Redlined Central Registration Agent User Requirements Specification text for P369 'National Grid Legal Separation changes to BSC'

This Modification proposes changes to the Contents, sections 2.0, 4.2, 5.1, 5.17, 5.18, 6.0, 9.0, Appendix D and Appendix G. We have redlined these changes against Version 19.0.

There is no impact on any other part of this document for this Modification.

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Amend section 2 as follows:

2 Introduction

This document is the User Requirements Specification (URS) for the Central Registration Agent role within the Balancing and Settlement Code Services. It is one of a set of documents forming the baseline for requirements of seven BSC central system services. This document set comprises (but does not exclude further Services):

- BMRA URS;
- CRA URS;
- SAA URS;
- TAA URS;
- ECVAA URS;
- CDCA URS;
- FAA URS;
- Interface Definition and Design (IDD).

The objective of this document is to provide a complete specification of the requirements that the CRA Service must meet, from the users' point of view. For this purpose, the "users" include BSCCo Ltd, Ofgem, ~~National Grid~~the Transmission Company (as the Balancing Mechanism Operator), other Service Providers, BSC Parties, and the CRA Service Provider's own user Operators.

Note that the current solution for the BSC central systems involves a bundled approach where the requirements of the SAA, CRA and CDCA Services are met within the same computer system. As this URS is describing the requirements of the CRA *service* in isolation, this document does not attempt to identify in detail where common requirements of these Services will be met by a shared function in the solution.

Note that, subsequent to the introduction of P62, any of the following terms can represent a Licensed Distribution System Operator (LDSO) or any Party which distributes electricity.

- Distribution Business
- Distribution System Operator
- Public Distribution System Operator (and abbreviation PDSO)
- Distribution Company
- Public Electricity Suppliers (PES), as operators of a distribution network
- Distributor, as operator of a distribution network

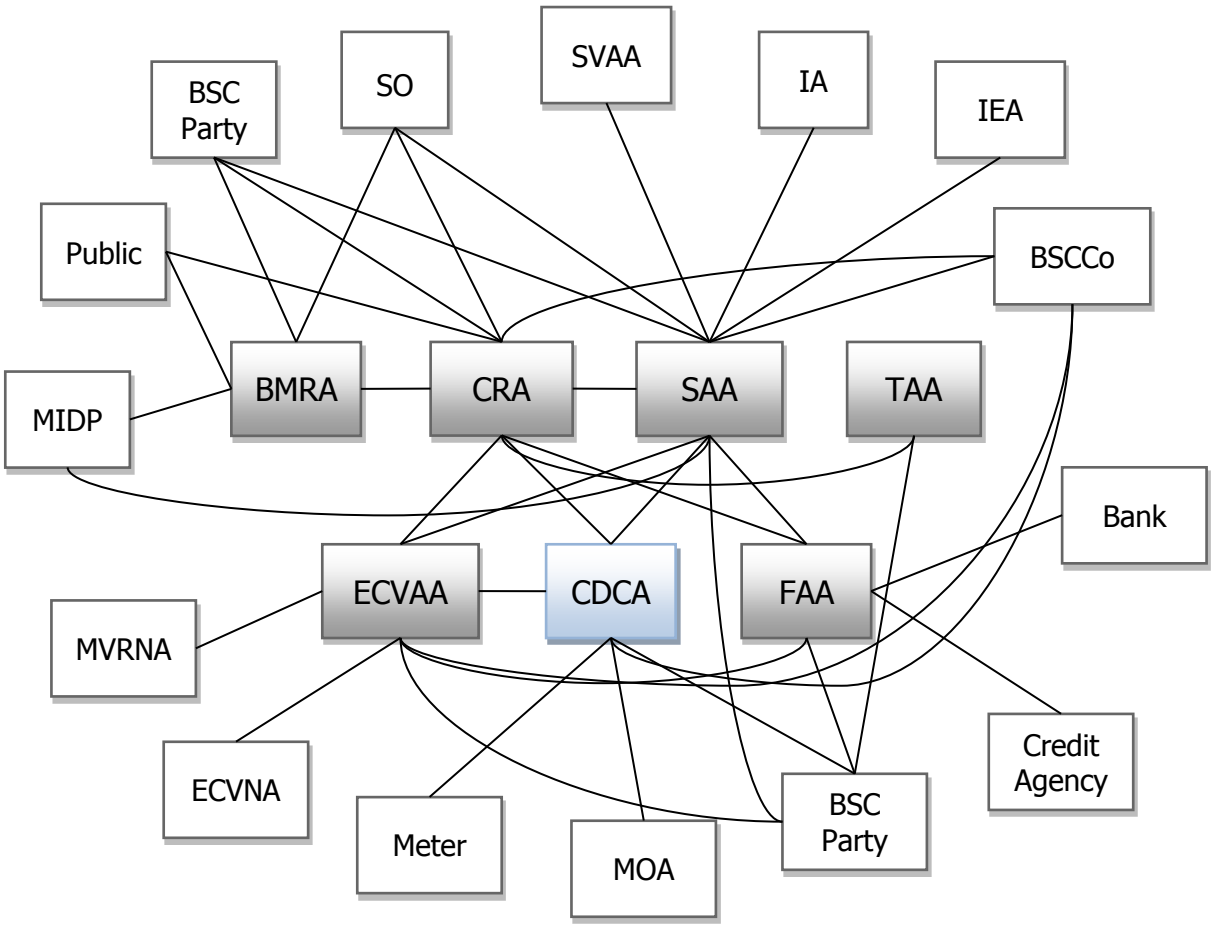
This document refers to a "Supplier BM Unit", which means a BM Unit with a BM Unit Type of 'G' or 'S', as stated by the Lead Party on the 'Registration of BM Unit' form in BSCP15.

