Gas Registry

Detailed Requirements Specification

Version 2.04

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Revision History

Version	Release Date	Author	Description
1.0	19 June 2008	JSC Ltd	Initial version
1.1	11 July 2008	JSC Ltd	Modified based on solution proposal
1.2	15 July 2008	JSC Ltd	PR-070 restored
1.3	16 July 2008	JSC Ltd	Participant telephone and fax numbers to 30 characters, email address to 100 characters
1.4	18 July 2008	JSC Ltd	Change Gas Gate Notional Supply Point validation.
1.5	22 July 2008	JSC Ltd	a) SD-030 Add description field, removed in error. b) Appendix 3 - correct password expiry period 30 days
1.6	24 July 2008	JSC Ltd	PR-040 – GNT must not be **less** than 7 business days, RS-030, PR-010 typos
1.7	6 August 2008	JSC Ltd	Correct Metering Price Category Code format as Char 15. CR-004 Responsible Meter Owner moved from GNT to GTN. CR-005 Additional statistics values in PR-070 section 2
1.8	7 August 2008	JSC Ltd	CR-004 Correction to RS-010 SD-030, SD-040, SD-050 Clarification around validation rules.
1.9	11 August 2008	JSC Ltd	CR-007 Change GNW field requesting Retailer Role Code to optional. PR-030 Move Responsible Meter Owner Code from GNT to GTN section
1.10	4 Sept. 2008	JSC Ltd	SD-060 Term 'public' web site no longer applies NP-030 Correct format typos DC-010 Clarification – Expected Retailer Code required for READY state. RM-020 Correct Allocation Group format CR-006 Recording Meter Removal CR-010 Connection Status Codes **Participant Baseline Version**
1.11	16 Sept 2008	JSC Ltd	CR-013 DM-020 Change mandatory fields to optional to match DC-010. DM-020 Add Installation Details DC-010, DM-020 Correction to ICP Type rule. DC-010 Remove duplicate Expected Retailer Code

Version	Release Date	Author	Description
1.12	3 November 2008	JSC Ltd	DC-010 Add status event fields CR-013 DM-020 Add Connection Status updates CR-013 RW-010, PR-030 Correct request Reason Code format. PR-040 Breach type clarification, add type GTA. RM-020 Clarify usage of Responsible Retailer Code field after initial retailer assignment has occurred RS-030 validation of Meter Identifier and Meter Location Code PR-120 New gas gate fields CR-015 SD-010 New gas gate fields CR-015 PR-120 Describe automatic report delivery for consistency PR-040 Clarify automatic report delivery PR-070 Several clarifications PR-110 Several clarifications MP-010 Notification type correction SD-020, QU-010 Assigned Profile Codes CR-016 PR-110 Field sequence consistent with PR-030
1.13	19 November 2008	JSC Ltd	PR-190 Change Cost Allocation Ratio format to Decimal 1.6. Change CR-019 Connection Status changes – DC-010, DC-020, DM-020 RS-010 and RS-030. Clarification of event date handling for switch messages RS-010 Clarify address field mandatory/optional requirements PR-060 Describe selection options and correct field order. PR-110 Several clarifications, in particular re DST breach. CR-023 Changes affecting DC-010, RS-010, RS-030 and SD-020
1.14	19 January 2009	JSC Ltd	PR-160 – Snapshot report details changed. CR-024 – RS-010 – Region no longer mandatory. CR-024 – PR-070 changed wording 3.3 Correct Network Pressure format 5.3 Clarify Standard and Prepay Meter combinations as per PAR 247 PR-030 Change Event Creation Date/Time to Event Entry Date/Time as per PAR 256 DC-010, DM-020 Connection Status Code now mandatory PR-040 GAW, GAC response timeframes now 5 business days RS-010, RS-020 – online interface warning for potential switch date breaches **Go-live version**
1.15	30 March 2010	JSC Ltd	Jade Logo replacement
1.16	08 November 2010	JSC Ltd	• PR-210 – Switch Length report • Additional switch breach section

Version	Release Date	Author	Description
1.17	05 June 2011	JSC Ltd	CR1039 – PR-040 changes to creation of NTD switch breach timer. CR1041 – RW-010
1.18	26 October 2012	JSC Ltd	CR1042 – Retailer Call Centre Integration (web services)
1.19	04 May 2012	JSC Ltd	CR1044 – PR-220 Gas Gate Trading Report
1.20	30 January 2014	JSC Ltd	Correct GTN Meter Pressure format to be Decimal 6.2
1.21	06 June 2014	JSC Ltd	CR1047 – Participant Viewer Role PR-220 Produce Gas Gate Trading Report – Automatic delivery to the participant associated with the Allocation Agent role.
1.22	07 November 2014	JSC Ltd	CR1046 – GIEP Exchange Service (GR-1002) GR-1000 – Add View Registry Audit Data information (QU-040)
	15 March 2015	JSC Ltd	Gas Registry Amendment Project 2015 MU-010 MM-010 RA-010 RM-010
RAP V 2.0	May 2015	JSC Ltd	JIRA GRAP-13 Amendment to TND breach no longer required. JIRA GRAP-26 – PR-030 New Metering fields should be part of the same line on the Metering line GRAP-31 MM-010 business requirements clarifications
RAP V 3.0	June 2015	JSC Ltd	JIRA GRAP-31 Updated business requirements for MM-010
RAP V 4.0	August 2015	JSC Ltd	JIRA GRAP-43 - GTN file validation for matching metering and register fields - PR-240 Clarification after changing GTN validation above. CR 1062 – JIRA GRAP 46, 47 and 49 - Optional Values for REMOVED meters - Amendment of Error Code 515 - GTN Meter and Register rows required when a Metering event exists as at switch date
RAP V 4.1	12 August 2015	JSC Ltd	JIRA GRAP-56 Allow GTNs with no Meter and Register rows for ICPs with REMOVED meters JIRA GRAP-59 – PR-040 “AND” breach states 23 business days , changed to 10 (documentation change only)

Version	Release Date	Author	Description
RAP V4.1.1	September 2015	JSC Ltd	JIRA GRAP-62 Metering Event – Clarification on use of 'n/a' in browser display in Meter Pressure, Register Reading Digits and Register Multiplier fields for TOU meters.
2.00	September 2015	JSC Ltd	Registry Amendment Project – Go Live
2.01	November 2015	JSC Ltd	CR-1053 JIRA GR-1052 ICP Summary and List by ICP Attributes Reports
2.02	March 2016	JSC Ltd	CR-1065 JIRA GR-1065 GTN online. Also clarification GTN matching metering values for multiple Meters and Registers rows
2.03	October 2016	JSC Ltd	CR-1066 JIRA GR-1083 Amend Gas Gate Trading Report – Include ICPs with a status of Active Vacant (ACTV)
2.04	December 2016	JSC Ltd	CR-1067 JIRA GR-1088 ICP List and Switch Length reports – Auto generation for GICX

Gas Registry Detailed Requirements Specification

1 Introduction

The Gas Registry is a national database that contains information on every point of connection on natural gas distribution networks from which gas is supplied. These points of connection are referred to as installation control points (ICPs). Each ICP has a unique identifier. The Gas Registry is the gas industry's *database of record* of all ICPs.

Through the use of ICPs, the Gas Registry helps manage both the customer switching and downstream allocation/reconciliation processes. The Gas (Switching Arrangements) Rules 2008 provide for the management of information held by the Gas Registry and outlines the process for switching customers between retailers.

2 This document

This document describes the business functional requirements of the Gas Registry only. This document should be read in conjunction with the associated Gas Registry Operational (or Non-Functional) Requirements.

It is important to note that the Gas Registry system is derived from an existing energy industry registry. Although the focus of this document is business requirements, some existing design concepts have been included where they have been established as accepted or best working practice in the energy industry.

This document does not contain any screen layouts or file interface specifications of the Gas Registry system; however, their information content and processing details are provided.

3 Concepts

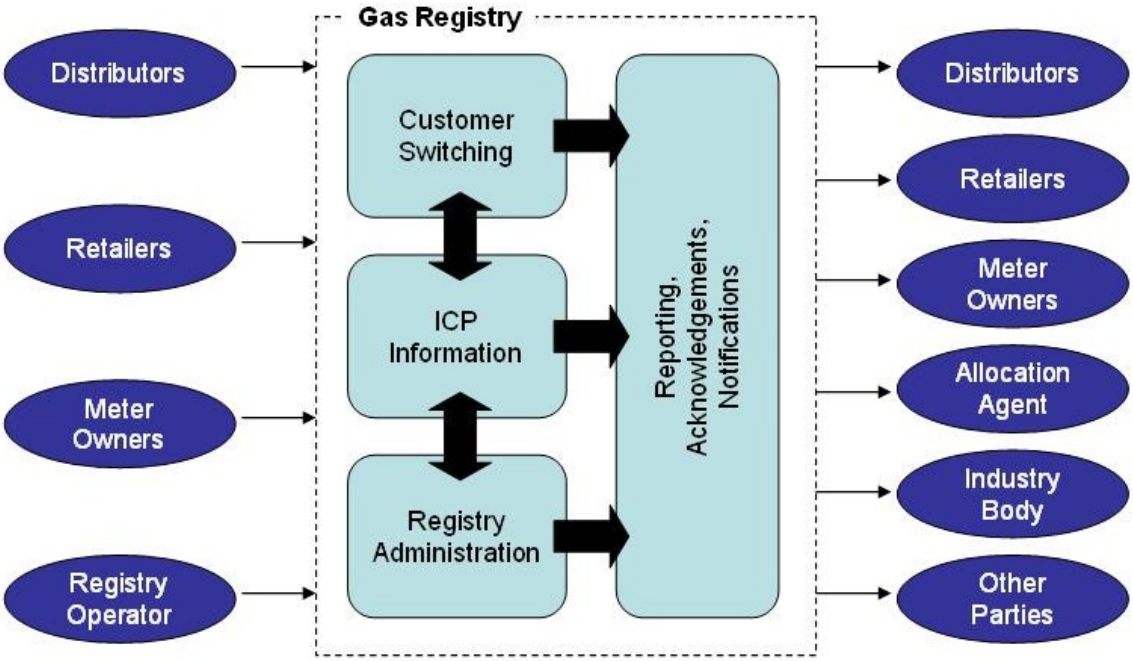
The Gas Registry is a repository of specific gas ICP information.

The main processes of the Gas Registry are:

- the maintenance and validation of ICP information, both current and historical, via online and batch functions;
- a notification facility that advises all affected participants of changes made to ICP information;
- a delivery mechanism for the switching protocols;
- the provision of ICP lookup facilities to authorised participants, both online and in batch (file) mode;
- the provision of compliance reporting; and
- the management of discrepancies between participant back-office systems and the Gas Registry.

The Rules define which participants are responsible for specific ICP parameters and the timeframes within which the maintenance should be completed. The management of the maintenance timeframes is a passive process by the provision of 'after the fact' compliance reports.

Diagram: Gas Registry Participants and Major Functions



3.1 Terminology

- industry body = Gas Industry Company;
- replacement = update; and
- reversal = cancellation.

3.2 Rules references

The rules referenced in this document consist of the following:

- Gas (Switching Arrangements) Rules 2008 (the ‘Rules’)
- Determinations by the Industry Body (Gas Industry Co) under the Gas (Switching Arrangements) Rules 2008 (the ‘Determinations’)
- Gas (Downstream Reconciliation) Rules 2008 (the ‘Reconciliation Rules’)
- Gas Governance (Compliance) Regulations 2008 (the ‘Compliance Regulations’)

Current versions of these documents can be downloaded from www.gasindustry.co.nz.

If there is a conflict between this document and the Rules, Regulations or Determinations, the Rules, Regulations or Determinations shall take precedence.

3.3 ICP Parameters

The main function of the Gas Registry is to be the database of record for ICP information. An ICP has a number of possible ICP parameters, the values of which may change over time. The Rules require that certain ICP parameters must only be maintained by specific participant roles (eg distributors, retailers or meter owners), and within specified time limits. These time limits, however, are used only in compliance reporting and do not restrict when the values of ICP parameters may actually be changed.

The full set of possible ICP parameters and rules description is as follows, grouped by related event type.

ICP Parameter	Format	Rules and Description
ICP Parameters with no Event Type		
ICP Identifier	Char 15	The unique 15-character identifier assigned to the ICP by the distributor.
ICP Creation Date	dd/mm/yyyy	The date that the distributor deems the ICP to be created, which must be not later than the date that the gas service pipe to the ICP's consumer installation is first livened. It is the earliest date for any event relating to the ICP in the registry.
Network Event ICP Parameters		
Responsible Distributor Code	Char 4	The code of the responsible distributor and creator of the ICP. Distributor codes are determined and published by the Industry Body from time to time.
Gas Gate Code	Char 8	The code of the Gas Gate from which the distributor deems gas is delivered to the ICP's consumer installation. Gas Gate codes are determined and published by the industry body from time to time.
ICP Type Code	Char 2	The code representing the ICP type. ICP types and ICP type codes are determined and published by the Industry Body from time to time.
Network Pressure	Num 4	The value of the nominal operating pressure, expressed numerically in kilopascals, of the distribution system or transmission system to which the ICP's consumer installation is connected.

ICP Parameter	Format	Rules and Description
ICP Altitude	Num 6	The altitude, expressed in metres above mean sea level, of the meter measuring gas consumption for the ICP's consumer installation, and for use in any required (non-dynamic) correction of the metered gas volume to standard volume.
Installation Details	Char 30	A free-text parameter to allow the distributor to provide other information relevant to the specific ICP installation.
Load Shedding Category Code	Char 3	The code representing the load shedding category that identifies the position of the ICP's consumer installation in the hierarchy for emergency shedding of gas load. Load shedding codes are determined and published by the industry body from time to time.
Expected Retailer Code	Char 4	The code of the retailer that the distributor expects to be the first responsible retailer for the ICP.
Pricing Event ICP Parameters		
Maximum Hourly Quantity (MHQ)	Num 6, Char 3	The maximum quantity of gas, in cubic metres, that the gas-consuming equipment at the consumer installation is capable of drawing per hour. The value is distinct from the capacity of the gas service pipe or metering equipment serving the consumer installation. Mandatory only where MHQ is used to determine the distributor's network charges. May be conveyed by means of a "disclosure on application" code in accordance with rule 50.
Network Price Category Code	Char 15	The code of the network price category to which the ICP belongs, as determined and published by the distributor. The charges associated with the code may be conveyed by means of a "disclosure on application" code in accordance with rule 50.
Loss Factor Code	Char 7	The code that identifies the loss factor applicable to the ICP's consumer installation.
Network Price Details	Char 30	A free-text parameter to allow the distributor to provide other information relevant to the network pricing of the ICP's consumer installation.
Status Event ICP Parameters		

ICP Parameter	Format	Rules and Description
ICP Status Code	Char 5	The code representing the ICP status. ICP status is maintained by the responsible distributor or responsible retailer under rule 59. At ICP creation and ICP readying, the value is assigned by the registry under rule 53.3.
Connection Status Code	Char 5	The code representing the connection status. Connection status is maintained by the responsible distributor or responsible retailer under rule 60 and in accordance with the requirements published by the industry body in rule 60.2.
Address Event ICP Parameters		
Unit identifier	Char 20	The physical address assigned by the distributor to the ICP's consumer installation, so that the ICP can be unambiguously identified with the consumer installation, in the registry.
Street/RAPID Number	Char 25	
Street	Char 30	
Suburb	Char 30	
Town	Char 30	
Region	Char 20	
Post Code	Num 4	
Property Name	Char 75	
Retailer Event ICP Parameters		
Responsible Retailer Code	Char 4	The code of the retailer with current responsibility for the ICP. Retailer codes are determined and published by the industry body from time to time.
Allocation Group Code	Char 1	The code represents the allocation group to which the ICP belongs, as published by the industry body from time to time.
Profile Code	Char 4	The code that identifies the profile type assigned to the ICP. Profile codes are determined and published by the industry body from time to time.
Responsible Meter Owner Code	Char 4	The code of the responsible meter owner. Responsible meter owner is assigned according to the authority of a service agreement between the responsible retailer and the meter owner providing the meter measuring consumption for the ICP. Meter owner codes are determined and published by the industry body from time to time.
Metering Event ICP Parameters		

ICP Parameter	Format	Rules and Description
Meter Identifier	Char 15	The serial number or other unique identifier of the meter that measures volume consumption for the ICP's consumer installation, as assigned by the meter owner. However, if the consumption information is being measured by difference, the meter identifier value must be "DIFFERENCE". The value “REMOVED” indicates the meter previously associated with that ICP was no longer installed.
Meter Location Code	Char 4	The code, as defined in a published schedule of meter location codes by the meter owner, that advises the location of the meter used to record consumption at the consumer installation.
Standard Meter	Char 1	A 'Y'es or 'N'o value to indicate the use or not of a standard meter (being one that is not a prepay meter) for measurement of consumption volume for the ICP's consumer installation.
Prepay Meter	Char 1	A 'Y'es or 'N'o value to indicate the use or not of a prepay meter for measurement of consumption volume for the ICP's consumer installation.
Advanced Meter	Char 1	A 'Y'es or 'N'o value to indicate the use or not of an advanced meter for measurement of consumption volume for the ICP's consumer installation.
Logger Owner Code	Char 4	The code of the owner of any datalogger included in the metering equipment measuring consumption volume for the ICP's consumer installation metering - whether or not the datalogger is in use at the time. Logger owner codes are determined and published by the industry body from time to time.
Corrector Owner Code	Char 4	The code of the owner of any corrector included in the metering equipment measuring consumption volume for the ICP's consumer installation metering - whether or not the corrector is in use at the time. Corrector owner codes are determined and published by the industry body from time to time.

ICP Parameter	Format	Rules and Description
Telemetry Owner Code	Char 4	The code of the owner of any telemetry included in the metering equipment measuring consumption volume for the ICP's consumer installation metering - whether or not the telemetry is in use at the time. Telemetry owner codes are determined and published by the industry body from time to time.
Advanced Meter Owner Code	Char 4	The code of the owner of any advanced meter included in the metering equipment measuring consumption volume for the ICP's consumer installation metering - whether or not the advanced meter is in use at the time. Advanced meter owner codes are determined and published by the industry body from time to time.
Metering Price Category Code	Char 15	The code of the metering price category that identifies the charges applicable to the full set of metering equipment currently used to measure and convey the consumption volume information for the ICP's consumer installation. The codes are as defined and made available by the meter owner. May be conveyed by means of a 'disclosure on application' code in accordance with Rule 50.
Metering Details	Char 30	A free-text parameter to allow the meter owner to provide other information relevant to the metering equipment installed at the ICP's consumer installation.
TOU Meter	Char 1	A ‘Y’es or ‘N’o value to indicate the use or not of a TOU meter for measurement of consumption volume for the ICP’s consumer installation.
Meter Pressure	Decimal 6.2	The gauge pressure at the point at which the volumetric measurement is taken, expressed in kilopascals.
Meter Operating at Network Pressure	Char 1	A ‘Y’es or ‘N’o value to indicate whether the meter pressure parameter should be automatically populated based on the network pressure parameter
Register Reading Digits	Num 2	The number of moving dials on a meter register that represent whole units, plus any painted or fixed digits that represent whole units.

ICP Parameter	Format	Rules and Description
Register Multiplier	Num 4	The factor by which a quantity taken from a register read is multiplied in order to convert to cubic metres.

3.4 Events

Events are the primary mechanism for handling changes to ICP parameters. The ICP parameters are partitioned into separate groups called events. In addition to its ICP parameters, each event has an event date and a user reference. Information about ICPs is structured as events, and events are the user interface construct through which data is entered into the system and through which it is maintained.

The event date defines the date from which the ICP parameter values of the event should apply. There is no end date. The state defined by the ICP parameter values of an event for an ICP continues until a new event of the same type supersedes it. By convention, all events are deemed to occur at 0:00:00 on the day of the event date and to end at 23:59:59 on the day before the event date of the next event of the same type.

The user reference is a general-purpose alphanumeric value available for recording any extra information the user deems appropriate.

3.5 Event types

It should be noted that not all ICPs will have a full complement of events of each of the possible types shown below for ICPs with a status of NEW, READY or DECOMMISSIONED. All ICPs with a status of ACTIVE or INACTIVE will have a full complement of events.

The ICP parameters associated with each event are described in full in Section 3.3 “ICP Parameters”.

Event Type	Description
Network	Groups together the ICP parameters used for identifying the current responsible distributor and relating to network connection details of the ICP.
Pricing	Groups together the ICP parameters relating to distributor loss factors and network charges.
Address	Groups together the physical address assigned by the distributor to the ICP's consumer installation,
Status	Groups together the ICP parameters relating to the customer-retailer contract status and the ability of gas to flow to the ICP (see also section 3.11, ICP Status Lifecycle).
Retailer	Groups together the ICP parameters used for identifying the current responsible retailer and meter owner and information for downstream allocation/reconciliation of gas.
Metering	Groups together the ICP parameters relating to the metering equipment at the ICP and associated metering charges.

3.6 Event type responsibilities

1. Only distributors may create, update and reverse network, pricing and address events.
2. Only retailers may create, update and reverse retailer events.
3. Only meter owners may create, update and reverse metering events.
4. Distributors, retailers and the Registry System jointly manage the status event (see ICP Status Lifecycle).

It is important to note that it is currently the retailer who is responsible for maintaining the ownership relationship of an ICP to meter owners by the fact that they maintain the responsible meter owner code parameter in the retailer event.

Meter owner responsibility before retailer uplift

The only exception to this rule is when a meter owner assigns the role of meter owner to themselves on an ICP before a retailer performs their initial assignment. If a meter owner supplies a metering event prior to retailer uplift, that meter owner is deemed to be the responsible meter owner.

The Gas Registry will assign a placeholder retailer on behalf of the meter owner.

Placeholder retailer events, created by the Gas Registry, do not generate retailer notifications to participants.

3.7 Event processing

The following business rules govern the processing of all events:

1. Events must be made explicit to users at the user interface.
2. Users must be able to deal simultaneously with all the different types of event for an ICP for which they are responsible, and each event must be allowed to have a different event date unless otherwise stated.
3. Only the participant responsible for the creation of an event may update or reverse it.
4. Whenever a new value of an ICP parameter is assigned, a new event must be created to incorporate the change.
5. There must be no automatic inheritance of ICP parameter values. Whenever the value of an ICP parameter needs to change, a value must be provided for every mandatory ICP parameter of the associated event.
6. Event dates must not be in the future. The legal range for an event date is between 1 January 1901 and today's date. An event may be inserted anywhere in this range.
7. If an event of a given type is inserted for an event date for which another event already exists, the new event must replace the existing one.
8. There can only be one 'active' event for one event date of a particular event type. This means that if one event is updated, and therefore replaced, it is the new event that contains the currently

applicable information. The information in the old event is no longer current.

9. When an existing event is reversed, it must only be logically deleted, not physically removed. It must be indicated as reversed.
10. Replaced and reversed events must be retained for history and audit trail purposes.
11. The insertion of a new event can be 'undone' to revert to a prior event by reversing it. However, once an event is replaced or reversed it cannot be re-activated in any way.
12. A complete event history must be recoverable for each ICP, including reversed and replaced events.
13. When a new event is created, the following information must be recorded for audit purposes:
    - the participant code of the participant creating the event;
    - the date and time the event was created;
    - the method of creation, ie online or file;
    - the user ID of the person creating the event if the method was ‘online’; and
    - the filename if the method was 'file'.
14. When an existing event is reversed, the following information must be recorded for audit purposes:
    - the participant code of the participant reversing the event;
    - the date and time of reversal;
    - the method of reversal, ie online or file;
    - the user ID of the person reversing the event if the method was ‘online’; and
    - the filename if the method was 'file'.
15. When an existing event is replaced, the following information must be recorded for audit purposes:
    - the participant code of the participant replacing the event;
    - the date and time of the replacement;
    - the identity of the replacement event;
    - the method of replacement, ie online or file;
    - the user ID of the person replacing the event if the method was ‘online’; and
    - the filename if the method was 'file'.
16. A user may only insert, update or reverse events during their company's period of ownership. For example, if an ICP is switched to a retailer on date d1 and lost to another retailer on date d2, the retailer may make changes only on or after d1 and before d2.
17. There are three possible ownership relationships for an ICP: distributor; retailer; and meter owner. Ownership changes occur on the date of the event for which the value of the corresponding ICP parameter changes, ie responsible distributor code, responsible retailer code or responsible meter owner code.
18. An event that would invalidate other prior events must not be inserted. For example, an ICP status change to *INACTIVE-*

TRANSITIONAL may not be inserted before the initial assignment of a retailer to the ICP.

19. An event may not be reversed if that reversal would invalidate a later event.
20. Events must be processed in the order in which they arrive.
21. Every insertion, change and reversal of an event must be acknowledged to the responsible participant.
22. Every participant affected by the insertion, change or reversal of an event must be notified of the fact.
23. System is to prevent the insertion of duplicate events.

The processing of events can be thought of in terms of queues. When a new event is created it is placed in the queue for its type at a position determined by its event date. If there is already an event in the queue with the same event date then the new event is put in front of the existing one. Events are never physically removed from the queue, only logically deleted. The current event is the first non-reversed/non-replaced event in a queue. The current event defines the ICP parameter values of the given event type which presently apply for the associated ICP. The complete current state of an ICP is defined by the current events from each of its associated event queues. A queue may be empty, particularly during the pre-commissioning phase when events of some event types have yet to happen.

Metering event processing before retailer assignment

The following business rules govern the processing of meter owner updates before retailer uplift.

An ICP status must currently be New or Ready.

A meter owner must be able to add metering for any event date at which an ICP is new or Ready.

A meter owner must be able to add multiple metering events.

The Gas Registry must prevent more than 1 meter owner assigning the role of meter owner to themselves

A meter owner must be able to un-assign the meter owner role by reversing all metering event they have entered.

The Gas Registry must create a placeholder retailer event to support each metering event that is supplied.

The supporting retailer event must contain information from the metering event including:

- Retailer event date – the event date of the metering event
- Responsible meter owner – the meter owner supplying the metering event
- User reference – "Generated by Meter Owner”

The Gas Registry must not generate notifications for placeholder retailer events.

3.8 Acknowledgements

Each and every change to an ICP parameter must be confirmed by the Gas Registry to the participant making the change.

For transactions entered online, although an online message of a successful update is sufficient as a confirmation, all acknowledgements of successful online updates must also be provided in a batch file at the end of each day (online change rejections will not be acknowledged).

For batch updates sent in a file, acknowledgements of each update must be provided in a file immediately after the process has been completed. If the system rejects a change received in the file, it must indicate the reason as part of the acknowledgement.

In both cases, users must be able to see online whether their changes have been confirmed (acknowledged). The acknowledgement format is detailed in section 5.7 sub-process NP-010.

3.9 Notifications

Whenever an ICP parameter is changed, the Gas Registry sends notifications of the change to all affected participants on the same day that the change is input. The affected participants are defined to be the owners of the ICP on the event date of the change. The owners are the distributor, retailer and meter owner who are responsible for the ICP.

Since one or more of the owners may be the subject of a change to an ICP, both current (old) and/or new owners may need to be notified of the change. This means that the evaluation of which participants should receive notifications can be quite complex and results can differ depending on the order in which the processing is done.

All owners need to be informed:

- when their period of ownership commences and ceases; and
- of ICP parameters that change during their period of ownership.

Users must be able to see online whether notifications have been sent about an event change. The notification format is defined in section 5.7 sub-process NP-030.

To facilitate the implementation of the Gas Registry Amendments project, notifications will be made available in old and new file format versions (refer to section 3.13 and MP-030 for details of file versioning).

Note that where a Meter Owner assigns responsibility to themselves before Retailer uplift the assignment is not notified to a Retailer as none yet exist. If after Retailer uplift, the Meter owner reverses their metering event the assigned Retailer will receive notification of the reversal only.

Filtering-up of historical changes

An historical change is one that occurs before any current event of an ICP. When an historical change occurs, notifications must be generated for all participants that owned the ICP from the event date of the new event up to BUT NOT INCLUDING the event date of the next event (of the same event type) or up to today's date, whichever is the earliest.

For example, if a metering event is inserted with an event date of 01/03/2004 before a later metering event on 01/05/2004 then all retailers, distributors and meter owners who owned the ICP during the period 01/03/2004 to 30/4/2004, must be notified of the change.

The same filter-up logic must be applied to all insertions, updates and deletions and, in the case of updates, the replaced (old) event must be fully processed before the new event is inserted.

Notification parameters

Notifications are required (mandatory) when there are changes to events. Notification recipients are as follows:

Event type	Distributor	Retailer[2]	Meter Owner
Network	Mandatory	Mandatory	Optional
Pricing	Mandatory	Mandatory	Optional
Address	Mandatory	Mandatory	Optional
Status	Mandatory	Mandatory	Optional
Retailer (non-switch)	Optional	Mandatory	Mandatory
Retailer (switch), consisting of Completed Switch (GTN accepted) and Withdrawn Switch (GAW accepted)[1]	Mandatory	Mandatory	Optional
Metering	Optional	Mandatory	Mandatory

[1] The event referred to here is the retailer event that is generated if the retailer changes in response to the switch withdrawal process. The system must be able to distinguish between this occurrence of a retailer event and its other occurrences.

[2] Where an ICP has no responsible retailer, the notification should be sent to the expected retailer.

Where mandatory is shown, the associated 'affected' owner must be sent an appropriate notification. Where optional is shown, an owner must be able to choose whether to receive notifications of events of that type or not.

It should be noted that retailers, distributors and meter owners can have multiple roles, in which case they must be able to indicate what notifications they receive in each role. Duplicate notifications must not be sent to participants with multiple roles on a single ICP.

3.10 Switching protocol

Retailers use the switching protocol whenever a consumer chooses to change the company supplying them with gas. It consists of a sequence of messages sent between retailers. The Gas Registry is required to co-ordinate this protocol.

Retailers are required to send all their switching protocol messages to the Gas Registry, not directly to the other retailer. It is the responsibility of the Gas Registry to pass the messages on to the other participant and to keep track of the progress of the switch as it passes through each stage. The Gas Registry must acknowledge each message received, store it against the ICP and, once a switch has been successfully completed, it must update the ICP by generating the appropriate events, and send the proper notifications. A retailer event must always be generated to indicate that the retailer for the ICP has changed but there may also be a metering event and/or a status event if the ICP parameters of those event types have been changed as part of the switch.

The seven switching messages are:

Code	Name	Purpose
GNT	Gas Switching Notice	Initiate switch.
GAN	Gas Acceptance Notice	Accept switch and communicate expected switch date.
GTN	Gas Transfer Notice	Complete switch.
GNW	Gas Switching Withdrawal Notice	Request withdrawal of a switch.
GAW	Gas Switching Withdrawal Response	Accept or decline withdrawal.
GNC	Switch Reading Renegotiation Request	Request switch reading change
GAC	Switch Reading Renegotiation Response	Accept or decline switch reading change.

The basic message exchange sequences between retailers are:

Sequence	Message	Sender	Receiver
Switch (scenario 1)	GNT	New retailer	Old retailer
	GAN	Old retailer	New retailer
	GTN	Old retailer	New retailer
Switch (scenario 2)	GNT	New retailer	Old retailer
	GTN	Old retailer	New retailer
Switch Withdrawal (incomplete switch scenario 1)	GNW	New retailer	Old retailer
	GAW	Old retailer	New retailer
Switch Withdrawal (incomplete switch scenario 2)	GNW	Old retailer	New retailer
	GAW	New retailer	Old retailer
Switch Withdrawal (completed switch scenario 1)	GNW	Current retailer	Former retailer
	GAW	Former retailer	Current retailer
Switch Withdrawal (completed switch scenario 2)	GNW	Former retailer	Current retailer
	GAW	Current retailer	Former retailer
Switch Reading Renegotiation	GNC	New retailer	Old retailer
	GAC	Old retailer	New retailer

Once a GNT has been sent, either of the retailers may elect to withdraw the switch at any time (ie cancel it), even after the switch has been completed. When a switch is withdrawn after completion, the Gas Registry must reverse the retailer event and any other events that it generated together with any events that the old retailer had inserted and which now lie within the new retailer's period of ownership.

Switching parameters

Retailers must be able to choose the time intervals and the grouping method for the receipt of switching messages. They must be able to elect to receive switch files at specific times during the day, eg 0800, 1100, 1500 and 1800 hours, or choose to have their files delivered as soon as the Gas Registry has processed them.

The system must gather all switch messages of the same type into separate files and also provide users with the option of further splitting those files by retailer. For example, all the GNT messages relating to ICPs lost to retailer A would be in one file, and the GNT messages relating to ICPs lost to retailer B would be in another.

It is sufficient for distributors and meter owners to receive their GTN switching messages daily in one file overnight.

