

Business Process Design Team

Level 1 Process Diagram

SUBJECT : Customer Switching Scenario 2	
Title:	Dual fuel prepayment domestic customer with SMETS2 metering
TOM Ref:	tom_v2_final_17112015_0
Author	Phil Bryan
Version	1.4
Agreement Date	16/02/2016
Approver	Jenny Boothe

Level 1 – Customer Switching Scenario 2

Brief Description: Customer with smart metering in prepayment mode successfully switches from one supplier to another supplier

Key Scenarios:

- Scenario 2 concerns a dual fuel prepayment domestic customer with SMETS2 metering. Transfer proceeds smoothly with the following scenario assumptions:
 - Customer signs up directly with their chosen supplier rather than through a Third Party Intermediary (TPI)
 - Objection status has been pre-loaded
 - No objection made
 - Customer does not invoke their right to cancel within the cooling-off period
 - Opening and closing meter readings are obtained from the meter
 - No export metering
 - No auxiliary load control
 - Switch is dual fuel to dual fuel
 - No change of tenancy
 - No related MPANs
 - No change of meter point administration detail
 - No change in Data Aggregator
 - Supplier will select agents to appoint based on their individual contractual arrangements – i.e. the agents may or may not change

Actors

- Customer
- Supplier A – Losing Supplier
- Supplier B – Gaining Supplier
- Registration Agent
- Supplier Agents (MOP, MAM, DC, DA, Shipper)
- Network Operators (gas and electricity)
- Data Communications Company (DCC)

Level 1 – Customer Switching Scenario 2

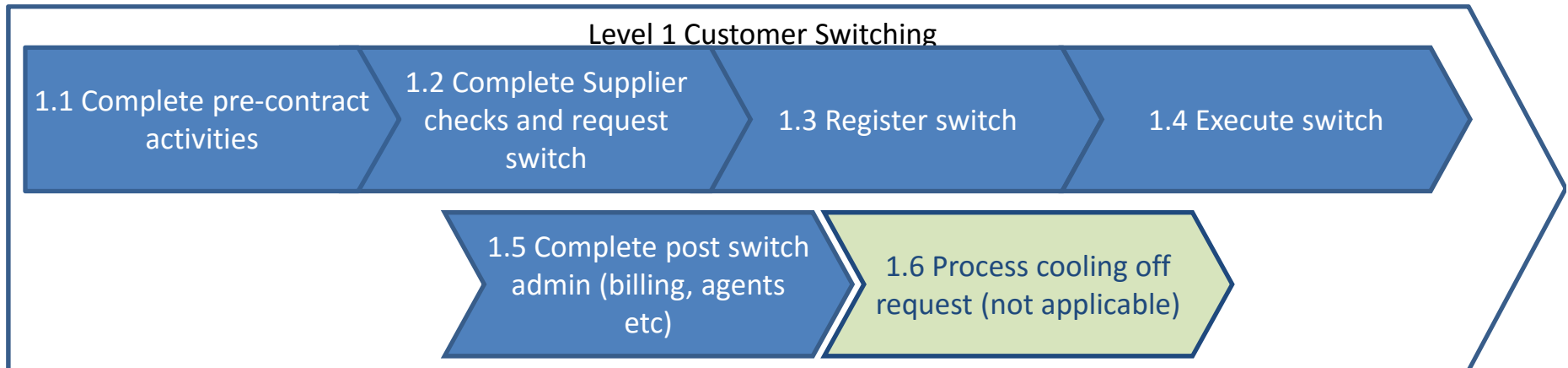
Preconditions

- Customer
 - Has elected to switch supplier and has selected a potential switch date, payment method (prepayment) and tariff with their chosen supplier
 - Has no debt to be assigned between suppliers

Post Conditions

- Customer
 - Enters into new contract with Gaining Supplier
 - Smart meter tariff etc updated and visible on meter
 - Closing statement (which may include a bill) received from Supplier A and any credit balance is refunded
 - Opening statement (which may include a bill) received from Supplier B
 - Top-up instructions received
 - Prepayment metering configured and customer can vend and top-up balance is displayed
- Gaining Supplier
 - Smart meters communications enabled
 - Opening reads captured
 - Supplier agents and shipper (gas) selected
 - Internal systems updated
 - Internal systems and metering configured customer can vend and top-up balance is displayed
 - Accurate opening statement issued (which may include a bill)
- Losing Supplier
 - Accurate final statement issued (which may include a bill)
- Supplier Agents
 - Supplier Agents selected
 - Internal systems updated with meter technical details and invoicing details
- Network Operators
 - Notification of switch received (supplier / shipper)
 - Opening read recorded and processed (gas only)
- Registration Agent
 - CRS data updated
- Data Communications Company (DCC)
 - Access control records updated

Level 1 – Customer Switching – Scenario 2



Notes for 1.1:

Notes for 1.2 :

- Includes credit and debt checks

Notes for 1.3 :

- Registration validation and notifications

Notes for 1.4 :

Notes for 1.5 :

- Includes agent appointments

Notes for 1.6:

- Customer does not invoke their right to cancel within the cooling-off period

Business Process Design Team

Level 2 Process Diagram

SUBJECT : Customer Switching Scenario 2

Title:	Dual fuel prepayment domestic customer with SMETS2 metering
TOM Ref:	tom_v2_final_17112015_0
Author	Phil Bryan
Version	1.3
Agreement Date	16/02/2016
Approver	Jenny Boothe

Level 2 – Customer Switching – Scenario 2

Title: 1.1 Complete pre contract activities

Brief Description:

Customer successfully agrees contractual terms to switch from Supplier A to Supplier B

Key Scenarios

- Scenario 2 is a dual fuel domestic customer with SMETS2 prepayment meter
- Customer has no debt to be assigned between suppliers

Actors

- Customer
- Supplier B – Gaining Supplier

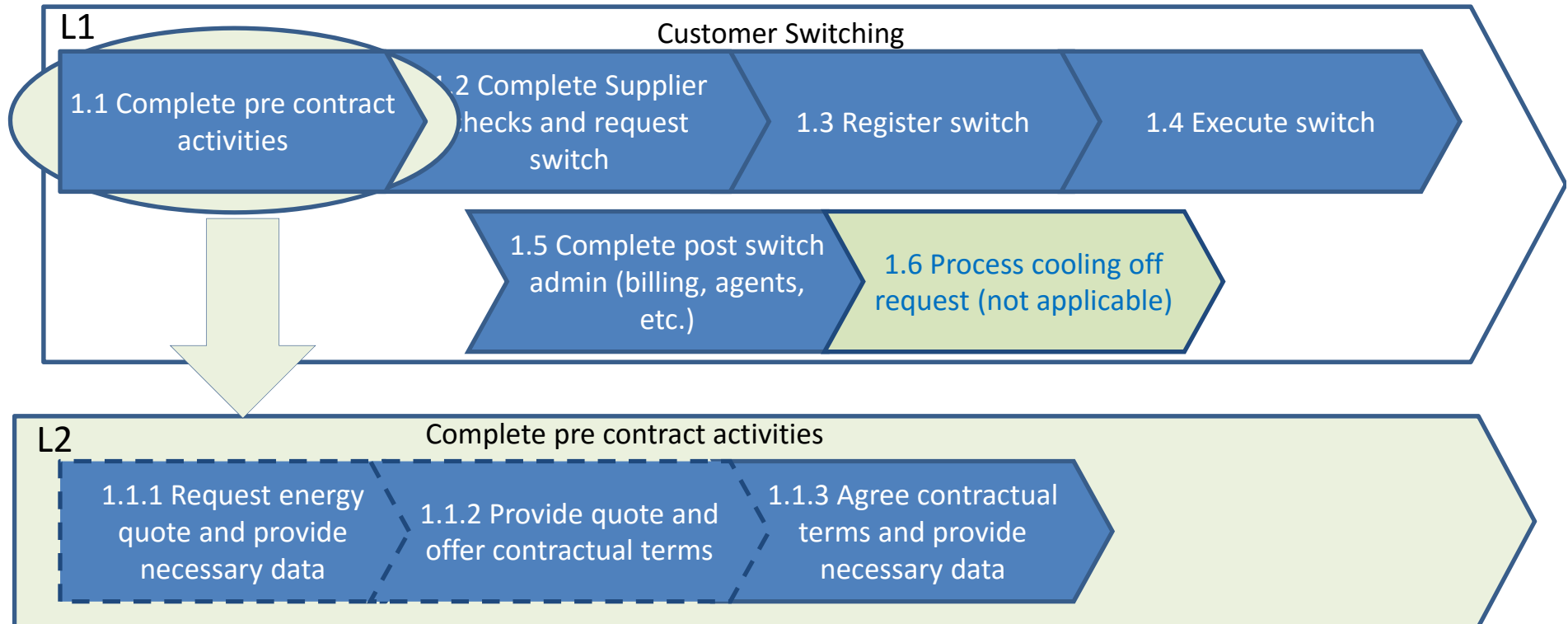
Preconditions

- Customer
 - Has elected to switch supplier and has selected a potential switch date, payment method (prepayment) and tariff with their chosen supplier
 - Has no debt to be assigned between suppliers

Post Conditions

- Customer
 - Contractual terms agreed to switch supplier

Level 2 – Customer Switching – Scenario 2



Notes :

- A dashed line indicates actions that are optional but that individual actors may undertake as part of their internal processes. These steps have been included to provide context to activities prescribed by the switching arrangements.

Level 2 – Customer Switching – Scenario 2

Title: 1.2 Complete Supplier checks and request switch

Brief Description:

- Supplier B carries out any validation of customer contract data and sends the registration request

Key Scenarios

- Scenario 2 is a dual fuel domestic customer with SMETS2 prepayment meter
- Customer has no debt to be assigned between suppliers

Actors

- Customer
- Supplier B – Gaining Supplier
- Registration Agent

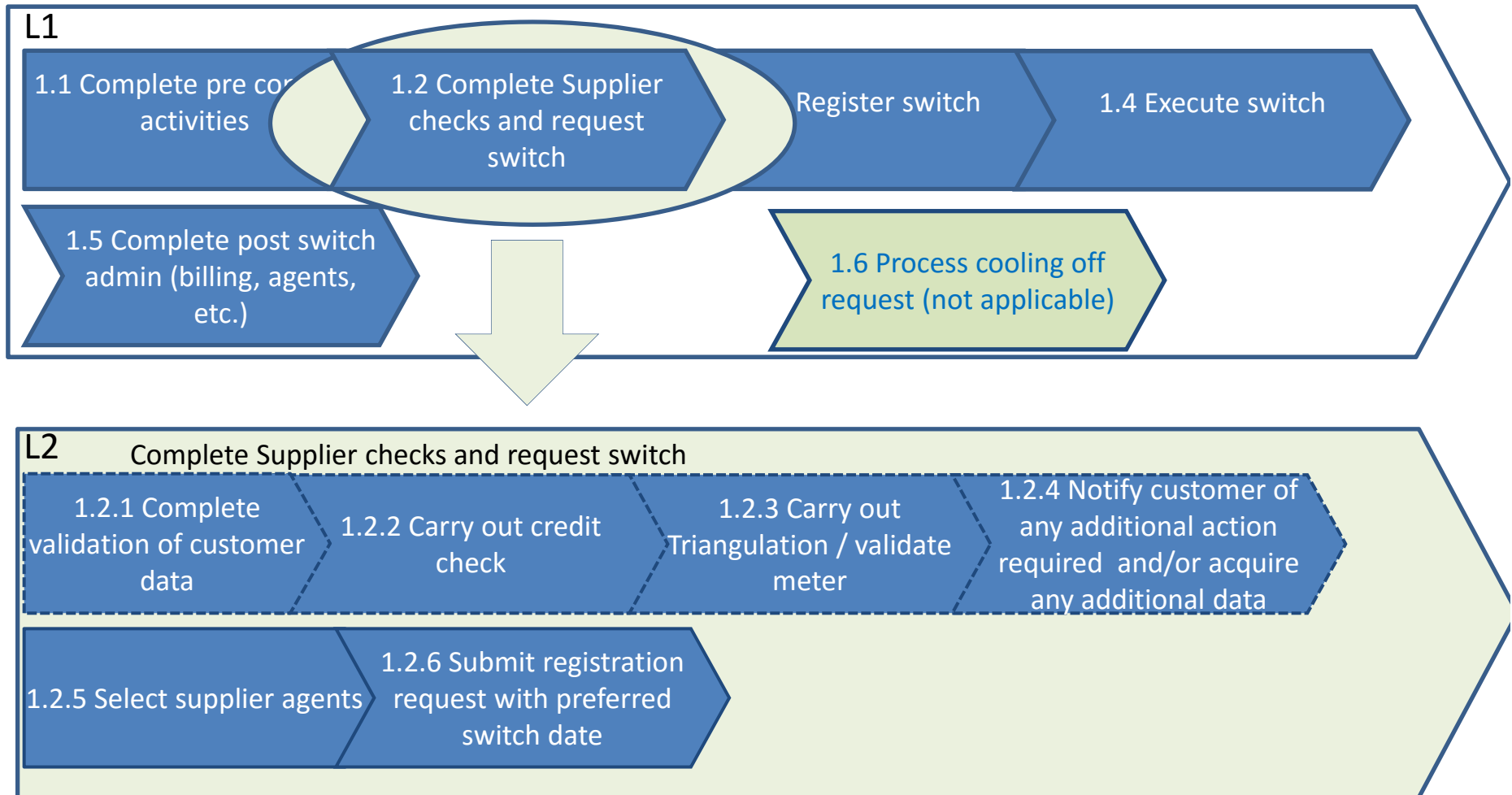
Preconditions

- Customer has entered a contract with Supplier B

Post Conditions

- Gaining Supplier
 - Any internal validation or credit check process successfully completed
 - All required information gained from customer or elsewhere
 - Shipper in place
 - Supplier agents selected
 - Registration request submitted

Level 2 – Customer Switching – Scenario 2



Notes :

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Level 2 – Customer Switching – Scenario 2

Title: 1.3 Register switch

Brief Description:

- Registration Agent validates and accepts the switching request as pending and notifies relevant parties of the switch date, and the supplier agents selected by the Gaining Supplier

Key Scenarios

- Scenario 2 is a dual fuel domestic customer with SMETS2 prepayment meter
- Customer has no debt to be assigned between suppliers

Actors

- Supplier A – Losing Supplier
- Supplier B – Gaining Supplier
- Registration Agent
- Supplier Agents (Shipper)
- Network Operator

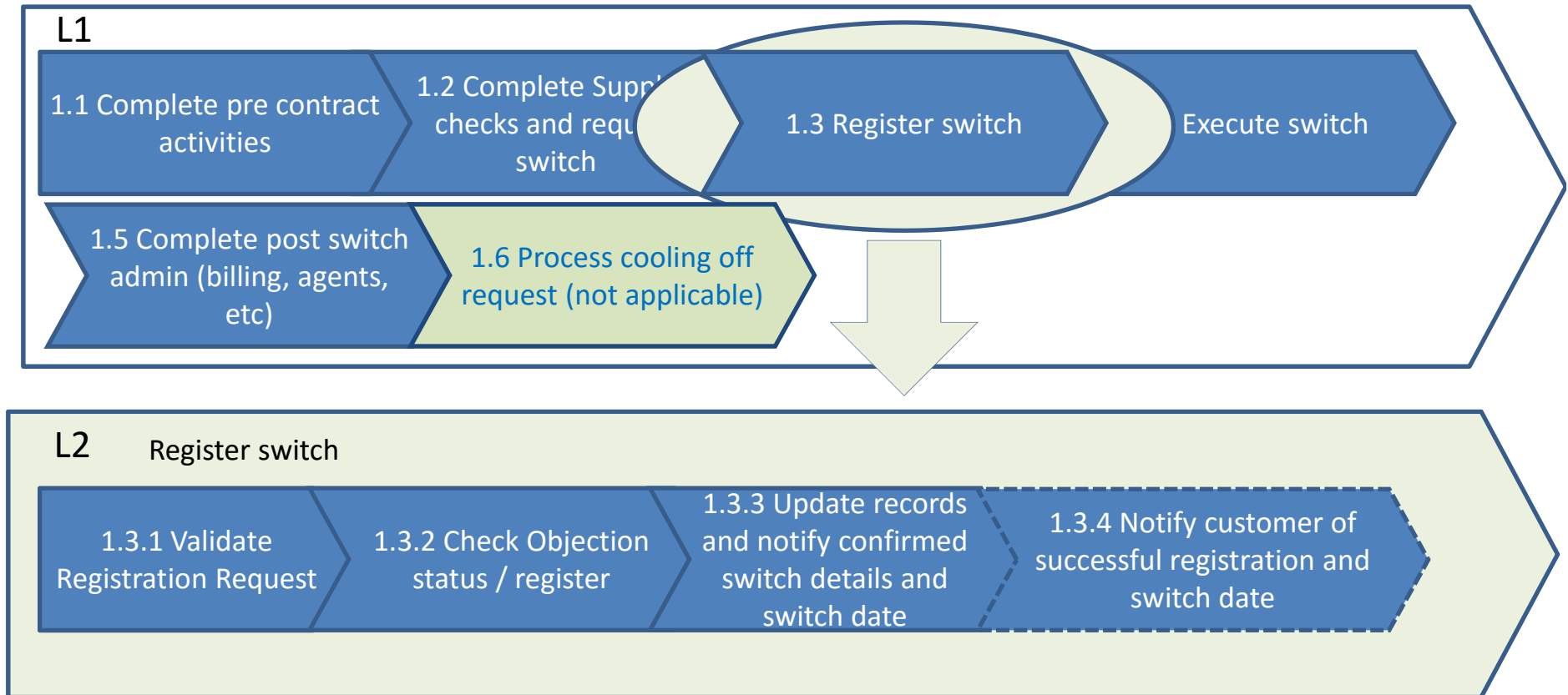
Preconditions

- Customer has entered a contract with Supplier B who has sent a switching request to the Registration Agent
- Supplier agents have been validated by the Registration Agent

Post Conditions

- Customer
 - Notification of switch and switch date received
 - Top-up instructions received
 - Leaving communication received from Losing Supplier
- Gaining Supplier
 - Notification of confirmed switch and switch date have been received and records have been updated
 - Top-up instructions issued to customer
- Losing Supplier
 - Notification of confirmed switch and switch date have been received and records have been updated
 - Leaving communication sent to Customer
- Registration Agent
 - Confirmed Gaining Supplier and switch date updated in supply point register and notified to parties
 - Validated the Supplier Agent's identity and updated its records
- Gaining Shipper
 - Notification of confirmed switch and switch date have been received and records have been updated
- Losing Shipper
 - Notification of confirmed switch and switch date have been received and records have been updated
- Network Operator
 - Notification of confirmed switch and switch date received
 - Invoicing details updated (supplier / shipper)
- Supplier Agents
 - Supplier Agents notified by the Gaining Supplier

Level 2 – Customer Switching – Scenario 2



Notes :

- A dashed line indicates actions that are optional but that individual actors may undertake as part of their internal processes. These steps have been included to provide context to activities prescribed by the switching arrangements.

Level 2 – Customer Switching – Scenario 2

Title: 1.4 Execute switch

Brief Description:

- Gaining and Losing Supplier execute switching activity once notification of an accepted switch is received from Registration Agent

Key Scenarios

- Scenario 2 is a dual fuel domestic customer with SMETS2 prepayment meter
- Customer has no debt to be assigned between suppliers

Actors

- Customer
- Supplier A – Losing Supplier
- Supplier B – Gaining Supplier
- Data Communications Company (DCC)
- Network Operators (gas and elec)
- Registration Agent

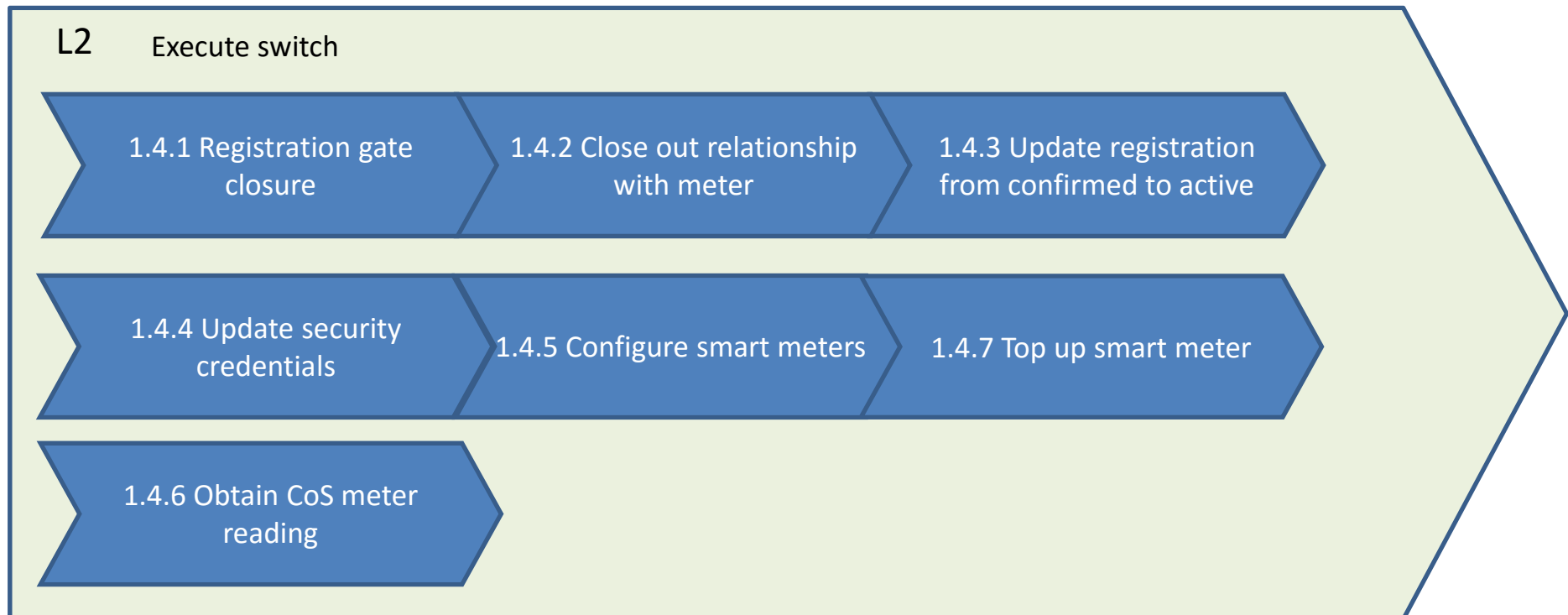
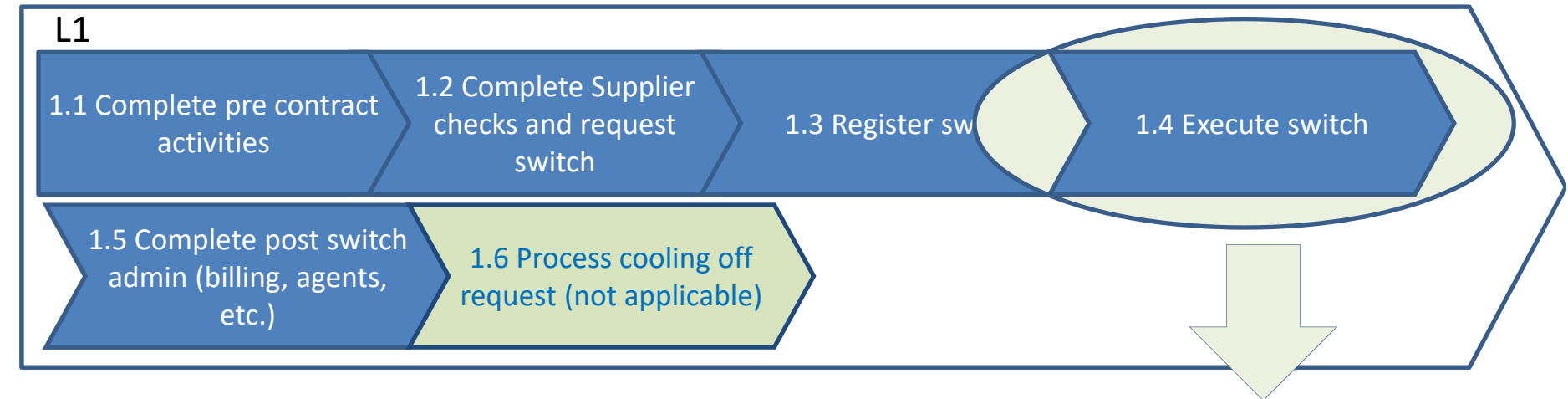
Preconditions

- Registration request has been validated and accepted with no objection by the Losing Supplier and notification of a confirmed registration has been sent to relevant parties by the Registration Agent
- Supplier agents selected by the Gaining Supplier

Post Conditions

- Customer
 - Gaining Supplier and tariff, etc. are displayed on the smart meter
 - Prepayment credit balance is displayed on the smart meter
 - Customer able to top up
- Gaining Supplier
 - Data communications to smart meter active
 - Change of Supplier Meter Reading obtained
- Losing Supplier
 - Relationship ended with smart meter
 - Change of Supplier Meter Reading obtained
- DCC
 - Access control records updated
- Registration Agent
 - Registration gate closure – i.e. the final point at which a registration request may be withdrawn, has passed
 - New registration updated from confirmed to active

Level 2 – Customer Switching – Scenario 2



Level 2 – Customer Switching – Scenario 2

Title: 1.5 Complete post switch admin (billing, agents, etc)

Brief Description:

- Parties complete post switch admin to facilitate billing the customer and completion of the switch from Supplier A to Supplier B

Key Scenarios

- Scenario 2 is a dual fuel domestic customer with SMETS2 prepayment meter
- Customer has no debt to be assigned between suppliers

Actors

- Customer
- Supplier A – Losing Supplier
- Supplier B – Gaining Supplier
- Registration Agent
- Supplier Agents (MOP, MAM, MAP, DC, DA)
- Data Communications Company (DCC)
- Network Operators (gas and elec)

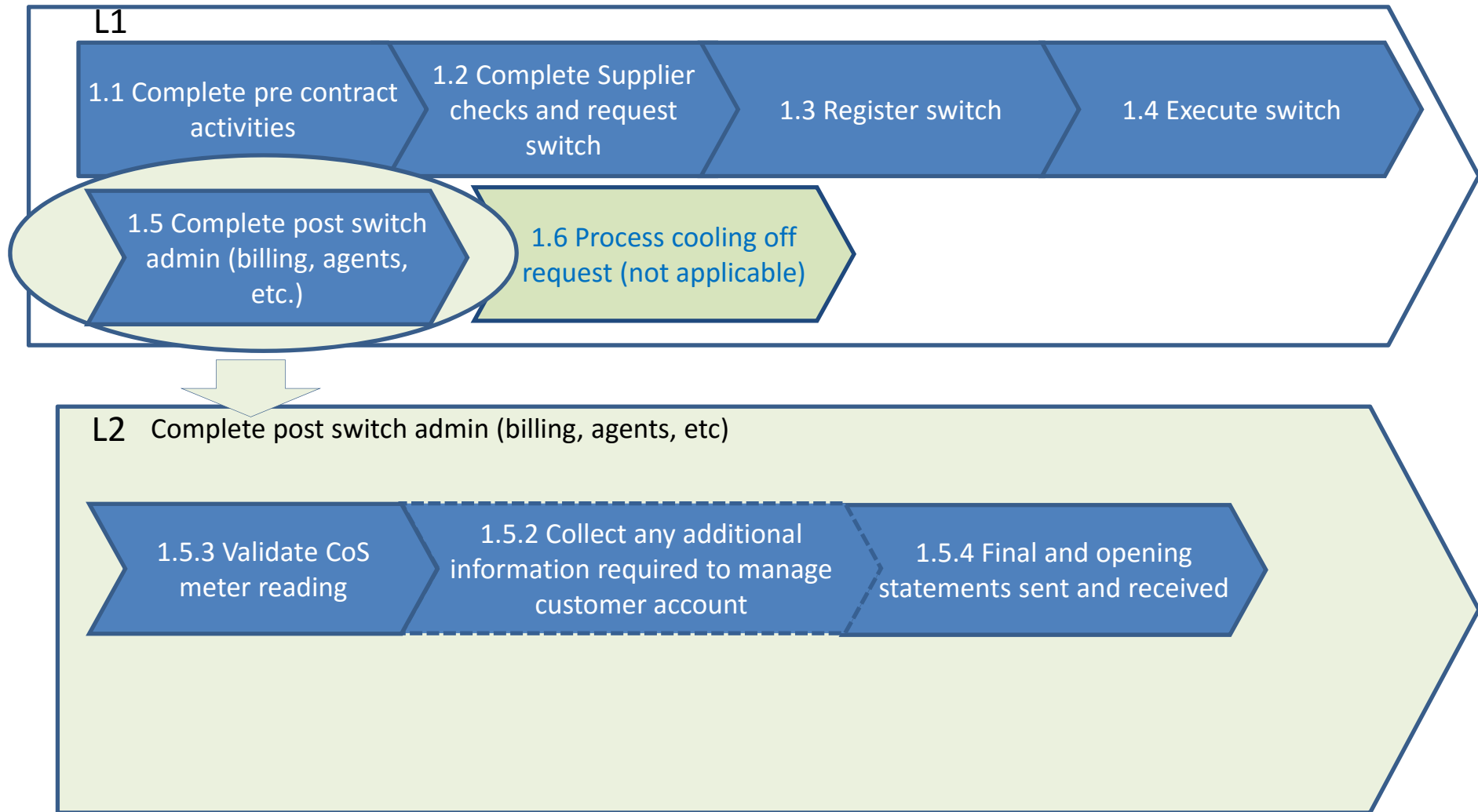
Preconditions

- Switch date has passed and Gaining Supplier has configured meter

Post Conditions

- Customer
 - Closing statements received from Supplier A (which may include a bill) and any credit balance is refunded
 - Opening statement received from Supplier B (which may include a bill)
- Gaining Supplier
 - Supplier agents selected
 - Internal systems updated
 - Accurate opening statement sent
- Losing Supplier
 - Accurate final statement issued
- Supplier Agents (MOP, MAM, DC, DA)
 - Internal systems updated with MTD, consumption data invoicing details and opening meter read captured (electricity only)
- Network Operator
 - Opening read recorded and processed (gas only)

Level 2 – Customer Switching – Scenario 2



Notes :

- A dashed line indicates actions that are optional but that individual actors may undertake as part of their internal processes. These steps have been included to provide context to activities prescribed by the switching arrangements.

Business Process Design Team

Customer Switching –

Process Mapping Conventions

SUBJECT: Level 3 Process Mapping Conventions

TOM Ref:	
Author	Kevin Mettam
Version	0.3
Agreement Date	
Approver	

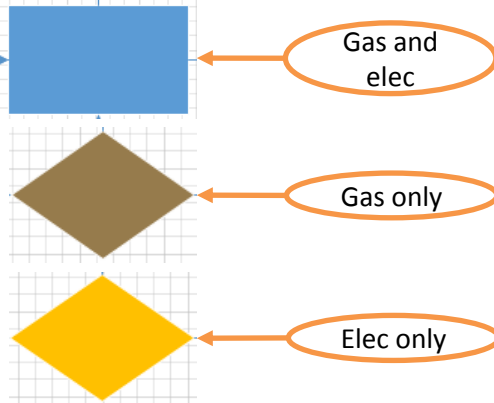
Customer Switching – Process Mapping Conventions

Brief Description

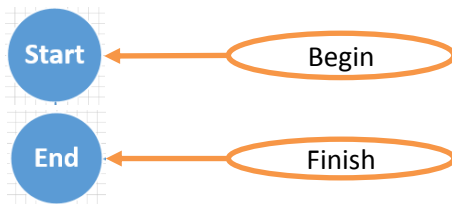
This document sets out the conventions adopted within the Business Process Design Level 3 Process Maps. The actions shown in the TPI, Supplier (old and new) and customer swim lanes are deliberately generic. We recognise that individual actors will wish to design their internal processes to meet their specific business requirements. The generic processes are included to provide context to activities that will be prescribed by the switching arrangements.

Symbol Legend

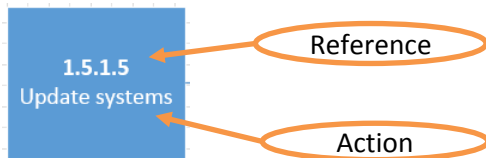
- Colour – The colour of a Rectangle or Diamond can indicate the fuel type that has an association to the action or decision



- Circle – Indicates where to begin and a finishing point of the process



- Rectangle – Indicates a process, task, action, or operation. Text in the rectangle should include a verb



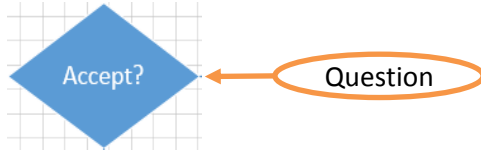
Customer Switching – Process Mapping Conventions

Symbol Legend

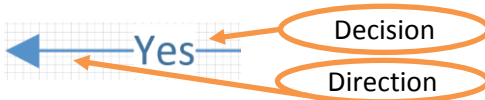
- Rectangle (shadow) – Indicates a process that requires more than one actor from the same actor type. For example both old and new Data Collector

1.5.3.4
DCs validate CoS
meter readings
against relevant
criteria

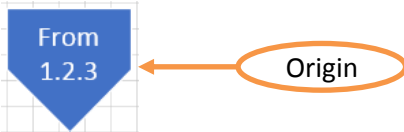
- Diamond – Indicates a decision or choice that is required



- Connector – Indicates the direction that the process flows. If the connector originates from a Diamond (decision), it will include text to indicate the different 'Yes' or 'No' option



- Connect Shape – Used in conjunction with connections, indicates a continuation of a process from/to another page or if necessary the same page



- Clock – Indicates a time constraint relevant to a process



Customer Switching – Process Mapping Conventions

Swim Lane Legend

(order of appearance is relative to ALL Level 3 diagrams)

- TPI



- Third Party Intermediaries include switching websites, energy brokers and energy efficiency advice providers who interact with energy customers

- Old Supplier



- The supplier that is losing the right to supply gas and/or electricity at a supply point

- Customer



- The person(s) contracting with a supplier in relation to the supply of gas and/or electricity at a supply point

- New Supplier



- The supplier that is taking over the supply of gas and/or electricity at a supply point

Customer Switching – Process Mapping Conventions

Swim Lane Legend

- Registration Service

Registration
Service

- CRS – Centralised Registration Service is a future service to be procured and run by the DCC to facilitate switching at gas and electricity premises, designed to be used by authorised users and will also support the provision of on-line data enquiry services to defined market participants in relation to the switching process

- Supplier Agents

(the actions that appear in this swim lane do not refer to ALL supplier agents – please refer to the specific description)

Supplier
Agents

- MOP – Meter Operator is responsible for installing and maintaining electricity meters
- MAM – Meter Asset Manager is responsible for installing and maintaining gas meters
- MAP – Meter Asset Provider owns and leases metering equipment to suppliers and consumers
- DC - Data Collector is appointed by suppliers to retrieve and validate metering data and forward it to the Data Aggregator
- DA – Data Aggregator is involved in the electricity settlement process, appointed by a supplier to package up consumption data
- Shipper - Gas Shipper arranges for gas to be delivered across a Gas Transporters network on behalf of its contracted Gas Supplier

- DCC

DCC

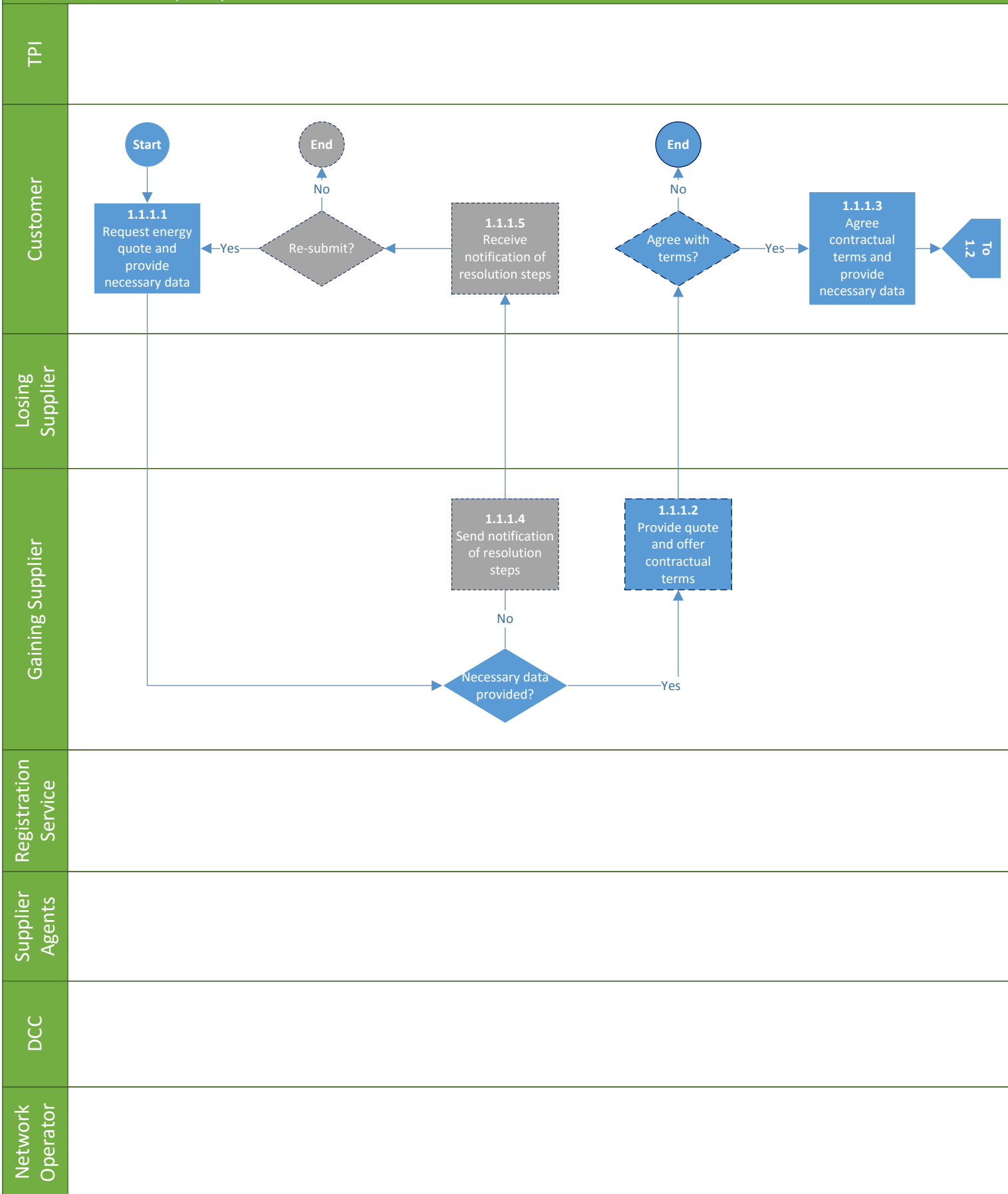
- Manages the data and communications network to connect smart meters to the business systems of energy suppliers, network operators and other authorised service users of the network

