

# INQUISIQ<sup>r3</sup>

## **Overview of User Account Creation & Synchronization Methods**

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## Overview of User Account Creation & Synchronization Methods

There are a variety of methods that can be used to create user accounts in Inquisiq R3, including some that can be automated and used to synchronize the Inquisiq user population to other external systems.

Fundamentally the user account creation methods fall into two categories, the first are manual methods that are performed within the Inquisiq R3 web interface. The second category includes methods that are automated and controlled by other processes both external and internal to Inquisiq.

### Manual Methods

1. User Self-registration: if enabled, users can go to your Inquisiq homepage and click the “To create an account, [register here](#)” link, which will take them to a registration form of your design. When the user submits the registration form a new user account is created.
2. Administrators can manually create individual user accounts from the Inquisiq administrator menu.
3. Administrators can create many user accounts by performing a Batch Upload from the Inquisiq administrator menu.

### Automated Methods

4. API – another system can communicate with Inquisiq R3 through the API.
5. Active Directory Synchronization
6. SQL Push/Sync
7. SQL Pull

Of the automated methods, each method is characterized as a “push” or “pull” method. Push methods are those where an external system actively executes a process to push the data into the LMS. Pull methods are where the LMS actively executes a process to pull the data from an external system. In all cases, the passive system must be exposed to the active system otherwise any connection attempts will fail. This means that you may need to open ports on any firewalls that are protecting the passive system in order for these methods to work properly. Note that in some cases, opening firewall ports is not advisable or possible, in which case an alternate synchronization method must be used. Below is a brief discussion of the different processes that can be used to create and in some cases synchronize user accounts in Inquisiq.

## Batch Upload

**Direction:** Push

**LMS Access Point:** LMS Web Interface

**Encryption:** HTTPS per LMS configuration

**Description:** The batch upload is a feature built into the Inquisiq R3 LMS web interface that is accessible to a user with the correct permissions. The function allows you to upload a tab-delimited text file with all of your user information. This function can be used to create new accounts as well as update existing user accounts.

This method is best used for one-time or infrequent updating of the LMS's user base and is available via the LMS web interface to any user with the appropriate permissions.

It is the responsibility of the customer to properly create and format the data file according to the LMS requirements. More detailed information on how this function works can be found in the Inquisiq R3 interface as well as the Administrators Manual.

## Active Directory Synchronization

**Direction:** Pull

**LMS Access Point:** N/A

**Encryption:** None

**Description:** This method is configured within the LMS web interface and requires no external coding or configuration. An administrator enters the Active Directory server and domain information then verifies the connection. Upon verification, the LMS pulls the user data from the Active Directory server and domain as specified. Going forward, each user is authenticated and re-synchronized to the Active Directory server and domain each time they log in to the LMS. Global re-synchronization can be performed by re-verifying the Active Directory connection.

This method requires that the customer's Active Directory server be exposed to the LMS Web Server and therefore is most appropriate when the LMS software has been installed behind the customer's firewall. It is not recommended that this method be used if the user data will be transmitted across public networks.

## API Synchronization

**Direction:** Push

**Access Point:** HTTP scripts located on the LMS web server

**Encryption:** HTTPS per LMS configuration

**Description:** Custom code developed by the customer and typically residing on their systems connects to the API scripts and uses them to read and/or write data to/from the LMS. It is the customer's responsibility to develop this process according to the LMS documentation.

This method is best used when no other automated methods described above are available. This method only requires that the LMS be configured to allow API communication to occur.

When using this method, it is recommended that the LMS's user base be "seeded" using the Batch Upload (described above) first and then updated only on an as-needed basis via the API.

The API currently supports the following functions:

- Get User (retrieves information for a specific username)

- Create User
- Get Course (retrieves information about a course)
- Get Enrollment (retrieves information about a specific enrollment)
- Create Enrollment (creates a new enrollment)

Detailed information on how to use these API support functions is available in our API Users Guide.

## SQL-to-SQL Synchronization

**Direction:** Push

**LMS Access Point:** LMS Database Server.

**Encryption:** Implementation Dependant

**Description:** Custom code developed by the customer and typically residing on their systems stages user data by pushing it directly to the LMS database (**tblUserBatch** table) and then invokes a stored procedure (pre-built and included with the LMS) which merges that data with the live user base. It is the customer's responsibility to develop this process for staging as specified in the LMS documentation.

This method requires that the LMS database server be exposed to the customer's staging process and therefore is most appropriate when the LMS software has been installed behind the customer's firewall and Active Directory is not available or not utilized within their network.

Detailed information on how this process works is in our InquisiqR3 User Synchronization Guide.