Switching file naming standard

The current file naming standard is defined in the customer switching file protocols. Filenames must have the form: RRRCCYYMMDDHHMMSS.txt format where:

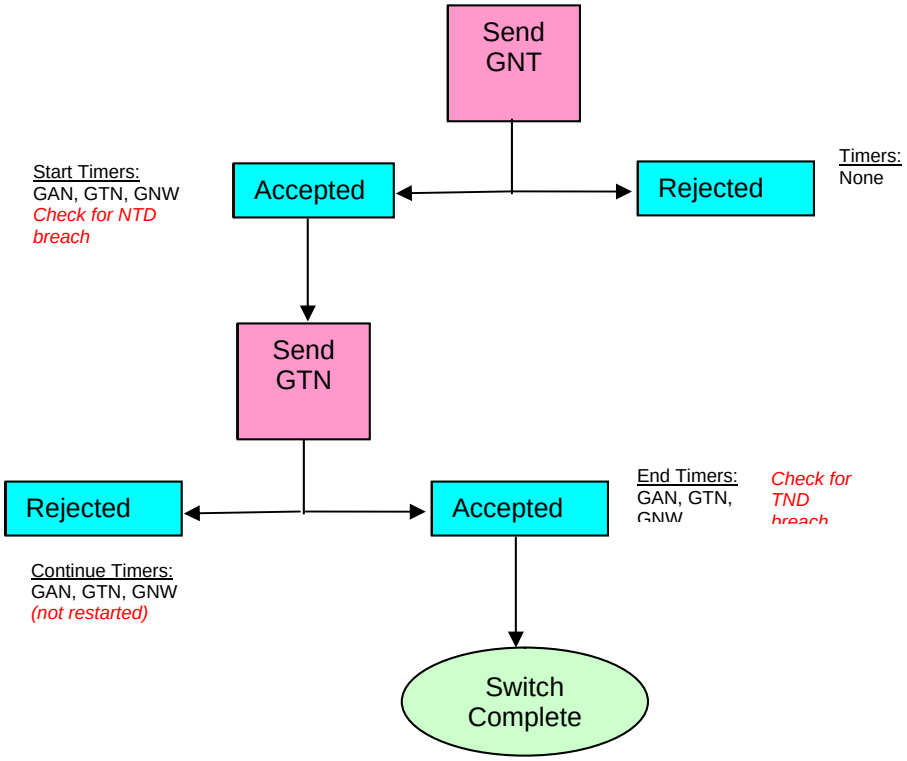
Component	Description
RRR	A code identifying the file type and therefore the format, eg GNT
CCYYMMDD	Century, year, month and day the file was created, eg 20040722
HHMMSS	Time of file creation (24-hour clock), eg 192436

Switch Breaches

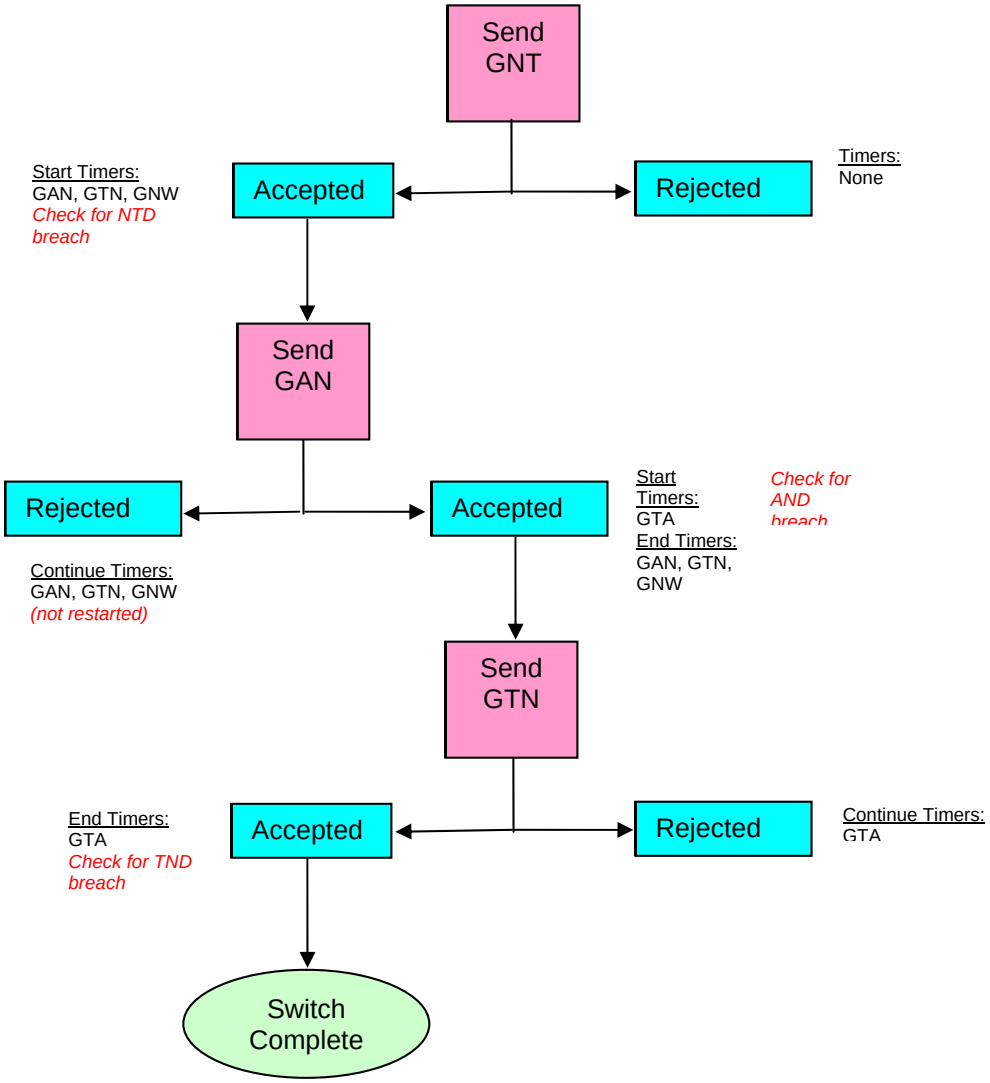
Delivery of switch information must occur in a timely manner. At all stages in the switch protocol lifecycle timers are created that countdown to the next switching stage. Where a switch exceeds the defined timer limit a switch breach is flagged. Subject to the Compliance Regulations, some breach timers may have a threshold applied under which no rule breach has to be formally alleged to the Market Administrator, but the breach flag is still reported. See ‘PR-040 Produce switch compliance reports’ for timer definitions and details of compliance thresholds.

The following diagrams illustrate when a switch timer is created and ended for specific switch message sequences:

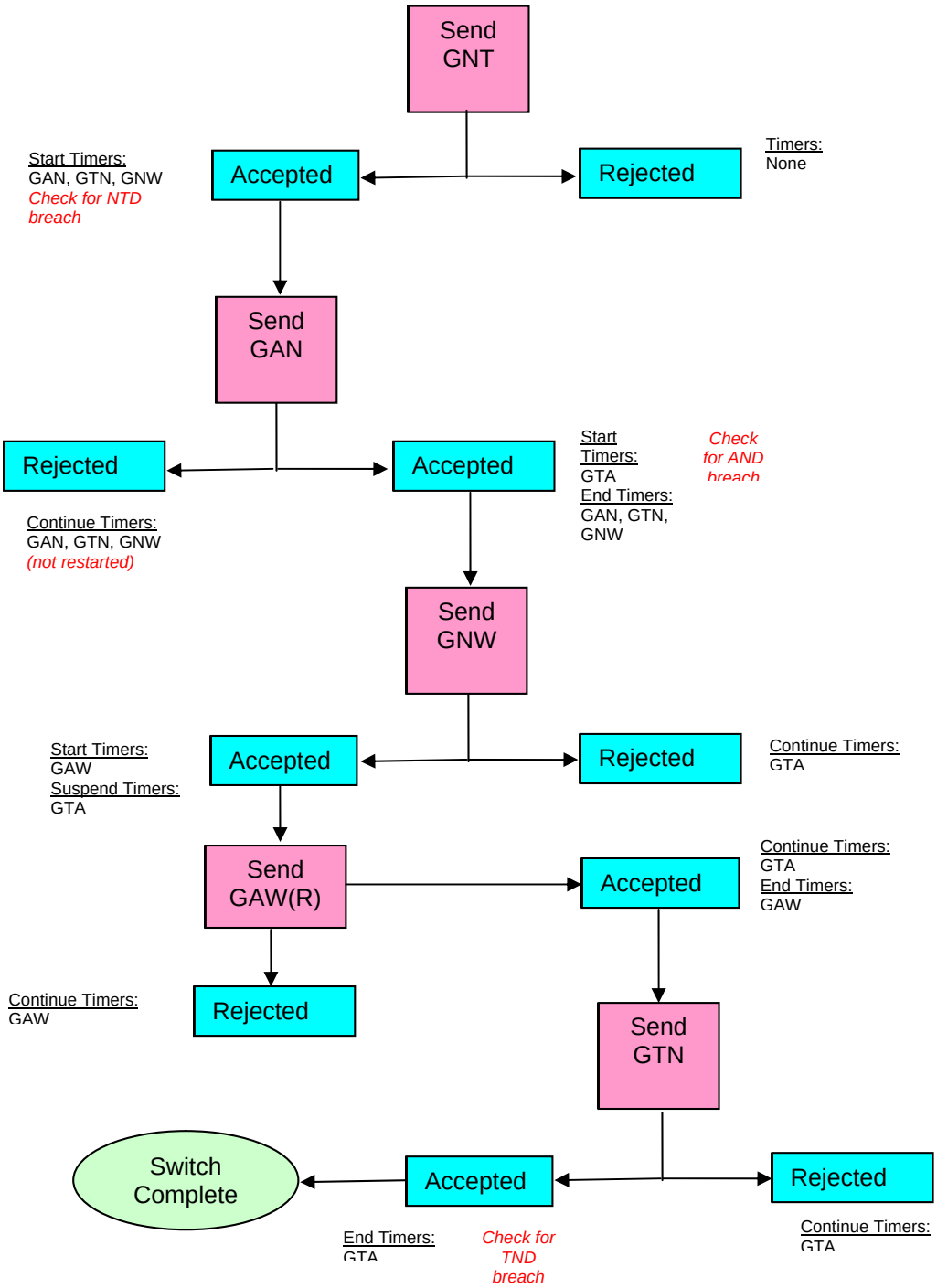
GNT-GTN Sequence



GNT-GAN-GTN Sequence



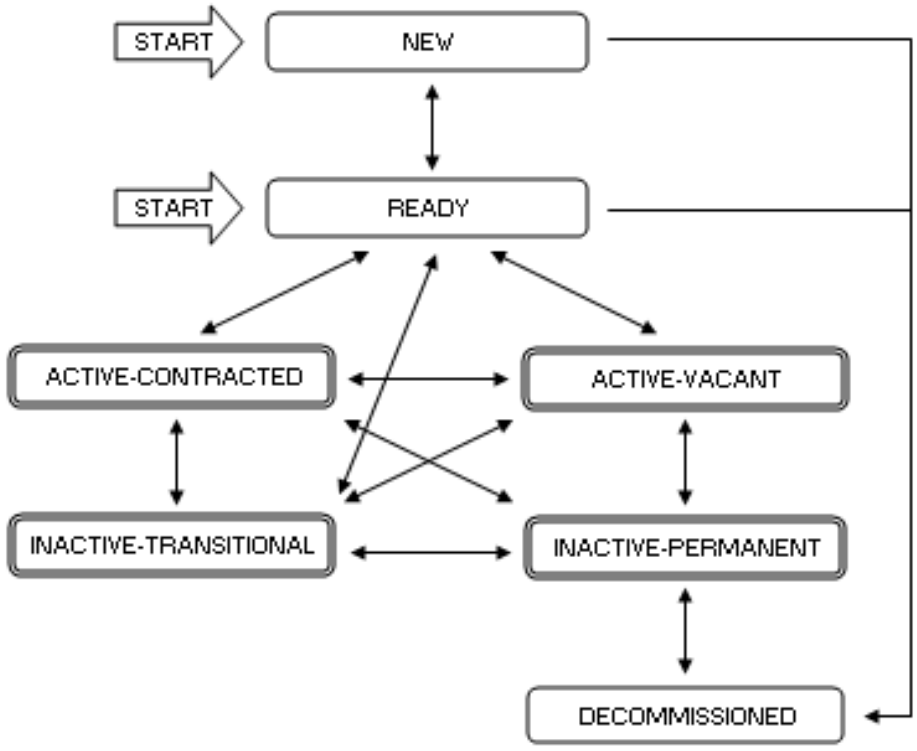
GNT-GAN-GNW-GAW-GTN Sequence



3.11 ICP status lifecycle

The lifecycle of an ICP is managed through the ICP status parameter, which is part of the status event as depicted below.

ICP Status Lifecycle



Status transitions are described in rules 52, 53 and 59.
Switches may only be initiated for ACTIVE or INACTIVE ICPs.

ICP business rules

1. In order for an ICP to be created, the ICP Identifier, ICP Creation Date, Responsible Distributor Code and all mandatory Address event parameters must have values.
2. The ICP Identifier must be unique.
3. Once assigned, the ICP Identifier, ICP Creation Date, Responsible Distributor Code and Address event ICP parameters cannot be cleared but they can be updated.
4. When an ICP is created with the minimum ICP parameters, it must be given the status *NEW* by the system.
5. The ICP can be created in the *READY* state, without first being in the *NEW* state, provided the ICP Identifier, ICP Creation Date and all mandatory Network, Address and Pricing event ICP parameters have been provided.
6. Once an ICP is created, the system must allow distributors to progressively add and remove values for ICP parameters.
7. An ICP created in error can be decommissioned by the distributor who created it but only if it has the status *NEW* or *READY*. The distributor should give a reason for the decommissioning in the Installation Details parameter.
8. When values have been added for the ICP Identifier, ICP Creation Date, and all mandatory Network, Address and Pricing event ICP parameters, the system must change the status of the ICP to *READY*.
9. An ICP can move from *READY* back to *NEW*, on the removal of any required parameters or reversal of the event that made the ICP *READY*.
10. If the distributor has created the ICP in error it cannot be deleted. The ICP status must be set to *DECOMMISSIONED*, and the ICP must be in the *NEW* or *READY* state prior to decommissioning.
11. While the ICP is at NEW or READY any meter owner may populate the Metering event ICP parameters, and, in doing so, becomes the responsible meter owner. After an ICP is assigned to a retailer, the meter owner can only be determined, or changed, by the responsible retailer
12. Retailers can only assign ICPs that are in the *READY* state to themselves. From this point on, the retailer can assign the ICP to be *ACTIVE-CONTRACTED, ACTIVE-VACANT or INACTIVE-TRANSITIONAL* according to its connection state.
13. On initial assignment, a retailer must complete all the mandatory Retailer event ICP parameter information, as well as the Status event parameters, for an ICP.
14. If the retailer reverses the initial assignment, the status of the ICP must be reset to *READY*.
15. Once a retailer has been assigned to an ICP, the status cannot be set to *NEW* or *READY.*
16. The distributor can only decommission an ICP assigned to a retailer if the status ICP parameter is *INACTIVE-PERMANENT* and there is no switch in progress.

17. Once created on the Gas Registry, an ICP cannot be deleted or removed.

ICP status transitions

The table below details the allowable ICP status transitions for an ICP.

Transition	Comments
NEW	Status set by system when the distributor provides the ICP Identifier, ICP Creation Date, Responsible Distributor code and all mandatory Address event ICP parameters
READY	Status set by system when the distributor provides the ICP Identifier, ICP Creation Date, and all mandatory Network, Pricing and Address event ICP parameters
NEW **to** READY	Status set by system when the distributor provides the ICP Identifier, ICP Creation Date, and all mandatory Network, Pricing and Address event ICP parameters
READY **to** NEW	Status set by system when the distributor removes any mandatory Network, Pricing or Address Event ICP parameters, or reverses the Network, Pricing or Address event that set the status from *NEW* to *READY*
READY **to** ACTIVE-CONTRACTED | ACTIVE-VACANT | INACTIVE-TRANSITIONAL	Status set by retailer when uplifting an ICP and assuming the role of Responsible Retailer (ie initial assignment)
ACTIVE-CONTRACTED | ACTIVE-VACANT | INACTIVE-TRANSITIONAL **to** READY	Status set by system when the initial Responsible Retailer reverses the initial assignment event
INACTIVE-TRANSITIONAL | INACTIVE-PERMANENT **to** ACTIVE-CONTRACTED | ACTIVE-VACANT	Status set by Responsible Retailer when gas is able to flow to the ICP, or when the Responsible Retailer has entered in to a contract to supply gas at the ICP but the gas supply is temporarily disconnected
ACTIVE-CONTRACTED | ACTIVE-VACANT **to** INACTIVE-TRANSITIONAL | INACTIVE-PERMANENT	Status set by the retailer when gas is no longer able to flow to the ICP
INACTIVE-PERMANENT **to** DECOMMISSIONED	Status set by the distributor when the ICP has been disconnected from the network. Disallowed if there is a switch in progress for the ICP
DECOMMISSIONED **to** INACTIVE-PERMANENT	Status reversed by the distributor to correct a decommissioning error
NEW | READY **to** DECOMMISSIONED	Status set by the distributor during the pre-commissioning phase when the ICP created in error

Transition	Comments
INACTIVE-TRANSITIONAL **to** INACTIVE-PERMANENT	Status set by the responsible retailer when gas is no longer able to flow to the ICP.
INACTIVE-PERMANENT **to** INACTIVE-TRANSITIONAL	Status set by the responsible retailer prior to making the ICP active
ACTIVE-CONTRACTED **to** ACTIVE-VACANT	Status set by the retailer when gas is able to flow to the ICP, but the flow has been temporarily disconnected
ACTIVE-VACANT **to** ACTIVE-CONTRACTED	Status set by the retailer when a temporarily-disconnected ICP once again has gas flowing to it, and the retailer has a contract to supply the consumer at the ICP

Valid Status code and Connection Status code combinations are defined in the Determinations section 11.3.

3.12 Participants and Gas Registry roles

There are a number of participants who require access to the Gas Registry for various business purposes. The industry body (GIC) manages the approval process of new participants and arranges for new codes to be assigned for them and for their access to the system to be set up, based on their 'roles' within the Gas Registry. The different roles and their individual Gas Registry responsibilities and requirements are listed below.

Distributors

Distributors are responsible for loading new ICPs onto the Gas Registry, managing the pre-commissioning process, decommissioning ICPs and maintaining the ICPs' network, address and distributor pricing information. They use the Gas Registry to keep track of the retailers using their network in order to bill them correctly.

Retailers

Retailers are responsible for the maintenance of retailer and status information. They use the Gas Registry to keep track of their own ICPs and to process switches. Retailers may also be meter owners in their own right.

Meter owners

Meter owners are responsible for the maintenance of metering information. They are required to receive notification of switch completions. They use the Gas Registry to keep track of their own ICPs and to maintain metering information. They can also choose to be informed of metering information changes made by the retailers of their ICPs.

Industry Body

The industry body (Gas Industry Co) requires access to ICP information to check the accuracy of the information in the registry and participants' compliance with the Rules.

Allocation Agent

The Allocation Agent requires access to the Gas Registry to check accuracy of ICP information used in the downstream allocation and reconciliation process. The Allocation Agent also receives information from the Gas Registry on the retailers that are actively trading on each gas gate

Viewers

The industry body (Gas Industry Co) may sometimes provide read only access to the Gas Registry to other interested parties. Viewers are those parties granted access by the Industry Body pursuant to Rule 33.4.2

Participants with a Viewer role cannot be granted any other role.

Gas Registry operator

The registry operator is required to maintain the static tables of the system such as the valid retailers, distributors, meter owners, profiles etc.

Placeholder Retailer

The Placeholder Retailer is a singleton role used internally by the Registry where a Meter Owner acquires ICP responsibility before a standard Retailer uplifts a Ready status ICP.
The Placeholder Retailer has no ability to maintain ICP information, nor does it receive or generate notifications. The Placeholder Retailer exists to maintain Registry data integrity and is not visible to other Participants. Once an ICP is uplifted by a standard Retailer the Placeholder Retailer event is reversed. Refer section 5.2.

The matrix below describes the functions and responsibilities of the different participant types:

Role	Distributors	Retailers	Meter Owners	Industry Body	Viewers
Create new ICPs	✓				
Check network information	✓ ✓ maintain	✓	✓	✓	✓
Check pricing information	✓ ✓ maintain	✓	✓	✓	✓
Check address information	✓ ✓ maintain	✓	✓	✓	✓
Check retailer information	✓	✓ ✓ maintain	✓	✓	✓
Check status information	✓ ✓ maintain (1)	✓ ✓ maintain	✓	✓	✓
Check metering information	✓	✓	✓ ✓ maintain	✓	✓
Locate an ICP using address search	✓	✓	✓	✓	✓
Record when an ICP has been decommissioned	✓				

Role	Distributors	Retailers	Meter Owners	Industry Body	Viewers
Check acknowledgements from the Registry confirming whether maintenance files were processed successfully	✓	✓	✓		
Extract details of all ICPs currently recorded as being owned by them	✓	✓	✓	✓ (2)	
Extract details of ICPs owned during a period which were also owned by a specified other participant type	✓ Filter by retailer or meter owner	✓ Filter by distributor or meter owner	✓ Filter by distributor or retailer	✓ (3)	
View and extract a history of changes (including audit details) made to specific ICPs during a period	✓	✓	✓	✓	
Check notifications of changes made to ICP information by other participants	✓	✓	✓	✓	✓
Send and receive all switching message types		✓			
Check when switching events are due to be sent to the Gas Registry for incomplete switches		✓			
Check notifications of switches indicating a change of retailer ownership	✓	✓	✓	✓	✓
Receive GTN switch notifications	✓	✓	✓		
Check if there have been any breaches by their company, of maintenance and switching time limits as specified by the Rules	✓ (not switching)	✓		✓ (4)	
Download and view network pricing and loss factor categories	✓ ✓ maintain	✓	✓	✓	✓
Download and view meter pricing categories	✓	✓	✓ ✓ maintain	✓	✓
Manage the logons, access restrictions and passwords of their own users of the Gas Registry	✓	✓	✓	✓	✓

Role	Distributors	Retailers	Meter Owners	Industry Body	Viewers
View Reports	(as specified in each report definition)				

(1) *DECOMMISSIONED* status only
(2) The industry body can extract ICP details for all participants.
(3) The industry body can extract ICP details for all participants.
(4) The industry body can check switching and maintenance breaches for all participants.

3.13 User interfaces

The Gas Registry must be an internet-based system and there are three user interfaces to the system: an online interface for single updates; web services for certain participants and certain functions; and a batch interface for multiple updates and reports. The functionality of all interfaces must be identical unless otherwise stated.

Online interface

The online interface is via a standard web browser. This is described in a separate document.

Web services interface

The web services available for the Gas Registry are described in the separate document *Registry Web Services*.

Batch interface

The batch interface consists of CSV formatted files sent to and from the Gas Registry via FTP. Participants can use either FTP or sFTP protocols (or both) to send and receive files. The Gas Registry maintains separate FTP directories for every participant from which it receives input files and to which it delivers output files. It is up to the user to access these files and transfer them to their own systems.

The files currently sent to the Gas Registry by users are:

- ICP event maintenance files;
- report requests; and
- switching protocol messages.

The files currently received by users from the Gas Registry are:

- acknowledgements of event updates (as a result of the processing of ICP event maintenance files and online updates);
- notifications of updates;
- switching protocol messages; and
- reports.

File naming convention

There is a file naming convention employed by users sending report and maintenance requests to the Gas Registry when using the batch interface. Also, the Gas Registry uses a file naming convention when delivering files to users. These conventions are used by users' automated systems to identify the types of information the files contain and the processing date/time. Any new file naming convention must ensure files have unique names and are delivered to the correct party.

Batch file headers

The first record in every file sent to and received from the Gas Registry is a 'header' record which identifies the type of information the file contains plus such information as the number of detail records, the sender, the date/time sent and reference information.

The layout of the standard header record is as follows:

Description	Format	Required	Example
Header record type	Char 3	M	HDR
File type	Char 12	M	<file format code>
Sender	Char 4	M	<participant code>
Recipient	Char 4	M	<participant code>
File creation date	DD/MM/YYYY	M	27/12/2001
File creation time (24 hour format)	HH:MM:SS	M	11:13:12
Number of detail records	Num 8	M	number of DET lines
User reference	Char 32	O	User ref carried through to output file

GREG is the standard file participant code for the Gas Registry. For files sent to the Gas Registry, “Recipient” above will always be GREG. For files received from the Gas Registry, “Sender” above will always be GREG.

Batch selection criteria

The process used to provide selection criteria for report requests is to list the selection criteria immediately after the 'header' in the report request file using a specified format.

Back-office systems

There are no direct system-to-system interfaces at present.

Errors

When errors are reported to users by the system, the information provided must be sufficiently detailed for users to be able to identify and

rectify the problem easily. All error codes, error descriptions and fixing tips will be published on the Gas Registry web site and kept up to date.

File format versioning

In order to facilitate the implementation of the Gas Registry Amendments project, certain reports and notifications are available in ‘old’ and ‘new’ formats. The availability of old/new file versioning is specified in each report or notification definition in section 5. For automatically generated reports and notifications, the version type is determined in the participant’s preference indicated in their file version parameter (see MP-030)– it is a single setting for all reports and notifications. For On Demand reports requested online, participants must be able to select either the new or old file version.

The new file format includes the following ICP parameters which were added to the Gas Registry as part of the project:

- TOU meter
- Meter pressure
- Meter operating at network pressures
- Register reading digits
- Register multiplier

The old file format does not include the above ICP parameters. The old file format will be discontinued two years after the go live date of the Gas Registry Amendments project.

3.14 Web Site

The web site is available to authorised (registered) and authenticated participants only.

Note that the term *secure* indicates restriction to authorised users. All Registry web page transmission is encrypted. Users must logon using the logon form on the home page. The web site menu provides navigation to all registry functions and includes a web application using standard browser user input and output features. The web pages comprising this application will appear and behave consistently in respect of alignment and positioning of features, use of font style, size and colour, background and border colours, and tab key function and tab sequence.

3.15 Security

Access to the Gas Registry is restricted to approved participant organisations. The approval process is co-ordinated by the industry body (GIC) and communicated to the Gas Registry service provider. New participants are assigned unique participant codes that must be communicated to these service providers for inclusion into their systems.

New participant organisations are required to specify their intended roles as part of the approval process. The roles that are of interest to the Gas Registry are the retailer, distributor and meter owner. They dictate what Gas Registry functions are to be made available to the participant organisation. It is possible for one participant organisation to be any combination of distributor, retailer and/or meter owner. Once a participant code has been approved, access to the Gas Registry is managed by a supervisor designated by the participant organisation. The supervisor is required to:

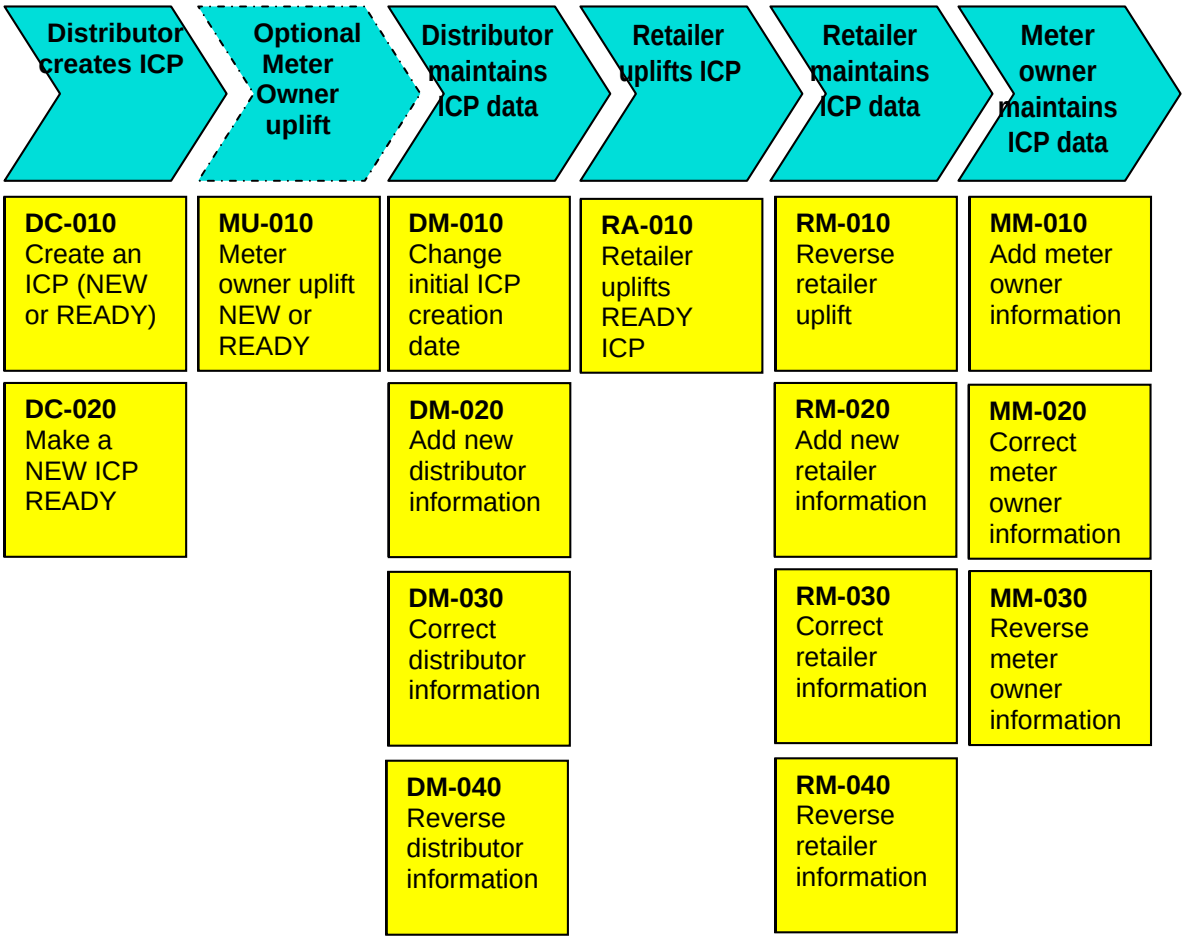
1. assign new logons;
2. assign access rights to logons. Access rights permit users to:
   - read-only (online functions);
   - submit ICP event maintenance;
   - submit particular switching messages; and
   - request particular reports.
3. disable logons; and
4. assign an 'agent' to act on the participant company's behalf.

Other security requirements are listed below.

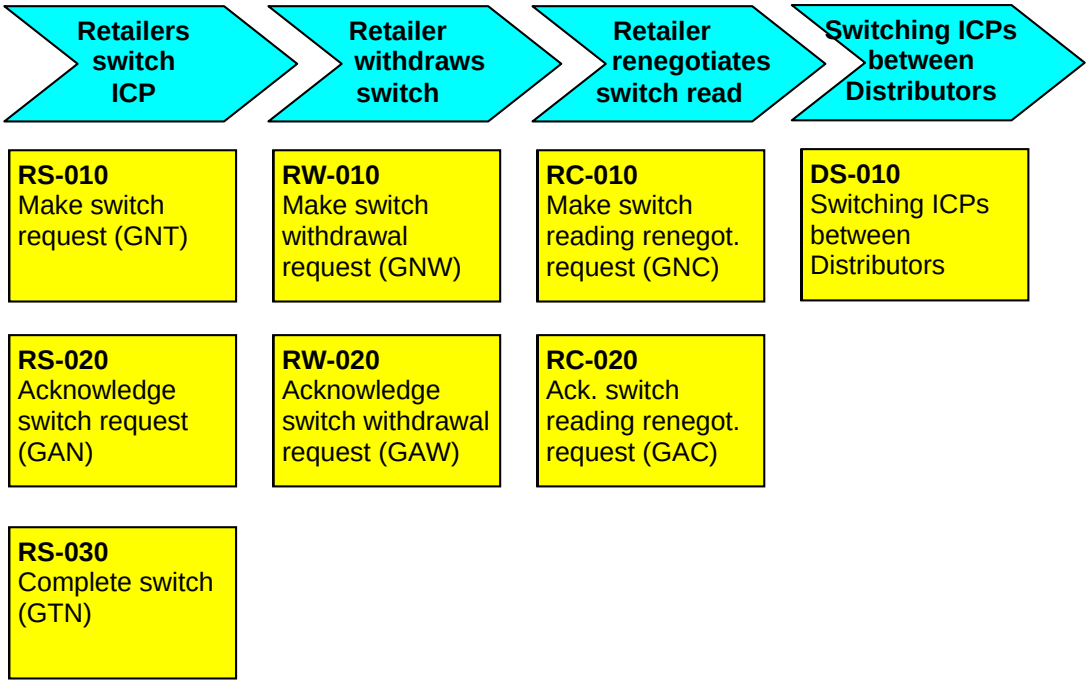
1. The Gas Registry should be able to identify individual logon identities and log the identity against updates made online.
2. A participant may nominate another participant to act on their behalf (agents). The system must be able to identify the correct participant a user is acting for when evaluating whether the user is allowed to perform an update.
3. A single logon must support the role of 'acting as agent' as well the participant's company role.
4. A single logon must be supported when a participant has more than one ownership role, ie if a participant is both a distributor and a meter owner then they should be able to input/maintain a single ICP where they are both roles or just one of those roles.

4 Process maps

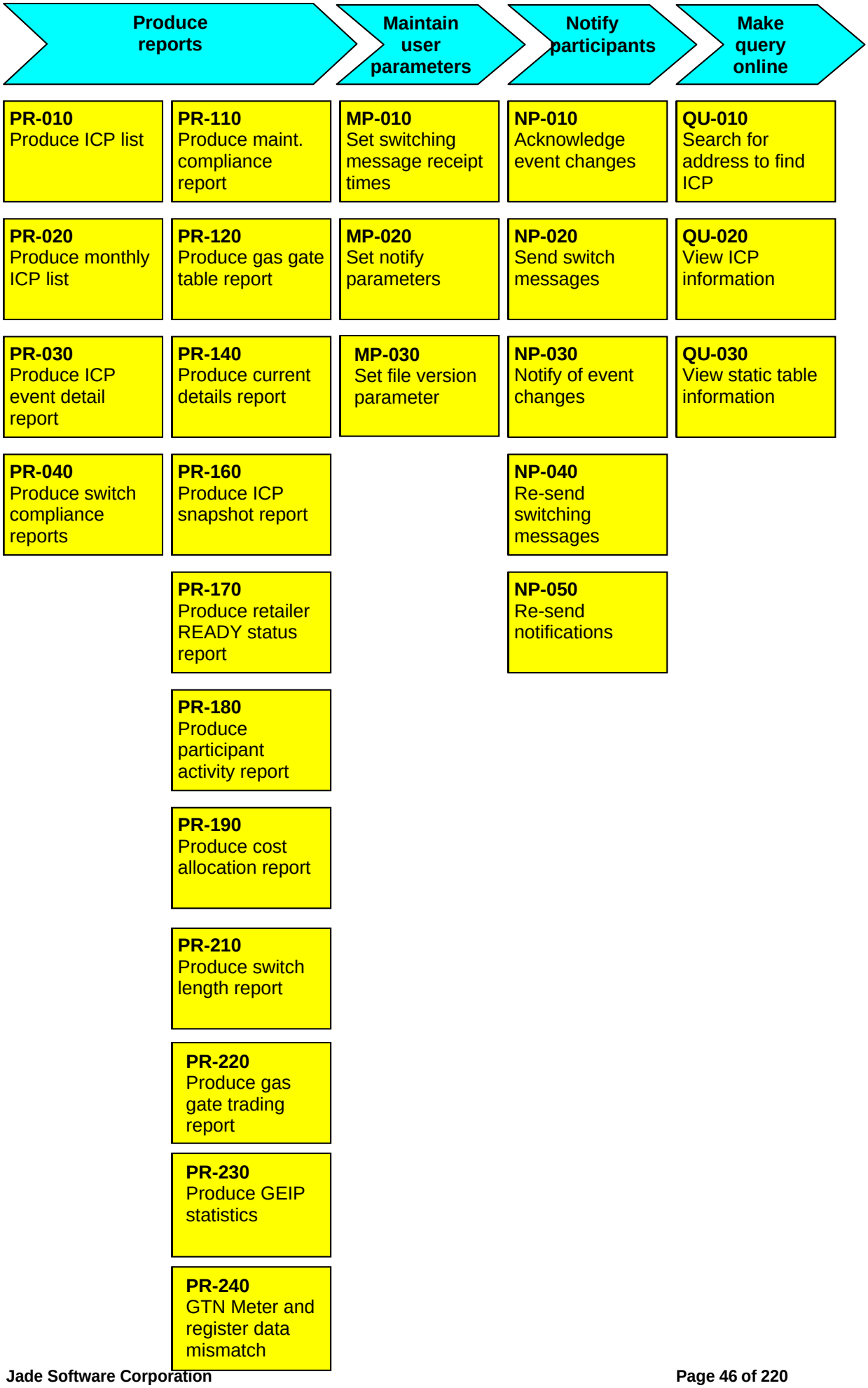
Process map – ICP event maintenance



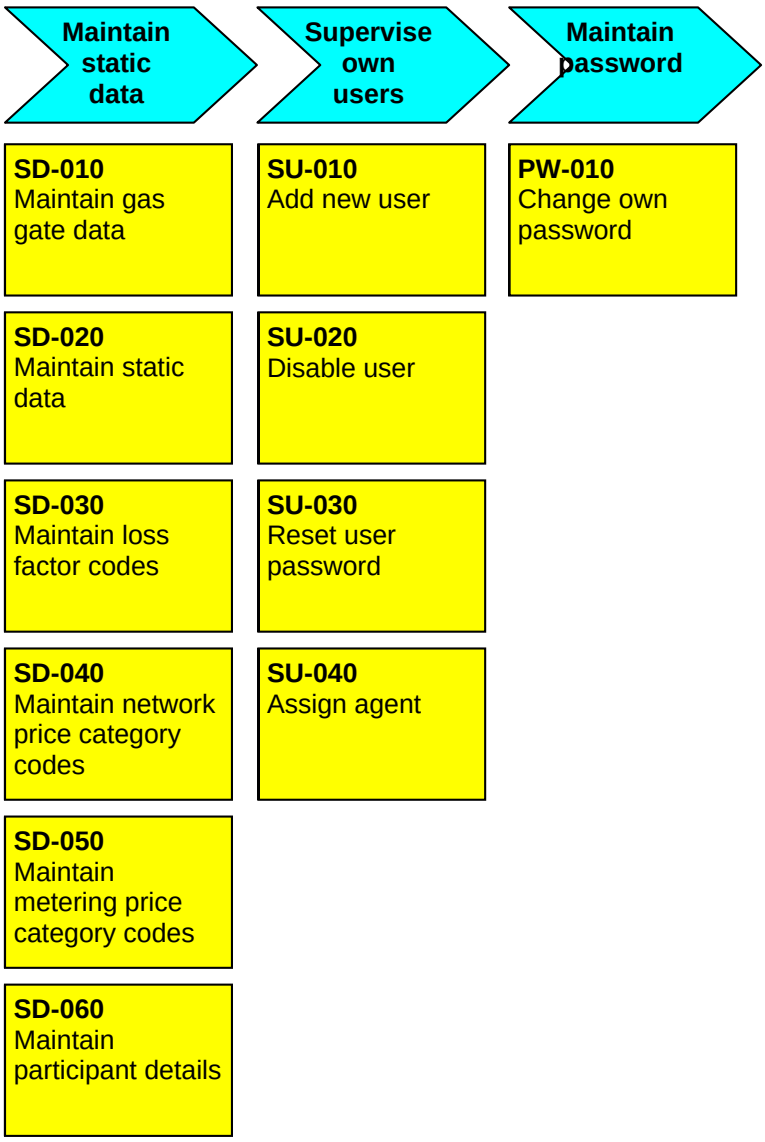
Process map – ICP switching



Process map – reporting, parameters, notifications and queries



Process map – maintaining static data and access security



5 Sub-processes

5.1 ICP event maintenance – Distributor

Sub-process:	**DC-010 Create an ICP (*NEW* or *READY*)**
Process:	Distributor creates ICP
Participants:	Distributors
Rule references:	Rules 51 and Schedule Part A
Dependencies:	DC-020

Description:

A distributor creates an ICP on the Gas Registry. Depending on how much and what information the distributor enters, the system will either set the status of the ICP to be *NEW* or *READY*.