- Network Operator

Network
Operator

- DNO - Distribution Network Operators own and operate the distribution network that brings electricity from the national transmission network to customers
- iDNO – Independent Distribution Network Operators own and operate local electricity networks that deliver electricity to consumers
- GT – Gas Transporters own and operate the distribution network that brings gas from the national transmission network to customers
- iGT – Independent Gas Transporters own and operate local gas networks that deliver gas to consumers

1.1.1,1.1.2,1.1.3 Complete pre contract activities



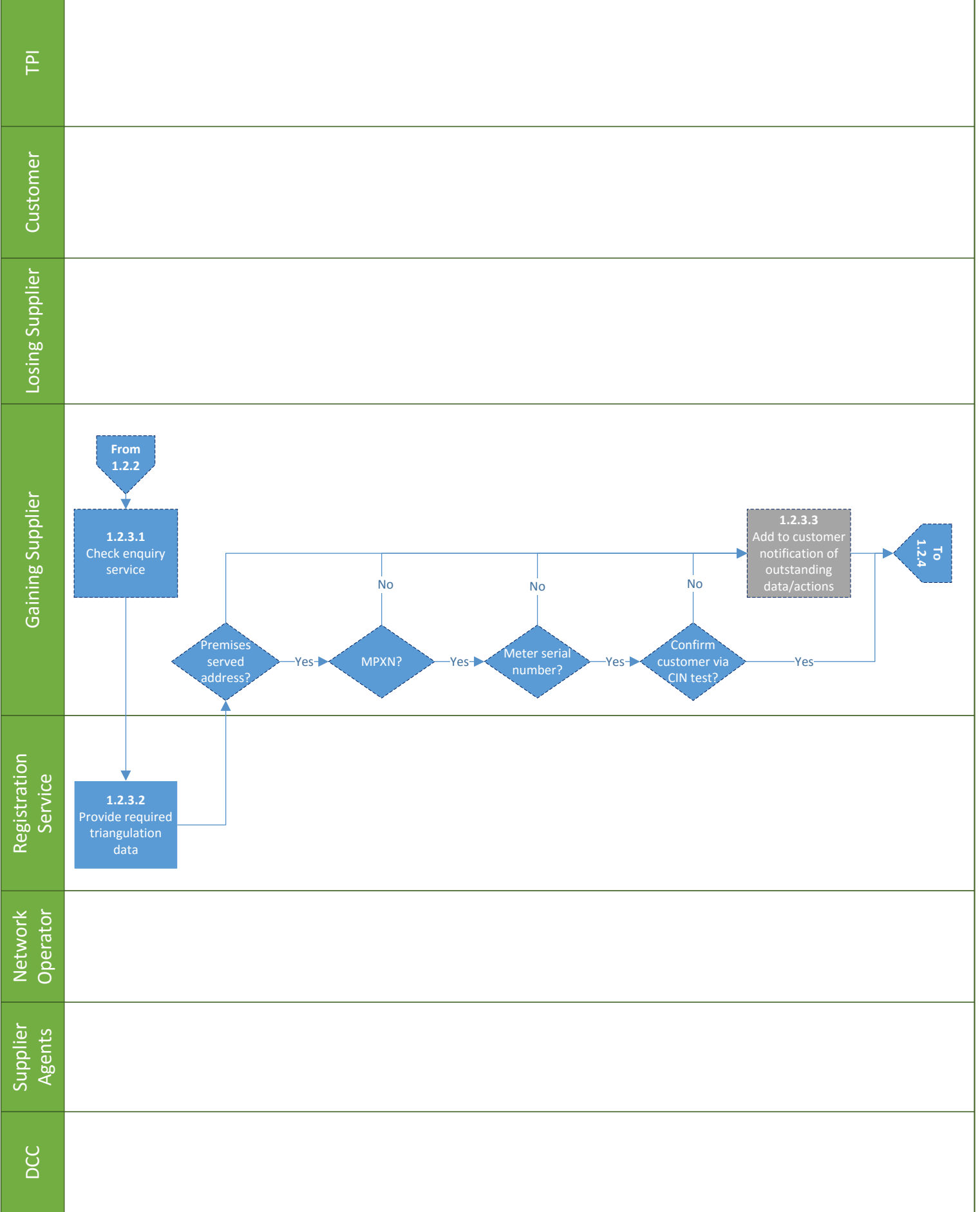
1.2.1 Complete validation of customer data

TPI	
Customer	
Losing Supplier	
Gaining Supplier	<pre> graph TD Start([From 1.1.1]) --> Process[1.2.1.1 Complete validation of customer data] Process --> Dec1{MPXN or address provided?} Dec1 -- Yes --> Dec2{Switch date feasible?} Dec1 -- No --> Process2[1.2.1.2 Add to customer notification of outstanding data/actions] Dec2 -- Yes --> Dec3{Other information valid?} Dec2 -- No --> Process2 Dec3 -- Yes --> End([To 1.2.2]) Dec3 -- No --> Process2 Process2 --> End </pre>
Registration Service	
Network Operator	
Supplier Agents	
DCC	

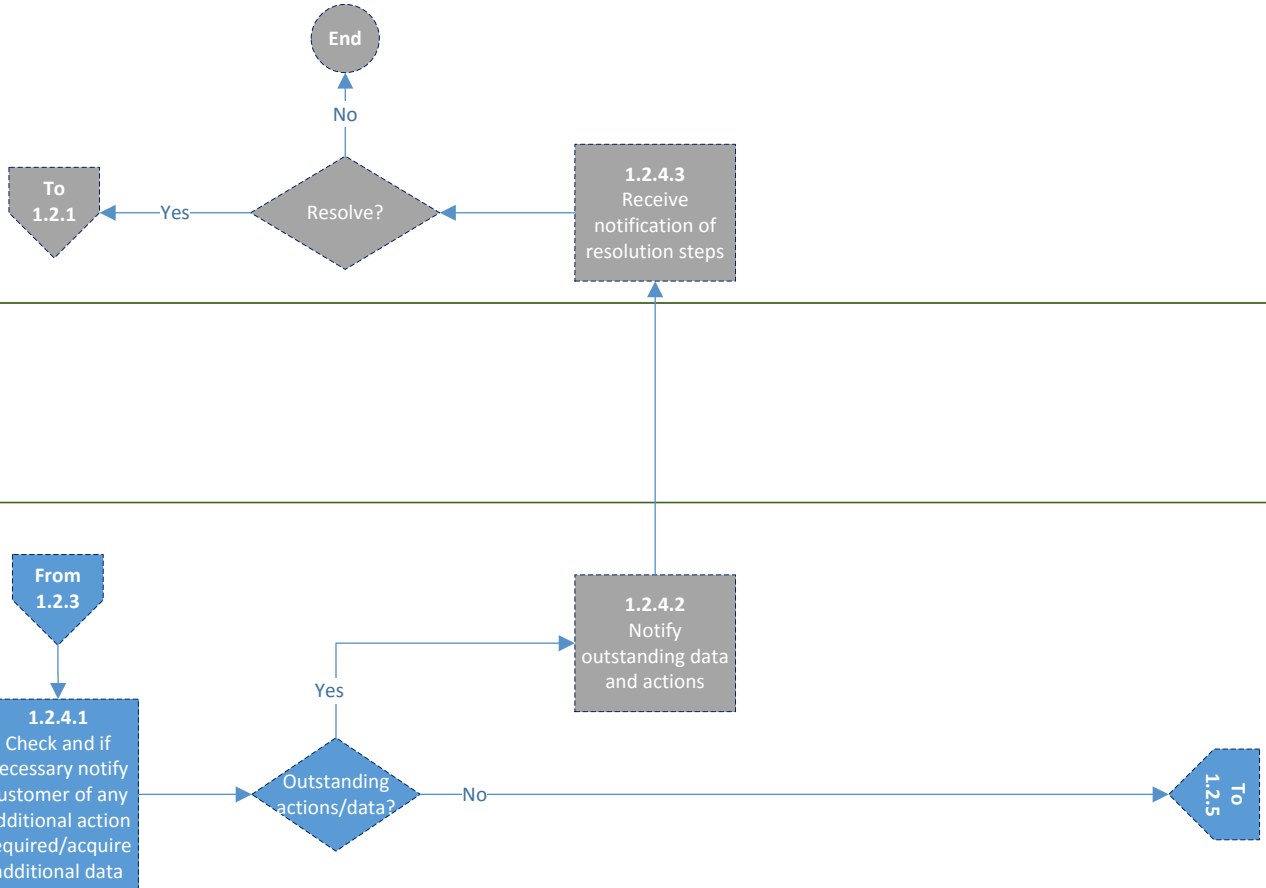
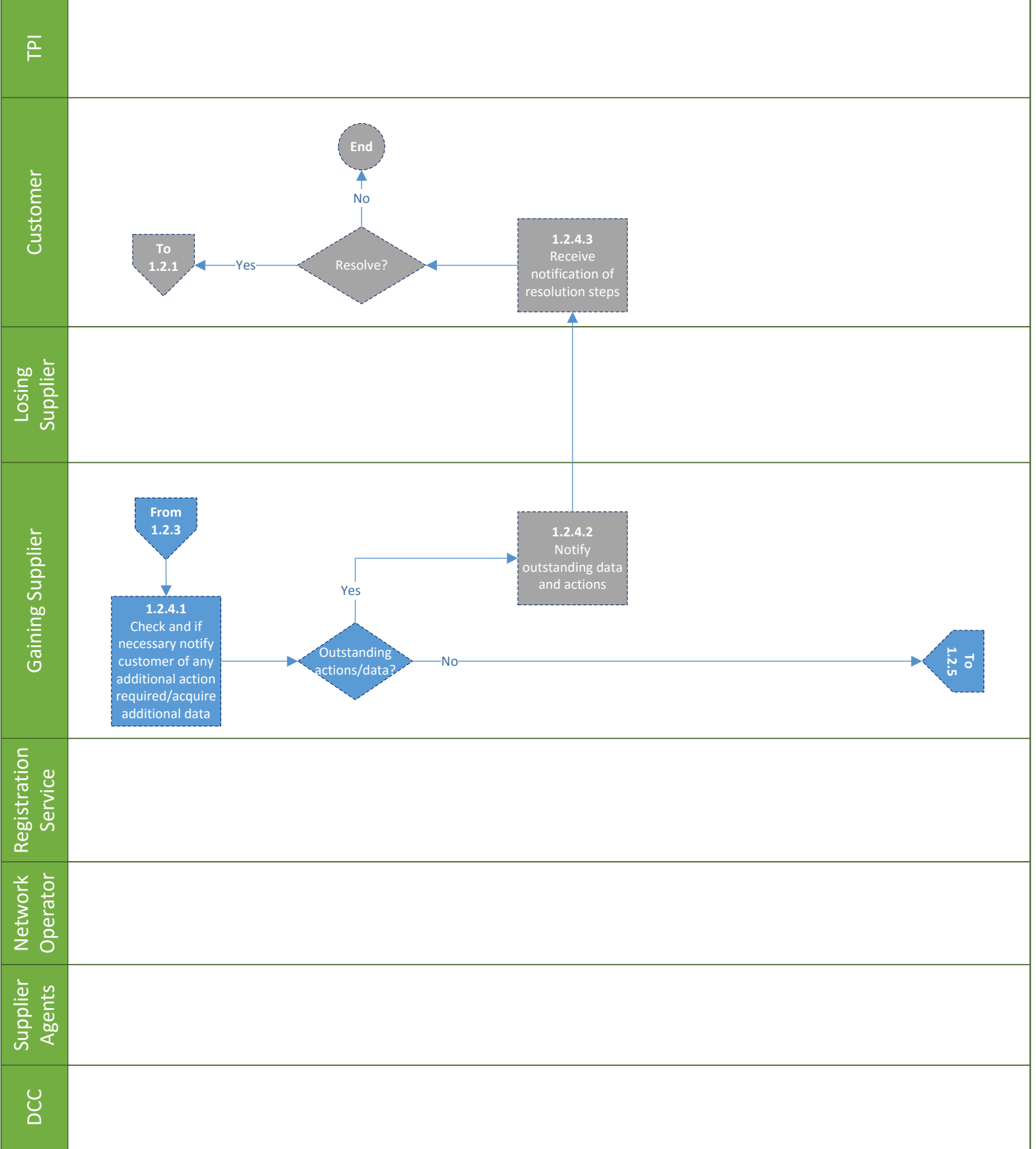
1.2.2 Carry out credit check

