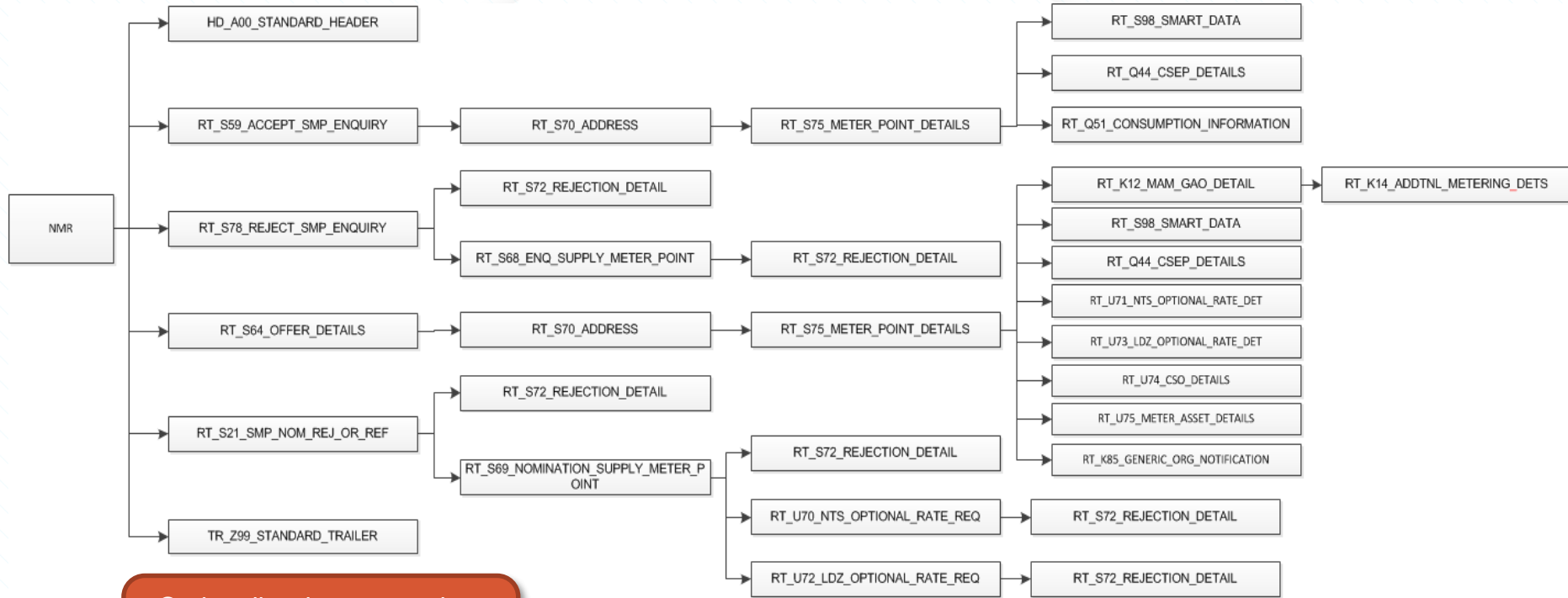


NOM File Hierarchy



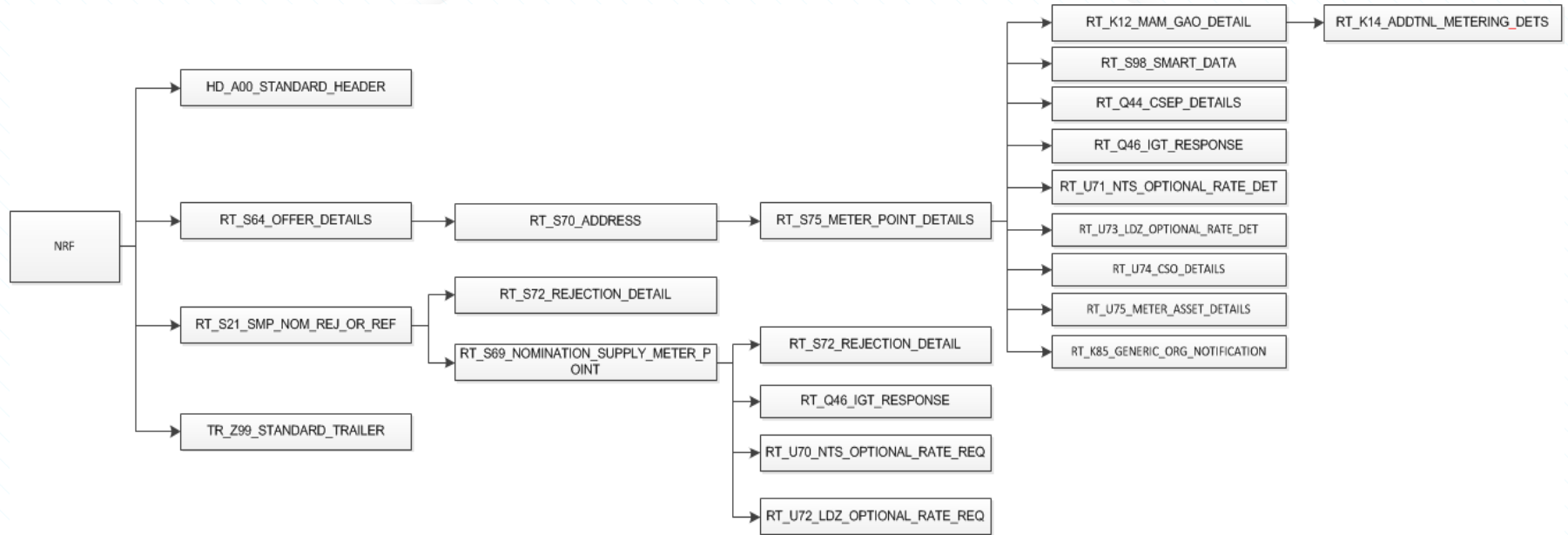
Optionality changes to data items contained within the S48 and S69 records along with processing changes. New enquiry API to support the submission of the S47 and S68 records

NMR File Hierarchy



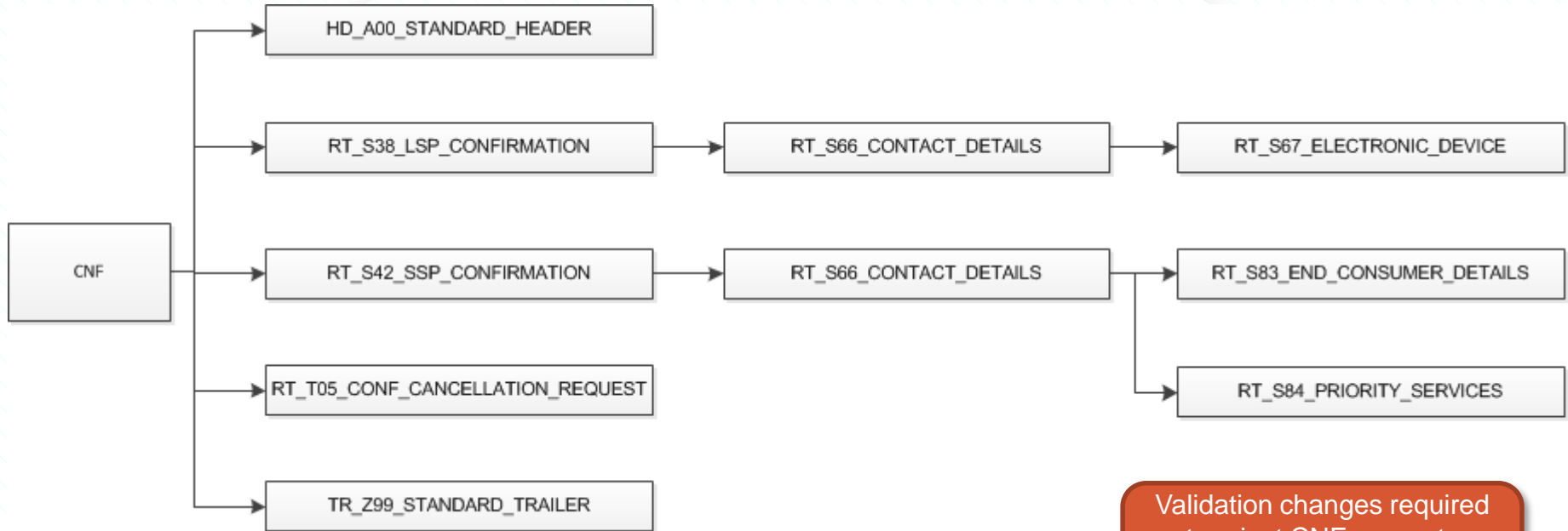
Optionality changes to data items contained within the S64 and S69 records

NRF File Hierarchy



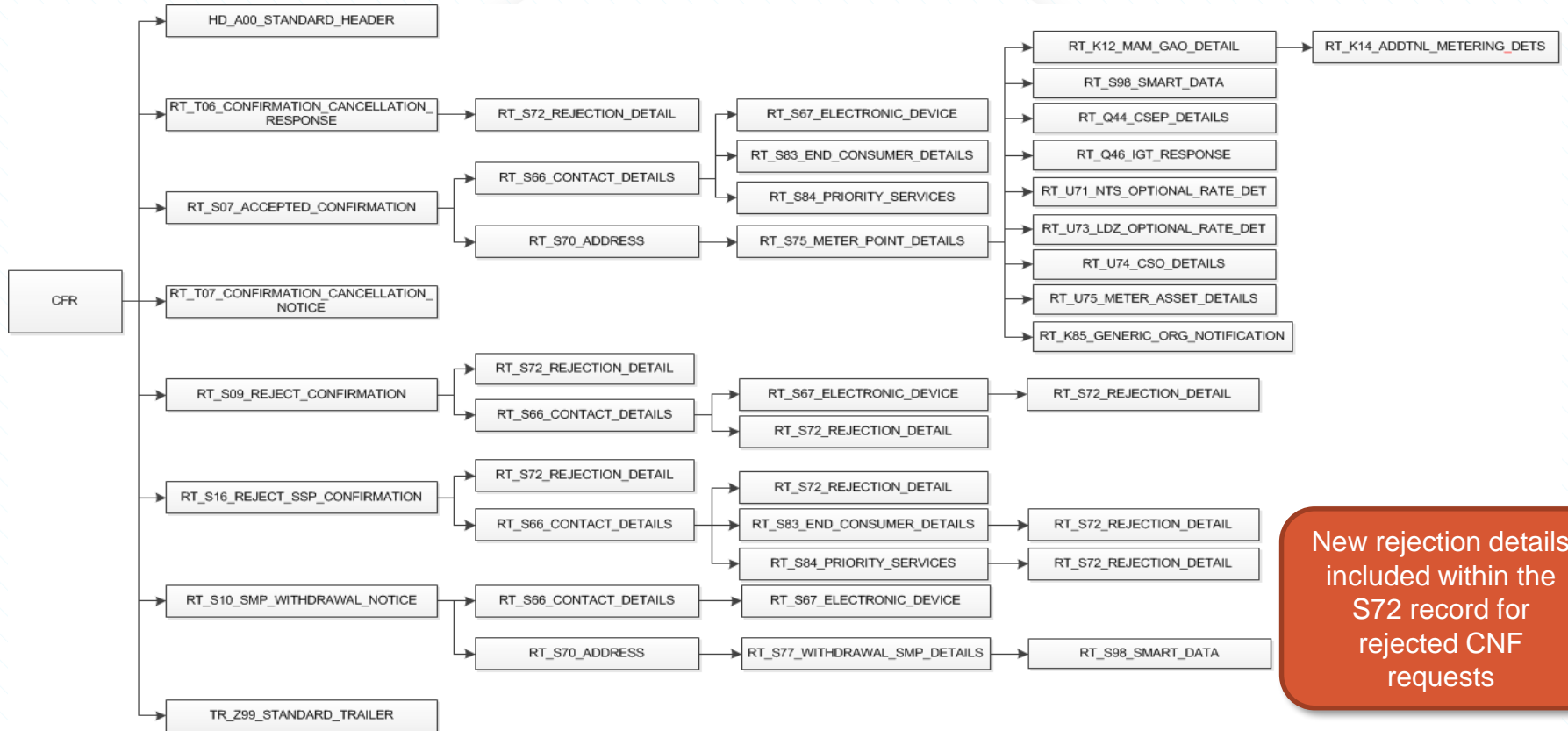
Optionality changes to data items contained within the S64 and S69 records