Amend section 4.2 as follows:

4.2 Service Context

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The following diagram illustrates the context of the CRA service within the wider market of the Balancing and Settlement Code. This is a simplified view for clarity; section 6 describes the interfaces from the CRA service to other Parties in detail.



Item	Description
Bank	A bank that receives debit and credit instructions from the Funds Administration Agent.
BMRA	Balancing Mechanism Reporting Agent.
BSC Party	Any user of Balancing and Settlement Code services.
BSCCo Ltd	The Balancing and Settlement Code Company.
CDCA	Central Data Collection Agent.
CRA	Central Registration Agent
Credit Agency	A credit agency that provides credit cover data on Parties.
ECVAA	Energy Contract Volume Aggregation Agent.
ECVNA	Energy Contract Volume Notification Agent.
FAA	Funds Administration Agent.
IA	Interconnector Administrator.
IEA	Interconnector Error Administrator
Meter	A physical meter registered within the Balancing and Settlement Code arrangements.
MIDP	Market Index Data Provider

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Item	Description
MOA	Meter Operation Agent.
MVRNA	Metered Volume Reallocation Notifications Agent
Public	A member of the general public.
SAA	Settlement Administration Agent.
SO	~~System Operator~~ Transmission Company
SVAA	Supplier Volume Aggregation Agent
TAA	Technical Assurance Agent.
Transfer Coordinator	A role undertaken by BSCCo Ltd to coordinate transfers of metering between CVA (CRA & CDCA) and SVA in order to address the risk that Metering Systems are 'double counted' or 'omitted' from Settlements'.

have been constructed, at this version of the document from the documents referenced as in chapter 1.

Amend section 5.1 as follows:

5.1 CRA-F001: Register BSC Party

Requirement ID: CRA-F001	**Status:** Mandatory	**Title:** Register BSC Party	**BSC Reference:** CRA SD 4.1, CRA SD 4.2, CRA SD 4.3, CRABPM 3.1, CRAWS -20, CR_18_990909, P197
Man/Auto: Manual	**Frequency:** As Necessary	**Volumes:** Mostly at initial set-up	

Functional Requirement:

The CRA shall allow an Operator to manually enter new BSC Party Registration Information into the CRA system.

The CRA system shall recognise a set of BSC Party types including (and not exclusively):

a) Transmission Owner,
b) ~~System Operator~~Transmission Company,
c) Distribution Company,
d) Interconnector Administrator,
e) Trading Party
f) Interconnector Error Administrator (Note: These will be associated with pseudo-BM Units and will have Energy Accounts)

In addition, Trading Parties may have one or more of the following roles:

i) Generator
ii) Supplier
iii) Trader (Non Physical)
iv) Interconnector User

Each of the Party types and roles allow for a different set of registration requests to be processed by the system. (For instance a non-physical Trader should not in the main be allowed to register Interconnectors). Where an attempt is made and is not expected according to role, the CRA shall flag a Warning as specified in CRA-N001. The following table illustrates these relationships.

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	GSP Group	GSP	Interconnector	Trading Unit	BM Unit	Boundary Point	Metering System
Transmission Owner			X			X	X
System Operator							
Distribution Company	X	X	X			X	X
Interconnector Administrator							
Trading Party				X	X		X

These registration requests shall subsequently be received by the CRA in accordance with the other requirements in this specification. None of these later requests shall be processed until the initial BSC Party Registration has been completed.

The BSC Party shall submit registration information to the CRA system including details of:

- An Action Description to specify the type of registration operation,
- the Party (name, contact details),
- the Party's Stage 2 Names (where they exist).
- authorised signatories and individual contact details,
- settlement report distribution requirements,
- Party Agents that the Party shall use,

A detailed description of the interface content may be found in CRA-I001.

Along with the details of the registration request from the BSC Party, the CRA shall receive supporting information from BSCCo Ltd. BSC Parties shall not be able to complete registration with the CRA before they have completed Qualification Processes. CRA will receive authorisation from BSCCo Ltd to register a particular party.

