

FileCloud Server Version 23.232 Site Maintenance

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This section shows you how to monitor and maintain your FileCloud site, as well as how to edit and update its features and options.

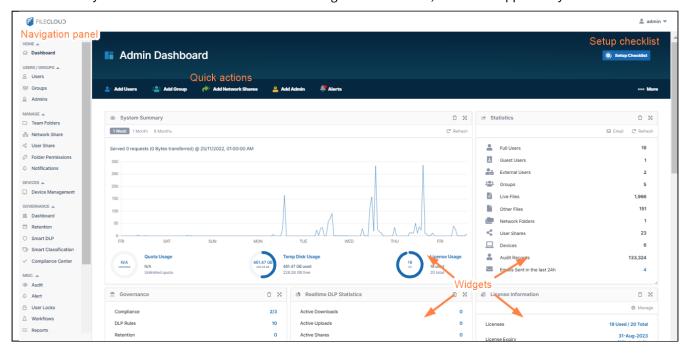
- Admin Portal Dashboard
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- Upgrade FileCloud
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- Managing Metadata
- Managing FileCloud Licenses
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Admin Portal Dashboard

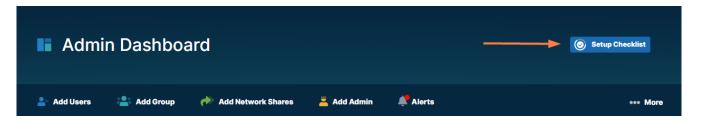
The Admin dashboard, which is the first page you see when you log into FileCloud, is a Web console that provides a monitoring interface for your site.

- 🥊 The Admin dashboard displays several areas to help you manage your site.
 - **Navigation pane** The left pane includes a menu that allows you to access other screens where you configure site settings. It appears on all screens in the Admin portal.
 - **Setup Checklist** This button opens a manually updatable checklist of the tasks generally required for setting up FileCloud.
 - **Quick actions** The ribbon near the top of the dashboard displays links to common actions such as adding a user and managing alerts.
 - **Dashboard widgets** The widgets on the dashboard allow you to see at a glance how your site is performing. Note: If you do not have access to a dashboard widget or its contents, it does not appear on your dashboard.



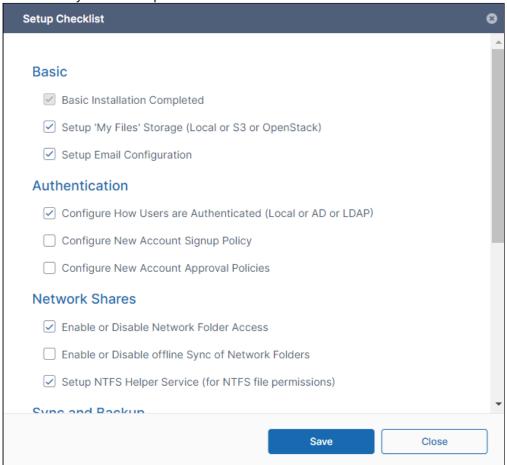
Setup Checklist

The **Setup Checklist** includes the tasks that are generally required for setting up FileCloud. Click the button in the header of the page to open the checklist.



The **Setup Checklist** includes various tasks generally necessary for setting up FileCloud, although some tasks may not apply to you.

The tasks **Basic Installation Completed** and **Setup Cron Job** are automatically checked/unchecked for you, and you cannot modify them. All of the other tasks are not checked automatically, and you may check them manually to keep track of what you have completed.



Quick Actions

Links for quick actions are listed in a ribbon near the top of the page. They take you to the screen in the Admin portal for the action, for example, the **Add Users** link takes you to the **Manage Users** screen.

The **Alerts** link takes you to the **Manage Alerts** screen. It displays a red dot if there are alerts listed on the **Manage Alerts** screen. You must clear all alerts from this screen to remove the red dot from the **Alerts** link. If you are an Admin user, only those quick actions that you have access to are listed.



For help performing the quick actions, see:

Add a user Add a group Add Network Shares Add Admin Alerts

Dashboard Widgets

The FileCloud dashboard has widgets that display real-time information. If you are an Admin user, only those widgets involving actions you have access to are listed.

- Each widget accesses a particular set of data or performs a particular function and presents its information.
- Widgets allow you to visualize operational data with rich visualizations and fast performance.
- Widgets have menus or actions that allow you to access and manage the data quickly.
- Widgets can be rearranged on the screen, as well as removed and restored.

Widget descriptions

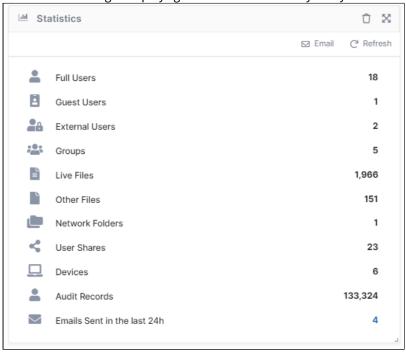
System Summary

This **System Summary** widget allows you to analyze overall site performance by visualizing relevant data for your site.



Statistics

This **Statistics** widget displays general statistics about your system:



Icon	Function
	Sends an Admin Summary email to the admin. By default, an Admin Summary email is sent to the admin every 24 hours. Click number to view report.
G	Refreshes the statistics.
Statistic	Description
Full / Guest / External Users	Number of full users, guest users, and external users.
Groups	Number of groups.
Live Files	Number of files stored locally by all users combined that users can access directly from FileCloud folders.
Other Files	Other files are additional versions of Live files that users access from the Previous Version option for a file.
Network Folders	Number of Network folders.

Statistic	Description
User Shares	Number of shares by each user. A share is counted each time a different user shares it, but only once per time shared, even if it is shared with multiple users.
Devices	Number of clients (other than the Web server) that use your system, such as FileCloud Drive, FileCloud Sync, MS Office plugin, MS Outlook plugin, mobile applications, ServerSync, and ServerLink.
Audit Records	Number of audit records in the entire system.
Emails Sent in the last 24h	Number of emails sent in your system in the last 24 hours. Click the number to view a report.

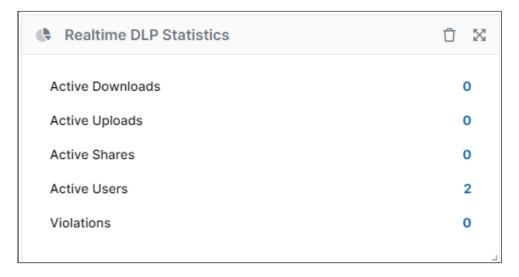
Governance

The Governance widget displays counts of your compliance configurations, DLP rules, retention policies and content classification rules. Each count is a link to the screen for configuring the feature.



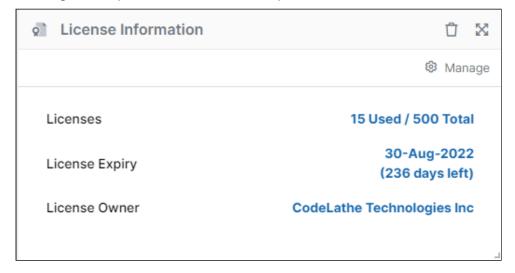
Realtime DLP Statistics

This widget displays DLP statistics in real-time, and displays reports of Active Downloads, Active Uploads, Active Shares, and Active Users when you click the number on the right. When you click the number to the right of Violations, the Manage DLP Rules page opens.



License Information

This widget shows you basic information about your license.



In the upper-right corner of the widget, click **Manage** to go to the Settings page, License tab. To update your license, see Viewing Your License Details.

Recent Access Locations

The Recent Access Locations report (also referred to as the Geo IP report) provides the total number of requests received from a geographical location. The countries that had any activities in the last 10 days are shown in blue color. The red points on the map indicate the cities. Moving the mouse over on the cities or countries displays the total number of visits from that particular location in the last 10 days.



To refresh the report, in the upper-right corner of the Statistics widget, click refresh; then in the upper-right corner of the Recent Access Locations widget, click **Refresh**.

The Recent Access Location report is not enabled by default. To enable the Recent Access Location report go to Admin UI > Settings > Admin tab, where it is referred to as the Geo IP report.

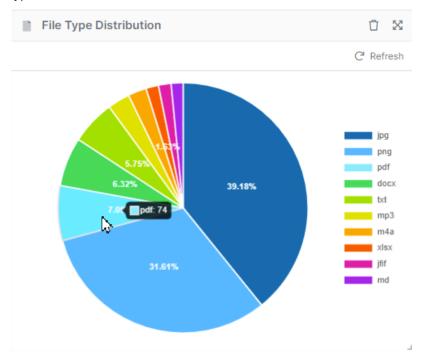
Settings	Value
Show Geo IP Report	TRUE - Show the Geo IP Map with data FALSE - Hide the Geo IP Map from the dashboard DEFAULT - Show the Geo IP Map with no data.
Geo IP Server URL	Server URL that converts the IP address to Geo Location Data. Default URL: http://geoiplookup.codelathe.com/geoip.php To point this URL to a different location contact FileCloud support.

Settings	Value
Geo IP Update frequency in Hours	The Frequency with which the GeoIP data is retrieved from the server. Default: 24.

NOTE: The Recent Access Location (GeoIP) map and report displays with proper data only when CRON job is set up and running and the access IP address recorded in audit are external IP.

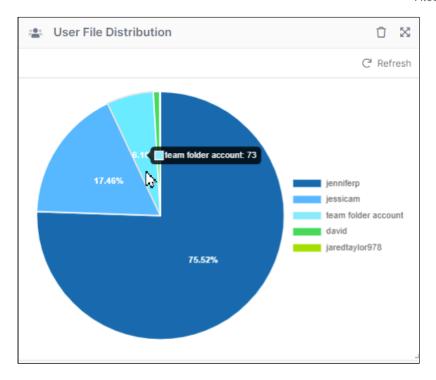
File Type Distribution

The File type distribution report displays the percentage of files that are stored in the FileCloud by file type extensions such as .PDF, .DOCX etc. Hover your cursor over a section of the chart to view the number of files of that type.



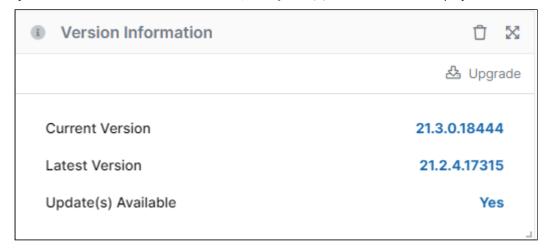
User File Distribution

The user file distribution report displays the total number of files that are stored in FileCloud by specific users in percentage. Hover your cursor over a segment of the chart to see the number of files the user is storing.



Version Information

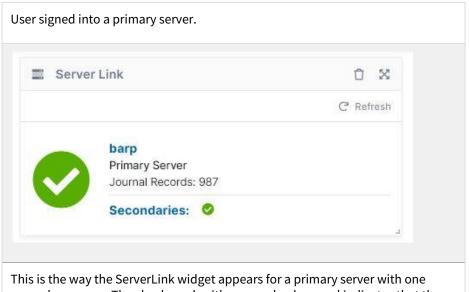
The Version Information widget displays your currently installed version and the latest available version of the system. If there is a new version available, the **Update(s) Available** button displays **Yes**.



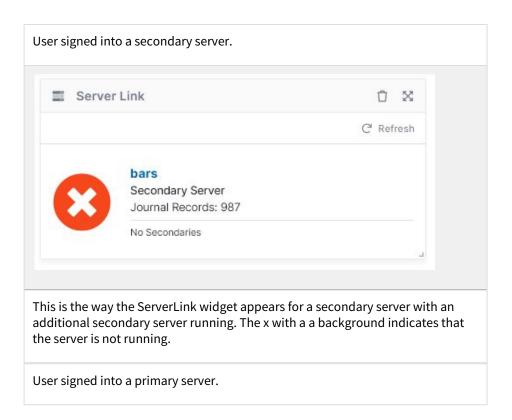
ServerLink

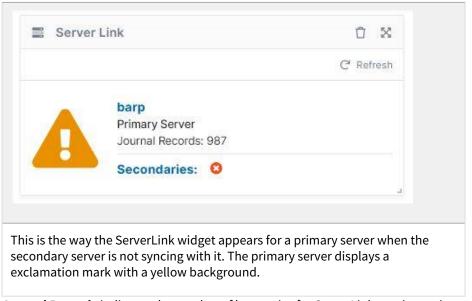
The **ServerLink** widget is available to customers who have ServerLink running. It gives you a quick view of the status of your ServerLink servers and is similar to the Status tab in the ServerLink settings screen.

ServerLink enables your primary servers and one or more secondary servers that you have in other locations to sync with each other. The widget appears differently depending on whether you are using the primary server or a secondary server.



This is the way the ServerLink widget appears for a primary server with one secondary server. The check mark with a green background indicates that the server is running.



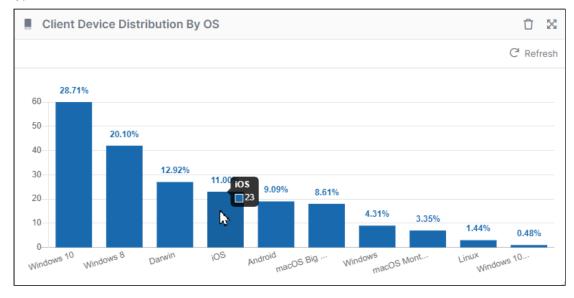


Journal Records indicates the number of log entries for ServerLink syncing actions.

For more information, see Viewing ServerLink Information.

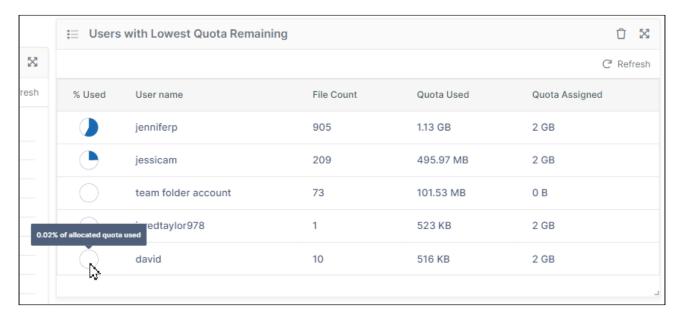
Client Device Distribution by OS

The client device distribution graph displays the total number of devices that are used to connect to FileCloud by OS type such as Windows, iOS, and Android. Hover over a bar to see the number of devices.



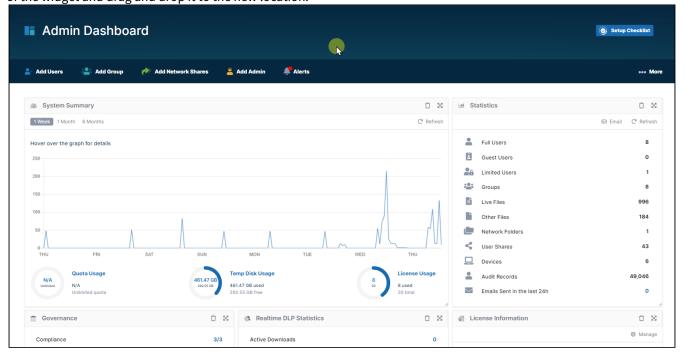
Users with Lowest Quota Remaining

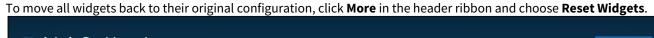
The **Users with Lowest Quota Remaining** widget displays the 10 users who have used the most disk quota. Hover your cursor over the icon in **% Used** to see the percent. The widget also gives the total files and the quota assigned for the user.

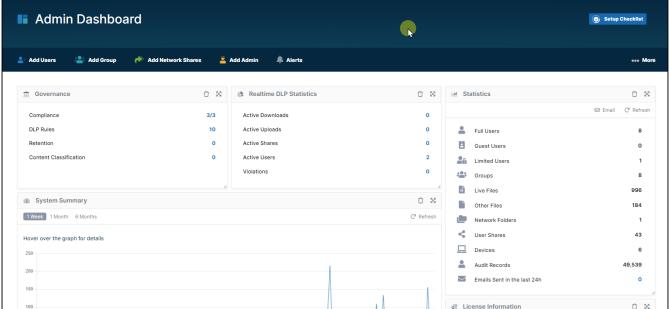


Rearranging and resetting widgets

To move a widget to a different location on the dashboard, click and hold the cross-arrow icon in the upper-right corner of the widget and drag and drop it to the new location.

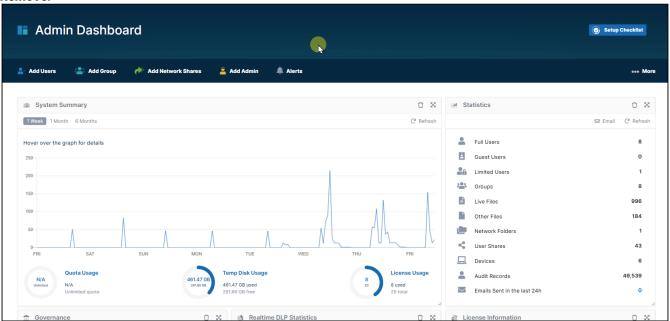






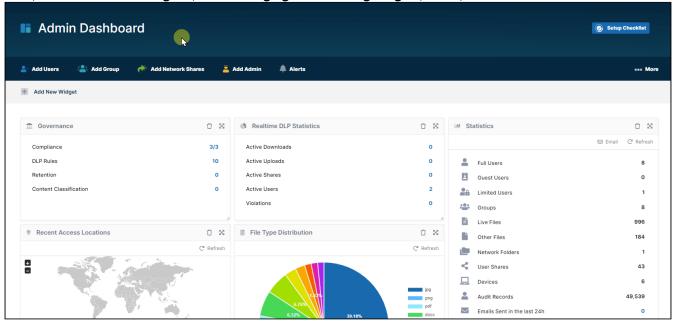
Removing and Restoring Widgets

To remove a widget from the dashboard, click the delete icon in the upper-right corner of the widget, and then click **Remove**.



To restore a widget that has been removed, in the upper-left of the screen, click **Add New Widget**, then click the widget to restore, and click **Add**. It is added to the bottom of the screen. To move widgets back to their original positions, click

More, and choose Reset Widgets (see Rearranging and resetting widgets, above).



Release Notifications

You can learn about new FileCloud releases:

By Subscribing to the Mailing List

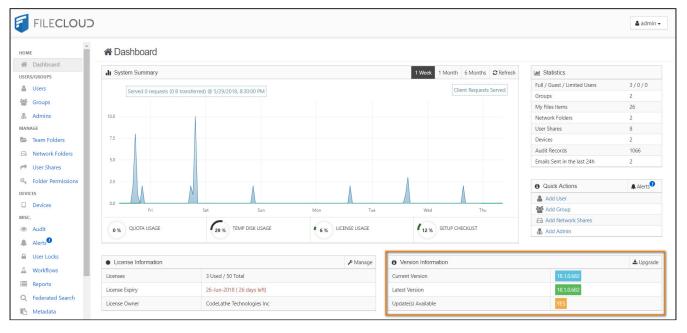
When you register with CodeLathe, you will automatically be added to the FileCloud Mailing List.

If you are not receiving FileCloud emails, you can Subscribe to the FileCloud Mailing List.

By seeing the version update in the FileCloud Admin Portal

When you log in to the Admin Portal, the default view on the dashboard includes update information, as shown in Figure 1.

Figure 1. Sample Admin Dashboard



Release Notifications 23

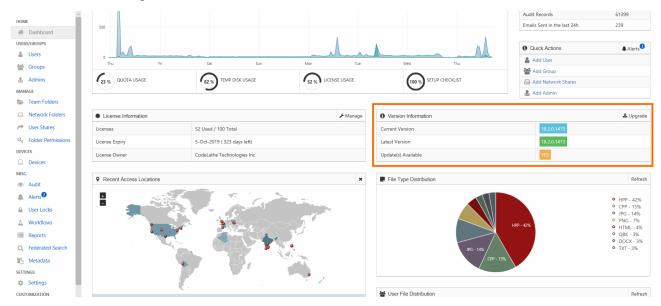
Administrators must keep FileCloud Server up-to-date with the latest version to take advantage of the new features, enhancements, and fixes for issues found in previous versions.

How do I know if an upgrade is available?

- FileCloud will always inform customers when a new upgrade is available.
- When you log on to the Admin Portal, the Admin Dashboard will also alert you to the fact that you can install an update.

Where is the notification on the Admin Dashboard?

The Version section is right next to the License section on the Dashboard.

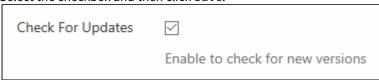


How do I enable the weekly email?

To check for updates on a weekly basis:

This setting is available in FileCloud Version 18.2 and later.

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click **Settings.**
- 3. On the Manage Settings screen, select the Admin tab.
- 4. Scroll down to the **Check For Updates** checkbox.
- 5. Select the checkbox and then click Save.



To stop receiving the weekly email, just clear this checkbox.

Remember to back up FileCloud before upgrading.

For releases that DO NOT require a full system upgrade:

Upgrade using Admin Portal

For releases that DO require a full system upgrade: WINDOWS: Update Tool Upgrade FileCloud on Linux



• Custom settings in configuration files that are replaced during upgrade are not reset in the new configuration files.

Check If the following files are replaced with newer versions during upgrade, and in the case that they are replaced, reconfigure any custom settings after upgrade:

C:\xampp\apache\conf\httpd.conf

C:\xampp\apache\conf\extra\httpd-filecloud.conf

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
23.232	Upgrading from ANY VERSION to 23.232	Upgrade Notes for FileCloud 23.232 or Later	FileCloud Version 23.232 Release Notes
	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. If your installation of FileCloud uses admin portal user access restrictions, please see Restricting Access To Admin UI Based On IP Addresses for updated instructions. Note: You can no longer use the Linux upgrade script to upgrade, see Upgrade FileCloud on Linux. 		

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
23.1	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. If your installation of FileCloud uses admin portal user access restrictions, please see Restricting Access To Admin UI Based On IP Addresses for updated instructions. Note: You can no longer use the Linux upgrade script to upgrade, see Upgrade FileCloud on Linux. 	Upgrade Notes for FileCloud 23.1 or Later	FileCloud Version 23.1 Release Notes

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
22.1	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. If your installation of FileCloud uses admin portal user access restrictions, please see Restricting Access To Admin UI Based On IP Addresses for updated instructions. Note: You can no longer use the Linux upgrade script to upgrade, see Upgrade FileCloud on Linux. 	Upgrade Notes for FileCloud 22.1 or Later	FileCloud Version 22.1 Release Notes
21.3	New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal.	Upgrade Notes for FileCloud 21.1 or Later	21.3 Release Notes

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
21.2	 Upgrading from ANY VERSION to 21.2 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	Upgrade Notes for FileCloud 21.1 or Later	21.2 Release Notes
21.1	 Upgrading from ANY VERSION to 21.1 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	Upgrade Notes for FileCloud 21.1 or Later	21.1 Release Notes
20.3	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	Upgrade Notes for FileCloud 19.2 to 20.3	→ 20.3 Release Notes

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
20.2	 Upgrading from ANY VERSION to 20.2 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	Upgrade Notes for FileCloud 19.2 to 20.3	20.2 Release Notes
20.1	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	Upgrade Notes for FileCloud 19.2 to 20.3	20.1 Release Notes
19.3	New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal.	Upgrade Notes for FileCloud 19.2 to 20.3	19.3 Release Notes

Release	Upgrade Scenarios	Upgrade Notes	Release Notes
19.1	 New Message Queue System is a REQUIRED service that needs to be running for FileCloud to be functional from 19.1 onwards Please ensure the Message Queue Service is running after upgrade before opening up for live access You CANNOT upgrade Windows and Linux using the Admin Portal. 	19.1 Upgrade Notes	19.1 Release Notes
18.2	 Upgrading from 18.1 to 18.2 There are no operating system or software update requirements You can upgrade Windows and Linux FileCloud instances using the Admin Portal Upgrading from 17.3 or older to 18.2 A full system upgrade is required for all existing 	→ 18.2 Upgrade Notes	→ 18.2 Release Notes
18.1	 installations For all versions before 18.1: A full system upgrade is required for all existing installations 	→ 18.1 Upgrade Notes	→ 18.1 Release Notes

Upgrade using Admin Portal

Minor updates can be performed directly in the FileCloud Admin Portal by clicking the **Start Upgrade** button, as shown in the steps below. Check the release notes to see the minimum version for an update in the Admin portal.



• Custom settings in configuration files that are replaced during upgrade are not reset in the new configuration files.

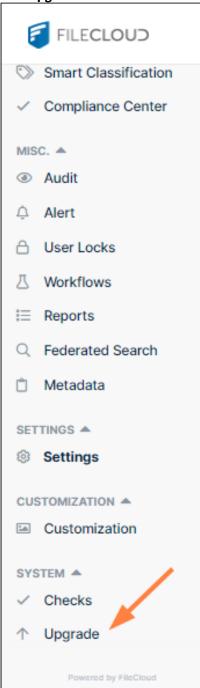
Check If the following files are replaced with newer versions during upgrade, and in the case that they are replaced, reconfigure any custom settings after upgrade:

C:\xampp\apache\conf\httpd.conf

C:\xampp\apache\conf\extra\httpd-filecloud.conf

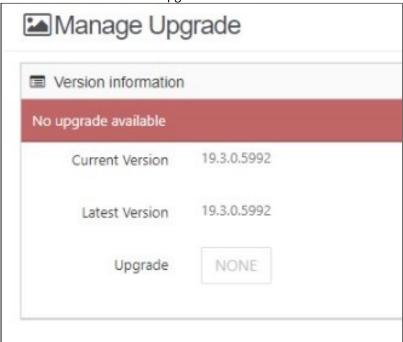
Upgrade Steps

- 1. Make a full backup or take a snapshot of the FileCloud server.
- 2. Login into the admin UI.
- 3. Click **Upgrade** at the bottom of the navigation panel.

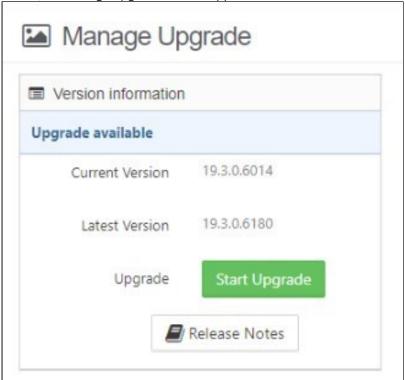


The Manage Upgrade window appears as follows if:

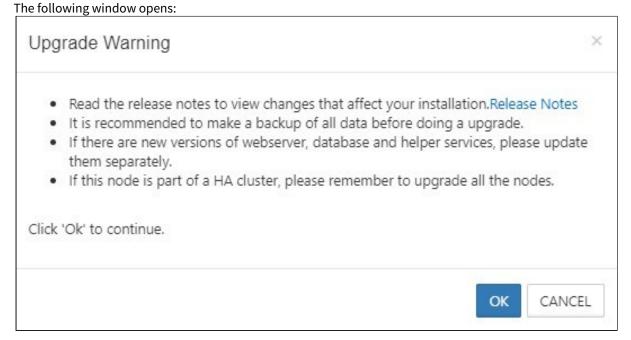
- No new upgrades are available
- Upgrades are not possible from the admin portal
- A license that does not allow upgrade to the latest version is installed



If there is an upgrade that can be installed from the admin portal and is permitted by the FileCloud license, the Manage Upgrade window appears as:

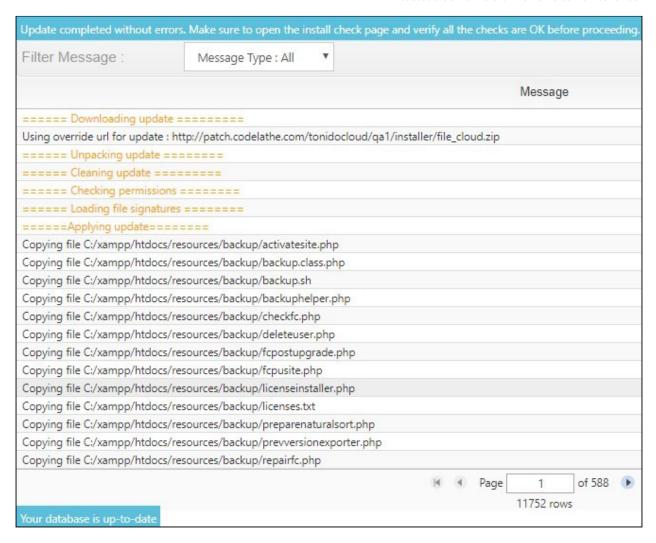


4. If the Manage Upgrade window indicates that an upgrade is available, click **Start Upgrade**.



5. Click OK.

The upgrade process begins. When it is complete, messages similar to the following appear on the Manage Upgrade page.



