

# RHEA Project

## Client Registry Specifications

Version: 0.1

### Revision History

Date	Version	Description	Author(s)
17/04/12	0.1	Initial creation	RC, MW, WN

### 1. High Level Overview

The Client Registry stores records of all clients (patients) that need to be uniquely identified for the RHEA use case. It provides functionality to add, edit, delete and view clients as well as an interoperability service to query, register, retrieve, update and identify clients.

The client registry is used to verify if a client exists and to return their enterprise ID for use within the national level services. It is also used to register clients, update client records and return a record of client demographics.

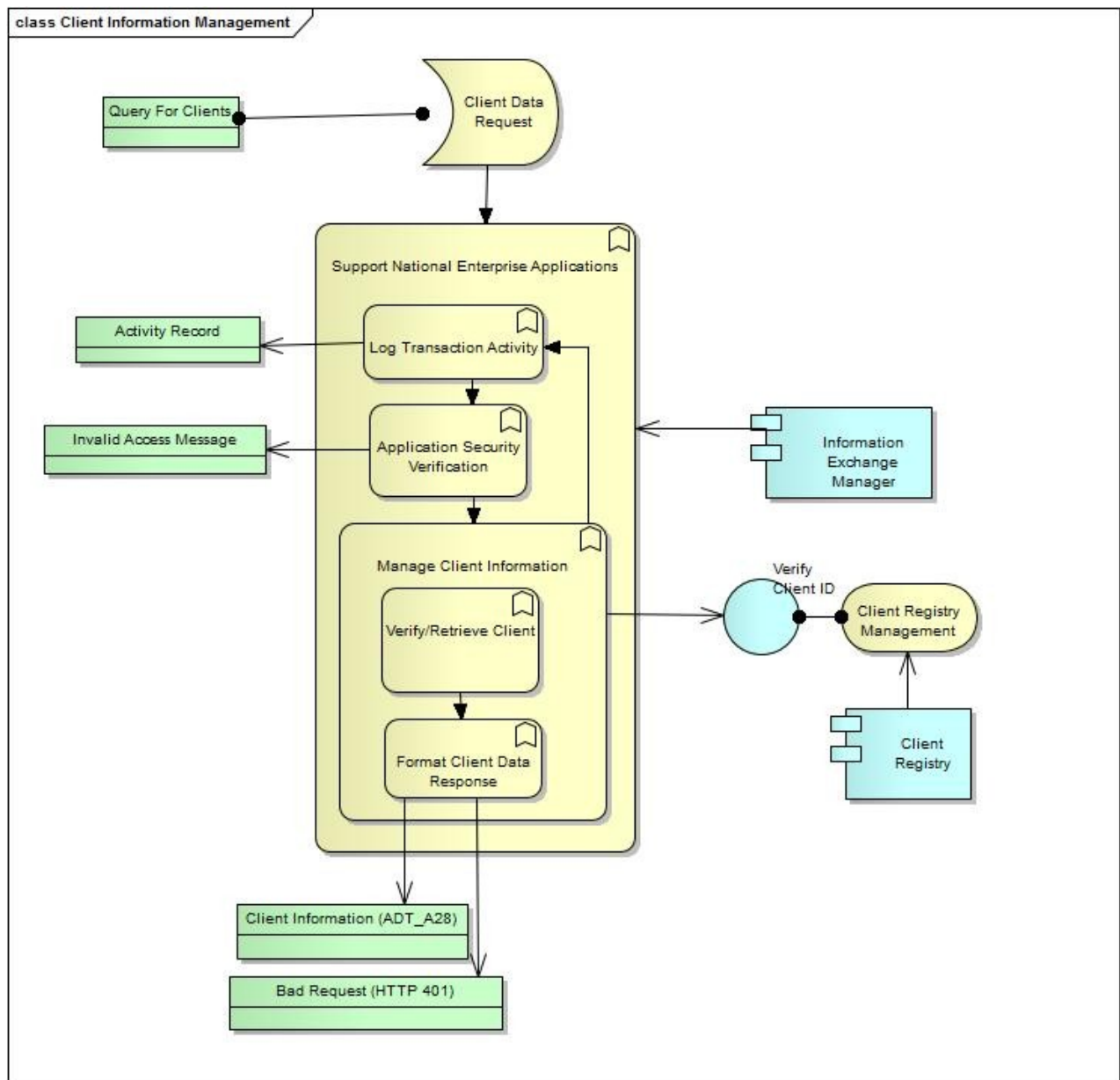
The client registry is used for a few purposes within the RHEA use case, these are as follows:

- Registering new client in the client registry when they present at a clinic
- Fetching a client's record from the client registry to update or load a patient's demographics into an HIS
- Verifying the identity of a client by resolving the client's ID(s) to an Enterprise Client ID

The fetching a client record and verify identity functions are shown in the two workflow diagrams below.