CNF File Hierarchy



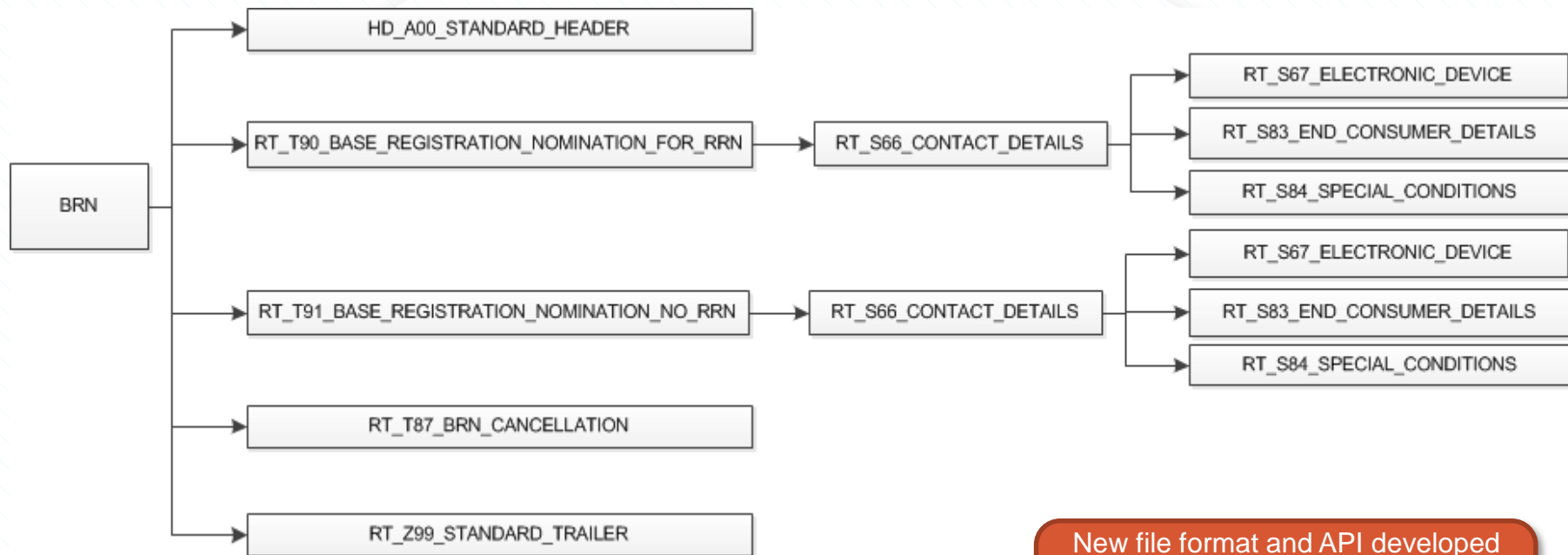
Validation changes required
to reject CNF requests
submitted for CSS managed
Supply Meter Points

CFR File Hierarchy



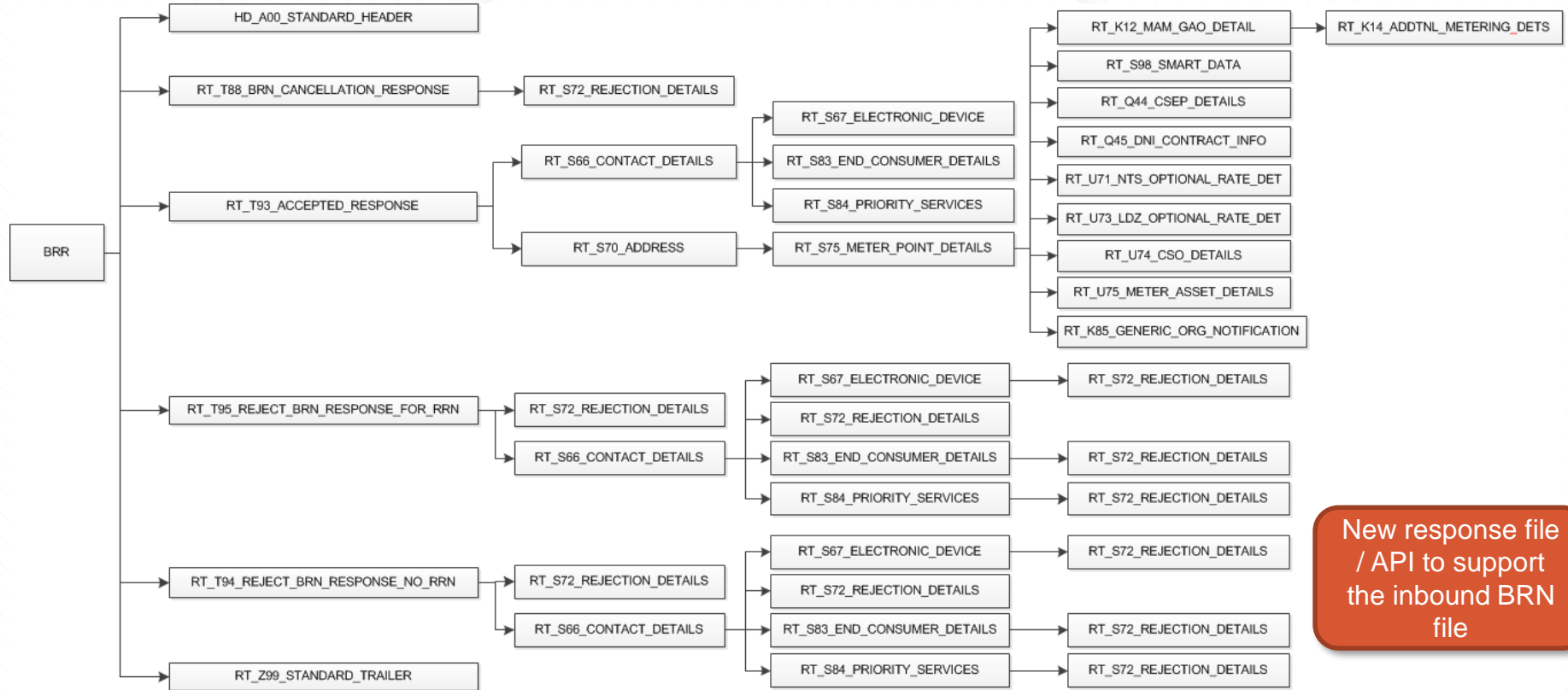
New rejection details included within the S72 record for rejected CNF requests

BRN File Hierarchy



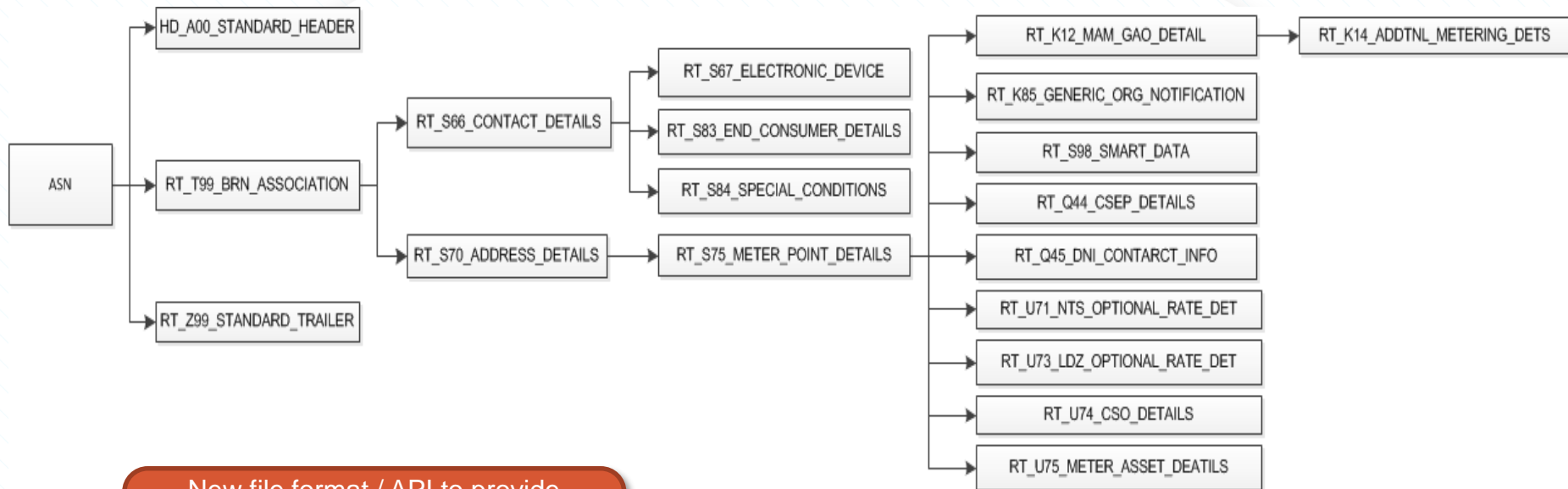
New file format and API developed to enable Shippers to submit their required settlement data in support of a new CSS registration

BRR File Hierarchy



New response file / API to support the inbound BRN file

ASN File Hierarchy



New file format / API to provide Shippers with the association details between a CSS Registration and their settlement data submission

Inputs for Shipper Transportation Rate API Interface

Below are the Inputs fields which shipper needs to provide in JSON format while accessing Shipper Transportation Rates API 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_POINT_CLASS METER_READ_BATCH_FREQUENCY SEASONAL_LSP SEASONAL_LSP_PERIOD_START_MON SEASONAL_LSP_PERIOD_END_MON 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 for Shipper Transportation Rate API Interface

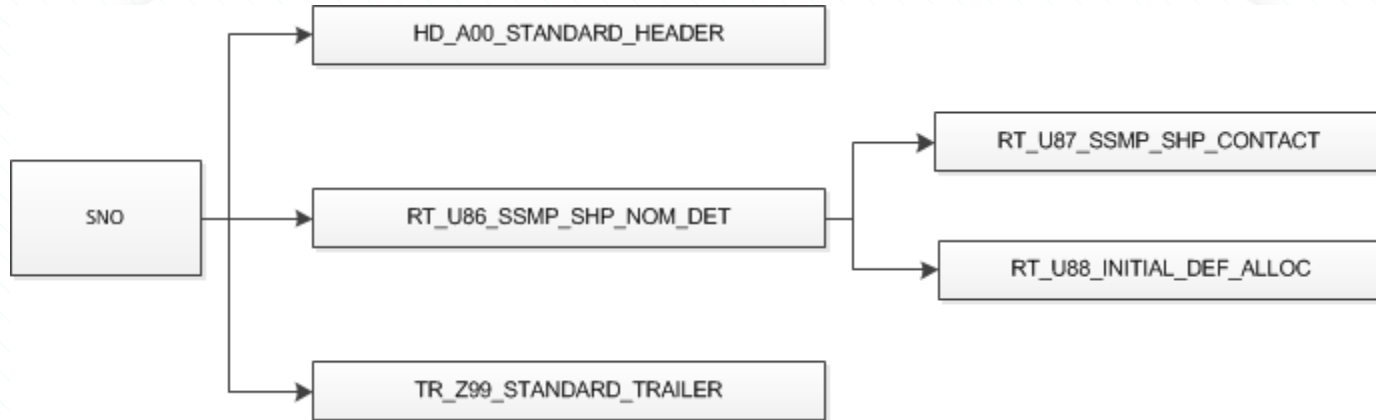
Below are the Output fields which shipper needs to consume in JSON format while accessing Shipper Transportation Rates API Interface

Segment		Rate Fields
RT_S64_OFFER_DETAILS	Level 1	EXIT_CAPACITY_LDZ_ECN
RT_S64_OFFER_DETAILS	Level 1	NTS_COMMODITY_CHARGE
RT_S64_OFFER_DETAILS	Level 1	LDZ_COMMODITY_CHARGE
RT_S64_OFFER_DETAILS	Level 1	LDZ_CAPACITY_CHARGE
RT_S64_OFFER_DETAILS	Level 1	LDZ_CUSTOMER_CHARGE
RT_Q44_CSEP_DETAILS	Level 1	CSEP_ADMIN_CHARGE_RATE
RT_Q44_CSEP_DETAILS	Level 1	IGT_INFILL_CHARGE_RATE_EFF_DAT
RT_Q44_CSEP_DETAILS	Level 1	IGT_INFILL_RATE
RT_Q44_CSEP_DETAILS	Level 1	IGT_METERING_RATE
RT_Q44_CSEP_DETAILS	Level 1	IGT_METER_CHARGE_RATE_EFF_DATE
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANSPORTATION_RATE
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANSPORTATION_RATE_TYPE
RT_Q44_CSEP_DETAILS	Level 1	IGT_TRANS_CHARGE_RATE_EFF_DATE

