Connect Server Authorization

OL Connect 2020.2 introduces role based authorization and multiple users for OL Connect Server. In this article, we take a sneak peek at what this looks like for this first cut on improving security of the OL Connect Server.

Users in OL Connect

When working with OL Connect, some people may be hardly aware that it can require a username and a password to be able to print, or automate OL Connect tasks from Connect Workflow. This is because by default there is a user "ol-admin" with a preconfigured password, and both are also preconfigured in every Workflow configuration and in Connect Designer.

Only when someone tries to use the OL Connect Server from another client than Workflow or Designer, or when trying to use some of Connect's functionality through scripting, does it become apparent that there's a username and password needed to use Connect's REST API.

The fact that one username and password is the only thing guarding Connect Server and the data it processes, is not really helped by the default password that *should* be changed after installation...

In a security conscious environment, these things need to be handled differently.

Multiple users

With version 2020.2, it is now possible to configure multiple users. This can be used to better control access to OL Connect Server. For instance, Connect Workflow can have its own credentials, while users of Connect Designer can have their own username to allow them to print jobs.

Installation

At installation time, you are asked to set a username and password for the first user. The suggested name is "`olc-user`", but you are free to choose a different name (so you can still use `ol-admin` if you are feeling nostalgic). A password is required.

An update installation will keep the existing `ol-admin` user, and its password.

Configuring users

Once installation is complete, you can go into the Connect Server Configuration tool, and add more users.
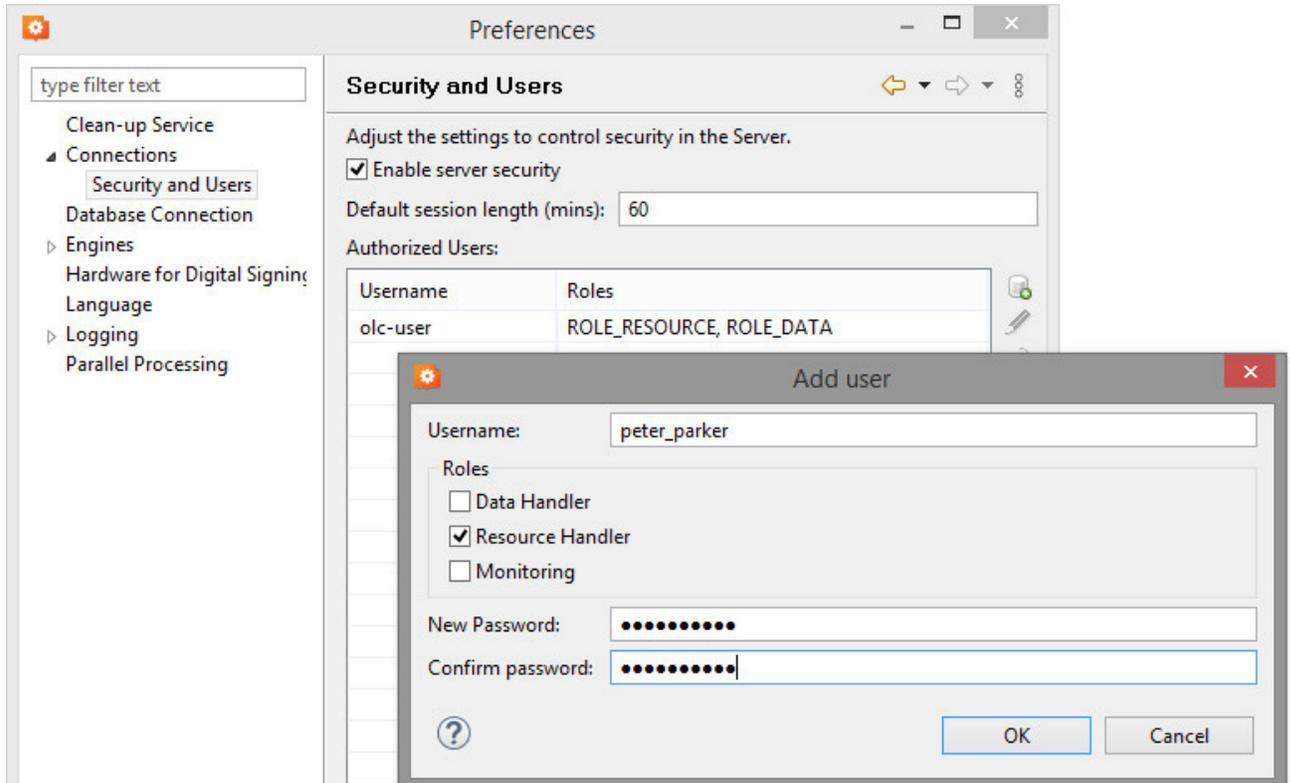

For instance, one might want to have a user for Workflow, and a different one for people printing from Designer. But if, for example, there are 3 persons expected to be printing from Designer, then it can make sense to give each their own credentials.

Users in Connect Designer and Workflow

New installations of Connect Designer and Connect Workflow do not get a default user for connecting to the Connect Server. So these will need to be set manually before interaction with Connect Server is possible.

