

FileMaker Cloud Help

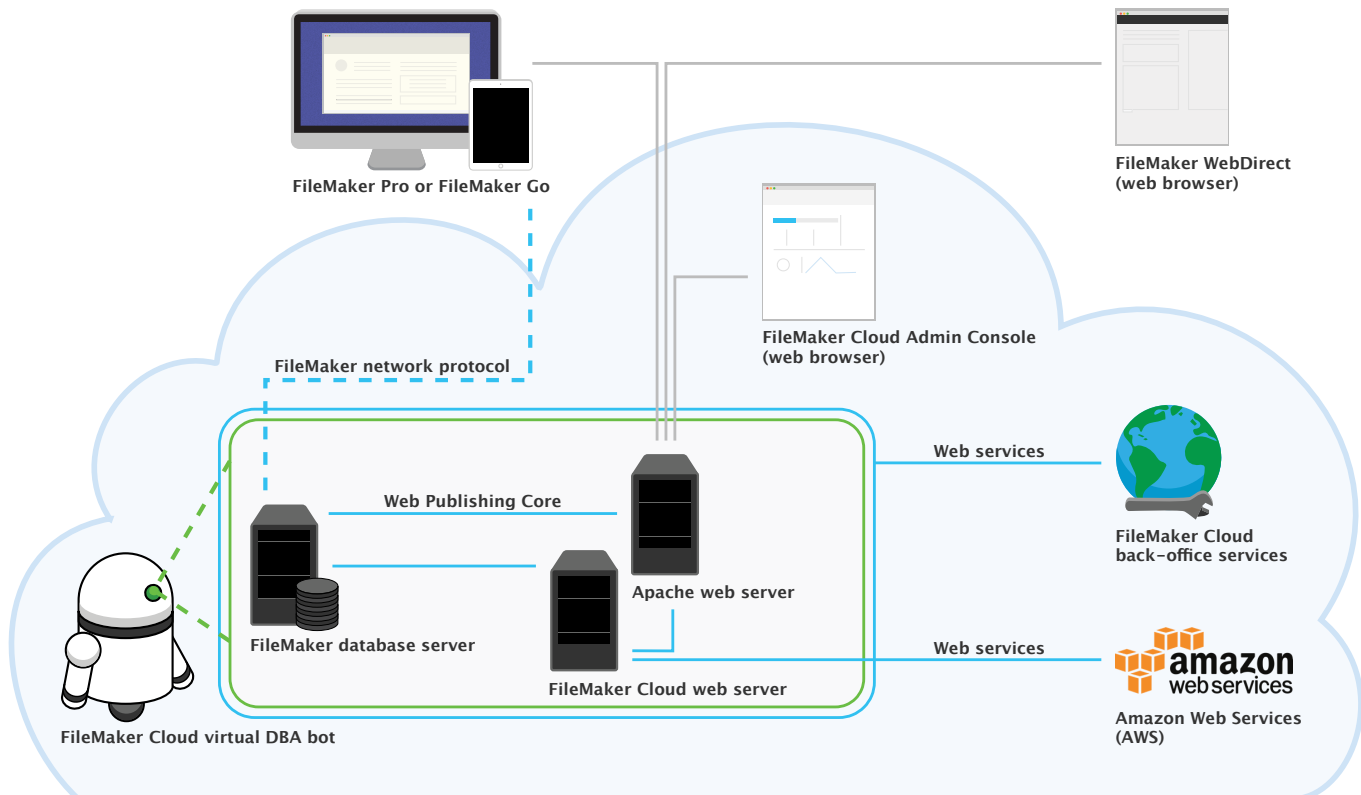
Introducing FileMaker Cloud

What is FileMaker Cloud?

FileMaker Cloud provides reliable access to your database solutions (custom apps) that use FileMaker Pro, FileMaker Go, and FileMaker WebDirect. Your data is managed by FileMaker Cloud and hosted through Amazon Web Services (AWS). FileMaker Cloud is offered by Orbitera on AWS Marketplace.