TPI	
Customer	
Losing Supplier	
Gaining Supplier	<pre> graph LR Start([From 1.2.1]) --> Process1[1.2.2.1 Carry out credit check] Process1 --> Decision{Meet credit criteria?} Decision -- No --> Process2[1.2.2.2 Prepare credit report] Decision -- Yes --> Process3[1.2.2.3 Add to customer notification of outstanding data/actions] Process2 --> Process3 Process3 --> End([To 1.2.3]) </pre>
Registration Service	
Network Operator	
Supplier Agents	
DCC	

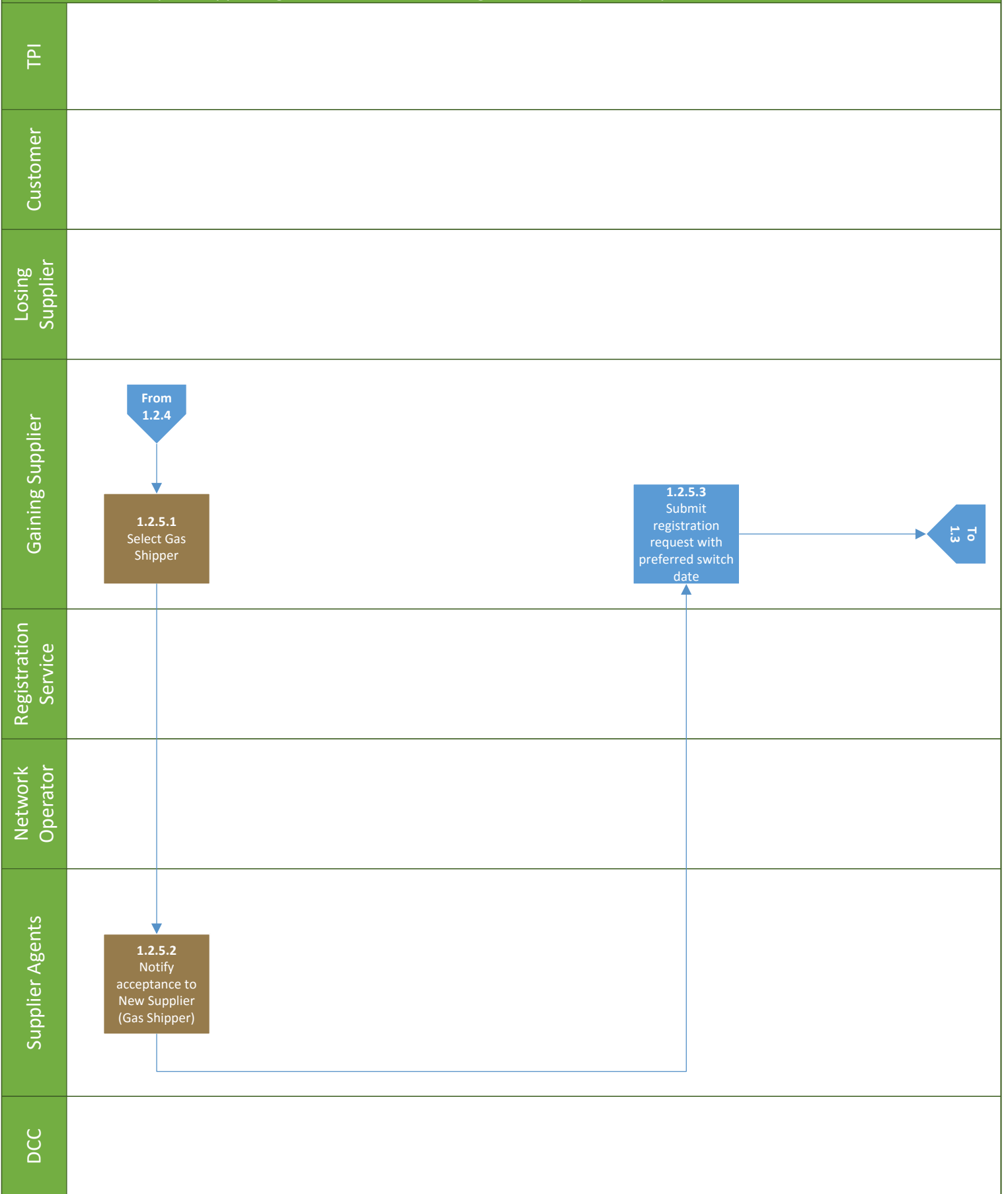
1.2.3 Carry out Triangulation / validate meter



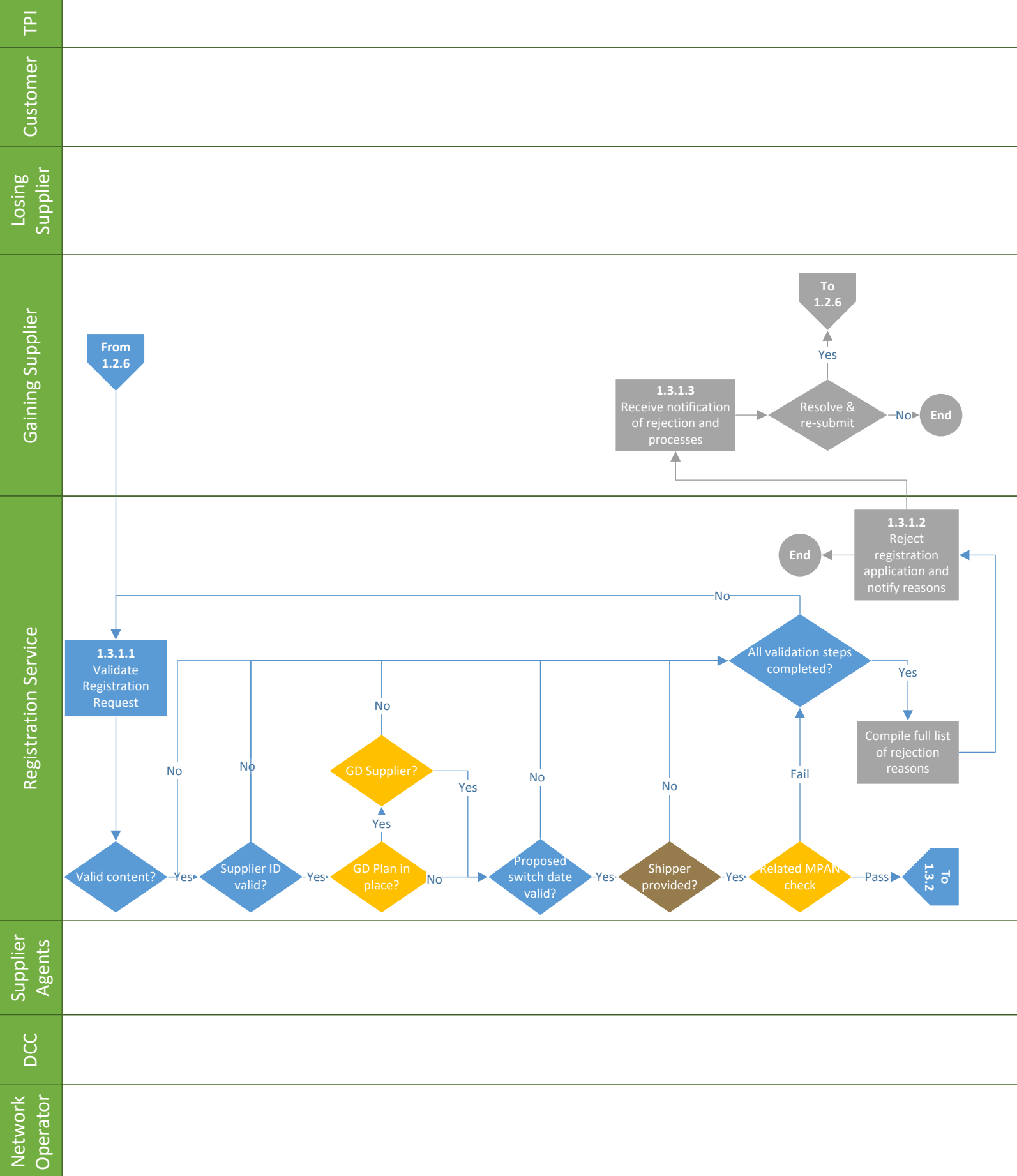
1.2.4 Notify customer of any additional action required and/or acquire any additional data



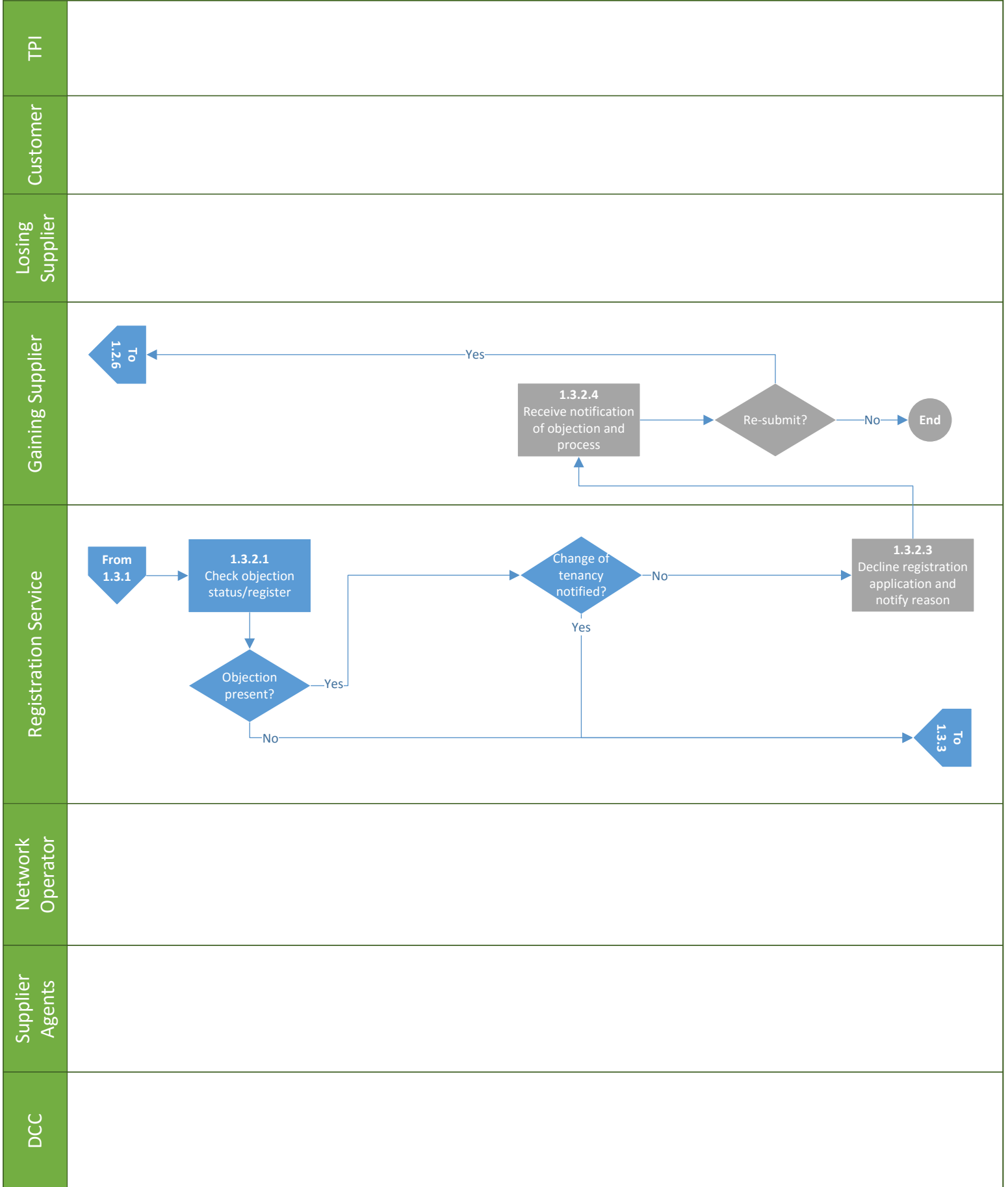
1.2.5 Select critical path supplier agents and 1.2.6 Submit registration request with preferred switch date