The input data shall be validated in accordance with the following rules:

1) The Party Types associated with the BSC Party Registration are valid according to the valid set of Party type standing data,
2) Each Interconnector that is used by the BSC Party conforms to a valid Interconnector ID stored within the system.
3) Where a BSC Party states a change to the usage of an Interconnector, that these details match those received from the Interconnector Administrator (both in usage type and effective to and from dates).
4) That where the BSC Party is the Interconnector Error Administrator for an Interconnector, the details match those received from the Interconnector Administrator registration details (both in responsibility and effective to and from dates).
5) That the Party Agents that the Party shall use are registered for the period of the registration request.
6) That there is at least one authorised signatory sent to the CRA.

Where the data has passed validation the information shall be stored within the CRA system database after being authorised by a Supervisor. Any authentication details (authorised signatories) referenced within the message shall be stored according to the requirements of CRA-F002. The CRA system shall then allocate and return to the Operator a meaningful and unique BSC Party ID and two energy account identifiers (derived from the BSC Party ID) in accordance with CRA-F004 and CRA-F005.

The CRA system shall also provide the BSC Party with sufficient information for the authentication of future communications, electronic or otherwise.

Where the BSC Party is of a type "Supplier" the CRA system shall trigger the registration of one BM Unit registration request for each GSP group in accordance with the requirements of CRA-F013.

Non Functional Requirement:

Interfaces:

Input interfaces:
CRA-I001

Output Interfaces:
CRA-I014
CRA-I015

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CRA-I013 CRA-I012

Amend section 5.17 as follows:

5.17 CRA-F017: Register CRA Boundary Points and System Connection Points Details

Requirement ID: CRA-F017	**Status:** Mandatory	**Title:** Register CRA Boundary Points and System Connection Points Details	**BSC Reference:** CRA SD 6.4, CRA BPM 3.3, CR_990813_07, CRAWS-36, CRAWS-39, CP615, CP1301
Man/Auto: Manual	**Frequency:** As Necessary	**Volumes:** Low	

Functional Requirement:

1. The CRA shall register data relating to all Boundary Points and System Connection Points. These are registered by either the ~~System Operator~~ Transmission Company or a Distribution System Operator using flow CRA-I007 at least 20 WD before the Effective From date. The BSCP form on which this flow is based contains additional information which is not captured in the database, but which is used by other recipients of the form.

   a. A Boundary Point is a point at which any Plant or Apparatus not forming part of the Total System is connected to the Total System (Total System means the Transmission System and each Distribution System)

      Boundary Points Registered By ~~System Operator~~Transmission Company are:

      - Gensets directly connected to the Transmission Network
      - Station Transformers directly connected to the Transmission Network
      - Demand sites directly connected to the Transmission Network
      - Interconnectors with other Transmission Systems

      Boundary Points Registered by the Distribution Business are:

      - Embedded sites, under the direct control of the ~~System Operator~~|Transmission Company ~~,~~ that form an individual BM Unit. (These are sites over 50 MW or those being despatched by the ~~System Operator~~Transmission Company).
      - Other Embedded sites.
      - Interconnectors with other Transmission Systems (where these connect to a distribution system)

   b. A System Connection Point is a point at which two or more Systems are connected, including a connection between Distribution Systems in different GSP Groups (but excluding a connection between Distribution Systems in the same GSP Group).

      System Connection Points Registered By ~~System Operator~~Transmission Company are:

      - Grid Supply Points (including Offshore Transmission Connection Points)
      - An Offshore Transmission Connection Point is a point where a Distribution System connects to an Offshore Transmission System and will be registered by the ~~System Operator~~Transmission Company as a Grid Supply Point.

        System Connection Points Registered By Distribution Business are:

      - Interconnectors Between Distribution Networks

2. In each case CRA shall maintain the following information:

   - Boundary Point, or System Connection Point Identifier;

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- Boundary Point or System Connection Point Type
- Effective From Date
- Effective To Date

3. Where a request is received to create a Boundary Point or System Connection Point then CRA shall inform BSCCo Ltd by forwarding a copy of the information provided.

Non Functional Requirement:

Interfaces:

Input Interfaces:
CRA-I007

Output Interfaces:
CRA-I007
CRA-I014
CRA-I019
CRA-I028

Issues:

Amend section 5.18 as follows:

5.18 CRA-F034: Register Metering System Details

Requirement ID:	**Status:**	**Title:**	**BSC Reference:**
CRA-F034	Mandatory	Register Metering System Details	CRA SD 6.4, CRA BPM 3.3, CR_990813_07, CRAWS-36, CRAWS-39, CP569, CP753, P55, CP1301
Man/Auto: Manual	**Frequency:** As Necessary	**Volumes:** Low	

Functional Requirement:

The CRA shall receive the following information concerning the registration of Boundary Points and Metering Systems.