Business requirements:

1. Only distributors or their agents must be allowed to create ICPs.
2. The system must determine the correct status to assign to the ICP from the ICP parameters input by the distributor.
3. In order for the ICP to be created on the system with *NEW* status, the distributor must enter values for at least the ICP Identifier, ICP Creation Date, mandatory address parameters and Responsible Distributor Code parameters. Note the ICP Creation Date is derived from the Network Event date.
4. In order for an ICP to be created on the system with *READY* status, the distributor must enter values for at least the ICP Identifier, ICP Creation Date, mandatory address parameters and Responsible Distributor Code, Gas Gate Code, ICP Type Code, Network Pressure, ICP Altitude, Load Shedding Category Code, Network Pricing Category Code, Loss Factor Code and Expected Retailer Code parameters. Note the ICP Creation Date is derived from the Network Event date.
5. For new ICPs if the event date is after the ICP Distributor Id cut off date (as at 17/11/2008 this has been defined as 1st July 2008) then the ICP Id must use one of the valid ICP Distributor Ids (see static data).
6. Gas Gate codes must be valid for the distributor by reference to the Gas Gate code table.
7. A Network, Address and Status event must be generated and all of them must have the same event date.
8. When a Pricing event is generated for an ICP with a *READY* status, it must have an event date that is on or after the ICP Creation Date.
9. An Expected Retailer, if supplied, must be classed as an affected participant for notification purposes.

Data inputs:

Attributes input	Format	Mandatory/ optional	Comments
ICP Identifier	Char 15	M	Valid against algorithm defined in Appendix A and must be unique.
Network event:			

Network Event Date	DD/MM/ YYYY	M	ICP Creation Date
Network Event User Reference	Char 32	O	
Responsible Distributor Code	Char 4	M	Valid distributor code.
Gas Gate Code	Char 8	O	Valid Gas Gate code for distributor at the event date.
ICP Type Code	Char 2	O	Valid ICP type.
Network Pressure	Num 4	O	Nominal operating pressure of network in kPa
ICP Altitude	Num 5	O	Altitude of the meter at the ICP, in meters above sea level
Load Shedding Category Code	Char 3	O	
Expected Retailer Code	Char 4	O	Valid participant code of the retailer expected to be the first supplier of the ICP.
Installation Details	Char 30	O	
Pricing event:			
Pricing Event Date	DD/MM/ YYYY	M/O	Mandatory if any attribute in the event is input.
Pricing Event User Reference	Char 32	O	
Maximum Hourly Quantity (MHQ)	Num 6, Char 3	O	Maximum hourly quantity that the equipment at the gas installation is capable of drawing. “DOA” is also valid, if the distributor only wishes to have the actual MHQ released on application.
Network Price Category Code	Char 15	O	Valid code to define fixed and variable pricing as defined by the distributor and valid on the Pricing event date. “DOA” is also valid
Loss Factor Code	Char 7	O	Valid code to define the loss factor for the ICP, as defined by the distributor and valid on the Pricing event date
Network Price Details	Char 30	O	
Address event:			
Address Event Date	DD/MM/ YYYY	M	
Address User Reference	Char 32	O	
Physical Address Unit	Char 20	O	Free text field, as provided by the customer

Physical Address Number/RAPID Number	Char 25	O	Valid street, RAPID, dairy or other unique number
Physical Address Street	Char 30	M/O	As per NZ Post address standard. Mandatory if property name not input.
Physical Address Suburb	Char 30	M/O	As per NZ Post address standard. Mandatory if town not input.
Physical Address Town	Char 30	M/O	As per NZ Post address standard. Mandatory if suburb not input.
Physical Address Post Code	Numeric 4	O	As per NZ Post valid post codes
Physical Address Region	Char 20	M	As per Telecom NZ region classifications – valid regions are listed in SD-020 Maintain Static Data
Address Property Name	Char 75	M/O	Additional description to ensure ICP uniqueness. Mandatory if street not input.
Status event: This event can only be input by a distributor if the status is being changed to *DECOMMISSIONED.*			
Event Date	DD/MM/ YYYY	M	A blank date indicates that event is not being input.
User Reference	Char 32	O	
ICP Status Code	Char 5	M	Only *DECOMMISSIONED* status events are allowed to be input by Distributors.
Connection Status Code	Char 5	M	GDE (*DECOMMISSIONED*)

Processing:

System

1. Validates the ICP parameters and checks their dependencies. The minimum attributes required for the creation of an ICP with a status of *NEW* are:
   - an ICP Identifier;
   - a valid combination of address fields as described above; and
   - a Responsible Distributor Code with an associated event date.

   More ICP parameters than those above may be supplied and the ICP will still be created with a status of *NEW* but when **all** of the ICP parameters listed above and the following ICP parameters (together with their appropriate event dates) are provided, then the ICP will be created with a status of *READY*:
   - Gas Gate Code;
   - ICP Type Code;
   - Network Pressure;
   - ICP Altitude;

- Load Shedding Category Code;
- Expected Retailer Code;
- Network Price Category Code;
- Loss Factor Code.

The following optional ICP parameters can also be provided which have no bearing on the status of the ICP:

- Maximum Hourly Quantity;
- Network Price Details; and
- Installation Details

2. Generates a Network event and an Address event using the ICP parameters supplied. The ICP creation date is derived from the network event date.
3. If any pricing information is supplied, generates a Pricing event.
4. Generates a Status event with the appropriate status and an event date that is the same as the Network event. If the status is *NEW*, the Connection Status Code will be set to NEW. If the status is *READY*, the Connection Status Code will be set to GIR.
5. Completes the audit trail information for each event.
6. Generates notifications to the distributor and the expected retailer.
7. Generates acknowledgements to the distributor for each event.

Data outputs:

With the minimum ICP parameters, an ICP with a Network event, Address event, Status event and associated audit trail information.

If more than the minimum ICP parameters are provided, that include any from the Pricing event, then the ICP will be created with an additional Pricing event.

Notifications.

An acknowledgement for each event.

Sub-process:	**DC-020 Make a *NEW* ICP *READY***
Process:	Distributor creates ICP
Participants:	Distributors
Rule references:	Rule 53 and Schedule Part A
Dependencies:	

Description:

A distributor progressively adds ICP parameters to an existing standard ICP in the *NEW* state until the system has sufficient information to change the status to *READY*.

Business requirements:

1. Only distributors or their agents must be allowed to update an ICP's Network, Pricing and Address events, and move an ICP from *NEW* to *READY*.
2. At the pre-commissioning stage, the ICP Status must be a system-assigned parameter and must not be able to be set by a distributor.
3. The Gas Gate Code must be valid and active for the distributor.
4. In order for an ICP to be created on the system with *READY* status, the distributor must enter values for at least the following:
   - ICP Identifier
   - Valid combination of address fields,
   - Responsible Distributor Code
   - Gas Gate Code
   - ICP Type Code
   - Network Pressure
   - ICP Altitude
   - Load Shedding Category Code
   - Network Price Category Code
   - Loss Factor Code
   - Expected Retailer Code
5. The Pricing event generated must have an event date that is on or after the ICP Creation Date.
6. Meter events occurring in the network events effective date range that have Meter Operating at Network Pressure set to Y must have their Meter Pressure updated to the Network Pressure if the Network Pressure has changed
7. The retailer proposed as Expected Retailer must be classed as an affected participant for notification purposes.

Data inputs:

Sufficient ICP parameters (note that the Address event is assumed to be present):

- Responsible Distributor Code, Gas Gate Code, ICP Type Code, Network Pressure, ICP Altitude, Load Shedding Category Code and Expected Retailer Code with an associated Network event date; and

- Network Price Category Code and Loss Category Code with an associated Pricing event date.

Optional extra attributes:

- Maximum Hourly Quantity (MHQ);
- Network Price Details;
- Installation Details

See sub-process DC-010 for minimum input details.

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Generates events of the appropriate types based on the ICP parameters supplied.
3. Generates a Status event with a *READY* status and a Status event date the same as that of the Network event. Connection Status Code will be set to GIR for a status of *READY*.
4. Completes the audit trail information for each event.
5. Generates notifications to the Responsible Distributor and the Expected Retailer.
6. Generates an acknowledgement to the Responsible Distributor for each event.

Data outputs:

Network, Status and Pricing events and associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**DM-010 Change initial ICP creation date**
Process:	Distributor maintains ICP data
Participants:	Distributors
Rule references:	Rules 51, 53 and Schedule Part A
Dependencies:	

Description:
The Distributor moves the ICP Creation Date to an earlier date.

Business requirements:

1. The ICP must be in the pre-commissioning stage, ie it must have either a *NEW* or *READY* status.
2. The distributor must have owned the ICP on the ICP Creation Date.
3. The new ICP Creation Date must be before the current creation date, not after it.

Data inputs:
ICP Creation Date.

Processing:

System

1. Validates the new event date.
2. Checks that this Distributor is allowed to make this change.
3. Generates new 'creation' Network, Address and Status events and a Pricing event, if present, using all the ICP parameters from the 'old' events but with the earlier event date.
4. Completes the audit trail of all new and old events marking the 'old' events as *replaced*.
5. Determines the affected participants and generates the appropriate, requested notifications.
6. Generates acknowledgements to the distributor for each event.

Data outputs:

New Network, Address, Status and possibly Pricing events with the associated audit trail information.

Updated, old network, address, status and possibly pricing events with the associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**DM-020 Add additional distributor information**
Process:	Distributor maintains ICP data
Participants:	Distributors
Rule references:	Rules 51, 53 and Schedule Part A
Dependencies:	

Description:

The distributor adds one or more new events to an ICP. The event(s) may either represent an additional change to the current information stored for the ICP, eg a new Network Price Category Code, or may be information that should have been entered previously but was missed (historical insertion). The event is not for an existing event date.

Business requirements:

1. Distributors are solely responsible for the ICP Parameters associated with Network, Address and Pricing events.
2. Distributors may add a Status event setting the status to *DECOMMISSIONED* but only if the ICP is in the *NEW, READY* or *INACTIVE-PERMANENT* state and no switch is in progress for the ICP.
3. There must be no inheritance of ICP parameter values from prior events, and all mandatory ICP parameters must be provided for any event that is inserted, as a minimum.
4. Distributors must only be allowed to insert events within their period of ownership.
5. An event must not be inserted if that would invalidate other prior events, eg an ICP Status event with a status of *DECOMMISSIONED* may not be inserted after a status event that set the status to *ACTIVE-CONTRACTED.*
6. Meter events occurring in the network events effective date range that have Meter Operating at Network Pressure set to Y must have their Meter Pressure updated to the Network Pressure if the Network Pressure has changed.
7. Events must not be able to be inserted for dates prior to the ICP Creation Date.
8. The event dates of different events inserted by the user at the same time must be allowed to be different.
9. It must be possible for Distributors to revert *READY* ICPs to *NEW* by inserting new events with blank (empty) values in any of the ICP parameters required to make the ICP's status *READY*, eg by inserting a Pricing event with a blank Loss Factor Code. (Note that this function must be able to be performed 'historically', ie prior to the latest event date.)
10. Once the ICP has been uplifted by a retailer, no further notifications must be sent to any Expected Retailer of the ICP.

Data inputs:

One or more of the following events with new ICP Parameter values:

- Network event;

- Pricing Event;
- Address Event; or
- Status Event.

The minimum information input for each event is as follows:

Event data	Format	Mandatory/ optional	Comments
ICP Identifier	Char 15	M	
Network event:			
Network Event Date	DD/MM/ YYYY	M/O	A blank date indicates that event is not being input.
Network User Reference	Char 32	O	
Responsible Distributor Code	Char 4	M	Valid distributor code.
Gas Gate Code	Char 8	O	Valid Gas Gate code for distributor.
ICP Type Code	Char 2	O	Valid ICP type.
Network Pressure	Num 4	O	
ICP Altitude	Num 5	O	
Load Shedding Category Code	Char 3	O	
Expected Retailer Code	Char 4	O	Valid retailer.
Installation Details	Char 30	O	
Pricing event:			
Pricing Event Date	DD/MM/ YYYY	M/O	A blank date indicates that event is not being input.
Pricing User Reference	Char 32	O	
Maximum Hourly Quantity (MHQ)	Num 6, Char 3	O	Maximum hourly quantity that the equipment at the gas installation is capable of drawing. “DOA” is also valid, if the distributor only wishes to have the actual MHQ released on application.
Network Price Category Code	Char 15	O	“DOA” is valid
Loss Factor Code	Char 7	O	
Network Price Details	Char 30	O	
Address event:			
Address Event Date	DD/MM/ YYYY	M/O	A blank date indicates that event is not being input.

Address User Reference	Char 32	O	
Physical Address Unit	Char 20	O	
Physical Address Number/RAPID Number	Char 25	O	
Physical Address Street	Char 30	M/O	Mandatory if property name not input.
Physical Address Suburb	Char 30	M/O	Mandatory if town not input.
Physical Address Town	Char 30	M/O	Mandatory if suburb not input.
Physical Address Post Code	Numeric 4	O	
Physical Address Region	Char 20	M	
Address Property Name	Char 75	M/O	Mandatory if street not input.
Status event: This event can only be input by a distributor if the status is being changed to *DECOMMISSIONED.*			
Event Date	DD/MM/ YYYY	M	A blank date indicates that event is not being input.
User Reference	Char 32	O	
ICP Status Code	Char 5	M	Only *DECOMMISSIONED* status events are allowed to be input by Distributors.
Connection Status Code	Char 5	M	GDE (*DECOMMISSIONED*)

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Checks that this Distributor is allowed to make this change.
3. Adds the events supplied by the Distributor.
4. Updates Meter Pressure on metering events in the effective date range of the network event if the meter events have Meter Operating at Network Pressure set to Y. Creates audits for each event updated.
5. Completes the audit trail information for each event added.
6. Determines the affected participants and generates notifications for them, if the settings of their notification parameters indicate they require them.
7. Generates acknowledgements to the distributor for each event.
8. If setting the ICP Status to *DECOMMISSIONED,* set the Connection Status code to GDE
9. If setting the ICP Status to *READY,* set the Connection Status code to

GIR.

Data outputs:
New Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information. Meter events. Notifications. Acknowledgements.

Sub-process:	**DM-030 Correct distributor information**
Process:	Distributor maintains ICP data
Participants:	Distributors
Rule references:	Rules 58, 59, 61, 62, Schedule Part A
Dependencies:	

Description:

The Distributor corrects values of ICP parameters entered incorrectly in one or more existing events recorded for an ICP.

Business requirements:

1. Distributors are solely responsible for ICP Parameters associated with Network, Address and Pricing events.
2. Corrections may be made to both historical and current events.
3. More than one event can be corrected at the same time.
4. The Distributor may not correct the Status parameter of a Status event for an ICP.
5. Distributors may only correct events that were input during their period of ownership.
6. Whenever a new value of an ICP parameter is assigned, even if it is a correction of an existing ICP parameter, a new event must be created to show the correct situation. The original event is also marked as being *replaced*. The new event then becomes the only active event for that event date. The original replaced event must also identify the new event that replaced it.
7. An event must not be corrected if that would invalidate other prior events.
8. There must be no automatic inheritance of ICP parameter values. Whenever the value of an ICP parameter needs to change, a value must be provided, at least for every mandatory ICP parameter of the associated event.
9. Meter events occurring in the network events effective date range that have Meter Operating at Network Pressure set to Y must have their Meter Pressure updated to the Network Pressure if the Network Pressure has changed.
10. If more than one event is corrected at the same time, the event dates of each event may be different.
11. It must be possible for Distributors to revert ICPs with a status of *READY* to a status of *NEW* by blanking out required ICP parameters on existing events, eg by updating a Pricing event with a blank Loss Factor code. (Note that this function must be able to be performed 'historically', ie prior to the latest event date.)
12. Once the ICP has been uplifted by a Retailer, no further notifications must be sent to any Expected Retailer of the ICP.

Data inputs:

One or more of the following events with new ICP Parameter values:

Network Event;

Pricing Event;

Address Event; or

Status Event.

Meter Events

The corrected ICP parameters must be provided by submitting 'complete' events, ie with all the other mandatory ICP parameters for the event. See sub-process DM-020 for details of the mandatory ICP parameters per event corrected.

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Checks that this Distributor is allowed to make this change.
3. Replaces the incorrect events and inserts the corrected ones.
4. Completes the audit trail information for each inserted and each replaced event.
5. Evaluates who the affected participants are and generates notifications to them, if their notification parameters require it.
6. Generates acknowledgements to the Distributor for each event inserted and replaced.

Data outputs:

New Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information.

Updated old Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**DM-040 Reverse distributor information**
Process:	Distributor maintains ICP data
Participants:	Distributors
Rule references:	Rules 58, 59, 60, 61, 62, Schedule Part A
Dependencies:	

Description:

The Distributor reverses one or more existing events that have been input in error.

Business requirements:

1. Distributors are solely responsible for maintaining ICP Parameters associated with Network, Address and Pricing events.
2. Both historical and current events may be reversed.
3. Distributors can only reverse a Status event that originally changed the status from *INACTIVE-PERMANENT* to *DECOMMISSIONED*.
4. Distributors can only reverse events that are within their period of ownership.
5. An event may not be reversed if that would invalidate a later event, eg a reversal of a Status event that set the status to *INACTIVE-PERMANENT* that immediately precedes a decommissioning (ie Status event that set the status to *DECOMMISSIONED*) must be prevented.
6. Meter events occurring in the reversed network events effective date range that have Meter Operating at Network Pressure set to Y must have their Meter Pressure updated to the Network Pressure of the network event now in force, if the Network Pressure has changed
7. A reversal must mark the reversed event as *reversed* in the audit information of the event.
8. If more than one event is being reversed, the event dates of each event may be different, ie multiple concurrent reversals for one ICP are allowed.

Data inputs:

Selection of one or more of the following events for reversal:

- Network event;
- Pricing event;
- Address event; or
- Status event.

Processing:

System

1. Validates that the Distributor is permitted to reverse the event(s) selected.
2. Reverses the event(s).
3. Updates the metering events where Meter operating at Network Pressure is Y
4. Generates a Status event if necessary to maintain the integrity and consistency of the ICP's information. For instance, if the ICP was initially created in the *READY* state and an event was reversed that would cause

the ICP to revert to the *NEW* state, eg reversal of a Pricing event, then the system would need to generate a Status event to reflect this and update the Connection Status Code accordingly.

5. Completes the audit trail information for each event reversed.
6. Evaluates who the affected participants are and generates notifications to them, with reference to the notification parameters.
7. Generates acknowledgements to the Distributor for each event reversed.

Data outputs:
Updated old Network event and/or Address event and/or Status event and/or Pricing event with the associated audit trail information. Updated metering events Notifications. Acknowledgements.

5.2 ICP event maintenance – retailer

Sub-process:	**RA-010 Retailer uplifts *READY* ICP**
Process:	Retailer uplifts ICP
Participants:	Retailers
Rule references:	Rules 54, 55, 59, Schedule Part B
Dependencies:	

Description:
A Retailer takes ownership of an ICP for the first time by completing the mandatory ICP Parameters associated with the Retailer and Status events.

Business requirements:

1. Initial assignment can only occur for ICPs in the *READY* state.
2. For clarity, the retailer that uplifts an ICP in the *READY* state may or may not be the Expected Retailer nominated by the responsible distributor in the Network event.
3. An initial assignment requires the completion of, at least, all the mandatory ICP parameters in the Retailer and Status events. Each event must have the same event date.
4. The event date of an initial assignment must be on or after the event date of the latest *READY* status event.
5. A Retailer can only assign an ICP to themselves.
6. The initial assignment process can only be used for the very first retailer assignment. All subsequent changes to retailer ownership must be performed via the switch process.
7. The Responsible Meter Owner must be classed as an affected participant for notification purposes.
8. Notwithstanding that the Responsible Meter Owner may already exist, if it entered metering information for the ICP in the *NEW* or *READY* state, the retailer that uplifts the ICP may assign any Responsible Meter Owner within its ownership period.
9. If a Meter Owner has appointed themselves the Responsible Meter Owner before retailer initial assignment,. and the Retailer event date is prior to any subsequent metering event dates, the Registry must reverse all placeholder retailer events occurring on or after retailer uplift. Notification of the reversal of placeholder retailer events must not be sent

Data inputs:

At least the mandatory ICP Parameters of both Retailer and Status events

The mandatory ICP Parameters are:

Event data	Format	Mandatory/ optional	Comments
ICP Identifier	Char 15	M	
Retailer event:			
Event date	DD/MM/ YYYY	M	

User Reference	Char 32	O	
Responsible Retailer Code	Char 4	M	Can only be input on initial retailer assignment and must be self.
Allocation Group Code	Char 1	M	Valid Allocation code in Gas Registry static data
Profile Code	Char 4	M	Profile must be available to the Retailer on the event date. Profile codes are determined and published by the industry body from time to time
Responsible Meter Owner Code	Char 4	M	Valid meter owner. Must be a valid Gas Registry participant code
Status event:			
Event Date	DD/MM/ YYYY	M	Same as Retailer Event Date.
User Reference	Char 32	O	
ICP Status Code	Char 5	M	ACTIVE-CONTRACTED, ACTIVE-VACANT or INACTIVE-TRANSITIONAL (code only).
Connection Status Code	Char 5	M	Must be a valid Connection Status Code and must be valid in conjunction with the Status Code. The supplied value is ignored if the ICP Status is ACTIVE VACANT

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Creates the appropriate events with the ICP parameter values input by the Retailer.
3. If the ICP Status is ACTIVE VACANT then the Connection Status Code will be set to GAS
4. Completes the audit trail information for each event created.
5. Determines who the affected participants are and generates notifications to them, with reference to their notification parameters.
6. Generates acknowledgements to the retailer for each event created.

Data outputs:

A Retailer and Status event each with the associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**RM-010 Reverse retailer uplift**
Process:	Retailer maintains ICP data
Participants:	Retailers
Rule references:	Rules 54, 55, Schedule Part B
Dependencies:	

Description:
A Retailer reverses their initial assignment of an ICP.

Business requirements:
1. A Retailer may only reverse their own initial assignment. 2. The reversal may not occur if there are **any** additional non-reversed events for the ICP with event dates after the initial assignment. 3. There must not be a switch in progress for the ICP. 4. Where a Meter Owner appointed themselves the Responsible Meter Owner with an Event Date prior to Retailer uplift, the Registry must retain all metering events with an Event Date prior to the retailer uplift Event Date.

Data inputs:
Selection of the initial assignment (or its Retailer event).

Processing:
System 1. Validates that the initial assignment can be reversed by the Retailer. 2. Reverses the Retailer and Status events of the initial assignment. 3. Completes the audit trail information for each of the reversed events. 4. Determines the affected participants and generates notifications to those that require them. 5. Generates acknowledgements to the retailer for each of the reversed events.

Data outputs:
Reversal of initial assignment events – Retailer and Status events each with updated audit trail information. Notifications. Acknowledgements.

Sub-process:	**RM-020 Add new retailer information**
Process:	Retailer maintains ICP data
Participants:	Retailers
Rule references:	Rules 59, 60, 61, 62, Schedule Part B
Dependencies:	

Description:

The Retailer adds a new event to an ICP. The event will represent a later change to the current information stored for the ICP. The event is not for an existing event date.

Business requirements:

1. Retailers must be solely responsible for the maintenance of Retailer event ICP Parameters.
2. Retailers may only insert new status events with status values of *ACTIVE-CONTRACTED, ACTIVE-VACANT, INACTIVE-TRANSITIONAL* or *INACTIVE-PERMANENT*.
3. At a minimum, all mandatory ICP Parameters of an event must be provided; no ICP Parameter values may be inherited from prior events.
4. Retailers may only insert events with event dates that are within their period of ownership.
5. The Retailer may only insert events with their own retailer code as the value of the Responsible Retailer Code Parameter.
6. Events cannot be inserted prior to the initial assignment date of the ICP.
7. Events cannot be inserted for event dates after the date of decommissioning.
8. An event must not be inserted if that would invalidate other prior events.
9. It must be possible to insert more than one event at the same time.
10. If more than one event is being inserted, the event dates of each event may differ.

Data inputs:

One or more of a Retailer or Status event with new ICP Parameter values:

The mandatory parameters are as follows:

Event data	Format	Mandatory/ optional	Comments
ICP Identifier	Char 15	M	
Retailer event:			
Event Date	DD/MM/ YYYY	M/O	A blank date indicates no data for this event.
User Reference	Char 32	O	
Responsible Retailer Code	Char 4	O	Valid only for initial assignment, ignored by the system otherwise
Allocation Group Code	Char 1	M	Must be available to the retailer on the event date.

Profile Code	Char 4	M	Must be available to the retailer on the event date.
Responsible Meter Owner Code	Char 4	M	Valid Gas Registry participant code
Status event:			
Event Date	DD/MM/ YYYY	M/O	A blank date indicates no data for this event.
User Reference	Char 32	O	
ICP Status Code	Char 5	M	*ACTIVE-CONTRACTED, ACTIVE-VACANT, INACTIVE-TRANSITIONAL* or *INACTIVE-PERMANENT* (code only)
Connection Status Code	Char 5	M	Must be a valid Connection Status Code, and valid in conjunction with the ICP Status Code. The supplied value is ignored if the ICP Status is ACTIVE VACANT.

Processing:

System

1. Validates all ICP Parameters and checks their dependencies.
2. Checks that the Retailer is allowed to make this change.
3. Adds the events supplied by the Retailer.
4. If the ICP Status is ACTIVE VACANT then the Connection Status Code will be set to GAS.
5. Completes the audit trail information for each event added.
6. Determines the affected participants and generates notifications for those who require them.
7. Generates acknowledgements to the retailer for each event added.

Data outputs:

New Retailer event and/or Status event with the associated audit trail information.

Notifications.

Acknowledgements.

Sub-process:	**RM-030 Correct retailer information**
Process:	Retailer maintains ICP data
Participants:	Retailers
Rule references:	Rules 58, 59, 61, 62, Schedule Part B
Dependencies:	

Description:

The Retailer corrects values of ICP Parameters entered incorrectly in one or more existing events associated with an ICP.

Business requirements:

1. Retailers are solely responsible for maintaining the Retailer event ICP Parameters.
2. Retailers may only update Status events to have status values of *ACTIVE-CONTRACTED, ACTIVE-VACANT, INACTIVE-TRANSITIONAL* or *INACTIVE-PERMANENT*.
3. If the ICP Status is ACTIVE VACANT then the Connection Status Code will be set to GAS.
4. It must be possible to correct more than one event at the same time.
5. At least all mandatory ICP parameters of an event must be provided. No ICP parameter values should be automatically inherited from prior events.
6. Retailers can only correct events that are within their period of ownership.
7. It must be impossible for the Retailer to change the Responsible Retailer Code ICP parameter of the Retailer event to another Retailer's code.
8. An event must not be corrected if that would invalidate other prior events.
9. The incorrect event must be logically replaced by the correct event and the audit details of the incorrect event must be updated to identify the correct event.
10. If more than one event is being corrected, the event dates of each event may be different.

Data inputs:

One or more of a Retailer or Status event with new ICP Parameter values:

See sub-process RM-020 for details of mandatory values.

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Checks that the Retailer is allowed to make this change.
3. Replaces the incorrect events and inserts the corrected ones.
4. Completes the audit trail information for each inserted and each replaced event.
5. Evaluates who the affected participants are and generates notifications to them, if their notification parameters require it.
6. Generates acknowledgements to the distributor for each event inserted and replaced.

Data outputs:
New Retailer event and/or Status event with the associated audit trail information. Updated old Retailer event and/or Status event each with their associated audit trail information updated correctly. Notifications. Acknowledgements.

Sub-process:	**RM-040 Reverse retailer information**
Process:	Retailer maintains ICP data
Participants:	Retailers
Rule references:	Rules 58, 59, 60, 61, 62, Schedule Part B
Dependencies:	

Description:

The Retailer reverses one or more existing events that have been input in error.

Business requirements:

1. Retailers are solely responsible for maintaining the Retailer event ICP Parameters.
2. Retailers may only reverse Status events that have status values of A*CTIVE-CONTRACTED, ACTIVE-VACANT, INACTIVE-TRANSITIONAL* or *INACTIVE-PERMANENT*. However, reversing the last *INACTIVE-PERMANENT* event on a *DECOMMISSIONED* ICP must be prevented.
3. Retailers may only reverse events that happened within their period of ownership.
4. An event must not be reversed if that would invalidate other prior events.
5. A reversal must mark the reversed event as *reversed* in the audit information pertaining to the event.
6. More than one event may be reversed at the same time.
7. Both historical and current events may be reversed.
8. If more than one event is being reversed, the event dates of each event may be different.

Data inputs:

Selection of one or more of a Retailer and/or Status event for reversal.

Processing:

System

1. Validates that the Retailer is permitted to reverse the event(s).
2. Reverses the event(s).
3. Completes the audit trail information for each event reversed.
4. Determines the affected participants and generates notifications for those who require them.
5. Generates acknowledgements to the retailer for each event reversed.

Data outputs:

Reversed Retailer event and/or Status event with the associated audit trail information updated accordingly.

Notifications.

Acknowledgements.

5.3 ICP Event Maintenance – Meter Owner

Sub-process:	**MU-010 Maintain Meter Owner information before Retailer uplift**
Process:	Meter Owner maintains ICP data
Participants:	Meter Owners
Rule references:	Rules 56, 58 and 62, Schedule Part C
Dependencies:	

Description:
Before a Retailer's initial assignment, (i.e. when the ICP has an ICP Status of NEW or READY) any Meter Owner may appoint itself as Responsible Meter Owner by adding all mandatory metering information for an ICP. The Registry will maintain a Placeholder retailer event with an event date matching the event date of the supplied Meter Event.

Business requirements:

1. If the ICP has a Retailer that is not the Placeholder Retailer; the Meter Owner supplying the metering information must be the Responsible Meter Owner on the current Retailer Event.
2. If a Meter Owner inserts metering information to an ICP before Retailer initial assignment, the Gas Registry must maintain the relationship between retailer event and metering event by creating a Placeholder retailer event with the following information:
   - Event Date – event date of the metering event.
   - User Reference – "Created by MeterOwner assignment"
   - Responsible Retailer Code – Placeholder retailer identifier
   - Allocation Group Code – null
   - Profile Code – null
   - Responsible Meter Owner Code - Meter Owner code
3. The Placeholder Retailer code must be represented as a null on all inquiry output including:
   - Web Service
   - Browser
   - Reporting
4. Only 1 Meter Owner must be able to appoint itself as the Responsible Meter Owner. If a 2nd Meter Owner wishes to appoint itself, the current Meter Owner must reverse all meter events they have supplied.
5. The Responsible Meter Owner may correct metering information they have supplied.
6. The Responsible Meter Owner may reverse metering information they have supplied. The Registry must reverse the Placeholder retailer event that matches the metering events event date.
7. Insert, correction or reversal of metering information must not affect the status of the ICP.
8. Notification of addition, correction and reversal of metering information must be sent to affected participants, however notification of Placeholder

retailer events must not be sent.

9. If the ICP has no Retailer, or only a Placeholder Retailer, then the Expected Retailer is an affected participant for notification purposes

Data inputs:

A Metering event with new ICP Parameter values (refer MM-010).

A correction of metering information (refer MM-020).

A reversal of metering information (refer MM-030).

Processing:

System

1. Validates all ICP Parameters and checks their dependencies.
2. Checks that
   a. There is no current Responsible Meter Owner; or
   b. The current Responsible Meter Owner is the same as the submitting Participant
3. Performs processing validation (refer MM0-010)
4. Adds or reverses the Placeholder retailer event and completes the audit trail for the event.
5. Determines the affected participants and generates notifications for them for the Metering event only
6. Notifications should either be in the old or new file format, as determined individually by each participant. If there is no responsible retailer, the Expected Retailer should be included as an affected participant
7. Generates acknowledgement to the meter owner.

Data outputs:

New Metering event with the associated audit trail information.

Placeholder retailer event with the associated audit trail information.

Notifications of Metering event

Acknowledgements.

Sub-process:	**MM-010 Add Meter Owner information**
Process:	Meter Owner maintains ICP data
Participants:	Meter Owners
Rule references:	Rules 56, 58 and 62, Schedule Part C
Dependencies:	

Description:
The Meter Owner adds metering information for an ICP on the Gas Registry after retailer uplift

Business requirements:

1. Only Meter Owners or their agents must be allowed to update the ICP Parameters associated with Metering events for ICPs.
2. There must be no inheritance of ICP Parameter values from prior events, and all mandatory ICP Parameters must be provided for any event that is inserted, as a minimum.
3. Meter Owners must only be allowed to insert events within their period of ownership.
4. Events must not be able to be inserted for dates prior to the ICP creation date.
5. Meter Owner is derived by the Gas Registry from the Responsible Meter Owner Code on the Retailer event in place at the Metering event date and cannot be changed by the Meter Owner
6. Advanced Meter is derived by the Gas Registry – if Advanced Meter Owner code is not NONE, Advanced Meter is set to “Y”. Default is “N”
7. TOU Meter is derived by the Gas Registry – if either Logger Owner code or Corrector Owner code is not NONE, TOU Meter is set to “Y”. Otherwise is “N”
8. If TOU Meter is ‘Y’, Meter Pressure, Register Reading Digits and Register Multiplier fields are ignored. In the browser these values will display as ‘n/a’.
9. Standard and Prepay Meter cannot both be “Y”, but they may both be “N” if the installation is unmetered
10. If Meter Operating at Network Pressure is “Y” any changes to Network Pressure should flow through to Meter Pressure. The Gas Registry must populate Meter Pressure with the value from the Network Pressure:
    - **a.** Where an inquiry effective date is supplied Network Pressure is obtained from the Network Event in force as at the effective date; otherwise
    - **b.** If the Meter Event reported represents current metering the Meter Pressure is obtained from the most recent Network Event. This is regardless if the most recent Network Event postdates the metering; otherwise
    - **c.** Meter Pressure is obtained from the Network Event active as at the Meter Event Date
11.

Data inputs:

A Metering event with new ICP Parameter values.

The mandatory ICP Parameters are:

Event Data	Format	Mandatory/ Optional/Ignored	Comments
ICP Identifier	Char 15	M	
Metering Event			
Event Date	DD/MM/ YYYY	M	
User Reference	Char 32	O	
Meter Identifier	Char 15	M	Serial number or other visible identifier on the meter. REMOVED indicates the meter has been removed. Value of “DIFFERENCE” and “REMOVED” are not indexed for meter identifier searches.
Meter Location Code	Char 4	M/O	Valid meter location code from static data, or optional if Meter Identifier = “REMOVED”.
Standard Meter	Char 1	M	Y(es)/N(o). Must be “N” if Prepay Meter is “Y”. One of Standard Meter or Prepay Meter must be Y
Prepay Meter	Char 1	M	Y(es)/N(o). Must be “N” if Standard Meter is “Y”. One of Standard Meter or Prepay Meter must be Y
Advanced Meter	Char 1	O	Y(es)/N(o). Derived by the Registry System – “Y” if Advanced Meter Owner code is not NONE. Default is “N”. This value must not be submitted/supplied.
Logger Owner Code	Char 4	M	Logger Owner at the ICP. Must be a valid Gas Registry participant code, or NONE
Corrector Owner Code	Char 4	M	Corrector Owner at the ICP. Must be a valid Gas Registry participant code, or NONE
Telemetry Owner Code	Char 4	M	Telemetry Owner at the ICP. Must be a valid Gas Registry participant code, or NONE

Advanced Meter Owner Code	Char 4	M	Advanced Meter Owner at the ICP. Must be a valid Gas Registry participant code, or NONE
Metering Price Category Code	Char 15	M/O	Valid metering price category code as defined by the Meter Owner, or optional if Meter Identifier = “REMOVED”. “DOA” is also valid.
Metering Details	Char 30	O	Additional metering information
TOU Meter	Char 1		Y(es)/N(o). Derived by the Registry System – “Y” if either Logger Owner code or Corrector Owner code is not NONE. Otherwise is “N”. This value must not be submitted/supplied.
Meter Pressure	Decimal 6.2	M/I/O	Valid meter pressure value, or ignored if Meter Operating at Network Pressure is “Y”. Ignored if TOU Meter is “Y” Meter Identifier is ‘REMOVED’: Optional Meter Identifier is not ‘REMOVED’: Mandatory if TOU = N and Meter Operating at Network Pressure = N Otherwise ignored.. If supplied must be greater than 0.00 unless is Ignored
Meter Operating at Network Pressure	Char 1	M	A ‘Y’es or ‘N’o value to indicate whether the meter pressure parameter should be automatically populated based on the network pressure parameter

Register Reading Digits	Num 2	M/I/O	The number of moving dials on a meter register that represent whole units, plus any painted or fixed digits that represent whole units. Ignored if TOU Meter is “Y” Meter Identifier is ‘REMOVED’ • Optional Meter Identifier is not ‘REMOVED’ • Mandatory if TOU = N • Otherwise ignored. If supplied must be greater than zero unless is Ignored
Register Multiplier	Num 4	MI/O	The factor by which a quantity taken from a register read is multiplied in order to convert to cubic metres. Ignored if TOU Meter is “Y” Meter Identifier is ‘REMOVED’ • Optional Meter Identifier is not ‘REMOVED’ • Mandatory if TOU = N • Otherwise ignored. If supplied must be greater than zero unless is Ignored

Processing:

System

1. Validates all ICP Parameters and checks their dependencies.
2. Checks that the Meter Owner is the Responsible Meter Owner as at the Metering event date.
3. Checks that this Meter Owner is allowed to make this change.
4. Checks the Meter Identifier is unique for the effective period of the Metering event (except for REMOVED or DIFFERENCE).
5. Derives the Advanced Metering flag from the presence or otherwise of the Advanced Meter Owner code
6. Derives the TOU Meter from the presence or otherwise of either the Logger Owner code or the Corrector Owner code
7. Adds the Metering event supplied by the Meter Owner.
8. Completes the audit trail for the event.
9. Determines the affected participants and generates notifications for

them, if the settings of their notification parameters indicate they require them. Notifications should either be in the old or new file format, as determined individually by each participant. If there is no responsible retailer, the expected retailer should be included as an affected participant

10. Generates acknowledgement to the meter owner.

Data outputs:
New Metering event with the associated audit trail information. Notifications. Acknowledgements.

Sub-process:	**MM-020 Correct Meter Owner information**
Process:	Meter Owner maintains ICP data
Participants:	Meter Owners
Rule references:	Rules 58, 61, 62, Schedule Part C
Dependencies:	

Description:

The Meter Owner corrects values of ICP Parameters entered incorrectly in an existing Metering event for an ICP.

Business requirements:

1. Only Meter Owners or their agents must be allowed to correct the ICP Parameters associated with Metering events for ICPs.
2. Corrections may be made to both historical and current events.
3. Meter owners may only correct events that were input during their period of ownership.
4. Whenever a new value of an ICP parameter is assigned, even if it is a correction of an existing ICP parameter, a new event must be created to show the correct situation. The original event is also marked as being *replaced.* The new event then becomes the only active event for that event date. The original replaced event must also identify the new event that replaced it.
5. An event must not be corrected if that would invalidate other prior events.
6. There must be no automatic inheritance of ICP parameter values. Whenever the value of an ICP parameter needs to change, a value must be provided, at least for every mandatory ICP parameter of the associated event.

Data inputs:

Metering event with new ICP Parameter values

The corrected ICP parameters must be provided by submitting a 'complete' event, ie with all the other mandatory ICP parameters for the event. See sub-process MM-010 for details of the mandatory parameters per Metering event corrected.

Processing:

System

1. Validates all ICP Parameters and checks their dependencies.
2. Checks that this Meter Owner is allowed to make this change.
3. Replaces the incorrect events and inserts the corrected ones.
4. Checks the Meter Identifier is unique for the effective period of the Metering event (except for REMOVED or DIFFERENCE).
5. Completes the audit trail information for each inserted and each replaced event.
6. Evaluates who the affected participants are and generates notifications to them, if notification parameters require it. Notifications should either be in the old or new file format, as determined individually by each

participant. If there is no responsible retailer, the expected retailer should be included as an affected participant

7. Generates acknowledgements to the meter owner for the event inserted and the event replaced.

Data outputs:

New Metering event with the associated audit trail information.

Updated old Metering event with the associated audit information.

Notifications.

Acknowledgements.

Sub-process:	**MM-030 Reverse Meter Owner information**
Process:	Meter Owner maintains ICP data
Participants:	Meter Owners
Rule references:	Rules 58, 61, 62, Schedule Part C
Dependencies:	

Description:
The Meter Owner reverses an existing Metering event that has been input in error.

Business requirements:
1. Only Meter Owners or their agents must be allowed to reverse Metering events for ICPs. 2. Both historical and current events may be reversed. 3. Meter Owners can only reverse events that are within their period of ownership. 4. An event may not be reversed if that would invalidate a later event. 5. A reversal must mark the reversed event as *reversed* in the audit information of the event.

Data inputs:
Metering event for reversal.

Processing:
System 1. Validates that the Meter Owner is permitted to reverse the event selected. 2. Reverses the event. 3. Completes the audit trail information for the event reversed. 4. Evaluates who the affected participants are and generates notifications to them, with reference to the notification parameters. Notifications should either be in the old or new file format, as determined individually by each participant. If there is no responsible retailer, the expected retailer should be included as an affected participant 5. Generates an acknowledgement to the meter owner for the reversed event.

Data outputs:
Reversed old Metering event with the associated audit trail information. Notifications. Acknowledgements.

5.4 ICP Switching

Sub-process:	**RS-010 Make switch request (GNT)**
Process:	Retailers switch ICP
Participants:	Retailers
Rule references:	Rules 64, 65, 66, 67, 68
Dependencies:	

Description:
The new (winning) Retailer initiates a switch by sending a Gas Switching Notice message (GNT) to the Gas Registry. The Gas Registry then forwards the Gas Switching Notice on to the current (losing) Retailer.

Business requirements:

1. Only the new (winning) Retailer can send a GNT to the Gas Registry.
2. The current status of an ICP as defined by the most recent Status event must be either *INACTIVE-TRANSITIONAL, INACTIVE-PERMANENT, ACTIVE-CONTRACTED* or *ACTIVE-VACANT*.
3. There must not already be a switch in progress for the ICP.
4. The switch type must be either Standard or Move (S, SM).
5. A Requested Switch Date is mandatory for a Move (SM) switch and must be after the initial assignment and after any other completed switches which have not been withdrawn (Requested Switch Date is optional for a standard switch).
6. The address information provided on a GNT must only be used by the old Retailer to confirm that the new Retailer has identified the correct ICP. It must not be used to update the Gas Registry.
7. The Gas Registry must keep a copy of the GNT for a minimum of 3 months.
8. An audit trail and an acknowledgement must be generated for the GNT.
9. The GNT must be forwarded by the Gas Registry to the current (losing) Retailer in a file in the same format as input, and in accordance with their switch notify parameters.
10. A GNT must not be corrected or reversed once it has been accepted by the Gas Registry; instead it must be withdrawn.
11. Once the GNT has been accepted, all online queries relating to the ICP in question must highlight that a switch is in progress, and show what stage the Switch has reached.
12. A “Prefill Address” button will be provided on the Switch GNT web form. When pressed this button will prefill the address, retailer profile and allocation group details for the existing ICP data.

Data inputs:

GNT (Gas Switching Notice):

Note Address fields are mandatory if switch type is SM (same rules apply as RQDISMAINT

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	
Requesting Retailer Code	Char 4	O	New Retailer code. Can be derived by system from the sender of the file or the user code for web updates.
Confirmation Address Unit	Char 20	O	Unit is optional
Confirmation Address Number/ RAPID Number	Char 25	O	Number is optional
Confirmation Address Street	Char 30	M/O	If switch type is SM then Street is mandatory if Property Name is not entered otherwise it is optional
Confirmation Address Suburb	Char 30	M/O	If switch type is SM then Suburb is mandatory if Town is not entered otherwise it is optional
Confirmation Address Town	Char 30	M/O	If switch type is SM then Town is mandatory if Suburb is not entered otherwise it is optional
Confirmation Address Post Code	Numeric 4	O	Postcode is optional
Confirmation Address Region	Char 20	O	Region is optional
Confirmation Address Property Name	Char 75	M/O	If switch type is SM then Property Name is mandatory if Street is not entered otherwise it is optional
Requested Switch Date	DD/MM/ YYYY	M/O	Mandatory if switch type is SM.
Switch Type Code	Char 2	M	Valid Switch Type code. Switch Type codes are determined and published by the industry body from time to time
Allocation Group Code	Char 1	M	Valid Allocation Group code. Allocation Group codes are determined and published by the industry body from time to time
Profile Code	Char 4	M	Valid Profile code. Profile codes are determined and published by the industry body from time to time

Consumer Name	Char 50	O	The name of the consumer requesting the switch
Meter Reading History Request	Char 1	O	Y(es)/N(o)/blank. If Y, this indicates the new retailer is requesting the last 12 months register readings (this is information only to the Gas Registry)
User Reference	Char 32	O	Free text.

Processing:

System

1. Validates all switch parameters and checks their dependencies.
2. Checks that the requesting Retailer is allowed to make the GNT.
3. Online interface only – warn user if GNT requested switch date will cause a breach and request confirmation before accepting message
4. Rejects a GNT with errors and returns it to the sender with the reason for the rejection.
5. Updates the ICP to indicate that a switch is in progress.
6. Keeps a copy of the GNT and completes the audit trail information for it.
7. Delivers the GNT to the current (old) Retailer either immediately or as part of a later batch in accordance with that retailer's switch notify parameters, but in any case within one business day.
8. Generates an acknowledgement to the requesting Retailer.
9. Creates a GNT event with an event date of the date the GNT was received by the Registry. This event date will be changed to the actual switch date once the GTN (Gas Transfer Notice) is received.

Data outputs:

ICP updated to indicate that a switch is in progress and the GNT has been received.

Stored copy of the Gas Switching Notice message and its associated audit trail information.

GNT to forward to the old Retailer.

Acknowledgement.

Sub-process:	**RS-020 Acknowledge switch request (GAN)**
Process:	Retailers switch ICP
Participants:	Retailers
Rule references:	Rules 69, 70, 71
Dependencies:	

Description:

The current (losing) Retailer responds to a Gas Switching Notice by sending a Gas Acceptance Notice (GAN) to the Gas Registry. The Gas Registry then forwards the notice on to the new (winning) Retailer.

Business requirements:

1. Only the current Retailer of an ICP being switched can send a GAN message.
2. There must be a switch in progress for the ICP and it must relate to the current Retailer.
3. A GAN is optional for Standard and Move switch types (S, SM).
4. A value is mandatory for Expected Switch Date for Standard and Move switches (S and SM) and it must be both later than the initial Retailer assignment and later than any already completed switches that have not been withdrawn.
5. Industry approved Acceptance codes must be used in the GAN.
6. The Gas Registry must keep a copy of the GAN for a minimum of 3 months.
7. An audit trail and an acknowledgement must be generated for the GAN.
8. The GAN must be forwarded by the Gas Registry to the new (winning) Retailer in a file and in accordance with their switch notify parameters, but in any case within one business day.
9. Once accepted by the Gas Registry, a GAN cannot be corrected or reversed.
10. A GAN with an acknowledgement code indicating that the current Retailer objects to the switch does not mean the switch process must be stopped. This can only be done by withdrawing the switch.

Data inputs:

GAN (Gas Acceptance Notice):

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	
Responsible Retailer Code	Char 4	O	Current retailer (old). Can be derived by system from file sender or user code for web updates.

Acceptance Code	Char 2	M	Valid Acceptance Code. Acceptance Codes are determined and published by the industry body from time to time.
Expected Switch Date	DD/MM/ YYYY	M	Mandatory.
User Reference	Char 32	O	Free text field.

Processing:

System

1. Validates all ICP parameters and checks their dependencies.
2. Checks that the GAN was sent by the current retailer of the ICP and that there is a prior switch request.
3. Online interface only – warn user if GAN expected switch date will cause a breach and request confirmation before accepting message
4. Rejects a GAN with errors and returns it to the sender with the reason for the rejection.
5. Updates the progress of the switch for the ICP.
6. Keeps a copy of the GAN.
7. Completes the audit trail information for the GAN.
8. Delivers the GAN to the new (winning) retailer either immediately or as part of a later batch in accordance with that retailer's switch notify parameters, but in any case within one business day.
9. Generates an acknowledgement to the current retailer.

Data outputs:

ICP updated to indicate what stage the switch process has reached, ie GAN received.

Stored copy of the acknowledgement notice and its associated audit trail information.

GAN to forward to the new retailer.

Acknowledgement.

Sub-process:	**RS-030 Complete switch (GTN)**
Process:	Retailers switch ICP
Participants:	Retailers
Rule references:	Rules 72, 73, 74
Dependencies:	

Description:

The current (losing) retailer sends a Gas Transfer Notice message (GTN) to the Gas Registry in order to complete either a standard switch (S) or a move switch (SM). The Gas Registry then forwards the GTN on to the new (winning) retailer. The GTN provides the final premises, metering and meter reading information to the new (winning) retailer.

Business requirements:

1. Only the current (losing) retailer can send a GTN message.
2. All GTN messages with multiple meters per premises and multiple registers per meter must be sent to the Gas Registry in a file.
3. GTNs with single meter per premises and single register per meter can be sent to the Gas Registry via file or initiated online.
4. When inquiring upon an existing GTN switch event, the system must also provide an online view of the basic GTN information, ie meter- and register-level information may not be displayed.
5. There must be a prior switch request or acknowledgement notice present for the ICP and it must relate to the switch.
6. The GTN will be rejected if a switch withdrawal request is in progress
7. When a metering event exists as at the switch date and the meter id is not REMOVED, the GTN must include Meter and Register records.
8. The Gas Registry will perform a validation check on the GTN, except if the ICP has a TOU Meter and the switch date is before 07/09/2015. The values for Meter Identifier, Meter Pressure, Register Reading Digits and Register Multiplier contained in the GTN must match the values held in the Gas Registry (as at the switch date). The validation check for matching the values on these parameters will take place after the checks on the other GTN parameters, and only if the GTN has met:

   - All other file format and file content requirements (when submitted from file), or

   - All form fields (when initiated online).

   For GTNs messages with multiple meters per premises and multiple registers per meter, one of the meters and one of the registers rows must contain the matching values.

   Subject to clause 6, the Gas Registry will reject the GTN if it fails the validation check.
9. For the first six months after the GTN validation is implemented, the GTN will not be rejected if it fails validation for Meter Identifier, Meter Pressure, Register Reading Digits and Register Multiplier; but notification of the failure will be sent to the current (losing) retailer, the new (winning) retailer, current responsible meter owner and the industry body. See PR-240 GTN – Meter and Register Data Mismatch.

10. The Gas Registry must keep a copy of the GTN for a minimum of 3 months.
11. An audit trail and an acknowledgement must be generated for the GTN.
12. The GTN must be forwarded by the Gas Registry to the new (winning) retailer in a file in the same format and order as input, and in accordance with their switch notify parameters, but in any case within one business day.
13. The GTN must also be forwarded to the distributor and meter owner (applicable at the actual switch transfer date).
14. Once accepted by the Gas Registry, a GTN cannot be corrected or reversed. The withdrawal sub-process must be used instead.
15. For Move switches (GNT switch type SM) reject GTNs with switch date earlier than the GNT Requested switch date.
16. For Standard switches (GNT switch type S) reject GTNs with switch date earlier than the GNT Receipt date.

Data inputs:

GTN (Gas Transfer Notice):

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	ICP identifier.
Responsible Retailer Code	Char 4	O	Current retailer (old). Derived by the system if left blank. Optional.
Switch Date	DD/MM/ YYYY	M	Mandatory.
Annualised Consumption Estimate	Num 6	M	Estimated gigajoules annualised consumption for the ICP
Responsible Meter Owner Code	Char 4	M	Valid Gas Registry Meter Owner participant code
Number of Meters	Num 2	M	Number of meters at the premises
Premises User Reference	Char 32	O	Free text field carried through to history and audits
For each meter within the premises: There must be exactly <number of meters> rows after each 'P' row.			
Record Type	Char 1	M	'M' – meter
ICP Identifier	Char 15	M	
Meter Identifier	Char 15	M	Unique code identifying the meter
Meter Location Code	Char 4	M	Valid meter location code.
Last Actual Reading Date	DD/MM/ YYYY	M	Date of the last recorded meter reading for this meter
Meter Pressure	Decimal 6.2	M	

Number of Registers	Num 2	M	Number of registers on the meter
User Reference	Char 32	O	Free text field carried to history and audits.
For each register within the meter: There must be exactly <number of registers> rows after each 'M' row.			
Record Type	Char 1	M	'R' – register.
ICP Identifier	Char 15	M	
Register Multiplier	Num 4	M	
Register Reading Digits	Num 2	M	The number of moving dials on the meter register index that represent whole units, plus any painted or fixed digits that represent whole units
Register Content Code	Char 6	M	Valid register content code. Register Content codes are determined and published by the industry body from time to time
Switch Reading	Num 12	M	Switch Reading for this register on this date. Number of digits must be the same as the Register Reading Digits.
Switch Reading Type	Char 1	M	Indicates whether the read was an actual or estimate. Switch Reading type codes are determined and published by the industry body from time to time

Processing:

System

1. Validates input order all ICP and metering parameters and checks their dependencies.
2. Checks that the GTN is being sent by the current (losing) retailer and that there is a switch in progress for that ICP.
3. Online interface only – warn user if GTN switch date will cause a breach and request confirmation before accepting message.
4. If the ICP does not have a TOU meter, stops validation when the first mismatch is identified for Meter Identifier, Meter Pressure, Register Reading Digits or Register Multiplier..
5. Rejects a GTN with errors and returns it to the sender with the reason for the rejection.
6. Keeps a partial copy of the GTN comprising the actual transfer date, number of registers and user reference attributes and the proposed transfer date from the original transfer request (GNT).
7. Generates an audit trail for the partial GTN.
8. Sends the complete GTN to the new (winning) retailer either immediately or as part of a later batch in accordance with that retailer's switch notify

parameters.

9. Sends the complete GTN to the affected distributor and meter owner of the ICP. All GTNs for distributors and meter owners are batched together in one file and delivered overnight.
10. Generates a Retailer event for the ICP, in order to effect the change in retailer, setting the event date to be the actual switch date from the GTN and taking the remaining Retailer attributes from the information in the original switch request (GNT).
11. Updates the ICP so that it there is no longer a switch in progress.
12. Reverses any Retailer events that may have been input by the old retailer prior to the start of the switch process and that have event dates later than the actual transfer date.
13. Completes audit trail information for each event inserted and reversed.
14. Generates an acknowledgement for the GTN to the old (losing) retailer.
15. Determines affected participants of each event insertion and reversal and generates notifications to them, with reference to their notification parameters. Both retailers are classed as affected participants.
16. Adjusts the event date of all switch messages relating to this switch to the Switch Date from the GTN. This will include the GNT, GAN (if received) and all GNW and GAW messages associated with the current switch.

Data outputs:

ICP updated to indicate the switch is no longer in progress.

Retailer event.

Possible retailer, metering and status event reversals.

Partial copy of the GTN and its associated audit trail information stored on Gas Registry for online query.

GTN to forward to the new retailer, distributor and meter owner.

Notifications.

Acknowledgements.

Sub-process:	**RW-010 Make switch withdrawal request (GNW)**
Process:	Retailer withdraws switch
Participants:	Retailers
Rule references:	Rules 75, 76, 77
Dependencies:	

Description:

A retailer currently or previously involved in a switch sends a Gas Switching Withdrawal Notice (GNW) to the Gas Registry to initiate the removal of the current or latest switch.

Business requirements:

1. Only the participants to a switch can request its withdrawal.
2. Either of the participants can initiate the withdrawal process.
3. Only the latest switch may be withdrawn. The switch can be one that is still in progress or one that has been completed.
4. The withdrawal process can be initiated at any point in the switch process, i.e. after the GNT, GAN or GTN.
5. If a switch withdrawal notice has been submitted and rejected after the arrival of the GNT and before the arrival of the GAN or GTN subsequent withdrawal notices submitted by the Responsible Retailer may only be accepted after a GAN or GTN has been received.
6. If any distributor maintenance is done, any notifications sent to affected participants must indicate that a switch withdrawal is in progress and both retailers involved must be notified.
7. The Gas Registry must keep a copy of the GNW for a minimum of 3 months.
8. An audit trail and an acknowledgement must be generated for the GNW.
9. The GNW must be forwarded by the Gas Registry to the other retailer in a file and in accordance with their switch notify parameters, but in any case within one business day.
10. The withdrawal process must be completed once the GNW has been accepted by the Gas Registry, since a GNW cannot be corrected or reversed.
11. Once the GNW has been accepted, all online queries relating to the ICP in question must highlight that a switch is being withdrawn.

Data inputs:

GNW (Gas Switching Withdrawal Notice)

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	

Responsible Retailer Code	Char 4	O	Retailer (code) who submits withdrawal notice. Either party of current or last switch. Can be derived by system.
Requesting Retailer Role Code	Char 1	O	Indicates whether the requesting retailer was the old or new retailer. Requesting retailer role codes are determined and published by the industry body from time to time.
Request Reason Code	Char 2	M	Valid Request Reason Code. Reason codes are determined and published by the industry body from time to time.
User Reference	Char 32	O	Free text.

Processing:

System

1. Validates all parameters and checks their dependencies.
2. Checks that the requesting retailer is allowed to make the switch withdrawal request.
3. Rejects a GNW with errors and returns it to the sender with the reason for the rejection.
4. Updates the relevant ICP to indicate that a switch is being withdrawn.
5. Keeps a copy of the GNW, and completes the audit trail information for it.
6. Forwards the GNW to the other participant either immediately or as part of a later batch in accordance with that retailer's switch notify parameters.
7. Generates an acknowledgement to the requesting retailer.

Data outputs:

ICP updated to indicate that the latest switch is being withdrawn.

Stored copy of the GNW and its associated audit trail information.

GNW to forward to the other retailer.

Acknowledgement.

Sub-process:	**RW-020 Acknowledge switch withdrawal request (GAW)**
Process:	Retailer withdraws switch
Participants:	Retailers
Rule references:	Rule 78
Dependencies:	

Description:
A retailer having received a Gas Switching Withdrawal Notice sends a Gas Switching Withdrawal Response Notice (GAW) message to the Gas Registry in reply. The acknowledgement can either accept or reject the withdrawal request.

Business requirements:

1. The retailer receiving a notice to withdraw a switch must respond to it by sending a GAW to the Gas Registry.
2. There must be a prior GNW for the latest switch of the ICP and no matching GAW.
3. The Gas Registry must keep a copy of the GAW for a minimum of 3 months.
4. An audit trail and an acknowledgement must be generated for the GAW.
5. The GAW must be forwarded to the other retailer by the Gas Registry in a file and in accordance with their switch notify parameters, but in any case within one business day.
6. A GAW cannot be corrected or reversed once accepted by the Gas Registry.

Data inputs:

GAW (Gas Switching Withdrawal Response)

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	
Responsible Retailer Code	Char 4	O	Retailer who submits the withdrawal acknowledgement. Can be derived by system.
Withdrawal Response Code	Char 1	M	Indicates whether the retailer accepts or rejects the requested withdrawal. Withdrawal response codes are determined and published by the industry body from time to time
User Reference	Char 32	O	Free text.

Processing:

System

1. Validates all parameters and checks their dependencies.

2. Checks that the responding retailer is allowed to send the GAW message.
3. Rejects a GAW message with errors and returns it to the sender with a reason for the rejection.
4. If the GAW message indicates that the withdrawal is accepted, cancels the latest switch. If it was a completed switch, any events inserted by the new retailer after the actual transfer date of the switch are reversed and the ICP is updated to indicate that a switch is no longer in the withdrawal process. Ownership reverts to the previous retailer.
5. If GAW indicates that the withdrawal is rejected and, prior to the commencement of the withdrawal being initiated, a switch was in progress, the system restores the ICP to the *switch in progress* state. (The switch can proceed or another withdrawal can be initiated.) If the withdrawal was for an already completed switch, the system ends the withdrawal in progress for the ICP. (It is available for switching again.)
6. Forwards the GAW to the other participant either immediately or as part of a later batch in accordance with that retailer's switch notify parameters.
7. Completes the audit trail information of each event inserted and reversed as well as for the GAW.
8. Generates an acknowledgement of the GAW for the responding retailer.
9. Determines the affected participants of the event and reversals and generates notifications to them, with reference to their notification parameters. Both retailers are classed as affected participants.
10. Each withdrawal initiation and acknowledgement pair of transactions, regardless of whether the acknowledgement is an acceptance or a rejection resolves a switch withdrawal request.

Data outputs:

ICP updated to indicate that the latest switch is no longer being withdrawn.

Stored copy of the GAW and its associated audit trail information.

GAW to forward to the other retailer.

Possible retailer, metering and status event reversals.

Notifications.

Acknowledgements.

Sub-process:	**RC-010 Make switch reading renegotiation request (GNC)**
Process:	Retailer renegotiates switch reading
Participants:	Retailers
Rule references:	Rules 79, 80
Dependencies:	

Description:

A retailer wishing to change the reading on the most recently completed switch for an ICP sends a Switch Reading Renegotiation Request notice (GNC) to the Gas Registry to be forwarded to the other retailer involved in the switch.

Business requirements:

1. All GNC messages must be sent to the Gas Registry in a file. However, the system must also provide an online view of the basic GNC information ie meter- and register-level information may not be displayed.
2. An GNC message must always relate to the most recently completed switch and it must have been for either a standard or move switch (S, SM), ie completed with a GTN.
3. The premises information given on the GNC must be the same as that of the GTN message of the most recently completed switch sequence.
4. The Gas Registry must keep a copy of the GNC for a minimum of 3 months.
5. An audit trail and an acknowledgement must be generated for the GNC.
6. The GNC must be forwarded by the Gas Registry to the other retailer in a file and in accordance with their switch notify parameters, but in any case within one business day.
7. Receipt of the GNC must not affect the current switching status in any way.
8. Processing of the message must not generate any events.
9. A subsequent GNC relating to a particular switch cannot be sent if there is an existing GNC awaiting an associated GAC for this switch.
10. Only the new retailer of the switch in question can input a GNC request.
11. There cannot be a switch in progress for the ICP.

Data inputs:

GNC (Switch Reading Renegotiation Request)

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P'—premises.
ICP Identifier	Char 15	M	
Responsible Retailer Code	Char 4	O	Sending retailer. Derived by the system if left blank. Optional.
Actual Switch Date	DD/MM/ YYYY	M	Mandatory.

Meter Identifier	Char 15	M	Unique identifier of meter – must match one of the meter identifiers from the corresponding GTN
Register Content Code	Char 6	M	Valid register content code – must match one of the register content codes for the GTN associated with the switch
Proposed Replacement Switch Reading	Num 12	M	Reading value, for this register on this date. Number of digits must not be greater than the number of dials for the corresponding register on the related GTN.
Switch Reading Type Code	Char 1	M	Indicates whether the read was an actual or estimate. Switch Reading Type Codes are determined and published by the industry body from time to time
Basis for Replacement	Char 30	M	The basis on which the proposed replacement switch reading has been determined
User Reference	Char 32	O	

Processing:

System

1. Validates all parameters and checks their dependencies.
2. Checks that the most recently completed switch for the ICP was either a standard (S) or a standard move switch (SM).
3. Checks that the GNC is being sent by the new retailer of the most recently completed switch.
4. Checks that the switch date and register content code attributes are the same as those given on the GTN message of that switch sequence.
5. Rejects any GNC with errors and returns it to the sender with the reason for the rejection.
6. Keeps a copy of the GNC.
7. Generates an audit trail for the partial GNC.
8. Sends the complete GNC to the old (losing) retailer either immediately or as part of a later batch in accordance with that retailer's switch notify parameters.
9. Generates an acknowledgement for the GNC to the other retailer.

Data outputs:

Copy of the GNC and its associated audit trail information stored on Gas Registry for online query.

GNC to forward to the other retailer.

Acknowledgements.

Sub-process:	**RC-020 Acknowledge switch reading renegotiation request (GAC)**
Process:	Retailer renegotiates switch reading
Participants:	Retailers
Rule references:	Rules 81
Dependencies:	

Description:
A retailer, having received a Switch Reading Renegotiation Request (GNC) on the most recently completed switch for an ICP, sends a Switch Reading Renegotiation Response notice (GAC) to the Gas Registry in reply. The acknowledgement can either accept or reject the Reading Renegotiation request.

Business requirements:
1. The retailer receiving a Switch Reading Renegotiation Request must respond to it by sending a GAC message to the Gas Registry.
2. The Gas Registry must keep a copy of the GAC message for a minimum of 3 months.
3. An audit trail and an acknowledgement must be generated for the GAC message.
4. The GAC message must be forwarded to the other retailer by the Gas Registry in a file and in accordance with their switch notify parameters.
5. A GAC cannot be corrected or reversed once accepted by the Gas Registry.

Data inputs:

GAC (acknowledge change request of switch read)

Name	Type	Mandatory/ optional	Description
Record Type	Char 1	M	'P' – premises.
ICP Identifier	Char 15	M	
Responsible Retailer Code	Char 4	O	Retailer that submits the change acknowledgement. Can be derived by system.
Actual Switch Date	DD/MM/ YYYY	O	Used to identify the switch.
Renegotiation Response Code	Char 1	M	Indicates whether the retailer accepts or rejects the requested renegotiation. Renegotiation Response Codes are determined and published by the industry body from time to time
User Reference	Char 32	O	Free text.

Processing:

System

1. Validates all parameters and checks their dependencies.
2. Checks that the responding retailer is allowed to send the GAC message.
3. Rejects a GAC with errors and returns it to the sender with a reason for the rejection.
4. Forwards the GAC to the other participant either immediately or as part of a later batch in accordance with that retailer's switch notify parameters.
5. Generates an acknowledgement of the GAC for the responding retailer.

Data outputs:

Stored copy of the GAC message and its associated audit trail information.

GAC message to be forwarded to the other retailer.

Acknowledgement.

Sub-process:	**DS-010 Switching ICPS between Distributors**
Process:	Switching
Participants:	Registry Operator
Rule references:	
Dependencies:	

Description:

This is an infrequently used process, primarily to accommodate acquisitions or mergers of distributors, to facilitate transfer of ICPs from one distributor code to another. The process is managed by the Gas Industry Company (GIC), and performed by the Registry Operator.

Business requirements:

1. The Registry Operator accepts instructions from GIC in the form of a file in CSV format containing a list of ICPs to be switched, plus data associated with each ICP. The spreadsheet must contain a one-row header line.
2. Based on these instructions the Registry

a) Can provide results from a file validation only (i.e. no updates performed) so that any issues can be resolved. The amended file must be re-submitted by GIC.

b) In update mode, transfers the ICPs to the new distributor code in a single operation from records that are not in error.

3. The Registry does not manage switch negotiation. Results (acknowledgement) and notifications are advised in the normal manner.
4. Updates for large files (>1000 ICPs) may require process scheduling by mutual agreement between GIC and the Registry Operator.

Data inputs:

e input file consists of a header row followed by 1 or more detail rows.

e-requisites to this process are valid codes for the new Distributor as follows:

as Gate codes (added by the Industry Body);

etwork Price Category and Loss Factor codes (added by the Distributor)

ame	**Type**	**Mandatory/ optional**	**Description**
Header row consisting of: Header,ICP,Effective Date,Old Network,New Network,Gas Gate,ICP Type,Pressure,Altitude,Load Shedding,Retailer,Installation Details,Hourly Quantity,Price Category Code,Loss factor code,Price Details,User Reference			
Detail row consisting of 1 or more lines:			
Record type	Char 3	M	DET
ICP Identifier	Char 15	M	
Switch effective date	DD/MM/YYYY	M	The date the switch is actioned
Old Distributor code	Char 4	M	Participant identifier of the old Distributor

New Distributor code	Char 4	M	Participant identifier of the new Distributor
New Gas Gate Code	Char 8	M	A valid Gas Gate code for the new Distributor
ICP Type Code*	Char 2	M	This must match the existing ICP type code. Provided for validation purposes only.
Network Pressure*	Num 4	M	This must match the existing network pressure. Provided for validation purposes only.
ICP Altitude*	Num 5	M	This must match the existing ICP altitude. Provided for validation purposes only.
Load Shedding Category Code*	Char 3	M	This must match the existing load shedding category. Provided for validation purposes only.
Expected Retailer Code	Char 4	O/M –see note below	
Installation Details	Char 30	O	Free text
Maximum Hourly Quantity	Num 6 or Char 3	O/M	Optional if: • ICP has no pricing event; or • current pricing event has no Maximum Hourly Quantity Mandatory If ICP status is Ready, or ICP has a current retailer
Network price category code	Char 15	O/M	Optional if: • ICP has no pricing event; or • current pricing event has no network price category code. Mandatory If ICP status is Ready, or ICP has a current retailer
Loss factor code	Char 7	O/M	Optional if: • ICP has no pricing event; or • Current pricing event has no Loss Factor code. Mandatory If ICP status is Ready, or ICP has a current retailer
Network price details	Char 30	O	
User Reference	Char 32	0	Free text.

Fields used for Validation Purposes (marked by '*') – When matching against existing registry values, if the current registry value is null then the field in the file also needs to be null (not a blank or zero).

Expected Retailer:

1. If ICP is in pre-uplift state (NEW or READY) then the Expected Retailer is an **optional** field, the result of the network switch may move the ICP to Ready if previously there was no Expected Retailer or it may move it back to New if it

previously did have an Expected Retailer.

2. If the ICP has been up-lifted but the Distributor switch date is prior the initial retailer up-lift then Expected retailer is **mandatory;** as an ICP must have a Responsible Retailer before it can be picked up by a retailer (i.e. the update would otherwise invalidate a later event).

Processing:

System

1. Performs the following validation for each ICP:

   Validates all parameter formats.

   The effective switch date is not in the past.

   The ICP is valid at the effective switch date.

   The ICP status is not Decommissioned.

   The ICP has no network or pricing events dated beyond the switch effective date.

   The ICP belongs to the old distributor at the switch effective date

   The new distributor is valid at the switch effective date

   The Gas Gate, Network Price Category and Loss Factor codes are valid for the new Distributor at the effective switch date.

   The values are unchanged for ICP Type Code, Network Pressure, ICP altitude and Load Shedding Category codes.

2. For each ICP meeting validation requirements
   - A new network event is recorded for the ICP, effective switch date and supplied network event data.
   - A new pricing event is recorded for the ICP, effective switch date and supplied pricing event data.
3. If the ICP was not previously at “Ready” state, and the addition of any network or pricing data allows it to become “Ready”, a status event is recorded for the ICP and effective switch date.
4. An audit trail is maintained.
5. An acknowledgement is generated for each event created. For each ICP, this indicates success, or an error code notifying the reason for rejection.
6. For each ICP successfully updated, notifications showing the ICP’s new values are generated for the old and new distributor. If a status event is created, and there is no current or future Retailer event, a notification is also generated for the proposed retailer.
7. For each ICP successfully updated, notifications will be generated for any retailers and meter owners current at the switch effective date.

Data outputs:

- ICP updated with network and pricing events recording new distributor details.
- Audits.
- Notification to old and new distributor (and possible notifications to proposed retailer, current retailer and current meter owner).
- Acknowledgement.

5.5 Reporting

Reports are delivered to registry participants' FTP folders.

The following table summarises report availability, initiation and delivery. Reports marked with a * must be made available in the new and old file format versions (see section 3.13 and MP-030).

Report	Delivered	On Demand	Participant(s)
PR-010 Produce ICP List*		Yes	Retailers, distributors, meter owners, industry body, allocation agents
PR-020 Produce Monthly ICP Lists*	0900 on 1st Business day	No	Retailers, distributors, meter owners
PR-030 Produce ICP Event Detail Report*		Yes	Retailers, distributors, meter owners, industry body
PR-040 Produce Switch Compliance Reports	2359 on 1st business day	Yes	Retailers, industry body
PR-060 Produce Audit Log Report		Yes	Distributors, retailers, meter owners, industry body
PR-070 Produce Monthly Statistics Report*	2359 on 1st business day	No	Distributors, retailers, meter owners, industry body
PR-110 Produce Maintenance Compliance Report	2359 on first business day	Yes	Distributors, retailers, industry body
PR-120 Produce Gas Gate Table Report	2359 on 1st business day	Yes	Distributors, retailers, meter owners, allocation agents, industry body
PR-140 Produce Current Details Report		Yes	Distributors, retailers, meter owners, industry body
PR-160 Produce ICP Snapshot Report*		Yes	Distributors, retailers, meter owners, industry body
PR-170 Produce Retailer READY Status Report	1900 every Sunday	No	Retailers
PR-180 Produce Participant Activity Report	2359 on 1st business day	No	Distributors, retailers, meter owners, industry body
PR-190 Produce Cost Allocation Report	2359 on 2nd business day	No	Retailers, industry body
PR-210 Produce Switch Length		Yes	Retailers, industry body

Report			
PR-220 Produce Gas Gate Trading Report	0900 1st business day	No	Allocation agent, industry body
PR-230 Produce GIEP Statistics Report	0600 1st day of each month	No	Industry body
PR-240 GTN – Meter and Register Data Mismatch	For the 6-month implementation period of the GTN Meter and Register validation the report must be produced on 1st, 7th, 14th and 21st of each month. After that, monthly report on 1st of each month.	No	Retailers, meter owners, industry body.

Sub-process:	**PR-010 Produce ICP List**
Process:	Produce reports
Participants:	Retailers, distributors, meter owners, industry body, allocation agents
Rule references:	Rule 85, 86, 87
Dependencies:	

Description:

This report is used to show the state of a participant's ICPs over time. It can be requested by retailers, distributors, meter owners, allocation agents and the industry body (GIC). The participant specifies which ICPs to include in the report by providing a set of selection criteria, a list of ICP identifiers or a list of meter identifiers. The report is produced for a given event date range. The output of addresses for the ICPs is optional and selectable.

Business requirements:

1. The report must show the values of all ICP parameters at the start of the date range and all subsequent changes made during the date range. For every change, all ICP parameters must be shown.
2. The Gas Registry must be capable of producing the report in new and old file format versions (see section 3.13 and MP-030). For On Demand reports requested online, participants must be able to select either the new or old file version.
3. The report must be produced as a file in CSV format, as a minimum standard.
4. Events that have been reversed or replaced must not be reported.
5. When selection criteria are used:

   users must be prevented from using the report as a means of trawling through the ICP database to extract information from ICPs they do not own,

   the output must only show ICP information for event dates that were within the submitter's period of ownership AND are within the specified date range.
6. When a list of specific ICP identifiers is provided, the output must show all the ICP information within the specified date range, ie it must ignore ownership restrictions.
7. When a list of specific meter identifiers is provided, the output must show all the ICP information within the specified date range, ie it must ignore ownership restrictions.
8. Where the report requester has more than one role, the report should extract ICP information for all the requester's roles (and be selectable). However, the report should not display duplicate information. For example, if the requester is both a distributor and a meter owner, any ICP information where the requester is both the distributor and the meter owner is to appear only once in the report.
9. If the address is not required, the report is to exclude the address information for each ICP output.
10. Selection criteria must be able to be submitted online or via a file.
11. Industry body (GIC) and allocation agent must be able to view

information for all participants.

Data inputs:

Report parameters

1. Include ICP addresses on output (Y/N).
2. Roles (R—retailer, D—distributor, M—meter owner). Default is all roles.
3. List of ICP identifiers or Meter identifiers or a set of selection criteria (list of ICP identifiers or Meter identifiers options are only available via a file request – selection criteria report is available via file request or online submission).
4. Start date (defaults to today).
5. End date (defaults to today).
6. File format version (new/old) – Applicable to on-line requests only

Selection criteria[1]

1. ICP Status – *NEW, READY, ACTIVE-CONTRACTED, ACTIVE-VACANT*, *INACTIVE-TRANSITIONAL, INACTIVE-PERMANENT*, *DECOMMISSIONED.*
2. Retailer (not relevant to retailers).
3. Distributor (not relevant to distributors).
4. Meter Owner (not relevant to meter owners).
5. Expected retailer[2] (only relevant to retailers and distributors).
6. Gas Gate code
7. ICP Type code
8. Load Shedding Category code
9. Network Price Category code
10. Loss Factor code
11. Allocation Group code
12. Profile code
13. Standard Meter
14. Prepay Meter
15. Advanced Meter
16. TOU Meter
17. Logger Owner code
18. Corrector Owner code
19. Telemetry Owner code
20. Advanced Meter Owner code
21. Metering Price Category code

If no value is input, it is assumed that ALL values are required, ie there is no filter.

[1] Multiple values can be input for any of the search criteria, eg ICP Type codes of GN, EN.

[2] When the report is requested by a retailer, the value of this parameter must be

that retailer's own retailer code. The output will include all those *NEW* and *READY* ICPs for which the retailer is nominated as the expected retailer. Note that in this instance the ICPs will not be 'owned' by the expected retailer as there will not have been a retailer assigned.

Processing:

1. Validate report selection criteria.
2. Deliver output to correct party.

Data outputs:

Report information:

Name	Format	Description (if value not directly obtained from the database)
ICP Identifier	Char 15	
ICP Creation Date	DD/MM/YYYY	The date the ICP was first created on the Gas Registry (first Network event date).
Original Commissioning Event Date	DD/MM/YYYY	The effective date that the proposed retailer was assigned to the ICP (first Retailer event date).
Event Start Date	DD/MM/YYYY	The event date of the change or the date given by start date parameter, whichever is later.
Event End Date	DD/MM/YYYY	The day before the event date of the next change event, or today's date, or the date given by the end date parameter, whichever is earlier.
Network Event Audit Number	Char 15	
Responsible Distributor code	Char 4	
Gas Gate Code	Char 8	
ICP Type Code	Char 2	
Network Pressure	Num 4	
ICP Altitude	Num 5	
Load Shedding Category Code	Char 3	
Expected Retailer Code	Char 4	
Installation Details	Char 30	
Network Event User Reference	Char 32	
Pricing Event Audit Number	Char 15	
Maximum Hourly Quantity	Num 6, Char 3	

Network Price Category Code	Char 15	
Loss Factor Code	Char 7	
Network Price Details	Char 30	
Pricing Event User Reference	Char 32	
Retailer Event Audit Number	Char 15	
Responsible Retailer Code	Char 4	
Allocation Group Code	Char 1	
Profile Code	Char 4	
Responsible Meter Owner Code	Char 4	
Retailer Event User Reference	Char 32	
Metering Event Audit Number	Char 15	
Meter Identifier	Char 15	
Meter Location Code	Char 4	
Standard Meter	Char 1	Y/N
Prepay Meter	Char 1	Y/N
Advanced Meter	Char 1	Y/N
Logger Owner Code	Char 4	
Corrector Owner Code	Char 4	
Telemetry Owner Code	Char 4	
Advanced Meter Owner Code	Char 4	
Metering Price Category Code	Char 15	
Metering Details	Char 30	
Metering User Reference	Char 32	
Status Event Audit Number	Char 15	
ICP Status Code	Char 5	
ICP Connection Status Code	Char 5	
Status User Reference	Char 32	
Address parameters (to be included if address selected)		

Address Event Audit Number	Char 15	
Physical Address Unit	Char 20	
Physical Address Number/RAPID Number	Char 25	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Numeric 4	
Physical Address Region	Char 20	
Physical Address Property Name	Char 75	
Address User Reference	Char 32	
Metering Event Audit Number*	Char 15	Audit number associated with change to metering data
TOU Meter*	Char 1	Y/N
Meter Pressure*	Decimal 6.2	
Meter Operating at Network Pressure*	Char 1	Y/N
Register Reading Digits*	2	
Register Multiplier*	Num 4	

ICP parameters marked with * are not included in the output report if the “old” file format version is requested

Sub-process:	**PR-020 Produce monthly ICP lists**
Process:	Produce reports
Participants:	Retailers, distributors, meter owners, Industry Body
Rule references:	Rule 85, 86, 87
Dependencies:	PR-010

Description:

This is an automatic report that is produced every month by 0900 hours on the first business day of each month for each retailer, distributor, meter owner and Industry Body (GIC).

For retailers, distributors and meter owners it must show the state of their ICPs during the preceding month for discrepancy checking purposes.

For the Industry Body, it must show the state of all ICPs as at the last day of the preceding month.

Business requirements:

1. For retailers, distributors and meter owners, the report must show the state of each attribute at the start and end of the date range and all changes made during the date range. For every change, all attributes must be shown.
2. For the Industry Body, it will be a snapshot at the end of the month.
3. The Gas Registry must be capable of producing the report in new and old file format versions (see section 3.13). For automatically generated reports, the version type is determined in the participant's preference settings (see MP-030).
4. The report must be produced as a file in CSV format, as a minimum standard.
5. Events that have been reversed or replaced must not be reported.
6. The automatic run of this report must be initiated by the registry operator for all retailers, distributors, meter owners and Industry Body (or their agents) by 0900 hours on the 1st business day of the month.
7. The list must include all ICPs that were owned by the retailer, distributor or meter owner within the last month. For the Industry Body, the report must list ICPs for all participants as at the last day of the previous month
8. An automatic run of this report must be initiated by the registry operator with the following parameters:

Parameter	Participant	Value
Include ICP Address	Retailers, Distributors and Meter Owners	N
	Industry Body	Y
Role	Retailer	R
	Distributor	D
	Meter Owner	M

	Industry Body	<blank> (All)
Start Date	Retailers, Distributors, Meter Owners	First day of the previous month
	Industry Body	Last day of the previous month
End Date	Retailers, Distributors and Meter Owners	Last day of the previous month
	Industry Body	Last day of the previous month
New Format	Retailers, Distributors and Meter Owners	Y/N (Taken from the participant's preference settings)
	Industry Body	Y

For a participant, extract only ICPs where they are the owners with the associated role; i.e., for an individual retailer extract only ICPs where they are the owner with the role of retailer only.

N.B. There is no filtering on ICP status however if the ICP has been decommissioned prior to the period covered by the report then it should not be listed.

Data inputs:
None

Processing:
Deliver output to correct party by the time required.

Data outputs:
Report information: See sub-process map PR-010.

Sub-process:	**PR-030 Produce ICP event detail report**
Process:	Produce reports
Participants:	Retailers, distributors, meter owners, industry body
Rule references:	
Dependencies:	

Description:

This report is used to detail individual events together with their audit trail information. It is available to retailers, distributors, meter owners and the industry body 'on demand'.

The objective of the report is to show participants all events that had some impact on them during a particular period. This could be because they apply to their period of ownership, or involved a change (gain or loss) of their ownership, ie all switch transactions that they were a party to and events where any of the retailer, meter owner or distributor changed causing a loss or gain of their ownership.

The report can be selected to show those events that were **input** within a date range (audit date) or that had event dates within a date range.

Business requirements:

1. The report must be produced as a file in CSV format, as a minimum standard.
2. The Gas Registry must be capable of producing the report in new and old file format versions (see section 3.13 and MP-030). For On Demand reports requested online, participants must be able to select either the new or old file version.
3. When requesting the report using a list of ICP identifiers or list of Meter identifiers, the resulting output must show all the ICP events within the specified date range, regardless of ownership considerations.
4. If no ICP list is provided then the output must show all events within the specified date range that:
5. were in the requester's period of ownership;
6. involve a switch that the requester was a party to; or
7. involve a loss or gain of the requester's ownership.
8. When the requester's organisation has multiple roles, ie distributors, retailers and meter owners, the report must be generated with reference to the combined roles.
9. When requesting the report to exclude or include reversals and replacements, the date of the reversal or replacement is not taken into account. The fact that they have been reversed/replaced at some time in the past is sufficient.
10. Selection criteria and ICP lists must be able to be submitted online or via a file.

Data inputs:

Report parameters:

1. Select using event date or audit date.

2. Sort sequence, either:
   - ICP identifier, event type, event date; or
   - event type, event date, ICP identifier.
3. List of ICP identifiers or Meter identifiers, or selection criteria.
4. File format version (new/old) – Applicable to on-line requests only

Selection criteria
Start date.
End date.
Retailer.[1]
Distributor.[1]
Meter owner[1]
Event type {retailer, metering, address, network, pricing, status, all switch events}. Users can request to see events from individual switch message types, or just the retailer events triggered by switches.
Include reversed and replaced events.

The user must be allowed to select multiple values for each criterion. If no value is input, it is assumed that all values are required, ie there is no filter.

[1] Retailers can specify distributors and/or meter owners; distributors can specify retailers and/or meter owners, meter owners can specify retailers and/or distributors. The industry body can specify any participant.

Processing:

1. Validate report selection criteria.
2. Deliver output to correct party.

Data outputs:

Report information:

Name	Format	Description (if value not directly obtained from the database)
For all events		Fixed fields.
ICP Identifier	Char 15	

Event Type (full description)	Char 14	Network Pricing Address Status Retailer Metering Switch (indicates a Retailer event triggered by a switch, not the switch message itself) GNT GAN GTN GNW GAW GNC GAC Variable fields depend on the value of this field. For example, if the event type is 'Metering' then immediately after the last fixed field, the Metering event attributes are listed.
Event Audit Number	Char 15	
Event Date	DD/MM/YYYY	
Event Entry Date/Time	DD/MM/YYYY	
Created By	Char 15	
File Name	Char 25	
Event State	Char 8	
Reversal/Replaced Date /Time	DD/MM/YYYY & HH:MM:SS	
Reversed/Replaced By	Char 15	
Reversal/Replacement File Name	Char 25	
Replacement Event Audit Number	Char 15	
Network Event		Variable fields.
Responsible Distributor Code	Char 4	
Gas Gate Code	Char 7	
ICP Type Code	Char 2	
Network Pressure	Num 4	
ICP Altitude	Num 5	

Load Shedding Category Code	Char 3	
Installation Details	Char 30	
Expected Retailer Code	Char 4	
Network Event User Reference	Char 32	
Pricing Event		Variable fields.
Maximum Hourly Quantity	Num 6, Char 3	
Network Price Category Code	Char 15	
Loss Factor Code	Char 7	
Network Price Details	Char 30	
Pricing Event User Reference	Char 32	
Address Event		
Physical Address Unit	Char 20	
Physical Address Number/ RAPID Number	Char 25	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Num 4	
Physical Address Region	Char 20	
Physical Address Property Name	Char 75	
Address Event User Reference	Char 32	
Status Event		Variable fields.
ICP Status Code	Char 5	
ICP Connection Status Code	Char 5	
Status Event User Reference	Char 32	
Retailer event		Variable fields.
Responsible Retailer Code	Char 4	
Allocation Group Code	Char 1	
Profile Code	Char 4	

Responsible Meter Owner Code	Char 4	
Retailer Event User Reference	Char 32	
Metering event		Variable fields.
Meter Identifier	Char 15	
Meter Location Code	Char 4	
Standard Meter	Char 1	Y/N
Prepay Meter	Char 1	Y/N
Advanced Meter	Char 1	Y/N
Logger Owner Code	Char 4	
Corrector Owner Code	Char 4	
Telemetry Owner Code	Char 4	
Advanced Meter Owner Code	Char 4	
Metering Price Category Code	Char 15	
Metering Details	Char 30	
Metering Event User Reference	Char 32	
TOU Meter*	Char 1	Y/N
Meter Pressure*	Decimal 6.2	
Meter Operating at Network Pressure*	Char 1	
Register Reading Digits*	Num 2	
Register Multiplier*	Num 4	
Switch		Variable fields.
Old Responsible Retailer Code	Char 4	
New Responsible Retailer Code	Char 4	
GNT		Variable fields.
Requesting Retailer Code	Char 4	
Confirmation Address Unit	Char 20	
Confirmation Address Number/ RAPID Number	Char 25	
Confirmation Address Street	Char 30	

Confirmation Address Suburb	Char 30	
Confirmation Address City	Char 30	
Confirmation Post Code	Num 4	
Confirmation Address Region	Char 25	
Confirmation Address Property Name	Char 75	
Requested Switch Date	DD/MM/YYYY	
Switch Type Code	Char 2	
Allocation Group Code	Char 1	
Profile Code	Char 4	
Consumer Name	Char 50	
Meter Reading History Request	Char 1	Y/N
GNT Event User Reference	Char 32	
GAN		Variable fields.
Responsible Retailer Code	Char 4	
Acceptance Code	Char 2	
Expected Switch Date	DD/MM/YYYY	
GAN Event User Reference	Char 32	
GTN		Variable fields.
Responsible Retailer Code	Char 4	
Switch Date	DD/MM/YYYY	
Annualised Consumption Estimate	Num 6	
Responsible Meter Owner Code	Char 4	
Number of Meters	Num 2	
GNT Event User Reference	Char 32	
GNW		Variable fields.
Responsible Retailer Code	Char 4	
Requesting Retailer Role Code	Char 1	
Request Reason Code	Char 2	

GNW Event User Reference	Char 32	
GAW		Variable fields.
Responsible Retailer Code	Char 4	
Withdrawal Response Code	Char 1	
GAW Event User Reference		
GNC		Variable fields.
Responsible Retailer Code	Char 4	
Actual Switch Date	DD/MM/YYYY	
Meter Identifier	Char 15	
Register Content Code	Char 6	
Proposed Replacement Switch Reading	Num 12	
Switch Reading Type Code	Char 1	
Basis For Replacement	Char 30	
GNC Event User Reference	Char 32	
GAC		Variable fields.
Responsible Retailer Code	Char 4	
Actual Switch Date	DD/MM/YYYY	
Renegotiation Response Code	Char 1	
GAC Event User Reference	Char 32	

ICP parameters marked with * are not included in the output report if the “old” file format version is requested

Sub-process:	**PR-040 Produce switch compliance reports**
Process:	Produce reports
Participants:	Retailers, industry body
Rule references:	Rules 69, 78.1, 81.1
Dependencies:	

Description:

This is an automatic report that is produced by 2359 hours on the 1st business day of each month for the industry body. It can also be requested 'on demand' at other times by retailers and by the industry body. Retailers can only obtain information pertaining to themselves. The industry body can select information for individual or all retailers.

There are two types of switch compliance reports: historical and current.

The 'historical' reports show, either in summary or in detail, those switch transactions that were not received by their due date, where the due date was in the past.

The industry body (GIC) requires the automatic delivery of historical reports (summary and detail) for potential rule breaches of the previous month, and current reports (summary and detail).

The 'current' reports show, either in summary or in detail, which switch transactions have not been completed 'as at' today either because the relevant switch message has not arrived and, either the due date has passed (overdue), or because the due date has not been reached yet. This report is used to show work in progress.

Under the Compliance Regulations, there is an exception to the mandatory breach reporting requirement on the Registry Operator for certain rules that are commonly found to have non-material breaches. The industry body may publish guidelines which set thresholds under which breaches do not need to be formally alleged to the Market Administrator. For example, a response to a GNT that is given one day after the two business day deadline could be a breach that doesn't need to be alleged.

The breaches under the threshold are still included on the compliance report, for market monitoring purposes, but a separate column indicates where the exception applies. The 'number of days overdue' count ignores any breach reporting thresholds. The thresholds may change over time.

Business requirements:

Breach types and calculation of due dates

The rules for the calculation of due dates of each potential breach type need to be maintainable by the Registry as they may change over time. The rules used in this report relate to the receipt of the following breach types within certain timeframes by the intended recipient:

- **GAN delivery**—a GAN must be delivered by the responsible retailer (old) within two business days of the receipt of a GNT unless a GTN or GNW was provided within this time.
- **GTN Delivery**—if a GAN has not been delivered and a GNW has not

been sent/received then a GTN must be delivered by the responsible retailer (old) within two business days of the receipt of the GNT.

- **GTN Delivery after GAN**—provided a GAN has already been delivered and a GNW has not been sent/received, a GTN must be delivered by the responsible retailer (old) within 10 business days of the receipt of the GNT
- **GNW delivery**—a GNW must be delivered by the responsible retailer (old) within two business days of the receipt of the GNT unless a GAN or GTN was provided within this time. Otherwise, a GNW may be delivered at any time between the date of the receipt of the GNT and the date that a new GNT is received by the (new) responsible retailer.
- **GAW delivery**—a GAW must be delivered within five business days of the receipt of the corresponding GNW.
- **GAC delivery**—a GAC must be delivered within five business days of the receipt of the corresponding GNC.
- **GNT (requested) switch date**—if included for a standard switch, the requested switch date in the GNT must not be less than the date the GNT is sent to the registry.
- **GAN (expected) switch date**—if the GNT included a requested switch date, the expected switch date must be the requested switch date or later. In all cases, the expected switch date in the GAN must be no later than 10 business days after the date the (old) responsible retailer received the GNT.

  GTN switch date—if the GNT included a requested switch date, the switch date in the GTN must be the requested switch date or later.

Note that after the receipt of a GNT, if any of the GAN, GTN or GNW is received late then the report will show 3 breaches - a GAN delivery breach, a GTN delivery breach and a GNW delivery breach.

The Gas Registry does not accept future-dated ICP events – this includes future-dated GTN switch messages (as these are the basis for generating the Retailer event that changes the retailer ownership of the ICP)

It must be noted that the 'delivery' of a message, for compliance purposes, means the time the message was sent to the Gas Registry.

Calculation of days overdue

Days overdue = Number of days between (date of delivery of relevant document to participant, due date), where date of delivery is after due date.

If the relevant document has not arrived (no date of delivery), then for reporting purposes use today's date (runtime of the report). Assume document has until midnight to arrive.

Calculation of business days

Business days are defined in Rule 5.2 and must be treated as calendar days, not multiples of 24 hours. For example, Gas Registry routes GNT to retailer at any time on 23 January; current retailer then has until midnight on 25 January to deliver the GAN back to the Gas Registry.

Note: There may be multiple potential breaches per ICP: for example, GAN not received and GTN not received (this counts as two breaches); GNT sent out by

the Gas Registry on 2 April 2002, no GAN received at all, GTN received by the Gas Registry on 19 April 2002. The report should output this as a breach of type GAN with days overdue equal to 10 (assuming no holidays).

Data inputs:

Selection criteria

1. Retailer: only the industry body may specify several or all retailers.
2. Switch type: S, SM or both.
3. Breach type – one of valid switch breach types below, or all.
4. Breach party: self, other, or both, ie report if self or other is defaulting participant.
5. Historical or current report.
6. Summary or detail: report.

Valid Breach Types and Trigger Conditions

Code	Description	Started on…	Confirmed/deleted on…
GAN	GAN Delivery, 2 days	Receipt of GNT	Receipt of GAN/GNW/GTN
GTN	GTN Delivery, 2 days	Receipt of GNT	Receipt of GAN/GNW/GTN
GTA	GTN Delivery after GAN, 10 days	Receipt of GAN	Receipt of GTN
GNW	GNW Delivery, 2 days	Receipt of GNT	Receipt of GAN/GNW/GTN
GAW	GAW Delivery, 5 days	Receipt of GNW	Receipt of GAW
GAC	GAC Delivery, 2 days	Receipt of GNC	Receipt of GAC
NTD	GNT Requested Switch Date, less than Delivery date	*	Receipt of GNT
AND	GAN Expected Switch Date, 10 days	*	Receipt of GAN
TND	GTN Switch Date	*	Receipt of GTN

* - these breach types can only be analysed on receipt of the triggering message, they are not created in anticipation. They will not appear on the “View Switch Breaches” screen, or on “Current” switch breach reports showing days until breach, but will appear in “Current” reports showing days overdue, and on “Historical” reports.

Breach exception thresholds

Type	Code(s)	Threshold
First response to GNT (r69.1)	GAN/GNW/GTN	1 business day
Switch completion (r69.3)	GTA	1 business day
Backdating standard switch (r67.3)	NTD	Within same month

Where the Requested Switch Date is within the same calendar month as the GNT receipt will be noted in the report output as a Breach Exception. Where an

initial response to a GNT (i.e. a GAN, GNW or GTN), or a GTN delivery after GAN (i.e. a GTA) is within the Switch Response Threshold a breach will continue to be created, however these will be noted in report output as Breach Exceptions.

For the historical report

1. From/to date range: transactions that had due dates in this range.
2. Days overdue or ageing buckets: for the detail report, only the minimum days overdue is specified (minimum value is 1). For the summary report, the user can specify up to four ageing buckets. The resultant report must generate an additional column for all overdues greater than the final bucket. The values are to be input in sequence, ie in ascending sequence.

For the current report

1. Ageing buckets: (summary report only). The report can be produced summarising transactions that are overdue as at today's date and also those due in the future. The resultant report generates an additional column for all greater than the final bucket input. If requiring those due in the future in a bucket, negative values are input. The values should be input in ascending sequence, ie greatest negative through to the highest positive.
2. Days till due: (detail report only). Selects those due within this number of days (from today's date).
3. Days overdue: (detail report only). Selects those with this minimum number of days overdue.

Processing:

For the history summary report system

1. Calculates the due dates.
2. Selects those where:
   - they are overdue;
   - the specified retailer(s) was a participant (sender or other participant);
   - the due date is within the from/to date range specified; and
   - satisfies the other selection criteria.
3. Assigns the days overdue count into one of the user-specified ageing buckets or the system-generated catch-all bucket. It is possible that the transaction does not fall into any bucket therefore is excluded from the report.
4. Determines the participant in breach (defaulting participant).
5. Sorts the report by switch type/breach type/defaulting participant.

For the history detail report system

1. Calculates the due dates.
2. Selects those where:
   - they are overdue;
   - the specified retailer(s) was a participant (sender or other participant);
   - the due date is within the from/to date range specified; and

- satisfies the other selection criteria.

3. Selects only those transactions overdue by a number of days equal to or greater than the *days overdue* input by user.
4. Determines the defaulting participant.
5. Sorts the output by ICP Identifier/switch type/breach type/defaulting participant/days overdue (descending).

For the current summary report system

1. Calculates the due dates.
2. Selects those where:
   - the actual arrival date is missing (not arrived yet);
   - the specified retailer(s) was a participant (sender or other participant); and
   - satisfies the other selection criteria.
3. Determines the days overdue or days till due (ie if due date not reached yet) and assigns the count into one of the user-specified ageing buckets or the system-generated catch-all bucket. For the purposes of this report the days till due are treated as negative values. It is possible that a transaction does not fall in any bucket therefore is excluded from the report.
4. Determines the defaulting participant.
5. Sorts the report by switch type/breach type/defaulting participant.

For the current detail report system

1. Calculates the due dates.
2. Selects those where:
   - the actual arrival date is missing (not arrived yet);
   - the specified retailer(s) was a participant (sender or other participant); and
   - satisfies the other selection criteria.
3. Determines the days overdue or days till due. If overdue, selects only those transactions overdue by a number of days equal to or greater than the *days overdue* input by user. If due, selects those transactions less than or equal to the *days till due* parameter.
4. Determines the defaulting participant.
5. Sorts the output by ICP Identifier/switch type/breach type/defaulting participant/days overdue (descending) then days till due (descending).

NB: If the user specified all breach types then an ICP could potentially be included several times in the report.

Data outputs:	
History summary output information	
Switch type	From qualifying event.
Breach type	
Defaulting participant	Derived by system.

Other participant	The non-defaulting participant impacted by the switch.
Total count in breach	Total of ageing 1 to 5.
Ageing 1	Overdue <= ageing 1 days.
Ageing 2	Overdue > ageing 1 days and <= ageing 2 days.
Ageing 3	Overdue > ageing 2 days and <= ageing 3 days.
Ageing 4	Overdue > ageing 3 days and <= ageing 4 days.
Ageing 5	Overdue > ageing 4 days.
History detail output information	
Switch type	From qualifying event.
Breach type	
Defaulting participant	Derived by system.
Other participant	The non-defaulting participant impacted by the switch.
ICP Identifier	
Sent date	The date the GNT, GNW or GNC notice was sent by the Gas Registry to the recipient.
Due date	The date the switch event that is subject to a breach was due to be received.
Completion date	The date the switch event that is subject to the breach was completed (actual arrival date).
Days overdue	Number of business days the event is overdue.
Breach Threshold	N = Switch Breach Y = Breach Threshold where: a) switch message is given within the allowed compliance threshold, or b) for a standard switch, GNT Requested Switch Date is prior to receipt date, but within the same calendar month
Current summary output information	
Switch type	From qualifying event.
Breach type	
Defaulting participant	Derived by system.
Other participant	The non-defaulting participant impacted by the switch.
Total count in breach	Total of ageing 1 to 5.
Ageing 1	Overdue or due <= to ageing 1 days.

Ageing 2	Overdue or due > ageing 1 days and <= to ageing 2 days.
Ageing 3	Overdue or due > ageing 2 days and <= to ageing 3 days.
Ageing 4	Overdue or due > ageing 3 days and <= ageing 4 days.
Ageing 5	Overdue or due > ageing 4 days.
Current detail output information	
Switch type	From qualifying event.
Breach type	
Defaulting participant	Derived by system.
Other participant	The non-defaulting participant impacted by the switch.
ICP Identifier	
Sent date	The date the GNT, GNW or GNC notice was sent by the Gas Registry to the recipient.
Due date	The date the switch event that is subject to a breach was due to be received.
Days till due	Number of business days from today's date until the event is due (calculated if the due date is in the future).
Days overdue	Number of business days the event is overdue.
Breach Threshold	N = Switch Breach Y = Breach Threshold where: a) switch message is given within the allowed compliance threshold, or b) for a standard switch, GNT Requested Switch Date is prior to receipt date, but within the same calendar month

Example: history summary
Retailer: RET1
Date range: 1 April 2002 to 30 April 2002
Ageing buckets: 1, 5, 10, 30
Switch types: All
Breach types: All
Breach participant: Both

Switch type	Breach type	Default participant	Other participant	Total	1 day or less	Between 2 and 5 days	Between 6 and 10 Days	Between 11 and 30 days	> 30 days
S	GAN	RET1	RET2	39	27	6		1	5
S	GAN	RET1	RET3	5		2	4		

S	GTN	RET1	RET2	40	39	1			
SM	GAN	RET1	RET3	22	18	2		2	
SM	GAW	RET2	RET1	5			5		

Example: history detail

Assuming report run on 5 April 2002

Switch type	Breach type	Default partici-pant	Other partici-pant	ICP Identifier	GNT/GNW/ GNC sent date	Switch event due date	Completion date	Days over-due
S	GAN	RET1	RET2	4494949332 NG333	22/03/2002	26/03/2002		7
S	GAN	RET1	RET2	5757557433 NG967	23/03/2002	27/03/2002	02/04/2002	4
S	GAN	RET1	RET2	2468000000 NG222	22/03/2002	26/03/2002	28/03/2002	2
S	GAW	RET1	RET2	1234567890 NG01A	20/03/2002	22/03/2002	25/03/2002	1

Example: current summary

Switch type	Breach type	Default partici-pant	Other partic-ipant	Total	Due within next 30 days	Overdue 1 day	Overdue 5 days or less	Over-due 10 days or less	10 days over-due
S	GAN	RET1	RET2	39	27	6		1	5
S	GAN	RET1	RET3	6		2	4		
S	GTN	RET1	RET2	40	39	1			
SM	GAN	RET1	RET4	22	18	2		2	

Example: current detail

Assuming a report run date of 30 March 2002

Switc h type	Breach type	Default parti-cipant	Other parti-cipant	ICP Identifier	GNT/GNW/ GNC sent date	Switch event due date	Days until due	Days over-due
S	GAN	RET2	RET1	4492249332 NG333	22/03/2002	26/03/2002		3
S	GAN	RET2	RET1	5757557433 NG967	29/03/2002	02/04/2002	2	

Sub-process:	**PR-060 Produce audit log report**
Process:	Produce reports
Participants:	Distributors, retailers, meter owners, industry body.
Rule references:	
Dependencies:	

Description:

The user can request 'on demand' that the Gas Registry sends them a log of all the files the Gas Registry has delivered to them, over a specified period, in order to check that the Gas Registry has processed all the information the participant has sent. The user can view this information via the online interface as well.