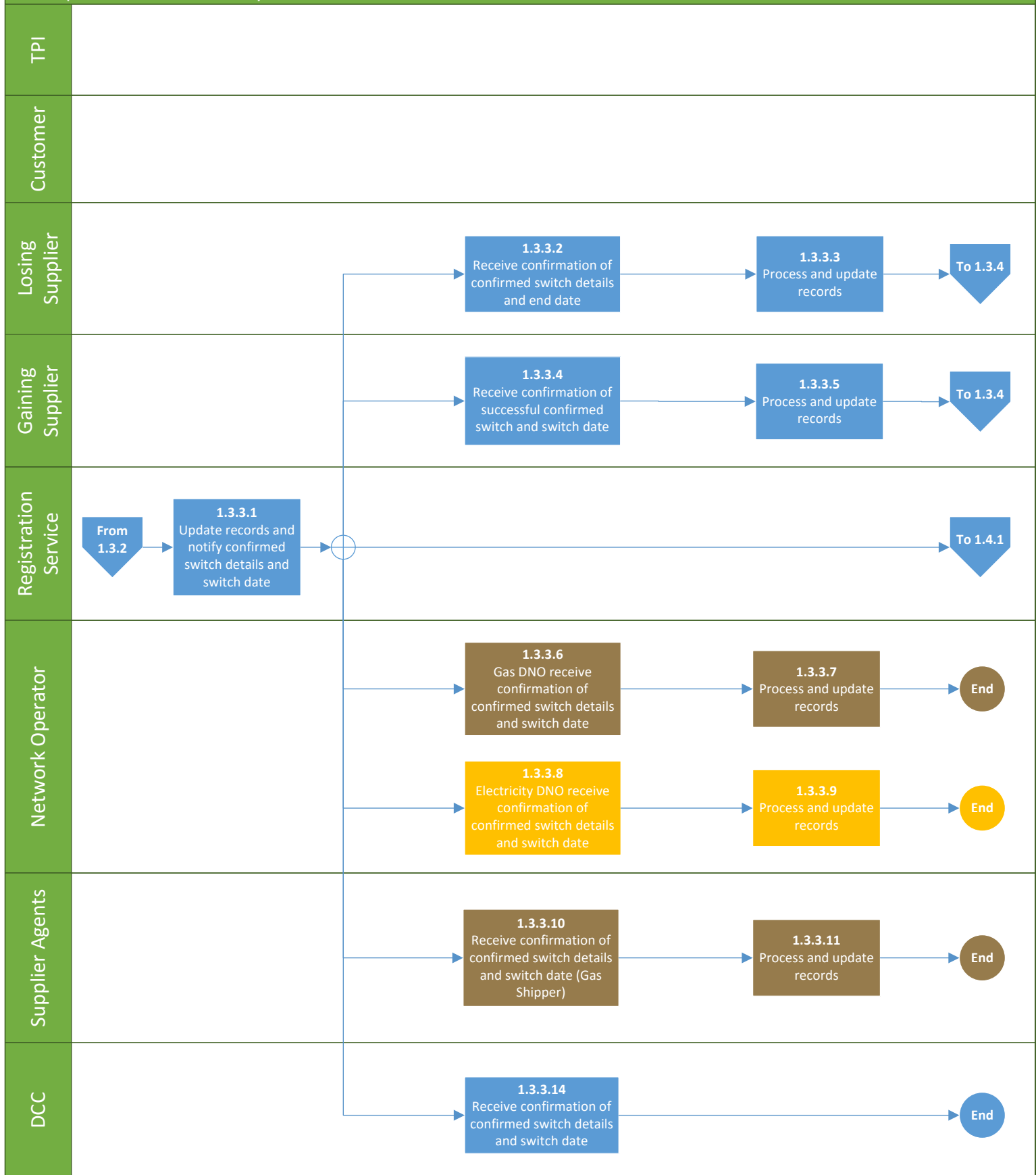
1.3.1 Validate Registration Request



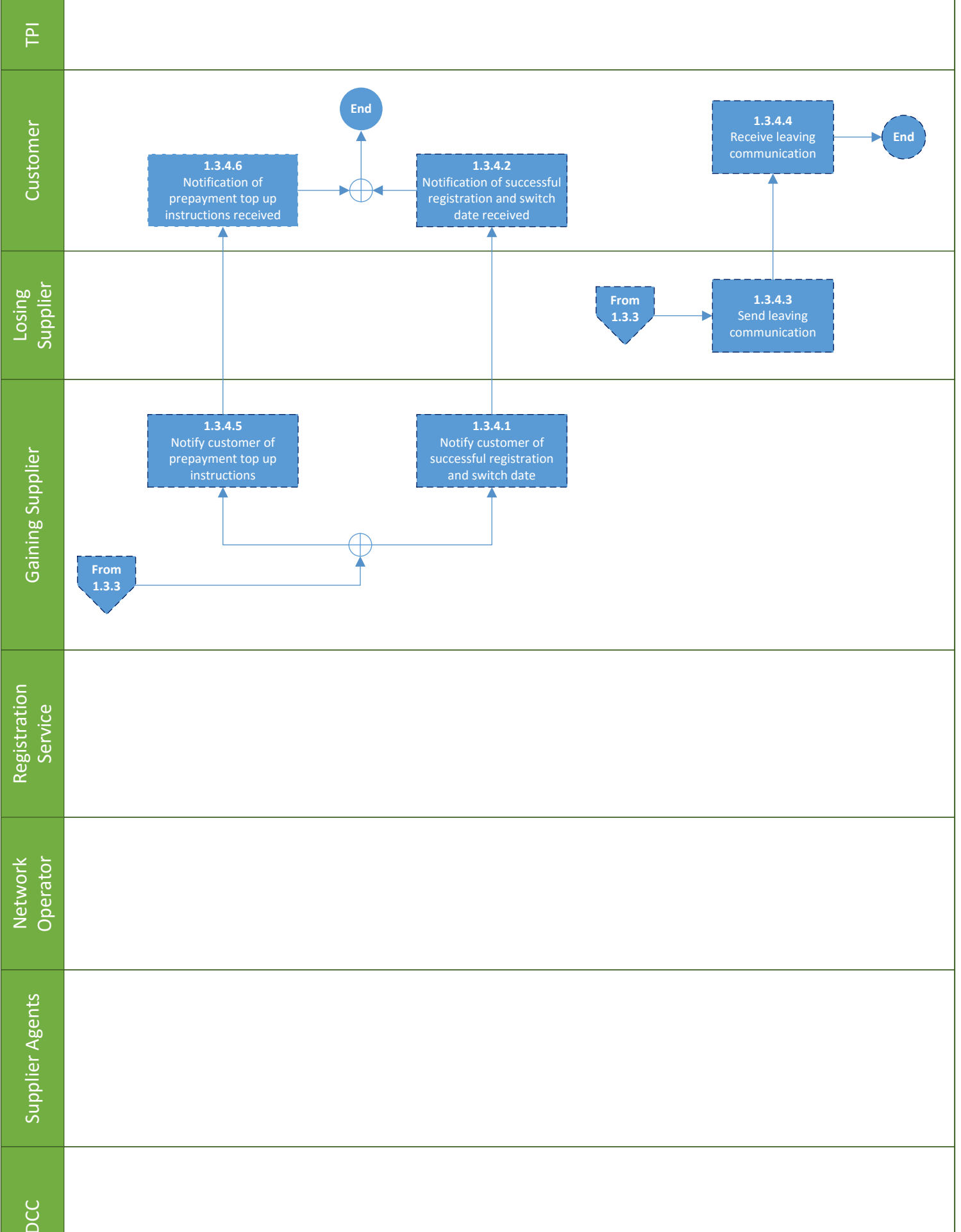
1.3.2 Check objection status / register



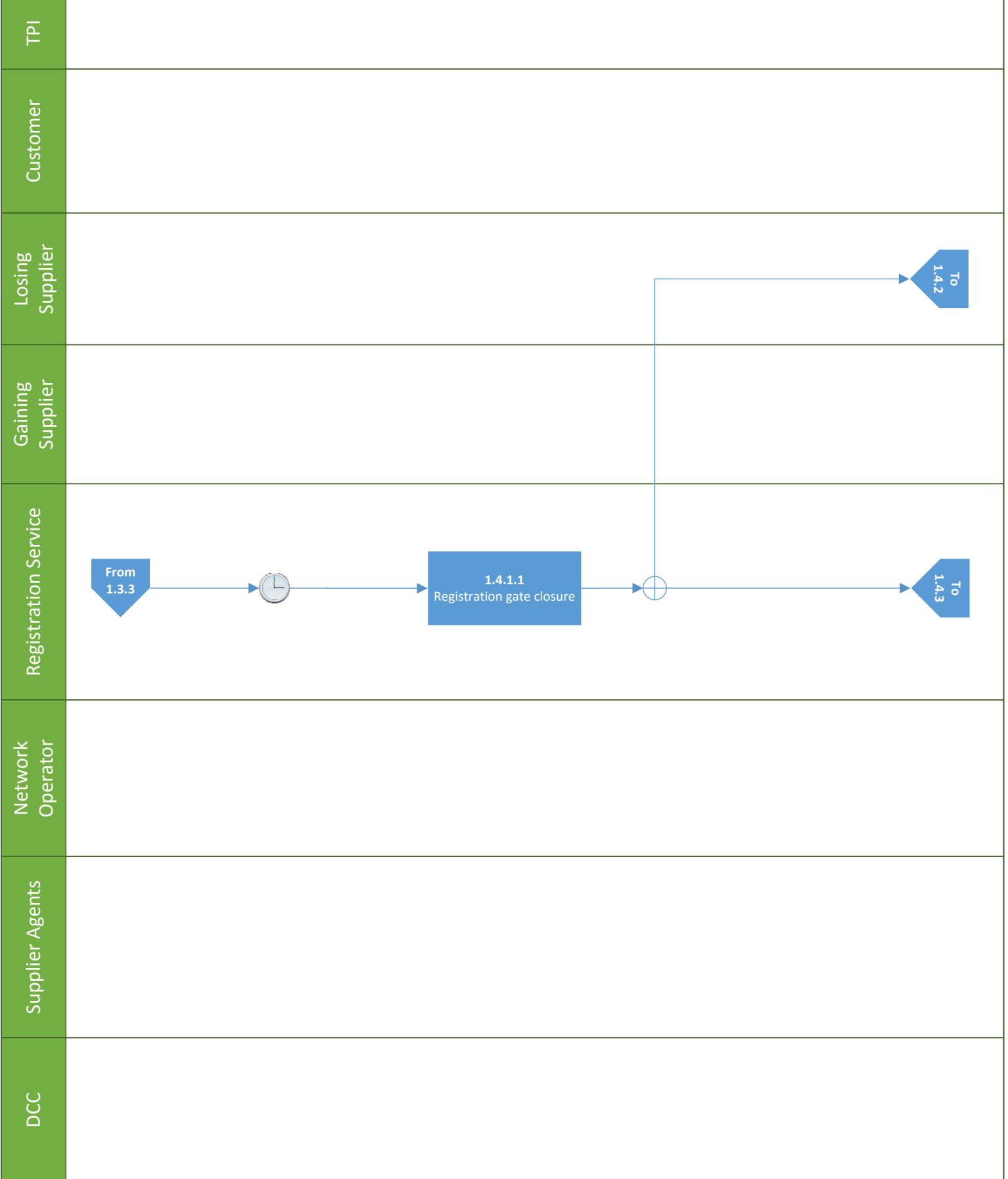
1.3.3 Update records and notify confirmed switch details and switch date