Note that these credentials are only needed for interacting with Connect Server. Connect Designer only needs this for printing (not for proof printing), the new "Send to Connect Server..." feature, and when Data Mapping PCL or AFP input. When you choose Print, it will prompt for credentials if they are not yet in your preferences.
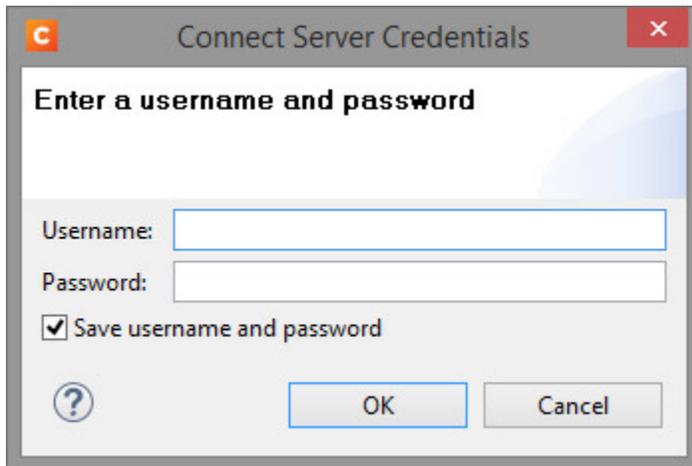
Users in the database

Most settings in the Connect Server Configuration are stored in files locally on the server. The users however, are stored in the database. This is important to be aware of, because it has some implications:

- If the database is dropped, you loose all users as well. So it is no longer advisable to drop the database as a quick way to "clean up" OL Connect.
- If the database is not available, it is not possible to edit the user list.

Server Roles

Logging on with a certain username and password means the server knows who you are, but it doesn't yet mean that you are allowed to do anything. For that, the user needs to be configured with certain roles. We have created three different roles:

- Data Handler
- Resource Handler
- Monitor

A user can have more than one role.

Data Handler

This role allows a user to work with data. This includes uploading and downloading data files, getting field values, and updating field values. Starting operations, and getting the result of an operation, is also only allowed for users with this role.

This means that this role not only controls if the user is allowed to see or change data, but also if this user can get OL Connect to produce output.

If the production data is sensitive, then be careful which user gets this role, and who knows those credentials.

Connect Workflow needs this role for all its main Connect related functionality (Data Mapping, Content Creation, Job Creation, Output Creation), but also for many other Connect tasks like Retrieve Items, etc.

Connect Designer needs this role to be able to print (but not for proof print), and for data mapping PCL, and AFP files.

Resource Handler

This role is for uploading templates, Data Mapper configurations, and print presets to OL Connect Server. Working with these resources in Designer is not at all affected; this only controls whether or not they can be changed on the server side.

Connect Workflow needs this role for its main Connect related functionality (Data Mapping, Content Creation, Job Creation, Output Creation), because Workflow wants to upload resources itself.

Connect Designer needs this role to use the new "Send to Connect Server" function.

Monitor

This role is for viewing what's happening on the server. It allows viewing what operations are running, and their progress. It's not completely harmless, because it also allows cancelling an operation. In addition, it gives read access to resources such as templates.

If you want to create a dashboard for viewing the activity of Connect Server, then logging on with this role will allow that dashboard to show what's going on, without being able to make changes or view data.

Roles at a glance

Role	Summary
Data Handler	Work with data, start operations, get results, see resources.
Resource Handler	Upload templates, Data Mapper configurations, and print presets.
Monitor	See progress of operations, cancel operations, see resources.

Q&A

- What if a password is forgotten?
  - There is no way to retrieve a forgotten password. But it's easy to set a new password from the Connect Server Configuration tool.
- Why do I not have to enter the old password, when entering a new password in the the Connect Server Configuration?

- Because the Connect Server Configuration is a tool used by administrators to create and maintain all users that get access to Connect Server. "Enter your old password" functionality fits with a single user changing their own password.
- What if I want a super user that can do everything?
  - A user can have multiple roles; just assign all roles.
- What's the point of having two separate roles for handling data and resources, if both Connect Workflow and Connect Designer require both to be able to do everything?
  - The REST API can also be used from other clients. Some of our customers and resellers have their own automation tools that may work well with only the Data Handler role.
  - The Connect Designer can be used without the Data Handler role, and could then still allow the user to send resources to Connect Server.
- Now that we have authentication, why is there not a login prompt when I start Connect Designer?
  - Because the authentication is only for Connect Server. If you have Designer on your desktop, you are welcome to work with it; this will not affect production.
- Does this improvement make OL Connect Server a secure product?
  - It helps, and we continue work on improving security. For example, https support is at the top of our list, and is a requirement for any authentication method to be secure.
- Does it integrate with Active Directory? Does it integrate with Azure AD? Does it integrate with LDAP?
  - Not in the 2020.2 release of OL Connect. One of our next goals is to integrate with Azure Active Directory. Integration with the classic on-premise Active Directory, or generic LDAP, could be a next step after that, but this also depends on the need, once we have Azure AD support.