FileMaker Cloud technical overview

FileMaker Cloud uses Apache HTTP server as an access point. FileMaker Cloud Admin Console is the user interface that allows users to monitor and administer their instance. Instance-related data from AWS and FileMaker-related data from the FileMaker Data API is sent to Admin Console through the FileMaker Cloud web server.



FileMaker Cloud Architecture

FileMaker Cloud uses these Amazon Web Services:

- Elastic Cloud Compute (EC2) provides scalable computing capacity
- Elastic Block Storage (EBS) provides persistent storage volumes for your data
- Simple Storage Service (S3) stores Amazon Machine Images (AMIs), used to launch EC2 instances; S3 also stores snapshots (backup copies) of data volumes
- Simple Email Service (SES) provides a platform for sending email notifications
- CloudFormation provides a template for provisioning AWS resources needed to create an EC2 instance

Monitoring and managing instances

After you create and set up your FileMaker Cloud instance, you use FileMaker Cloud Admin Console to monitor and manage your instance. There are two main types of tasks:

- FileMaker Cloud instance-related tasks, such as upgrading the storage volume size
- FileMaker data-related tasks, such as preserving backups or downloading databases

About FileMaker Cloud users

FileMaker Cloud users are server administrators. There are two types of FileMaker Cloud administrators: root and non-root.

- The root administrator creates the FileMaker Cloud instance and has full access privileges. As the instance creator, the root administrator receives all FileMaker Cloud emails. The root administrator invites other users to be non-root administrators.
- Non-root administrators are authenticated with Amazon credentials and have limited privileges. They can work with FileMaker Pro databases and backups, upgrade or refresh the FileMaker Cloud instance, and receive system notification emails.

Note: FileMaker Cloud does not permit guest administrator account access.

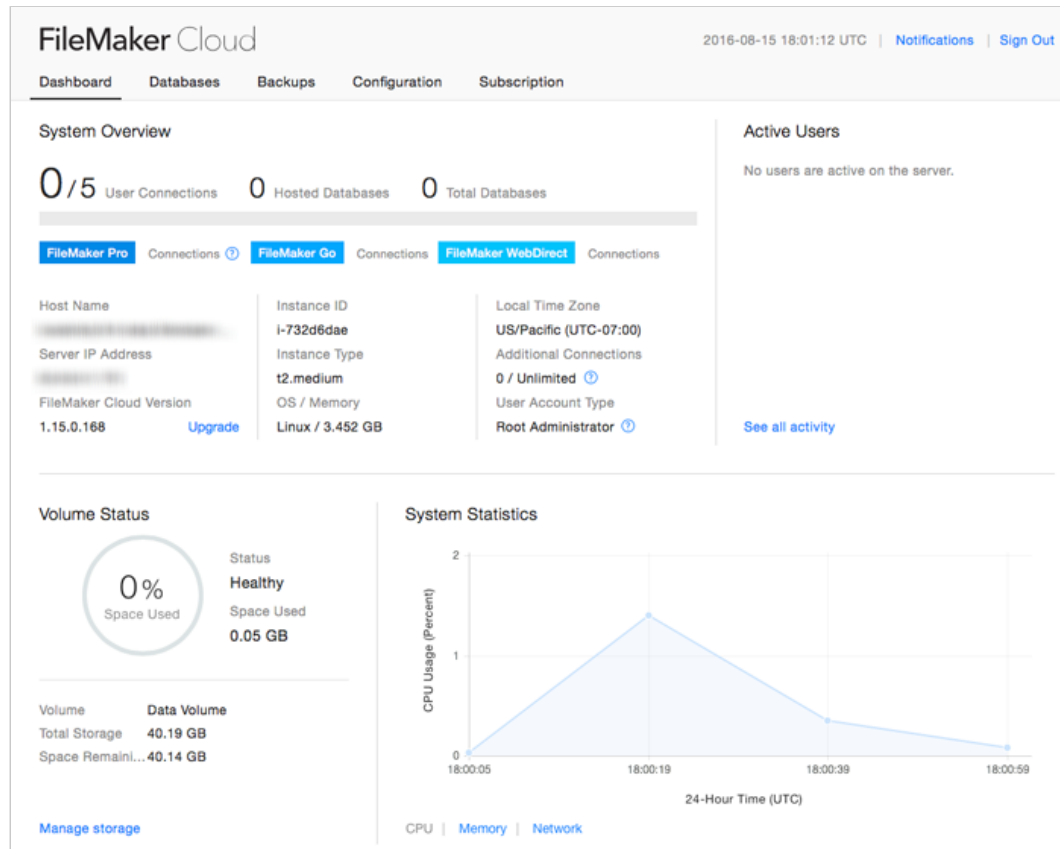
There are also FileMaker client users, which you see on the Databases page of FileMaker Cloud. These users are connected to hosted databases via FileMaker Pro, FileMaker Go, or FileMaker WebDirect User Connections licenses.