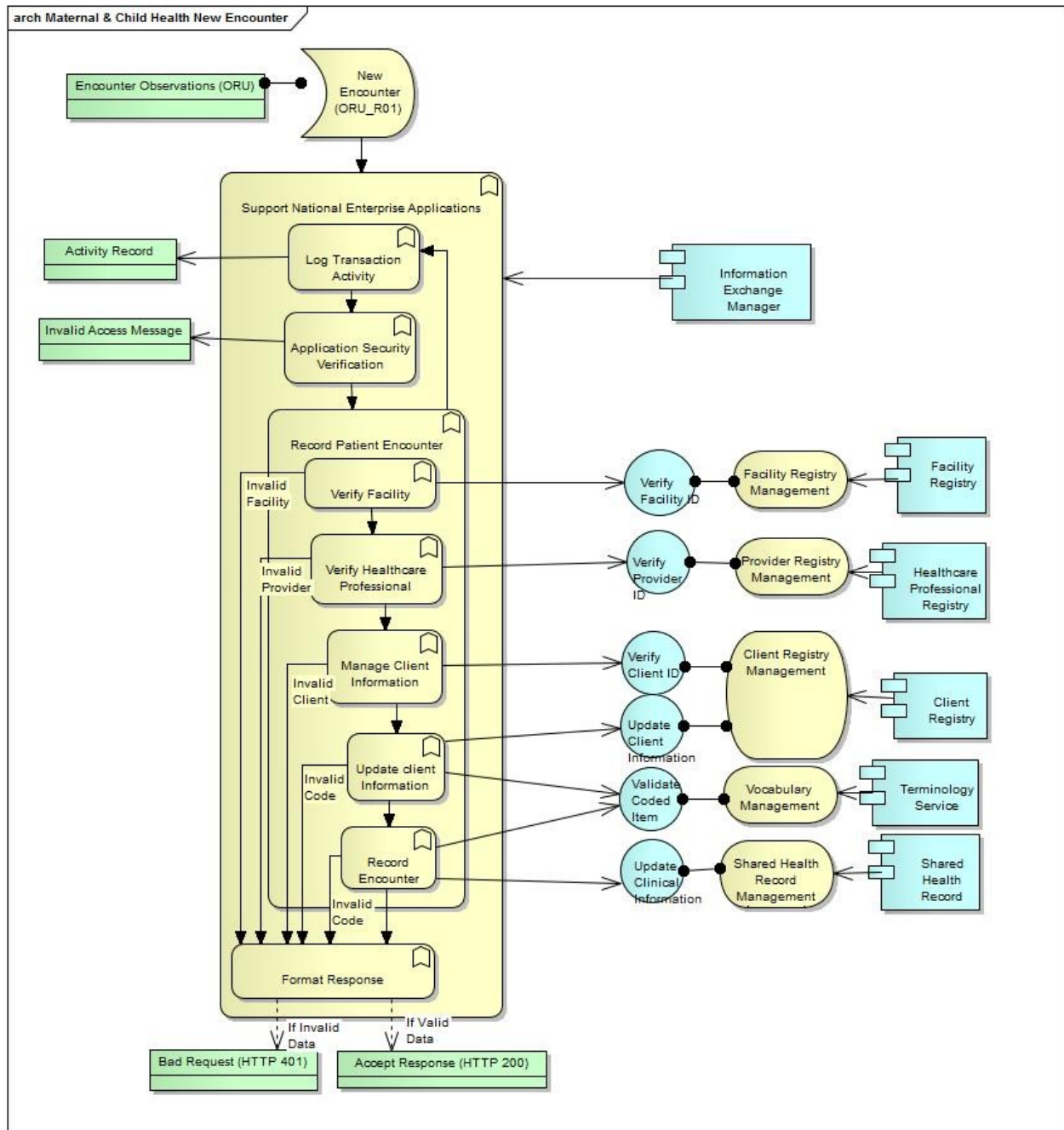
### Client Information Management

This diagram represents requests for client information, as well as other requests or updates that require validating client identity.