1.3.4 Notify customer of successful registration and switch date



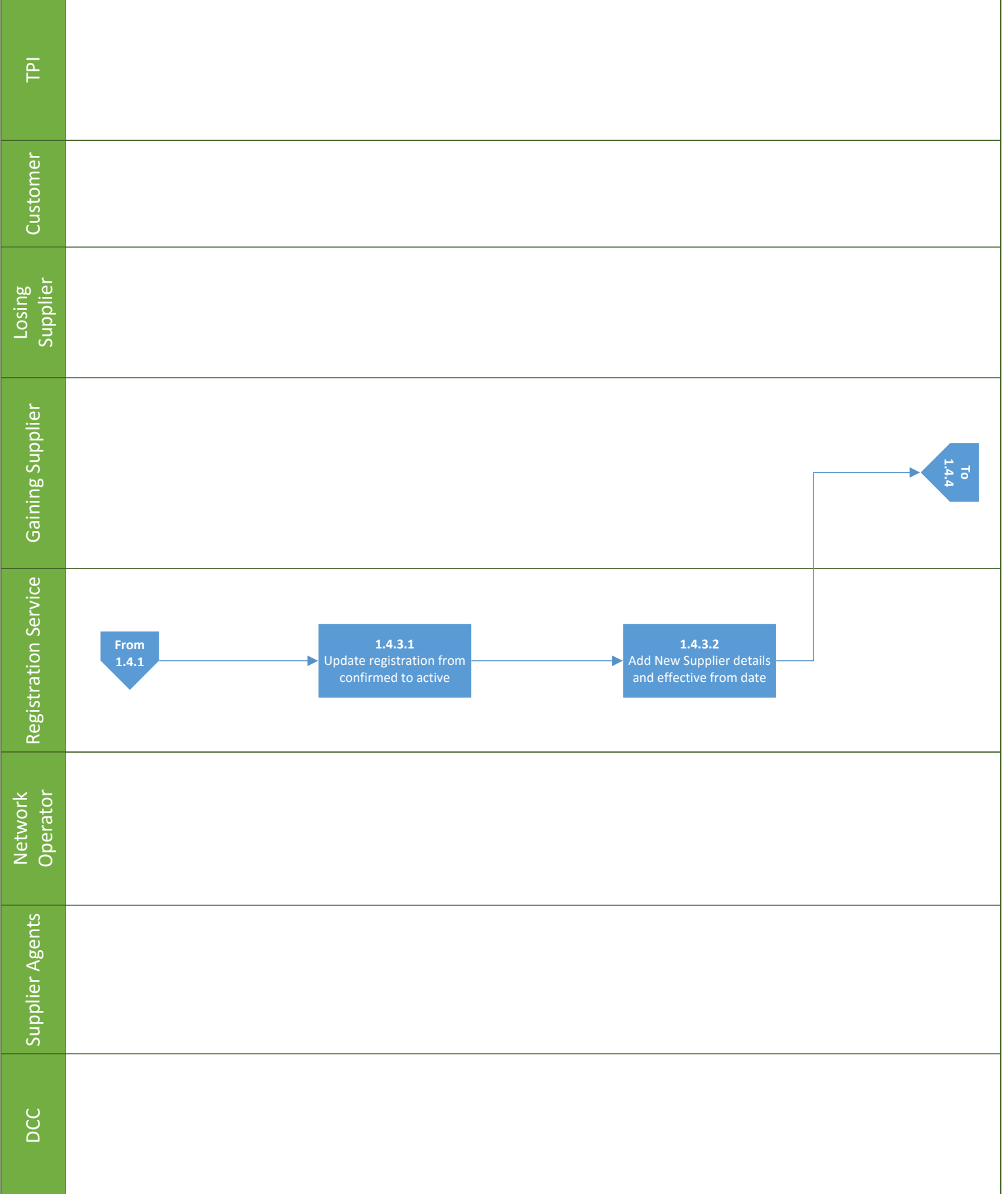
1.4.1 Registration gate closure



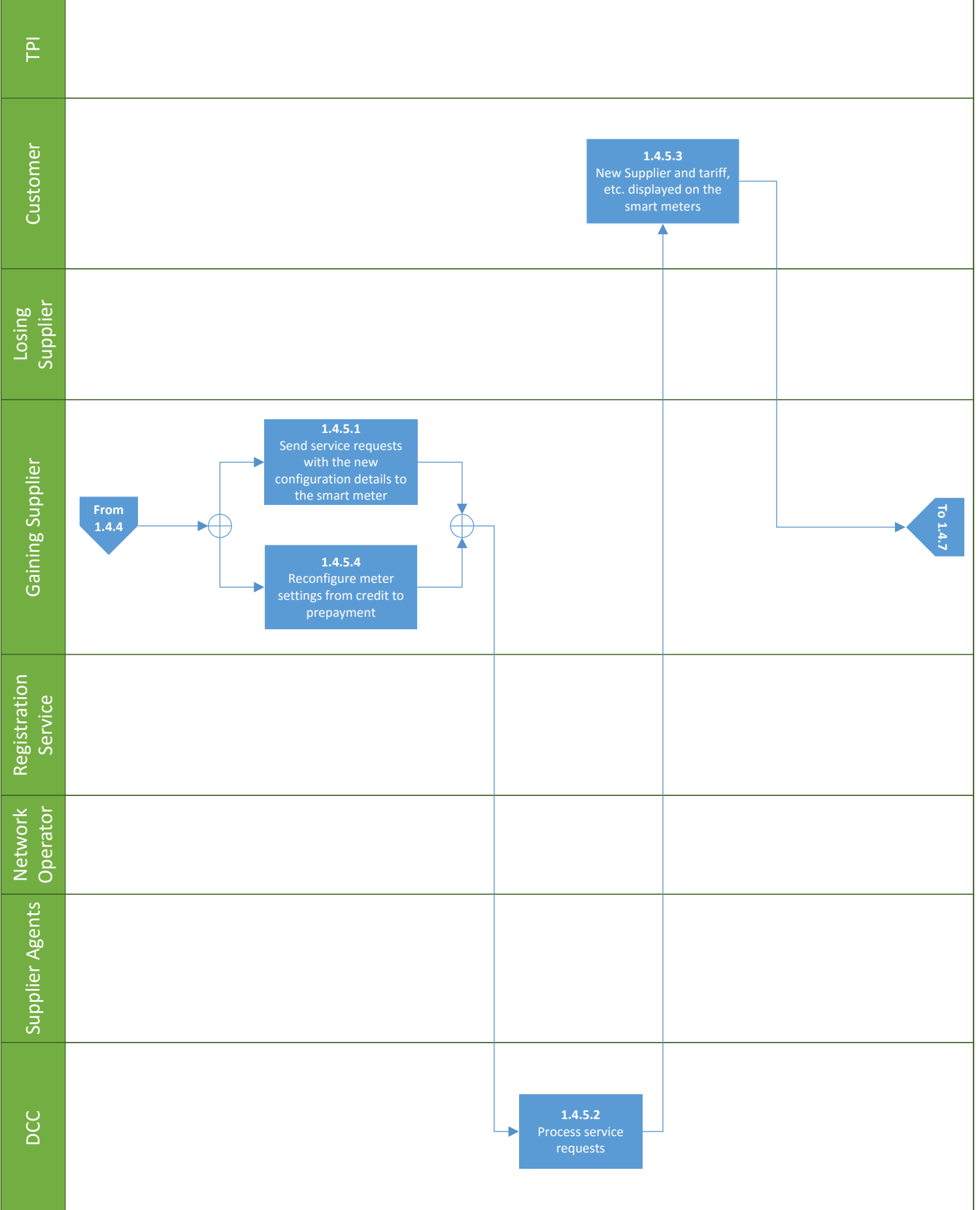
1.4.2 Close out relationship with meter

TPI	
Customer	
Losing Supplier	<pre> graph LR Start([From 1.4.1]) --> J1((⊕)) J1 --> B1[1.4.2.1 Obtain meter reading history & any other desired information] J1 --> B2[1.4.2.2 Reconfigure meter settings from prepayment to credit] B1 --> J2((⊕)) B2 --> J2 J2 --> End([To 1.4.6]) </pre>
Gaining Supplier	
Registration Service	
Network Operator	
Supplier Agents	
DCC	

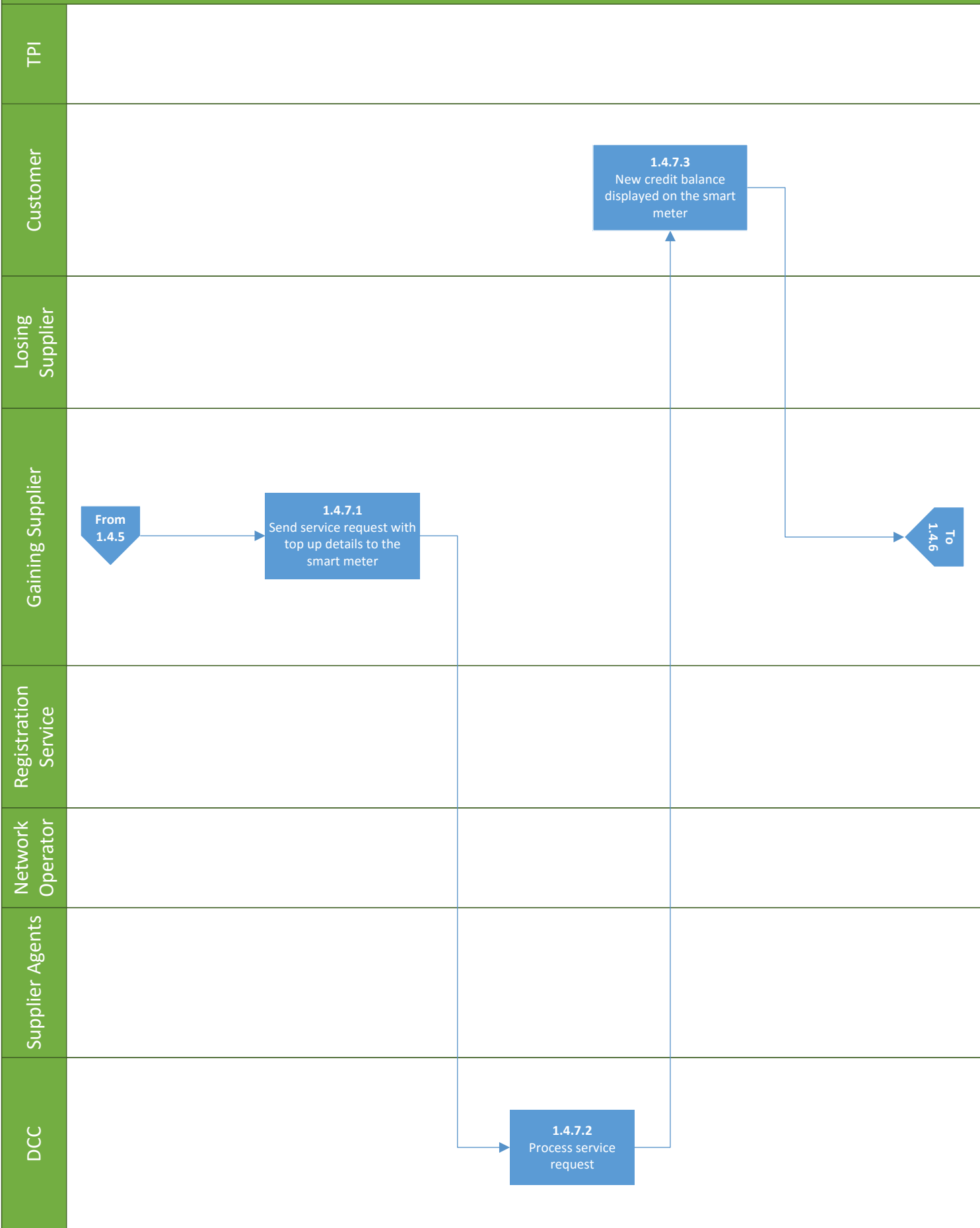
1.4.3 Update registration from confirmed to active