- An Action Description
- Authentication Details
- Metering System Details (including the Meter Operator Agent for the Metering System)

Metering Systems should only be registered by certain types of BSC Parties. The following table illustrates which type of BSC Party should register a Metering System(See CRA-N001)

	GSP Group	GSP	Interconnector	Trading Unit	BM Unit	Boundary Point	Metering System
Transmission Owner			X			X	X
System Operator		X					
Distribution Company	X	X	X			X	X
Interconnector Administrator							
Trading Party				X	X		X

The ~~System Operator~~Transmission Company shall register Metering System details for Offshore Transmission Connection Points only. All other Metering Systems for Grid Supply Points shall be registered by the Distribution Company.

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It shall be the responsibility of the Operator to ensure that the type of the meter specified on the incoming flow is correct against any supporting paper based documentation.

Where metering system details are registered, the CRA shall validate that the Meter Operator Agent specified against the metering system is registered with the CRA.

Where a Metering System is attempted to be registered but already exists within the system, the Operator shall be informed of the event and may, instead, enter the new details as an amendment to the current details through the View / Maintain Metering Systems functionality.

For each new Metering System registration, the CRA shall ensure that the registrant has confirmed that either:

- the Registrant is the Equipment Owner, or
- the Registrant has obtained the Equipment Owner's consent for the appointment.

Where the registration is indicated as part of a transfer to or from SMRA, then

- If confirmation of the transfer has been received from the transfer coordinator:
  - Enter the data ensuring the confirmed date is used as this may differ from that originally submitted.
  - Send an extract of the entered data to the transfer coordinator.
- Where confirmation has not been received:
  - Carry out validation but do not enter the data. If necessary allocate a Metering System Identifier and inform the registrant.
  - Send a copy of the request, including any allocated metering system id, to the transfer coordinator.

Non Functional Requirement:

Interfaces:

Input Interfaces:
CRA-I031

Output Interfaces:
CRA-I014
CRA-I019
CRA-I022
CRA-I028

Issues:

Amend section 6 as follows:

6 Interface Requirements

Overview

The CRA Service shall provide an interface to the following parties.

Other Service Providers:

- Settlement Administration Agent (SAA)
- Central Data Collection Agent (CDCA)
- Balancing Mechanism Reporting Agent (BMRA)
- Energy Contract Volume Aggregation Agent (ECVAA)

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- Technical Assurance Agent (TAA)
- Funds Administration Agent (FAA)
- Market Index Data Provider (MIDP)

Other external parties:

- BSC Party
- BSCCo Ltd
- ~~System Operator~~Transmission Company (SO)
- Interconnector Administrator (IA)
- Interconnector Error Administrator (IEA)
- Supplier Meter Registration Agent (SMRA)
-

The CRA Service shall provide inbound and outbound interfaces as summarised in the following table. In addition to these defined flows, the CRA system (though screen printing facilities) shall be able to issue ad-hoc reports when requested to from BSCCo Ltd. These will be paper based and sent in manual form to the designated recipient.

Each interface requirement is described in detail below.

Details of the contents of interfaces relevant to the CRA are contained in the Interface Definition and Design (IDD). . In the event of discrepancies between the URS and IDD, the interface document takes precedence.