- 6. In the navigation bar, click Installation Checks directly above the Upgrade link and make sure that the installation is free of errors.
- 7. Refresh the browser UI (Ctrl + F5) to get the latest updated User Interface.

Updating Systems That Cannot Connect Outside

If your FileCloud server cannot connect to our update server to download the packages directly, you can download file_cloud.zip and file_cloud.xml to a local folder and update your installation using the local path.

1. Open the WWWROOT\config\cloudconfig.php file and edit the following entry:

If the files are located in c:\users\administrator\Downloads folder, then modify the url as follows:

define("TONIDOCLOUD_UPDATE_URL_OVERRIDE","file://C:\\Users\\Administrator\
\Downloads\\file_cloud.zip");

For Linux:

If the the files are located in /home/filecloudupdate/ (Apache should have permission for this folder), then modify the url as follows:

define("TONIDOCLOUD_UPDATE_URL_OVERRIDE","/home/filecloudupdate/file_cloud.zip");

2. Download the following packages and place them in the local folder specified in the TONIDOCLOUD_UPDATE_URL_OVERRIDE config:

https://patch.codelathe.com/tonidocloud/live/installer/file_cloud.zip https://patch.codelathe.com/tonidocloud/live/installer/file_cloud.xml

Upgrade using Update Tool (Windows Only)

- If you have folder-level security (granular folder permissions) enabled in Settings > Misc > General, changes in functionality will significantly impact the way existing share behavior works when you upgrade from versions below 23.1 to FileCloud 23.x and higher. If you have granular folder permissions set, please contact FileCloud Support before upgrading to FileCloud 23.x and higher to avoid share and file access issues.
- If your system uses MongoDB authentication or custom IP binding, follow the steps at Disable MongoDB Authentication and IP Binding before performing the steps on this page.
- ♠ For FileCloud upgrade on cluster, see: FileCloud Update for HA on Windows
- FileCloud support is ending for Windows Server 2012 R2 with 22.1 release.

 If you are using Cloud Enterprise Server and Windows 2012, please migrate your FileCloud site to Windows 2016, Windows 2019, or Windows 2022.

STEP 1: Backup existing installation

FileCloud installation environment	Backup steps
Windows OS and installation without backup tool	Windows manual backup

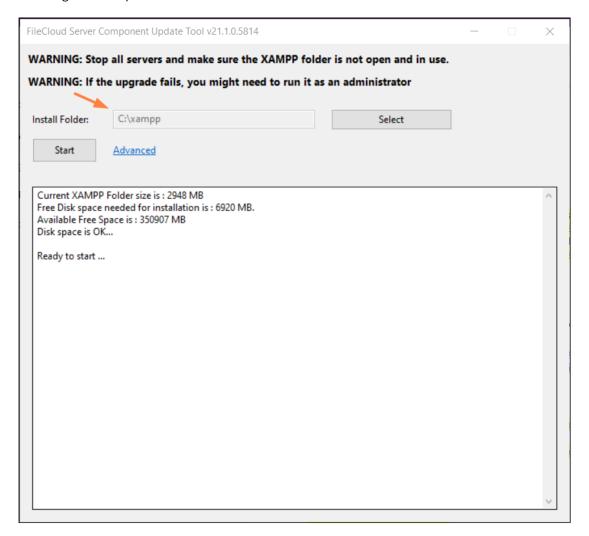
STEP 2: Preparing for update

1. Download the latest FileCloud Windows Update Tool from https://patch.codelathe.com/tonidocloud/live/installer/cloudupdatetool.zip

Note: It is essential that you download the latest version of the update tool; If you run an old version of the tool, you will re-install an old version of FileCloud.

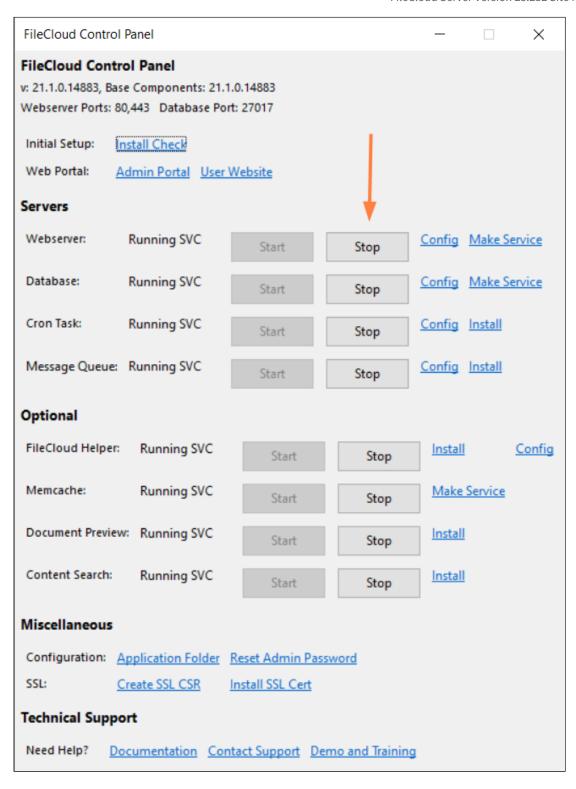
- 2. Extract all files from cloudupdatetool.zip into a folder.
- 3. If your system allows downloading of files from internet, go to step 5. Otherwise, complete step 4 first.

- 4. Download the following files and copy them to the extracted folder (the cloudupdatetool folder)
 - FileCloud Windows Preupgrade Package from https://patch.codelathe.com/tonidocloud/live/installer/filecloudpreupgrade.zip
 - FileCloud Windows Preupgrade XML Right-click and save the file https://patch.codelathe.com/tonidocloud/live/installer/filecloudpreupgrade.xml
 - FileCloud Windows Update Package from https://patch.codelathe.com/tonidocloud/live/installer/filecloudupdate.zip
 - FileCloud Windows Update XML Right-click and save the file https://patch.codelathe.com/tonidocloud/live/installer/filecloudupdate.xml
- 5. Now, navigate to the cloudupdatetool folder and double click on cloudupdate (cloudupdate.exe). The following window opens:



STEP 3: Update

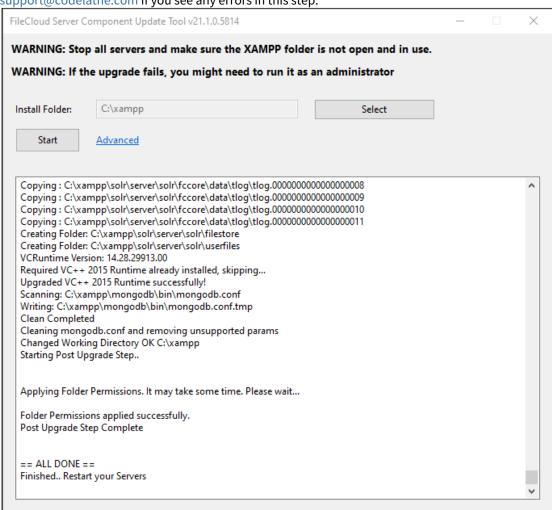
1. Open the FileCloud Control Panel and click **Stop** for each running service. (If you are upgrading an HA system, stop all the nodes (All DB servers of the replica set as well as the Apache web servers on each of the nodes).) If running Memcache, make sure it is stopped too.



2. Ensure that **Install Folder** shows the location of your XAMPP folder. This location is auto-detected, but it may not be able to determine it correctly if there are multiple XAMPP folders. If it is not correct, select the correct XAMPP install folder.

3. Click **Start** on the Update Tool dialog box to begin the upgrade. (Repeat steps 1-3 for each of the nodes for HA system).

The tool must be able to connect to the internet in order to download the update package. Please contact support@codelathe.com if you see any errors in this step.

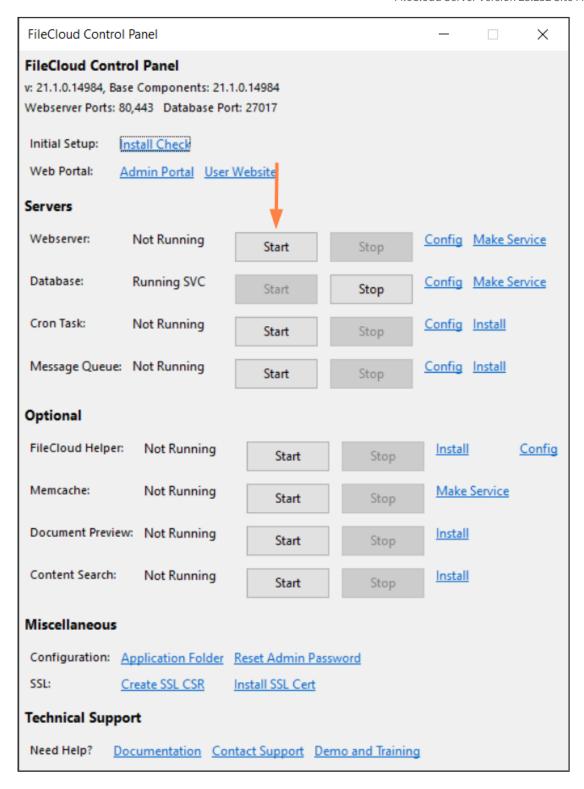


If you receive an error message, see Troubleshooting the Upgrade Tool.

4. If you are running multi-tenant FileCloud, make sure the database post upgrade script is run correctly.

```
cd c:\xampp\htdocs\resources\backup
c:\xampp\php\php.exe fcpostupgrade.php
```

5. Once the nodes are updated, start each of the nodes using the cloud control panel.



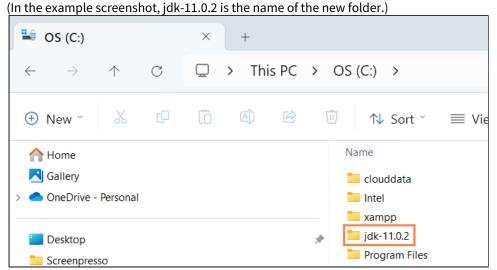
6. Message Queue is an important service and must be started after the upgrade.

- A
- Message Queue must be installed. If you cannot click the **Start** button for **Message Queue**, it is not installed. Click **Install**, and once installation is complete, click **Start**.
- 7. Open the install URL http://<your domain>/install/index.php
- 8. Make sure basic checks are all OK.
- 9. Click on Extended Checks.
 - In section 3 of **Extended Checks**, your new updates are shown with status and available actions.
- 10. If Apache is running as the Windows Logon account, then give the logon account write permission on the XAMPP folder.
- 11. When you initially log in to the admin portal after upgrade, refresh the browser using CTRL-F5 to clear any prior setup information from the cache.
- 12. Beginning in FileCloud 20.1, to sign into the admin portal for multi-tenancy, you must sign in as the superadmin user and enter your password in encrypted format in the multi.php file. See Password encryption and logging in to a multi-tenant admin portal for instructions on encrypting your password.

Upgrade environments using Solr and Solr+OCR

Windows

- 1. Upgrade FileCloud
- Upgrade OpenJDK to version 11.Upgrade OpenJDK to version 11.
 - a. Download Open JDK 11.02+9 from https://jdk.java.net/archive/.
 - b. Create a new folder in the C: drive.



- c. Extract the Open JDK file you downloaded into the new folder.
- 3. Set JAVA_HOME to the new version's path.

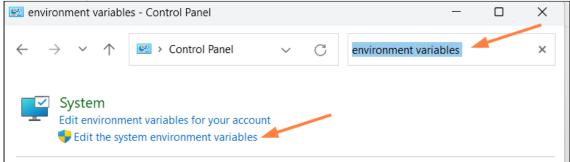
Set the JAVA_HOME path

Setting the path and environment variables will differ depending on the version of Windows you have on your computer. These instructions were designed for Windows 11.

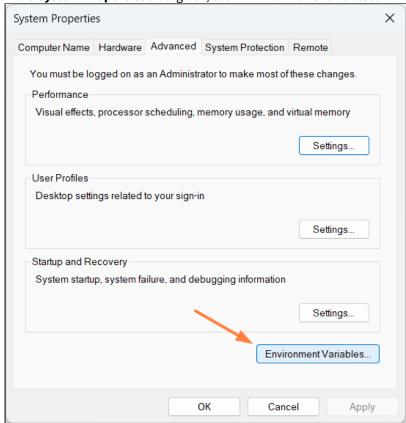
Administrator privileges are required to modify the path and environment variables.

To set the JAVA_Home path:

- a. Open the Windows Control Panel.
- b. Enter **environment variables** in the search bar.
- c. Click Edit the system environment variables.

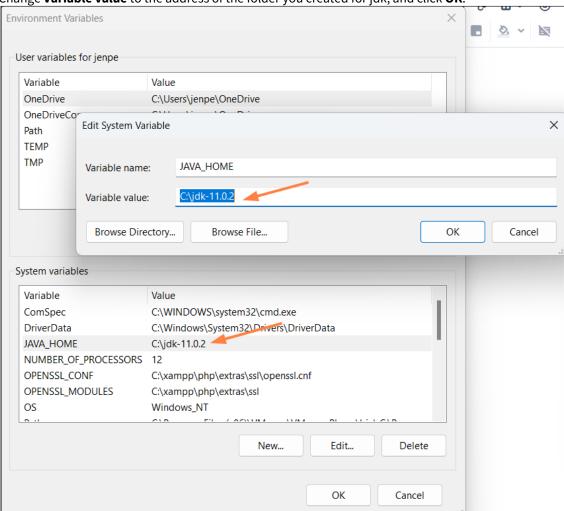


d. In the System Properties dialog box, click Environment Variables.



The **Environment Variables** dialog box opens.

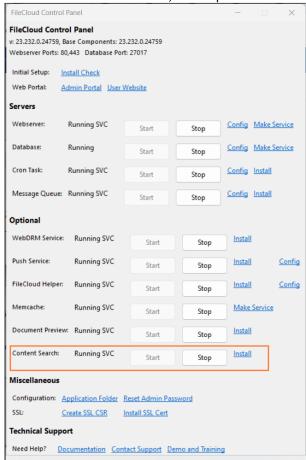
e. In the System variables box, Click JAVA_HOME, and then click Edit. The **Edit System Variable** dialog box opens.



f. Change Variable value to the address of the folder you created for jdk, and click OK.

- g. In the **Environment Variables** dialog box, click **OK**.
- 4. Log in to the FileCloud admin portal.

5. In the FileCloud Control Panel, and stop and restart Content Search.



• Custom settings in configuration files that are replaced during upgrade are not reset in the new configuration files.

Check If the following files are replaced with newer versions during upgrade, and in the case that they are replaced, reconfigure any custom settings after upgrade:

C:\xampp\apache\conf\httpd.conf

C:\xampp\apache\conf\extra\httpd-filecloud.conf

C:\xampp\htdocs\.htaccess

C:\xampp\php\php.ini

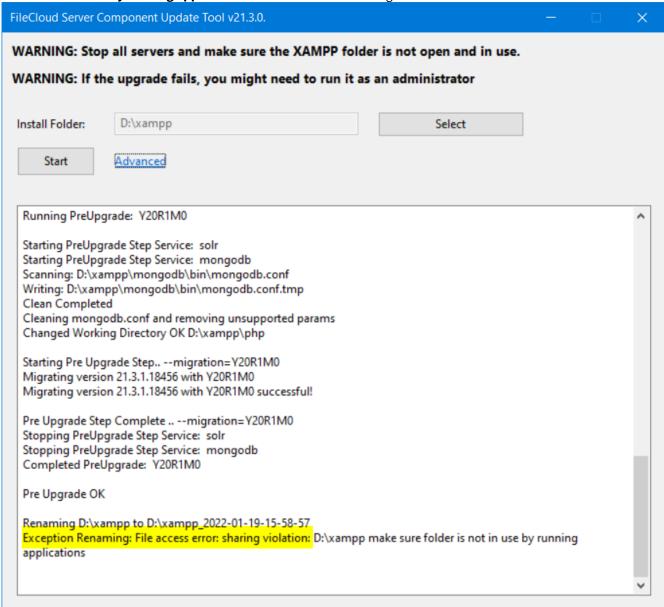
 $C: \xonfig\default. json$

Troubleshooting the Upgrade Tool

Exception Renaming

Problem:

The upgrade tool returns the error Exception Renaming: File access error: sharing violation D:\xampp make sure folder is not in use by running applications as shown in the following screenshot:

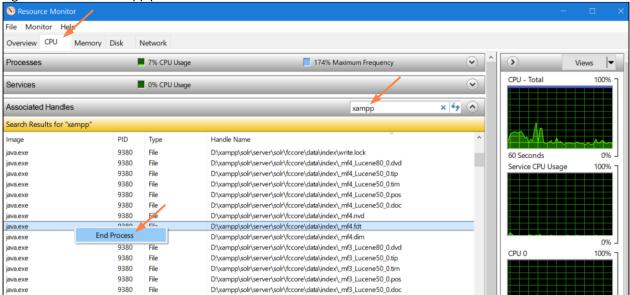


Solution:

Use the Windows Resource Monitor to end the processes that are blocking the move:

1. Start the Resource Monitor by clicking **Win-R**, and then entering **resmon**.

- 2. Click the CPU tab.
- 3. Search for xampp in Associated Handles.
- 4. Right-click on each xampp process and choose End Process.



5. Click **Start** in the **Update Tool** interface again.

FileCloud Update for HA on Windows

To upgrade to the latest version, please Contact FileCloud Support.

FileCloud Upgrade for HA on Linux

To upgrade to the latest version, please Contact FileCloud Support.

HA Update when MongoDB Version is Lower Than 4.2

When you are updating a Windows high availability system, if your version of MondDB is lower than 4.2, create a new replica set, and use mongoDump/mongoRestore.

To create the new replica set:

- 1. Back up servers.
 - a. Create a backup or snapshot for all servers.
 - b. Perform a complete database dump.
- 2. Remove all replica sets.
 - a. Stop all FileCloud services.
 - b. Remove all replica sets, TLS, and authentication parameters in mongod.conf for all db nodes. Details about the configuration can be found at FileCloud High Availability.

- c. Delete DB data folder content for all DB nodes:
 - Linux: /var/lib/mongo/
 - Windows: C:\xampp\mongodb\bin\data\
- d. Start MongoDB on all nodes.
- e. Confirm that you can connect to all DB nodes with the mongo shell without authentication and TLS and if the replica set is disabled:

```
> rs.status()
{
     "ok" : 0,
     "errmsg" : "not running with --replSet",
     "code" : 76,
     "codeName" : "NoReplicationEnabled"
}
C/C++ detected
```

- f. Stop MongoDB on all nodes and remove the data folder content again.
- 3. Perform a standard FileCloud update.
- 4. Create a cluster and restore data.
 - a. Create a new cluster.
 - b. Restore DB dump using mongorestore.

Disable MongoDB Authentication and IP Binding

If your system uses MongoDB authentication or custom IP binding, prior to using the FileCloud Update tool for Windows, MongoDB authentication and IP binding must be disabled.

To disable MongoDB authentication and IP binding:

1. Backup the MongoDB config file by running the command:

```
copy C:\xampp\mongodb\bin\mongodb.conf %TEMP%
```

2. In C:\xampp\mongodb\bin\mongodb.conf, disable authentication by adding # (a comment character) at the beginning of the line **auth = true**:

```
#auth = true
```

3. Also in C:\xampp\mongodb\bin\mnogodb.conf, disable IP binding by uncommenting **bind_ip_all** and commenting **bind_ip**:

```
#ip address
bind_ip_all = true
#bind_ip = 10.2.3.44
```

4. Restart MongoDB to activate the changes.

5. Test access using mongo shell. (If you are updating from a version of FileCloud prior to version 23.1, use mongo instead of mongosh in the following command:

```
cd C:\xampp\mongodb\bin
mongosh --quiet --eval "show dbs"
# you should see output similar to this:
admin
                        148.00 KiB
config
                        108.00 KiB
fcbackup
                        20.00 KiB
fcbackup duo
                         20.00 KiB
```

- 6. Update FileCloud using the Update Tool.
- 7. Re-enable IP binding and authentication and restart MongoDB.

Backup FileCloud Before Upgrading

Before any updating current FileCloud installation, it is important to backup your data!

Based on your installation environment, choose one of the following links to perform backup:





Linux tool backup





▲ Linux manual backup





→ Windows manual backup

Upgrade FileCloud on Linux

- If you have folder-level security (granular folder permissions) enabled in **Settings > Misc > General**, changes in functionality will significantly impact the way existing share behavior works when you upgrade from versions below 23.1 to FileCloud 23.x and higher. If you have granular folder permissions set, please contact FileCloud Support before upgrading to FileCloud 23.x and higher to avoid share and file access issues.
- Beginning with version 23.1, Linux installation and upgrades have switched to a new repository-based system, and FileCloud no longer supports Ubuntu 18.04/20.04, CentOS 7/RHEL 7 and RHEL 8. In addition, FileCloud no longer supports Debian. If you are using any of those OS versions, please migrate to Ubuntu 22.04 LTS or RHEL

Since support for OpenSSL 1.1.1 ends on September 11, 2023, FileCloud 23.1 uses OpenSSL 3.0. which is not available for previous Linux versions, and therefore FileCloud requires installation or update to the Linux versions listed above.

⚠ MongoDB 6 requires use of the AVX instruction set, which is available on select Intel and AMD processors. If your CPU doesn't have the AVX instruction set, MongoDB 6 will not run. To check whether your CPU has the instruction set, run:

#lscpu | grep -i avx"

Note: FIPS 140-3 modules are still in review for Ubuntu 22.04 and RHEL 9.

If you want to install FileCloud with FIPS, please wait until the OS vendors officially announce they are supporting FIPS. Ubuntu information

RHEL information

Upgrade instructions for Linux

Upgrading FileCloud from 23.1.x to the latest version

To upgrade FileCloud from 23.1.x to the latest version in Linux see Upgrade FileCloud on Linux from Version 23.1 to the Latest FileCloud Version.

Upgrading FileCloud from 22.1 in Ubuntu 20.04 and RHEL 8

You can either re-install FileCloud or upgrade both FileCloud and your operating system.

Option 1: Install one of the supported operating systems, then Install the latest version of FileCloud on the newly installed operating system, and then migrate FileCloud to the newly installed operating system. This is the recommended option.

Option 2: Perform a FileCloud upgrade which requires OS upgrades to Ubuntu 22.04 or RHEL 9.x, For this procedure, please Contact FileCloud Support.

Please note that FileCloud Support cannot resolve OS upgrade problems.

Upgrading FileCloud from versions lower than 22.1

If you are upgrading from a version of FileCloud lower than 22.1 or from an operating system below Ubuntu 22.04 LTS or RHEL 9, please install one of the supported operating systems, then Install the latest version of FileCloud on the newly installed operating system, and then migrate FileCloud to the newly installed operating system.

Managing Users

(i) The ability to update and remove a user's profile picture is available in FileCloud Server version 18.2 and later.

In this section:

- Listing FileCloud Users
- Viewing User Properties
- · Disable a FileCloud User Account
- Deleting a FileCloud User
- · Resetting a User Password
- Manage A User's Policies
- Manage a User's Profile Picture
- · Change a User's Email Address
- · Setting a User Account to Expire
- · Send Email from User Details

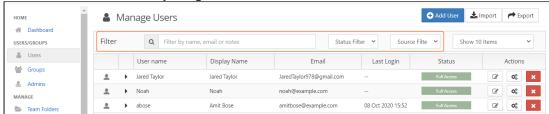
To add FileCloud users, see Create FileCloud Users.

Listing FileCloud Users

Listing Users

To list all users in FileCloud:

- 1. Log on to Administration Portal.
- 2. Click on **User** on the left navigation panel to list all users.
- 3. To find users:
 - by name or email,, use the **Filter by name**, **email or notes** box.
 - by status, use the **Status Filter** box.
 - by source, use the **Source Filter** box. Options are:
 - All Default. Users in both of the following categories.
 - **DEFAULT** Users created internally in FileCloud.
 - **SSO** Users created externally using SSO.

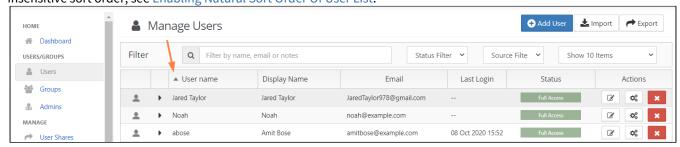


Sorting the User List

To sort the user list, click on the column name. The list is sorted on that column, and an arrow indicating the direction of sort appears in the column header.

For example, the following screenshot shows the user list sorted by ascending user names.

Notice that by default, all upper-case letters precede lower-case letters in alphabetical order. To change to a case-insensitive sort order, see Enabling Natural Sort Order Of User List.



Exporting a list of users

To export a list of FileCloud users:

- 1. In the navigation pane, click **Users**.
- 2. Click Export in the upper-right of the Manage Users screen.



A csv file of users displaying the following fields is exported:

_	A	В	С	D	E	F	G	Н	1	J	K	L	N M
1	UserName	EmailID	Password	DisplayName	Status	ExpirationDate	Groups	EmailVerified	DisableNotifications	LastLogin	Authentication Type	MobilePhone	Effective Policy
2	david	dm898002@example.com		david	FULL		EVERYONE	YES	NO	10/4/2021 15:16	Default	15559992323	Group Management
3	aliah	aliahp@example.com		Aliah	FULL		EVERYONE	YES	NO		Default	15556667777	Global Default Policy
4	hr manager	hrmanager@example.com		HR Manager	FULL		EVERYONE	YES	NO		Default		Global Default Policy
5	gaby	gabrielle_95@example.com		Gaby	FULL		EVERYONE	YES	NO	10/14/2021 11:28	Default		Global Default Policy

Viewing User Properties

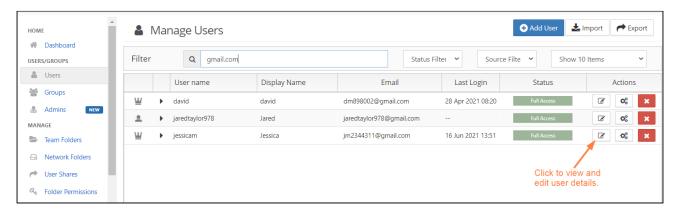
① The ability to update and remove a user's profile picture is available in FileCloud Server version 18.2 and later.