Business requirements:

1. The Gas Registry must be able to provide all users with a log giving all the dates and times when files were sent by it to the user's company.
2. The user must be able specify a period during which files were sent.
3. Only details of files sent to the requesting user's company must be included in the log.
4. The log must include details of all type of file sent, ie switching messages, acknowledgements, notifications and reports.
5. For each file, the log must contain the time and date it was sent.
6. The Gas Registry must deliver the log immediately in a single file.

Data inputs:

1. Start date.
2. End date (later than start date).
3. Common file types: Acknowledgements, Notifications, Switch files, ICP List Reports, or ALL (ALL includes other file types other than those selectable common types).

Processing:

1. Validate selection criteria.
2. Deliver the log to the correct party.

Data outputs:

Name	Comment
File name	Name of the file submitted
Action	Short comment describing action performed (received, rejected, processed, etc)
Date actioned	Date the file was actioned by the Gas Registry
Time actioned	Time the file was actioned by the Gas Registry

Sub-process:	**PR-070 Produce monthly statistics**

Process:	Produce reports
Participants:	Distributors, retailers, meter owners, industry body
Rule references:	Rule 84.1
Dependencies:	

Description:

The Gas Registry must publish, automatically, monthly statistics to all participants by 2359 hours on the 1st business day of each month for the previous month.

Business requirements:

1. All participants will receive five sets of statistics detailing the number of ICPs by status at the end of the month by:
   - Responsible Retailer;
   - Responsible Distributor;
   - Responsible Meter Owner
   - Gas Gate Code; and
   - Gas Gate Code and Responsible Retailer

2. All participants will receive a sixth set of statistics containing the following additional values:
   - 1. ICP online enquiries processed in month
   - 2. ICP offline enquiries processed in month
   - 3. Total ICP enquiries processed in the month
   - 4. ICP added to the registry in month
   - 5. ICPs changed in month
   - 6. ICPs decommissioned in month
   - 7. Valid switch requests (GNT-S) received in month ie standard
   - 8. Valid switch requests (GNT-SM) received in month ie move switch
   - 9. Valid switch requests (GNT) received in month ie total GNT
   - 10. Valid switch acceptance notices (GAN) received in month
   - 11. Valid switch transfer notices (GTN) received in month
   - 12. Valid switch withdrawal requests (GNW) received in month
   - 13. Valid switch withdrawal acceptances (GAW-A) received in month
   - 14. Valid switch withdrawal rejections (GAW-R) received in month
   - 15. Valid switch reading renegotiation requests (GNC) received in month
   - 16. Valid switch reading renegotiation acceptances (GAC-A) received in month
   - 17. Valid switch reading renegotiation rejections (GAC-R) received in month

Data inputs:

None

Processing:

As required

Data outputs:

Monthly statistics to be available, online and downloadable, to all participants.

Participant reports to be automatically delivered at the end of each month in CSV format.

Report contents are the same for all participants, i.e. irrespective of ownership.

Sample for Business Requirement 2 below:

Month,Statistic,Value
10/2009,ICP online enquiries,10000
10/2009,ICP batch enquiries,20000
10/2009,ICPs added to the registry,750
10/2009,ICPs changed,2550
10/2009,ICPs decommissioned,103
10/2009,Switch requests (GNT),240
10/2009,Switch acceptance notices (GAN),225
10/2009,Switch transfer notices (GTN),233
10/2009,Switch withdrawal requests (GNW),85
10/2009,Switch withdrawal acceptances (GAW-A),55
10/2009,Switch withdrawal rejections (GAW-R),63
10/2009,Switch reading renegotiation requests (GNC),23
10/2009,Switch reading renegotiation acceptances (GAC-A),17
10/2009,Switch reading renegotiation rejections (GAC-R),4

Sub-process:	**PR-110 Produce maintenance compliance report**
Process:	Produce reports
Participants:	Distributors, retailers, industry body
Rule references:	Rules 45, 48, 51, 53, 54
Dependencies:	

Description:

This is an automatic report that is produced by 2359 hours on the first business day of each month for the industry body. It can also be requested 'on demand' at other times by retailers, distributors and the industry body. Retailers and distributors can only obtain information pertaining to themselves. The industry body can select information for an individual or all participants.

Both summary and detail reports are produced every month automatically for the industry body. These reports summarise and detail the ICPs, events, Gas Gates and Loss Factors that were not maintained within the timeframes specified in the Rules during the previous month.

Business requirements:

1. The report must be produced monthly by 2359 hours on the first business day of each month for the industry body or on request by retailers, distributors and the industry body.
2. It must show failures to comply with respect to the following rules, and record compliance breaches as described:
   a) Rule 51. Distributor addition of a *NEW* ICP must be input within 2 business days of the effective event date.
   Breach of type NEW is created for any event maintenance where the resulting ICP Status is NEW (except if the previous ICP Status was READY) and the maintenance date is more than 2 BD later than the effective date of the resulting distributor status event.
   b) Rule 53. Distributor completion of all distributor mandatory ICP parameters as described in Part A of the Rules. Must be completed within 2 business days of the effective event date of the READY event.
   Breach of type DST is created for any event maintenance where the ICP Status changes from NEW to READY and the maintenance date is more than 2 BD later than the READY status event effective date.
   Multiple changes in ICP Status between NEW and READY may result in multiple breaches.
   c) Rule 54. Retailer completes ICP parameters as described in Part B of the Rules. Must be done within 2 business days of the Retailer effective event date.
   Breach of type RET is created for any event maintenance where the ICP Status changed from READY to one of ACTIVE-CONTRACTED, ACTIVE-VACANT or INACTIVE-TRANSITIONAL and the maintenance date is more than 2 BD later than the resulting retailer status event.
   d) Rule 45. Distributor who intends to create or decommission a

Gas Gate must inform the Gas Registry at least 20 business days before the effective date of the creation or decommissioning.
Breach of type GGT is created for any Gas Gate addition where the maintenance date is less than 20 BD prior to the effective date, or Gas Gate logical deletion where the maintenance date is less than 20 BD prior to the Gas Gate end date.

e) Rule 48. Distributor who intends to add or delete any loss factor codes must inform the Gas Registry at least 20 business days before the effective date of the addition or deletion.
Breach of type LFC is created for any Loss Factor Code addition where the maintenance date is less than 20 BD prior to the effective date, or Loss Factor Code logical deletion where the maintenance date is less than 20 BD prior to the Gas Gate end date.

Reversal of an ICP maintenance event will remove any maintenance breaches associated with the original update.

Data inputs:

Selection criteria

1. Participant: only the industry body may specify several or all participants.
2. Breach type: list of selected breach type(s) or ALL
3. Date range – for the automatic reports, this will be the start and end dates for the previous month.
4. Summary or detail report

Processing:

1. Extract all event maintenance, Loss Factor maintenance and Gas Gate Table maintenance input during the previous month where the input breached one of the rules listed.
2. Detail report is sorted by participant, maintenance type, input date sequence.
3. Summary report is sorted by participant and maintenance type.

Data outputs:

Maintenance compliance report output information – detail

Name	Comment
Participant Code	
Maintenance Type	NEW – Distributor adds new ICP DST – Distributor event maintenance RET – Retailer event maintenance GGT – Gas Gate Table maintenance LFC – Loss Factor maintenance
Input Date	
Effective Date	Event date or start date or end date.

Days Overdue	
ICP Identifier	Only for NEW, DST or RET maintenance types.
The following depends on the Maintenance Type value:	
For distributor adds new ICP (NEW):	
Responsible Distributor Code	
ICP Creation Date	
Physical Address Unit	
Physical Address Number/ RAPID Number	
Physical Address Street	
Physical Address Suburb	
Physical Address Town	
Physical Address Post Code	
Physical Address Region	
Address Property Name	
Address Event User Reference	
For Distributor event maintenance (DST):	
Responsible Distributor Code	
ICP Creation Date	
Physical Address Unit	
Physical Address Number/ RAPID Number	
Physical Address Street	
Physical Address Suburb	
Physical Address Town	
Physical Address Post Code	
Physical Address Region	
Address Property name	
Address Event User Reference	
Gas Gate Code	
ICP Type Code	
Network Pressure	
ICP Altitude	
Load Shedding Category Code	
Installation Details	
Expected Retailer Code	
Network Event User Reference	

Maximum Hourly Quantity	
Network Pricing Category Code	
Loss Factor Code	
Network Price Details	
Pricing Event User Reference	
For Retailer event maintenance (RET):	
Responsible Retailer Code	
Allocation Group Code	
Profile Code	
Responsible Meter Owner Code	
Retailer Event User Reference	
For Gas Gate table maintenance (GGT):	
Responsible Distributor Code	
Gas Gate Code	
Gas Gate Name	
Notional Delivery Point Code	
Parent Gas Gate Code	
Notice Date	
Start Date	
End Date	
ICP Type	
Metering Type	
Responsible TSO	
Shared	
Allocated	
Allocation Start Date	
Allocation End Date	
Comments	
For Loss Factor table maintenance (LFC):	
Responsible Distributor Code	
Loss Factor Code	
Start Date	
End Date	

Maintenance compliance report output information – summary	
Name	**Comment**
Month	MM/YYYY

Participant Code	
Maintenance Type	NEW – Distributor adds new ICP DST – Distributor parameters REC – Reconciliation parameters GGT – Gas Gate Table maintenance LFC – Loss Factor Table maintenance
Number of non-compliant events	999999

Sub-process:	**PR-120 Produce Gas Gate table report**
Process:	Produce reports
Participants:	Distributors, retailers, meter owners, allocation agents, industry body
Rule references:	Rule 44.1.2, 45.1.2
Dependencies:	

Description:
This report is available for all participants 'on demand'. It details the entries in the Gas Gate table. This report is produced automatically by 2359 hours on the 1st business day of each month for distributors, retailers, meter owners, allocation agents and the industry body.

Business requirements:
1. The Gas Registry must allow all Gas Registry participants to view the Gas Gate table online and to download it. 2. The information must be able to be requested via ftp by any participant.

Data inputs:
None

Processing:
1. From the Gas Gate table, select all active entries, that is entries with start date on or prior to, and end date on or after, today. 2. Sort by Responsible Distributor Code, Gas Gate Code and Start Date.

Data outputs:

Gas Gate table report output information

Name	Comment
Responsible Distributor Code	
Gas Gate Code	
Gas Gate Name	
Parent Gas Gate Code	
Notional Delivery Point Code	
Notice Date	
Start Date	
End Date	
ICP Type	
Metering Type	
Responsible TSO	
Shared	
Allocated	
Allocation Start Date	
Allocation End Date	

Comments	
Audit Input Date/Time	
Input By (User Name)	
Audit Deletion Date/Time	
Deleted By (User Name)	

Sub-process:	**PR-140 Produce Current Details report**
Process:	Produce reports
Participants:	Distributors, retailers, meter owners, industry body
Rule references:	
Dependencies:	

Description:

This report is produced on request. A participant is able to select any parameter or combination of parameters on ICPs they currently own. The report will list all ICPs currently owned by the participant, and the values of the selected parameters for all their ICPs.

Business requirements:

1. This report is only available via the online report selection form. It cannot be requested via an FTP file request.

Data inputs:

Selected list of ICP parameters to report on.

When the report requests the new file format, then the five new Metering fields can be optionally selected for Metering event – TOU Meter, Meter Pressure, Meter Operating at Network Pressure, Register Reading Digits and Register Multiplier.

Processing:

The report will process all ICPs owned by the participant as at the report request date, and report on the parameters selected.

Data outputs:

The first detail line of the report will be a subheading listing the selected ICP parameters. Subsequent lines will contain the parameters for all ICPs belonging to the participant.

Sample Report:

ICP Identifier,Current Audit,Responsible Retailer,Switch Date,Loss Factor,Number,Street,Town
0000000001AB123,RECON-000001,RTLR,12/06/2007,LF101,15,High Street,Auckland

Sub-process:	**PR-160 Produce ICP Snapshot report**
Process:	Produce reports
Participants:	Distributors, Retailers, Meter Owners, industry body
Rule references:	
Dependencies:	PR-010, MP-030

Description:

This report is a variation of the PR-010 ICP LIST report, and lists only those ICPs currently owned by the participant/requester. It is equivalent to requesting a PR-010 ICP LIST with start and end date equal to today and the address required selected, but is significantly faster to run.

Business requirements:

1. The report must be produced as a file in CSV format, as a minimum standard.
2. Events that have been reversed or replaced must not be reported
3. The Gas Registry must be capable of producing the report in new and old file format versions (see section 3.13 and MP-030). For On Demand reports requested online, participants must be able to select either the new or old file version.

Data inputs:

Report parameters

There are no parameters for this report request except the file format version (new/old).

Processing:

1. Deliver output to correct party.

Data outputs:

Report information:

Name	Format	Description (if value not directly obtained from the database)
ICP Identifier	Char 15	
ICP Creation Date	DD/MM/YYYY	The date the ICP was first created on the Gas Registry (first Network event date).
Original Commissioning Event Date	DD/MM/YYYY	The effective date that the proposed retailer was assigned to the ICP (first Retailer event date).
Event Start Date	DD/MM/YYYY	The event date of the change or the date given by start date parameter, whichever is later.
Event End Date	DD/MM/YYYY	The day before the event date of the next change event, or today's date, or the date given by the end date

		parameter, whichever is earlier.
Network Event Audit Number	Char 15	
Responsible Distributor Code	Char 4	
Gas Gate Code	Char 8	
ICP Type Code	Char 2	
ICP Altitude	Numeric 5	
Load Shedding Category Code	Char 3	
Installation Details	Char 30	
Expected Retailer Code	Char 4	
Network Event User Reference	Char 32	
Pricing Event Audit Number	Char 15	
Maximum Hourly Quantity	Num 6, Char 3	
Network Price Category Code	Char 15	
Loss Factor Code	Char 7	
Network Price Details	Char 30	
Pricing Event User Reference	Char 32	
Retailer Event Audit Number	Char 15	
Responsible Retailer Code	Char 4	
Allocation Group Code	Char 1	
Profile Code	Char 4	
Responsible Meter Owner Code	Char 4	
Retailer Event User Reference	Char 32	
Metering Event Audit Number	Char 15	
Meter Identifier	Char 15	
Meter Location Code	Char 4	
Standard Meter	Char 1	Y/N
Prepay Meter	Char 1	Y/N
Advanced Metering	Char 1	Y/N

Logger Owner Code	Char 4	
Corrector Owner Code	Char 4	
Telemetry Owner Code	Char 4	
Advanced Meter Owner Code	Char 4	
Metering Price Category Code	Char 15	
Metering Details	Char 30	
Metering Event User Reference	Char 32	
Status Event Audit Number	Char 15	
ICP Status Code	Char 5	
ICP Connection Status Code	Char 5	
Status Event User Reference	Char 32	
Address parameters (Always included)		
Address Event Audit Number	Char 15	
Physical Address Unit	Char 4 20	
Physical Address Number/RAPID Number	Char 25	
Physical Address Region	Char 20	
Physical Address Street	Char 30	
Physical Address Suburb	Char 30	
Physical Address Town	Char 30	
Physical Address Post Code	Numeric 4	
Physical Address Property Name	Char 75	
Address Event User Reference	Char 32	
Metering Event Audit Number	Char 15	
TOU Meter*	Char 1	Y/N
Meter Pressure*	Decimal 6.2	
Meter Operating at Network Pressure*	Char 1	Y/N
Register Reading Digits*	Num 2	
Register Multiplier*	Num 4	

ICP parameters marked with * are not included in the output report if the “old” file format version is requested

Sub-process:	**PR-170 Produce Retailer READY status report**
Process:	Produce reports
Participants:	Retailers
Rule references:	
Dependencies:	

Description:
This report is produced every Sunday night at 19:00. It produces a CSV file of *READY* status ICPs for all expected retailers. It is run for all retailer participants only, and lists the ICP identifiers where the ICP is in the *READY* status and the retailer is set as the expected retailer on the Network event.

Business requirements:
1. Runs only for ICPs where the expected retailer parameter on the network event has been populated.

Data inputs:
None

Processing:
Read through all ICPs – for each ICP, get the network event for the current date. If the expected retailer on the network event is populated, extract details to file. Files are split by retailer and placed in each retailer's FTP directory.

Data outputs:
File of ICP numbers only (one per line) delivered to the appropriate FTP directory.

Sub-process:	**PR-180 Produce Participant Activity report**
Process:	Produce reports
Participants:	Distributors, retailer, meter owners, industry body
Rule references:	
Dependencies:	

Description:

This report is produced automatically for each participant on the first business day of the month. It details user activity (log ons, log offs, log on failures, password changes) for the participant's users during the previous month. This allows participants to track and monitor their own usage patterns.

Business requirements:

1. Run on the first business day of the month
2. Delivered to each participant's "fromreg" FTP directory
3. CSV file format
4. If no participant activity in the preceding month, do not extract a file (ie do not create an empty file).

Data inputs:

Participant audited user activity

Processing:

For each participant, retrieve all audit records for the preceding month, where the audit record relates to a 'User Event'.

Extract the details for the events retrieved to a file, and add the file to the FTP queue to be delivered to the participant's FTP directory.

Data outputs:

Name	Format	Description
Audit Date	DD/MM/YYYY	Date of the user activity
Audit Time	HH:MM:SS	Time of the user activity
Activity Type	Char 8	Eg Logon, Logoff, Log Fail
Participant Code	Char 4	Valid participant code
User Code	Char 10	For online interface
Description	Char 100	Summarises user logon counts, details logon failure reasons

Sub-process:	**PR-190 Produce cost allocation report**
Process:	Produce reports
Participants:	Retailers, industry body
Rule references:	Rule 22, 23, 24, 25, 26
Dependencies:	

Description:
This report is produced automatically by 2359 on the second business day of each month. It has no manual submit functionality. It is produced as a CSV file and delivered to retailers and the industry body via FTP.

Business requirements:
1. Report shows all retailers as at the first business day of the month, and the number of ICPs for which they are responsible.
2. ICPs which are *NEW* or *DECOMMISSIONED* are not counted.

Data inputs:
None

Processing:

Data outputs:

Name	Format	Description
Month	MM/YYYY	
Responsible Retailer Code	Char 4	
Number of ICPs	Num 9	Number of ICPs held by the retailer at the report date (excluding *NEW* and *DECOMMISSIONED*)
Total ICPs	Num 9	Total number of ICPs in the Gas Registry (excluding *NEW* and *DECOMMISSIONED*)
Cost Allocation Ratio	Decimal 1.6	Ratio of (number of ICPs for this retailer / total ICPs)

Sub-process:	**PR-210 Produce Switch Length report**
Process:	Produce reports
Participants:	Retailers, Industry Body
Rule references:	
Dependencies:	

Description:

This report is produced on request. It is also automatically generated for the Industry Body on the first day of each month by 0900 hours.

The report details ICP's switched between a date range and outputs information for each switch

Business requirements:

1. This report is available via the online report selection form or FTP.
2. If requested by a Retailer only ICP's in which the requesting Retailer was a party to (as either winning or losing retailer) are reported
3. The Industry Body may request to see switches for any Retailer.
4. The automatic report for the Industry Body must be initiated by the Registry operator with the following parameters:

Parameter	Value
Retailer	All
Switch type	All
Start date	1st day of previous month
End date	Last day of previous month
Search by	GTN
Include Withdrawn	Y

Data inputs:

The report will accept the following filter criteria:

1. Retailer – for Industry Body this may be "ALL" for all Retailers or any number of space separated 4 digit retailer identifiers, for non Industry Body this must be the submitting retailers identifier
2. Start date
3. End date
4. Search by - report on switches between the start and end dates by either switch initiation (GNT arrival) or switch completion (GTN arrival) date
5. Include withdrawn. Include switches that were completed and subsequently withdrawn

Processing:

The report will process all ICP's owned by the participant as at the report request date, and report on the parameters selected.

Data outputs:

The report output will include the following information:

- ICP number – ICP
- Switch Type – S or SM
- Losing retailer – retailer who lost the ICP
- Gaining retailer – retailer who gained the ICP
- GNT Received Date– actual date the GNT arrived
- GTN Received Date – actual date the GTN arrived
- Effective Switch Date – switch effective date
- Allocation group – allocation group as at the receipt of the GTN
- ICP Status – status of the ICP as at the receipt of the GTN
- Gas Gate – the gas gate as at the receipt of the GTN
- Switch length – number of business days between GNT and GTN received dates
- Switch withdrawal field – “W” if switch has been withdrawn else blank, only applicable if “Include Withdrawn” parameter selected

Switch length is calculated where GNT arrival day is regarded as day zero. Where a switch event arrives on a public holiday it is treated as arriving the next business day.

The output file is sorted in ICP number and GNT received date.

Sub-process	**PR-220 Produce Gas Gate Trading Report**
Process:	Produce reports
Participants:	Allocation agent, Industry body
Rule references:	Rule 39 (Reconciliation Rules)
Dependencies:	

Description:

This is an automatic report that is produced every month by 0900 on the first business day of the month for the allocation agent and the industry body. It shows the changes that have occurred during the previous month to the retailers trading at each gas gate. For example, the report produced by 0900 on the first business day of March shows the changes in the retailers trading at each gas gate that occurred in February.

Note: The report will be automatically delivered to the participant associated with the Allocation Agent role.
It may be a crossover for allocation agent transitions. In this case, the report will be delivered to any participant with an Allocation Agent role.

Trading Definitions

1. A retailer is *trading* at a gas gate for a month if it is the responsible retailer for one or more ACTC or ACTV ICPs at a gas gate for one or more days in that month.
2. The *start trading date* for a retailer at a gas gate is the date that the retailer went from having no ACTC or ACTV ICPs at that gas gate to having one (or more) ACTC or ACTV ICPs at that gas gate. This can occur when the retailer:
   - uplifts a READY ICP to become the responsible retailer and changes the status of that ICP to ACTC or ACTV; or
   - changes the status (including by event reversal) of an ICP for which it is already the responsible retailer from INACT/INACP to ACTC or ACTV; or
   - becomes the responsible retailer for an ACTC or ACTV ICP via the switch process (including via the successful withdrawal of a switch).

   The start trading date is the event date of the status change event or the GTN switch date. Where a retailer becomes the responsible retailer of an ACTC or ACTV ICP due to an event reversal (status or switching) then the start trading date is the previous start trading date before the event that was reversed.

   If a retailer becomes the responsible retailer for more than one ACTC or ACTV ICP in the same month then the start trading date is the earliest event date that conferred a change.

   A start trading date can be superseded based on new information, for example an existing start trading date of 20/02/13 for a retailer at a gas gate would be replaced if that retailer had a back-dated switch completed with a switch date of 04/02/2013.
3. The *end trading date* for a retailer at a gas gate is the date that the retailer went from having one (or more) ACTC or ACTV ICPs at a gas

gate to having no ACTC or ACTV ICPs at a gas gate. This can occur when the retailer:

- changes the status (including by event reversal) of its last ACTC or ACTV ICP to another status; or
- stops being the responsible retailer of its last ACTC or ACTV ICP due to a switch (including via the successful withdrawal of a switch).

If a retailer is still the responsible retailer for one or more ACTC or ACTV ICPs at a gas gate at the end of the month then the end trading date is deemed, for the purpose of reporting, to be 31/12/9999. Otherwise the end trading date is the day before the event date of the status change or switch event that stopped the retailer trading at the gas gate.

If a retailer goes from being the responsible retailer for more than one ACTC or ACTV ICP at a gas gate to no ACTC or ACTV ICPs then the end trading date is the day before the latest event date that conferred a change.

4. The *trading period* for a retailer at a gas gate is the period starting on the start trading date and ending on the following end trading date. There can be more than one trading period per retailer per gas gate, provided that each trading period does not overlap with a previous trading period.
   An existing trading period can change based on new/updated information

Business requirements:
1. The automatic run of this report must be initiated by the registry operator and delivered to the allocation agent and the industry body by 0900 hours on the 1st business day of the month. 2. The report must only list trading periods that have changed since the report produced in the previous month (this includes new trading periods, where a retailer didn't previously trade at a gas gate)

Data inputs:

Processing:
1. Calculate trading periods for all retailer and gas gate combinations. Store the trading periods (start and end dates). 2. Compare against trading periods calculated for the previous month's report. 3. Output any trading periods that have changed or that did not appear in the previous period's report.

Data outputs:
The report output will include the following information: • Standard Registry header record • Consumption period (Mmm-yy): the month ending the business day before the run date, e.g. the consumption period for the report

produced by 0900 on 1st March 2013 will be Feb-13

- Gas Gate
- Retailer
- Start trading date
- End trading date
- ICP – the ICP number that triggered the change in trading date. For example if a retailer has stopped trading at a gas gate because its last remaining ICP switched to another retailer, then the end trading date will be the day before the switch date, and the ICP field will contain the ICP number of the ICP that switched away.

It is possible for the report to have more than one line per gas gate and retailer combination. For example, Retailer A could be listed in the report for a Gas Gate A for trading periods from 02/02/2013 to 15/02/2013; and from 18/02/2013 to 25/02/2013.

Each attribute on an output line is comma separated.

Gas Gate Trading Report output information

Name	Format	Comment
Record Type	Char 3	"DET"
Consumption Period	Char 7	The month and year of the reported consumption period in the format Mmm-yy, ie Feb-13
Gas Gate Code	Char 8	Each Gas Gate code at which a Retailer was responsible for an ICP during the trading period.
Retailer Participant Code	Char 4	All Retailers.
Start trading date	DD/MM/YYYY	As per rules above
End trading date	DD/MM/YYYY	As per rules above
ICP	Char 15	

Example file for March 2013 report

HDR,
RSAUGASGTE,GREG,GICX,01/03/2013,02:10:23,00000003,Consumption period Mar-13
DET, Feb-13,BRY0661,RETA,05/02/2013,31/12/9999,0014863080UN005
DET, Feb-13,BRY0661,RETB,15/02/2013,31/12/9999,0014863002UN5CA
DET, Feb-13,DRU19102,RETB,22/01/2012,20/02/2013,0000000194AA93C

Sub-process	**PR-230 Produce GIEP Statistics report**
Process:	Produce Reports
Participants:	Gas Industry Company
Rule references:	None
Dependencies:	GI-010, GI-020, GI-030

Description:
Monthly statistics representing the number and volumes of files sent and received by the GIEP transfer hub.

Business requirements:
1. The report is delivered to the Gas Industry Company by 06:00 hours on the 1st day of each month 2. The Gas Industry Company will receive a file detailing GIEP Transfer statistics by Participant, as described in Data Outputs.

Data inputs:
None

Processing:
Accumulate statistics through examination of the GIEP transfer audits for the report month.

Data outputs:

Files contain the standard Registry file header. Header fields are as follows:

Header record type, File type, Sender, Recipient, File creation date, File creation time (24 hour format), Number of detail records, User reference

Description	Type	Value
Report Month	MMYYYY	
Participant Code	Char 4	
Total Files sent	Numeric	
Volume files sent	Numeric	Total volume in bytes
Total Files received	Numeric	
Volume files received	Numeric	Total volume in bytes
Total Files rejected	Numeric	

File example:
HDR,RMSTATGIEP,RGST,GREG,01/11/2014,00:10:30,00000004, GIEP Stats report for 102014
Month,Participant,Uploads,Uploads KB,Downloads,Downloads KB,Rejects
102014,RETA,266,36578923,199,887691,0
102014,RETB,212,59886311,190,999499,4
102014,RETC,119,67779,61,1880,1

Sub-process:	**PR-240 GTN Meter and Register Data Mismatch**
Process:	Produce Reports
Participants:	Retailers, Meter Owner, Gas Industry Company
Rule references:	Non-core
Dependencies:	RS-030 Complete Switch GTN

Description:

This report identifies GTNs that have failed validation due to data mismatch between submitted Meter or Register fields; and values held in the Gas Registry (as at the switch date). This validation is only applicable to ICPs that do not have a TOU meter and will only be performed on GTNs that have met all other validation requirements.

Business requirements:

1. This is an automatic report that is produced by 09:00 hours as follows:
   - In the 6-month implementation period of the GTN Meter and Register validation the report must be produced on the 1st, 7th, 14th and 21st of the month
   - Thereafter monthly on the 1st day of each month
2. The report must be produced when there is no match in the Gas Registry for any of the GTN submitted values for Meter Identifier, Meter Pressure, Register Reading Digits or Register Multiplier (as at the switch date).
3. Must be delivered to Retailers, Meter Owners and The Gas Industry Company.
4. When delivered to Retailers, it will list ICPs where they were involved in the GTN as either losing or gaining retailer.
5. When delivered to Meter Owners, it will list ICPs where they were the responsible meter owner.
6. When delivered to the Gas Industry it will list ICPs for all GTNs for all (losing or gaining) retailers and responsible meter owners.
7. The report will only include entries for GTNs that failed validation on one of the four parameter in BR2. GTNs that failed validation for any other reason will not be included on the report

Data inputs:

GTNs Meter and Register discrepancies

Processing:

1. Identify GTNs where there is no corresponding value in the Gas Registry for submitted Meter Identifier, Meter Pressure, Register Reading Digits or Register Multiplier values,
2. Report is sorted by GTN Event Date (ascending) and GTN Responsible Retailer Code (losing retailer).
3. List details as per Data ouputs section.

Data outputs:

Files contain the standard Registry file header. Header fields are as follows:

Header record type, File type, Sender, Recipient, File creation date, File creation time (24 hour format), Number of detail records, User reference.

Description	Type	Value
Record Type	Char 3	DET
GTN Event Date	DD/MM/YYYY	
GTN Entry Date	DD/MM/YYYY	
ICP Identifier	Char 15	
GTN Responsible Retailer Code	Char 4	ICP current (losing) retailer
Gaining Retailer Code	Char 4	ICP new (winning) retailer
Responsible Meter Owner	Char 4	Meter owner as at GTN Switch Date
Field in Error	Char 2	Valid values: MI – Meter Identifier MP – Meter Pressure RD – Register Reading Digits RM – Register Multiplier

File example for the Gas Registry Company:
HDR, RSGTNFAIL,GREG,GICX,01/09/2015,03:10:30,4,GTN Mtr And Reg Data Mismatch
DET,02/08/2015,03/08/2015,0000000888AA986,RETA,RETB,META,MP
DET,10/08/2015,10/08/2015,0014863037UNF7D,RETB,RETC,META,RD
DET,11/08/2015,11/08/2015,0014863037UNF7D,RETB,RETC,META,RM
DET,21/08/2015,22/08/2015,0000001234ZZ507,RETC,RETA,METB,MI

File example for RETB:
HDR, RSGTNFAIL,GREG,RETB,01/09/2015,03:15:30,3,GTN Mtr And Reg Data Mismatch
DET,02/08/2015,03/08/2015,0000000888AA986,RETA,RETB,META,MP
DET,10/08/2015,10/08/2015,0014863037UNF7D,RETB,RETC,META,RD
DET,11/08/2015,11/08/2015,0014863037UNF7D,RETB,RETC,META,RM

File example for METB:
HDR, RSGTNFAIL,GREG,METB,01/09/2015,03:15:30,3,GTN Mtr And Reg Data Mismatch
DET,21/08/2015,22/08/2015,0000001234ZZ507,RETC,RETA,METB,MI

Sub-process:	**PR-250 Produce ICP Summary and List by ICP Attributes Report**
Process:	Produce Reports
Participants:	Distributors, Retailers, Gas Industry Company
Rule references:	Non-core
Dependencies:	DC-010 DC-020 DM-020 DM-030 DC-040 RA-010 RM-010 RM-020 RM-030 RM-040

Description:

This report identifies ICPs with attributes related to Network, Retailer and Status events.

There are two options: Summary and List. Their fields are as described in the 'Data outputs' section below.

Business requirements:

3. Both Summary and List reports are automatically delivered to the Gas Industry Company 'fromreg' FTP directory by 08:00 hours every day.
4. The files are produced in CSV format.
5. The event date for the Distributor, Retailer and Status events used for the reports will be the previous day of the report delivery date.
6. For the Summary option, it will include all ICPs in any Allocation Group; and ICPs with no Allocation Group (for those ICPs with no Retailer event).
7. For the List option, it will include ICPs in Allocation Groups 1, 2 and 3.
8. It cannot be requested 'on demand'

Data inputs:

Network, Retailer and Status events.

Processing:

4. The reports will process all ICPs – for each ICP extract the required information from Network, Retailer and Status events in force as at the previous day of the report delivery date.
5. For the Switch In Date – Process all ICP's Retailer events and identify the earliest date when the current Responsible Retailer became the responsible retailer.
6. List details as per 'Data outputs' section and file examples below.

Data outputs:

Files will contain the standard Registry file header. Header fields are as follows:

Header record type, File type, Sender, Recipient, File creation date, File creation time (24 hour format), Number of detail records, User reference.