Navigating FileMaker Cloud

Viewing the system summary

When you sign in to FileMaker Cloud, you see the Dashboard, which provides a summary view of your system. The Dashboard also contains a set of tabbed pages for you to navigate as you administer FileMaker Cloud and database connections: Databases, Backups, Configuration, and Subscription.

Note: If you plan to use a custom signed SSL certificate, FileMaker, Inc., recommends performing that configuration task first. See [Importing SSL certificates](#).



The Dashboard shows information about:

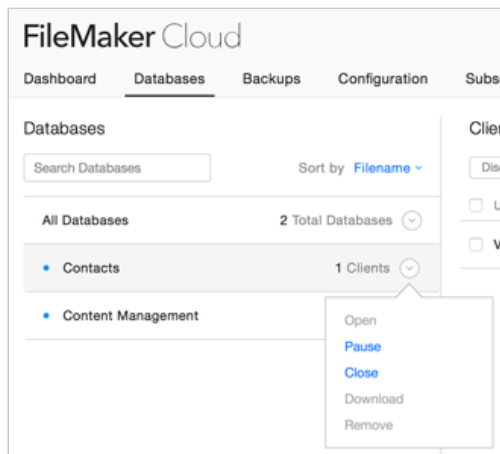
- your FileMaker Cloud AWS instance
- available and in-use connections to FileMaker Cloud
These can be FileMaker Pro (for User Connections), FileMaker Go, or FileMaker WebDirect client connections. The Additional Connections field shows FileMaker Pro or FileMaker Pro Advanced computer licenses, which are not included in the User Connections count.
- hosted (open) and total databases
- active users (currently connected to FileMaker clients)
- data volume status
- CPU and memory usage, and network throughput; this data updates every 20 seconds

The upper right of the Dashboard shows the FileMaker Cloud server time in Coordinated Universal Time (UTC). This time is offset from the local time zone that you selected when you set up the instance.

Next to the UTC time, the Notifications drop-down list shows important events for you to respond to, such as warnings on data volume or memory usage, or patch application.

Working with databases and clients

In FileMaker Cloud, click the **Databases** tab to view, sort, and search uploaded databases. Click the down arrow to the right of the databases list to open, pause, resume, close, and remove databases.



You can also manage clients connected to the databases, and send messages to client users (for example, if you are going to pause the database they are connected to).

Encrypting and uploading database files

In FileMaker Cloud, all database files require an encryption password to open them. You must enter an encryption password when you open the file in FileMaker Cloud.

If you use FileMaker Pro Advanced, you can encrypt a database file with a password, upload the database to FileMaker Cloud, and enter the previously created encryption password when you open the database.

If you use FileMaker Pro or FileMaker Pro Advanced, you can upload a database file that is protected with a password, and create an encryption password prior to opening the database. The password must have from 8 to 128 characters and include 3 of these 4 character types: uppercase letter, lowercase letter, number, and symbol.

Note: Only database files with password protection can be opened on FileMaker Cloud.

You must know the FileMaker Cloud administrator user name, which is an email address, and password to upload a database file.