As a FileCloud administrator, you can see user properties and change them as needed.

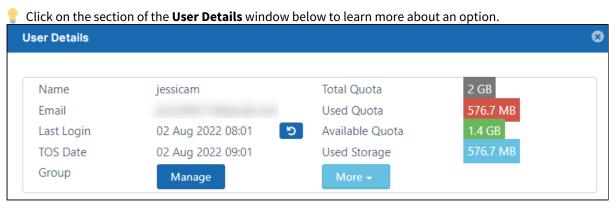
To see a user's details and what they have permission to do:

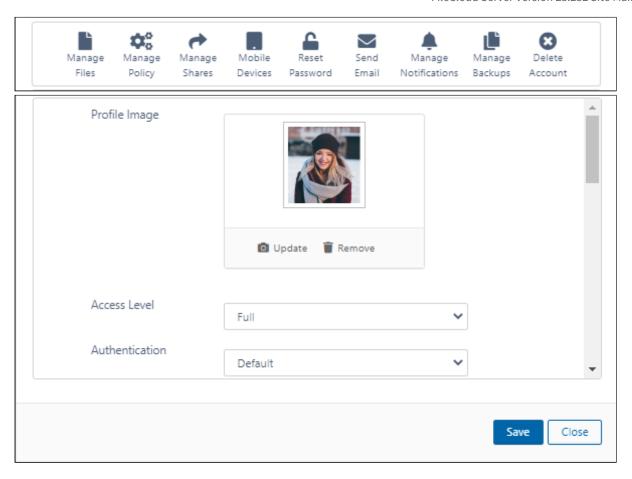
- 1. Open a browser and log on to the admin portal.
- 2. From the left navigation panel, click **Users**.
- 3. In the users list, click on the row of the user you want whose details you want to view.
- 4. Click the edit icon ().

Show me



The **User Details** window opens showing you which user attributes you can set.





Limit Admin Access to User Data

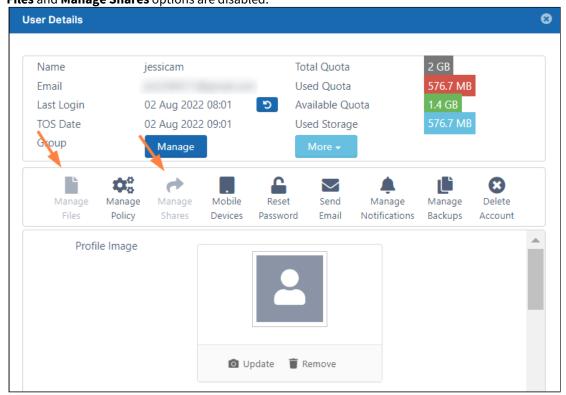
By default, the system's main admin and admin users with the proper access have the ability to manage user files and shares, which includes the ability to download user content and view it.

Beginning with FileCloud Version 20.1, you can remove this access from the system admin and admin users:

- Open the configuration file: Windows: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux: /var/www/config/cloudconfig.php
- 2. Add the line:

define("TONIDOCLOUD_DISABLE_ADMIN_USER_DATA_ACCESS_UI", true);

Now when an admin goes to the **Manage Users** screen and edits a user, in the **User Details** window, the **Manage Files** and **Manage Shares** options are disabled:

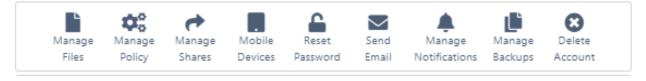


User Properties - Advanced Options

"As a FileCloud administrator, you can see user properties and change them as needed.

To see a user's details and what they have permission to do:

- 1. Open a browser and log on to the admin portal.
- 2. From the left navigation panel, click Users.
- 3. In the users list, click on the row of the user whose details you want to view.
- 4. Click the edit icon ().



Options	Description	For more information
Manage Files	Manage the files that are stored on your FileCloud Server site.	Managing User Files and Folders
	This allows you to protect and maintain your system in the following ways:	
	 Remove user files infected with a virus Remove files belonging to a user that no longer has an account Move folders for teams Download, copy and move files at a user's request Manage your storage space limits by moving or deleting files Copy and move files and folders between two FileCloud users 	
Manage Policy	Manage client policy for this user (overrides global values)	
Manage Shares	View, modify or remove shares created by users with a FileCloud account and appropriate permissions.	Managing User Shares
Mobile Devices	Manage clients connecting to your FileCloud instance.	Managing Client Devices
	This feature is called Remote Client Management (RCM) or Data Leak Prevention Control (DLPC)	
Reset Password	Reset the password for user accounts with Authentication Type set to Default. For user accounts with an Authentication Type set to AD or LDAP, the password management must be done in AD or LDAP admin portal.	Reset a User Password

Options	Description	For more information
Send Email	If the user does not have an AD account, this option either sends a forgot email message with the password newly generated by Reset Password or an account welcome message with an automatically generated new password.	Send Email
	If the user has an AD account, there is no option to send a forgot email message. Clicking OK sends the user a welcome email without a new password.	
	The option to send an account welcome message for accounts other than AD users is available beginning in FileCloud 20.1 The option to send an account welcome message to AD users is available beginning in FileCloud 20.3	
Manage Notifications	Edit notifications configured on the user's file and folder paths.	Editing individual user's file and folder notifications
Manage Backups	Manage backups for the user.	
Delete Account	Delete this user account from the command line or the admin portal.	Deleting a FileCloud User

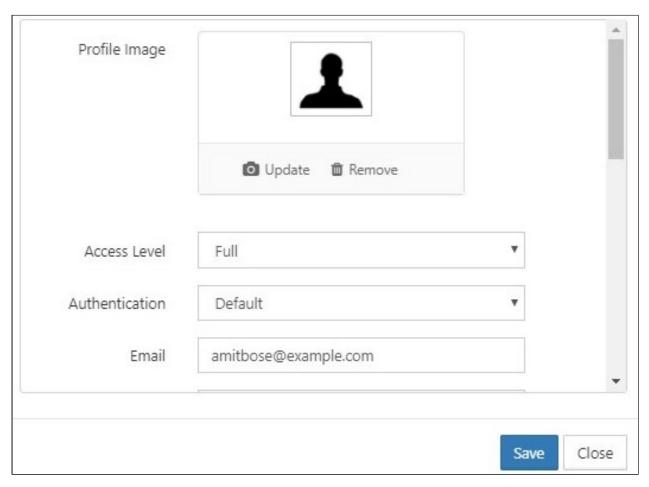
User Properties - Editable

(i) The ability to update and remove a user's profile picture is available in FileCloud Server version 18.2 and later.

As a FileCloud administrator, you can see user properties and change them as needed.

To see a user's details and what they have permission to do:

- 1. Open a browser and log on to Admin Portal.
- 2. From the left navigation panel, click *Users*.
- 3. In the users list, click on the row of the user you want whose details you want to view.
- 4. Click the edit icon ().



After you make any changes and save them, the new property will be in effect immediately.

For example, after an administrator increases the storage quota for an account, the increased storage is available to the user as soon as the administrator clicks Save.

Editable Property	Description
Profile Image	 You can choose a new picture or remove the current one. This is useful for IT Managers who also manage user images in Active Directory. If no profile image is chosen, the default shown in the User Details panel is used by default.

Editable Property	Description
Access Level	This is the access level set for this user. The possible values are: • Full Access • Guest Access • External Access • Enabled • Disabled
	Only accounts with enabled status can login into their account irrespective of their access level.
	Disabled accounts do not count towards the License Limit.
	For more information:
	User Access Levels
Authentication	This is the type of authentication used to verify the user's account. The possible values are: Default
	External (AD/LDAP)
	For more information:
	Authentication
Total Quota (GB)	Field to set the total storage quota for the user account. The value set must be in GB This value will override the global storage quota settings.
Email	Field to set the email ID for the user account. This value has to be unique for the FileCloud installation.
Secondary Email	Additional email account.
Display Name	Field to set an user readable name that will be used in various places such as email notifications etc.
Account Expires On	If this is date is set and the current date is past, the account will be disabled automatically and user cannot log into the system

Editable Property	Description
Password Expires On	If "User Password Expires in Days" field in Password settings is configured, then any new account will have this value setup automatically and will require password change after the expiration date elapses. This value can be overriden by the administrator. NOTE: An automatic email notification is sent to the user 7 days and 1 day before the actual password expiry date.
Email Verified	Indicates if the entered email has been verified. If email is not verified, then account cannot be logged in until the verification is completed.
Disable Sync (Automatic Sync of My Files and Network Folders)	Allow or disable Automatic sync of "My Files" location and Network Folders Location
Disable Sync (Offline Network Share Sync)	Allow or disable offline access of network folders in FileCloud Sync
Backup Path	Allows override of the backup folder that the user can backup files and folders using the sync app or the media files from mobile apps
Change Password on Login	This feature forces the user to change the login password on first login. When enabled user will be forced to change the password on login in user portal. Change Password on Login Notes Save Close
Creation Source	 Where user was created. Options are: Default (Admin user interface or import) SSO (During SSO signin)

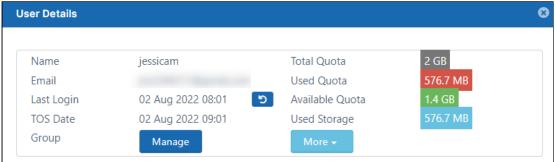
Editable Property	Description
Phone Number (added in FileCloud 20.1)	The user's phone number.
Notes	This filed allows the user to enter notes for the user and also search the user based on notes.

User Properties - Read Only

As a FileCloud administrator, you can see user properties and change them as needed.

To see a user's details and what they have permission to do:

- 1. Open a browser and log on to Admin Portal.
- 2. From the left navigation panel, click Users.
- 3. In the users list, click on the row of the user you want whose details you want to view.
- 4. Click the edit icon (



Most of the User Properties in the top portion of the User Details dialog box are for display only and cannot be changed in this window.



In this section of the User Details, you can manage the groups that a User belongs to by clicking the Manage button.



Managing Groups

The User's read-only properties are described in the following table.

Readonly Property	Description
Name	The unique name of the user account.
Email	Email id associated with the account (Can be changed editing the " Email " text box).

Readonly Property	Description
Last Login	Last login attempted on this account. Click the Reset icon to set Last Login to null. Note : When a disabled user is re-enabled, Last Login is set to null.
TOS Date	Date that terms of service was approved on login. If not approved, Not Accepted appears.
Group	Click Manage to view, add, and remove the user's groups.
Total Quota	Quota allocated for this account (This can be changed using "Total Quota (GB)" text box)
Used Quota	This is the size of data this user has currently used. This includes all "Committed" Space by this user including file versions, files in recycle bin, partial files uploaded. Depending on the storage calculation setting, this quota might also include storage shared with this user by other users. For guest access users, this value calculated from the amount of data shared to that account.
Available Quota	Space available
Used Storage	Space taken by all this user content. This includes space used for multiple file versions , files in Recycle bin contents and Partial files in progress .

▲ Storage Details

Additional storage details about the files stored in the user account can be viewed by clicking on the "More" button found in the read only section of the user properties popup.

Disable a FileCloud User Account



(i) The ability to disable user account during import if the account is also disabled in Active Directory is available in FileCloud Server version 19.1 and later.

Disabled User Account Status

Any user account can be disabled by the Administrator.

If a user account is disabled, then the following rules apply

	Description
Log in using user id from browser or other clients	Disallowed. User will see explicit message when attempting to log in
User files	Not deleted.
License count	Disabled users do not count towards consumed license count

Disabling a User Account

Disable a user account by following the steps listed below

- 1. Log on to Administration Portal.
- 2. Click **Users** in the left navigation panel.
- 3. Click **Edit** in the user row.

ø **User Details** Name aliah Total Quota Used Quota Email aliahp@example.com 251 KB 02 Dec 2022 08:50 Available Quota 2 GB Last Login TOS Date 16 Sep 2022 09:53 Used Storage Group Manage **\$**0 **3** Manage Manage Manage Mobile Reset Send Manage Manage Delete Files Devices Password Email Notifications Backups Policy Shares Account Profile Image Update Remove Access Level Full Disabled Authentication Guest Full External Close

4. Using the Status drop-down list, change the status to Disabled.

5. Click Save.

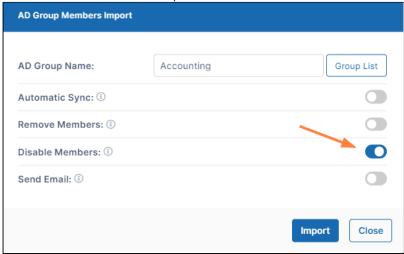
Import Disabled Users from Active Directory as Disabled

When a user account is disabled in AD, it may be imported as a disabled account into FileCloud.

To use this option:

- 1. Open a browser and log on to the admin portal.
- 2. In then navigation panel, click **Groups**.
- 3. Select the ${\bf group}$ that you want to add users to, and then click the Edit Group (${\bf I}$) icon.
- 4. On the Members tab, click Import Users from AD Group.
- 5. In AD Group Name, enter the AD group to import.

6. Enable the **Disable Members** option.



If there are users with disabled accounts in the AD group, they are listed in the admin portal's **Manage Users** screen with **Disabled Access**.

Deleting a FileCloud User

As an administrator, you can delete a FileCloud user account.



When a user account is deleted

- By default, the user's data stored in My Files is deleted.
- The user can no longer log in via browser or connect using the Sync client or Drive client.
- The user's license account is released, and the available license count is incremented by 1.
- The user is removed from all shares.
- The user's workflows are deleted.
- Data shared by the user is no longer be available.

Account Type	Effect
User with "Default Authentication" (Local User)	Local user account is deleted.
User with "AD or LDAP Authentication"	Only the FileCloud account will be deleted. No change will be done to the user in the AD or LDAP server.

To move the user's data to a different user before deleting the account:

Use the admin portal to copy and move user files

Or:

Use the command line to move the files to a different user.

When a user account needs to be deleted, administrators can move the files to a different user instead of allowing the files to be deleted with the user account.

1. In a command line enter:

For Windows:

```
cd c:\xampp\htdocs\resources\tools\fileutils
PATH=%PATH%;C:\xampp\php
```

For Linux:

```
cd /var/www/html/resources/tools/fileutils/
```

2. Then, for both Windows and Linux, enter:

```
php txfilesanddeleteaccount.php -h <host> -u <user> -p /destination/path -o
```

Parameters:

[Required] -h <host> Site host name or 'default' for default site

[Required] -u user account whose files are to be transferred before account delete

[Required] -p path to which the user files are to be moved before deleting account

[Optional] -o set this flag to overwrite and merge transferred file with destination

Examples:

a) Command to transfer files of user "richard" to path /tgtuser/holding of default site:

```
php txfilesanddeleteaccount.php -h default -u richard -p /tgtuser/holding
```

b) Command to transfer files of user "richard" to path /tgtuser/holding of default site, overwriting files/folders that may exists in the destination:

```
php txfilesanddeleteaccount.php -h default -u richard -p /tgtuser/holding -o
```

How do you want to delete a user account?

Use the command line

Use the admin portal

Deleting FileCloud User From Command Line

1. In a command line enter:

For Windows:

cd c:\xampp\htdocs\resources\backup
PATH=%PATH%;C:\xampp\php

For Linux:

cd /var/www/html/resources/backup

2. Then, for both Windows and Linux, enter:

php deleteuser.php -u <user_name>

Deleting User in Multi-Site Setups

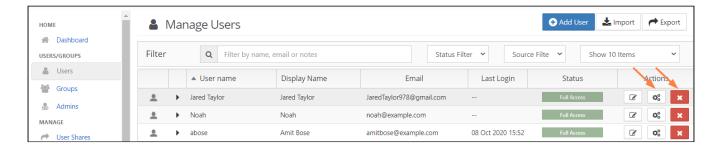
To delete user for another site in case for multitenant setup, pass in the hostname using -h parameter

php deleteuser.php -u <user_name> -h site2.xyz.com

Deleting a FileCloud User From Admin Portal

To delete a user:

- 1. Open a browser and log on to Administration Portal.
- 2. From the left navigation panel, click **Users**.
- 3. Click the row containing the user to be deleted.
- 4. In the Actions column, click the delete icon ().
- 5. On the confirmation dialog, click the box next to "Confirm and continue with deletion?". Then click OK.
- It is also possible to delete an account using the account properties panel by clicking on the settings icon (🕵).





Resetting a User Password

As a FileCloud Administrator, you can reset password for accounts with Authentication Type set to Default.



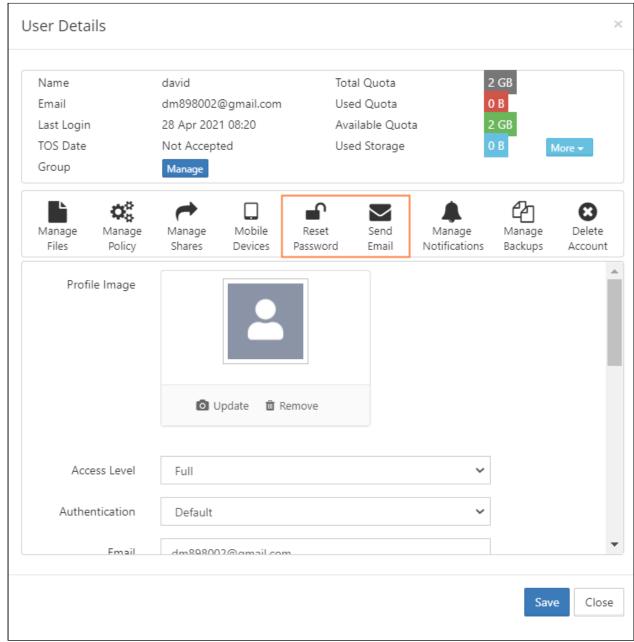
A For user accounts with "Authentication Type" set to "AD or LDAP", password management must be done in AD or LDAP admin portal.

Sending the Account Welcome email option is available beginning with FileCloud 20.1.

To reset password for user account:

- 1. Log on to Administration Portal.
- 2. Click on "Users" on left navigation panel.
- 3. Locate the user to reset the password using "Filter Users" or from the user list.

4. Click on "Edit" for the user row under the "Actions" column to launch the User Details window.



5. Click Reset Password.

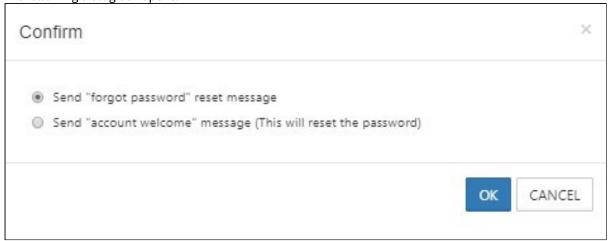


- 6. Enter the new password in **Password** and **Confirm Password**.
- 7. Click Save.

Note: If you want an email to be automatically sent to the user when you change their password, enable the **Send reset password email** setting in Password Settings and enter the text of the email.

OR

1. To change the password, and send the new password to the user, click **Send Email**. The following dialog box opens:



2. Choose Send "forgot password" reset message, and click OK.

The new password is sent to the user

Manage A User's Policies

 \bigcirc Policies are available in FileCloud 17.3 and later.

Administrators can manage users easily using policies.

- Policies provide a framework for managing settings at the user or group level
- One policy record manages multiple policy values
- The policy record can be associated with a user



Learn more about Policies

What do you want to do?

Select a Policy for a User

You can add a user to a policy to apply multiple settings at once and re-use settings for similar user scenarios.

For example, you can use a policy to set attributes for the following:

- Enable or Disable Printing in Mobile Apps
- Enable or Disable Configuration Changes in Clients
- Enable or Disable Two-Factor Authentication (2FA)
- Enable or Disable Notifications
- Enforce Session Timeout for Devices
- · Set a Default Storage Quota
- Enable Privacy Settings

To select a policy for a user:

- 1. Open a browser and log on to the admin portal.
- 2. In the navigation panel, click **Users**.
- 3. In the **Manage Users** window, select a user, and then click the Edit icon \square .
- 4. In the User Details window, click Manage Policy.
- 5. Next to the Selected Policy box, click Select.
- 6. Choose a policy.

Change or Remove a User's Policy

If you want to change a user's policy, you must remove the selected one first.

To remove a policy for a user:

- 1. Open a browser and log on to the admin portal.
- 2. In the navigation panel, click Users.
- 3. In the Manage Users window, select a user, and then click the Edit icon \square .
- 4. In the User Details window, click Manage Policy.
- 5. Next to the **Selected Policy** box, click **Clear**.

Modifying a policy while managing a user

In the **Manage Users** page, in addition to viewing the details of the policy assigned to a user, you can edit the policy. However, if you edit the policy, the changes affect all users the policy is assigned to.

To edit a policy from a user account:

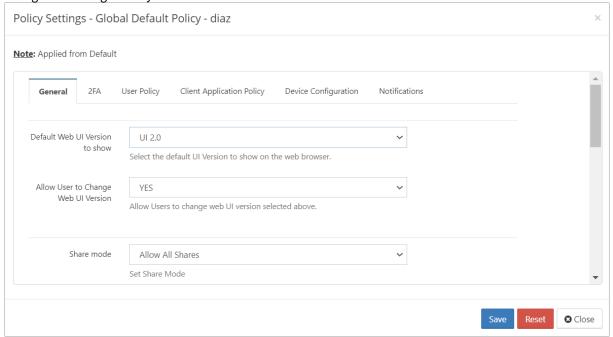
1. In the admin portal navigation panel, click **Users**. The Manage Users page opens.

2. Across from a user, click the Manage User Policy (gears) icon.



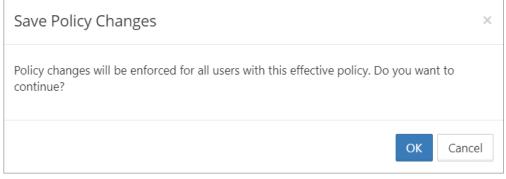
The Policy Settings dialog box opens.

3. Change the settings on any of the tabs.



4. Click Save.

A confirmation prompt warns you that this will change the policy for all users who are assigned to it.



5. Click OK.

The policy is changed.

Calculate the Effectiveness of a User's Policy

An effective policy for a user is calculated on multiple factors.

This check is provided so you can see if group associations for this user changes how the policy you selected is enforced.

 \Rightarrow

Learn more about Effective Policy Best Practices

To calculate the effectiveness of a policy for a user:

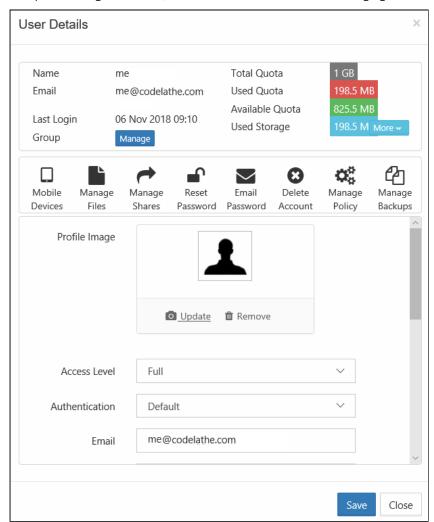
- 1. Open a browser and log on to the admin portal.
- 2. From the navigation panel, click **Users**.
- 3. In the **Manage Users** window, select a user, and then click the Edit icon .
- 4. In the User Details window, click Manage Policy.
- 5. Next to the **Effective Policy** box, click **Calculate**.
- 6. The most effective policy for this user is shown in the box next to the **Calculate** button.
- 7. To see the details of a policy, click **Open**.

Manage a User's Profile Picture

i The ability to update and remove a user's profile picture is available in FileCloud Server version 18.2 and later.

As a FileCloud administrator, you can update and remove a user's profile picture in the User Details screen.

If no profile image is chosen, the default is shown in the following figure:



To update a user's profile image:

- 1. Open a browser and log on to Admin Portal.
- 2. From the left navigation panel, click *Users*.
- 3. In the users list, click the row containing the user whose picture you want to change.
- 4. Click the edit icon ().
- 5. Next to Profile Image, to add an image, click Update.
- 6. Next to Profile Image, to remove an image, click Remove.

Change a User's Email Address

As a FileCloud administrator, you can update a user's email address when it changes.

• After you update the email address, the user's shared files and folder will be updated to display this new email address

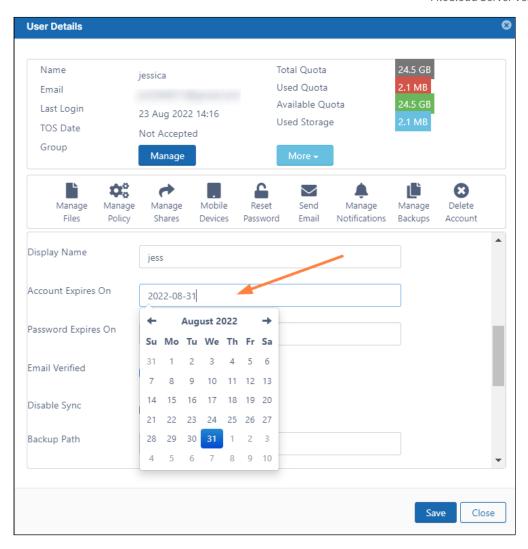
To change a user's email address:

- 1. Open a browser and log on to Admin Portal.
- 2. From the left navigation panel, click Users.
- 3. In the users list, click on the row of the user you want whose details you want to view.
- 4. Click the edit icon ().
- 5. On the User Details screen, scroll down to the editable Email box.
- 6. Type in the new email address.
- 7. Click Save.

Setting a User Account to Expire

(i) The issue with an expiration date automatically changing to the day before has been fixed in FileCloud Server version 18.2 and later.

As a FileCloud administrator, you can set up a user account to be temporary, and configure it to expire.



To see a user's details and what they have permission to do:

- 1. Open a browser and log on to Admin Portal.
- 2. From the left navigation panel, click *Users*.
- 3. In the users list, click on the row of the user you want whose details you want to view.
- 4. Click the edit icon ().
- 5. Scroll down to see the Account Expires On field.
- 6. To see a calendar and select a date, click the text box.
- 7. To save your changes, click Save.

Send Email from User Details

 \bigcirc This option is available beginning in FileCloud 20.1

There are two types of emails you can send from the User Details window:

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- A forgot password email that sends the user a password newly generated using the Reset Password option in User Details.
- An account welcome email that welcomes a new user to FileCloud. If the new user is not an AD user, the message includes a new password. If the new user is an AD user, the message does not include a new password.

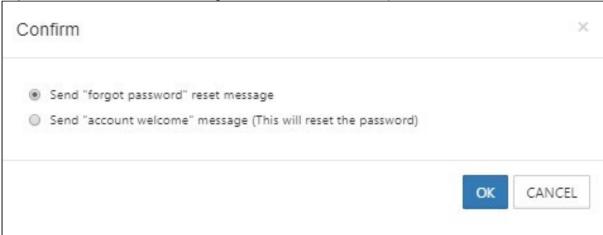
To send an email from User Details:

- 1. Click **Users** in the navigation panel.
- 2. Locate the user in the user list.
- 3. Click the **edit** icon under **Actions** to the right of the user. The User Details window opens.
- 4. Click the **Send Email** icon.



A dialog box for choosing the type of email opens.

Note: If the user has an AD account, there is no option to send a "forgot password" message. The dialog box only sends an account welcome message that does not include a new password.



- 5. Select Set "forgot password" reset message or Send "account welcome" message
- 6. To send the message, click OK.

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Managing Groups

A FileCloud Admin can manage User Groups.

Once a user group is created, the following operations can be performed:

- · Change group details
- Delete a group
- View and Change Group members

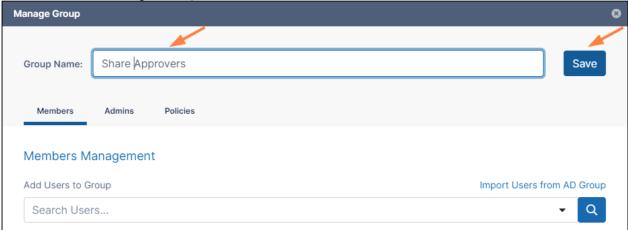
To add a group, see Group Settings.

Change a User Group Name

You can change any FileCloud group's name except for the **Everyone** group.

To change a group's name:

- 1. Log on to admin portal.
- 2. In the navigation panel, click **Groups.**
- 3. Click the Edit icon for the desired group from the list of groups.
- 4. In the **Manage Group** dialog box, change the group name.
- 5. Click Save once the change is complete.



Delete a User Group

To delete a group:

- 1. Log on to the admin portal.
- 2. In the navigation panel, click **Groups.**
- 3. Click the Delete icon for a group to remove it from the list of groups.

4. Click **Remove** to confirm deletion.



• Once a group is removed, network shares shared with that removed group will no longer be available to the former members of the group

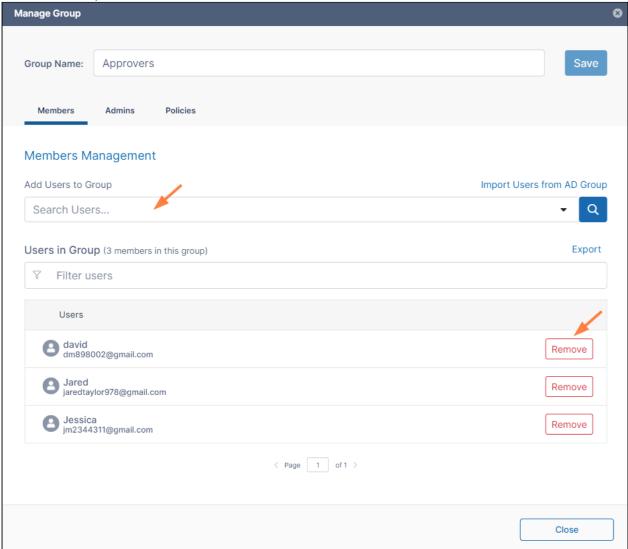
View and Change Group Members

You can change the members in any FileCloud group except the **Everyone** group.

To change a group's members:

- 1. Log on to admin portal.
- 2. In the navigation panel, click **Groups.**
- 3. Click the Edit icon for the group.
- 4. In the **Members** tab, view the members of the group.
- 5. To add a member, enter an existing FileCloud user's name or email address in the search bar, and click **Add**.

6. To remove a user, click **Remove** next to the user's name.

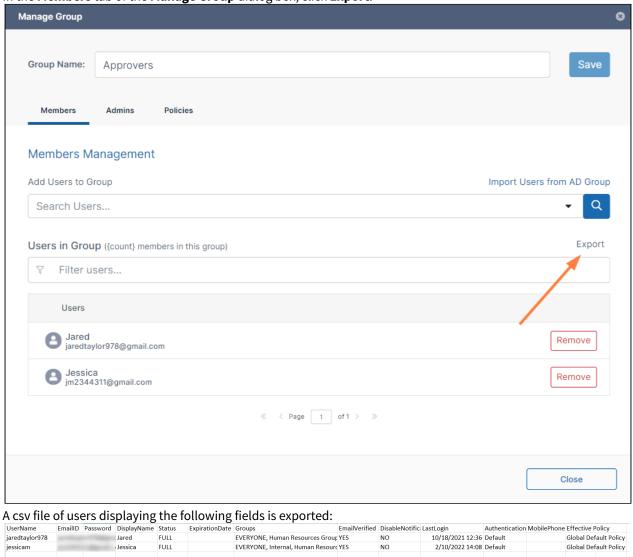


Exporting a list of users in a group

To export a list of users in a group:

- 1. In the navigation pane, click **Groups**.
- 2. Click the Edit icon for a group.

3. In the Members tab of the Manage Group dialog box, click Export.



To import an AD group into a FileCloud group, see Group Settings

Managing Admin Users

FileCloud enables you to create admin roles with a set of administrator permissions. Users assigned to any of the admin roles that you have created become admin users and have the permissions assigned to the role.

For information on about admin roles and admin users and instructions for setting them up, see Admin User and Role Settings.

Check an admin user's permissions

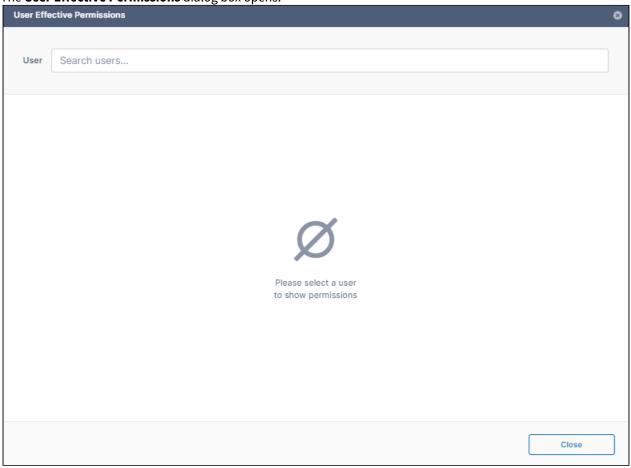
If an admin user has one role, the user has the permissions assigned to that role, but if an admin user has multiple roles, the user has the combined permissions of all of its roles.

To check all of a user's permissions:

- 1. Click **Admins** in the navigation panel.
- 2. In the Manage Admin Roles screen, click Check user permissions.

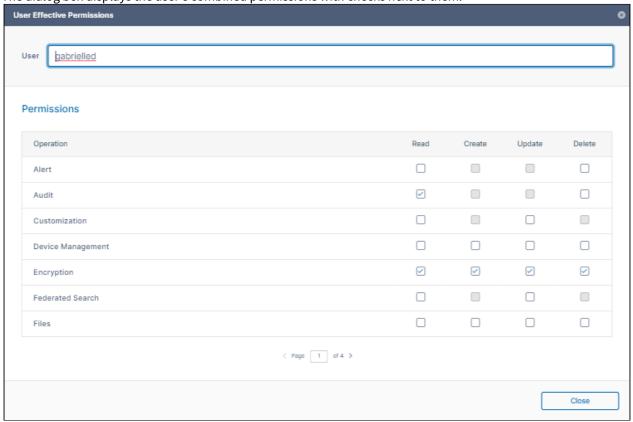


The **User Effective Permissions** dialog box opens.



3. In **User**, enter the name of the user.

The dialog box displays the user's combined permissions with checks next to them.



> Definitions of Permissions

The following permissions represent functions that admin users may be permitted to perform.

Operation	Description
Alert	Alert item on the admin interface is visible. Authorization to view and clear alerts in admin interface.
Audit	Audit item on the admin interface is visible. Authorization to view, delete and export Audit Records.
Compliance	Compliance Dashboard on the admin interface is visible. Authorization to view and update compliance settings.

Operation	Description
Customization	Customization item on the admin interface is visible. Authorization to customize the FileCloud interface. Note: Admin users must have Customization > Update enabled to be able to change the user login background.
Device Management	Devices item on the admin interface is visible. Authorization to view, create, delete and update Devices.
Encryption	Authorization to manage all Encryption at Rest settings.
Federated Search	Support to perform federated search through the admin interface.
Files	Manage Files. Authorization to view, dreate, modify, download, and delete user files.
Folder Permissions	Manage Folder Level Permissions. Authorization to view and manage Folder Permissions.
Groups	Groups menu item on the admin interface is visible. Authorization to view, create, modify and delete Groups. Manage group members. Import group members from Active Directory.
Locks	View , create, and delete Locks on Files and Folders in FileCloud.
Manage Administrators	Allows promoted admin users to manage the permissions of other promoted admin users.
Metadata	View, create, update and delete metadata set definitions, attributes and permissions.
Network Share	Network Folders item on the admin interface is visible. Authorization to view, create, modify and delete Network Folders. Manage User and Group Access to Network Folders.
Notifications	Notifications menu item on the admin interface is available. Add, edit, update, and delete notification rules.
Reports	Reports menu item on the admin interface is available. Add, execute, edit and delete reports.

Operation	Description
Retention	Retention menu item on the admin interface is available. Add, edit, and delete retention policies.
Rich Dashboard	View rich dashboard view including tables and graphs on the admin UI dashboard.
Settings	Settings item on the admin interface is visible. Authorization to view and modify FileCloud Settings.
Smart Classification	Smart Classification menu item on the admin interface is available. Add, update, run, and delete content classification rules.
Smart DLP	Smart DLP menu item on the admin interface is available. Add, edit, and delete DLP rules.
System	System item on the admin interface is visible. Authorization to run system checks, install check, generate logs and UPGRADE FileCloud to new version.
Team Folders	Set up Team Folders, add, edit, delete and manage team folder and corresponding permissions. <i>Note: The corresponding Folder Permission must be enabled to be able to perform a Team Folder operation.</i>
User Share	User Shares item on the admin interface is visible. Authorization to view, create, modify and delete User Shares.
Users	Users menu item on the admin interface is visible. Authorization to view, create, modify and delete Users. Import New Users. Reset Password for Users.
Workflow	Workflow menu item on the admin interface is visible. Add, edit and delete workflows on FileCloud.

Admin users can log in to the admin portal using either their username or email id.

Remove an admin role

When you remove an admin role, you permanently delete it. To recreate it, you must create it, assign all permissions, and add users and groups again.

To remove an admin role:

1. Click **Admins** in the navigation panel.

2. Either

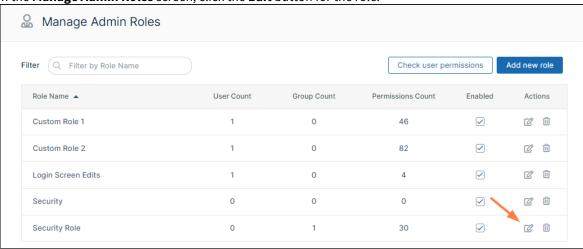
• In the Manage Admin Roles screen, click the Delete button for the role.



• Click **Remove** when you are prompted to confirm removal.

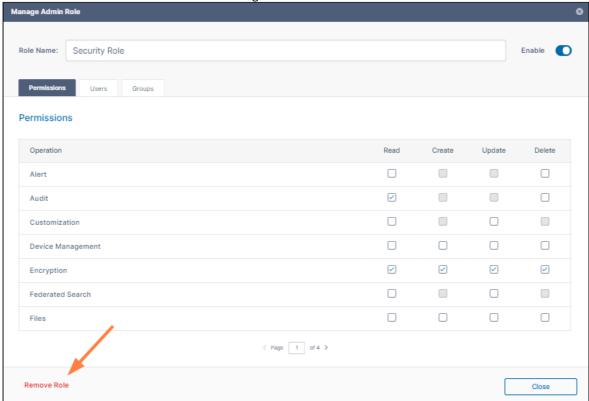
Or:

• In the Manage Admin Roles screen, click the Edit button for the role.



The Manage Admin Role dialog box opens.

• Click **Remove Role** at the bottom of the dialog box.



3. Click **Remove** when you are prompted to confirm removal.

Managing User Folders and Files

As an administrator, you can manage the files that are stored on your FileCloud Server site.

This allows you to protect and maintain your system in the following ways:

- · Remove user files infected with a virus
- · Remove files belonging to a user that no longer has an account
- Move folders for teams
- Download, copy and move files at a user's request
- Manage your storage space limits by moving or deleting files
- Copy and move files and folders between two FileCloud users

How do I access user storage management settings?



To access user folder and files settings:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.

How do I limit admin access to users' files and folders?

If you do not want the main administrator or admin users to have unlimited access to user files and folders, you can configure your system to prevent them from performing all of the following actions:

- download a file
- delete a file or folder
- rename a file or folder
- · move a file or folder
- copy a file or folder

To limit admin access to user files and folders:

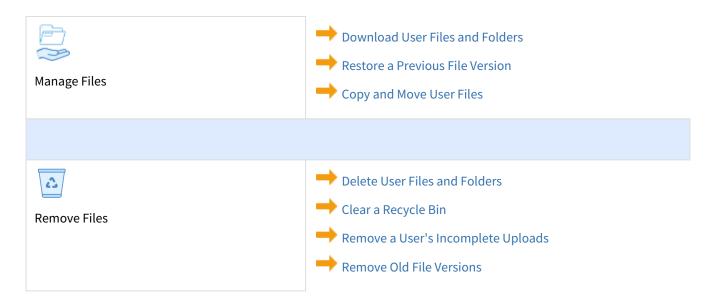
- Open the configuration file: Windows: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux: /var/www/config/cloudconfig.php
- 2. Add the line: define("TONIDOCLOUD_DISABLE_ADMIN_USER_DATA_ACCESS", true);

3. Save and close cloudconfig.php.

Now when an admin attempts to perform one of the above actions to a user file or folder, a message similar to the following appears:



What do you want to do?



Copy and Move User Files



⚠ This action will be recorded in the Audit log as: "Action performed by ADMIN"

As an administrator, you can copy and move user files that are stored on your FileCloud Server site.

This allows you to protect and maintain your system in the following ways:

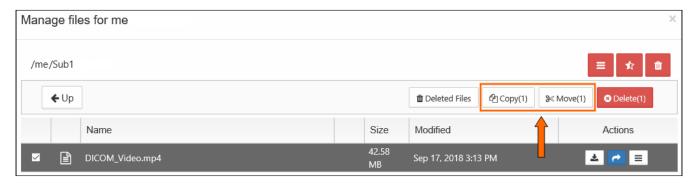
• Move folders for teams

- Download, copy and move files at a user's request
- Manage your storage space limits by moving or deleting files
- Copy and move files and folders between folder locations for two different user accounts
- Copy and move files and folders between folder locations for the same user account

What is the difference between copy and move?

Copying a file will allow you to have the same file in two different locations.

Moving a file will allow you to put the file in a new location so it can be removed from the original location.



To copy and paste files and folders between folder locations for the same user account:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to copy.
- 7. To select the file or folder, click the checkbox next to the name.
- 8. To copy the file or folder, click the Copy button.
- 9. Navigate to the folder where you want to paste the copy.
- 10. Click Paste.

To copy and paste files and folders between folder locations for two different user accounts:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon .
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to copy.
- 7. To select the file or folder, click the checkbox next to the name.
- 8. To copy the file or folder, click the Copy button.
- 9. To close the window, in the top right corner, click the x button.
- 10. On the Manage Users page, select the user who wants a copy of the file or folder, and then click the Edit icon
- 11. On the User Detail dialog box, click Manage Files.
- 12. The Manage Files for <User> window opens.
- 13. Navigate to the folder or file where you want to paste the copy.
- 14. Click Paste.

To move and paste files and folders between folder locations for the same user account:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare .
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to move.
- 7. To select the file or folder, click the checkbox next to the name.
- 8. To move the file or folder, click the Move button.
- 9. Navigate to the folder where you want to paste the original file or folder.
- 10. Click Paste.

To move and paste files and folders between folder locations for two different user accounts:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to move.
- 7. To select the file or folder, click the checkbox next to the name.
- 8. To copy the file or folder, click the Move button.
- 9. To close the window, in the top right corner, click the x button.
- 10. On the Manage Users page, select the user who wants the file or folder, and then click the Edit icon ...
- 11. On the User Detail dialog box, click Manage Files.
- 12. The Manage Files for <User> window opens.
- 13. Navigate to the folder or file where you want to paste the original.
- 14. Click Paste.

Download User Files and Folders

i To disable users' ability to download folders from the user portal, see the setting **Disable Folder Download** at General Customization.

As an administrator, you can manage the files that are stored on your FileCloud Server site.

• This allows you to protect and maintain your system.

Can I download all of a user's files at once?

- You can easily download all of a user's files by downloading the My Files folder.
- Folders will be zipped first and then downloaded.



Can I download an older version of a file?

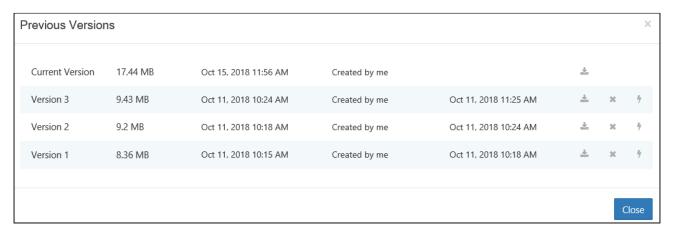
If the user has uploaded changes to a file, you can:

- download the latest version
- download a previous version



Look for the Versions button icon

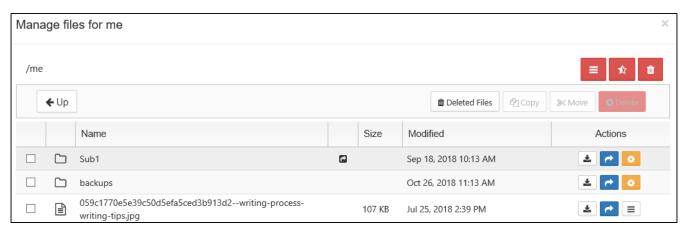




Having older versions on the site also allows you to:

Restore the previous version of a file and make it live

Remove previous versions to save space



To download user folder and files:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to download.
- 7. Select the file or folder.
- 8. To download the latest version of a file, click the Download icon
- 9. To download an earlier version, click the Version icon
- 10. Select the version from the list and then click the Download icon

Downloading Large Numbers of Files Using the Command Line Tool

(i)

The file download tool is available in FileCloud 21.2 and later.

The most efficient way to download large numbers of files at once is through FileCloud's file download tool.

The tool is filedownloader.php and is located in C:\xampp\htdocs\resources\tools\fileutils

PHP should be installed on the system on which the tool is run.

To download files using the tool:

1. Create an ini file for the tool, for example, **C:\tool\downloadfiles.ini**, with the parameters in the following example and your own values replacing the values on the right.

The path that contains the files to be downloaded is **cloudpath**, and the path where the files will be downloaded is **destpath**.

Set **disablefilelogging** to **true** to avoid creating an overly large log file.

username=tester
password=qwerty123
serverurl=https://myserver.com
cloudpath=/tester/downloads
destpath=C:\samplefiledownloads
disablefilelogging=true

2. Enter the following commands to run the tool:

```
cd C:\xampp\htdocs\resources\tools\fileutils
C:\xampp\php\php.exe filedownloader.php --ini C:\tool\downloadfiles.ini
```

Note that this tool can be copied to any remote location and run. It does not require FileCloud to be present on the same system that the tool is run on.

Cancel User Uploads in Progress

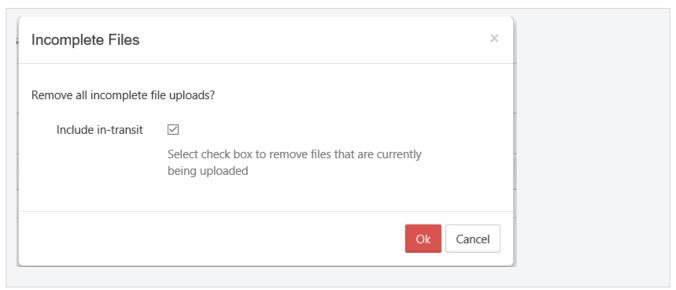


This action:

- Is recorded in the Audit log as: "Action performed by ADMIN"
- CANNOT be undone

As an administrator, when a user is uploading a file and you want to cancel the upload, if it is only partially completed, you can cancel it using the Remove All Incomplete Uploads button using the Include in-transit option.

- This is useful if you discover the file is infected and want to stop the upload
- If the file is too large or contains inappropriate content, you can cancel the upload before it completes



To stop all partial user uploads from completing:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 7. On the Incomplete Files dialog box, select the Include in-transit checkbox.
- 8. Click OK.

Delete User Folders and Files



⚠ This action will be recorded in the Audit log as:

"Action performed by ADMIN"

As an administrator, you can manage the files that are stored on your FileCloud Server site.

This allows you to protect and maintain your system in the following ways:

- · Remove user files infected with a virus
- Remove files belonging to a user that no longer has an account
- Manage your storage space limits by moving or deleting files

🥊 Deleting a file or folder moves it to the Deleted Files recycle bin. To permanently remove a file, you must clear if from the recycle bin.

To delete files and folders:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.

- 5. The Manage Files for <User> window opens.
- 6. Navigate to the folder or file you want to delete.
- 7. To select the file or folder, click the checkbox next to the name.
- 8. Click the Delete button.
- 9. On the Confirm dialog box, click Yes.

Clear a Recycle Bin

(i) The ability to have FileCloud place files deleted on S3 Storage into a recycle bin and use the recycle bin functionality is available on FileCloud Server version 18.2 and later.



⚠ This action:

- Is recorded in the Audit log as: "Action performed by ADMIN"
- · CANNOT be undone

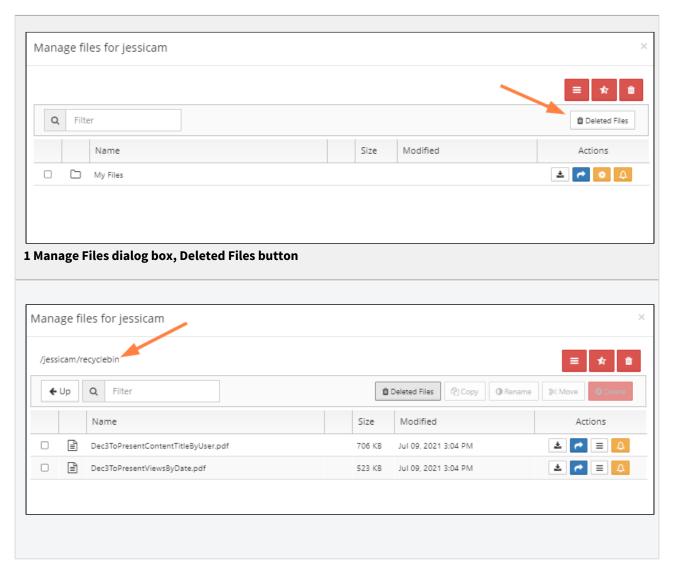
As an administrator, you can delete a user's files and folders.

- 🥊 After you delete files and folders, they are normally placed in the user's Recycle Bin, which you can also manage.
 - If you have a policy that stores deleted files, they are saved in the Recycle Bin
 - This means that they can be recovered if deleted by mistake or are needed again at a later time
 - You can also set the Recycle Bin to automatically delete through a policy
- Manage the Recycle Bin Using a Policy

Go the the recycle bin

In the Admin portal, go to the Users page, select a user, and click the edit icon. In the User Details dialog box, click Manage Files.

Click **Deleted Files** to view the contents of the recycle bin:



Clear a recycle bin smaller than 16 MB

If you are sure the user no longer needs the files in the recycle bin, they can be cleared.



If you have a folder with a large number of files, more than 16 MB, and you delete this folder, it is moved to recycle bin.

- When you try to delete the folder or empty recycle bin, the request will fail
- A new utility has been added to help an administrator empty the recycle bin when it contains a large folder that won't delete
- See the next topic, Run a tool to clear a recycle bin larger than 16 MB for more information

Run a tool to clear a recycle bin larger than 16 MB

If you have a folder with a large number of files, more than 16 MB, and you delete this folder, it is moved to recycle bin.

• When you try to delete the folder or empty recycle bin, the request will fail

A new utility has been added to help an administrator empty the recycle bin when it contains a large folder that won't delete.

- The utility is at WWWROOT/fileutils/rmutil.php
- In this tool can be used not only for emptying recycle bin, but also any folder path. Please use it with caution.
- · Usage:

[Optional] -h <host> Site host name or 'default' for default site. If not specified, command uses default site.

[Required] -u user account whose files are being removed from the recycle bin

[Required] -p path to the user's recycle bin which you want to delete

[Optional] -r 1 remove files in the destination (For a test run, do not specify this option.)

[Optional] --useaggregation Use this to prevent orphaned files from remaining if delete operation only partially finishes. Instead of relying on parent/child relationships, this causes the command to reconstruct the path of each file and folder after the initial delete operation, enabling it to identify and delete orphans.

To run the utility:

- 1. Open a command line prompt.
- 2. Use the following code to navigate to the directory containing the utility

```
cd C:\xampp\htdocs\resources\tools\fileutils
```

3. Use the following command to delete files and folders under the path /user1/recyclebin/ (replace the sample parameters with your own data)

```
C:\xampp\php\php.exe rmutil.php -h default -u jdoe -p /jdoe/recyclebin/ -r 1
```

To run the utility with the option to delete orphaned files:

C:\xampp\php\php.exe rmutil.php -u jdoe -p /jdoe/recyclebin -r 1 --useaggregation

Remove a User's Old File Versions



⚠ This action:

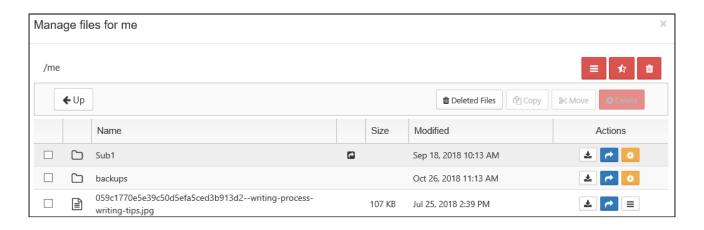
- Is recorded in the Audit log as: "Action performed by ADMIN"
- CANNOT be undone

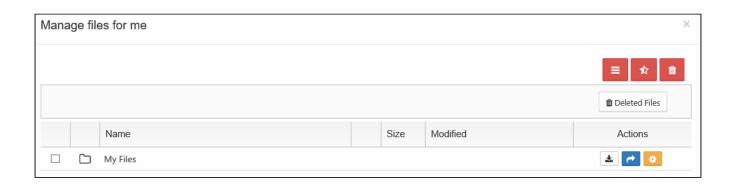
As an administrator, you can delete older versions of files that are stored on your FileCloud Server site.

- This allows you to free up space when previous versions of a file are not needed anymore.
- This can also be used to clean up storage space for users who no longer have a FileCloud Server account for your
- 💡 This action does not remove the current version of a file, only all older versions saved on the FileCloud Server.

How do I know if there are previous versions of a file?

Look for the Versions icon







To remove a user's old files:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Click the Remove all Old Versions icon
- 7. On the Confirm dialog box, click OK.

Remove Incomplete User Uploads



This action:

- Is recorded in the Audit log as: "Action performed by ADMIN"
- CANNOT be undone

As an administrator, you can remove files that were not completely uploaded. This can free up storage space.

If a user tries to upload a file and for some reason the action is only partially completed, the file is saved in a folder for partial uploads.

- Partial uploads are saved in case a network connection is lost and the user wants to continue the upload when connectivity is restored.
- Incomplete user uploads are never shown in the Manage Files listing.
- Over a period of time, these partial uploads can occupy lots of space.
- Admins can easily remove these partial uploads with the click of one button.

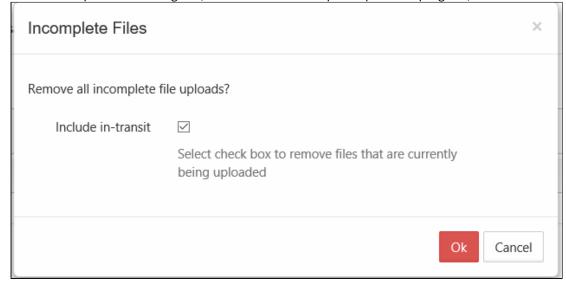


- 💡 If a file upload is in progress:
 - It will not be removed, even if it only partially uploads, unless you use the In-transit option when removing partial uploads
 - You can use the In-transit option to cancel a partial upload in progress
- Cancel a Partial Upload

To remove all incomplete user uploads:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select Users.
- 3. On the Manage Users page, select a user, and then click the Edit icon lacksquare.
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Click the Remove all incomplete uploads icon 1.

7. On the Incomplete Files dialog box, to also remove incomplete uploads in progress, select Include in-transit.



8. Click OK.

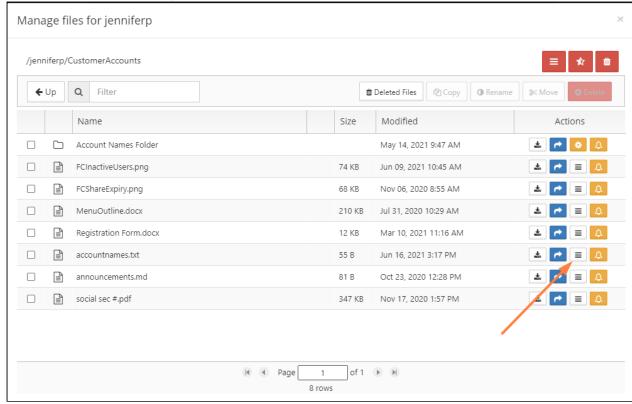
Restore a Previous File Version

If a user has uploaded changes to a file, you can restore the previous version of a file and make it live.

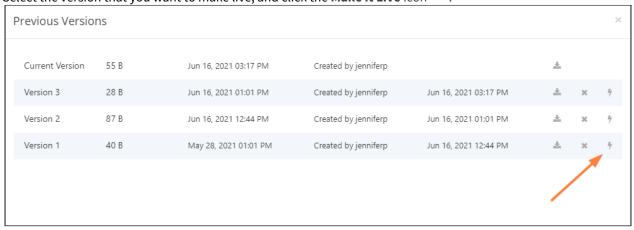
To restore a previous version of a user's file:

- 1. Open a browser and log on to the Admin Portal.
- 2. From the left navigation menu, select **Users**.
- 3. On the **Manage Users** page, select a user, and then click the edit icon .
- 4. On the User Detail dialog box, click Manage Files.
- 5. The Manage Files for <User> window opens.
- 6. Navigate to the file.

7. To see a list of earlier versions, click the Version icon



8. Select the version that you want to make live, and click the **Make it Live** icon **.



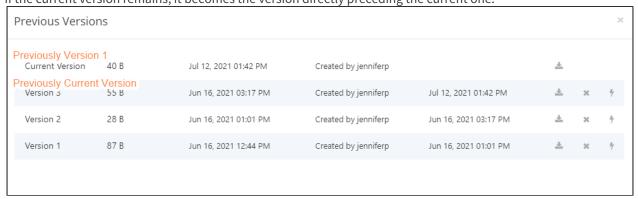
3 Previous Versions dialog box, Make it Live icon

The following confirmation box appears.



4 Confirmation box for making the version live

- (i) In versions of FileCloud prior to 20.2, current versions are always removed when another version is restored. Beginning with Version 20.2, by default, the current version is saved when another version is restored.
- 9. Click **OK**. A message telling you that the selected version has been made live appears. If the current version remains, it becomes the version directly preceding the current one.



5 Previous Versions dialog box, showing new current version

Critical Section Cleanup Tool

i The FileCloud Critical Section Cleanup tool is available in FileCloud version 21.1 and later

After a move or copy operation for a large folder, the critical section is automatically released. However, if there is a server exception that interrupts regular FileCloud processing, a critical section record may remain and block other operations in the folder.

Manual Cleanup

The Critical Section Cleanup tool is a CLI tool that guides you in manually searching for and deleting critical section records. You may indicate how old the records must be to be included in the search.

The tool is criticalsectioncleanup.php and is located in C:\xampp\htdocs\resources\tools\criticalsection.

To run the tool, in a command line, enter the following. Note that -h multitenant.site2-name.com is optional and indicates the hostname if you want to look at a host other then the default. **for Windows**:

```
C:\xampp\php\php.exe C:
\xampp\htdocs\resources\tools\criticalsection\criticalsectioncleanup.php -h
multitenant.site2-name.com -d 0
```

for Linux:

```
php /var/www/html/resources/tools/criticalsection/criticalsectioncleanup.php -h
multitenant.site2-name.com -d 0
```

Parameters:

- -h [host] (optional) The hostname. Use this if you want to look at a host other than the default.
- -d [#days]- (optional) Delete all records older than # days, for example, -d 0 means delete all records older than today; -d 10 means delete all records older than 10 days ago.

If you do not specify a value for -d, the response will appear similar to the following. Respond to the questions asked in the prompts, and specify the number in brackets when indicating which record you want to delete.

```
Looking at default host. Use option -h [HOST_NAME] to target other non default host.

>>> Please enter number of days to filter records. (e.g. 1 will fetch records older than 1 day. Leave empty to not filter by days)

>>>

>>> Please enter a partial or full FileCloud path to search critical section records. (Leave empty to not filter by path)

>>>

>>> Found 3 record(s)

>>> ---- [1] /user0/folder1 ... 2021-03-31

>>> ---- [2] /user0/folder2 ... 2021-03-31

>>> ---- [3] /user0/folder3 ... 2021-03-31

>>> Do you want to select a record for removal? (Y/N):

>>> Y
```

```
>>> Please enter the number of record you want to delete:
>>> 1
>>> Deleted /user0/folder1
>>> Do you want to select a record for removal? (Y/N):
>>> Y
>>> Please enter the number of record you want to delete:
>>> 3
>>> Deleted /user0/folder3
>>> Do you want to select a record for removal? (Y/N):
>>> Y
>>> Please enter the number of record you want to delete:
>>> 2
>>> Deleted /user0/folder2
>>> Do you want to select a record for removal? (Y/N):
>>> N
>>> Exit command
```

If you specify a value for -d, the response will appear similar to the following. Respond Y to **Do you want to delete all records?** to confirm deletion of the records.

```
C:\xampp\htdocs\resources\tools\criticalsection> php criticalsectioncleanup.php -d 10
______
### Critical Section Cleanup
**criticalsectioncleanup.php** allows searching for critical section records filtering
by path
and remove records selecting from the result list.
The command prompts the user before any action, so can be safely run and then follow the
prompt
messages.
#### Usage
php ./criticalsectioncleanup.php -h <site_url>'
[optional] site_url: full qualified site url of the site to be exported or to be import
target (multitenant).
If not specified, default site is assumed.
_____
Looking at default host. Use option -h [HOST_NAME] to target other non default host.
>>> Found 2 record(s)
>>> ---- [1] /user0/load/file2 ... 2022-11-18
>>> ---- [2] /user0/load/fixedtree_local/file ... 2022-11-18
>>> Do you want to delete all records? (Y/N):
```

Note: If some critical section records have an expiry time which was set using a maximum PHP integer value, the tool may not delete the records because it does not evaluate them as older than the specified number of days.

A workaround is to enter a very large negative number of days so the tool selects and deletes those records, for example:

Automatic removal of critical section entries

To configure FileCloud to automatically remove critical section entries older than 3 days:

- 1. Open cloudconfig.php.
 - Windows Location: C:\xampp\htdocs\config\cloudconfig.php
 - Linux Location: /var/www/html/config/cloudconfig.php
- 2. Add the following:

```
define("TONIDOCLOUD_CRITICAL_SECTION_CLEANUP_DAYS", '3')
.
```

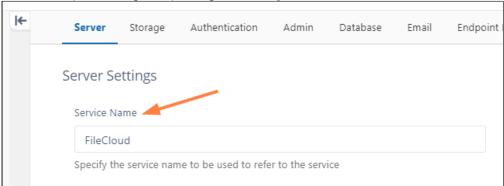
Change the Name of the Zip File for Multiple File Downloads

When multiple files and folders are downloaded from FileCloud, they are downloaded as a zip file with the name **Service Name>-<download datetime>**. In addition to the downloaded files and folder, the zip file contains a text file named **downloadzip.log** which includes the line **Generated by Service Name>**.

Service Name is used to refer to your FileCloud server throughout your system, on the user interface and in email messages and other notifications as well as in the download zip file name. By default, its value is FileCloud.

To change the Service Name:

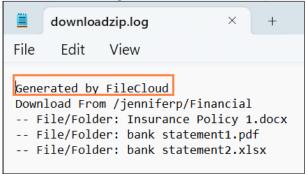
1. In the admin portal navigation panel, go to **Settings > Server**.



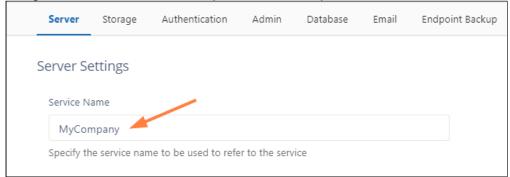
At this point, if a user downloads multiple files at the same time, the zip file has a name similar to:

ilecloud-20231101141022.zip

and downloadzip.log has the line Generated by FileCloud:



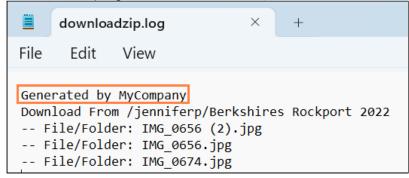
2. Change the value in **Service Name** to your own name for your server:



Now, if a user downloads multiple files at the same time, the zip file include the new **Service Name** instead of **FileCloud**:

mycompany-20231102103734.zip

and downloadzip.log has the line **Generated by <new Service Name>**:



Managing User Shares

All Folder and File shares of FileCloud Users can be managed by the FileCloud Administrator.

The Administrator is able to view, modify or remove shares done by users of the system.

The admin can open either an individual user's list of shares from the **User Details** dialog box or a list of all shares by all users in the system through the **User Shares** screen.

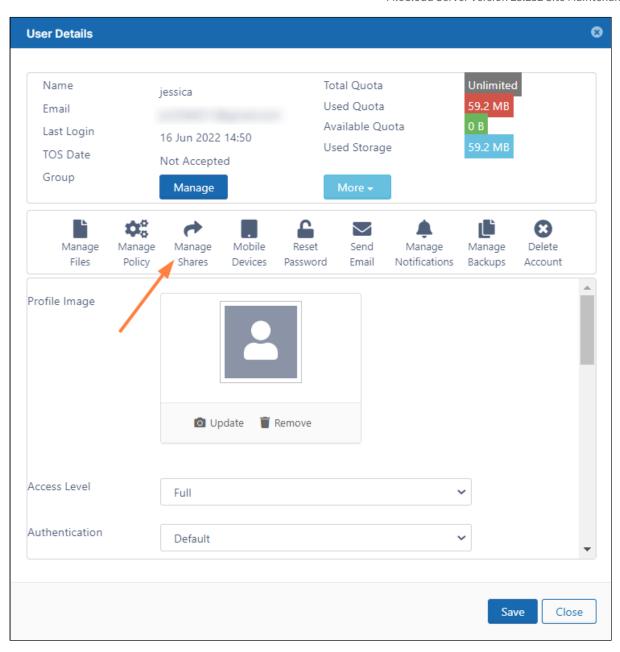
The admin can also export a file listing all shares and their details from the **User Shares** screen.

To set up file sharing, see Share Settings.

To manage user shares for an individual user:

- 1. Log on to Administration Panel
- 2. Click **Users** on the left navigation panel, then click the **Edit** icon for a user, and click **Manage Shares** in the **User Details** dialog box.

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A Manage shares for [user] dialog box opens.

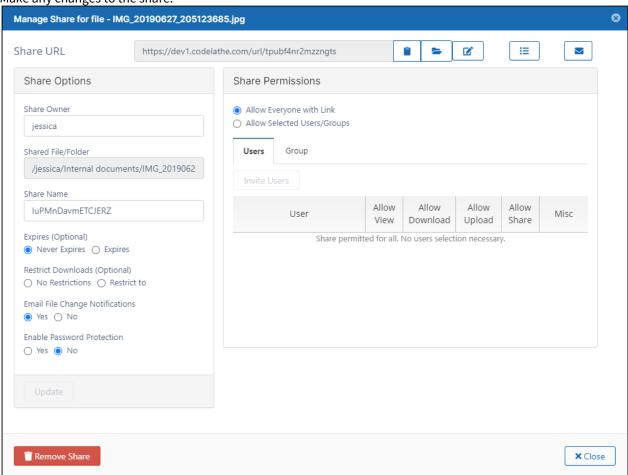
Managing User Shares 108

3. Click the Edit icon next to a share to open it.



The Manage Share dialog box opens.

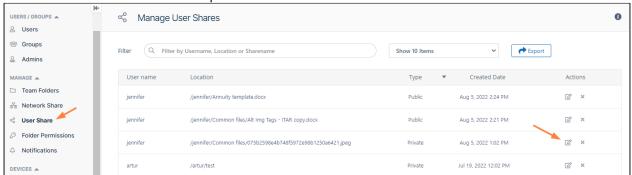
4. Make any changes to the share.



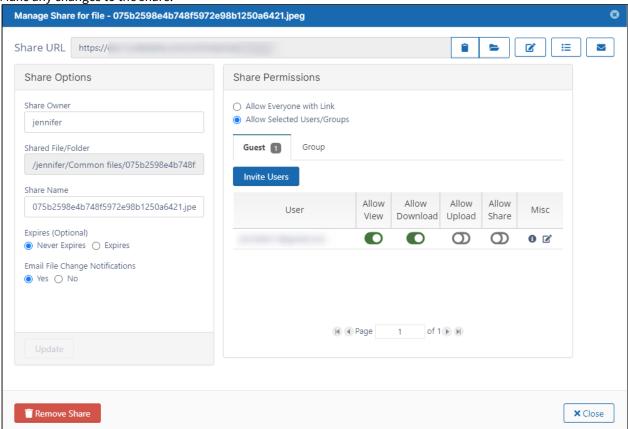
To manage user shares for all users:

- 1. Log on to Administration Panel.
- 2. Click **User Shares** in the navigation panel. The **Manage User Shares** screen opens.

3. Click the Edit icon next to a share to open it.



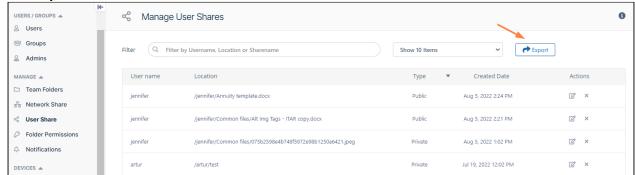
- 4. The **Manage Share** dialog box opens.
- 5. Make any changes to the share.



To export a list of all shares:

- 1. Log on to Administration Panel.
- 2. Click **User Shares** in the navigation panel. The **Manage User Shares** screen opens.

3. Click Export.



A csv file named **shares** is exported with the following fields:

	Α	В	С	D	E	F	G	Н	I
1	UserName	Share Location	TYPE	Created Date	Expiry Date	Users	Groups		
2	jennifer	/jennifer/Annuity ter	Public	8/5/2022 14:24	8/31/2022 0:00				
3	jennifer	/jennifer/Common f	i Public	8/5/2022 14:21					
4	jennifer	/jennifer/Common f	i Private	8/5/2022 13:02		No Users	No Groups		
5	artur	/artur/test	Private	7/19/2022 12:02			No Groups		

Transfer Ownership of a Reshare from a Team Folder or Network Share

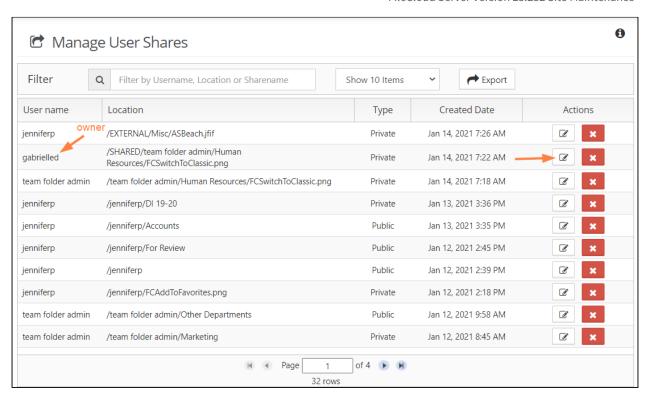
In FileCloud version 20.3 and later, administrators have the ability to change the owner of a reshare from a Team Folder or a Network Share.

Reshared content from Team Folders and Network Shares is content that a user already has access to and has shared with another user.

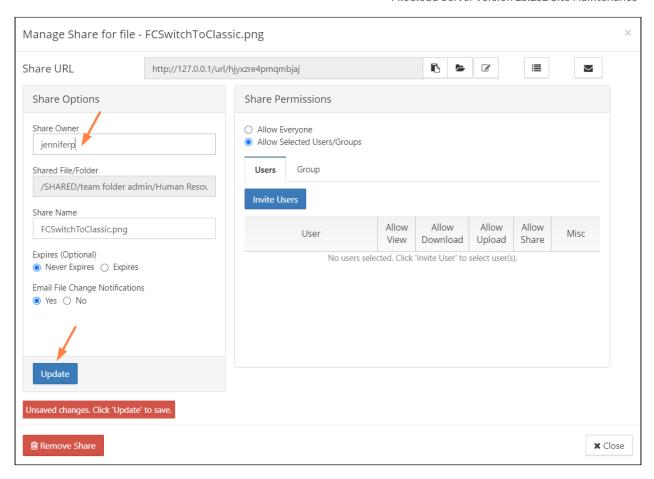
In the Manage User Shares dialog box, its root is /EXTERNAL or /SHARED.

To change the owner of a reshare

- 1. Follow the steps in Managing User Shares to open the list of shares.
- 2. To open the **Manage Share for File** dialog box, click the Edit button for a Team Folder share or a Network Share.

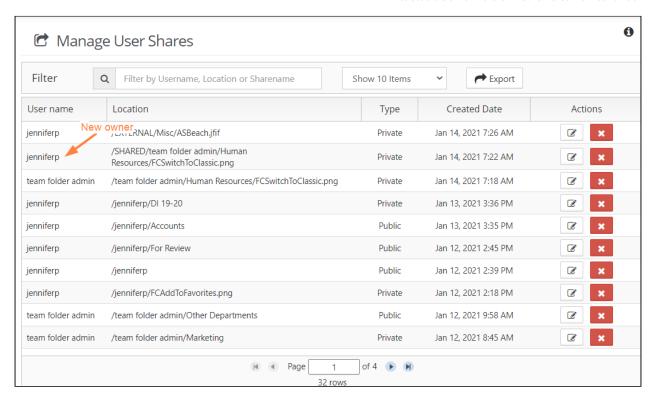


3. In the Manage Share for file or Manage Share for folder dialog box, type in the user name of a new Share Owner, and click Update.



4. Click Close.

Now the listing for the share shows the new owner.



Creating direct file download link from a public file share

Creating direct download link for public shares

Public file shares by default opens a landing page, from where user can download the shared file. Sometimes it is preferable to have a direct downloadable links. By making minor changes to the share link, a direct downloadable link can be created.

By default the public share link looks like this:

https://abc.company.com/ui/core/index.html?mode=single&path=/SHARED/tester/MMQj5gqRymicnDib

In the above link, replace the string "ui/core/index.html?mode=single&" with "app/websharepro/share?" to the URL and remove the mode parameter.

Making these two changes the above link becomes:

https://abc.company.com/app/websharepro/share?path=/SHARED/tester/MMQj5gqRymicnDib"

Now, this link can be can be used to download the files directly from browser, download managers or Linux utilities such as wget.

Creating direct file download links from a public folder share

Public folder shares provide a share link that opens a page listing the contents of the folder. By making minor changes to the share link, a direct downloadable link for any file in the folder can be created.

After you create the share, copy the share link and modify it to link to a download page for a file in the folder. Then send the new link to share users.

The procedure for creating direct file download links is the same from public folder shares of folders in My Files and folders in Team Folders.

To copy the share link:

- 1. Hover over the folder and click the share icon.
- 2. In the **Share link for folder** dialog box, click the **Copy link to clipboard** button. If you open the link in a browser, FileCloud displays the folder's contents. The following video shows you the process.



Sorry, the video is not supported in this export. But you can reach it using the following URL:

Movie URL not available.

To create a direct link to a file in the shared folder:

In our example, the link to the shared folder is:

http://127.0.0.1/ui/core/index.html?mode=public&shareto=#expl-tabl./SHARED/!bli3S5COtloHQD49yINBKMSe5/XOOclSO2AAdiOWP1

We would like the link to open a download page for the file customers.docx, which is located in the folder.

This video shows you the steps, which are also listed below.



Sorry, the video is not supported in this export. But you can reach it using the following URL:

Movie URL not available.

- 1. Copy the link to a text editor in order to modify it.
- 2. Remove the portion of the URL that takes you to the FileCloud page, and replace it with a path to a download page.
 - (Remove /ui/core/index.html?mode=public&shareto=#expl-tabl and replace it with core/downloadfile.)
- 3. Add a **filepath** parameter after core/downloadfile and set it equal to the /SHARED/ portion of the path. Then add the filename, customers.docx, to the end of the path.
 - (At this point, the path is http://127.0.0.1/core/downloadfile?filepath=/SHARED/!bIi3S5COtloHQD49yINBKMSe5/ XOOclSQ2AAdiOWP1/customers.docx
- 4. After the filepath parameter, add a filename parameter, and set it equal to customers.docx. (The final link in the example looks like http://127.0.0.1/core/downloadfile?filepath=/SHARED/!bli3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1/customers.docx&filename=customers.docx)
- 5. Send the link to share users. When clicked, it opens a download page for the customers.docx file.

To create a direct link to a file in a sub-folder of the share:

If the file is embedded in a folder within the shared folder, make the same changes as above, but include the path to the file including the sub-path(s). For example if you are linking to the file **background.png** which is in the sub-folder **images** in the shared folder, the link should appear as:

http://127.0.0.1/core/downloadfile?filepath=/SHARED/!bli3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1/images/background.png&filename=background.png

Sample links before and after

Link to the **customers.docx** file in the top-level of the shared My Files folder

Original link

https://www.mycompany.com/ui/core/index.html?mode=public&shareto=#expl-tabl./SHARED/!bii3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1

Modified link

https://www.mycompany.com/core/downloadfile?filepath=/SHARED/!bli3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1/customers.docx&filename=customers.docx

Link to the background.png file in the images folder in the shared My Files folder

Original link

https://www.mycompany.com/ui/core/index.html?mode=public&shareto=#expl-tabl./SHARED/!bii3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1

Modified link

https://www.mycompany.com/core/downloadfile?filepath=/SHARED/!bli3S5COtloHQD49yINBKMSe5/XOOclSQ2AAdiOWP1/images/background.png&filename=background.png

Link to the **Announcement.txt** file in the shared HR Misc folder of the Human Resources Team Folder (same format as link from My Files)

Original link

https://www.mycompany.com/ui/core/index.html?mode=public&shareto=#expl-tabl./SHARED/!b0ipSLCEtKoRQT47yiNpKOSyi/dWPDFohwRIjdOj7v

Modified link

https://www.mycompany.com/core/downloadfile?filepath=/SHARED/!b0ipSLCEtKoRQT47yiNpKOSyi/dWPDFohwRIidOi7v/Announcement.txt&filename=Announcement.txt

Managing Storage Space Usage

Administrators can configure settings to control the space needed to keep FileCloud Server sites running.

In this section

- Storage Scanner Tool for Missing Files
- Storage Usage Tool

Related topics

A User's Storage

- → Change the Storage Quota for a User or Group
- Delete User Files and Folders
- Clear a User's Recycle Bin
- Remove a User's Incomplete Uploads
- Remove Old File Versions

All Managed Storage

- → Clear Deleted Files Automatically
- Clear Partial Uploads Automatically
- → All Managed Storage Options

Network Shares

- Clear All Deleted Files from a Network Folder
- Clear All Deleted Files from an S3-Based Network Folder
- → All Network Folder Options

Protecting Your Storage

- → Set Up Encryption for Managed Storage
- = Enable Antivirus Scanning
- Create an IAM User Policy for S3 Access

Storage Scanner Tool for Missing Files

(i) The Storage Scanner tool is available in FileCloud version 21.1 and later.

The storage scanner tool checks if each file entered into the FileCloud database has a corresponding physical file in storage. If a physical file is missing, the storage scanner prints its database entry details. An admin can remove the invalid files listed from the database.

The tool is storagescanner.php, and is located in C:\xampp\htdocs\resources\tools\fileutils

To run the Storage Scanner tool:

1. In a command line enter:

For Windows:

```
cd c:\xampp\htdocs\resources\tools\fileutils
PATH=%PATH%;C:\xampp\php
```

For Linux:

```
cd /var/www/html/resources/tools/fileutils/
```

2. Then, for both Windows and Linux, enter:

```
php storagescanner.php [-h hostname]
```

Parameters

-h hostname - (optional) fully qualified name of the site in a multisite installation. Do not include this parameter for a default site or a standalone site.

Sample output

```
Looking at default host
Scanning storage for missing files
Processed count: 100
Processed count: 200
Processed count: 300
Missing file in storage: /tester/3/vHGK.docx ->
0/5ecbc9bfa5e39606437822/5ecbc9bfa9a8a133028276/602ef8f0e35bb575222337.dat
Missing file in storage: /tester/3/Lsp.doc ->
0/5ecbc9bfa5e39606437822/5ecbc9bfa9a8a133028276/602ef90638ae0643407781.dat
```

```
Scanning complete
-----
Folders Scanned
                   : 43
Files Scanned
                   : 351
```

Storage Usage Tool

(i) The Storage Usage tool is available in FileCloud version 21.1 and later.

The storage usage tool lists the storage used by the users on your FileCloud system.

The tool is storageusageutil.php and is located in C:\xampp\htdocs\resources\tools\fileutils

To run the storage usage tool:

```
php storageusageutil.php -u user -p path -h hostname
```

Parameters:

- -u user (required) The user account (all for all user accounts)
- -p path (required) The path of the storage to be calculated
- -h hostname (optional) The fully qualified name of the site in a multisite installation. Omit the option for standalone or default site

Sample output

```
Looking at default host
Found 100 file(s)
Found 200 file(s)
Found 300 file(s)
 ______
Storage Usage
-----
Folder count : 1349
                : 19
File(s) size in bytes
                   : 974902531
File(s) size in GB: 0.91
```

Managing User Locks

Lock support is available in FileCloud v9.0 and later

As an administrator, you can have full control over file locking:

- Decide whether you want to give users the ability to lock a folder or a file
- · See a list of all locked files and folders system-wide
- · Remove a lock on user's file or folder

To learn more about managing locks, click on a subject:

How Locking Works

Locking can be set on both files and folders and signifies that a user is actively working that file or folder.

- Locking has to be enabled by the Administrator before the user has the option to lock a file or folder.
- FileCloud LOCKING is designed to prevent opening/accessing files between DIFFERENT USER ACCOUNTS.
- If you access a file whose lock is owned by you, then the file access will be ALLOWED.

When a file or folder is locked:

- A lock icon will be shown in the file listing
- The owner of the lock will also be shown in the details panel on the right hand side
- The owner of the lock has full access to that file or folder and can modify it
- Administrators can always override a lock in the Admin Portal
- A lock can be set up to prevent other users from reading the file or seeing the folder contents.
- · If read permissions are not allowed, then other users cannot download or view the locked file or folder

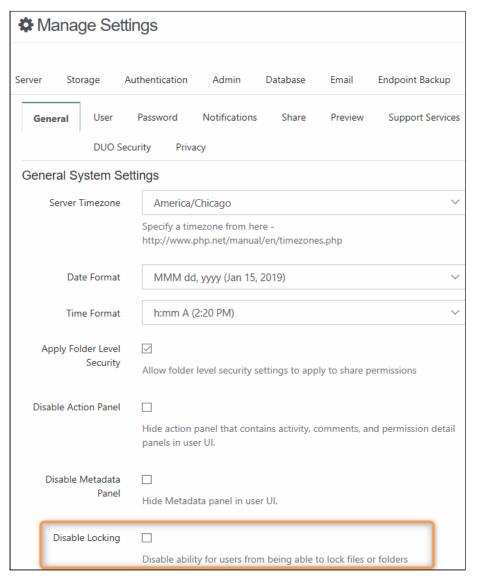
The following table shows the behavior depending on the type of lock.

Lock with read allowed	Access by lock owner	Access by others
Yes	Full access to the file is available. Share/ Sync/Edit/Deletes allowed	Only read is allowed. No modification is allowed
No	Full access to the file is available. Share/ Sync/Edit/Deletes allowed	No access is provided . All access using all clients are blocked.

Turn Off All File Locking

You can disable locking so that users are never given this option in the User Portal.

- This is a system-wide setting
- To release a lock on a single file or folder, see the topic for Releasing a Single Lock

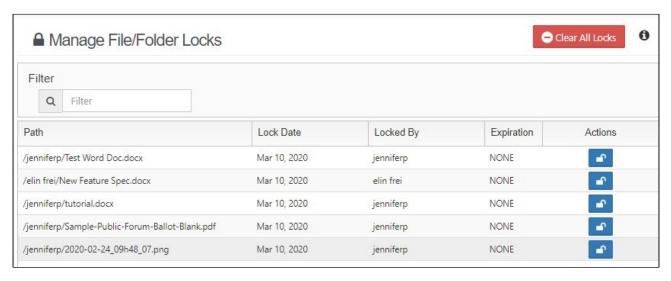


To disable locking:

- 1. Log on to Admin Portal.
- 2. From the left navigation pane, click Settings.
- 3. On the Settings screen, click the Misc. tab.
- 4. On the Misc. screen, select the General sub-tab.
- 5. Under General System Settings, next to Disable Locking, select the checkbox.
- 6. Click Save.

How to View Which Files or Folders are Locked

Viewing a list of files and folders that are currently locked by FileCloud users helps you to manage locks.



To view a list of locked files and folders:

- 1. Log on to Admin Portal.
- 2. From the left navigation pane, click *User Locks*.
- 3. On the Manage File/Folder Locks screen, you can see a list of all files and folders currently locked.

🥊 You can use the Filter entry box to limit the list. To view only the locked files and folders, type in a string of characters. Only the files and folders that match the string will be displayed. To clear the filter, delete the string of characters from this box.

For example:

- You can filter the results by lock owner. To do this, type in the user account name.
- You can see all files that are locked in a particular folder. To do this, type in the name of the folder.

Release a Single Lock

There are times when you may need to unlock a file for a user.

- A user no longer has a FileCloud account but has left a file locked
- A project folder can be used as a staging area that can be unlocked when the files are ready to be viewed
- Another user needs access to the file and the lock owner cannot be reached
- · No one remembers why the file is locked

To release the lock on a single file or folder:

- 1. Log on to Admin Portal.
- 2. From the left navigation pane, click User Locks.
- 3. On the Manage File/Folder Locks screen, find the file or folder whose lock you want to remove.
- 4. In the row containing that file or folder name, under the Actions column, click the unlock button (

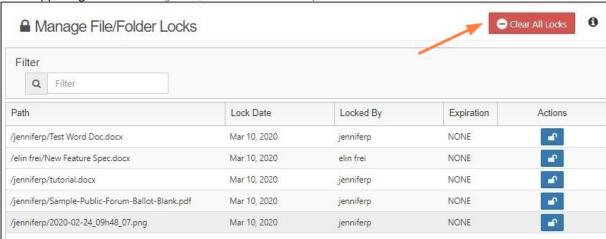
5. On the Confirm Override screen, click OK.



To release the lock on all locked files and folders:

Beginning with Version 19.3, FileCloud supports clearing all user locks simultaneously.

- 1. Log on to Admin Portal.
- 2. From the left navigation pane, click *User Locks*.
- 3. In the upper-right of the Manage File/Folder Locks screen, click Clear All Locks.



A confirmation dialog box opens.

4. Click OK.

Managing User-Defined Notifications

Users can configure notifications on their file and folder paths or admins can configure notifications on the paths for them. As an admin, you can add and edit these notifications.

Unless you check the **Disable User Override** setting in the policy assigned to a user, they can override your changes to their notification settings in the user interface.

See the page Notifications for file changes for information on disabling user overrides.

In this section:

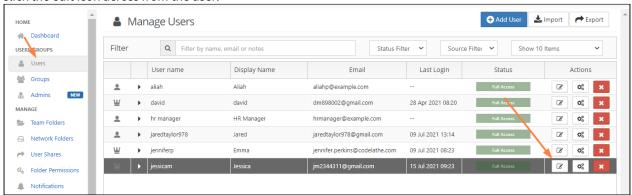
- Editing individual user's file and folder notifications
- Editing all users file and folder path notifications
- Adding notifications for actions on user's files and folders

Editing individual user's file and folder notifications

As an admin, you can edit notifications on a specific user's file and folder paths by clicking the **Manage Notifications** icon in the user's details.

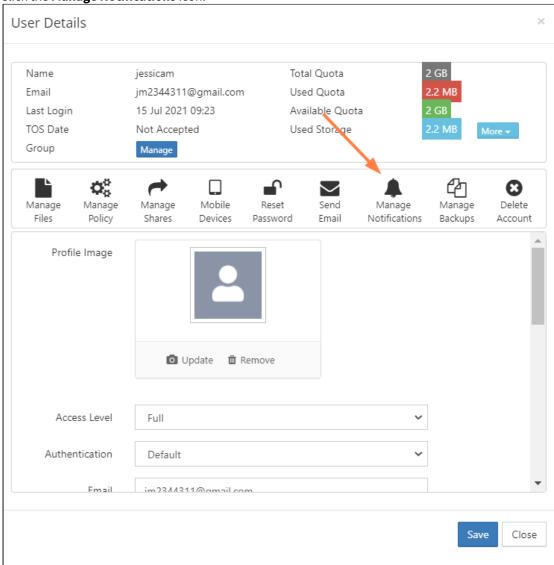
To edit a user's file and folder notifications:

- 1. To open the Manage Users screen, In the navigation panel, click Users.
- 2. Click the edit icon across from the user.



The User Details dialog box opens.

3. Click the Manage Notifications icon.

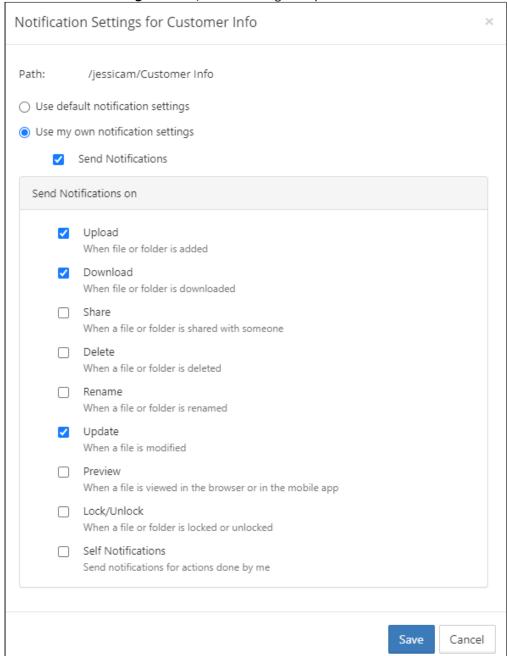


The **Manage Notifications for <user>** dialog box opens. All of the paths to files or folders with notifications defined on them are listed.

4. Click the edit icon in the row for path.



The **Notification Settings for <file/folder>** dialog box opens.



5. Edit the notification settings:

- If you want to reset the user's settings to the defaults, check Use default notification settings. Use my
 own notification settings and all of the settings below it become unselected. If the user is permitted to
 override your settings, they may turn back on Use my own notification settings but will have to reset
 the individual settings.
- If you want to to turn off notifications temporarily, uncheck **Send Notifications**; otherwise, leave it checked.

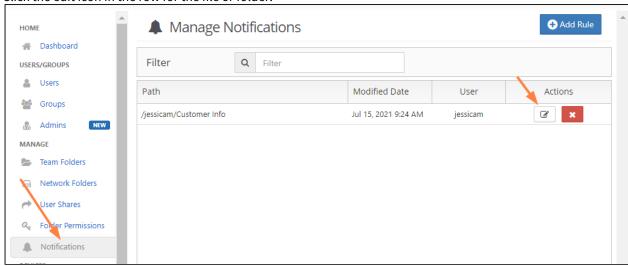
- If you want to edit which types of actions users are notified about, check and uncheck the boxes under **Send notifications on**.
- If you want the user to receive notifications when they have performed an action on the file or folder, check the **Self Notifications** box.
- If the user has Use default notification settings checked you can select Use my own notification settings and check Send Notifications and then check the boxes of the actions you want users notified about.

Editing all users file and folder path notifications

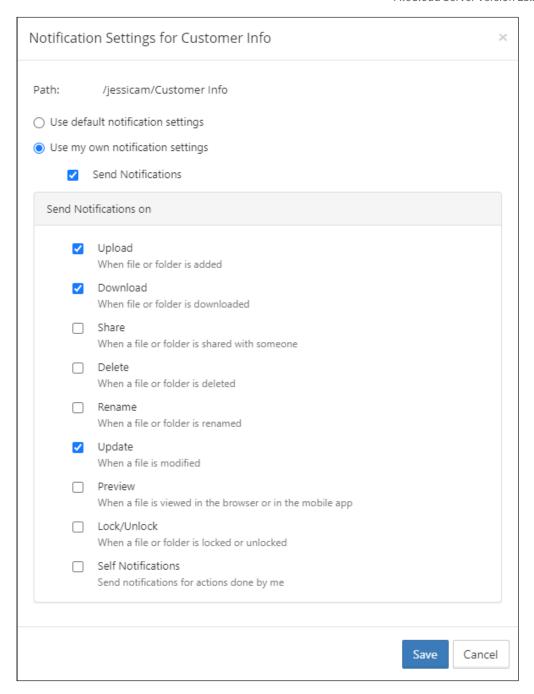
You can edit the notifications that users have defined for file and folder paths on the **Manage Notifications** screen. The screen shows all notifications assigned to paths for all users in your system.

To edit user-defined notifications on file and folder paths:

- 1. To open the Manage Notifications screen, in the navigation panel, click Notifications.
- 2. Click the edit icon in the row for the file or folder.



The Notification Settings for <file/folder> dialog box opens:



3. Edit the notification settings:

- If you want to reset the user's settings to the defaults, check Use default notification settings. Use my
 own notification settings and all of the settings below it become unselected. If the user is permitted to
 override your settings, they may turn back on Use my own notification settings but will have to reset
 the individual settings.
- If you want to to turn off notifications temporarily, uncheck **Send Notifications**; otherwise, leave it checked.

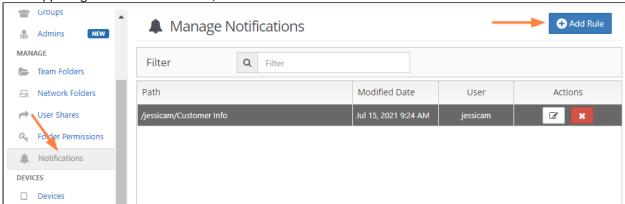
- If you want to edit which types of actions users are notified about, check and uncheck the boxes under **Send notifications on**.
- If you want the user to receive notifications when they have performed an action on the file or folder, check the **Self Notifications box.**
- If the user has Use default notification settings checked you can select Use my own notification settings and check Send Notifications and then check the boxes of the actions you want users notified about.

Adding notifications for actions on user's files and folders

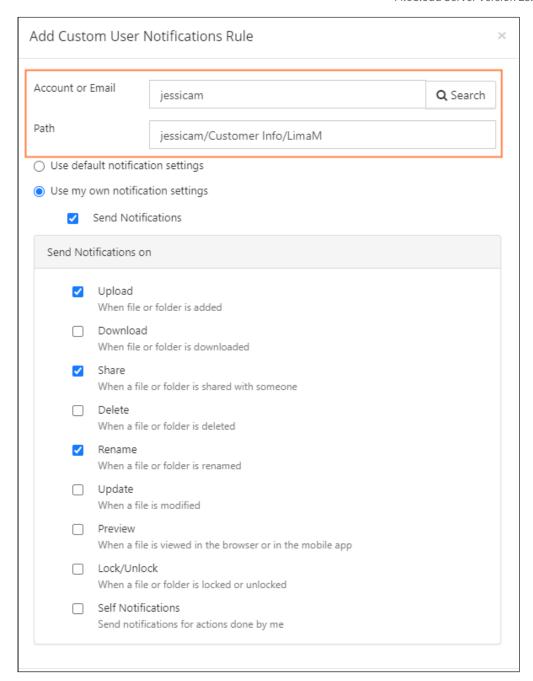
You can add notifications for actions performed on users' file and folder paths.

To add notifications to users files or folder

- 1. To open the Manage Notifications screen, in the navigation panel, click Notifications.
- 2. In the upper-right corner of the screen, click Add Rule.



The **Add Custom User Notifications Rule** dialog box opens:



- 3. In **Account** or **Email**, enter the username or email address of the user.
- 4. In **Path**, enter the path to the file or folder in the user's storage.
- 5. Select Use my notification settings.
- 6. Check Send Notifications.
- 7. Below **Send Notifications on** check the actions for which you want to send share users notifications.
- 8. If you want the user who owns the file or folder to receive notifications about their own actions on it, check **Self Notifications**.

9. Click Save.

Managing Client Devices

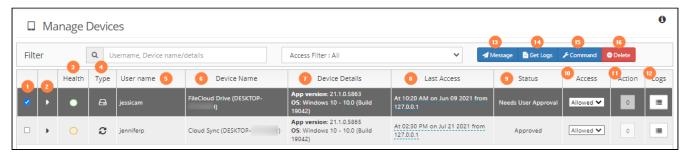
(i)

Remote Device Management

You must be logged on as an Administrator or be a member of the Administrators group in order to perform Device Management actions.

As an administrator, you can manage the various clients connecting to the FileCloud instance.

• This feature is called Remote Client Management (RCM) or Data Leak Prevention Control (DLPC)



What Do All These Columns Mean?

Colum n	Title	Description
1		Checkbox to identify the client device record you are working with
2	•	Arrow to expand or collapse device details
3	Health	Health icon displayed as a color Green = Healthy Yellow = Needs Attention
4	Туре	Client device icon
5	User Name	The account name that user logged in with on the client device
6	Device Name	The device name as setup by the client device. • This can be generic like "Cloud Sync" or "Client Drive" or specific like "Anis' iPhone 5"
7	Device Details	Displays the OS type, OS version and the Client App's version.

8	Last Access	Displays the last time this device connected to the FileCloud server • Also displays the location where the client connected from	
9	Status	Indicates whether the device has been Approved or Not Approved for Access by the administrator	
10	Access	Indicates if the device can connect or not. • Allow • Block • Remote wipe	
11	Action	The list of queued actions for that client device, such as the number of messages.	
12	Logs	Folder to view uploaded logs from the client	
13	Message	Opens a window to send a message to the selected client	
14	Get Logs	Retrieves the logs from the selected client	
15	Command	Sends a configuration command to the selected client	
16	Delete	Removes the selected client from the list of connect clients • Logs the user out of their account • Closes the connection • Removes data associated with the device • Removes any connection permissions associated with the device	

FAQ's

What Devices Can Connect?

(i) By Default, FileCloud will not allow non RCM Compliant clients to connect into FileCloud service. You can change this behavior in Basic Settings page.

The following devices can connect to FileCloud Server and can be managed from the Admin Portal:

- FileCloud iOS App
- · FileCloud Android App

- FileCloud Windows Store App
- FileCloud Sync
- FileCloud Drive
- · FC Outlook AddIn
- · FC Office AddIn
- FC Desktop Edit
- FC File Browser

Admin user will be able to see all devices that connected to a FileCloud server using the Admin Control Panel.

The number of devices are shown in the Summary and the actual list of devices can be seen from the "Manage Devices" menu.

Where Can I See a List of Connected Devices?

An administrator can open the list of devices to manage using one of the following ways:

- · Look on the Home dashboard of the Admin Portal
- Look on the Devices dashboard in the Admin Portal
- On a User Properties Popup, click Manage Mobile Devices

Sometimes a list may start out empty. However, as users connect devices to the FileCloud Server by logging in, the devices will appear.



How Do You Want to Manage a Device?

The following operations are available from the Device Management panel:

View Details of a Client Device

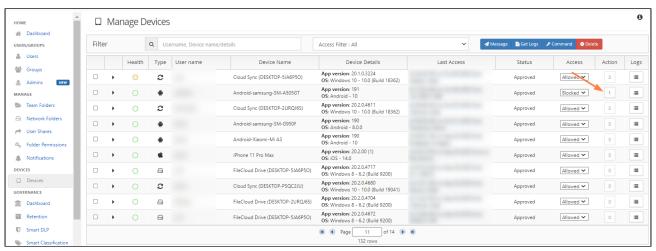


To see the details of a connected device:

- 1. Log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select Devices.
- 3. On the Manage Devices screen, select the device you want details for.
- 4. In the second column, click the expand arrow (🕨).

View and Manage Actions Queued

If a message is queued to a device, it is possible to view them using the Admin Portal.



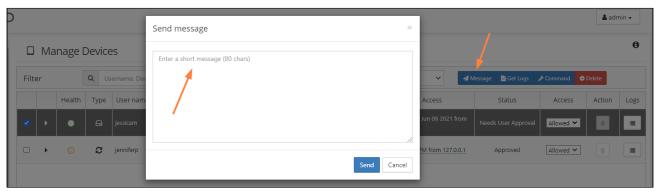
To view Actions:

- 1. Log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select Devices.
- 3. On the Manage Devices screen, select the device you want details for.
- 4. In the Actions column, click the button.
- 5. Any queued action can be deleted from the pending actions list by clicking the Trash icon.

Add a Message to the Client's Display

An Admin can display a short message on the remote client using the "Add message" feature.

- The entered message(s) will be displayed when the remote client is connected to the FileCloud instance.
- If more than one message is queued to a device, they will be displayed in the order they were created.
- The messages will be shown only once per client
- The messages will be shown when the client connects to the FileCloud server (as a part of login operation)
- If the client is already connected, then it will retrieve the message periodically and display it to the user



To send a message:

- 1. Log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select **Devices**.
- 3. On the Manage Devices screen, select the device to send a message to.
- 4. Click **Add Message**, type in the message, and then click **Send.**

Blocking and Remote Wiping

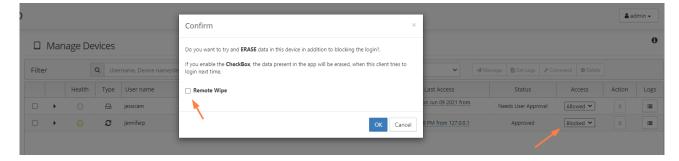
FileCloud's RMC function allows the Administrator to selectively block a specific client device from logging into the FileCloud server.

When a client device is blocked (or blocked with remote wipe action), it will be executed one of the following two ways

- If the client is not connected, the block (and remote wipe) will happen when it tries to log into the server
- If the client is connected, the block and remote wipe will occur and the client will automatically exit out
- In addition to Blocking a Client Device from logging in, Administrator can also wipe FileCloud folders in the remote device.

The remote wipe will have the following effect on each of the clients

- FileCloudDrive: Cache folder data will be deleted and application will logout
- FileCloudSync: Synced data will be deleted and application will logout
- iOS and Android: Downloaded data in "This Device" will be deleted and will log out of the server



To block (but not wipe remote data):

- 1. Open a browser and log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select Devices.
- 3. On the Manage Devices screen, select the device you want to block.
- 4. In the Permissions column, select Blocked.
- 5. On the *Confirm* dialog, to just block but not remote wipe the client device, clear the *Remote Wipe* checkbox.
- 6. Click OK.

To block and wipe remote data in a client device:

- 1. Open a browser and log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select Devices.
- 3. On the Manage Devices screen, select the device you want to block and wipe.
- 4. In the Permissions column, select Blocked.
- 5. On the *Confirm* dialog, select the *Remote Wipe* checkbox.
- 6. Click OK.

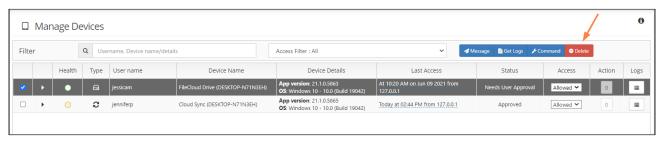
Delete a Client Device Record

It is possible to delete a client record from the FileCloud system.

You might want to use this feature when:

- The userid is no longer valid
- The associated client record no longer needs to be managed

If you want to keep the device record but do not want to allow it to connect for a period of time, you can use the Block action.



To delete a client device record:

- 1. Open a browser and log into Admin Portal.
- 2. From the left navigation panel, under DEVICES, select Devices.
- 3. On the Manage Devices screen, select the device you want to delete.
- 4. At the top of the screen, click the Delete button.

Disable Remote Management in Sync Clients

In the Sync client, by default users can see a setting called: Allow Remote Management

- This setting allows Sync users to manage their Sync application by overriding an Administrator's settings
- In some cases, administrators want to disable this toggling
- In FileCloud Server version 19.1 and later, an administrator can disable this option by adding a registry key called allowcentralmgmtusermodify
- When set to 0, the central management option is disabled and can no longer be changed by users

To add the registry key:

1. Add a registry key under:

Computer\HKEY_LOCAL_MACHINE\SOFTWARE\CodeLathe\FileCloud\DefaultCfg

2. Name the registry key:

allowcentralmgmtusermodify

3. Restart the computer.

Centralized Device Management

(i) Centralized Device Management is available in FileCloud Server version 17.3 and later.

Administrators can manage devices from the Admin Portal after remote management is enabled in FileCloud Sync.

You can use Device Management features to configure device settings like client configurations and apply them all-atonce to users or groups.

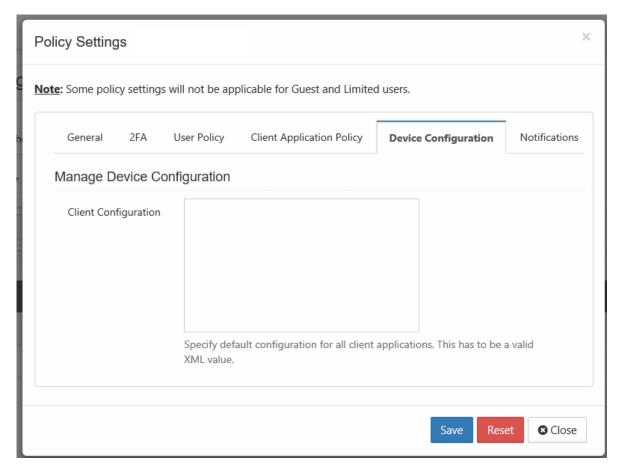
- Configure Centralized Device Management
- Automating FileCloud Sync/Drive/OutLook-Addin Installation and Mass Deployment configuration
- Viewing Client Information
- Requesting Client Log Files
- Blocking and Remotely Wiping a Client Device
- Sending a Message to a Client's Display

Configure Centralized Device Management

Client Device configuration settings can be configured remotely by specifying the configuration XML using policies.



For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings. For the Sync client, when an Admin sets a remote client policy, a user working in the Sync app cannot modify the settings. Sync will display a message saying "Centralized Configuration is being applied. Settings cannot be changed.".



To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select *Settings*.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the policy that you want to configure, and then click the edit icon (\square).
- 5. Click on the Device Configuration tab.
- 6. Paste or type in the remote device configuration XML in Client Configuration.

Device configuration is specified via XML, the general format of the XML is as follows

```
<cloudsync>
        <!-- XML for Sync App -->
     </cloudsync>
      <fssync>
        <!-- XML for ServerSync App -->
      </fssync>
      <outlookaddin>
            <settings>
        <!-- XML for outlookaddin App -->
            </settings>
      </outlookaddin>
</xml>
```

What if the XML code for my policy is not working?

There are can be a few reasons why the XML code in your policy isn't working:

- You are running FileCloud Server version 18.1 or older
- Your XML code is not correct

Older Versions of FileCloud

If you are not running FileCloud Server version 18.2 or later, you are missing the following bug fix:



ISSUE: Device configuration in the Policies is not being applied by the desktop clients. The xml configuration needed to be corrected.

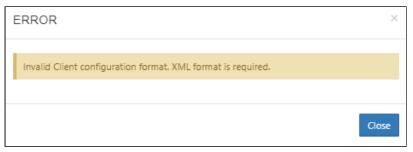
RESOLUTION: FileCloud Server now validates XML code before a device configuration can be saved.



Upgrade FileCloud

Incorrect XML Code

After you upgrade to FileCloud Server 18.2, if your XML code cannot be validated then you will see the following warning:



Please correct the XML error and try again to Save your device configuration.

What do you want to configure?

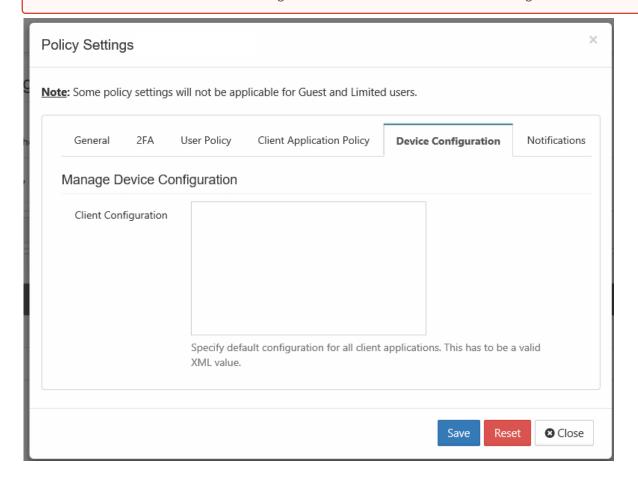
- Device Configuration XML For Drive for Mac
- Device Configuration XML For Outlook Add-in
- Device Configuration XML For Server Sync
- Device Configuration XML For Sync
- Device Configuration XML For Windows Drive
- Device Configuration XML for Desktop Edit
- Device Configuration XML for FileCloud Desktop for macOS
- Device Configuration XML for FileCloud Desktop for Windows

Device Configuration XML For Drive for Mac

Client Device configuration settings can be configured remotely by specifying the configuration XML using policies.

•

For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select Settings.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the policy that you want to configure, and then click the edit icon (\square).
- 5. Click on the Device Configuration tab.
- 6. In Client Configuration, paste or type in the following remote device configuration XML.

```
<mml>
<macclouddrive>
<!-- XML for Mac Drive -->
</macclouddrive>
</xml>
```

7. Replace the <!-- XML for Mac Drive --> line with the parameters that you need using the descriptions in Table 1.

Table 1. The following XML tags are supported for Drive for Mac device configuration.

Supported keys for **FileCloud Drive for Mac**. All keys are optional. One of more of these keys can be supplied to drive's section of XML command.

XML Tag	Value	Example	
maxdownloadsizeinmb	Assigns the maximum single file download limit to the supplied value.	<maxdownloadsizeinmb>100</maxdownloadsizeinmb>	
	The download limit does not apply to the following file types: .txt, .rtf, .doc, .docx, .xls, .xlsx, .p pt, .pptx, and .indd.		
driveloginmode	Setting this to "0" will cause filectoud drive to use username/password to log into the Filectoud server. Setting this value to "1" will cause drive to use device code authentication mode	<driveloginmode>1</driveloginmode>	
drivelockonupdate	Setting this value to 1 will enable automatic lock on edit function in FileCloud Drive. Setting this to 0 will disable the drive's lock on edit function	<drivelockonupdate>1</drivelockonupdate>	
drivemutemessages	Setting this value to 1 will disable system tray notifications being shown to the user.	<drivemutemessages>1</drivemutemessages>	

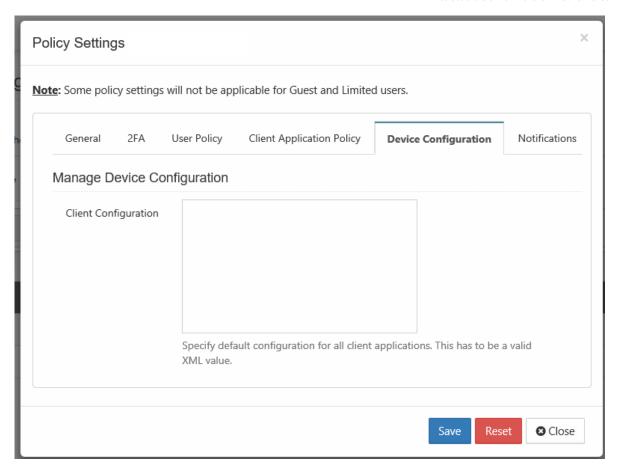
XML Tag	Value	Example
driveopenexploreronstartu p	Setting this value to 1 will automatically open finder when drive starts up and 0 will disable it.	<pre><driveopenexploreronstartup>1<!-- driveopenexploreronstartup--></driveopenexploreronstartup></pre>
checkupdates	Setting this value to 1 will enable automatic checking for new versions of FileCloud Drive for Mac and setting this value to 0 will disable it.	<pre><checkupdates>1</checkupdates></pre>
disableprecaching	Setting this value to 1 disables precaching. If many Drive users have access to a large data structure, the FileCloud server may experience a high load. This can be avoided by deactivating precaching. However, folder contents will no longer be cached in Drive which can lead to longer response times.	<disableprecaching>1</disableprecaching>
disableautologin	By default, once a drive is mounted, the authentication will be reused on every FileCloud Drive for Mac start ups. Setting this key to 1 will require authentication from user on every start up.	<disableautologin>1</disableautologin>
currentlanguage	See Translations for currently available languages.	<pre><currentlanguage>english<!-- currentlanguage--></currentlanguage></pre>

Device Configuration XML For Outlook Add-in

Outlook Add-in configuration settings can be configured remotely by specifying the configuration XML using policies.



• For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select Settings.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the policy that you want to configure, and then click the edit icon (\square).
- 5. Click on the Device Configuration tab.
- 6. In Client Configuration, paste or type in the following remote device configuration XML.

7. Replace the <!-- XML for outlookaddin App --> line with the parameters that you need using the descriptions in Table 1.

To set default values for auto upload:

In the Outlook addin Client Configuration, you can set the default values for **Auto Upload Attachments** and **Auto Upload Attachments Greater than Size (MB)** in the Upload Settings.

Follow the instructions above for setting the device configuration, and enter values: for <autoupload> and <autouploadsize>, for example:

When the Outlook Add-in is opened, and **Settings > Upload** is accessed the **Auto Upload Attachments** and **Auto Upload Attachments Greater than Size (MB)** settings appear as:

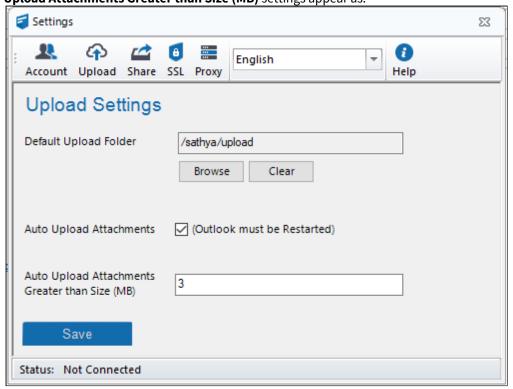


Table 1. The following XML tags are supported for Microsoft Outlook Addin device configuration.

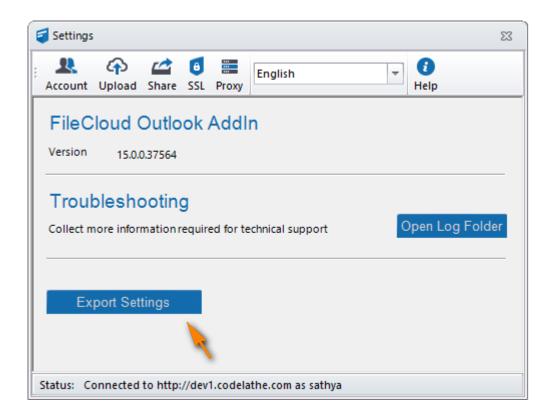
The following XML tags are supported for the Outlook Add-in

autoupload	Sets default for auto upload to on or off. 0 => auto upload is off; 1=> auto upload is on.	<autoupload>1</autoupload>
autouploadsize	Specifies the default minimum size in MB of an attachment that is automatically uploaded.	<autouploadsize>3</autouploadsize>
XML Tag	Value	Example
serverurl	FileCloud server URL	<pre><serverurl>http://www.yourdomain.com<!-- serverurl--></serverurl></pre>
sharetype	Share Type 0 => Public Share, 1=> Password Protected Share	<sharetype>0</sharetype>
sharetext	Share Text in HTML. Ensure to use CDATA to accomodate special characters in xml	<pre><sharetext><![CDATA[Attachment: #filename# br/>Download link: #filename# >#password#]]></sharetext></pre>
proxyserver	Proxy Server URL	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
proxyusername	Proxy Server Username	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
proxypassword	Proxy Server Password	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
proxyport	Proxy Server Port	<pre><pre><pre><pre>ort>9000</pre></pre></pre></pre>
ssllevel	Require strict SSL verification of VERIFY_STRICT or VERIFY_NONE	<ssllevel>VERIFY_STRICT</ssllevel>
sslverify	Connect only TLS 1.2 server. Empty string or TLSV1_2_CLIENT_USE	<sslverify><sslverify></sslverify></sslverify>

Tips and Tricks

The easiest way to get the configuration XML for sync apps is by configuring an Outlook Add-in as needed and then exporting the configuration.

Show me how...



Device Configuration XML For Server Sync

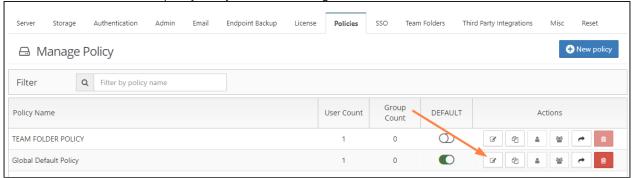
Client Device configuration settings can be configured remotely using policies.

•

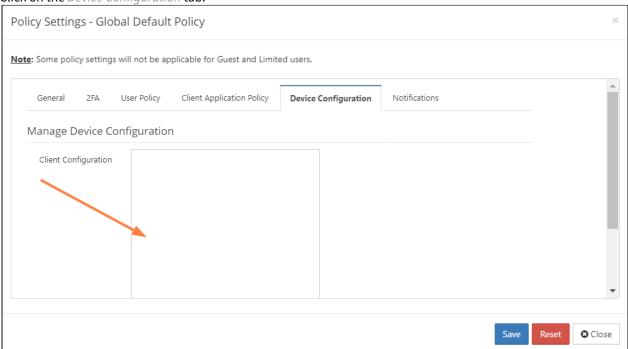
For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.

To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select Settings.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the the edit icon for the policy that you want to configure.



5. Click on the Device Configuration tab.



6. In Client Configuration, paste or type in the following remote device configuration XML.

```
<xml>
     <fssync>
     <!-- XML for ServerSync App -->
     </fssync>
</xml>
```

7. Replace the <!-- XML for ServerSync App --> line with the parameters that you need using the descriptions in Table 1.

Table 1. The following XML tags are supported for the ServerSync device configuration.

XML Tag	Value	Example
limit_folder_count	Number of folders to sync. If key is not specified, then there are no folders to sync.	<pre><limit_folder_count>0<!-- limit_folder_count--></limit_folder_count></pre>

XML Tag	Value	Example
limit_folder_1 limit_folder_2 limit_folder_3	Depending upon the number of folders specified in the limit_folder_count, you will need to have the appropriate number of entries.	<pre><limit_folder_1>/john/folder1 C: \data\local 0 1 0</limit_folder_1></pre>
	The folder value is specified using 5 parameters using the following format <pre><remote folder=""> <local folder=""> </local></remote></pre> <pre><permissions> <sync type=""> <sync disabled=""></sync></sync></permissions></pre>	
	<pre><remote folder=""> = E.g.: /john/folder1</remote></pre>	
	<pre><local folder=""> = E.g: C:\data\localfolder</local></pre>	
	< PERMISSION> = 1 - Allow NTFS permissions to be applied to local folder as per permissions of the folder on the remote Server, 0 - Deny NTFS permissions to be applied	
	< SYNC TYPE> = 0 (2-way sync) or 1 (remote to local sync).	
	<sync disabled=""> = 0 (enabled) or 1 (disabled).</sync>	
disablenotifications	0/1 - Enable or Disable sync notifications	<disablenotifications>1</disablenotifications>
syncfrequency	number - Number in seconds to sync to the server (default is 120 seconds)	<syncfrequency>100<!--<br-->syncfrequency></syncfrequency>
checkmodtime	0/1 - Advanced: check modification time in addition to size when checking for changes. Default is disabled.	<checkmodtime>1<!--<br-->checkmodtime></checkmodtime>
checkcrc	0/1 - Advanced: check CRC in addition to size when checking for changes. Default is disabled.	<checkcrc>1</checkcrc>
deleteapprovalpct	Number from 0 to 100, which indicates what % of files being deleted requires approval. Default is 10. This applies only to file deletions in the local sync folder.	<deleteapprovalpct>20</deleteapprovalpct>

XML Tag	Value	Example
skipdeleteapproval	0/1 - Whether approvals are needed for bulk sync deletions. Default is disabled. When set to 1, approval is required if > 50 files are deleted AND percent of files being deleted is > deleteapprovalpct. This applies only to file deletions in the local sync folder.	<skipdeleteapproval>1<!--<br-->skipdeleteapproval></skipdeleteapproval>
currentlanguage	Allows changing the current language of the Server sync app	<pre><currentlanguage>dutch<!-- currentlanguage--></currentlanguage></pre>

Device Configuration XML For Sync

Client Device configuration settings can be configured remotely by specifying the configuration XML using policies.



For the Sync client, when an Admin sets a remote client policy, a user working in the Sync app cannot modify the settings. Sync will display a message saying "Centralized Configuration is being applied. Settings cannot be changed."

Any Sync settings in the config xml block the user's ability to configure selective sync, network folder, and backup folder settings. If you want users to be able to continue to change these settings, set the allowuserconfigforlimitsync, allowuserconfigfornwfolders, and allowuserconfigforbackup tags to 1 in the policy.

- allowuserconfigforlimitsync enables users to select selective sync folders
- allowuserconfigfornwfolders enables users to select network folders
- allowuserconfigforbackup enables users to select backup folders

See What XML settings allow users to modify folders? below.

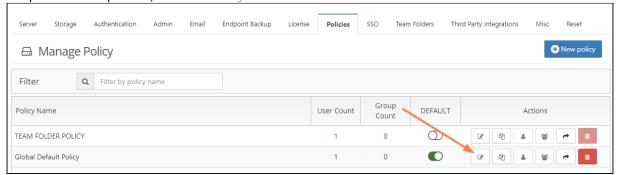
FAQs

How do I enter device configuration XML for Sync?

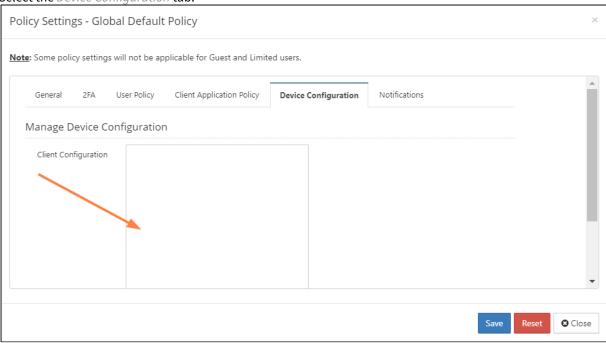
To set a device configuration for a policy:

1. Open the FileCloud Admin portal and then select Settings.

2. To open the list of policies, select the *Policy* tab.



- 3. Open the Policy that you want to edit
- 4. Select the Device Configuration tab.



5. In Client Configuration, paste or type in the following remote device configuration XML.

6. Replace <!-- XML for Sync App --> with any of the configuration parameters from the following table:.

Supported XML Tags for Sync

limitfolders offline_folder_count	' ' separated list of folders for selective sync. If Limitfolders is not specified, then there are no folders for selective sync. Number of offline folders to sync. If key is not specified, then there are no offline folders.	<pre><limitfolders>/john/folder1 /john/ folder2</limitfolders> <offline_folder_count>0<!-- offline_folder_count--></offline_folder_count></pre>
offline_folder_1 offline_folder_2 offline_folder_3	Depending upon the number of offline folders specified in the offline_folder_count, you will need to have the appropriate number of entries. The folder value is specified using 6 parameters using the following format <local folder=""> <remote folder=""> <synctype> <schedule> <recurse directories="" into=""> <allow deletion="" remote=""> <sendemail> <local folder=""> = E.g. C: \data\localfolder <remote folder=""> = E.g.: /john/folder1 <sync type=""> = 0 - 2 Way Sync, 1 - Backup from Local to Remote, 2 - Read only copy of remote files to local <schedule>= 1h (every 1 hour), 2h (every 2 hours), 4h (every 4 hours), 30m (every 30 minutes), manual (Manual), realtime (Real-time syncing) <recurse directories="" into=""> = 1 - Recurse (top level and sub folders are synced), 0 - Not Recurse (only top level folder is synced) <allow deletion="" remote=""> = 1- Allowed (Local deletes are not propagated to server) , 0-Disallowed (Local deletes are not propagated to server) <sendemail> = 1 - Send Email after backups, 0-No Email</sendemail></allow></recurse></schedule></sync></remote></local></sendemail></allow></recurse></schedule></synctype></remote></local>	<pre><offline_folder_1>C:\data\local / john/folder1 0 30m 1 0 0</offline_folder_1></pre> offline_folder_1>
disablenotifications	0/1 - Enable or Disable sync notifications.	<disablenotifications>1</disablenotifications>
showlocks	0/1 - Enable or Disable if lock information is shown in icon overlay	<showlocks>1</showlocks>

syncfrequency	number - Number in seconds to sync to the server (default is 120 seconds)	<syncfrequency>100<!--<br-->syncfrequency></syncfrequency>
checkmodtime	0/1 - Advanced: check modification time in addition to size when checking for changes. Default is disabled.	<checkmodtime>1<!--<br-->checkmodtime></checkmodtime>
checkcrc	0/1 - Advanced: check CRC in addition to size when checking for changes. Default is disabled.	<checkcrc>1</checkcrc>
removeunshared	0/1 - Delete locally synced folders that are unshared. Default is disabled	<pre><removeunshared>1<!-- removeunshared--></removeunshared></pre>
deleteapprovalpct	Number from 0 to 100, which indicates what % of files requires deletion approval. Default is 10. This applies only to file deletions in the local sync folder.	<deleteapprovalpct>20</deleteapprovalpct>
skipdeleteapproval	0/1 - Whether approvals are needed for bulk sync changes. Default is disabled. When set to 1, approval is required if > 50 files are deleted AND percent of files being deleted is > deleteapprovalpct . This applies only to file deletions in the local sync folder.	<skipdeleteapproval>1</skipdeleteapproval>
currentlanguage	Allows changing the current language of the Sync app	<currentlanguage>dutch<!--<br-->currentlanguage></currentlanguage>
globalbwforupload	Specifies the bandwidth limit when uploading files from the client to the server in terms of KB only.	<globalbwforupload>100<!--<br-->globalbwforupload></globalbwforupload>
	This limit can be different from the download limit.	
globalbwfordownload	Specifies the bandwidth limit when downloading files from the server to the client in terms of KB only.	<pre><globalbwfordownload>50<!-- globalbwfordownload--></globalbwfordownload></pre>
	This limit can be different from the upload limit.	

altbwforupload Specifies that alternative settings should <altbwforupload></ be used instead of the global bandwidth altbwforupload> limit when uploading files from the client to the server in terms of KB only. **!** If altbwforupload or altbwfordownload is specified but althwfromtime and althwtotime are missing, then the bandwidth values will not be set. altbwfordownload Specifies that alternative settings should <altbwfordownload></ be used instead of the global bandwidth altbwfordownload> limit when downloading files from the server to the client in terms of KB only. **!** If altbwforupload or altbwfordownload is specified but althwfromtime and altbwtotime are missing, then the bandwidth values will not be set. altbwfromtime Specifies the starting time when the <altbwfromtime>16:45:00</ alternative settings should be used altbwfromtime> instead of the global bandwidth limit. Time must be expressed in the format HH:MM:SS **!** If altbwforupload or altbwfordownload is specified but althwfromtime and altbwtotime are missing, then the bandwidth values will not be set. altbwtotime Specifies the ending time when the <altbwtotime>24:00:00</ alternative settings should be used altbwtotime> instead of the global bandwidth limit. Time must be expressed in the format HH:MM:SS **!** If althwforupload or althwfordownload is specified but althwfromtime and althwtotime are missing, then the bandwidth values will not be set.

altbwschedule_dayofweek	Specifies the days of the week when the	<altbwschedule_dayofweek>3<!--</th--></altbwschedule_dayofweek>
	alternative settings should be used instead of the global bandwidth limit.	altbwschedule_dayofweek>
	This value can be any number such as: {-1, 0, 1, 2, 3, 4, 5, 6} where:	
	-1 means every day0 means Sunday1 means Mondayand so on	
timeactivecontrolsset	Enables/Disables the Active Sync Hours settings	<timeactivecontrolsset>1</timeactivecontrolsset>
	1 = enabled	
	0 = disabled	
activesync_daysofweek	Specifies the days of the week when a client can run the Sync app	<activesync_daysofweek>5</activesync_daysofweek>
	Any number {-1, 0, 1, 2, 3, 4, 5, 6} where:	
	 -1 = Everyday 0 = Sunday 1 = Monday and so on 	
activesync_timeofday	Specifies the times during the days of the week when a client can run the Sync app	<activesync_timeofday>8:00:00-20:0 0:00</activesync_timeofday>
	Use the format HH:MM:SS-HH:MM:SS	
allowuserconfigforlimitsyn c	0 = cannot modify the folder and any limitfolder setting is applied	<allowuserconfigforlimitsync>1</allowuserconfigforlimitsync>
	1 = can modify the folder and overrules any <i>limitfolder</i> setting	
	This value works in combination with:	
	• limitfolders	

allowuserconfigfornwfolde rs	Allows user to configure network folders 0 = cannot modify the folder and any offlinefolder setting is applied 1 = can modify the folder and overrules any offlinefolder setting This value works in combination with: • offlinefolders	<allowuserconfigfornwfolders>1</allowuserconfigfornwfolders>
allowuserconfigforbackup	0 = cannot modify the folder and any offlinefolder setting is applied 1 = can modify the folder and overrules any offlinefolder setting This value works in combination with: • offlinefolders	<allowuserconfigforbackup>1</allowuserconfigforbackup>
checkupdates (available in FileCloud 22.1)	0 = Sync does not check for updates on startup 1 = (default) Sync checks for updates on startup, and notifies user if there is an update	<checkupdates>1</checkupdates>

How do I get the configuration XML for Sync?

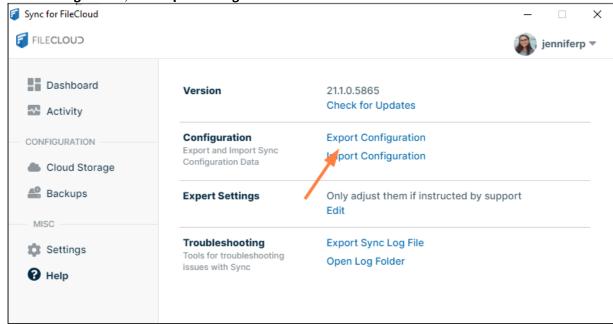
The easiest way to get the configuration XML for Sync is by installing a copy of Sync and configuring it as needed, and then exporting the configuration.

To export Sync configuration settings:

- 1. Install and Log In to FileCloud Sync.
- 2. From the system tray, right-click the FileCloud Sync icon, and choose **Open**. The mini-dashboard opens.
- 3. Click **Dashboard**.
 - The main dashboard opens..
- 4. Click **Help**.

The **Help** window opens.

5. Under Configuration, click Export Configuration.



What variables are supported?

When specifying values, variables can be used as well. The following variables are currently supported.

Variable	Notes
\${USER}	Replaces with current logged in user name from the Operating System
\${HOME}	Replaces with the location of the current user's Home Path
\${USERID}	Replaces with the currently logged in FileCloud user account name

What is the XML code for limiting bandwidth rates?

If your users are running the FileCloud Sync app on a slow network, when Sync transfers files it can quickly use up all the network bandwidth.

You can have your users set individual bandwidth rates by following instructions in the Users Guide:

Set Bandwidth Rate Limits for Sync

Or you can use centralized device management to limit bandwidth rates for all clients.

1 If Centralized Device Configuration is set, the user will not be allowed to change the settings from the User Portal. The user will see the following message:

Centralized Configuration is being applied. Bandwidth Settings cannot be changed. Please contact your administrator for assistance.

The XML code will include the following lines:

XML Tag	Value	Example
globalbwforupload	Specifies the bandwidth limit when uploading files from the client to the server in terms of KB only.	<pre><globalbwforupload>100<!-- globalbwforupload--></globalbwforupload></pre>
	This limit can be different from the download limit.	
globalbwfordownload	Specifies the bandwidth limit when downloading files from the server to the client in terms of KB only.	<pre><globalbwfordownload>50<!-- globalbwfordownload--></globalbwfordownload></pre>
	This limit can be different from the upload limit.	
altbwforupload	Specifies that alternative settings should be used instead of the global bandwidth limit when uploading files from the client to the server in terms of KB only.	<altbwforupload><!--<br-->altbwforupload></altbwforupload>
altbwfordownload	Specifies that alternative settings should be used instead of the global bandwidth limit when downloading files from the server to the client in terms of KB only.	<altbwfordownload></altbwfordownload>
altbwfromtime	Specifies the starting time when the alternative settings should be used instead of the global bandwidth limit.	<altbwfromtime>16:45:00</altbwfromtime>
	Time must be expressed in the format HH:MM:SS	

XML Tag	Value	Example
altbwtotime	Specifies the ending time when the alternative settings should be used instead of the global bandwidth limit.	<altbwtotime>24:00:00</altbwtotime>
	Time must be expressed in the format HH:MM:SS	
altbwschedule_dayofweek	Specifies the days of the week when the alternative settings should be used instead of the global bandwidth limit.	<altbwschedule_dayofweek>3</altbwschedule_dayofweek>
	This value can be any number such as: {-1, 0, 1, 2, 3, 4, 5, 6} where:	
	-1 means every day0 means Sunday1 means Mondayand so on	



If altbwforupload or altbwfordownload is specified but altbwfromtime and altbwtotime are missing, then the bandwidth values will not be set.

A "Missing RMC params" message will be displayed in the log file.

What is the XML code for Active Sync Hours?

As an administrator, you can enable or disable a client's ability to set a schedule for when the Sync app runs. Users set their schedule from the Sync dashboard. See Limit Sync To a Schedule.

⚠ If Active Sync Hours is disabled, Sync will be active and function normally unless the user clicks the Pause button to stop it.

Use the following XML code to allow or disable the Active Sync Hours checkbox and settings.

- <cloudsync>
- <timeactivecontrolsset></timeactivecontrolsset>
- <activesync_daysofweek></activesync_daysofweek>
- <activesync_timeofday></activesync_timeofday>
- </cloudsync>

XML Tag	Value	Example
timeactivecontrolsset	1 = enabled 0 = disabled	<timeactivecontrolsset>1</timeactivecontrolsset>

XML Tag	Value	Example
activesync_daysofweek	Any number {-1, 0, 1, 2, 3, 4, 5, 6} -1 = Everyday 0 = Sunday 1 = Mondayetc.	<activesync_daysofweek>5</activesync_daysofweek>
activesync_timeofday	Use the format HH:MM:SS-HH:MM:SS	<activesync_timeofday>8:00:00-20:00: 00</activesync_timeofday>

What XML settings allows users to modify folders?

When device configuration xml is included for Sync, whether or not the settings included affect selective Sync folder, network folder, or backup folders, by default, users are prevented from configuring these folder types in the Sync application.

As an administrator, you can override this, and allow Sync users to modify the following folders:

- Selective Sync folders
- Network folders
- Backup folders

The XML Settings for enabling or disabling the ability to modify these folders are:

XML Tag	Value	Example
allowuserconfigforlimitsync	0 = user cannot modify Selective Sync folders and any <i>limitfolder</i> setting, if present in xml, is applied.	<allowuserconfigforlimitsync>1<a llowuserconfigforlimitsync></a </allowuserconfigforlimitsync>
	1 = user can modify Selective Sync folders and this overrules any <i>limitfolder</i> settings.	
allowuserconfigfornwfolders	0 = user cannot modify Network folders and any <i>offlinefolder</i> setting configured for Network folders, if present, is applied.	<allowuserconfigfornwfolders>1<allowuserconfigfornwfolders></allowuserconfigfornwfolders></allowuserconfigfornwfolders>
	1 = user can modify Network folders and this overrules any <i>offlinefolder</i> setting configured for Network folders.	

XML Tag	Value	Example
allowuserconfigforbackup	0 = user cannot modify the Backup folder and any <i>offlinefolder</i> setting configured for Backup folders, if present, is applied.	<allowuserconfigforbackup>1</allowuserconfigforbackup>
	1 = user can modify the folder and this overrules any <i>offlinefolder</i> setting configured for Backup folders	

Scenarios

If xml device config settings are present, whether or not they apply to selective sync or offline folders, they must be overridden to allow users to modify folder settings in the Sync client app.