Rates Made available via Shipper Transportation Rate API Interface

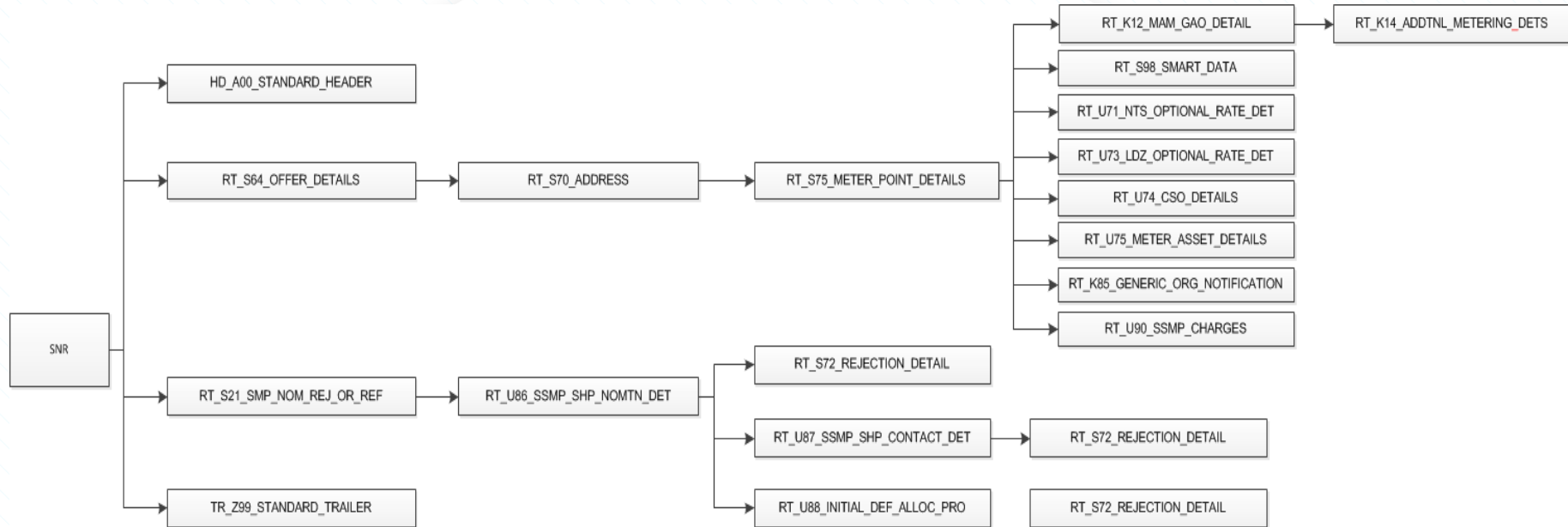
Record	Level	Rate Fields
RT_U71_NTS_OPT_RATE_DET	Level 1	NTS_OPTIONAL_RATE
RT_U73_LDZ_OPT_RATE_DET	Level 1	LDZ_OPTIONAL_RATE
RT_U74_CSO_DETAILS	Level 1	CSEP_ADMIN_CHARGE_RATE
RT_U75_METER_ASSET_DETAILS	Level 1	MAC_METER_ASSET_CHARGE_I MAC_METER_ASSET_CHARGE_M MAC_METER_ASSET_CHARGE_P CAC_CORRECTOR_ASSET_CHARGE_I CAC_CORRECTOR_ASSET_CHARGE_M CAC_CORRECTOR_ASSET_CHARGE_P DAC_DRE_I DAC_DRE_M DAC_DRE_P
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

SNO File Hierarchy



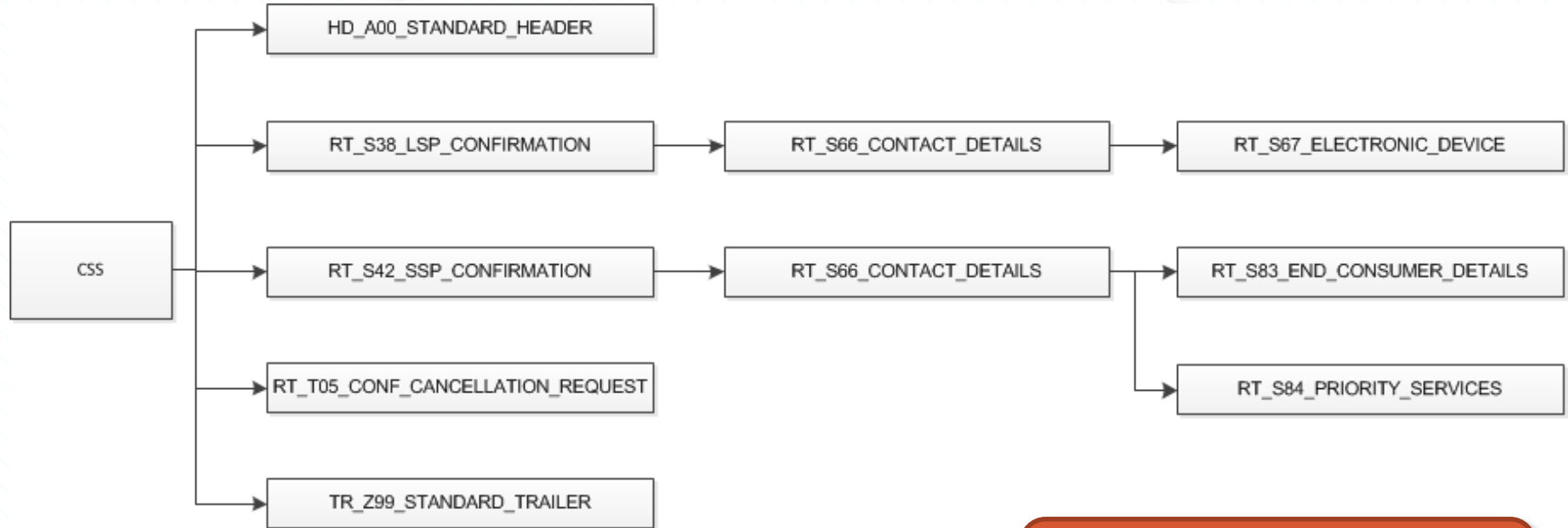
Potential changes required to inbound file to support or reject nomination requests for Shared Supply Meter Points

SNR File Hierarchy



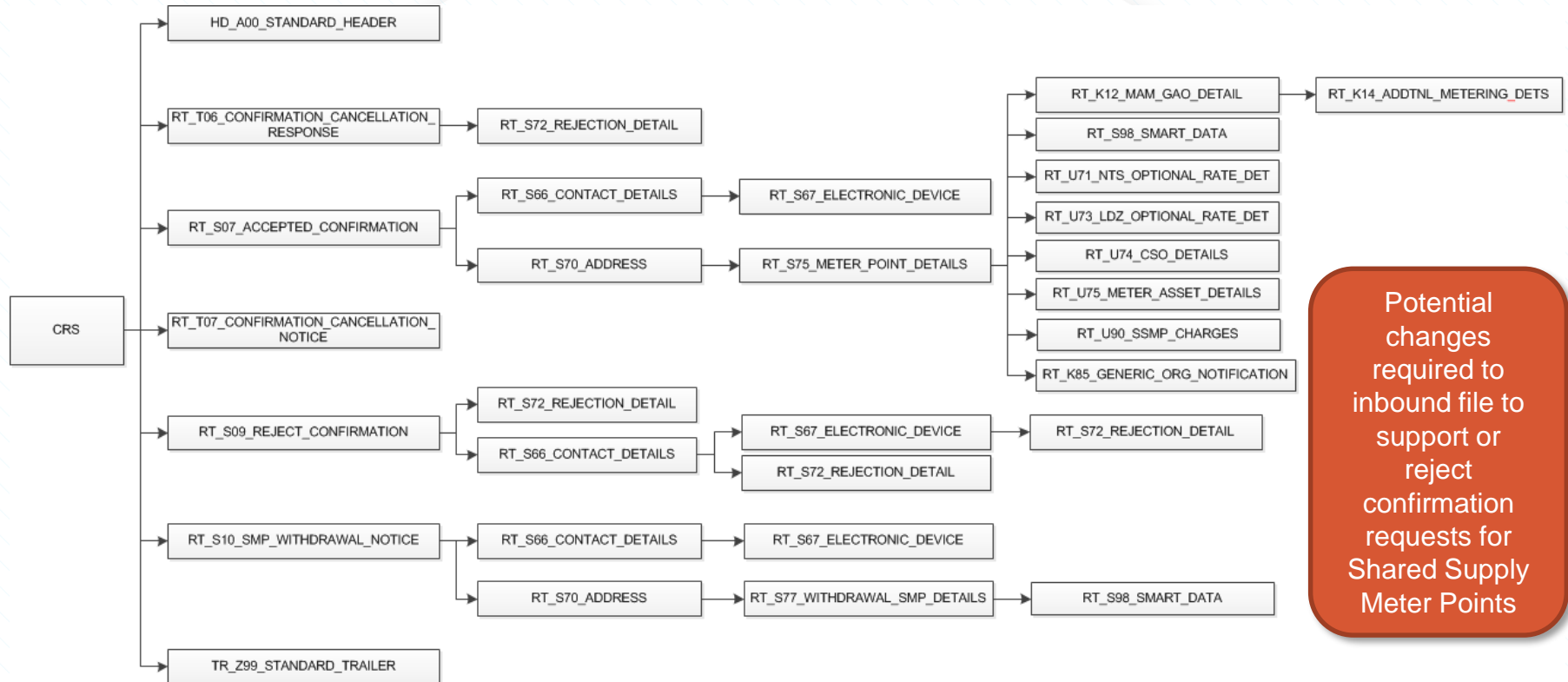
Potential changes required to
outbound file to support or reject
nomination requests for Shared
Supply Meter Points

CSS File Hierarchy

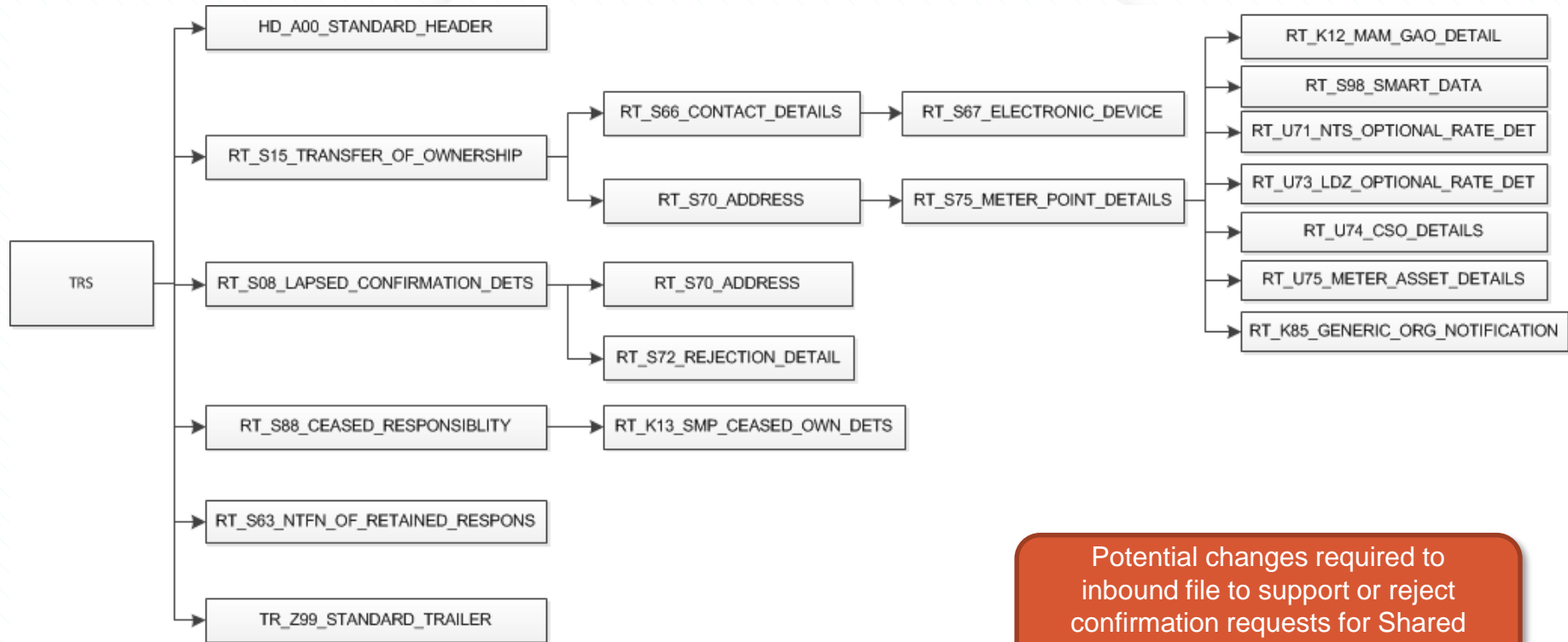


Potential changes required to inbound file to support or reject confirmation requests for Shared Supply Meter Points