To upload and open a database file:

1. In FileMaker Pro or FileMaker Pro Advanced, choose **File > Sharing > Upload to FileMaker Server**.
2. Select the FileMaker Cloud host name.
If that name isn't listed, enter the host name or IP address.
3. Enter the administrator user name and password.
4. Browse to navigate to the file or files, and click **Upload**.
If the files have not been encrypted in FileMaker Pro Advanced, the **Automatically open databases (on server) after upload** option has no effect.
5. After the upload completion message appears, in the FileMaker Cloud **Databases** tab, click the right arrow next to the database and choose **Open**.
6. Enter or create an encryption password.
You can save the password by selecting the **Save password** checkbox.

Notes:

- If you do not save the password and you choose to open all databases, databases without the saved password will not open.
- Files are always uploaded to the default folder.

Working with backups

In FileMaker Cloud, click the **Backups** tab to view, preserve, and restore backups. A backup is a snapshot of your storage volume, which contains all your data, including databases, configurations, and logs.

FileMaker Cloud uses AWS EC2 snapshots to back up your storage volume. Backups run every twenty minutes, and FileMaker Cloud stores one week's worth (504). Once that limit is reached, FileMaker Cloud deletes older backups in sequence.

Note: If a backup fails, FileMaker Cloud retries the backup in five minutes.

Backup activity is logged in `awsmanager.log`. Backups do not run if no databases are present.

You can preserve backups. Preserved backups are stored in AWS S3 and will add to your storage size and cost. Preserved backups cannot be auto-deleted by FileMaker Cloud.

Note: When auto-maintenance is enabled on the System Configuration page, the latest backup is preserved nightly before the server restarts.

Viewing and managing backups

In the Backup Summary area:

- Click **All Backups** to see a list of all backups, preserve backups, and edit backup labels.
- Click **Preserved Backups** to see the list of preserved backups, edit backup labels, remove a backup from the preserved list, and restore from a backup.

Backups appear in timestamp order.

In addition to scheduled backups, you can initiate a back up on demand.

To back up on demand, click **Back Up Now**.

The duration of the backup varies with the data difference of the databases on the data volume. If there is a big difference, the backup takes longer. You must refresh the web page to see the new backup listed. Backing up on demand also produces a preserved backup.

Editing backup labels

FileMaker Cloud automatically assigns a label to every backup, based on its origin:

- **Auto-snapshot** backups result from the 20-minute backup schedule.
- **Auto-maintenance** backups result from the nightly maintenance schedule.
- **On-demand** backups are initiated by clicking **Back Up Now**.
- **Checkpoint** backups result when a restore is initiated.

You can edit a backup label to identify a specific backup. You can edit labels on either the **All Backups** or the **Preserved Backups** tabs. Edited labels appear not only in the FileMaker Cloud Admin Console, but also on the Tags tab of the backup snapshot in the AWS EC2 Management Console.

To change a backup label:

1. Select one or more backups.
2. Click **Edit Label**.
3. In the Change Backup Label dialog box, enter the new name in the **New Label** field.

Note: If you have more than one backup selected, they all receive the same name.

Working with preserved backups

To preserve a backup:

1. On the the **All Backups** tab, select the backup.
2. Click **Preserve Backup**.

A checkmark appears next to the backup in the Preserved column.

You can restore the storage volume from a preserved backup, and remove backups that are no longer needed from the preserved list. FileMaker Cloud can then delete these backups.

To remove a backup from the preserved list, on the **Preserved Backups** tab, select the backup, then choose **Undo Preserve**.

Restoring a preserved backup

Important: Restoring from a preserved backup restores all the information from the preserved data volume snapshot. All database and configuration changes made after the backup occurred, including user and system configuration and logs, are overwritten.

When you restore a backup, FileMaker Cloud:

1. closes any open databases
If all databases cannot be closed, the restore halts and a failure email is sent.
2. takes a snapshot of the current storage volume and marks it as preserved
3. restores the data volume to the contents of the selected preserved backup
4. creates a fresh instance using that snapshot
5. deletes the former instance when the new instance is up
6. logs the result in journal.log

To restore a preserved backup:

1. Before you restore a preserved backup, go to **Subscription > Subscription Center** and download the current databases and logs, because this data will be overwritten.