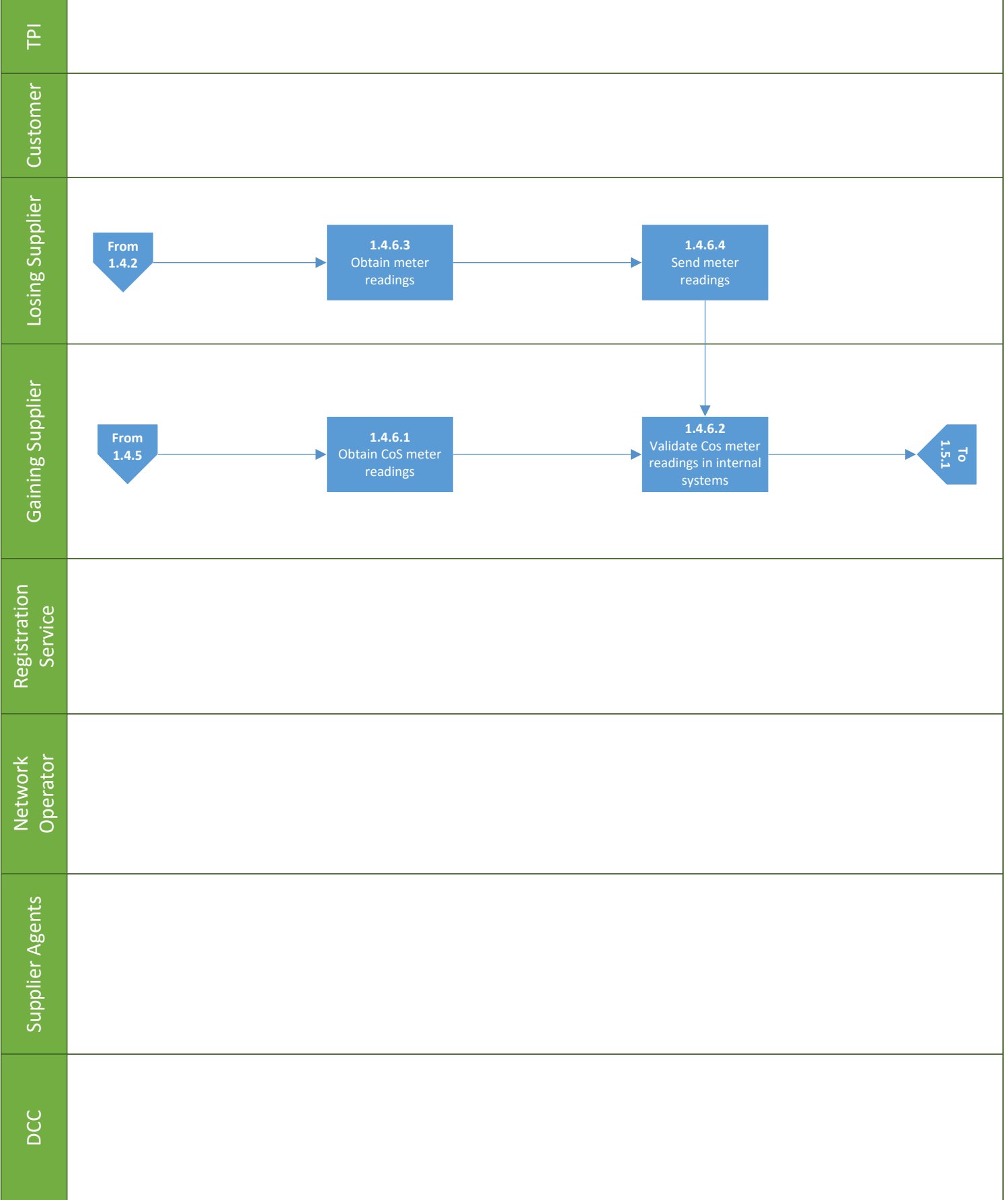
1.4.5 Configure smart meters



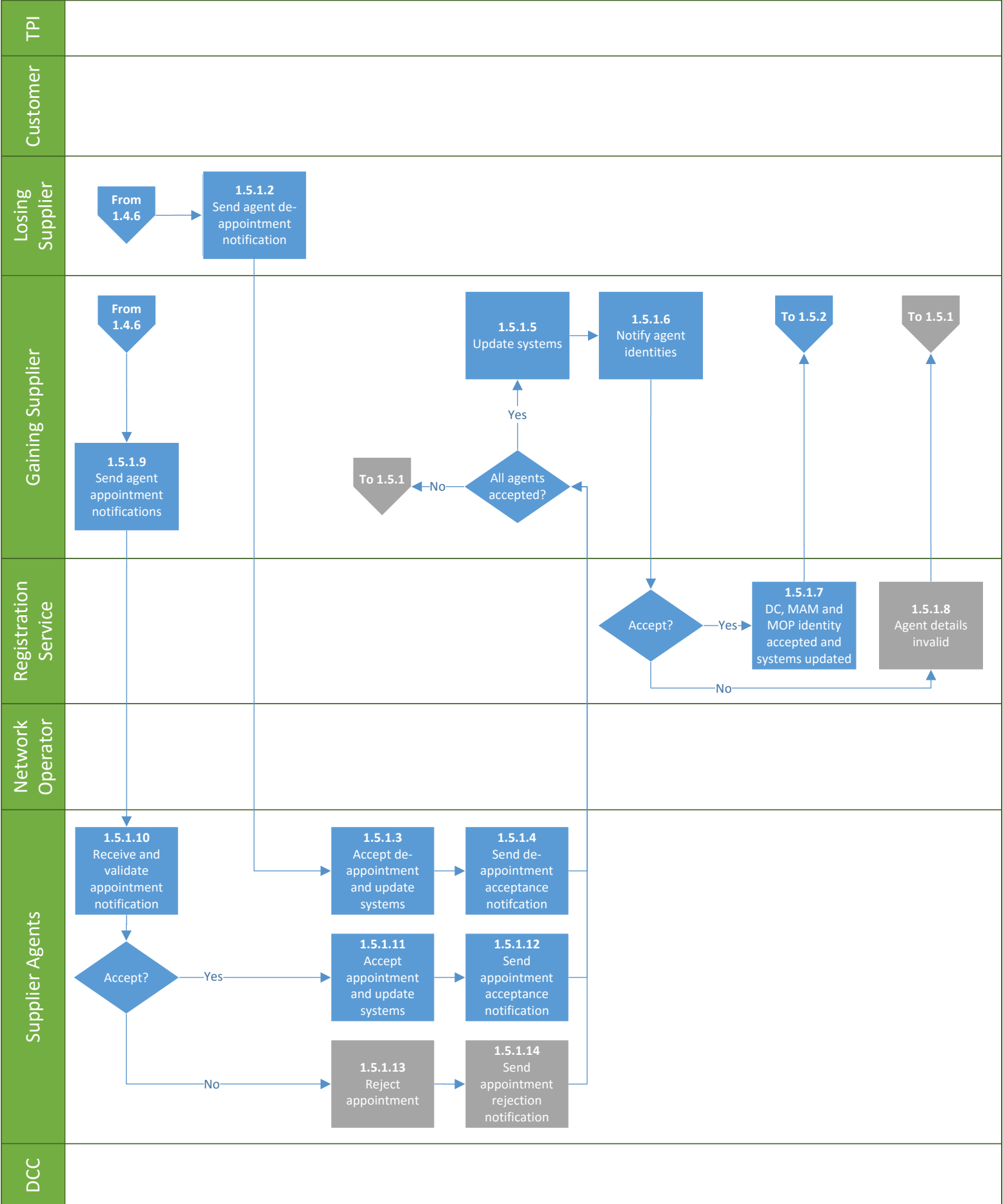
1.4.7 Top up smart meter



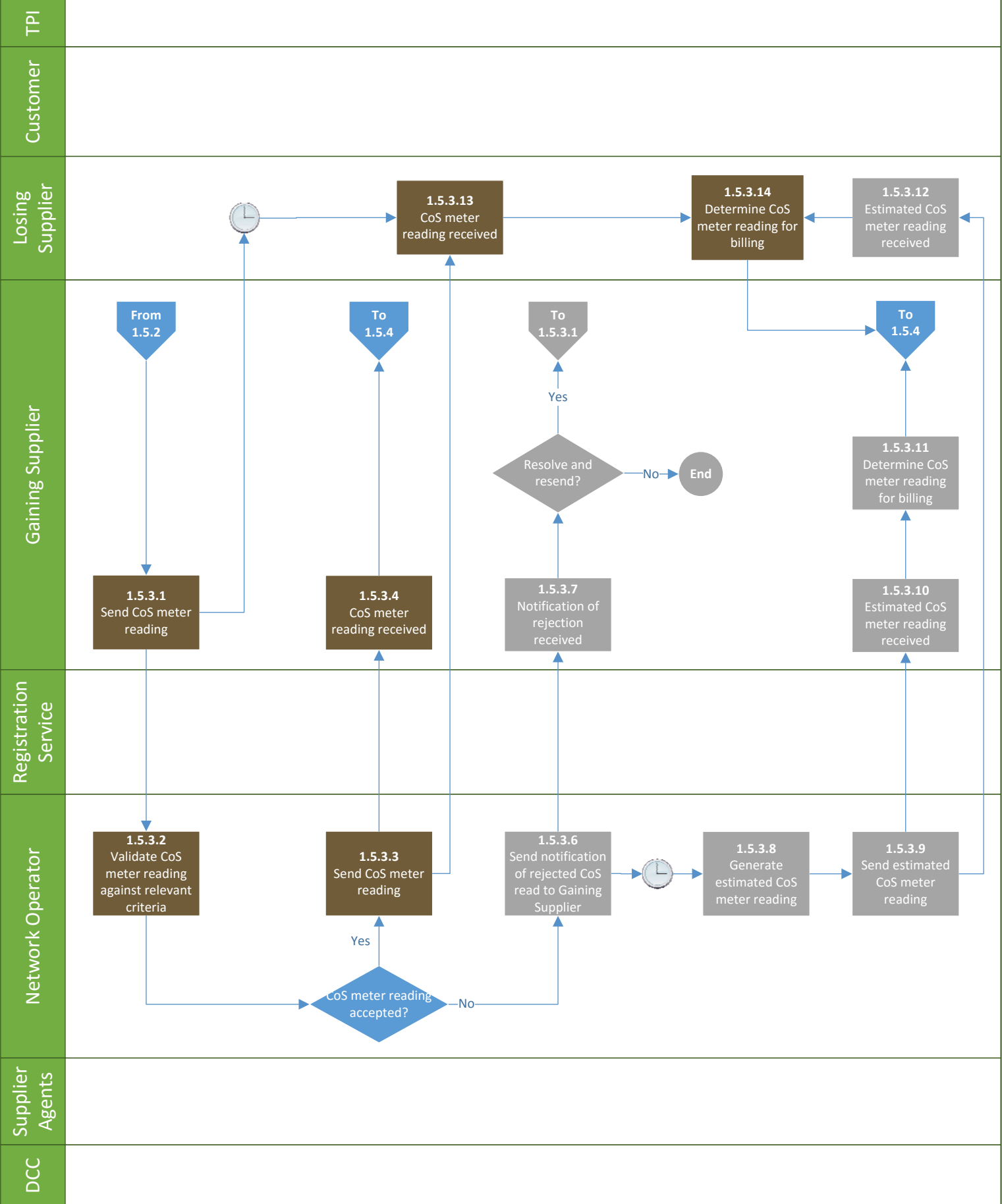
1.4.6 Obtain CoS meter reading



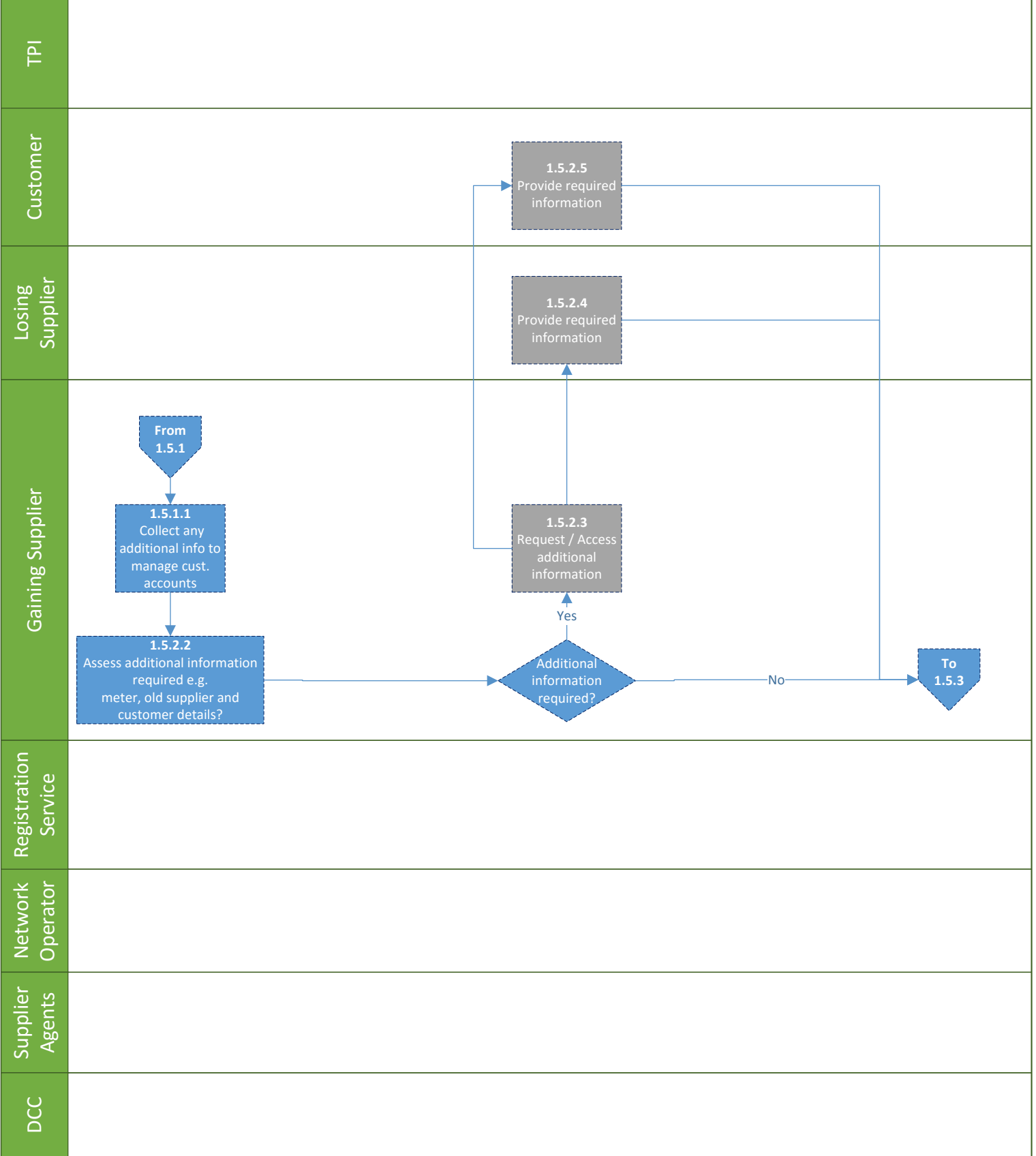
1.5.1 Appoint / De-Appoint Agents and receive confirmation



1.5.3 Validate COS meter reading (gas)



1.5.2 Collect any additional information required to manage customer account



1.5.4 Final and opening statement sent and received