## Patient Encounter Management

The following diagram shows the process whereby encounters are added to the Shared health Record. This shows the usage of the Client Registry in the context of the RHEA use case.



## 2. Key Requirements

Here the key requirements for the Client Registry are enumerated:

- The system must provide user restricted security to its configuration.
- The system must store a client's record with a single Enterprise Client ID linked to multiple other ID's along with a number of client demographic attributes.
- The system must allow new client records to be inserted by a privileged user.
- The system must allow searching of existing client records.
- The system must allow client records to be edited by a privileged user.
- The system must allow client records to be deactivated/soft deleted by a privileged user.

- The system must allow a client's record to be viewed.
- The system must be able to merge duplicate client records and un-merge records that have been erroneously merged
- The system must provide interoperability services for the following
  - Registering a client with the client registry
  - Querying for clients records
  - Fetching a single client record
  - Updating a client's record
  - Unique identification of client given a unique ID for a client and returning the clients enterprise ID

### **3. Data Points**

The Provider Registry must be able to store the following attributes about a client:

- ECID - Enterprise Client ID
- Other ID's
  - NID Number
  - Application Number
  - Passport Number (and Passport Type)
  - Social Security Number
  - Mutuelle Number
- Last Name
- Other Names
- Father Name
- Mother Name
- Date of Birth
- Marital Status
- Gender
- Nationality
- Address
  - Province
  - District
  - Sector
  - Cell
  - Village
- Cell phone number
- Business phone number
- Email

### **4. Registry Manager Use Cases**

**Adding a new Client to the registry**

The client registry administrator fills in required data on the client registration form and submits to the system. The system performs the necessary validations and stores the new client information into the registry.

1. The client registry administrator opens the client registration form.
2. The client registry administrator fills in the new client data.
3. The system verifies if the data has been entered properly and performs necessary validations.
4. The system stores the new client data.
5. The system returns to the previous screen.

### **Searching for a Client in the Client Registry**

The client registry administrator searches for a client by specifying some criteria.

1. The client registry administrator inputs the search criteria.
2. The system searches through the client registry.
3. The system displays a list of search results.
4. The user can select one of the clients among the search results for viewing, editing or deactivation.

### **Editing a Client in the Client Registry**

The client registry administrator searches for the client to be edited and edits the client data.

1. The client registry administrator selects the client to be edited.
2. The client registry administrator edits the client data and submit to the system.
3. The system performs the necessary validations.
4. The system updates the client data into the registry.
5. The system returns to the previous screen.

### **Deactivating a Client in the Client Registry**

The client registry administrator can deactivate the client only if the client does not have any records associated with him/her in the system.

1. The client registry administrator searches for the client to be deactivated.
2. The system requires the confirmation of the client deactivation.
3. The client registry administrator confirms the deactivation of the client.
4. The system deactivates the client.
5. The system returns to the previous screen.

### **Suggest records to be merged**

1. The user chooses an option within the registry to search for suggested duplicate records.
2. The system attempts to find records that could be duplicates and displays these suggestions to the user.
3. If the user decides the record are duplicates they may choose to merge the 2 records.
4. The user should validate which is the correct record
5. The system then shows the user the difference between the 2 records and allow the user to choose the most correct value for each data field and allows them to edit each field individually.
6. The user then saves this record once all data has been merged.

7. This record is persisted with the newly merged data. The previous data that isn't being used anymore is de-activated.

### **Merge duplicate client records**

1. The user searches for a client record in the client registry and selects the record they would like to merge.
2. The user select the merge option on the patient record.
3. The system displays a screen where the user can choose another client record to merge the current record with.
4. The user searches for a duplicate client record and selects it to be merged with the current record.
5. The user should validate which is the correct record
6. The system then shows the user the difference between the 2 records and allow the user to choose the most correct value for each data field and allows them to edit each field individually.
7. The user then saves this record once all data has been merged.
8. This record is persisted with the newly merged data. The previous data that isn't being used anymore is de-activated.

### **Un-Merge client record**

1. The user navigates to view a record that has been previously merged.
2. The user chooses an option to un-merge the record.
3. The record is returned to the state it was in before the merger occurred.

## **5. Interoperability Service Description and Spec**

The Client Registry must support the following interoperability services:

- Return the enterprise client ID for a patient identified by another unique identifier
- Registering a client with the client registry
- Querying for clients records
- Fetching a single client record
- Updating a client's record

The web-service endpoints that the client registry exposes should follow closely the definitions in the RHEA Transaction Specification which can be found [here](#).