2. On the **Preserved Backups** tab, click **Restore From Backup**.

The dialog box displays the UTC timestamp of the preserved backup.

3. Write down the timestamp in case you need it to compare with other backup volumes.

You receive a confirmation email when the backup has been restored.

Recovering a database

To recover one or more databases (if they have become corrupted):

1. Restore the preserved backup that has the databases you want.

2. Go to **Subscription > Subscription Center** and download the databases.

3. Restore again from the preserved backup that was generated by the previous restore.

4. Upload the databases to overwrite the corrupted versions.

Configuring FileMaker Cloud

In FileMaker Cloud, click the **Configuration** tab to configure system settings. The Configuration page has five tabs: System Configuration, Password and Users, Email Notifications, SSL Certificates, and ODBC Sources.

Configuring your instance

You can perform these tasks on your AWS instance:

- create a new copy of your instance by clicking **Refresh**
- change your local time zone
- enable or disable auto-maintenance

When auto-maintenance is enabled, the server restarts between 12 and 3 AM (local time) if no users are connected to it. If users are connected, a message is journaled and the server does not restart. Before the server restarts, the latest backup is preserved. This backup is preserved regardless of the success or failure of the auto-maintenance cycle. (For example, if user connections prevent the server restart.)

Note: If auto-maintenance is disabled, backups are not preserved on a nightly basis.

Setting session timeouts

You can set timeouts for FileMaker Go and FileMaker Pro sessions and for FileMaker WebDirect sessions. Changing the session timeout restarts FileMaker WebDirect and disconnects connected users. You can send a message on the Databases tab to warn users.

Managing server plug-ins

Enable FileMaker Script Engine (FMSE) plug-ins to allow plug-ins in client scripts to install and run on FileMaker Cloud. You must also enable the Install Plug-in File script step so it can be performed in connected FileMaker Pro clients.

▼ Managing FileMaker WebDirect plug-ins

Enable FileMaker Web Direct plug-ins so that plug-in files can be used with FileMaker WebDirect solutions. You must also enable the Install Plug-in File script step so it can be used to install, update, and load plug-ins for FileMaker WebDirect.

Changing these plug-in settings restarts FileMaker WebDirect and disconnects connected users. You can send a message on the Databases tab to warn users.

Managing sign-ins and users

In FileMaker Cloud, click **Configuration > Password and Users** to change your sign-in information and enable other users to sign in.

As the root administrator, you can change your email address and password. You must enter your current password to change your email address. If you forget your password, sign out and click the **Forgot your password?** link on the Sign-In page to reset it.

▼ Setting up Login with Amazon

To allow users to sign in to FileMaker Cloud using their Amazon credentials, set up Login with Amazon. As non-root administrators, these users can perform FileMaker Cloud tasks except for:

- change the root email address and password and configure Login with Amazon on the current tab
- import signed certificates on the Configuration > SSL Certificates tab
- discontinue the FileMaker Cloud subscription on the Subscription > Subscription Center tab

To set up Login with Amazon, you must have an Amazon account. If you already use AWS or Amazon Seller Central, log in with your existing account. Seller Central handles application registration for Login with Amazon.

Note: The application can be a placeholder application. It will be visible to you in Seller Central, but you only need to complete the initial registration.

To set up Login with Amazon:

1. Go to Login with Amazon at <http://login.amazon.com>, then click **App Console**.
2. If you haven't registered for Login with Amazon, click the **Sign up is free** link under **Not registered?** If you have registered previously, click **Sign in to the App Console**.
3. Click **Register new application**.
4. In the Register Your Application dialog box, enter:
 - a name for the application
 - a description of the application
 - a privacy URL, which can be a placeholder URL
 - an optional logo
5. Click **Save**.
An application information page appears.
6. Click the **Web Settings** tab to expand it.
Notice the Client ID and Client Secret fields, which you will copy and paste into FileMaker Cloud.

To set up FileMaker Cloud for Login with Amazon:

1. On the Web Settings tab of your Seller Central application, click **Edit**.
2. Sign in to FileMaker Cloud.
3. In **Configuration > Password and Users**, follow the onscreen instructions to:
 - copy and paste the Return URL fields into your Seller Central application, then save your changes
 - copy and paste the Client ID and Client Secret fields from the Seller Central application into FileMaker Cloud
4. In FileMaker Cloud, click **Save Identity Provider**.

▼ Adding an authenticated user to FileMaker Cloud

After setting up Login with Amazon as the identity provider, you can invite users to sign in to FileMaker Cloud using their Amazon credentials.

Note: You must know a user's Amazon email address to invite them.

To add an Amazon authenticated user:

1. In **Configuration > Password and Users**, click **Add Amazon Authenticated User**.
2. Enter the user's Amazon email address.
The user will receive an email from FileMaker Cloud with an Amazon sign-in link.
3. The user clicks the link and signs in to Amazon.
An Authentication Success page appears, with a link to the FileMaker Cloud Sign-In page.
4. The user clicks the link to sign in.

Important: The user should bookmark this link for future use; it contains the URL for the instance.

If any authentication errors appear after the user clicks the Amazon link, check the settings that you copied and pasted between FileMaker Cloud and Seller Central. Also check that you clicked **Save** in the Seller Central Web Settings page when you pasted the Return URL fields.

Configuring email notifications

Enable Send Email Notifications to receive FileMaker Cloud notifications through email messages in addition to on the Admin Console.

You can add other users who will also receive email notifications. When you add users, they receive an Amazon Simple Email Service (SES) Address Verification Request email. After clicking the verification link in the email, the user's email address is added to the verified list. Each email address is verified only once, and clicking Send Verification for a verified user simply adds their email address to the list.

After you add the first user's email address, the From Email Address field appears, showing that user's email address. Notifications are sent from that address. Additional verified users are subsequently added to the list so that you can choose an alternate "from" email address.

To add a user's email address:

1. Click **Add Email Address**.
2. Enter the user's email address and click **Send Verification**.
3. If the user has not been previously verified, wait for confirmation of the verification.
4. Click **Save**.
5. Click **Edit Email Settings** and enable emails for that user.
6. Click **Save Changes**.

Note: You also use Edit Email Settings to delete a user's email address. You cannot delete the current "from" email address.

Importing SSL certificates

FileMaker Cloud provides a 90-day trial Secure Socket Layer (SSL) certificate issued by the Comodo certificate authority (CA). You must purchase and register your own custom domain, and replace the trial certificate within 90 days. Use of the filemaker-cloud domain after the 90-day trial is currently not supported.

To import a custom certificate:

1. Click the **import it** link.
2. In the Import Certificate dialog box, browse to the certificate file location.
3. Browse to the certificate key file location.
4. Enter the private key password, if one was created when the certificate was generated.
5. Click **OK**.
6. If you are using a wildcard SSL certificate, enter the preferred host name for your instance. and click **OK**.
7. Wait to receive an email from FileMaker Cloud.

The email shows the preferred host name and the fully qualified domain name (FQDN) generated by FileMaker Cloud.

When you import a custom certificate, the FileMaker Cloud server restarts and the IP address of your instance might change. In your Domain Name Service (DNS) registration, you can create a Canonical Name (CNAME) record that maps the preferred host name to the FQDN. With the CNAME mapping, if the instance IP address changes, you don't have to update it in the DNS registration.

Concatenating multiple certificates for import

When you import or renew a custom certificate, you might need to concatenate multiple certificates to import as one file. To do so, you create a .pem file, a concatenated certificate container file for SSL certificates.

There are two types of .pem files that you can create and import into FileMaker Cloud:

- a .pem with an entire SSL certificate trust chain (root, intermediate, and primary certificates)
- a .pem with server and intermediate certificates

▼ Creating a .pem file

To create a .pem file

1. Download primary and intermediate certificates. For an entire trust chain, also download the root certificate.
2. In a text editor, paste the entire body of each certificate into one text file.

