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Purpose

The purpose of the *caBIG Clinical Participant Registry (C3PR) Administration Guide* is to provide a C3PR Administrator with the general steps needed to configure the C3PR user interface after installation. There are also technical instructions on how to configure the C3PR services.

Audience

This document is intended for a C3PR administrator, who configures the C3PR user interface, and a technical administrator, who configures the caAERS services.

Related caBIG C3PR Documentation

For caBIG Central Clinical Trials Suite users of C3PR, please refer to the [Clinical Trials Suite Overview wiki page](#).

For users of C3PR, please refer to the [C3PR Documentation wiki page](#).

Credits and Resources

Role	Contact Person
Product Owner	John Speakman, NCI CBIIT
Project Management	Pankaj Agarwal, SemanticBits

Documentation History

The following table lists documentation revision information for this guide.

Version Number	Revision Date	Author	Changes
2.9.3	February 2011	Jessica Pritchard	New wiki guide

Contacts and Support

The NCI caBIG® Knowledge Center: The knowledge centers are NCI funded organizations that offer expertise and support related to domains and tools in the caBIG® program. The knowledge center website provides links to end user forums and developer forums, both of which you can reference for additional help. You can find the knowledge center page for C3PR at the [C3PR Wiki Page](#).

Creating a Super User

When installing C3PR for the first time or when using a blank database, a setup module will guide you through creating a new user.

To create a super user, follow the steps below:

Note: The user you create will not automatically have access to all of the studies in the system. The user will have to be added to a study in order to take advantage of certain types of C3PR functionality, such as registering a subject.

1. Enter the basic details of the research staff member you wish to create. A red asterisk marks all of the mandatory fields.

2. Enter the username and password.
3. Add the organization to which you wish to associate the research staff member. Click the green **Save** button to continue.

4. Fill-in the required configuration details, and click the green **Save** button once you have done so.

5. After completing the configuration details, you will be redirected to the C3PR login page. Enter your username and password. You should then see the main C3PR dashboard.

Configuring the C3PR User Interface After Installation

Once C3PR is installed, a C3PR system administrator and user administrator can use various user interface options to configure C3PR. The following table presents links to the steps an administrator can use to configure the C3PR user interface.

Step	Task	Link to Procedure
1	Add Investigators	Adding an Investigator in C3PR
2	Adding Email Notifications	Managing Notifications in C3PR
3	Add Research Staff Users	Adding Research Staff Users to C3PR
4	Create Organizations	Adding an Organization to C3PR
5	Import Studies and Registrations	Importing a Study and Registration into C3PR
6	Configure C3PR Options and Define the Password Policy	Configuring C3PR Options and Defining the Password Policy for C3PR

Note C3PR administrators must create investigators, research staff users, organizations, studies, and registrations before end users can enter information into the C3PR application.

Configuring C3PR Services

C3PR consists of a Java web application based on the J2EE Servlets infrastructure; WSRF-compliant web services built on top of the caGrid infrastructure; and JBI components hosted by the Apache ServiceMix JBI container.

Note: Some manual modifications of the Hibernate configuration files may be necessary. Hibernate is a set of libraries included with C3PR.

User Logins

By default C3PRV2.9.1 will redirect users to a login page where users will need to enter their username and password. C3PR v2.9.3 uses caCORE Common Security Module (CSM version 4.2) and Acegi Security for authentication and authorization.

Depending on which group the user belongs to will dictate which privileges they have; furthermore, the user may not have access to certain sections of C3PR.

Authorization is configurable at build time by setting the enableAuthorization flag. For more information, refer the design document and/or the C3PR installation guide.

Logging

C3PR v2.9.3 system uses Log4J for logging. By default the logging is set to a minimum so that only errors and severe problems encountered during the runtime are logged. However, there might be situations where you would like to get detailed information on system failures. To change any of the log4j settings for C3PR, you will have to edit the log4j.properties file. You can typically find this file for a pre-deployed C3PR v2.9.3 system in the WEB-INF folder of your web application.

To make edits to the WEB-INF/log4j.properties file, you will need to be familiar with the Log4j API. You can find more information on this topic at <http://logging.apache.org/log4j/1.2/publications.html>.

Note: You will have to restart your application server (tomcat) for the new logging rules to take effect.

Database Connection

C3PR relies on a relational database for persisting information. There might be a situation when a pre-deployed C3PRV2.9.1 systems database connection details need to be modified. To change the database connection details you will have to edit the build.properties (in the antfiles directory) and re-deploy C3PRV2. For more information on deploying C3PR, see the C3PR Installation Guide.

Please note that this feature will change in a future iteration to enable making this change without having to re-build C3PR.

Enterprise Service Bus (ESB) Communication

Sending Messages

The following are properties related to sending messages:

- *esb.brokerUrl* - This property represents the URL of the ESB (caAdapter). There are situations where this property can change, or you can use a different ESB.
- *broadcastEnable* - This property will disable or enable sending messages to the ESB. A value of **false** will stop sending messages to the ESB.

Note: You will have to re-deploy C3PR for these new properties to take effect.

Receiving messages

C3PR also has the capability to receive messages from the ESB by deploying a special grid service that will accept messages from the ESB. To disable receiving messages, shut down or remove the RegistrationConsumer grid service, which will typically be deployed in \$CATALINA_HOME/webapps/wsrf.

Note: This grid service is not deployed by default in the present iteration of C3PR.

C3PR Integration with NES

If C3PR is configured properly, a user can search for a study, organization, investigator, or research staff member, or association between them in the NCI Enterprise Services (NES), update the information in C3PR, and then synchronize the C3PR version with the NES version. C3PR will save references to the data from these services and will call the services each time the data are used to ensure accuracy. If the services are unreachable, saved local data will be used until the connection to the services is restored, at which time it will be refreshed. Data elements obtained using NES are notated in the user interface with the NCI icon.

To configure C3PR for NES, a System Administrator must:

1. Select **Administration** tab and the **Configure C3PR** option.
2. For the **NCI Enterprise Services (NES) Configuration** maintain **Yes** for the **Enable NES** option.

3. Configure C3PR with caBIG Integration Hub as well.

◆ For complete instructions on configuring C3PR, see [Configuring C3PR Options](#).

Important Tips

- Once a remote record is returned by a search and saved in the local database, it can be searched and used as if it were a local record.
- In the event that the services are unavailable, C3PR will use data from the local database, including all remote records that have been returned by a previous search and saved in the local database.
- Once access to NES is restored, the remote record data is refreshed.
- Auto-completer searches do not search NES; however, all remote records to which references are saved locally are searched, and any records satisfying the search criteria will be refreshed from NES.
- Wildcard searches are not supported when using NES; however, all remote records to which references are saved locally will be searched, and any records satisfying the search criteria will be refreshed from NES.

Calling the Services

When a user searches the NES, the following sequence of events occurs:

1. C3PR searches the NES and retrieves results that match the search criteria.
2. C3PR removes duplicates from the search results based on the CTEP ID for organizations and persons.
3. C3PR saves a reference to these records in the C3PR local database as remote records.
4. C3PR searches the local database and retrieves results matching the search criteria, which include the NES results.
5. If a result is contained in both the local and NES results, the user sees the resulting data from the local database.
6. C3PR then displays the union of the two search results.

Name (required):

Website:

Comment: