



Claris FileMaker Cloud

Migration White Paper

Purpose

This document covers migration steps and considerations for moving existing FileMaker® deployments to FileMaker Cloud. For best practices on installation, configuration, and navigation, see FileMaker Cloud Help in the Product Documentation Center.

About FileMaker Cloud

FileMaker Cloud is the first step in the Claris overall cloud-first journey to drive digital transformation and the best digital experiences in the workplace. It is a service that provides access in the cloud to custom apps for FileMaker Pro, FileMaker Go, and FileMaker WebDirect clients.

Powered by AWS, Claris owned infrastructure

FileMaker Cloud runs on Amazon Web Services (AWS) infrastructure; however, Claris International Inc. owns the underlying FileMaker Cloud infrastructure as well as the security of the infrastructure.

The following dedicated teams employed by Claris handle the development, reliability, and security of the FileMaker Cloud environment:

- SecOps (end-to-end encryption, multi-factor authentication, and IP whitelisting, etc.)
- DevOps (deployment, monitoring, and availability)
- CloudOps (uptime, automatic updates and backups, and performance)

This change allows Claris to provide the agility, speed, and security standards expected from a cloud deployment, while also allowing avenues for better insight, more seamless connectivity and collaboration, and the ability to bring new technologies to market faster.

Pre-migration considerations and limitations

Before migrating your custom apps to FileMaker Cloud, keep the following in mind.

- Claris ID is an integrated sign-on system for authenticating users of Claris products and services. To create a FileMaker Cloud instance or access an app hosted on FileMaker Cloud, a licensed user is required to sign in with their individual Claris ID account.

This change can impact existing deployments that rely on the following:

Concurrent connections licensing models

Every FileMaker Cloud user must have a unique Claris ID account (which cannot be shared) and must be a uniquely licensed FileMaker Cloud user. Because of this, FileMaker Cloud does not support anonymous concurrent connections.

Note: Claris ID authentication is required to run FileMaker Data API requests in FileMaker Cloud.

External authentication

Team managers can set up account authentication with an external identity provider (IdP), so that users can sign in with that provider account instead of Claris ID. For example, a user who has a Microsoft Active Directory (AD) or an Okta account can sign in to Claris Customer Console using the external IdP information.

First, set up external IdP authentication in Claris Customer Console. Next, invite users to join the team and to sign in using the external IdP information. Then, create an external IdP group.

Each team may be set up with only one external IdP at a time. However, once you have set up authentication in one team, you do not have to repeat the process for another team that will use the same external IdP.

See FileMaker Cloud help for more information about setting up authentication with an external IdP.

- Existing web pages should be built to leverage FileMaker Data API. FileMaker Cloud does not support web pages created using Custom Web Publishing technologies.
- FileMaker Cloud does not support server-side plug-ins.
- All files must be converted to the FMP12 format.
- FileMaker Pro 18.03 Advanced is the minimum version for uploading and accessing FileMaker Cloud apps.

Migrating to FileMaker Cloud

The migration experience for most FileMaker Server or FileMaker Cloud for AWS administrators involves four simple steps:

1. Gather your custom apps.
2. Invite Claris ID users and create Claris ID groups.
3. Add Claris ID users and groups to the custom apps.
4. Upload custom apps to FileMaker Cloud.

Step 1: Gather your custom apps

If FileMaker Server or FileMaker Cloud for AWS is the current host, use the Admin Console to close and then download the custom apps. A custom app that is too large or uses container data stored externally may be downloaded as a ZIP file.

Note: For container fields with externally stored data, FileMaker Cloud supports these fields only if the secure storage option is enabled. If container fields are configured with open storage, an error will appear during the upload process. Review these steps in FileMaker Pro Help to transfer container data to secure storage:

Step 2: Invite Claris ID users and create groups

As previously mentioned, Claris ID authorizes access across Claris products and services. In FileMaker Cloud, Claris ID is required for the following:

- Creating a FileMaker Cloud instance.
- Accessing a FileMaker Cloud hosted app.
- Single sign-on across FileMaker Cloud hosted apps.
- Uploading a FileMaker custom app to FileMaker Cloud.
- Running FileMaker Data API requests.

Because Claris ID accounts and groups are required to upload a custom app, save time by managing Claris ID users and groups in Claris Customer Console before uploading the files.

Invite Claris ID users

At the top of Claris Customer Console, click the Users tab. Then, click the **Invite New User** button on the left of the screen.

The screenshot displays the 'Users' management interface in the Claris Customer Console. At the top, the 'Sample Cloud Inventory' header includes a 'Team Manager' dropdown. The navigation menu below it highlights the 'Users' tab. The main section, titled 'Users', provides instructions to 'Add and manage users in your team.' Underneath, the 'All Users' section features an 'Invite New User' button and a search input. A table lists the current user roster:

Name	Email	Team Manager	User Type	License Status
Elaine Blackwell	elaine_blackwell@example.com		Managed	Licensed
Jacky Ward	jacky_ward@example.com		Managed	Licensed
Pending	brad_kelly@example.com		Invitation Pending	Licensed
Pending	connor_rubio@example.com		Invitation Pending	Licensed
Tyler Ryan	tyler_ryan@example.com	Team Manager	External	Licensed

The interface also indicates '1 licenses available' and includes a footer with copyright notice and utility links.

In the dialog that appears, enter the Claris ID username for the user you want to invite to your FileMaker Cloud team. Invited users who have not yet created a Claris ID account will receive email instructions to do so.

Note: Multiple individuals cannot be invited all at once. Invite users one at a time.

During the invitation process, users can be given the status of a licensed user and/or a team manager. Claris Customer Console can be used to change the status at any time. Only licensed users may access FileMaker Cloud hosted apps, and each one consumes a license from the subscription's user total.

Note: Multiple users cannot share Claris ID accounts and/or FileMaker Cloud licenses.

Team managers help govern the FileMaker Cloud team by doing tasks such as activating and deactivating Claris ID accounts, inviting users to the FileMaker Cloud team, and creating groups.

Invite New User to Sample Cloud Inventory

Email Address [?](#)

 Add as licensed user [?](#)
This user will have access to the team's resources as a licensed user.

After you add this user, your team will have no more licenses.
[Upgrade your subscription](#)

 Add as team manager [?](#)
This user will be able to manage the team's resources. Each team should have at least two team managers.

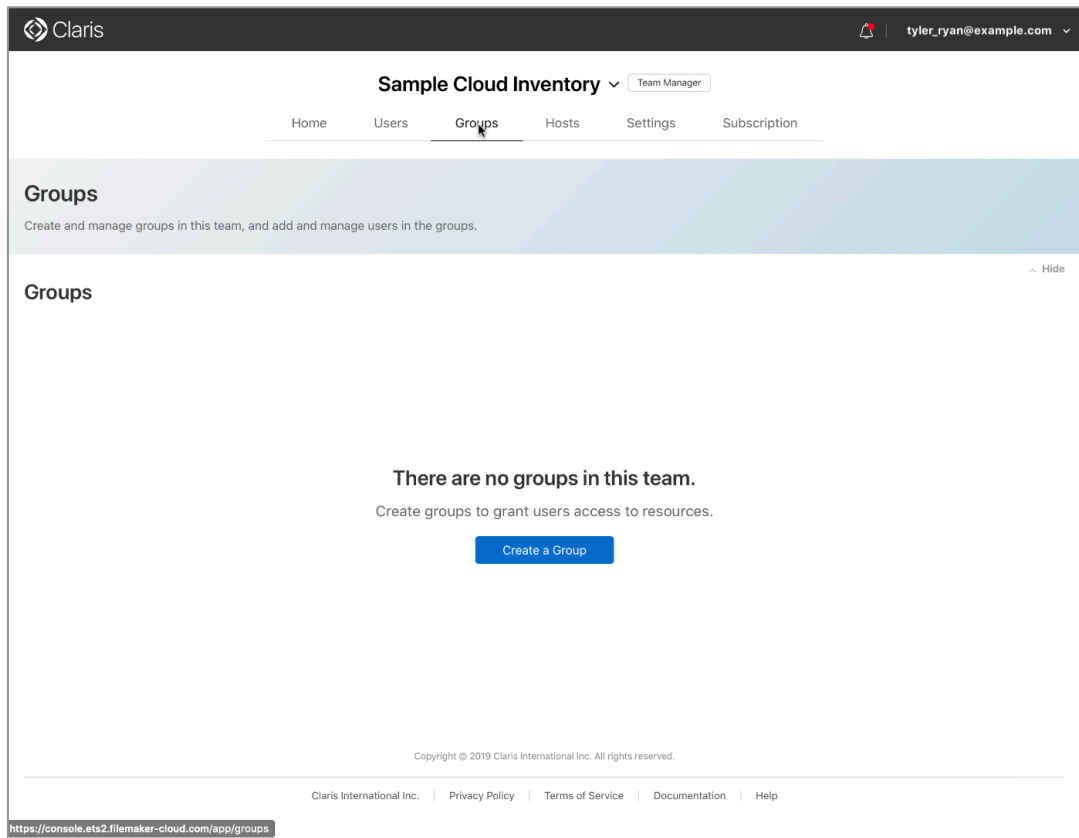
It is a best practice for a team to have at least two team managers in case a team manager is deactivated by leaving the company, leaving the project, etc.

Create groups with Claris ID users

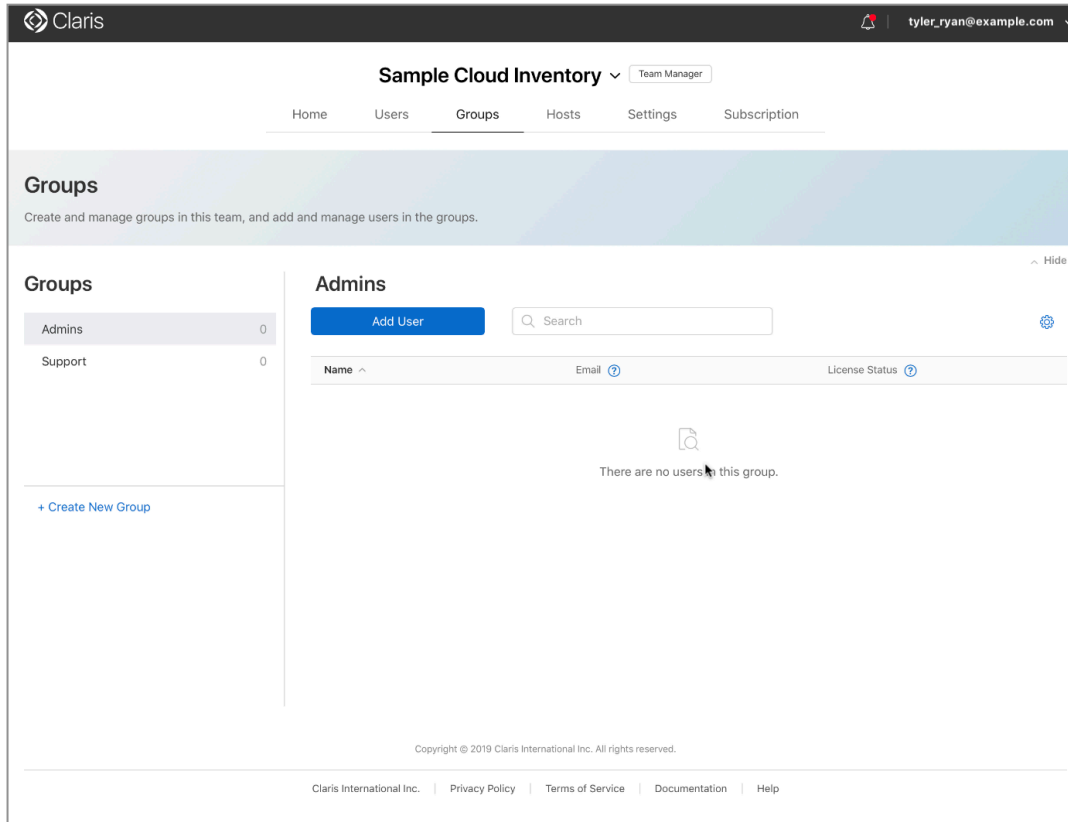
Groups are a subset of users in a team. Groups allow all Claris ID users in a group the same access privileges to team resources.

Note: Multiple Claris ID users cannot be added to a group all at once. Add Claris ID accounts to a group one at a time.

To create a group, click the Groups tab at the top of Claris Customer Console. Then, click the **Create a Group** button and provide a name for the group.