Report Summary Option:

Description	Type	Value
Record Type	Char 3	DET
Physical Gas Gate	Char 8	The Network Gas Gate code
Notional Gas Gate	Char 8	The Gas Gate Notional Delivery Point
Responsible Retailer	Char 4	The ICP Responsible Retailer
ICP Status	Char 5	
Allocation Group	Char 1	The Retailer event Allocation Group code
ICP Count	Numeric	The total number of ICPs for each DET record

File example for the **Summary Option**:

HDR, RSICPATTS,GREG,GICX,03/10/2015,02:10:30,14,ICP Summary by ICP attributes
DET,BMC17901,GTA03610,CTCT,ACTC,2,1
DET,BMC17901,GTA03610,CTCT,ACTC,4,2
DET,BMC17901,GTA03610,CTCT,ACTC,6,5
DET,BMC17901,GTA03610,EDNZ,INACT,6,1
DET,BMC17901,GTA03610,EGLT,INACT,6,2
DET,BMC17901,GTA03610,GEND,ACTC,2,1
DET,BMC17901,GTA03610,GENG,ACTC,4,2
DET,BMC17901,GTA03610,GENG,ACTC,6,1
DET,DRU15101,DRU15101,CTCT,ACTC,6,2
DET,DRU15101,DRU15101,CTCT,INACP,6,2
DET,DRU15101,DRU15101,CTCT,INACT,6,1
DET,DRU15101,DRU15101,GEND,INACT,2,1
DET,DRU15101,DRU15101,GENG,ACTC,6,3
DET,WST03610,GTA03610,,DECR,,20

Report List Option:

Description	Type	Value
Record Type	Char 3	DET
ICP Identifier	Char 15	
Physical Gas Gate	Char 8	The Network Gas Gate code
Notional Gas Gate	Char 8	The Gas Gate Notional Delivery Point
Responsible Retailer	Char 4	The ICP Responsible Retailer
ICP Status	Char 5	
Allocation Group	Char 1	The Retailer event Allocation Group code
Switch In Date	DD/MM/YYYY	The date that the current

Data outputs:

		Responsible Retailer became the responsible retailer

File example for the **List Option:**

HDR, RSICPATTL,GREG,GICX,03/10/2015,03:10:30,13,ICP List by ICP attributes
DET,0000036301QT5B9,ALF15501,ALF15501,GNGC,ACTC,2,1/07/2008
DET,1001143523VT377,BAL08201,BAL08201,GMTH,ACTC,1,1/07/2010
DET,1001143525VT2F8,BAL09626,BAL09626,GMTH,ACTC,1,1/07/2010
DET,1000543389PG45C,BEL24510,BEL24510,CTCT,ACTC,1,16/09/2013
DET,0004226832NG99B,BEL24510,BEL24510,EDNZ,ACTC,2,1/10/2011
DET,0004220750NGC21,BEL24510,BEL24510,GEND,ACTC,2,1/10/2013
DET,0008000300NGE00,EGC30701,EGC30701,GNVG,ACTC,1,1/05/2012
DET,0078000104PG4C4,ELM12301,ELM12301,GNGC,ACTC,1,1/07/2008
DET,0078000099PGD7C,ELM12301,ELM12301,GNGC,ACTC,2,1/07/2008
DET,0078000093PGFED,ELM12301,ELM12301,GNVG,ACTC,2,1/07/2014
DET,0001788004QTE8E,LVN24401,LVN24401,GNGC,INACT,2,1/07/2008
DET,0001787522QTE31,LVN24401,LVN24401,GNVG,ACTC,2,1/07/2008
DET,0001788461QT030,LVN24401,LVN24401,GNVG,ACTC,2,1/01/2012

5.6 User parameters

Sub-process:	**MP-010 Set switching message receipt times**
Process:	Maintain user parameters
Participants:	Retailers
Rule references:	
Dependencies:	

Description:
A user with supervisor privileges should be able to choose the time switch messages are received and how they are grouped. Note that distributors and meter owners will always receive their GTN and GAW notifications overnight so do not need to set switching receipt times.

Business requirements:
1. Only a user with supervisor privileges will be able to perform this function. 2. Users must be able to choose to receive switching messages individually immediately they are processed by the Gas Registry or in batches at specific times during the day. 3. Where users choose to receive switching messages at specific times, all messages of one type, e.g. GNT or GAN, will be sent by the Gas Registry in separate files. 4. Users must be able to further choose to separate switching messages into files based on sending retailer, i.e. GNTs sent by RETA will be in a separate file as will GNTs from RETB. The default is all retailers together in one file per message type. 5. Once set, the parameter settings will apply to all switching messages received by the participant company.

Processing:

Data inputs:
Delivery time(s). Grouping selection.

Data outputs:
Confirmation of new settings on screen. Audit trail of changes.

Sub-process:	**MP-020 Set notify parameters**
Process:	Maintain user parameters
Participants:	Retailers, distributors, meter owners
Rule references:	
Dependencies:	

Description:
A user with supervisor privileges will be able to select for which event types notifications are received by their company. Only those notifications listed as optional in section 3.9 of this document will be available for selection.

Business requirements:
1. Only a user with supervisor privileges must be able to perform this function. 2. Where a company has multiple roles, eg retailer and meter owner, they must be able to set the parameters separately for each role. 3. The Gas Registry must not send duplicate notifications for the same event at an ICP where a participant has multiple roles. 4. Mandatory notifications by participant role are listed in section 3.9 of this document 5. Once set, the parameter settings must apply immediately to all the company's notifications.

Processing:

Data inputs:
Event notification settings for each event type and role.

Data outputs:
Confirmation of new settings on screen. Audit trail of changes.

Sub-process:	**MP-030 Set file version parameter**
Process:	Maintain user parameters
Participants:	Retailers, distributors, meter owners
Rule references:	
Dependencies:	

Description:
A user with supervisor privileges will be able to select whether reports and notifications are generated using the old or new file format. The old format excludes Meter Pressures, Register Reading Digits, TOU Meter, Register Multiplier and Meter Operating at Network Pressure. The parameter can be set to Yes or No. It affects the format of all automatically generated reports requested via FTP.

Business requirements:
1. Only a user with supervisor privileges must be able to perform this function. 2. The parameter is a single setting that covers all reports and notifications for all roles fulfilled by a Participant

Processing:

Data inputs:
File format version (old/new)

Data outputs:
Confirmation of new settings on screen. Audit trail of changes.

5.7 Notifications

Sub-process:	**NP-010 Acknowledge event change**
Process:	Notify participants
Participants:	Retailers, distributors, meter owners
Rule references:	
Dependencies:	DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RS-010, RS-020, RS-030, RS-040, RW-010, RW-020, RC-010, RC-020

Description:

The Rules require that each and every change to an ICP parameter and all switch transactions sent to the Gas Registry are confirmed by the Gas Registry to the initiating participant as soon as possible.

For ICP event transactions entered online, although an online message of a successful update is sufficient as a confirmation, current automation of back-office systems by clients requires that all acknowledgements must also be provided in a file. For online updates, only successful transactions will be acknowledged. For online Gas Gate, Loss Factor, Network Pricing and Meter Owner Pricing category maintenance, no acknowledgement files will be produced.

For batch updates sent in a file, acknowledgements of each update must be provided in a file. If the system rejects a change received in the file, it must indicate the reason as part of the acknowledgement (error processing).

Users must be able to see online whether their ICP event changes, whether submitted online or via file, have been confirmed (acknowledged). The details shown must include the information described below in Data Outputs.

Business requirements:

1. The participant that made the change or sent a switch message must be sent an acknowledgement as soon as possible.

Processing:

System

1. Formats and sends acknowledgement to submitter.

Data inputs:

As a result of the following sub-processes:

DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RS-010, RS-020, RS-030, RS-040, RW-010, RW-020, RC-010, RC-020

Data outputs:

Acknowledgements.

Acknowledgement information to include:

Name	Format	Mandatory/optional	Comments
Date Processed	DD/MM/YYYY	M	
Time Processed	HH:MM:SS	M	
Gas Registry Audit Reference	Char 15	O	Audit number of the successful update. Absent if the update was unsuccessful.
Request Mode	Char 1	M	W (web browser) F (file upload)
Identifier	Char 15	M	For ICP event acknowledgements, this will be the ICP Identifier. For Gas Gate, Loss Factor and Price Category acknowledgements, this will be the unique identifier
Event Date	DD/MM/YYYY	M	For Gas Gate, Loss Factor and Price Category acknowledgements, this will be the start date for the code being maintained
Action Requested	Char 3	M	DCH—initial creation date NET—network event ADD—address event PRI—pricing event STA—status event RET—retailer event MET—metering event GNT—GNT switch event GAN—GAN switch event GTN—GTN switch event GNW—GNW switch event GAW—GAW switch event GNC—GNC switch event GAC—GAC switch event GGM – Gas Gate Maintenance LFC – Loss Factor Maintenance NPC – Network Price Category Maintenance MPC – Metering Price Category Maintenance
Result	Num 3	M	000 if update successful, otherwise an error code.
Submitted By	Char 10	O	User ID (present for online updates only).

User Supplied Reference	Char 32	O	Free text field carried over from input file.

Sub-process:	**NP-020 Send switch messages**
Process:	Notify participants
Participants:	Retailers
Rule references:	Rules 68.2, 71.2, 73.2, 77.2, 78.4, 80.2, 81.2
Dependencies:	RS-010, RS-020, RS-030, RS-040, RW-010, RW-020, RC-010, RC-020

Description:
Retailers are required to send all their switch messages to the Gas Registry, not directly to the other participant. It is the responsibility of the Gas Registry to pass them on to the other participant.

Business requirements:
In providing the switch transfer mechanism, the Gas Registry must: 1. route only valid switch messages and only to the appropriate recipient; 2. take into account the recipient's switch file delivery preferences (see MP-010); 3. deliver the switching messages via file to the recipient in the same format as they are input; 4. provide an authoritative audit trail of all switch data transfer activity, ie who, when, filename, from which participant, to which participant, etc; and 5. retain the actual switch files for a minimum of 3 months.

Processing:
System 1. Determines who is the intended recipient from the information contained in the switch message and the participants to the switch (see table below). 2. Groups the messages and delivers them at the time and batching method indicated in the recipient's switching parameters.

Data inputs:
Valid switch messages – GNT, GAN, GTN, GNW, GAW, GNC, GAC.

Data outputs:
Switch file.

The basic message exchange sequences between retailers are outlined in section 3.10, Switching Protocol.:

Sub-process:	**NP-030 Notify of event change**
Process:	Notify participants
Participants:	Retailers, distributors, meter owners
Rule references:	Rule 52, 53, 55, 57, 61
Dependencies:	DC-010, DC-020, DM-010, DM-020, DM-030, DM-040, RA-010, RM-010, RM-020, RM-030, RM-040, RS-030, RS-040, RW-020, MP-020, MP-030

Description:

This function is concerned with the delivery of notifications to affected participants of changes to attribute information and taking into account the company's preferences indicated in their notification parameters (see MP-020 & MP-030).

Business requirements:

1. The Rules require that whenever an ICP parameter is changed the Gas Registry sends notifications of the change to all affected participants within one business day of having accepted the information in the Gas Registry. The affected participants are defined to be the owners of the ICP on the event date of the change. The owners are the distributor, retailer and meter owner.
2. Since one or more of the owners may be the subject of a change to an ICP parameter, both current (old) and/or new owners may need to be notified of the change. This means that the evaluation of which participants should receive notifications can be quite complex and results can differ depending on the order in which the processing is done.

   All owners need to be informed:

   - when their period of ownership commences and ceases; and
   - which ICP parameters change during their period of ownership.
3. The Gas Registry must be capable of producing notifications in new and old file format versions (see section 3.13). The version type is determined in the participant's preference. See MP-030.
4. Participants must be able to see online whether notifications have been sent. The details shown must include:

   - date and time stamp;
   - participant (sent to); and
   - file name.

Filtering-up of historical changes

5. An historical change is one that occurs before any current event of an ICP. When an historical change occurs, notifications must be generated for all participants that *owned* the ICP from the event date of the new event up to BUT NOT INCLUDING the event date of the next event of the same event type or up to today's date, whichever is the earliest.

   For example, if a metering event is inserted with an event date of 01/03/2004, before a later metering event on 01/05/2004, then all retailers, distributors and meter owners, who owned the ICP during the period 01/03/2004 to 30/04/2004 must be notified of the change.

The same filter-up logic must be applied to all insertions, updates and deletions and, in the case of updates, the replaced (old) event must be fully processed before the new event is inserted.

Processing:

System

1. Determines who the participants are that are affected by the change.
2. Checks whether the company wishes to receive notifications for the event type of the change and type of maintenance, as indicated by their notification parameters (see MP-020).
3. Checks whether the participant wishes to receive notifications in the old or new file format version (see MP-030).
4. Formats the notification and delivers it to each affected participant.

Data inputs:

Valid new, reversed or replaced events.

Data outputs:

Notification file.

The notification should contain the following information:

Name	Format	Mandatory /optional	Comments
Event Date	DD/MM/ YYYY	M	
ICP Identifier	Char 15	M	
Notification Type	Char 1	M	R (event reversal), A (change of data).
Switch Status	Char 1	O	S if ICP is currently being switched, else blank.
Network Event Audit Number	Char 15	O	Audit number associated with change to network data.
Responsible Distributor Code	Char 4	O	
Gas Gate Code	Char 8	O	
ICP Type Code	Char 2	O	
Network Pressure	Num 4	O	
ICP Altitude	Num 5	O	
Load Shedding Category Code	Char 3	O	
Installation Details	Char 30	O	
Expected Retailer Code	Char 4	O	
Network Event User Reference	Char 32	O	

Pricing Event Audit Number	Char 15	O	Audit number associated with change to distributor pricing data.
Maximum Hourly Quantity	Num 6, Char 3	O	
Network Price Category Code	Char 15	O	
Loss Factor Code	Char 7	O	
Network Price Details	Char 30	O	
Pricing Event User Reference	Char 32	O	
Address Event Audit Number	Char 15	O	Audit number associated with change to address data.
Physical Address Unit	Char 20	O	
Physical Address Number/RAPID Number	Char 25	O	
Physical Address Street	Char 30	O	
Physical Address Suburb	Char 30	O	
Physical Address Town	Char 30	O	
Physical Address Post Code	Numeric 4	O	
Physical Address Region	Char 20	O	
Physical Address Property Name	Char 75	O	
Address Event User Reference	Char 32	O	
Retailer Event Audit Number	Char 15	O	Audit number associated with change to retailer data.
Responsible Retailer code	Char 4	O	
Allocation Group Code	Char 1	O	
Profile Code	Char 4	O	
Responsible Meter Owner Code	Char 4	O	
Retailer Event User Reference	Char 32	O	
Metering Event Audit Number	Char 15	O	Audit number associated with change to metering data.
Meter Identifier	Char 15	O	
Meter Location Code	Char 4	O	
Standard Meter	Y/N	O	

Prepay Meter	Y/N	O	
Advanced Meter	Y/N	O	
Logger Owner Code	Char 4	O	
Corrector Owner Code	Char 4	O	
Telemetry Owner Code	Char 4	O	
Advanced Meter Owner Code	Char 4	O	
Metering Price Category Code	Char 15	O	
Metering Details	Char 30	O	
Metering Event User Reference	Char 32	O	
Status Event Audit Number	Char 15	O	Audit number associated with change to status data.
ICP Status Code	Char 5	O	
ICP Connection Status Code	Char 5	M/O	
Status Event User Reference	Char 32	O	
Metering Event Audit Number*	Char 15		
TOU Meter*	Char 1	Y/N	
Meter Pressure*	Decimal 6.2		
Meter Operating at Network Pressure*	Char 1	Y/N	
Register Reading Digits*	Num 2		
Register Multiplier	Num 4		

ICP parameters marked with * are not included in the notification if the “old” file format version is requested

Sub-process:	**NP-040 Re-send switching messages**
Process:	Notify participants
Participants:	Retailers, distributors, meter owners
Rule references:	
Dependencies:	NP-020

Description:
Participants will be able to request that the Gas Registry re-sends all the switch messages that were delivered to them during a period of time. Note that distributors and meter owners are only able to receive GTN and GAW switch messages.

Business requirements:
1. The Gas Registry must be able to send participants their switching protocol messages again when requested. 2. Participants must be able to request that all messages be resent for a specific period. 3. Participant must be able to select that only messages of a specific type, eg GTN or GAW, for a specific period be resent to them. 4. The Gas Registry must re-send all the requested messages immediately in a single file.

Processing:

Data inputs:
Start date. End date. Switching message type (if no value is supplied, it is assumed that ALL values are required, ie there is no filter).

Data outputs:
File of requested switching messages.

Sub-process:	**NP-050 Re-send notifications**
Process:	Notify participants
Participants:	Distributors, retailers, meter owners
Rule references:	
Dependencies:	NP-030, MP-030

Description:
A retailer, distributor or meter owner will be able to request that the Gas Registry re-sends all the notifications that were delivered to them during a period of time.

Business requirements:
1. The Gas Registry must be able to re-send all the notifications for a participant whenever requested by a user. 2. Only users from retailer, meter owner and distributor participants must be able to request their notifications be resent. 3. Users must be able to specify the period for which notifications are resent. 4. The Gas Registry must deliver the all notifications immediately in a single file. 5. The Gas Registry must be capable of producing notifications in new and old file format versions (see section 3.13). The version type is determined in the participant's preference. See MP-030

Processing:

Data inputs:
Start date. End date.

Data outputs:
A file containing the requested notifications.

5.8 Online queries

Sub-process:	**QU-010 Search for address to find ICP**
Process:	Make query online
Participants:	All users
Rule references:	33.1.3, 33.4, Determinations 6.2
Dependencies:	

Description:

The user wishes to identify an ICP by using its address to find it and check its details.

Users may particularly want to use this facility when an ICP is being switched in order to verify that the correct ICP is being switched.

NB: In order for the address searching to produce consistent results, distributors are provided with address completion standards. These are provided in Appendix 2 for reference.

Business requirements:

1. The minimum information required for searching must be street or property name.
2. Users must be able to select one street from a list of matching streets displayed with suburb and town, and see a list of all the properties on that street.
3. Users must be able to select an individual property from a list of properties on a street and see the ICP details for that property.
4. A trailing wildcard facility must be provided.
5. It must be possible to restrict the list of properties displayed to only those currently owned by the user's company.
6. It must be possible to restrict the list of properties displayed to only those that are ACTIVE or INACTIVE.

Processing:

System

1. Searches and displays all qualifying streets and property names that meet the search criteria and filters.
2. Allows users to drill down to the addresses in a street.
3. Allows users to select an individual address and view information for the ICP at that address (ref. QU-020).
4. Allows users to return to the qualifying streets and property names previously displayed.

Data inputs:

Search criteria

Unit number – optional.

Street number – optional.

Street name or property name – mandatory.

Region – optional.

Suburb – optional. Town – optional.

Data outputs:
List of qualifying streets and properties with their suburbs and towns. List of all addresses in a selected street.

Sub-process:	**QU-020 View ICP information**
Process:	Make query online
Participants:	All users
Rule references:	Determinations section 6
Dependencies:	

Description:
The user queries the system to display all the information about an ICP, ie its current parameter information, history and audit details.

Business requirements:

1. Search and display ICP details for the precise ICP Number or Meter Identifier entered. ICP number entered (copy/pasted) as search criteria can optionally contain 1 dash character, which is removed by the system.
2. The latest details of the ICP must be displayed including whether the ICP is the subject of a switch. The display is to show all parameters.
3. The details of the ICP must be displayed 'as at' a particular date in the past. The display is to show all parameters that were in effect on that 'as at' day.
4. The user must be able to view the history of the ICP, ie all the events for the ICP and all switch messages, in descending event date sequence, not only in its complete form but also filtered by event type and/or omitting reversals and replacements.
5. The user must be able to drill down from events to see the full details of the event and its audit details.

Processing:

Data inputs:

ICP identifier **or** Meter identifier

‘As at' date.

ICP event history filters.

Data outputs:

Requested event and parameter information for the ICP.

Progress of any switching.

Sub-process:	**QU-030 View static table information**
Process:	Make query online
Participants:	All users
Rule references:	
Dependencies:	SD-010 to SD-040

Description:
Users need to be able to view the static data tables online and download them, particularly the Gas Gate table (ref PR-120), network and meter owner pricing categories and loss factors.

Business requirements:
1. Users require online and download facilities of all static table information. 2. For gas gates, network pricing categories and loss factors, the download should be selectable by distributor code. 3. For meter owner pricing codes, the download should be selectable by meter owner code 4. The Profile Codes table shows the assignment of Profile Codes to retailers, and start and end date of the assignment.

Processing:

Data inputs:
Static table files.

Data outputs:
Same format as input.

Sub-process:	**QU-040 View Registry Audit Data**
Process:	Online Queries
Participants:	Registry Administrator, Gas Industry Company, Participants
Rule references:	None
Dependencies:	None

Description:
A search and inquiry screen to allow a participant to view and download their own audit records. The Gas Industry Company may view audit records for any Participant.

Business requirements:

A participant may view the audit information that relates to their own activity on the Registry.
The Gas Industry Company and the administrator may view audit information for any Participant.

The audit information relates to the following activities:
Data Change
- Changes to Metering and Network Price Codes
- Changes to Loss Factor Codes, Gas Gate Tables, Participant Register, Profile Codes, Users and Static Data
- Administrator modifications to Participant definitions

User Event
- User logon, logoff events, and logon access denied

Supervisor Event
- Supervisor Maintenance
- Supervisor modification to GIEP notification parameters

GIEP Event
- GIEP Transfer uploads, downloads, transfers and rejections

Web Service Queue Event
- Notifications

A participant may perform an audit search using the criteria below (Data Inputs). Participant may view full details relating to a selected audit. The details will vary according to the type of audit:

Audit Type	Details
User Event	User Access • Logon, Logoff and Logon Failure
Data Change	Loss Factor Code: • Code Type • Code • Description • Start Date • End Date • Distributor Gas Gate Table • Gas Gate Code

	• Name • Distributor • Notional Delivery Point • Parent Gas Gate • Active • Notice Date • Start Date • End Date Participant Register • Participant • Name • Phone Number • Email • Roles • FTP Name Metering Price Code • Code Type • Code • Description • Start Date • End Date • Owner Network Price Code • Code Type • Code • Description • Start Date • End Date • Network Profile Codes • Summary Information Users • User Id • Name • Belongs to • Supervisor • Password Status Static Data • Code Type • Code • Description • Start Date • End Date
GIEP Event	• Sender • Recipient • Utility • File Type • Report Month • Report Date • Unique ID

	• File Name • Delivered As • File Size • Arrival Time • Error code
Supervisor Event	GIEP Parameters • Acknowledge receipt to sender by email • Acknowledge receipt to sender's inbox • Confirm successful transfer to sender by email • Confirm successful transfer to sender's inbox • Notify receipt file transfer by email • GIEP email addresses Switch Notifications • Send at 08:00 • Send at 11:00 • Send at 15:00 • Send at 18:00 • Send immediately • Use separate files File Version Type Update • Participant File version type New
Web Service Queue Event	Notification

A participant may download the selected audits in csv format.

Data inputs:
Selection criteria of : • Audit Type, Audit Action, Audit Category • Participant and User • Date Range or most recent audits

Processing:
1. Selection criteria entered 2. Audits searched 3. Audits returned

Data outputs:
Audit records which satisfy the selection criteria Download file in csv format

5.9 Maintaining static data

Sub-process:	**SD-010 Maintain Gas Gate data**
Process:	Maintain static data
Participants:	Registry operator

Rule references:	Rules 45.1.1
Dependencies:	

Description:
The Registry operator maintains the Gas Gate information stored in the Gas Registry on behalf of distributors, upon advice and authorisation from the industry body. The Gas Registry uses the information to validate the Gas Gate codes recorded against ICPs and to determine the owning distributor.

Business requirements:
1. Each entry in the Gas Gate table must be unique within the Gas Registry for the fields shown below marked with asterisks. 2. The registry operator must be able to insert and expire Gas Gate information (ie input an end date); must be able to do this online and must be the only organisation able to do it. 3. The system must record audit information of insert/update/expiry, including who made the change and when. 4. An online facility must be provided for all users to view and download the Gas Gate information, ref. PR-120.

Processing:
System 1. Validates all attribute formats, and owner are valid. 2. Updates the gas gate code table accordingly. 3. Acknowledge the update, or report validation error.

Data inputs:

Maintenance values for Gas Gate table entries.

Attributes Input	Format	Mandatory/optional	Comments
Responsible Distributor Code	Char 4	M	**
Gas Gate Code	Char 8	M	**
Gas Gate Name	Char 32	M	
Notional Delivery Point Code	Char 8	O	= Gas Gate Code except for gas gates assigned to a notional delivery point. No validation is required.
Parent Gas Gate Code	Char 8	O	No validation is required.
Notice Date	DD/MM/YYYY	M	Date the change/addition of the gas gate was notified by the responsible distributor
Start Date	DD/MM/YYYY	M	**
End Date	DD/MM/	O	

	YYYY		
ICP Type		O	
Metering Type		O	
Responsible TSO		O	
Shared		O	Y/N
Allocated		O	Y/N
Allocation Start Date	DD/MM/YYYY	O	
Allocation End Date	DD/MM/YYYY	O	
Comments	Char 64	O	

Data outputs:
Updated Gas Gate table.

Sub-process:	**SD-020 Maintain static data**
Process:	Maintain static data
Participants:	Registry operator
Rule references:	Determinations 16.3
Dependencies:	

Description:

Most of the codes used in the Gas Registry are maintained by the registry operator. The registry operator receives instructions regarding the maintenance of these codes from the industry body which approves new codes (except for network price category, loss factor and metering price category codes). The types of codes to be maintained and their purposes are as follows:

Participant codes and their roles (4 characters) – valid retailer, distributor, meter owner, logger owner, corrector owner, telemetry owner and advanced meter owner codes, their full company names and their roles in the Gas Registry. Refer to Section 7.3 of the Determinations (see also SD-060)

Event types (3 characters) – used to validate events. Current event codes are described in NP-010

ICP Type codes (2 characters) – identifies the locational relationship between an ICP and the gas gate immediately upstream from the ICP. Refer to section 9.2 of the Determinations.

ICP Status codes (5 characters). Refer to section 10.2 of the Determinations.

Connection Status codes (5 characters). Refer to section 11.3 of the Determinations for valid values and valid combinations with ICP Status code.

Load Shedding Category codes (3 characters). Refer to section 12.2 of the Determinations.

Allocation Group codes (1 character). Refer to section 13.23 of the Determinations.

ICP Distributor Id (2 characters). This corresponds to the 2 characters that any new (after 1st July 2008) ICP has to use. Note: There is no validation between the ICP Distributor Id used and the actual distributor.

Retailer Profile codes (4 characters) – list of all retailer profile codes and the retailers who are using them in the system. Refer to section 14.4 of the Determinations. The Registry Administrator can assign Profile codes to one or more retailers. Assigned Retailer Profile Codes have a start date and optional end date.

Regions (15 characters) – used to validate the regions that can be used in

addresses. The current regions are:
Auckland;
Bay of Plenty;
Canterbury;
Gisborne;
Hawke's Bay;
Manawatu;
Marlborough;
Nelson & Bays;
Northland;
Otago;
Southland;
Taranaki;
Timaru & Oamaru;
Waikato;
Wairarapa;
Wanganui;
Wellington; and
West Coast.

GNT switch type codes (two characters) – used to validate GNT switching protocol messages: refer to section 16.3 of the Determinations.

GTN/GNC register content codes (four characters) – used to validate GTN and GNC switching protocol messages. Refer to section 16.3 of the Determinations

GTN/GNC meter location codes – valid values for use in GTN and GNC messages (see below).

GTN/GNC Switch reading type codes (one character). Refer to section 16.3 of the Determinations.

GAN acceptance codes (two characters) – used to validate GAN switching protocol messages. Refer to section 16.3 of the Determinations.

GNW request reason codes (two characters) – used to validate GNW switching protocol messages. Refer to section 16.3 of the Determinations.

GAW response codes (one character) – used to validate GAW switching protocol messages. Refer to section 16.3 of the Determinations.

GAC confirmation codes (one character) – used to validate GAC switching protocol messages. Refer to section 16.3 of the Determinations.

Business requirements:

1. Only the registry operator must be able to add, modify or delete codes.
2. Each code must have an effective start date and end date associated with it and a full description.
3. Gas Registry must maintain an audit trail for each insert/update/deletion

to record who made the change and when.

Processing:

Data inputs:
New or changed information for each table.

Data outputs:
Updated static data tables.

Sub-process:	**SD-030 Maintain loss factor codes**
Process:	Maintain static data
Participants:	Distributors
Rule references:	Rule 47
Dependencies:	

Description:

Each distributor maintains their own loss factor codes held by the Gas Registry in a table.

Business requirements:

1. Only distributors must be able to maintain loss factor codes and only their own.
2. Maintenance should be available both online and in batch mode.
3. Each loss factor code must be associated with a date range.
4. There must be only one loss factor code associated with any date range, and date ranges must not overlap.
5. The combination of distributor code, loss factor code and start date must be unique.
6. Only loss factor code information relating to a future date range may be modified.
7. Loss factor code start date may be modified if the existing start date is in the future or the Loss factor code has never been used against an ICP.
8. Any participant must be able to view the complete loss factor code table online and be able to download a copy of it.
9. The table entry relating to a loss factor code may only be deleted if it has never been used against an ICP.
10. Gas Registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.
11. The table entry relating to a loss factor code may only be deleted if it has never been used against an ICP.

Processing:

System

1. Validates all attributes and checks any dependencies. End date must be in the future and later than start date.
2. Updates the loss factor code table accordingly.
3. Generates notifications to all retailers who own ICPs that have been assigned the affected loss factor code. One notification will be generated per retailer, not one per ICP.

Data inputs:

New or modified loss factor code information.

Attributes input	Format	Mandatory /optional	Comments
Responsible Distributor	Char 4	M	Valid distributor

Code			
Loss Factor Code	Char 7	M	
Start Date	DD/MM/YYYY	M	May be modified only if in the future.
End Date	DD/MM/YYYY	O	If missing, denotes that loss factors are valid until further notice. May only be modified when missing or in the future, and cannot be changed to a date in the past.
Loss Factor Code Description	Char 32	O	
Date and time of last change	DD/MM/YYYY HH:MM:SS	M	Date and time when information was last updated or inserted.

Data outputs:
Updated loss factor code table. Audit trail

Example:

Distributor	Loss Factor	Start date	End date	Description	Last changed
DIS1	N5	01/04/04		DIS1 N5	01/04/04 08:23:44
DIS1	N6	01/04/04	31/05/05	Loss N6	01/04/04 08:23:44
DIS1	N6	01/06/05		Loss N6	01/07/05 09:23:40
DIS1	WGL	01/10/03	31/03/04	WLG Loss	01/10/03 22:09:15
DIS2	WGL	01/04/04	30/09/04	WLG Loss	01/04/04 08:23:44
DIS2	WGL	01/10/04		WLG Loss	01/04/04 08:23:44

Sub-process:	**SD-040 Maintain network price category codes**
Process:	Maintain static data
Participants:	Distributors
Rule references:	Rule 46
Dependencies:	

Description:

Each distributor maintains their own network price category codes held by the Gas Registry.

Business requirements:

1. Only distributors must be able to maintain network price category codes and only their own.
2. Maintenance should be available both online and in batch mode.
3. A network price category code must be defined for all periods for which there is an ICP that refers to it.
4. Each network price category code must be associated with a date range.
5. There must be only one network price category code associated with any date range, and date ranges must not overlap.
6. The combination of distributor code, network price category code and start date must be unique.
7. Only network price category code information relating to a future date range may be modified.
8. Network price category code start date may be modified if the existing start date is in the future or the network price category code has never been used against an ICP.
9. Any participant must be able to view the complete network price category code table and be able to download a copy of it.
10. The table entry relating to a network price category code may only be deleted if it has never been used against an ICP.
11. Gas Registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.

Processing:

System

1. Validates all attributes and checks any dependencies. End date must be in the future and later than start date.
2. Updates the network price category code table accordingly.
3. Generates notifications to all retailers who own ICPs that have been assigned the affected network price category code. One notification will be sent for each retailer, not one for each ICP.

Data inputs:

New or modified network price category code information.

Name	Format	Mandatory /optional	Comments

Responsible Distributor code	Char 4	M	Valid distributor
Network Price Category Code	Char 15	M	
Effective Start Date	DD/MM/ YYYY	M	May be modified only if in the future.
Effective End Date	DD/MM/ YYYY	O	If missing, denotes that pricing factors are valid until further notice. May only be modified when missing or in the future, and cannot be changed to a date in the past.
Network Price Category description	Char 32	O	
Date and time of last change	DD/MM/ YYYY HH:MM:SS	M	Date and time when information was last updated.

Data outputs:
Updated network price category code table Audit trail.

Sub-process:	**SD-050 Maintain metering price category codes**
Process:	Maintain static data
Participants:	Meter Owners, participants (list only)
Rule references:	Rule 49
Dependencies:	

Description:

Each meter owner maintains their own metering price category codes held by the Gas Registry.

Business requirements:

1. Only meter owners must be able to maintain metering price category codes and only their own.
2. Maintenance should be available both online and in batch mode.
3. A metering price category code must be defined for all periods for which there is an ICP that refers to it.
4. Each metering price category code must be associated with a date range.
5. There must be only one metering price category code associated with any date range, and date ranges must not overlap.
6. The combination of meter owner code, metering price category code and start date must be unique.
7. Only metering price category code information relating to a future date range may be modified.
8. Metering price category code start date may be modified if the existing start date is in the future or the metering price category code has never been used against an ICP.
9. Any participant must be able to view the complete metering price category code table and be able to download a copy of it.
10. The table entry relating to a metering price category code may only be deleted if it has never been used against an ICP.
11. Gas Registry must maintain an audit trail for each insert/update/deletion to record who made the change and when.

Processing:

System

1. Validates all attributes and checks any dependencies. End date must be in the future and later than start date.
2. Updates the metering price category code table accordingly.
3. Generates notifications to all retailers who own ICPs that have been assigned the affected metering price category code. One notification will be sent for each retailer, not one for each ICP.

Data inputs:

New or modified metering price category code information.

Name	Format	Mandatory /optional	Comments

Responsible Meter Owner Code	Char 4	M	Valid meter owner
Metering Price Category Code	Char 15	M	
Effective Start Date	DD/MM/ YYYY	M	May be modified only if in the future.
Effective End Date	DD/MM/ YYYY	O	If missing, denotes that pricing factors are valid until further notice. May only be modified when missing or in the future, and cannot be changed to a date in the past.
Metering Price Category description	Char 32	O	
Date and time of last change	DD/MM/ YYYY HH:MM:SS	M	Date and time when information was last updated.

Data outputs:
Updated metering price category code table Audit trail.

Sub-process:	**SD-060 Maintain participant details**
Process:	Maintain static data
Participants:	Registry operator
Rule references:	Rules 9, 10
Dependencies:	

Description:
The Registry Operator must maintain a register of registry participants.

Business requirements:

1. Participants must be approved by the industry body before being added to the register.
2. Participant register details must be viewable on the Gas Registry website.
3. Participants must notify the Registry Operator when their details change, so the Registry Operator can update the Gas Registry.
4. A participant code has only one FTP signon. Hence they have only one FTP transfer directory to which they pass files to be uploaded to the Gas Registry, and one FTP transfer directory in which files from the Gas Registry are placed.
5. Participants can be any combination of retailer, distributor and meter owner.
6. If marked as a Logger Owner, Corrector Owner, Telemetry Owner or Advanced Meter Owner only, only Participant code and Name are required.

Processing:

System

1. Validates all attributes and checks any dependencies.
2. Updates the participant details register accordingly.

Data inputs:

New or participant information.

Name	Format	Mandatory /optional	Comments
Participant Code	Char 4	M	Codes are determined and published by the industry body from time to time.
Participant Name	Char 30	M	
Telephone Number	Char 30	M	
Physical Address	Char 100	M	Free-format
Facsimile Number	Char 30	M	
Email Address	Char 100	M	
Postal Address	Char 100	O	Free-format. Mandatory if different from physical address
Start Date	DD/MM/	M	Date of commencement with the

	YYYY		Gas Registry
Cease Date	DD/MM/ YYYY	O	The date on which this participant ceased to be a participant
Distributor	Char 1	M	Y/N – is this participant a distributor?
Retailer	Char 1	M	Y/N – is this participant a retailer?
Meter Owner	Char 1	M	Y/N – is this participant a meter owner?
Logger Owner	Char 1	M	Y/N – is this participant a logger owner?
Corrector Owner	Char 1	M	Y/N – is this participant a corrector owner?
Telemetry Owner	Char 1	M	Y/N – is this participant a telemetry owner?
Advanced Meter Owner	Char 1	M	Y/N – is this participant an advanced meter owner?
Allocation Agent	Char 1	M	Y/N – is this participant an allocation agent?
File Certified	Char 1	M	Y/N Has this participant been certified to use FTP interfaces to the Gas Registry
Zip FTP Files	Char 1	O	Does this participant wish to receive zipped files from the Gas Registry
FTP User Name	Char 12	M/O	Mandatory if File Certified is Y. Must be all lower case.
Date last changed	DD/MM/ YYYY HH:MM:SS	M	Date and time of the last change to this participant record
Changed by	Char 10	M	User code of the user who last changed this participant record

Data outputs:
Updated participant register. Audit trail.