CRS File Hierarchy

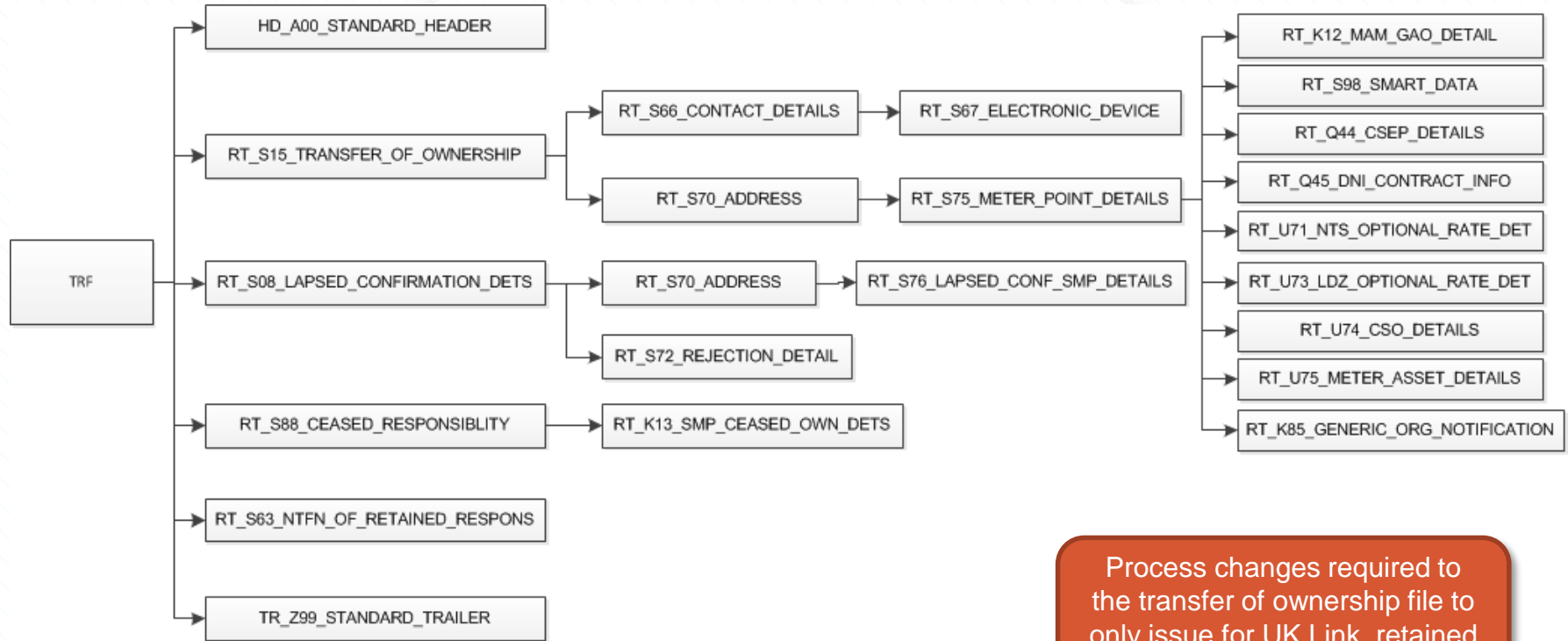


TRS File Hierarchy



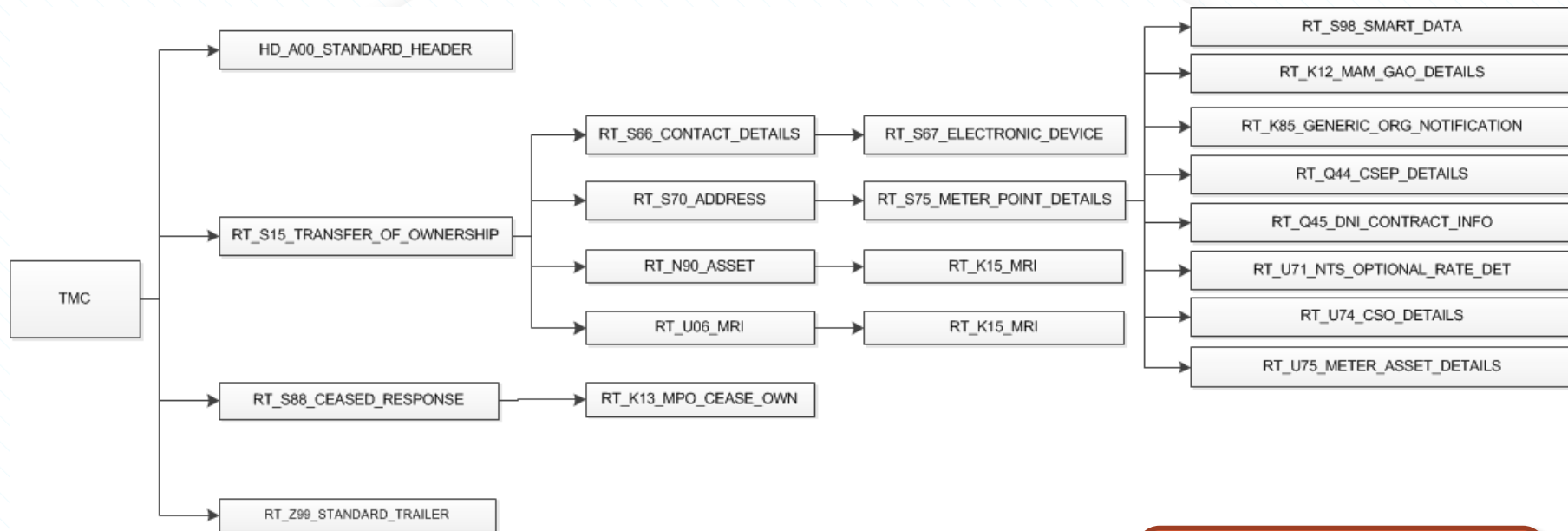
Potential changes required to
inbound file to support or reject
confirmation requests for Shared
Supply Meter Points

TRF File Hierarchy



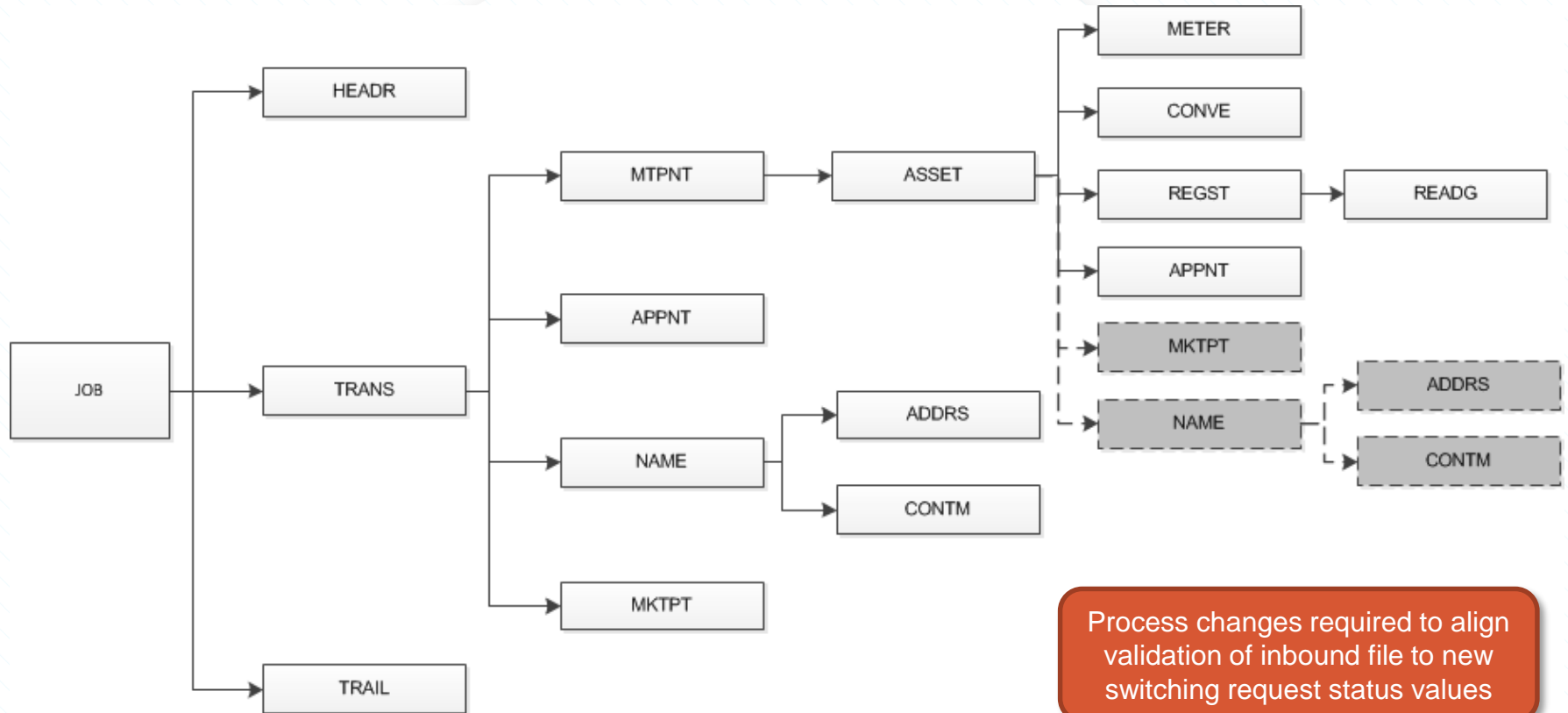
Process changes required to the transfer of ownership file to only issue for UK Link retained switching sites