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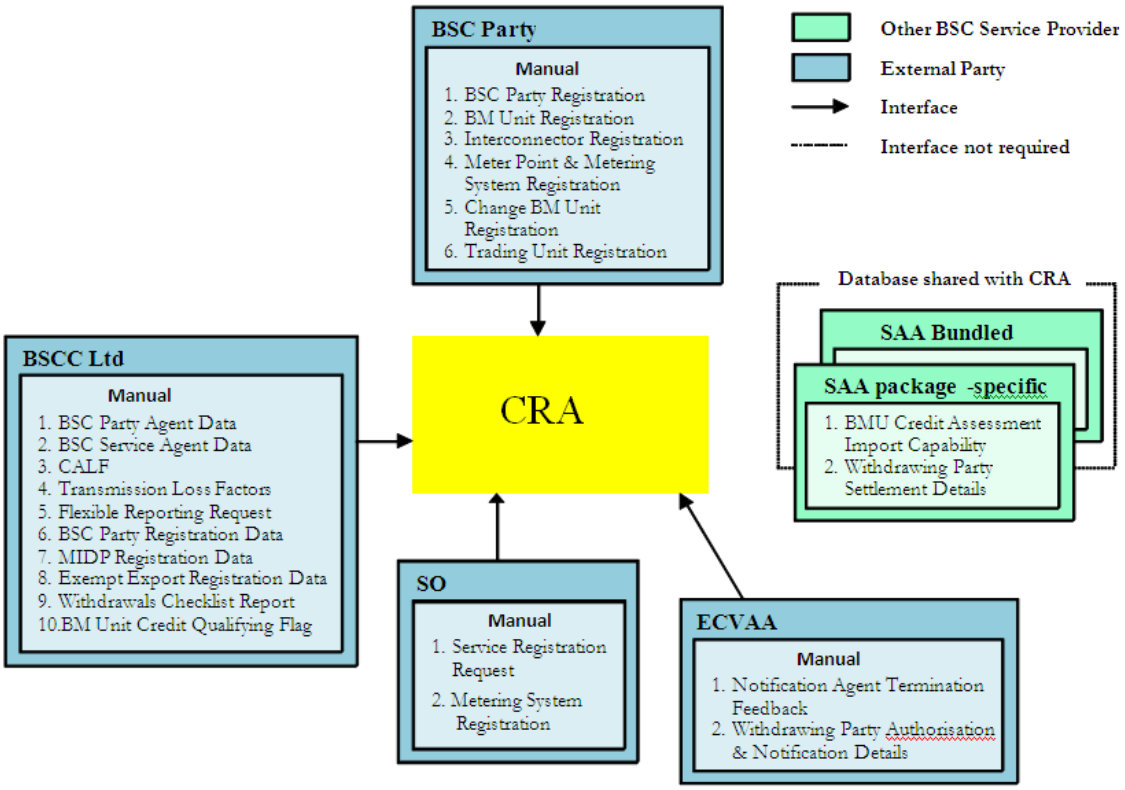
Req. No.	Interface Requirement	I/O	Interface User	Mechanism
CRA-I001	Receive BSC Party Registration Data	I	BSC Party, BSCCo Ltd	Manual
CRA-I001	Receive BSC Party Registration Data	O	BSCCo Ltd	Manual
CRA-I002	Receive Interconnector Admin. Registration Data	I	BSC Party	Manual
CRA-I003	Receive BSC Party Agent Data	I	BSC Party BSCCo Ltd	Manual
CRA-I004	Receive BSC Service Agent Data	I	BSCCo Ltd	Manual
CRA-I005	Receive BM Unit Registration	I	BSC Party	Manual
CRA-I006	Receive Trading Unit Registration	I	BSC Party	Manual
CRA-I007	Receive Boundary Point and System Connection Point Data	I	BSC Party, SO	Manual
CRA-I007	Receive Boundary Point and System Connection Point Data	O	BSCCo Ltd	Manual
CRA-I008	Receive Interconnector Registration Details	I	SO	Manual
CRA-I009	Receive BM Unit Manual Credit Qualifying Flag	I	BSCCo Ltd	Manual
CRA-I010	No longer used			
CRA-I011	Receive Credit Assessment Load Factors	I	BSCCo Ltd.	Manual
CRA-I012	Issue CRA Encryption Key	O	BSC Party, MIDP & other Agents	Automatic
CRA-I013	Issue Authentication Details Report	O	FAA ECVAA BMRA SAA SO BSCCo Ltd	Automatic
CRA-I014	Issue Registration Report	O	BSC Party, SO & BSC Party Agents	Automatic/Manual
CRA-I015	Issue BM Unit Registration Data	O	SAA, SVAA BMRA, ECVAA, FAA	Shared Database / Automatic
CRA-I016	No longer used			
CRA-I017	Issue Credit Assessment Export Capability	O	SAA ECVAA	Shared Database
CRA-I018	No longer used			
CRA-I019	Issue CRA Registered Meter Data	O	CDCA	Shared Database
CRA-I020	Issue Operations Registration Report	O	SO BSCCo Ltd	Automatic
CRA-I021	Issue Registered Service List	O	BSC Parties & public	Automatic
CRA-I022	Issue Metering System Details	O	Technical Assurance Agent	Manual

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Req. No.	Interface Requirement	I/O	Interface User	Mechanism
CRA-I023	Issue Registration Transfer Report	O	Transfer Coordinator, BSC Parties, PDSO	Manual
CRA-I024	Issue Certification & accreditation Status Report	O	BSC Parties BSC Party Agents BSC Service Agents	Automatic/Manual
CRA-I025	Receive Acknowledgement	I	All automatic outbound systems	Automatic
CRA-I026	Send Acknowledgement	O	All automatic inbound systems	Automatic
CRA-I027	Receive GSP Group Registration Details	I	BSC Party (Distributor)	Automatic
CRA-I028	Issue NGC Standing Data Report	O	SO	Automatic
CRA-I029	Receive Transmission Loss Factors	I	BSCCo Ltd	Manual
CRA-I030	Receive Exception Report	I	SAA ECVAA BMRA	Automatic
CRA-I031	Receive Metering System Data	I	BSC Party	Manual
CRA-I033	Requirement not currently used			
CRA-I034	Flexible Reporting Request	I	All automatic outbound systems	Manual
CRA-I035	CRA BSC Section D Charging Data	O	BSCCo Ltd	Manual
CRA-I036	Send Notification Agent Termination Request	O	ECVAA	Manual
CRA-I037	Receive Notification Agent Termination Feedback	I	ECVAA	Manual
CRA-I038	Transfer from SMRS information	I	Transfer Coordinator, BSC Party	Manual
CRA-I039	Transfer from SMRS report	O	Transfer Coordinator	Manual
CRA-I040	Transfer to SMRS information	I	Transfer Coordinator, BSC Party	Manual
CRA-I041	Transfer to SMRS report	O	Transfer Coordinator	Manual
CRA-I042	Receive Market Index Data Provider Registration Data	I	BSCCo Ltd	Manual
CRA-I043	Receive Exempt Export Registration Data	I	BSCCo Ltd	Manual
CRA-I044	Receive Withdrawals Checklist Request	I	BSCCo Ltd	Manual
CRA-I045	Receive Withdrawing Party Authorisation and Notification Details	I	ECVAA	Manual
CRA-I046	Receive Withdrawing Party Settlement Details	I	SAA	Shared Database
CRA-I047	Issue Withdrawals Checklist	O	BSCCo Ltd	Manual