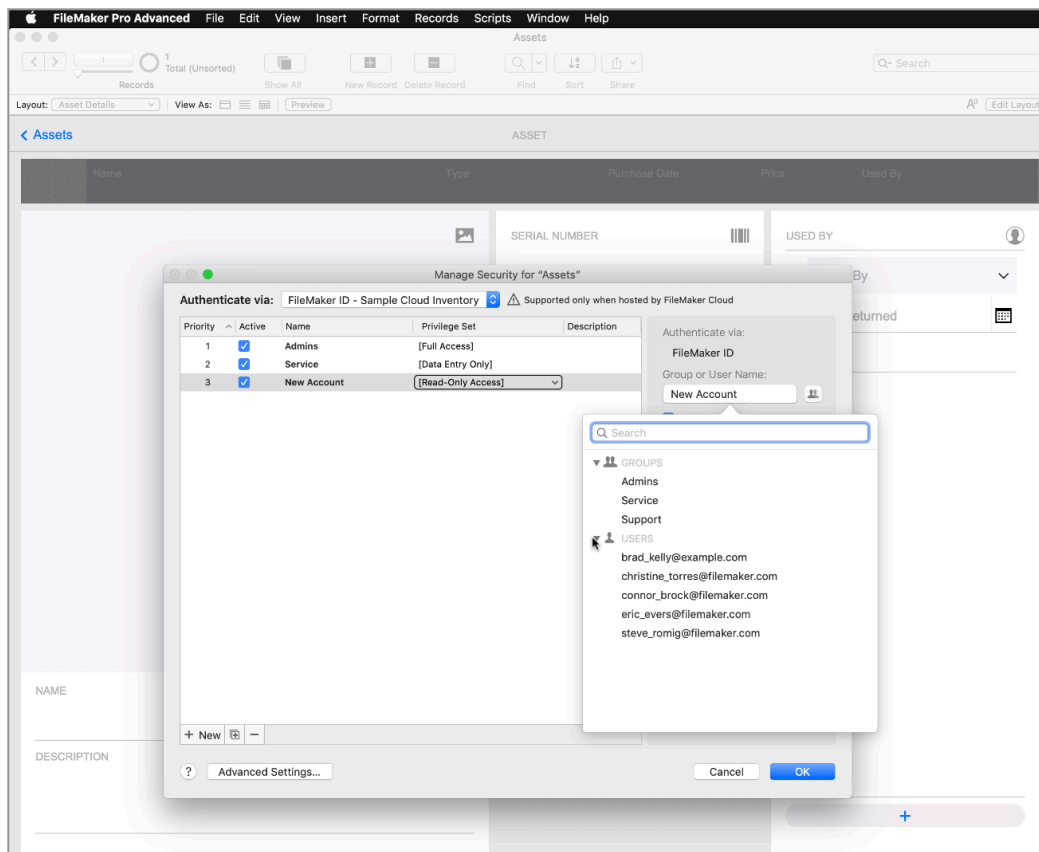
After you finish creating groups, select a group and click the **Add User** button. A list of Claris ID accounts associated with your FileMaker Cloud team appears. Select a Claris ID account and click the **Add** button to add the Claris ID user to the group.



Step 3: Add Claris ID users and groups to your custom app

To use FileMaker Cloud to host a custom app, the app must grant account access to a Claris ID user or group. An error will appear during the upload process if a custom app does not contain a valid Claris ID user or group account.

To create or edit Claris ID account access in the custom app in FileMaker Pro, navigate to **File menu > Manage > Security**. At the top of the Manage Security dialog box, for **Authenticate via**, choose the FileMaker Cloud team that will host the app.



Tip: In the New Account list, click the ⓘ icon to the right of the group name to view a list of Claris ID accounts associated with the group. Clicking on the 👤 icon to the right of the list opens Claris Customer Console for quick Claris ID user and group edits.

Next, click the **+ New** button at the bottom left of the window. An authentication pane appears on the right. Choose **New Account**, choose the appropriate Claris ID group or account, then choose the privilege set for each groups' level of access.

Note: If a custom app is going to use FileMaker WebDirect, click on the **Advanced Settings** button in the Manage Security dialog box and enable the **fmwebdirect** extended privilege for the appropriate user or groups. The **fmwebdirect** extended privilege is a required setting for FileMaker WebDirect accessibility. It is also essential to enable the **fmapp** (access via FileMaker network) extended privilege before uploading your apps.

By default, the **fmapp** extended privilege is enabled during the upload process when no other extended privileges are selected. However, if an extended privilege, such as **fmwebdirect**, is enabled before upload, the **fmapp** extended privilege is not enabled by default. The custom app must then be downloaded in order to view or create any underlying design, schema, or access changes.

Step 4: Upload your custom app to FileMaker Cloud

Note: Only team managers can upload a custom app to FileMaker Cloud.

Similar to FileMaker Server and FileMaker Cloud for AWS, FileMaker Pro may be used to upload custom apps to FileMaker Cloud (minimum requirement is FileMaker Pro 18.0.3 Advanced). To start, open FileMaker Pro and sign in to a Claris ID account if the account is not active. Navigate to **File** menu > **Sign in with Claris ID**, or click the **Sign In** button in the Launch Center for Claris ID authentication.

Next, go to **File** menu > **Sharing** > **Upload to Host**. On the left of the Upload Host dialog box is a list of local, remote, and favorite hosts. FileMaker Cloud teams are displayed at the top of the hosts list.

Choose the appropriate FileMaker Cloud team before browsing for or dragging the custom apps into the Upload Host dialog box.

Finally, click the **Upload** button to start the upload. The hosted apps appear in Claris Customer Console for easy, one-stop access.

Note: If an unencrypted app is uploaded, FileMaker Cloud automatically encrypts the custom app and provides an encryption password. The password can be viewed on the FileMaker Cloud Admin Console > Databases tab and requires reauthentication to Claris ID. Encrypted apps are prompted for the password during the upload process.