TMC File Hierarchy

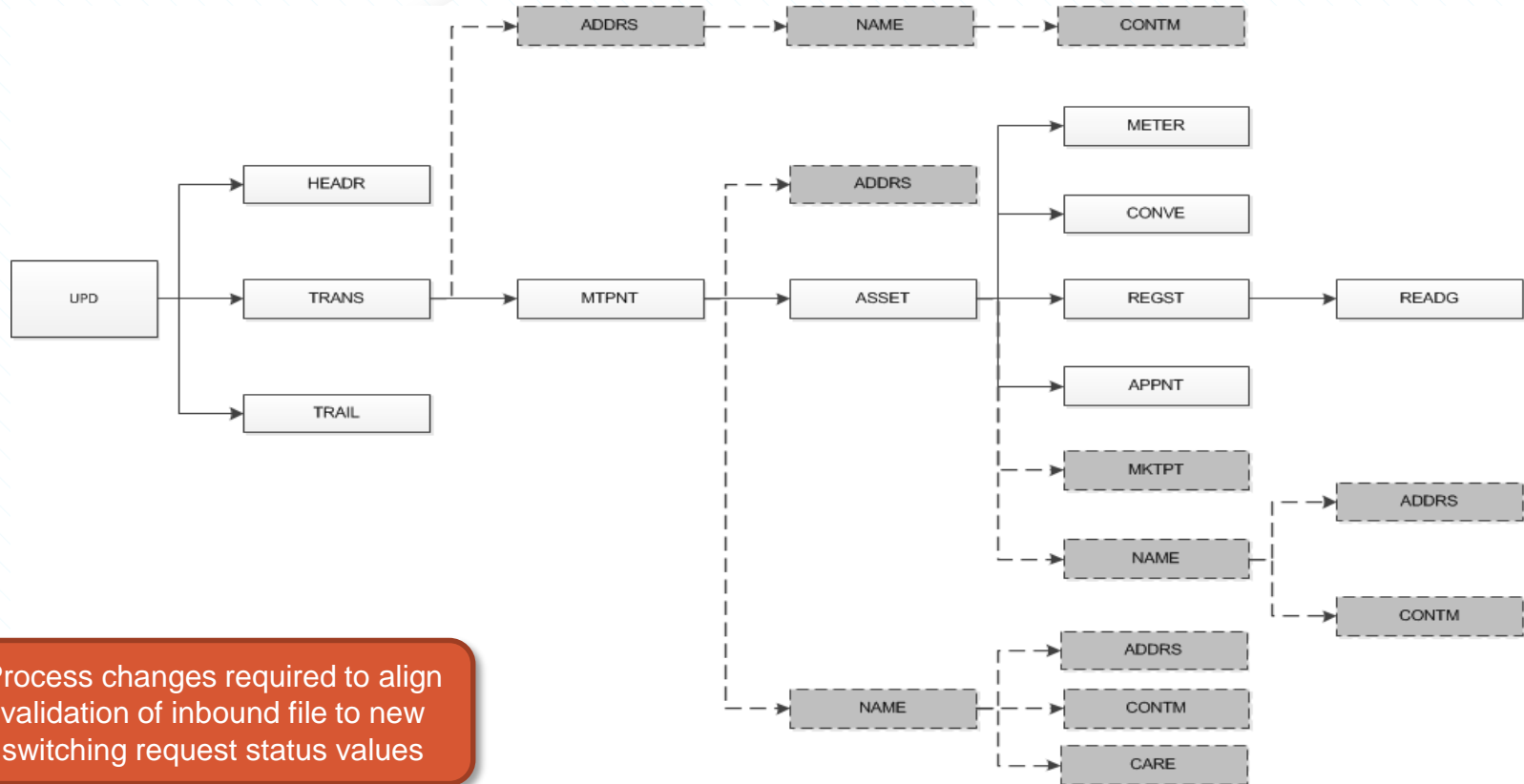


New transfer of shipper ownership file required for CSS managed sites

JOB File Hierarchy

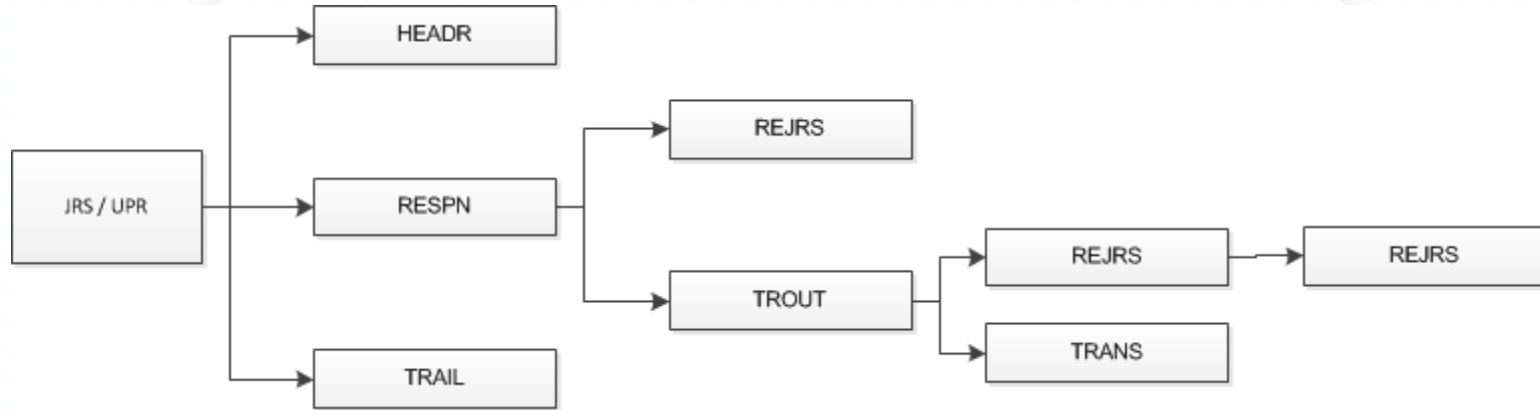


UPD File Hierarchy



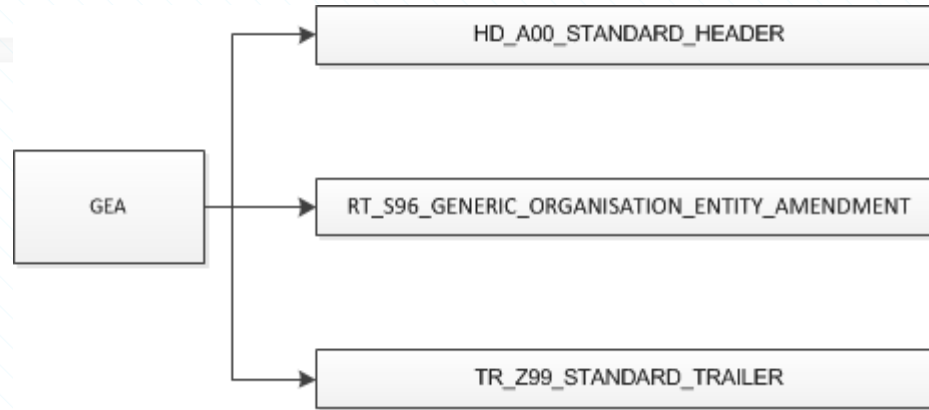
Process changes required to align validation of inbound file to new switching request status values

JRS / UPR File Hierarchies



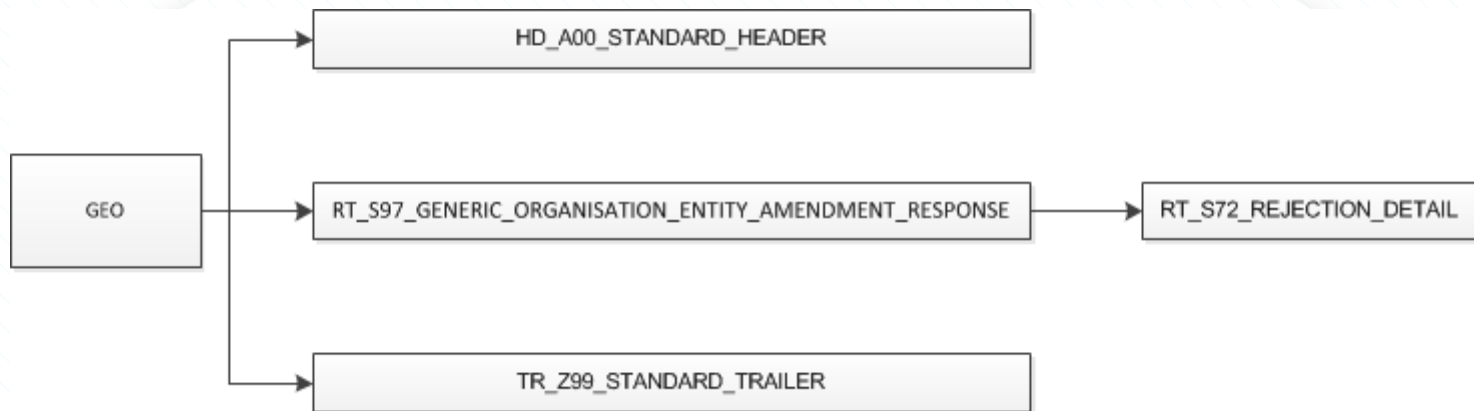
Process changes required to support generation of outbound file following submission rules changes on inbound JOB and UPD files

GEA File Hierarchy



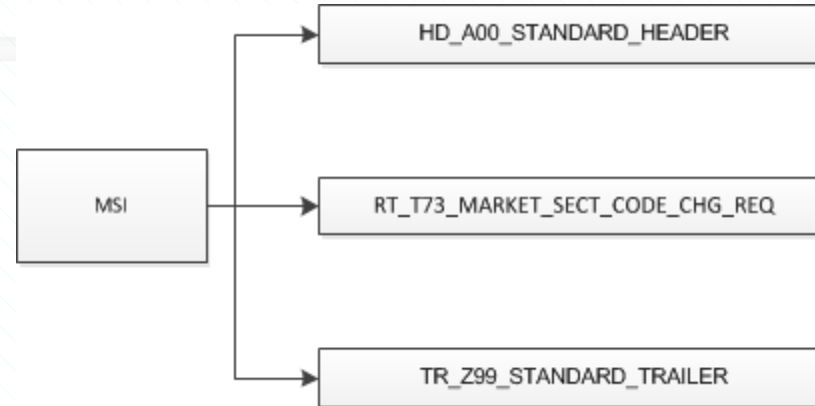
Process changes required to reject any Supplier update requests for Supply Meter Points being managed by CSS

GEO File Hierarchy



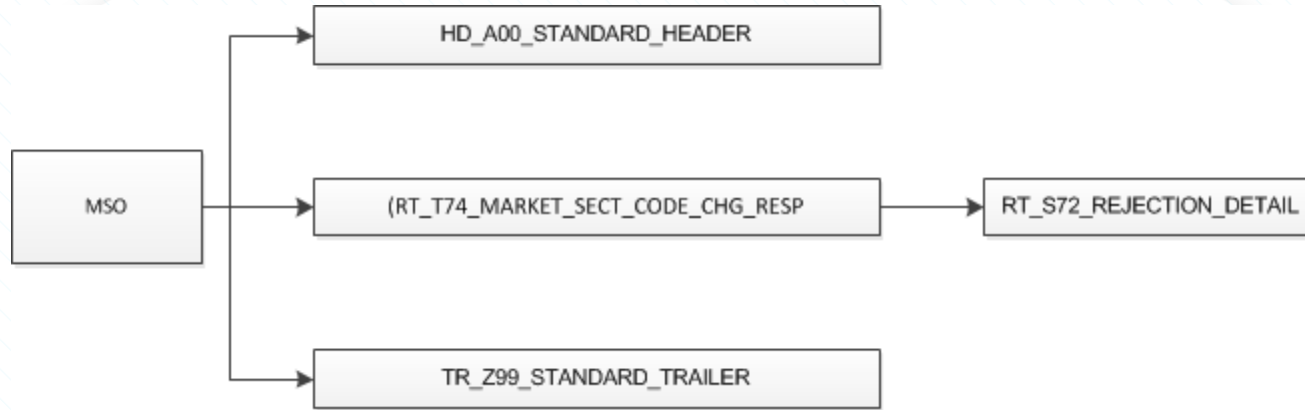
New rejection details included
within the S72 record for rejected
GEA requests

MSI File Hierarchy



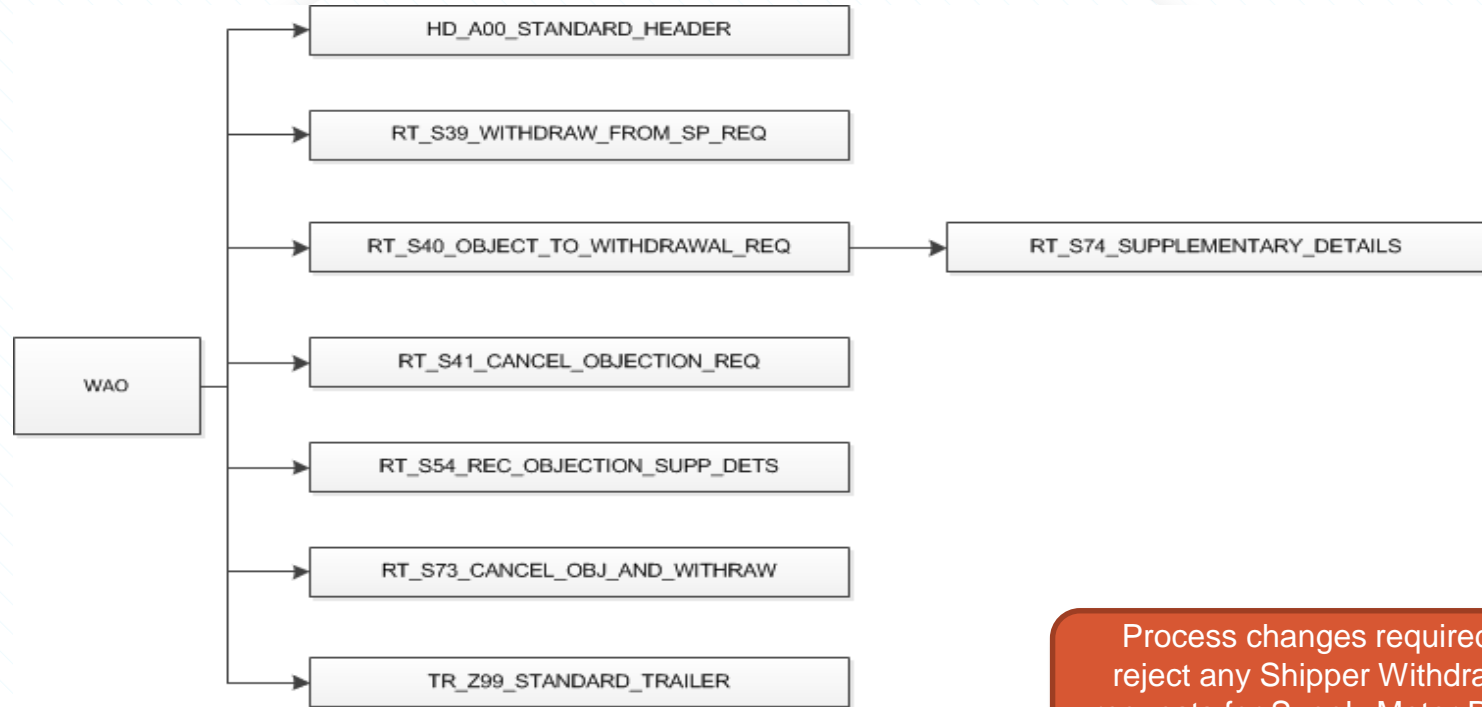
Process changes required to reject any Market Sector Code update requests for Supply Meter Points being managed by CSS