Important: The certificates must be pasted in this order:

1. Primary certificate—your_domain_name.crt
2. Intermediate certificate—intermediate_name.crt
3. (For an entire trust chain) Root certificate—root_name.crt

You must include the beginning and end tags on each certificate. The end result will look like the following:

```
-----BEGIN CERTIFICATE-----  
Primary SSL certificate: your_domain_name.crt  
  
-----END CERTIFICATE-----  
-----BEGIN CERTIFICATE-----  
Intermediate certificate: intermediate_name.crt  
  
-----END CERTIFICATE-----  
-----BEGIN CERTIFICATE-----  
(For an entire trust chain) Root certificate: root_name.crt  
  
-----END CERTIFICATE-----
```

3. Save the combined file as your_domain_name.pem.

You can now import the file.

Setting up ODBC data sources

In FileMaker Cloud, click **Configuration > ODBC Sources** to set up ODBC data sources for access by FileMaker Cloud clients. When you add an ODBC data source and choose the driver type, the default port number for that driver is selected. However, you can select any port number from 1 to 65535, except for the reserved ports used by FileMaker Cloud.

Note: To test the ODBC data source connection, you must know the user name and password for the database.

Managing your AWS subscription

In FileMaker Cloud, click the **Subscription** tab to manage your FileMaker Cloud licenses, subscriptions, and AWS instance settings. You also download logs and databases on this page, which has four tabs: User Connections, Instance Settings, Volume Settings, and Subscription Center.

Adding User Connection licenses

View and purchase additional User Connection licenses on this page.

To purchase additional AWS licenses, click **Go to Amazon Marketplace**.

To purchase additional BYOL licenses:

1. Click **Purchase Licenses**.
Wait until the FileMaker Store appears.
2. On the Add User Connections to FileMaker Store page, select the number of additional User Connections you want (in increments of 5).
3. Click **Continue**.
4. You are prompted to enter your license key. If you don't know your license key, click **Where can I find my license key?**
5. Click **Submit**.
6. Continue with the FileMaker Store purchase process.

You will receive an email from the FileMaker Store confirming your order. The email contains links to the client software download and license keys.

Note: It can take up to an hour after you receive the email for the licenses to activate on FileMaker Cloud.

Viewing and changing the instance type

In FileMaker Cloud, click **Subscription > Instance Settings** to view and change your instance type. FileMaker Cloud supports the types listed. Click **Amazon EC2 Instance Types** to review the full descriptions on AWS and determine which type best meets your performance and storage needs.

If you change the instance type, you cannot refresh the browser or take any other actions until you receive an email. After you see the email, you can sign in to FileMaker Cloud.

Viewing and changing storage settings

In FileMaker Cloud, click **Subscription > Storage Settings** to view and increase your data storage volume size. If you increase the storage volume size, you cannot refresh the browser or take any other actions until you receive an email. After you see the email, you can sign in to FileMaker Cloud.

Downloading software and logs

In FileMaker Cloud, click **Subscription > Subscription Center** to download client software and system logs.

- To download licensed software, click the link for your FileMaker Pro client.
- To download one or more logs to your computer: click **Select the log to download** and then click the log name.

The logs are:

- event.log – all event log data
- gateway.log – gateway server logging
- journal.log – all notifications and user actions
- wpe.log – Web Publishing Engine logging
- fmshelper.log – log file for the utility process that runs and starts and stops all other processes
- awsmanager.log – AWS-related activity, such as instance upgrade or refresh, backups, volume size increase

Note: User credentials and database entries are not logged.

▼ Discontinuing your subscription

The Subscription Center displays information about discontinuing your subscription. Carefully review this information before discontinuing your subscription, since this action cannot be undone.

To discontinue your subscription:

1. Click **Get Instructions** to receive an email with instructions.
2. Follow the steps in the email to download client software, logs, and databases.
3. Return to the Subscription Center and click **Delete Stack**. (If you change your mind, click **Cancel Process**.)
4. In the Proceed with Deletion dialog box, confirm the root administrator email address and password.
5. Click **Delete**.

FileMaker Cloud and AWS considerations

FileMaker Cloud considerations

Consider the following information as you use FileMaker Cloud.