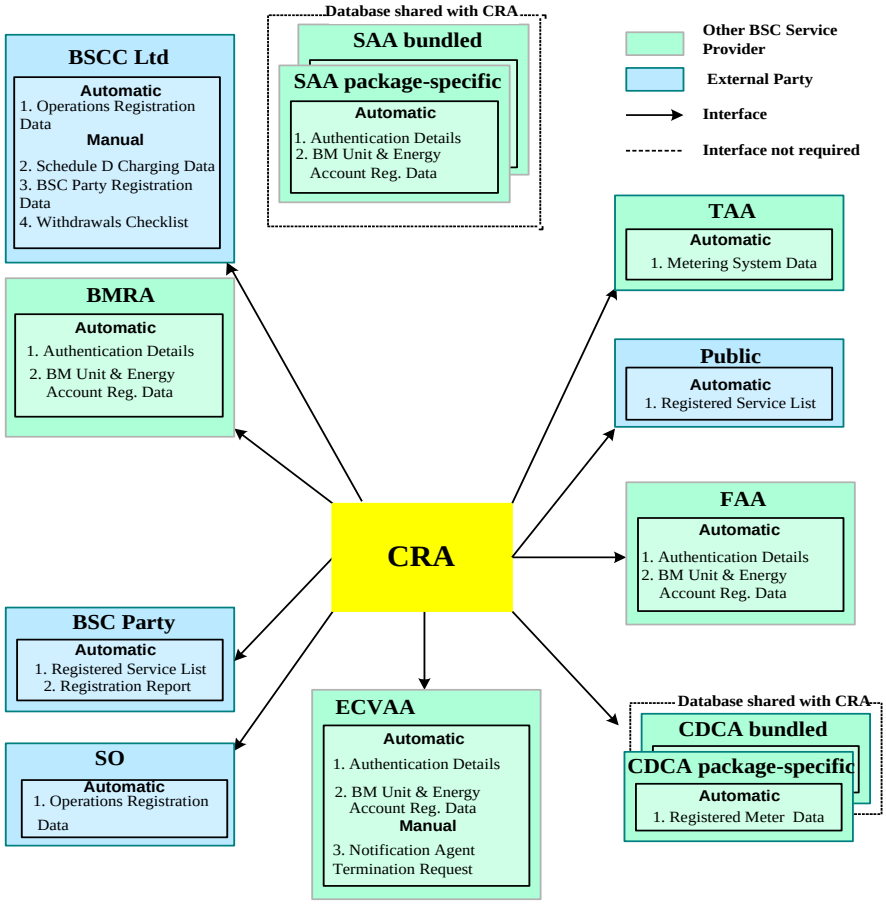
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The following diagrams illustrate these interface requirements.



CRA Service: Inbound Interface Requirements

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CRA Service: Outbound Interface Requirements[1]

Amend section 9 as follows:

9 User Roles and Activities

The following table describes the user roles which will support the day to day operation of the CRA service.

Role	Activities
System Administrator	Database management Specific aspects of system configuration User account and security management
Supervisor	Management of Operators

1 Note that details of the CRA-I012 (Issue CRA Encryption Key) flow have not been included in this diagram, in order to avoid excessive clutter.

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Role	Activities
	Management of standing data updates Management of planned operational and service level requirements Creation of management information reports Support for communication with external parties
Operator	Performance of procedures to monitor receipt and processing of information from external parties. Second level support for ad hoc queries raised by external parties
Help Desk Operator	First level support for ad hoc queries raised by external parties.
Auditor	There shall be a specific user security configuration which allows an external auditor to review data within the system, but prevents the initiation of batch processes or logical edits to business data.
Market Index Data Provider	Market Index Data Providers are registered by BSCCo Ltd, and their details are passed on by CRA to SAA and BMRA.

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The following parties are defined as users of the service. The detailed functional requirements and data interfaces necessary to support these parties are described earlier in section 6 of this URS.