MSO File Hierarchy



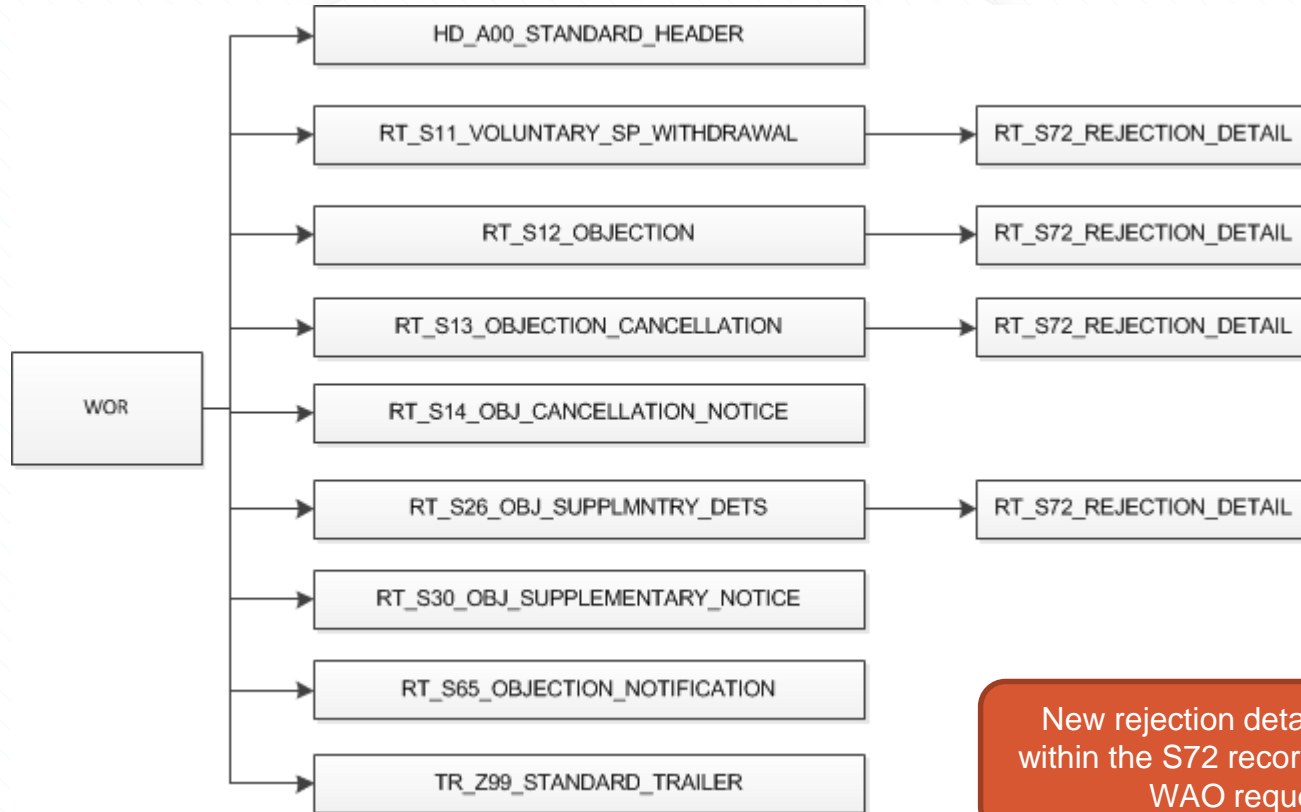
New rejection details included within the S72 record for rejected MSI requests. Change to process logic to issue to Shippers on the back of a CSS domestic indicator change out side of a switch

WAO File Hierarchy



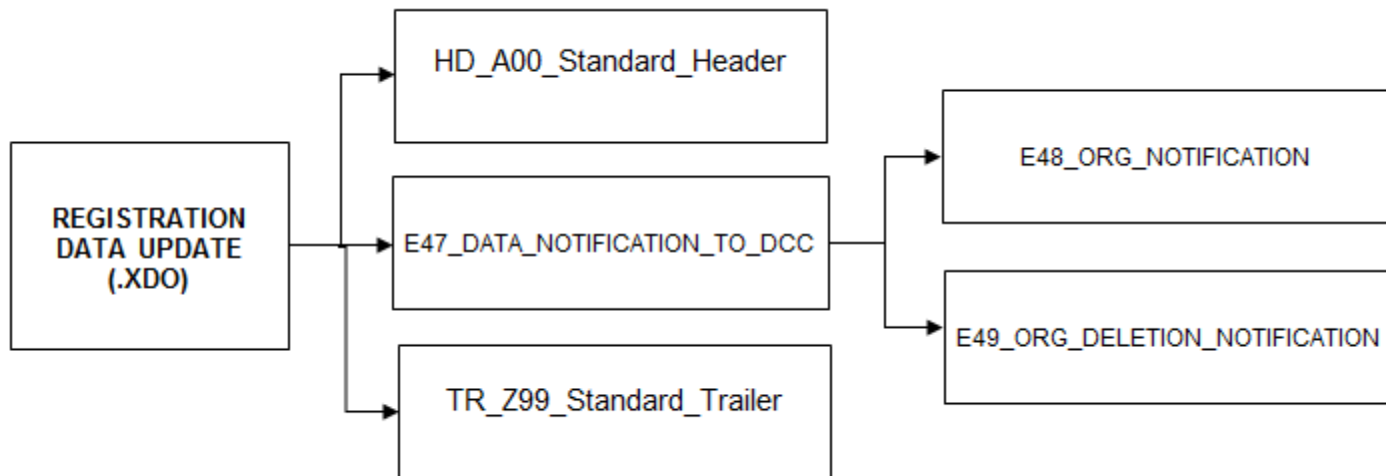
Process changes required to reject any Shipper Withdrawal requests for Supply Meter Points being managed by CSS

WOR File Hierarchy



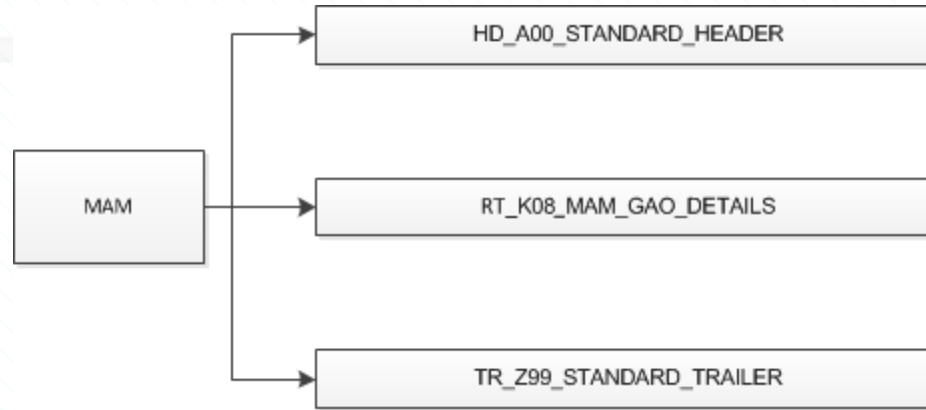
New rejection details included within the S72 record for rejected WAO requests

XDO File Hierarchy



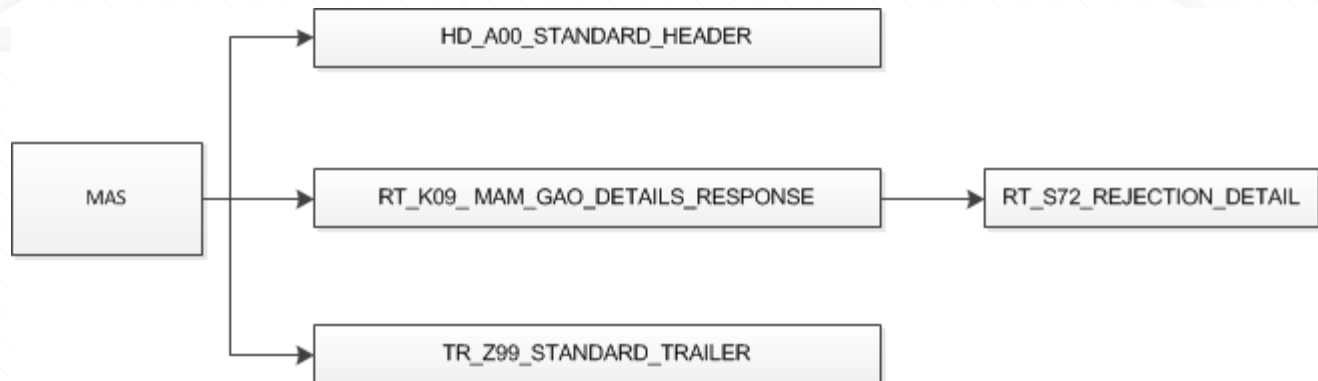
Decommissioning of redundant file, the supporting TOK file (XDO file record count summary) will also be decommissioned

MAM File Hierarchy



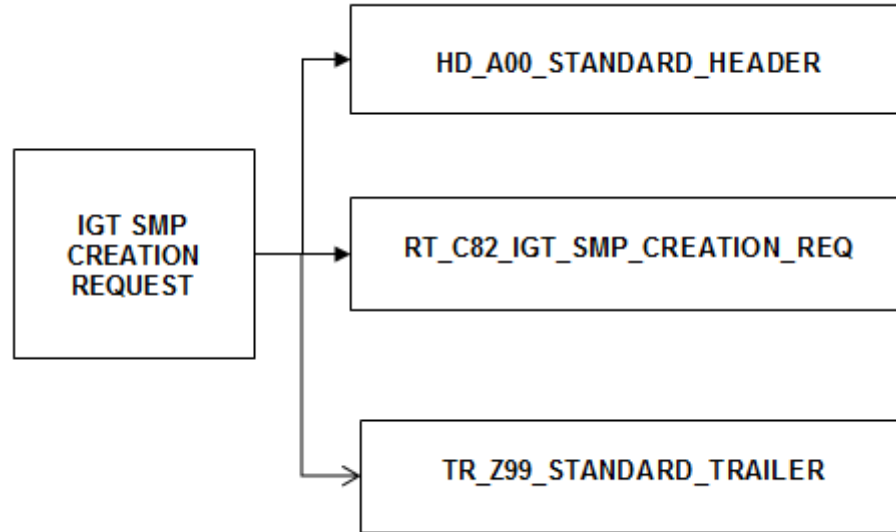
Process changes required to align validation of inbound file to new switching request status values