5.10 Security

Sub-process:	**SU-010 Supervisor adds new user**
Process:	Supervise own users
Participants:	Retailers, distributors, meter owners, industry body
Rule references:	
Dependencies:	

Description:
A supervisor adds a new user for their company and defines the user's access rights to the Gas Registry.

Business requirements:
1. System must provide a facility so that each participant organisation is able to add and maintain their own logons online. 2. System must check that the facility for adding and maintaining new logons is restricted to a user logon with supervisory rights. 3. System must allow the supervisor to permit specific users from other organisations to 'act as an agent' for the supervisor's organisation. 4. System must validate that the logon is unique within their own company and that the password conforms to industry standards in terms of minimum length, containing characters and numbers, can't be the same as the previous five logons, not based on the logon ID etc. See Appendix 3 for details on the standard. 5. System must provide a facility for supervisor to assign access rights to Gas Registry functions, ie read-only, ICP maintenance and switching, submission of reports etc to all logons including users given permission to 'act as an agent'.

Processing:

Data inputs:
New logon details and access rights.

Data outputs:
Confirmation of successful update or an error message.

Sub-process:	**SU-020 Supervisor disables user**
Process:	Supervise own users
Participants:	Retailers, distributors, meter owners, industry body
Rule references:	
Dependencies:	SU-010

Description:
A supervisor disables an existing user in order to prevent the user's logon from being used to gain access to the system.

Business requirements:
1. The supervisor must be able to disable any of their company's logons when they are no longer required. 2. The system must lock-out a logon after three failed attempts to logon as a suspected attempt at unauthorised access. 3. The system must lock-out logons that have expired due to the password not being changed within 30 days. 4. Once a logon has expired, the user is allowed three grace logon attempts.

Processing:

Data inputs:
Logon.

Data outputs:
Confirmation of successful disablement.

Sub-process:	**SU-030 Supervisor resets user password**
Process:	Supervise own users
Participants:	Retailers, distributors, meter owners, industry body
Rule references:	
Dependencies:	SU-020

Description:

When a logon has been disabled, either by the system or by the supervisor, the supervisor can reset the user's password to re-enable the logon.

Business requirements:

1. It must be possible to re-enable a user's logon once it has been locked out or disabled.
2. The logon must be re-enabled by the supervisor of the company responsible for the logon.

Processing:

Data inputs:

- Locked-out user identifier.
- New user password.

Data outputs:

Confirmation of successful re-enablement.

Sub-process:	**SU-040 Assign agent**
Process:	Supervise own users
Participants:	Retailers, distributors, meter owners, industry body
Rule references:	
Dependencies:	SD-020

Description:
The supervisor assigns agency rights to another participant. That participant will be able to create logons which will be able to perform maintenance, switching and reporting on behalf of the original participant.

Business requirements:
1. Only users with supervisor privileges must be able to assign agency rights to another participant's logon.

Processing:
System 1. Provides an online function to allow the supervisor to assign agency rights responsible for the logon. 2. Ensures that only supervisors can assign agency rights.

Data inputs:
Logon of another company to be assigned agency rights.

Data outputs:
Confirmation of successful assignment.

Sub-process:	**PW-010 Change user password**
Process:	Security
Participants:	All users
Rule references:	
Dependencies:	SU-010

Description:
The system should force users to change their passwords at least every 30 days to maintain security. The user is also able to change their password anytime.

Business requirements:
1. Passwords should conform to the password standard.

Processing:

Data inputs:
• User ID. • Current password. • New user password.

Data outputs:
Confirmation of successful change.

5.11 GIEP Exchange

Sub-process:	**GI-010 Configure GIEP Transfer Settings**
Process:	GIEP Transfer
Participants:	Participants (supervisor)
Rule references:	None
Dependencies:	None

Description:

An input screen to allow a participant's supervisor to:

- Configure optional email parameters to acknowledge GIEP File upload and confirm GIEP File delivery.

Business requirements:

A participants supervisor may modify communications options to:

1. receive by email from the Registry acknowledgement of receipt of GIEP files
2. receive by file in the senders GIEP in box from the Registry acknowledgement of receipt of GIEP file
3. receive by email from the Registry confirmation of successful transfer
4. receive by file in the senders GIEP in box from the Registry confirmation of successful transfer
5. receive by email from the Registry notification of receipt of an incoming file

Where the option of receiving acknowledgement, confirmation or receipt messages by email has been selected an email address must be supplied.
Changes to GIEP communications options are audited.

Data inputs:

GIEP Communication Settings

Processing:

System:

4. Validates GIEP communication settings
5. Updates communication settings
6. Generates Audit records for each communication setting change

Data outputs:

Updated GIEP communication option settings

Sub-process:	**GI-020 GIEP Upload and Download**
Process:	GIEP Transfer
Participants:	Gas Industry Company
Rule references:	None
Dependencies:	None

Description:

In addition to the SFTP facility to upload and download GIEP files, a browser screen allows a participant to:

- View and download their GIEP file transfer files from their GIEP input directory that have been received from another participant.
- Select local computer files and upload into their GIEP output directory for delivery to a recipient participant.

Business requirements:

Access to the GIEP Upload and Download screen is assigned to users by their participant's supervisor.

GIEP Directory Monitoring

A user may view the contents of their GIEP inbox directory.
Search criteria may be applied when searching the GIEP inbox directory:

- Sender or All
- File Creation Date From

File Download

A file from the GIEP inbox directory may be selected and downloaded to a local computer.

File Upload

A user may search a local computer and upload a file into their GIEP outbox. Before uploading, the selected file is checked for validity, and any errors are displayed to the user.

If there are no validation errors, the file will be uploaded into the GIEP outbox, and subsequently picked up and delivered to the recipient participant.

If the Registry is unable to deliver the GIEP File, the file will be renamed in the sender's outbox with an appended error code.

A user is able to view the progress of the Transfer by monitoring their GIEP inbox directory.

Data inputs:

Uploaded file.
GIEPin folder contents.

Processing:
GIEP Download 1. Apply search criteria and interrogate the GIEP Inbox directory 2. Display results of search 3. Download selected file to a local computer 4. Generates audit records of the download of a file GIEP Upload 1. Load selected file into the GIEP out box inquiry criteria 2. Validates the filename 3. If valid, transfers the file to the recipients GIEP in box directory. See process GI-030 for further details on the transfer process 4. If invalid, transfers the file to the senders GIEP outbox directory with an appended error code 5. Generates audit records of the online upload of a file

Data outputs:
GIEP Audits where file upload or download occurs Downloaded file from GIEP inbox directory

Sub-process:	**GI-030 GIEP Transfer via SFTP**
Process:	GIEP Transfer
Participants:	Gas industry Company
Rule references:	None
Dependencies:	None

Description:
Participants are provided with a GIEP outbox (GIEPout folder) into which files are deposited for delivery to other participants, and a GIEP inbox (GIEPin folder) where files are received that have been delivered from other participants, as well as acknowledgement and confirmation notices.

Business requirements:
1. GIEP file delivery must be via SFTP. 2. GIEP files must be retained for a period of one month before their deletion from the GIEP outbox. 3. In accordance with the participants GIEP communication settings, an optional acknowledgement file notice must be generated (for delivery to the sender's inbox) when the file is put into the sender's outbox (i.e. a successful upload). 4. In accordance with the participants GIEP communication settings, an optional acknowledgement email notice must be generated (for delivery to the sender's email address) when the file is put into the senders outbox (i.e. a successful upload). 5. In accordance with the participants GIEP communication settings, an optional confirmation file notice must be generated (for delivery to the sender's inbox) when the file is delivered to the recipient. 6. In accordance with the participants GIEP communication settings, an optional confirmation email notice must be generated (for delivery to the sender's email address) when the file is delivered to the recipient. 7. In accordance with the participants GIEP communication settings, an optional delivery notice email must be generated (for delivery to the recipient's email address) when the file is delivered to the recipient. 8. Where a filename does not conform to the file naming convention then the file must be rejected and placed in the senders inbox with an appropriate error message attached to the filename. 9. All successful uploads, deliveries and file rejections must have associated audit records.

Data inputs:
• GIEP file to be delivered • GIEP Transfer Settings

A GIEP file must conform to the following file naming format:

Component	Format	Description
Sender	Char 4	Code of submitting participant
Utility Type	Char 1	
Recipient	Char 4	Code of recipient participant
File Type	Char 7	GIEP File Format
Report Month	yyyymm	
Report Run Date	yyyymmdd	
Unique ID	Char 60	e.g. hhmm run time, or ICP number but max 60 characters

Each component is underscore separated.
e.g. CTCT_E_MEEN_ICPMMNM_201409_20141009_0002.txt

1. Sender must be a valid participant code and must also be the owner of the outbox into which the GIEP file has been placed.
2. The recipient must be a valid participant code.
3. The allowed character set for all components includes: “abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789."

Processing:

System:
1. Picks up the file submitted to the participants GIEP outbox.
2. Determines, according to the GIEP communication settings, whether to generate the acknowledgments (by FTP, email, both or neither). The format of the acknowledgement file name is the input file name with ".ake" appended.
3. Validates the filename. There is no validation of Utility Type, File Type, Unique ID or the file extension other than they conform to the defined format. There is no validation of the file data, not even headers, so as is the case with all GIEPs, it is the responsibility of the sending participant to ensure that the file information is complete and correct.
4. If file is valid, transfers the file and
   a. moves it to the recipients GIEP inbox. The file being delivered to a recipient will not overwrite any existing file of the same name. The file name will be amended to create a unique filename by appending a numeric identifier.
   b. according to the GIEP communication settings, generates the optional file confirmation to the sender (by FTP, email, both or neither). The format of the confirmation file name is the input file name with ".confirm" appended.
   c. according to the GIEP communication settings, generates the optional email notification to recipient (by FTP, email, both or neither).
5. If file has an error, rejects by
   a. moving the file to the sender's GIEP inbox with a relevant error code appended. The rejected file is named by appending the error code of the first error encountered to the input file name.
   b. according to the GIEP communication settings, generating an optional file notification to the sender (by email)
6. Generates GIEP file tracking information for audit and compliance analysis that includes:
   - Sender
   - Recipient
   - Arrival time
   - File size
   - File name
   - Delivery name
   - Error number (if present)

Data outputs:

Email and/or file acknowledgement notice.
Email and/or file confirmation notice.
Email delivery notice.
GIEP file - delivered to recipient.
GIEP file with error code – delivered to sender.
GIEP audit records.

6 Web Services

Access to address search and ICP event history and details enquiries are provided via Web Services. The facility provides Traders with a more efficient way for their Customer Service Representatives to access the Registry. Refer to Registry Web Service document for more details.

Retail competition committee

27 January 1999

Approach to generating checksums for unique IDs v1.1

Executive summary

This paper considers the requirements for the checksum to be used with the Unique ID. Based on the requirements outlined in this paper an approach to generating the checksum is prescribed. This approach should be used by networks to generate Unique IDs initially and all parties to validate the Unique IDs.

Disclaimer: This paper has been written for discussion purposes only. It does not necessarily represent the views of the writer, M-co or the Working Group. While all care has been taken in the preparation of this paper M-co does not accept any responsibility for any errors or omissions.

Version control

Version	Date amended	Comments
1.0	19/1/1999	Original version issued to industry.
1.1	27/1/1999	Revised test data.
2.0	17/06/2008	Adapted for use by Gas Industry Co

Introduction

Background

To facilitate the switching of customers from one retailer to another, every Installation Control Point (ICP)[1] in New Zealand will be uniquely identified.

A Unique ID consists of the ICP number plus a checksum. Each ICP has a maximum of 10 numbers followed by two letters. The numbering scheme to be adopted across the industry is defined in the Unique ID – Installation Control Point v1.2 paper dated 12 January 1999.

The format of the Unique ID is to be as follows:

The UI = (ICP + Checksum)

Where:

UI = yyyyyyyyyyxx-checksum,

And:

ICP {Existing code (yyyyyyyyyy) + network ID (xx)} = yyyyyyyyyyxx.

The purpose of this paper is to outline the approach for generating and validating the checksum.

Introduction

The paper is divided into two major sections. The first section considers the requirements for the checksum, while the second section prescribes in detail the method to generate and validate the checksums based on this requirement.

[1] ICP means installation control point being the point at which a consumer installation is deemed to have gas supplied, and which represents the consumer installation on the registry.

Checksum requirements

Factors to consider

A checksum is used to help ensure that a number has been correctly transmitted without corruption. The checksum provides additional information that can be used to validate the number provided and with some level of confidence indicate whether an error has been introduced into the number. No checksum can guarantee that an error has not been introduced but depending on the complexity of the checksum, varying degrees of certainty can be provided. When considering the type of checksum to use, the degree of confidence that is required in the number and the implications if the number is wrong should be considered.

The checksum must be capable of being printed and should be kept as short as possible.

Implications if the unique ID is incorrect

The Unique ID is the sole mechanism for identifying a record in the Gas Registry. The Gas Registry does not contain any other field specific to ICP (such as name or address) that could be used to check the Unique ID. Therefore the Unique ID provided to the Gas Registry is assumed to be correct.

Every time a Gas Registry record is accessed or modified, the Unique ID must be quoted. The use of the Unique ID that has perhaps the most significant impact if it goes wrong is the change of supplier process. A new retailer will obtain the Unique ID from a customer they have signed up and will advise the Gas Registry of this change. If the wrong Unique ID is provided to the Gas Registry (either because it was incorrectly given by the customer or incorrectly entered by the retailer) the record for the wrong retailer will be amended. This will result in the old retailer being incorrectly advised that it no longer supplies that ICP, rather than the ICP it has actually lost. The net result to the customers will be one customer receiving a closing account despite never asking to change retailer, and the customer that has changed supply receiving two bills.

If a retailer quotes the incorrect Unique ID when changing the profile for an ICP this would eventually affect the reconciliation process but may go undetected for some time.

These scenarios are just two examples of the potential impact on customers and companies if the Unique ID is incorrect.

Level of confidence required

When the Gas Registry is fully populated there will be approximately 250,000 Unique IDs. If we assume that 5% of customers change supplier each year, there will be 12,500 change of supplier requests. A prudent assumption is that in 10% of these cases some form of error may be introduced in the communication of the Unique ID from the customer to retailer and then to the Gas Registry. This will result in 1,250 incorrect transactions.

If the checksum is capable of spotting 99% of errors this would still mean that each year 13 people would receive incorrect account closures and a further 13 people would receive two bills. If the checksum is capable of spotting 99.9% or errors this number falls to 1 each year. These errors would be additional to any other errors currently occurring in the system.

The above example is only one type of possible errors, and it is likely that there will be a much larger number of other types of transactions, including enquiries, changes of profile, changes of meter owner, addition or deletion of ICPs etc. All these transaction will have some adverse impact on customers or companies if the Unique ID is entered incorrectly.

The number of errors each year is greatly dependent on the number of transactions and the number of times that a number is entered incorrectly. As there is no other way of cross checking a Unique ID in the Gas Registry it is clear that ideally the checksum should be able to detect as many errors as possible.

Specifying the checksum

Expert advice

The approach outlined below has been developed through discussions between the Implementation Team and Dr Anand Venkataraman, lecturer in computer science at Massey University.

Overall approach

The ideal scenario is one in which the space of Unique IDs is designed with a specified Hamming distance[2]. However, there are two constraints which limit the way in which this issue can be addressed.

1. The checksum needs to consist of printable characters.
2. The checksum needs to be small, preferably no bigger than 3 characters.

Since the total number of possible customer IDs is approximately $6.76*10^{12}$ (all possible numbers between 0 and 10^{10} followed by all possible combinations of two letters), which is greater than the number of allowable checksums, it is inevitable that more than one valid Unique ID will end up sharing the same checksum. Thus the aim is not to detect all errors, but to minimise the likelihood of errors going undetected.

It is proposed that a polynomial code (Cyclic Redundancy Check or CRC)[3] is used to generate the checksum. The theory behind such a scheme can be found described in such works as Data and Computer Communications[4]. A two digit decimal checksum would spot about 98.4 per cent of all errors. However by using a three three-digit hexadecimal checksum is will detect more than 99.9% of all errors. In order to maximise the error detection based on the requirements outlined above it has been decided that a three digit hexadecimal checksum will be used.

[2] Hamming, R. W. (1980). Coding and Information Theory, 2nd ed., Prentice-Hall, Englewood Cliffs, NJ.
[3] Peterson W. W. and D. T. Brown. (1961). Cyclic Codes for Error Detection, Proc. IRE, v.49, pp.228-235, Jan 1961.
[4] Stallings, W. (1997). Data and Computer Communications, 5th ed., Prentice-Hall, Englewood Cliffs, NJ.

Calculating the checksum

The 12 characters comprising the ICP are viewed as a stream of 96 bits where each character of the ID is simply treated as an ASCII bit string regardless of its type (numeric or alpha).

The bits can be imagined to represent a polynomial in x of the 95th degree where their values represent the co-efficients of the corresponding powers of x. (Eg 101101 represents x5 + x3 + x2 +1). Let this polynomial be the Message polynomial M.

We choose a generator polynomial of degree n, where n is the number of bits desired in the checksum. Call this polynomial G.

We divide G into M*2n to get remainder R using modulo-2 long division.

This remainder R is then subtracted from M*2n again using modulo-2. This gives a polynomial that is guaranteed to be divisible by G.

M*2n - R is the complete frame (message including checksum).

If either the message or the checksum is corrupted in transit, then the checking procedure will find that M'*2n-R' is not divisible by R' and so can report an error.

A wise choice of the generator polynomial can guarantee to catch most errors. The international standard polynomial CRC-12 which is x12 + x11 + x3 + x2 + x + 1 (180F HEX) is proposed. Some advantages of this choice are:

It has been shown that G should ideally have at least three 1s in it. CRC-12 has six.

It has (x+1) as a prime factor. It has been shown that this property enables it to catch all odd numbers of bit errors as well.

Algorithm to calculate the checksum

Initialise a 2-byte register R to zero.
Initialise a 2-byte divisor D to 180F hex (00011000 00001111)
Append 12 bits all equal to zero to the end of the ICP
FOR each bit of the ICP (left to right): DO
Shift that bit into the 20 bit position of R
IF the 212 bit position of R is 1 THEN
R = R XOR D
ENDIF
END
Append R as 3 digit hexadecimal integer to the ICP.

Algorithm to validate the checksum

Remove the last three (hexadecimal) digits of a given Unique ID
Compute and append checksum using Algorithm above.
IF result is equal to given Unique ID THEN
Given customer ID was valid.
ELSE
Given customer ID was invalid.
ENDIF

Intellectual property rights

The method described in this document does not infringe on any Intellectual Property Rights.

Code available

Software is available from the Implementation Team (free of charge) to calculate and validate checksums. The code is available in C / C++ and Unix Command / Perl languages.

Printing the checksum

The checksum should be separated from the ICP by a dash to improve the readability of the number.

The format of the Unique ID is to be as follows:

The UI = (ICP + Checksum)

Where:
UI = yyyyyyyyyyxx-ccc,

And:
ICP {Existing code (yyyyyyyyyy) + network ID (xx)} = yyyyyyyyyyxx.

Sample unique IDs

The following sample unique IDs have been produced using the approach outlined in this paper:

0230994598FDDF1	0230994599FD1B4	0230994600FD301	0230994601FDF44	0230994602FD384
0230994603FDFC1	0230994604FD20B	0230994605FDE4E	0230994606FD28E	0230994607FDECB
0230994608FD115	0230994609FDD50	0230994610FD9AC	0230994611FD5E9	0230994612FD929
0230994613FD56C	0230994614FD8A6	0230994615FD4E3	0230994616FD823	0230994617FD466
0230994618FDBB8	0230994619FD7FD	0230994620FDE54	0230994621FD211	0230994622FDED1
0230994623FD294	0230994624FDF5E	0230994625FD31B	0230994626FDFDB	0230994627FD39E
0230994628FDC40	0230994629FD005	0230994630FD4F9	0230994631FD8BC	0230994632FD47C
0230994633FD839	0230994634FD5F3	0230994635FD9B6	0230994636FD576	0230994637FD933
0230994638FD6ED	0230994639FDAA8	0230994640FD1A4	0230994641FDDE1	0230994642FD121
0230994643FDD64	0230994644FD0AE	0230994645FDCEB	0230994646FD02B	0230994647FDC6E
0230994648FD3B0	0230994649FDFF5	0230994650FDB09	0230994651FD74C	0230994652FDB8C
0230994653FD7C9	0230994654FDA03	0230994655FD646	0230994656FDA86	0230994657FD6C3
0230994658FD91D	0230994659FD558	0230994660FDCF1	0230994661FD0B4	0230994662FDC74
0230994663FD031	0230994664FDDFB	0230994665FD1BE	0230994666FDD7E	0230994667FD13B

0230994668FDEE5	0230994669FD2A0	0230994670FD65C	0230994671FDA19	0230994672FD6D9
0230994673FDA9C	0230994674FD756	0230994675FDB13	0230994676FD7D3	0230994677FDB96
0230994678FD448	0230994679FD80D	0230994680FD64B	0230994681FDA0E	0230994682FD6CE
0230994683FDA8B	0230994684FD741	0230994685FDB04	0230994686FD7C4	0230994687FDB81
0230994688FD45F	0230994689FD81A	0230994690FDCE6	0230994691FD0A3	0230994692FDC63
0230994693FD026	0230994694FDDEC	0230994695FD1A9	0230994696FDD69	0230994697FD12C
0230994698FDEF2	0230994699FD2B7	0230994700FDA05	0230994701FD640	0230994702FDA80
0230994703FD6C5	0230994704FDB0F	0230994705FD74A	0230994706FDB8A	0230994707FD7CF
0230994708FD811	0230994709FD454	0230994710FD0A8	0230994711FDCED	0230994712FD02D
0230994713FDC68	0230994714FD1A2	0230994715FDDE7	0230994716FD127	0230994717FDD62
0230994718FD2BC	0230994719FDEF9	0230994720FD750	0230994721FDB15	0230994722FD7D5
0230994723FDB90	0230994724FD65A	0230994725FDA1F	0230994726FD6DF	0230994727FDA9A
0230994728FD544	0230994729FD901	0230994730FDDFD	0230994731FD1B8	0230994732FDD78
0230994733FD13D	0230994734FDCF7	0230994735FD0B2	0230994736FDC72	0230994737FD037
0230994738FDFE9	0230994739FD3AC	0230994740FD8A0	0230994741FD4E5	0230994742FD825
0230994743FD460	0230994744FD9AA	0230994745FD5EF	0230994746FD92F	0230994747FD56A
0230994748FDAB4	0230994749FD6F1	0230994750FD20D	0230994751FDE48	0230994752FD288
0230994753FDECD	0230994754FD307	0230994755FDF42	0230994756FD382	0230994757FDFC7
0230994758FD019	0230994759FDC5C	0230994760FD5F5	0230994761FD9B0	0230994762FD570
0230994763FD935	0230994764FD4FF	0230994765FD8BA	0230994766FD47A	0230994767FD83F
0230994768FD7E1	0230994769FDBA4	0230994770FDF58	0230994771FD31D	0230994772FDFDD
0230994773FD398	0230994774FDE52	0230994775FD217	0230994776FDED7	0230994777FD292
0230994778FDD4C	0230994779FD109	0230994780FDF4F	0230994781FD30A	0230994782FDFCA
0230994783FD38F	0230994784FDE45			

APPENDIX 2 – ADDRESS POPULATION STANDARDS

Gas Registry project

Address population guidelines

Version number	Release date	Description
1.0	4 Feb	Draft for comment
1.1		Updated for comments received
1.2	8 March 2002	Issued to all participants
2.0	21 June 2002	Total rewrite based on A/NZ addressing standards
3.0	17/06/2008	Adapted for use by Gas Industry Co

Introduction

About this document

This document is a rewrite of the “address population guidelines” based on the A/NZ addressing standards.

Purpose

The purpose of this document is to provide distributors with guidelines on how they should populate the address fields on the registry. The outcome we are seeking to achieve is the consistent population of the fields so that we maximise the chance that users will correctly locate an ICP via the Gas Registry address search function.

A/NZ addressing standard

To obtain a full copy and the background of the standards please go to www.anzlic.org.au.

LINZ who is the facilitator of these standards from the New Zealand perspective have informed us that many of the councils have been active in the development of the standard and that they are eagerly awaiting the standard, and intend including them in contracts they let. Submissions from NZ Post have also been considered in developing the standards.

Best efforts

It is recognised that it may not be possible to adhere 100 per cent to the guidelines as at the initial population of the Gas Registry, but it is expected that distributors will, on a best endeavours basis and where practical, attempt to do so and that over time that they align their address data with these guidelines.

The following sections

The document is broken into three sections:
A/NZ addressing standard for street addressing - This section details the component parts of an address per the A/NZ addressing standards and a definition of each component.

Guidelines for Population of registry address structure – this section details the rules for population of the Gas Registry address fields.

Address population examples.

A/NZ addressing standard for street addressing

Definitions in italics

The definitions below in italics are not extracted directly from the standards document. The standards provide a concise definition for some of the component parts, whereas other parts have an entire section detailing with the component part definition. Where there was a concise definition it has been included, and where not we have attempted to distil the essence of the standard.

> *The reader should refer to the full version of the A/NZ addressing Standards where they require a fuller explanation of an address component. A copy of the standards can be obtained from http://www.anzlic.org.au/icsm/street/*

Urban addressing

Components of urban addresses:
The A/NZ addressing standard dissects an urban address into the following component parts:

- **Address number or address number range** = a number issued by government agency or local government authority that identifies a point or location on a street
- **Road name** = official road name issued by government agency or local government authority.
- **Suburb/locality name** = a bounded locality within a city, town or shire principally of urban character and usually with a focus of a shopping centre, schools or transport facility.
- **Nearest service town/city** = an officially recognised and named population centre, defined within a geographic boundary.

Optional:

- **Sub dwelling number** = identifier for sub dwelling e.g. A, 1, Flat 1, Unit 1, Unit G Apartment 1, etc.
- **Level of sub dwelling** = spatial reference to the sub-dwelling e.g. basement, first floor etc.
- **Property/building name =** name given to the property or building by the owner or party with legal naming rights.
- **Complex name =** name given to the development by the owner of the development e.g. “Central Park” office park in Greenlane
- **Private street name** = is a made up address by a body other than that responsible for the definition of official street names (a corner address is made up of two official street names & therefore by definition a private street name)
- **Utility =** this is a description of something useful e.g. traffic lights, street lights, barbecue, fountain.
- **Postcode** = official postal postcode

Presentation order rules

For presentation purposes, the components of an urban address must be ordered as follows:

- Sub dwelling number;
- Level of sub dwelling;
- Utility;
- Property/building name;

- Private street name;
- Complex name;
- Address number or address number range, road name; and
- Suburb/locality name, nearest service town/city, postcode.

Rural addresses

Rural addressing applies to the addressing of sites, which lie outside the limits of an urban numbering system.
Components of rural addresses
The A/NZ proposed standard dissects a rural address into the following parts:

- **Rural address number** = *a number derived from the distance between a datum point and a property access point e.g.. RAPID No.*
- **Road name** = *official road name issued by government agency or local authority*
- **Locality**
- **Nearest service town/city**

Optional:
- **Postcode**
- **Rural delivery number**
- **Property name (habitation name)**

Presentation order rules
For presentation purposes, the components of a rural address must be ordered as follows:

- Personal details;
- Property name (habitation name);
- Rural address number & road name;
- Locality;
- Rural delivery number; and
- Town/city, postcode.

Guidelines for population of registry address structure

Introduction

The address should uniquely identify the property/installation or device to which gas is or can be supplied. The address is not intended to be a postal address, where possible the address held on the Gas Registry should be formatted to comply with the A/NZ addressing standards, this will improve address search results and matching exercises between various participants databases.

The acid test to be applied when determining whether the address is adequate is… can you precisely locate, without ambiguity, the property/device or installation that is being supplied gas. This means no two commissioned ICPs should have the same address, though in practice this may be difficult to achieve at times e.g. two pumps in a paddock. ICP addresses that fail this test should ideally be cleansed prior to population of the Gas Registry, however recognising that this is not a small task and not always possible we suggest that you where possible flag these ICPs on the Gas Registry as having an “ambiguous address”.

It is recognised that when a user finds the address is ambiguous they will need to contact the distributor who may have additional information that will assist in the identification of the ICP e.g. neighbours' names and details, network plans and maps, and importantly, faultsmen/staff with good memories.

Components of registry address

The ICP address held on the Gas Registry has the following attributes:

Gas Registry address attribute	Characteristics	Optionality
Unit	Text box 20A	Optional
Property name	Text box 75A	Mandatory if street not entered
Number	Text box 25A	Optional
Street	Text box 30A	Mandatory if property name not entered
Suburb	Text box 30A	Mandatory if town not entered
Town	Text box 30A	Mandatory if suburb not entered
Region	Drop down combo 20A	Mandatory. Must be a valid region, see list below.
Post Code	Text box 4N	Optional

Gas Registry address population rules

The table below details how each component part, as defined by the A/NZ addressing standard, of an address should be populated in the Gas Registry.

Note: The order that data is entered in the fields is important.

Gas Registry	A/NZ standard for street addressing

address attribute	
Unit	Sub dwelling number; Level of sub dwelling
Property name	Utility; Property/building name; Private street name; Complex name
Street number	Address number or address number range; rural address Number
Street name	Road name
Suburb	Suburb/locality name; Rural delivery number
Town	Nearest service town/city
Region	
Postcode	Postcode

See Appendix A for some examples

Appellation
Not included the A/NZ standard but another component that needs to be handled is the legal description of a parcel of land i.e. appellation. The appellation is a textual legal description of the parcel of land e.g. Lot 66.

Where only the legal description of the property is known this should be populated in the property name field, as the property/building name.

Field delineators
Ideally where multiple address components are entered into one field they should be delineated by a delineator such as a ";" Commas must not be used in addresses due to the use of CSV files.

Dairy numbers
Dairy farms are often assigned a number by the local dairy company. Where this number is available it should be populated in the "street number" field.

Regions
The purpose of the inclusion of region is to provide an extra segmentation of the country so that a search on an awkward street (e.g. Main Road) or one with only a loose association with a town or suburb will return a manageable number of matching records.
While the list of regions could be larger, the list will be restricted to the list below because the more regions the more boundaries and thus the more ambiguous situations.

The regions are based on phone book areas that are generally known by callers.

- Auckland
- Bay of Plenty
- Canterbury
- Gisborne
- Hawkes Bay
- Manawatu
- Marlborough
- Nelson & Bays

- Northland
- Otago
- Southland
- Taranaki
- Timaru & Oamaru
- Waikato
- Wairarapa
- Wanganui
- Wellington
- West Coast

Case insensitive
The Gas Registry address search function is case insensitive so distributors are free to populate the address fields as all upper case or a mixture or upper and lower.

Change address process
In recognising that the addresses held by distributors are sometimes ambiguous it is critical that distributors establish and clearly communicate the processes that the retailer should follow to obtain clarification of an address and if need be a change of the address details on the Gas Registry. It will be equally important that the retailers then communicate and train their staff in these processes.

Examples of address

Below are a few examples of how various addresses should be populated in the Gas Registry.

Shed 4
Ansett Terminal
Auckland Airport
200 Hope Road
Otara 1234

Unit	Shed 4
Property name	Ansett Terminal; Auckland Airport
Street number	200
Street name	Hope Road
Suburb	
Town	Otara
Region	Auckland
Postcode	1234

Site 10
Outer Road
Paradise Caravan Park
45–67 Smith Street
French Bay

Unit	Site 10
Property name	Outer Road; Paradise Caravan Park
Street number	45–67
Street name	Smith Street
Suburb	
Town	FRENCH BAY
Region	Timaru & Oamaru
Postcode	

Marine Berth 15
Westhaven Marina
36–38 Westhaven Drive
Auckland

Unit	Marine Berth 15
Property name	Westhaven Marina
Street number	36–38
Street name	Westhaven Drive
Suburb	
Town	Auckland
Region	Auckland

Postcode	

Office 2
Graphic Arts Building
O'Briens Walk
Auckland University
55-78 Symonds Street
Auckland

Unit	Office 2
Property name	Graphic Arts Building; O'Briens Walk; Auckland University
Street number	55-78
Street name	Symonds Street
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Suite 16
Level 5
Burnett Building
Park Alley
Northern Private Hospital
580–780 Plenty Road
Auckland

Unit	Suite 16; Level 5
Property name	Burnett Building; Park Alley; Northern Private Hospital
Street number	580–780
Street name	Plenty Road
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Corner address

Unit	
Property name	
Street number	232
Street name	Stafford Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Or where not a street but more a location

Unit	
Property name	Irrigation Pump; Corner of Highway 1 & Lower Hook Rd
Street number	
Street name	Lower Hook Rd *(select the minor of the two roads as it will be easier to find. This field could be left blank if it was deemed of no benefit given the property name description)*
Suburb	
Town	Waimate
Region	Timaru & Oamaru
Postcode	

Unit	
Property name	Timaru Railway Station
Street number	
Street name	Sophia Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Unit	Shop 6; Level 2
Property name	Westfield Shopping Centre
Street number	
Street name	Albert Street
Suburb	
Town	Auckland
Region	Auckland
Postcode	

Unit	Shop W
Property name	Lynnmall Shopping Centre
Street number	
Street name	
Suburb	New Lynn
Town	Auckland
Region	Auckland
Postcode	

Unit	Shop 8
Property name	Royale Arcade
Street number	253

Street name	Stafford Street
Suburb	
Town	Timaru
Region	Timaru & Oamaru
Postcode	

Addresses with no street:

Unit	
Property name	Hut 54; MT Cook National Park
Street number	
Street name	
Suburb	
Town	Mt Cook
Region	West Coast
Postcode	

Unit	
Property name	Streetlighting; Cnr State Highways 1 & 82
Street number	
Street name	
Suburb	
Town	Studholme
Region	Timaru & Oamaru
Postcode	

APPENDIX 3 – PASSWORD STANDARDS

Minimum eight characters.
Must have one alphabetic character.
Must have one numeric digit.
No more than three characters can be the same.
Cannot be part of logon ID. This is implemented as 'No 3 consecutive characters of the password must match 3 consecutive characters in the logon ID.'
Must be composed only of alphanumeric characters (a-z and 0-9).
Is not case sensitive.
Must not contain any sequence of three characters that are in ascending or descending sequence (eg abc, zxy, 123).
Must not contain any three consecutive characters that are part of a common sequence. The implementation defines 'common sequence' as being the strings which form keyboard sequences (ie keys next to each other), for example, qwe, asd, ghj, etc, and the string 'password' (eg 'pas' is not allowed to be part of the password).
The password will expire after 30 days.
Cannot be one of the last five passwords used by the login ID.