Role	Summary of Activities related to CRA
BSCCo Ltd.	Receives summary settlement reports from CRA at periodic intervals (daily, weekly, monthly) as well as CRA performance reports.
Balancing Mechanism Operator (~~NGET~~ the Transmission Company)	Reports are produced to ~~NGET~~the Transmission Company on Standing data held within the system.
BSC Party	BSC Parties register information (such as their own registration) as well as registration details of BM Units, Trading Units, etc. They also receive confirmation that these registrations have been either successful applied or failed for some reason.
SAA	The SAA is sent authentication and registration details by the CRA. In addition, the CRA informs the ECVAA of the WDBMCAIC and NWDBMCAIC.
ECVAA	The ECVAA is sent authentication and registration details by the CRA. .
CDCA	The CDCA is sent authentication and registration details by the CRA..
SMRA	The SMRA is sent details of the Boundary Points registered within the CRA system. The CRA also receives back a subset of this list if they are registered within the SMRA.
Interconnector Administrator	The Interconnector Administrator arbitrates when a change of Interconnector Error Administrator event occurs.
Funds Administration Agent (FAA)	The FAA is sent registration details by the CRA.
Public	The Public are entitled to view the list of Registered Service Providers.
TAA	The TAA is sent a list of the registered Boundary Points and Metering Systems.

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Amend Appendix D as follows:

Appendix D NETA Central Service Common Non Functional Requirements

This section details the non-functional requirements common to the entire suite of User Requirements Specifications. Only common requirements are detailed within this section - e.g. where a requirement is specific to a given sub-system it is detailed within the individual URS only.

D-1 GEN-N001: Audit Requirements

Requirement ID: GEN-N001	**Status:** M	**Title:** Audit Requirements	**BSC Reference:** Schedule 3 Part B
Man/Auto: Automatic	**Frequency:** All business transactions (including manual filing)	**Volumes:** Audit information shall be associated with each set of data created by any business transaction. Volumes will be established during detailed design.	

Non Functional Requirement:

1. All business data received by the Service Provider from external sources shall be retained and not physically deleted, subject to the retention durations described in GEN-S004. Multiple versions of the data shall be supported, for instance so that both the original information and any subsequent corrections are separately stored. Business data shall have an associated effectiveness date range which identifies the trading dates to which it is applicable.

2. The Service Provider shall maintain an audit trail of when information from external sources was received, from whom, and when the information was processed.

3. All business data transmitted to external parties by the Service Provider shall be retained and not deleted, subject to the retention durations described in this document. Multiple versions of the data shall be supported, for instance so that the results of settlement calculations in successive settlement runs for the same trading day are available individually.

4. Any changes made to business data by operators of the service shall be retained as a new data version, i.e. data may only be 'logically' modified, not physically modified thus retaining a copy of the previously un-modified business data. It shall not be possible for Operators to physically delete business data, though it shall be possible to 'logically' delete data such that it is not included within any subsequent computation or reporting process. Any business data which is entered, logically modified or logically deleted by Operators of the service shall be time stamped to record the time the transaction occurred, and the identity of the Operator who performed the transaction shall be recorded. This audit information shall be available for inspection by a suitably authorised party.

5. The Service Provider shall ensure that all output files and reports produced are uniquely identifiable and time stamped.

6. The Service Provider shall arrange for all printed reports that are no longer required for the provision of Services or for audit to be securely destroyed.

7. The Service Provider shall arrange for the removal from machine-readable media and subsequent secure destruction of all data that is no longer required.

8. The Service Provider shall facilitate the following specific requirements of the BSCCo Ltd appointed Auditor. The Service Provider shall facilitate any reasonable audit requirements to ensure:
   - The Service is being run in accordance with BSC rules.
   - Validation of Service providers' performance (service credits, etc.)
   - Any modification to the Service is carried out in accordance with the BSC modifications rules.

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D-2 GEN-N002: Security Requirements

Requirement ID: GEN-N002	Status: M	Title: Security Requirements	BSC Reference: Schedule 3 Part B Section 4
Man/Auto: Manual & Automatic	**Frequency:** As required	**Volumes:** N/A	

Non Functional Requirement:

The Service security procedures shall be created in accordance with BS7799. These procedures will be fully defined in the Operational Services Manual.

Procedures are likely to include the following.