MAS File Hierarchy



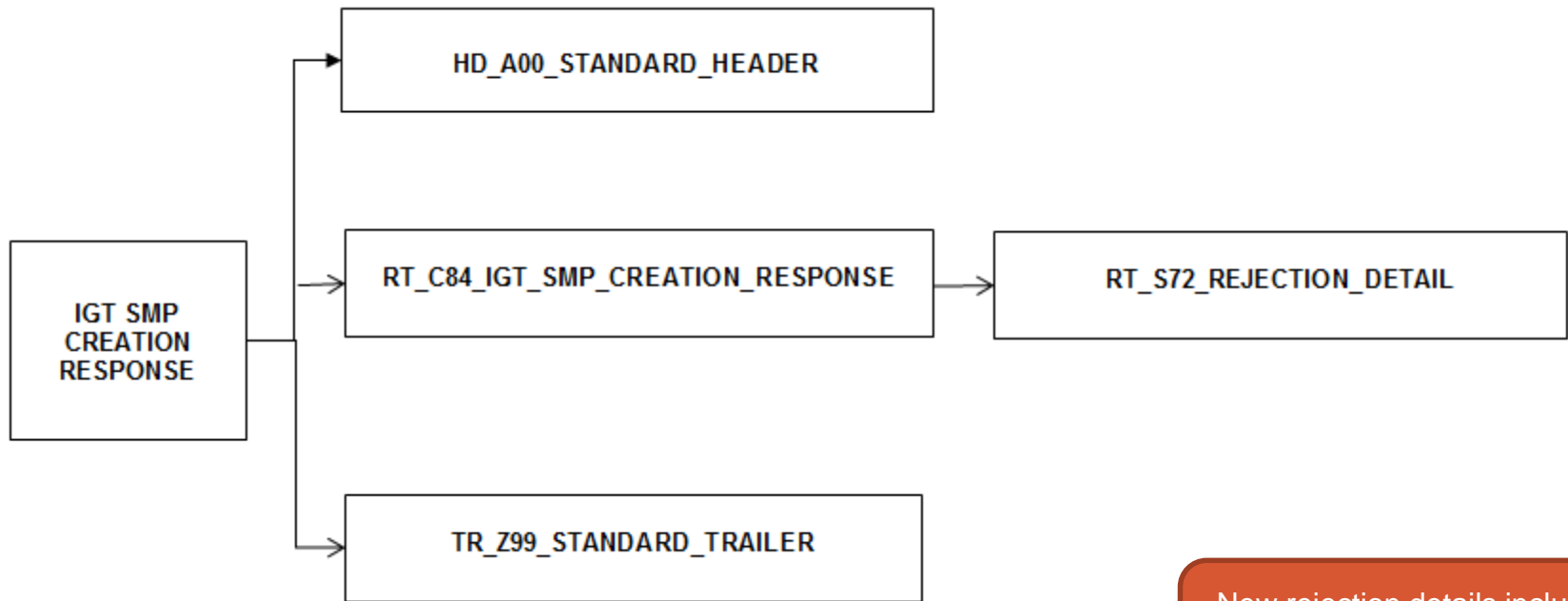
Process changes required to support generation of outbound file following submission rules changes on inbound MAM file

IMC File Hierarchy



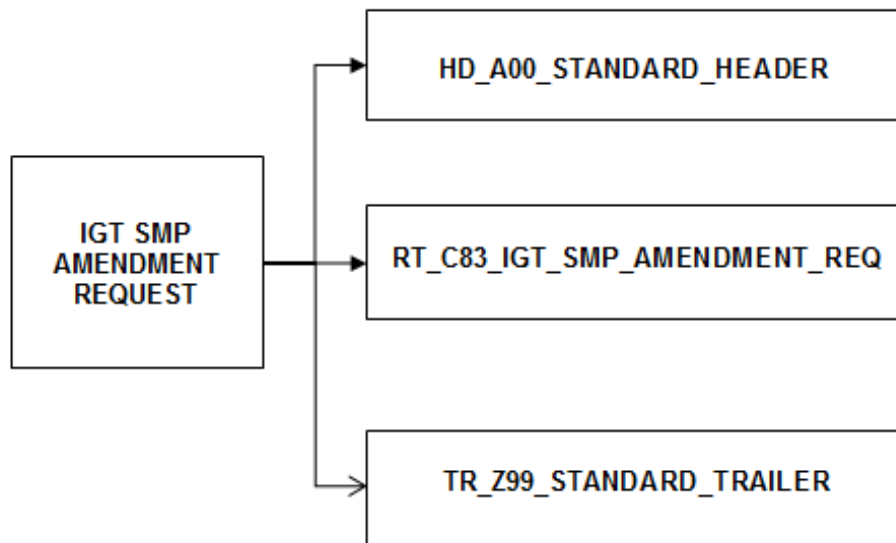
Process changes required to validate elected Shipper and Supplier relationships

IMR File Hierarchy



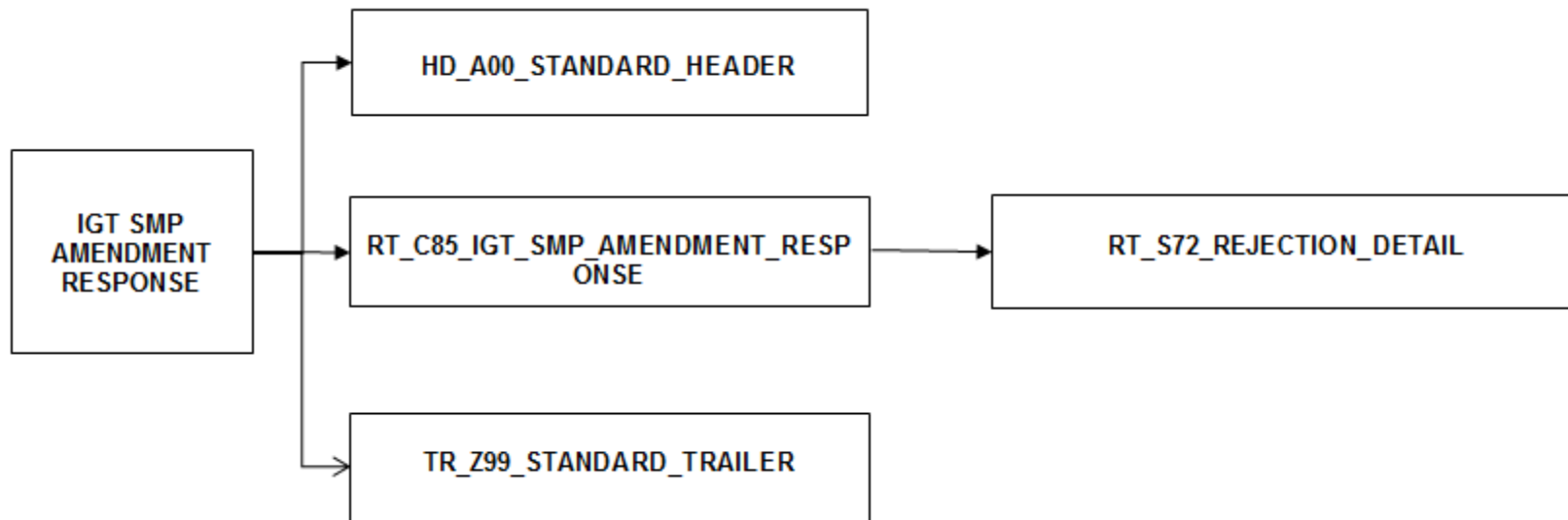
New rejection details included within the S72 record for rejected IMC requests

IMA File Hierarchy



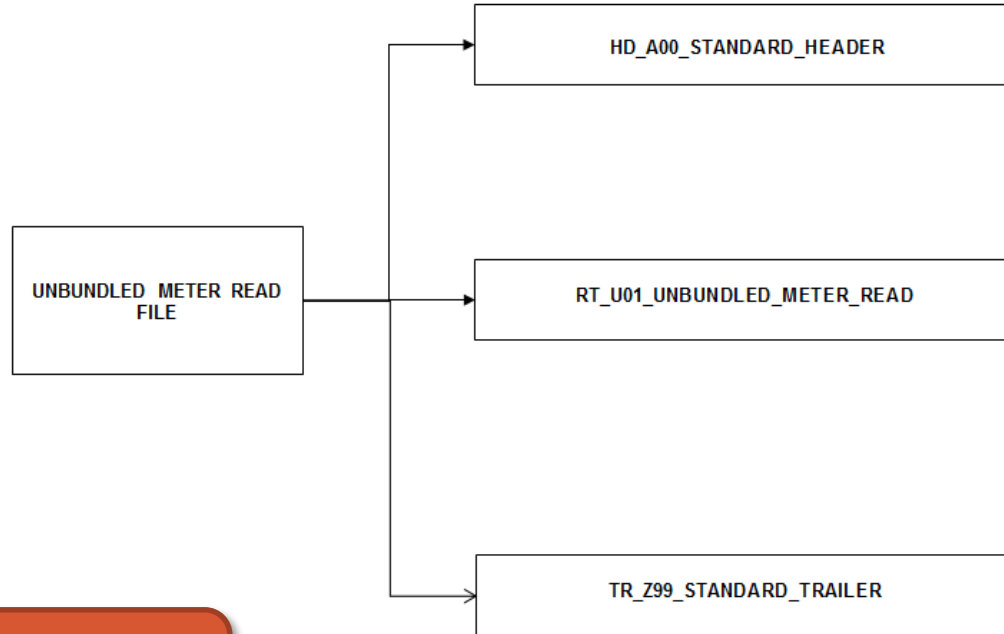
Process changes required to validate elected Shipper and Supplier relationships

IME File Hierarchy



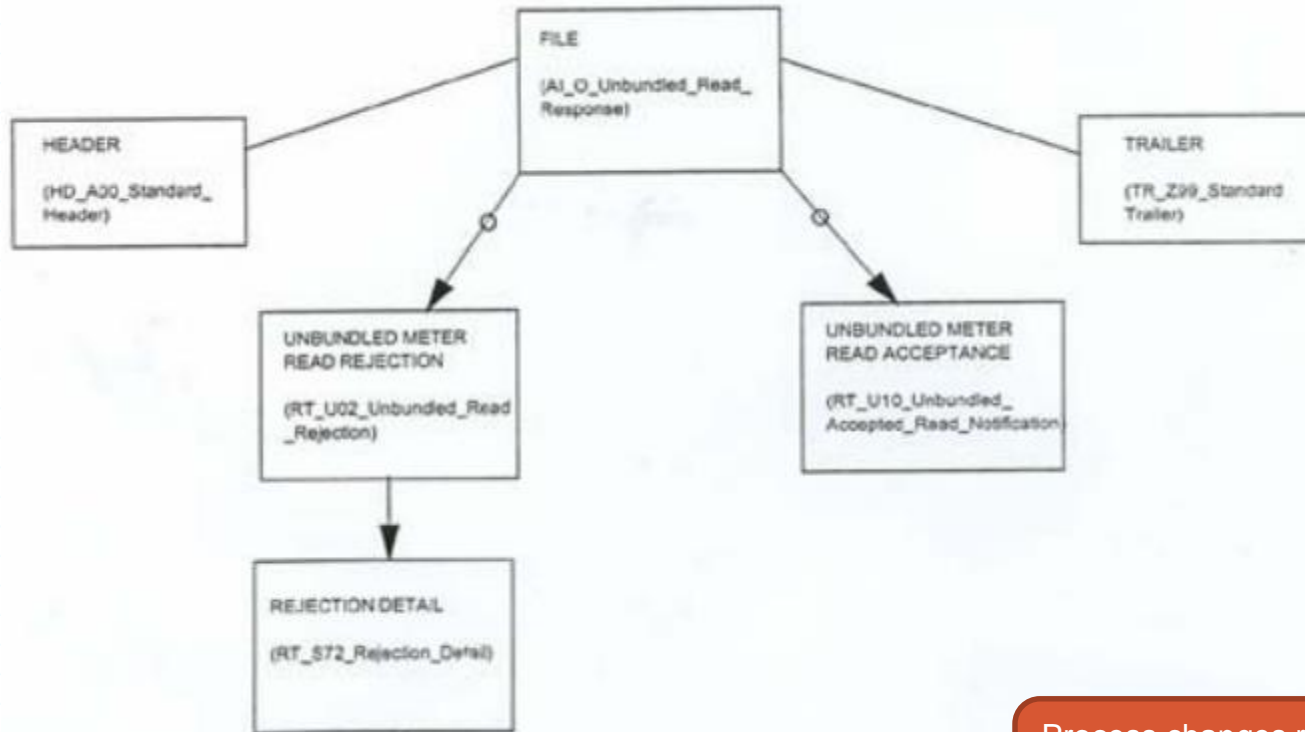
New rejection details included within the S72 record for rejected IMA requests