- If the root administrator changes their password, creating a password that contains non-ASCII characters, the administrator will not be able to sign in to FileMaker Cloud. The workaround is to reset the password.
- FileMaker Cloud does not support custom FileMaker WebDirect homepages.
- FileMaker Cloud does not support uploading a FileMaker Pro runtime solution.
- In FileMaker Cloud, the FileMaker Script Engine (FMSE) can only access the Data/Document and Data/Database folders. FMSE is blocked from accessing a localhost port.
- FileMaker Cloud supports up to ten concurrent administrator connections to each instance.
- The following processes will take about ten minutes: FileMaker Cloud upgrade, data volume upgrade, instance type change, and instance refresh. No clients can connect to FileMaker Cloud during this downtime. Administrators should notify users to save their work and disconnect all users before initiating any of these processes.
- When a FileMaker Cloud user initiates an instance upgrade, refresh, or restore, the initiator sees a message stating that the process will take about ten minutes and to wait for a success email. Any other signed-in users during this time do not see this message. Also during this time, other users can sign in until the server shuts down for restart. After shutdown, users cannot sign in but do not see an explanation message. FileMaker recommends that the initiator of the change inform any other users who might be connected to the instance.
- Updating a plug-in on FileMaker Cloud does not update the function in FileMaker Pro. You must refresh the FileMaker Cloud instance for the update to take effect.
- You cannot establish an ODBC connection if the source name contains extended ASCII characters.
- When you configure an ODBC source with the Microsoft SQL Server driver and a non-default port, you must append the port number to the server IP address. For example: `52.37.11.97,1999`
- Occasionally, after a FileMaker Cloud server or instance restart, broken HTML will appear in Admin Console. Refresh your browser to resolve the problem.
- The FileMaker Cloud Admin Console always shows time in the host UTC time zone. If you want to use the local time zone, you must include the calculation (the difference between UTC and your time zone) in FileMaker Pro scripts.

AWS considerations

Consider the following information as you work with your FileMaker Cloud instance in AWS.

- Backups will not take place when the snapshot limit is reached for the data volume. When the limit is reached, an exception is logged in `awsmanager.log`. You have two options:
 - In the AWS EC2 Dashboard, under Elastic Block Store (EBS) > Snapshots, delete some snapshots.
 - Contact AWS Support and request an increase in your EBS snapshot limit.
- When a FileMaker Cloud user performs an instance switchover, the instance's name tag in the EC2 Management Console disappears. Go to the instance list in that console and click the pencil to name your instance again, then click the checkmark to confirm.
- For FileMaker Cloud, in the EC2 Dashboard, instance protection is on by default. This setting prevents an instance from being deleted. If you try to delete its associated stack, you will see an error message. If you disable instance protection and delete the instance, you can then delete the associated stack.
- FileMaker Cloud does not support use of static IP addresses for cloud computing, known as Elastic IP addresses. If you choose to use an Elastic IP address, be aware that AWS accounts are limited to five Elastic IP addresses per region. In addition, terminating an instance does not remove the association of an Elastic IP address, and AWS imposes an hourly charge if an Elastic IP address is not associated with a running instance.

If you choose to manage your own Domain Name System (DNS) entries, you can create a DNS A record for your custom domain name that points to the Elastic IP address, but you must still manually disassociate and reassociate the address whenever there is an instance switchover event, such as an instance refresh.

- FileMaker Cloud requires a default Virtual Private Cloud (VPC) in each AWS region. With a default VPC, an EC2 instance will always be assigned a public ipv4 address, which is required for users to connect to both FileMaker Cloud Admin Console and the database server from anywhere on the Internet. AWS accounts created before March 18, 2013 might not be able to launch a default VPC in their chosen region. (Such accounts have "EC2-Classical" attributes, in contrast to "EC2-VPC" attributes.) If your AWS account was created before then, contact AWS Support about enabling a default VPC for your account. For more information, see <http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/default-vpc.html>

Troubleshooting

See the FileMaker Knowledge Base answer on common troubleshooting topics: [FileMaker Cloud Troubleshooting](#). You can search for more answers at <http://help.filemaker.com>.

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Edition: 03