1. All buildings used by the Service Provider in connection with provision of the service shall be made secure in that only suitably authorised persons may obtain entry. This shall include the use of keycard, numeric keypad or other physical barriers which prevent casual entry to the premises. Visitors to the premises shall undergo a procedure which ensures that their entry to the premises is suitably authorised and their access to the parts of the site controlled thereafter. Both the normal and disaster recovery sites shall have sufficient provision to ensure that the security of the buildings is not compromised outside standard working hours.
2. Key elements of the infrastructure used to support the service such as computer server hardware, power supplies and other essential physical equipment shall be subject to further physical restrictions such that they are only accessible to suitably authorised personnel, and not to other operational staff or visitors. Such hardware shall be protected by specialist mechanisms such as a gas flooding capability in order to reduce the impact on the service of accidents such as fire or flooding.
3. The bespoke computer applications used to support the service shall be subject to entry of a secure username and non-displayed password before access to any data or function relevant to the service is possible by an operator. Passwords will be updated through procedural means on a regular basis, users shall be forced to change passwords on a periodic cycle (maximum of 2/3 months). Users shall also be prevented from using easily guessed passwords and refused the reuse of their most recently used passwords.
4. The bespoke systems supporting the service shall be configurable such that individual functions are available only to authorised categories of user. It shall be possible furthermore to configure the systems such that a user interface function which accesses business data can be made available only in a read-only mode to those categories of user with restricted security privileges. Categories of user with higher levels of security privilege shall be able to enter, logically modify and logically delete data using the same facilities. If a user has read access to a function, they may review all data accessible using that function.
5. The Service Provider shall monitor any attempts to breach the physical and logical security of the System and report any such occurrences to the Customer. When any such attempt is discovered, the Service Provider shall use all reasonable endeavours to identify the cause of the breach and to ascertain whether the existing controls are adequate.
6. All user workstations should provide a password controlled screen time out facility. This may be provided through the use of standard facilities included in the workstation operating system, or other commercially available tools.
7. The Service Provider shall use a secure communications infrastructure for transfer of data to another person / system and for receipt of data from the ~~System Operator~~Transmission Company and other Parties. The infrastructure must support the following:
   - authentication: a mechanism to verify that the parties on either side of the data link are who they claim to be;
   - privacy: a mechanism to ensure that transmitted content is not read or intercepted by unauthorised recipients;
   - integrity: a mechanism to verify that transmitted data is received in an unchanged state.

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Amend terms within Appendix G as follows:

Appendix G Glossary

G-2 Glossary of terms:

Bid-Offer Acceptance
A Bid-Offer Acceptance is the purchase and/or sale of Offers and/or Bids by the ~~System Operator~~Transmission Company in its operation of the Balancing Mechanism.

Bid-Offer Acceptance Data
Bid-Offer Acceptance Data is that data which is sent by the ~~System Operator~~Transmission Company ~~-~~to a BSC Party in order to accept a Bid and/or Offer.

Bid-Offer Acceptance Number (k)
The Bid-Offer Acceptance Number (k) is a number identifying a particular set of Bid-Offer Acceptance Data.

Bid-Offer Acceptance Time (T^{k}_{it})
The Bid-Offer Acceptance Time (T^{k}_{it}) is the time at which the ~~System Operator~~Transmission Company ~~-~~issues Bid-Offer Acceptance k.

Deemed Bid-Offer Flag
The Deemed Bid-Offer Flag is a flag that is activated if the Bid-Offer Acceptance issued by the ~~System Operator~~Transmission Company is accepting Deemed Bids and/or Offers.

Deemed Bid
A Bid that utilises Default Data and which may only be accepted by the ~~System Operator~~Transmission Company when relevant freely submitted Bids and/or Offers have been exhausted.

Deemed Data
Deemed Data includes Deemed Bids and Deemed Offers and associated Prices.

Deemed Offer
An Offer that utilises Default Data and which may only be accepted by the ~~System Operator~~Transmission Company when relevant freely submitted Bids and/or Offers have been exhausted.

Dispute
An objection raised by a BSC Party, the ~~System Operator~~Transmission Company or by BSCCo Ltd if they object to the results of a Settlement when they believe that the calculation has been undertaken using the wrong data or the calculation does not follow the rules. The Settlement Administration Agent may also raise a dispute on behalf of BSC Parties if errors in calculations or data are detected or suspected.

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Final Physical Notification ($FPN_{ij}(t)$) MW
The Final Physical Notification for BM Unit is the level of generation or demand (as the case may be) that the BSC Party expects to generate or consume from BM Unit i, in the absence of any Balancing Mechanism Acceptances from the ~~System Operator~~Transmission Company. The value of $FPN_{ij}(t)$ is calculated for spot times t in Settlement Period by linear interpolation from the values of Point FPN.

Initial Physical Notification (IPN)
The physical notification made to the ~~System Operator~~Transmission Company on the day ahead probably at 15:00, which can be revised until Gate Closure (four hours before delivery) when it becomes a FPN.

Minimum Zero Time (MZTi) Minutes
At any time t, the Minimum Zero Time (MZT_i) is the minimum time that a BM Unit must operate at zero or import, before returning to export; whereas if it is importing, MZT indicates the minimum time that it must operate at zero or export before returning to import, if action by the ~~System Operator~~Transmission Company places it at such a level.

~~System Operator~~Transmission Company (SO)
The entity that fulfils the role of operating the transmission system, including issuing instructions to generators or demand to change its level of output or take, and instructing the provision of Ancillary Services and other measures necessary to maintain a stable and secure system. This role in England and Wales is carried out by ~~The National Grid Electricity Transmission PLC~~the Transmission Company under the terms of its Transmission Licence.

System Operator BM Charge ($CSOBM_j$) £
The System Operator BM Charge ($CSOBM_j$) is the amount paid by the ~~System Operator~~Transmission Company in Settlement Period j.

Transmission Licence
Licence required to transmit electricity for the purpose of giving a supply to any premise or enabling a supply to so be given. The Transmission Licence in England and Wales is jointly held by The National Grid Electricity Transmission PLC and the Transmission Company.

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