UMR File Hierarchy



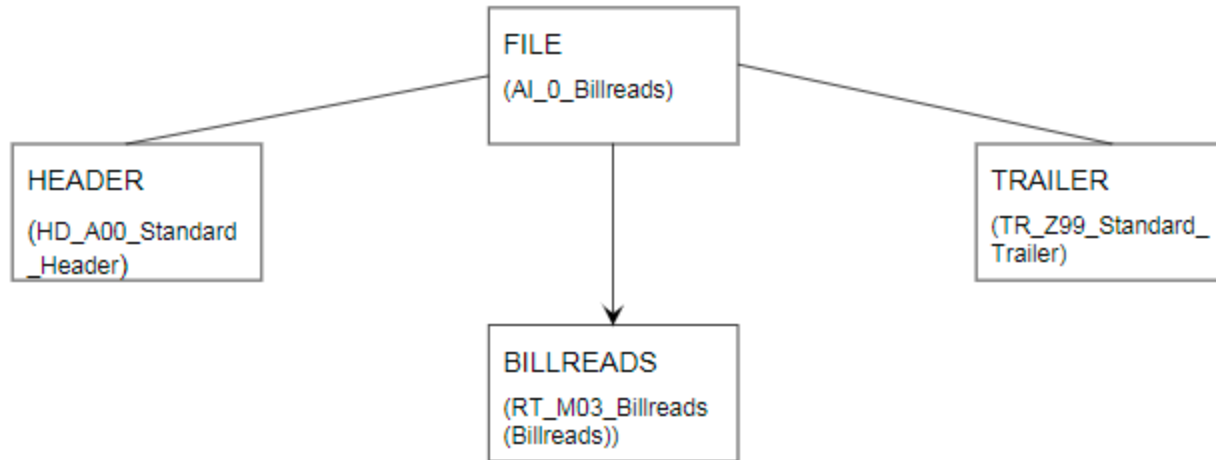
Process changes required to support
the new UNC opening read
submission rules for Class 4 sites

URS File Hierarchy



Process changes required to support the new UNC opening read submission rules for Class 4 sites

MBR File Hierarchy



Process changes required to support
the new UNC opening read
estimation rules

ASN – New T99 Record Format Example

RECORD/FIELD NAME	OPT	DOM	LNG	DEC	DESCRIPTION
TRANSACTION_TYPE	M	T	3	0	A code identifying the type of request that this record represents. VALUE: T99
METER_POINT_REFERENCE	M	N	10	0	A unique identifier for the point at which a meter is, has been or will be connected to the gas network.
BRN_REFERENCE_NUMBER	O	N	9	0	BRN reference number which uniquely identifies the submitted BRN
SUPPLY_POINT_CONFIRMATION_REFERENCE	M	T	10	0	A sequential number that uniquely identifies the Confirmation.
CSS_REFERENCE_NUMBER	M	T	30	0	Unique CSS Reference number passed by CSS for the Registration request
NOMINATION_SHIPPER_REF	O	T	30	0	A reference supplied by the System User when making a Nomination. It may be used by the System User to identify the Nomination and any subsequent Confirmation made for that Nomination.
CSS_EFFECTIVE_DATE	O	D	8	0	The effective date of the association of the settlement data to the CSS Supplier Registration /Change of Shipper Event. FORMAT: YYYYMMDD

Please note that this extract only shows 7 of the 33 data items contained within the proposed T99 record

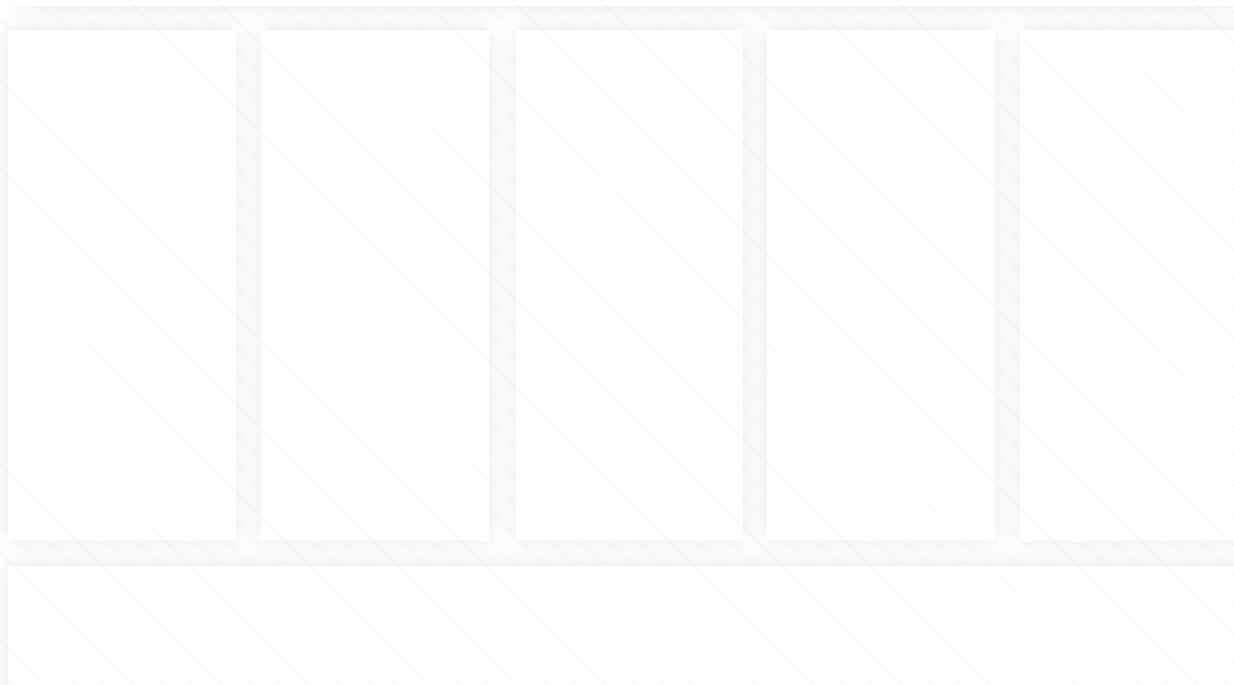
Gas Supply Point Switching API

Data Item	Description
Meter Point Reference Number	Unique identifier for a supply offtake point. Used to identify the meter to be switched.
Metering Point Address	The address for the metering point provided by the relevant Gas Transporter, including House Name/Number, Street etc.
Metering Point Postcode	The postcode for the metering point, provided by the relevant Gas Transporter
Retail Energy Location	The Retail Energy Location address provided by the Central Switching Service
Current Supplier ID	Industry identifier for the current Supplier
Meter Mechanism Code	Industry identifier for the type of equipment fitted e.g. credit or prepayment meter
GT ID	Unique Identifier for the Gas Transporter Organisation. For large Transporters, this can also be used to identify the geographical area where a metering point is located.
Meter Capacity Indicator	The maximum amount of gas that can be passed through the meter. This is provided for sites connected to a Transporter Network. The capacity of the metering point is measured in M ³ .
Meter Serial Number	Identifier for metering equipment at a premises.
Annual Quantity	Annual quantity of gas assumed to be off taken over a period based on historical information. Provided in kWh.
Local Distribution Zone	This is a discrete gas system supplying gas to a region.
Smart Meter Equipment Technical Code	Specification ID of the smart meter

API updated to include
the new Retail Energy
Location address

Detailed File and Record Formats

- Full details of all current and proposed file and record structures are available to registered users of UK Link Document SharePoint Site





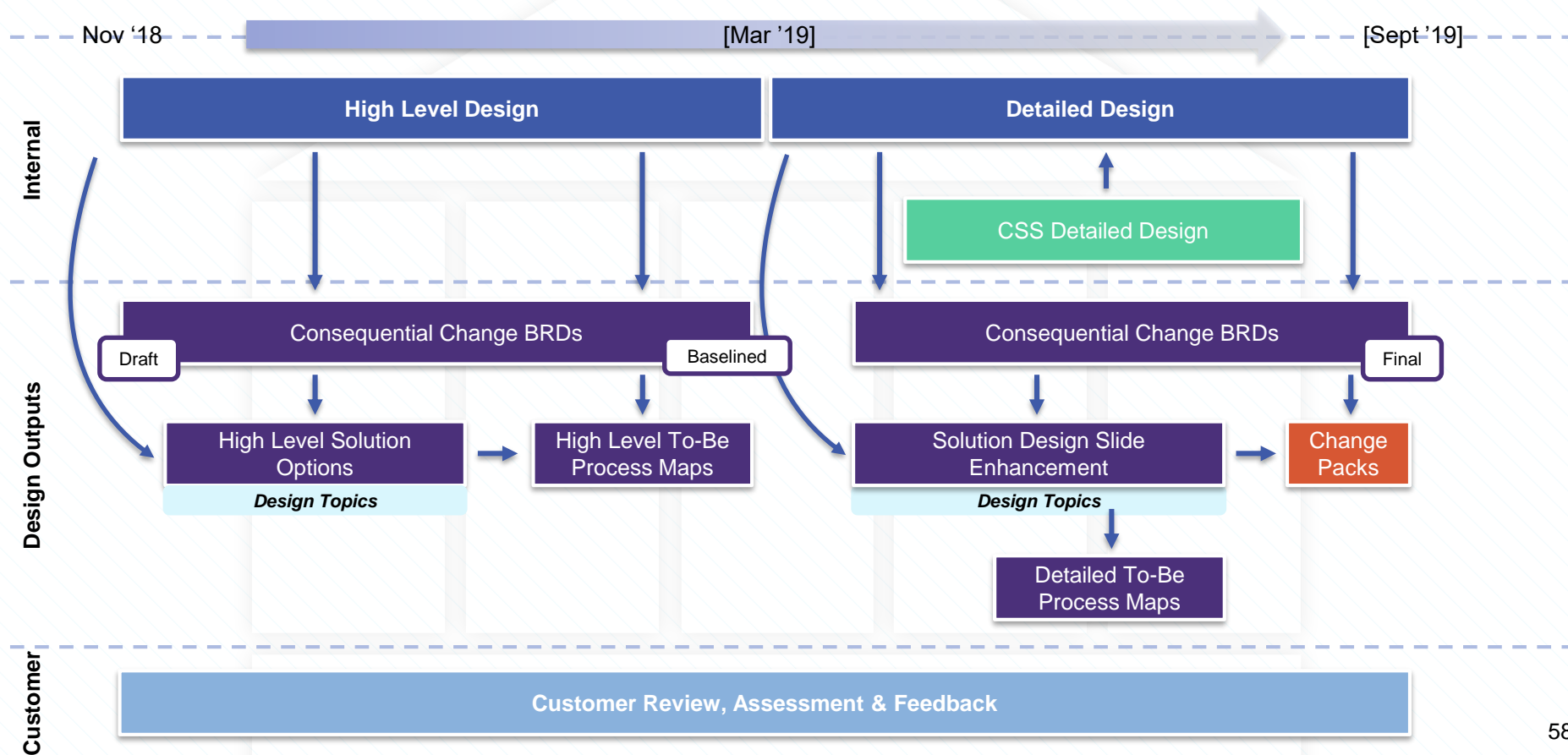
Governance Process



Xoserve's Governance Framework

- Xoserve are governed by the Data Services Contract which forms part of the Uniform Network Code(UNC)
- Our systems design for all changes are approved by our customers (Shippers, Gas Transporters and Independent Gas Transporters) within the framework of this contract
- Within this framework there are a number of industry work groups governed under the UNC
- These work groups include but not limited to:
 - Contract Management Committee (CoMC)
 - Change Management Committee (ChMC)
 - Delivery Sub Groups (DSG)
- As per our change governance, at the point of design solution and approval, Change Packs are issued to the Industry via the Change process for a 10 day consultation period
- DSC governance is also documented at the Joint Office website - <http://www.gasgovernance.co.uk/DSC-Documents>

Xoserve's Collaborative Design Journey





**If you require any additional information please
contact us via box.xoserve.CSS@xoserve.com**



We believe in
radically simplifying the
Energy Market through maintaining
and leveraging industry assets for the benefit of all

Customer
Centric

Data
Driven

Change
Leading

Operationally
Excellent

People
Powered

Xserve

Responsible Business

Assurance, commercial, suppliers, social and safety