Controlling modifications to selective sync folders

limitfolders	allowuserconfigfo rlimitsync	Sync User's Access
/john/folder1 /john/ folder2	1	Although limit folders are present, because allowuserconfigforlimitsync is set to allow modifications:
		 limitfolder settings will NOT be applied Users CAN modify their selective sync folders
/john/folder1 /john/ folder2	0	Because limit folders are present, AND allowuserconfigforlimitsync is set to disable modifications:
		 limitfolder settings will BE applied Users CANNOT modify their selective sync folders
None set but other settings are present	1	Because allowuserconfigforlimitsync is set to allow modifications:
		• Users CAN modify their selective sync folders, irrespective of any other settings in the config
None set but other settings are present	0	Because <i>allowuserconfigforlimitsync</i> is set to disable modifications:
		Users CANNOT modify their selective sync folders

Controlling modifications to selective network folders

offline folders	allowuserconfigfornwfolders	Sync User's Access
-----------------	-----------------------------	--------------------

1	Because offline folders (configured as Network Folders) are present, AND allowuserconfigfornwfolders is set to enable modifications: • offlinefolder setting configured for Network Folders, will NOT be applied • Sync users CAN modify Network Folders
0	Because offline folders (configured as Network Folders) are present AND allowuserconfigfornwfolders is set to disable modifications:
	 offlinefolder setting configured for Network folders, will BE applied Sync users CANNOT modify Network Folders
1	Because <i>allowuserconfigfornwfolders</i> is set to enable modifications:
	 Sync users CAN modify Network Folders, irrespective of any other settings in the config.
0	Because allowuserconfigfornwfoldersis set to disable modifications:
	 Sync users CANNOT modify Network Folders
	0

Controlling modifications to selective backup folders

offline folders	allowuserconfigforbackup	Sync User's Access
C:\data\local	1	Because offline folders (configured for backup) are present, AND allowuserconfigforbackup is set to enable modifications:
		 offlinefolder setting configured for Backup folders, will NOT be applied Sync users CAN modify backup folders

C:\data\local	0
None set but other settings are present	1
None set but other settings are present	0

Because offline folders (configured for backup) are present AND allowuserconfigforbackup is set to disable modifications:

- *offlinefolder* setting configured for Backup folders, will BE applied
- Sync users CANNOT modify backup folders

Because *allowuserconfigforbackup* is set to enable modifications:

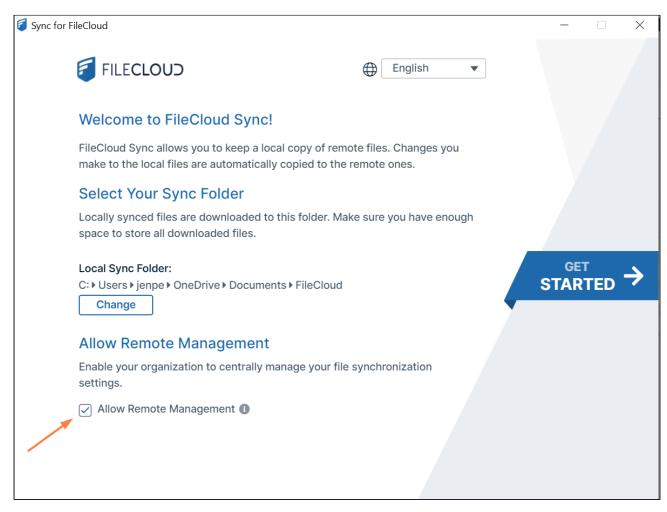
 Sync users CAN modify backup folders, irrespective of any other settings in the config.

Because allowuserconfigforbackup is set to disable modifications:

• Sync users CANNOT modify backup folders

How do I prevent users from overriding remote management?

In the Sync client, by default, there is a setting on the initial window of the log-in wizard: **Allow Remote Management**.



This setting is also available in the Settings window.

- It allows Sync users to manage their Sync application by overriding an Administrator's settings
- In some cases, administrators want to disable the toggle by hiding it.
- In FileCloud Server version 19.1 and later, an administrator can hide the setting by adding a registry key called allowcentralmgmtusermodify
- · When set to 0, the central management option is disabled and can no longer be changed by users

To add the registry key:

1. Add a registry key under:

Computer\HKEY_LOCAL_MACHINE\SOFTWARE\CodeLathe\FileCloud\DefaultCfg

2. Name the registry key:

allowcentralmgmtusermodify

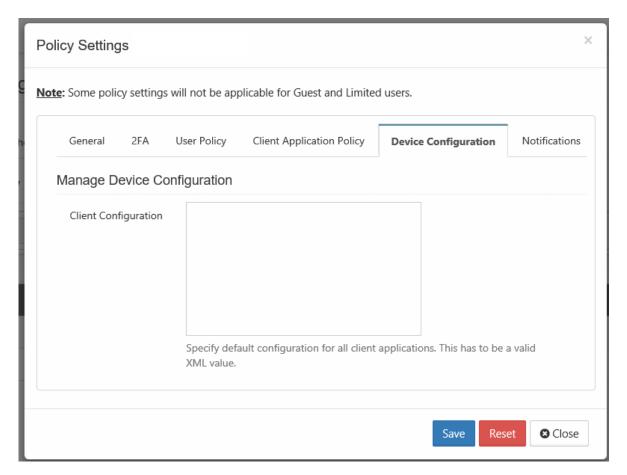
3. Restart the computer.

Device Configuration XML For Windows Drive

Client Device configuration settings can be configured remotely by specifying the configuration XML using policies.

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For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select Settings.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the policy that you want to configure, and then click the edit icon ().
- 5. Click on the Device Configuration tab.
- 6. In Client Configuration, paste or type in the following remote device configuration XML.



```
<winclouddrive>
    <!-- XML for Windows Drive -->
    </winclouddrive>
</xml>
```

7. Replace the <!-- XML for Windows Drive --> line with the parameters that you need using the descriptions in Table 1.

Table 1. The following XML tags are supported for the Windows Drive device configuration.

Supported keys for **Windows FileCloud Drive**. All keys are optional. One of more of these keys can be supplied to drive's section of XML command.

XML Tag	Value	Example
maxdownloadsizeinmb	Assigns the maximum single file download limit to the supplied value.	<maxdownloadsizeinmb>100</maxdownloadsizeinmb>
	The download limit does not apply to the following file types: .txt, .rtf, .doc, .docx, .xls, .xlsx, .p pt, .pptx, and .indd.	
mountpoint	Set the mount point to use to mount filecloud drive in windows. This will only take effect on drive restart	<mountpoint>H:</mountpoint>
driveloginmode	Setting this to "0" will cause filecloud drive to use username/password to log into the Filecloud server. Setting this value to "1" will cause drive to use device code authentication mode	<driveloginmode>1</driveloginmode>
drivelockonupdate	Setting this value to 1 will enable automatic lock on edit function in FileCloud Drive. Setting this to 0 will disable the drive's lock on edit function	<drivelockonupdate>1</drivelockonupdate>
drivemutemessages	Setting this value to 1 will disable system tray notifications being shown to the user.	<drivemutemessages>1</drivemutemessages>
driveopenexploreronstartu p	Setting this value to 1 will automatically open explorer window when drive starts up and 0 will disable it.	<driveopenexploreronstartup>1</driveopenexploreronstartup>

XML Tag	Value	Example
checkupdates	Setting this value to 1 will enable automatic checking for new versions of FileCloudDrive and setting this value to 0 will disable it.	<checkupdates>1</checkupdates>
cachelocation	The default cache path is %APPDATA%/ FileCloudDrive/. This path can be changed to a different location using this key. Any path set must be a valid path on the computer where FileCloudDrive runs.	<pre><cachelocation>E: \DriveCache<cachelocation> or <cachelocation>\${HOME} \DriveCache<cachelocation></cachelocation></cachelocation></cachelocation></cachelocation></pre>
		or <cachelocation>C:\somepath\\$ {USERID}\DriveCache<!--<br-->cachelocation></cachelocation>
disableprecaching	Setting this value to 1 disables precaching. If many Drive users have access to a large data structure, the FileCloud server may experience a high load. This can be avoided by deactivating precaching. However, folder contents will no longer be cached in Drive which can lead to longer response times.	<disableprecaching>1</disableprecaching>
disableautologin	By default, once a drive is mounted, the authentication will be reused on every FileCloudDrive start ups. Setting this key to 1 will require authentication from user on every start up.	<disableautologin>1</disableautologin>
currentlanguage	By default English will be the default language. This key can be used to set the default language for FileCloudDrive. The current values that are supported are english, dutch, french	<currentlanguage>french</currentlanguage>

Variable	Notes
\${USER}	Replaces with current logged in user name from the Operating System
\${HOME}	Replaces with the location of the current user's Home Path

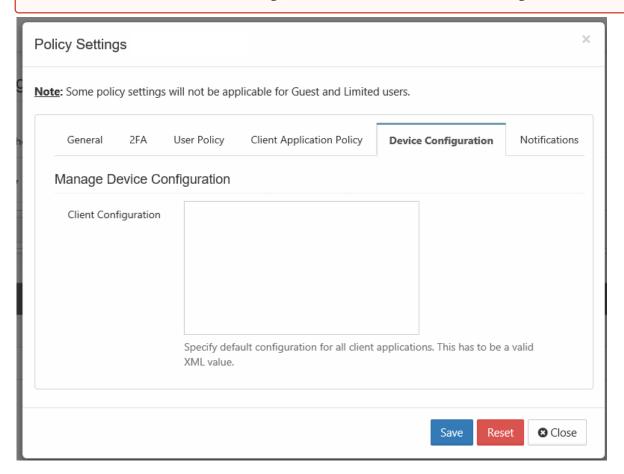
Variable	Notes
\${USERID}	Replaces with the currently logged in FileCloud user account name

Device Configuration XML for Desktop Edit

Client Device configuration settings can be configured remotely by specifying the configuration XML using policies.



For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in the Admin Portal.
- 2. From the left navigation pane, select Settings.
- 3. To open the list of policies, select the *Policies* tab.
- 4. Click the policy that you want to configure, and then click the edit icon ().
- 5. Click on the *Device Configuration* tab.
- 6. In Client Configuration, paste or type in the following remote device configuration XML.

7. Replace the <!-- XML for Desktop Edit --> line with the parameters that you need using the descriptions in Table 1.

Table 1. The following XML tags are supported for Desktop Edit device configuration.

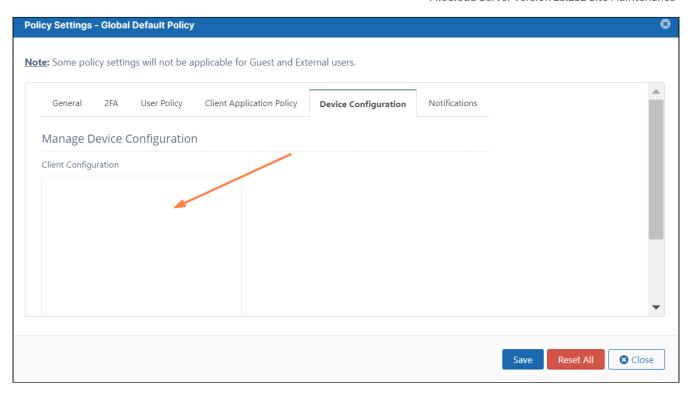
XML Tag	Value	Example
lockfiles	0/1 - Enable or Disable autolocking of files	<lockfiles>1</lockfiles>
runatstartup	0/1 - Enable or Disable running application at OS startup	<runatstartup>1</runatstartup>
mutenotifications	0/1 - Enable or Disable notifications	<mutenotifications>1</mutenotifications>

Device Configuration XML for FileCloud Desktop for macOS

You can configure client device settings for FileCloud Desktop for macOS remotely by specifying the configuration XML in the **Device Configuration** tab of FileCloud policies.



For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in the **Admin Portal**.
- 2. From the left navigation pane, select **Settings**.
- 3. To open the list of policies, select the **Policies** tab.
- 4. Click the policy that you want to configure, and then click the edit icon (\square).
- 5. Click on the **Device Configuration** tab.
- 6. In **Client Configuration**, paste or type in the remote device configuration XML for FileCloud Desktop for macOS. Please note that it uses the xml format:

<default> is an optional tag that indicates if the setting can be changed through the user interface.

A value of 1 indicates the setting is a default and can be changed by the user through the user interface.

A value of 0 (or omission of <default>) indicates that the setting is overridden and cannot be changed by the user through the user interface.

Example:

The code below shows example settings:

<xml>

```
<fileclouddesktopmac>
  <setting>
    <key>lockonopen</key>
    <value>1</value>
  </setting>
  <setting>
    <key>runatstartup</key>
    <value>1</value>
    <default>1</default>
  </setting>
  <setting>
    <key>loglevel</key>
    <value>debug</value>
  </setting>
  <setting>
    <key>language</key>
    <value>en</value>
  </setting>
  <setting>
    <key>mutenotifications</key>
    <value>0</value>
  </setting>
 </fileclouddesktopmac>
</xml>
```

In this example:

- Files are automatically locked when they are opened by FileCloud Desktop (lockonopen = 1). Default value.
- The application runs at startup (runatstartup = 1, default = 1). Default value.
- The log level is set to "debug" (loglevel = debug). Overridden value.
- The language is set to "en" (language = en). Default value.
- Notifications are not muted (mutenotifications = 0). Default value.

Keys and values

Table 1. The following XML tags are supported for FileCloud Desktop for macOS device configuration.

Key	Description	Values
lockonopen	Automatically lock files when they are opened.	0 (disabled) 1 (enabled) default
runatstartup	Run FileCloud Desktop for macOS on system startup.	0 (disabled) 1 (enabled) default
loglevel	Level of details stored in log files, where information is the least detailed, and trace is the most detailed.	"information" default "debug" "trace"

Key	Description Language of the FileCloud Desktop for macOS user interface.	Values	
language		Value	Language
		nl	Dutch
		en (default)	English
		de	German
		es	Spanish
		pt	Portuguese
		fr	French
		ar	Arabic
		it	Italian
		ru	Russian
mutenotificati ons	Suppress all notifications on FileCloud Desktop.	0 (disabled, notifications are shown) default 1 (enabled, notifications are not shown)	

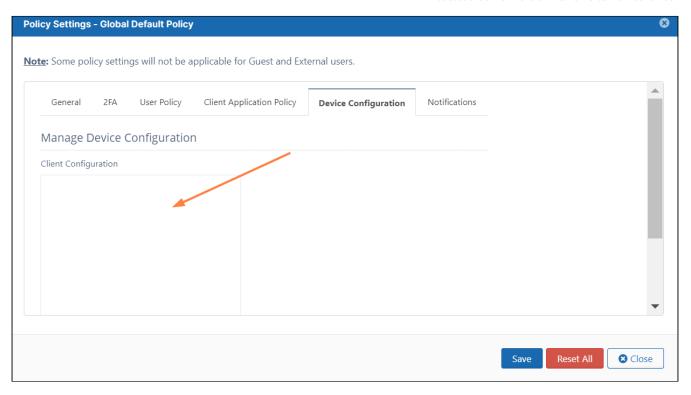
If a key is not supported or a value is incorrect, the application skips it and logs a warning message.

Device Configuration XML for FileCloud Desktop for Windows

You can configure client device settings for FileCloud Desktop for Windows remotely by specifying the configuration XML in the **Device Configuration** tab of FileCloud policies.



For most clients, if the user changes the configuration locally, then the remote settings configured by the Administrator will override those settings the next time the client refreshes its settings.



To set a device configuration for a policy:

- 1. Open a browser and log in to the **Admin Portal**.
- 2. From the left navigation pane, select **Settings**.
- 3. To open the list of policies, select the **Policies** tab.
- 4. Click the policy that you want to configure, and then click the edit icon.
- 5. Click the **Device Configuration** tab.
- 6. In **Client Configuration**, paste or type in the remote device configuration XML for FileCloud Desktop for Windows. Please note that it uses the xml format:

<default> is an optional tag that indicates if the setting can be changed through the user interface.
A value of 1 indicates the setting is a default and can be changed by the user through the user interface.
A value of 0 (or omission of <default>) indicates that the setting is overridden and cannot be changed by the user through the user interface.

Example:

The code below shows example settings:

```
<xml>
<fileclouddesktopwindows>
```

```
<setting>
    <key>lockonopen</key>
    <value>1</value>
  </setting>
  <setting>
    <key>runatstartup</key>
    <value>1</value>
    <default>1</default>
  </setting>
  <setting>
    <key>loglevel</key>
    <value>debug</value>
  </setting>
  <setting>
    <key>language</key>
    <value>en</value>
  </setting>
  <setting>
    <key>mutenotifications</key>
    <value>0</value>
  </setting>
</fileclouddesktopwindows>
</xml>
```

In this example:

- Files are automatically locked when they are opened by FileCloud Desktop (lockonopen = 1). Default value.
- The application runs at startup (runatstartup = 1, default = 1). Default value.
- The log level is set to "debug" (loglevel = debug). Overridden value.
- The language is set to "en" (language = en). Default value.
- Notifications are not muted (mutenotifications = 0). Default value.

Keys and values

The following XML tags are supported for FileCloud Desktop for Windows device configuration.

Key	Description	Values
lockonopen	Automatically lock files when they are opened.	0 (disabled) 1 (enabled) default
runatstartup	Run FileCloud Desktop for Windows on system startup.	0 (disabled) 1 (enabled) default
loglevel	Level of details stored in log files, where information is the least detailed, and trace is the most detailed.	"information" default "debug" "trace"

language	Language of the FileCloud Desktop for Windows user interface.	Value	Language
		nl	Dutch
		en (default)	English
		de	German
		es	Spanish
		pt	Portuguese
		fr	French
		ar	Arabic
		it	Italian
		ru	Russian
mutenotificati ons	Suppress all notifications on FileCloud Desktop.	0 (disabled, notificat 1 (enabled, notificat	ions are shown) default ons are not shown)

If a key is not supported or a value is incorrect, the application skips it and logs a warning message.

Automating FileCloud Sync/Drive/OutLook-Addin Installation and Mass Deployment configuration



(i) Disclaimer

The following script has been created with the purpose of providing you with an example of how to install/mass deploy FileCloud Sync without user interaction and at the same time to automate the FileCloud's mass deployment configuration for the end user.

Requirements

- The PowerShell script, Bat file or Executable depending on your preference must be ran with elevated admin privileges.
- In case there is any download restriction created by your Firewall you will need to add https:// patch.codelathe.com to your allow list.

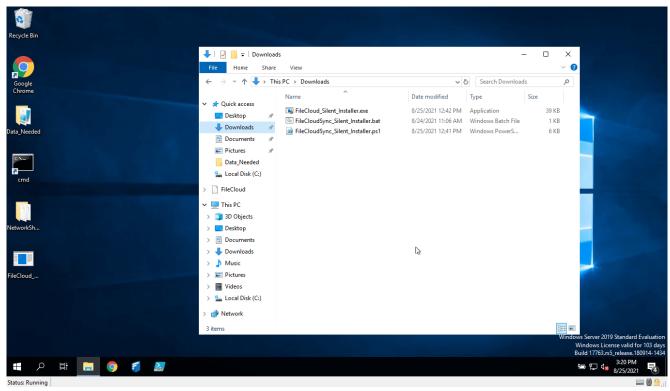
- FileCloud Sync must not be installed, If so proceed on uninstalling it and delete the folder under C:\Users\ %username%\AppData\Roaming\FileCloudSyncData\client
- You will need to update the script to customize and or add any mass deployment configuration needed, the ones
 provided are used for demonstration purposes. For example to update the URL you will need to modify line 134
 to reflect your own URL rather than https://your-filecloud-url.com

What does the Script do?

The script below will accomplish the following actions when executed.

- 1. Change the Execution Policy on PowerShell to allow the scripts execution without any user intervention.
- 2. Validate if there is any log file under the name FileCloudSync_SilentInstaller.log within the C drive if so it will delete it and recreate it.
- 3. Validate if FileCloud Sync is already installed, If so the script will exit.
- 4. Create a directory under the C drive called FileCloudSync in which it will be used to download the FileCloud installer.
- 5. Download FileCloudSync.msi directly from FileCloud's server.
- 6. Validate if the installer has completely download and ensure that the installer was not altered during transit, this is done by validating the installers AES 256 hash. If the hash is not the same the installer will exit.
- 7. Proceed on silently installing FileCloud Sync without the need of any user input or interaction.
- 8. Create the registry entry for FileCloud's Mass Deployment configuration
- 9. Create the needed keys to assign the predefined settings based on FileCloud's Mass Deployment documentation
- 10. Once completed it will start FileCloud Sync, Delete the folder created, Delete the FileCloud Sync installer and Exit.





FileCloud Sync Installation & Mass Deployment automation - Script

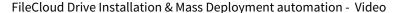
```
FileCloud's Sync and Mass Deployment PowerShell script
      1
           ####Silent FileCloud Sync Installation & Mass Deployment Configuration####
      2
          ##Allows the script to be executed without user consent##
      3
      4
          set-ExecutionPolicy RemoteSigned -Force
      5
      6
      7
           ### Sets the absolute path for the log file##
      8
          $Logfile = 'C:\FileCloudSync_SilentInstaller.log'
      9
     10
     11
          ##Validates if the log file already exists if so it deletes it and creates a
          new log file##
     12
          if (Test-Path -Path "C:\FileCloudSync_SilentInstaller.log") {
     13
               Remove-Item 'C:\FileCloudSync_SilentInstaller.log' -Recurse
               New-Item -Path "c:\" -Name "FileCloudSync_SilentInstaller.log" -ItemType
     14
           "file"
     15
               "#######Created log file and started loggin######" | Out-File
           $Logfile -Append
```

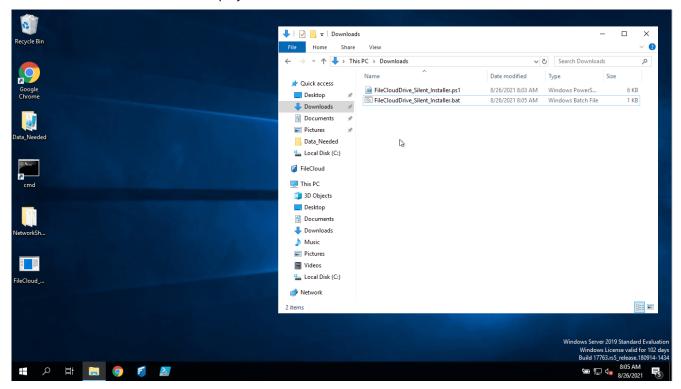
```
16
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
17
18
     else {
19
         New-Item -Path "c:\" -Name "FileCloudSync_SilentInstaller.log" -ItemType
         "########Created log file and started loggin######" | Out-File
20
     $Logfile -Append
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
21
22
     }
23
24
     ##Check if FileCloud Sync is already installed if its installed cancel the
25
     installation else continue##
26
     if (Test-Path -Path "C:\Users\
     $env:USERNAME\AppData\Roaming\FileCloudSyncData\client") {
27
         "FileCloud Sync is already installed, Unable to proceed with the
     installation" | Out-File $Logfile -Append
28
         clear
29
         Write-Warning "FileCloud Sync is already installed, Please uninstall
     FileCloud Sync in order to proceed"
30
         $Input = Read-Host -Prompt "Press any key to Exit"
31
         Exit
32
     }
     Else {
33
34
35
36
37
38
         ##Create the directory where FileCloud Sync will be downloaded##
39
         Try {
             if (Test-Path -Path "C:\FileCloudSync") {
40
41
                 Remove-Item 'C:\FileCloudSync' -Recurse
                 "Folder already exists, Deleted Folder under C:\FileCloudSync " |
42
     Out-File $Logfile -Append
43
                 New-Item -Path "c:\" -Name "FileCloudSync" -ItemType "directory"
     -ErrorAction Stop
                 "Created folder under C:\FileCloudSync " | Out-File $Logfile
44
     -Append
45
46
             }
47
                 New-Item -Path "c:\" -Name "FileCloudSync" -ItemType "directory"
48
     -ErrorAction Stop
49
             }
50
         }
         Catch {
51
             $message = $_
52
             "ERROR $_ " | Out-File $Logfile -Append
53
54
         }
55
56
57
         ##Downloads the FileCloud Sync Installer into the directory created###
```

```
58
          Try {
               "Downloading FileCloud Sync.msi installer" | Out-File $Logfile
 59
      -Append
 60
               $url1 = "https://patch.codelathe.com/tonido/live/installer/x86-win32/
      FileCloudSync2.msi"
 61
               $output1 = "C:\FileCloudSync\FileCloudSync2.msi"
 62
               $start_time = Get-Date
 63
               Import-Module BitsTransfer
 64
               Start-BitsTransfer -Source $url1 -Destination $output1
 65
          }
          Catch {
 66
               $message = $_
 67
               "ERROR $_ " | Out-File $Logfile -Append
 68
 69
          }
 70
 71
 72
 73
          ##Validates if FileCloud has downloaded completely based on the file
      hash##
74
 75
          $hashSrc =
      "9B0F053DF45605E1CA819396D66B046310FE386BCF1B00A3F1B3B685B6FF29CA"
 76
          $fileToCheck = "C:\FileCloudSync\FileCloudSync2.msi"
 77
          $hashDest = Get-FileHash $fileToCheck -Algorithm "SHA256"
 78
 79
          Try {
               if ($hashSrc.Hash -ne $hashDest.Hash) {
 80
                   "FileCloud Sync Installer downloaded successfully" | Out-File
 81
      $Logfile -Append
 82
               }
 83
               else {
 84
                   "FileCloud Sync Installer was NOT downloaded or it has not been
      download completely" | Out-File $Logfile -Append
 85
                   Exit
 86
               }
 87
          }
          Catch {
 88
 89
               $message = $_
               "ERROR $_ " | Out-File $Logfile -Append
 90
 91
          }
 92
 93
 94
 95
 96
          ##Installs FileCloud Sync silently without needing any end-user
      interaction##
 97
          Try {
               Start-Process -Wait -FilePath "C:\FileCloudSync\FileCloudSync2.msi"
 98
      -ArgumentList '/quiet', '/passive', '/n' -passthru -ErrorAction Stop
               "FileCloud Installation Started" | Out-File $Logfile -Append
 99
100
101
          Catch {
```

```
102
               $message = $_
              "ERROR $_ " | Out-File $Logfile -Append
103
104
          }
105
106
107
108
109
          ##Adds the needed registry keys to configure Mass Deployment##
110
          cd HKLM:\
111
112
          Try {
              set-location -path HKLM:\SOFTWARE\ -ErrorAction Stop
113
114
115
          Catch {
116
              $message = $_
              "ERROR $_ " | Out-File $Logfile -Append
117
118
          }
119
120
121
122
          # Create the path within the registry
123
          Try {
              Get-Item -Path 'HKLM:\SOFTWARE\' | New-Item -Name 'CodeLathe\FileClou
124
      d\DefaultCfg\' -Force -ErrorAction Stop
125
              "Creating registry entry" | Out-File $Logfile -Append
126
          }
127
          Catch {
               $message = $_
128
129
               "ERROR $_ " | Out-File $Logfile -Append
130
          }
131
132
          # Create the needed keys to assign the predefined settings
133
134
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'url' -Value "https://your-
      filecloud-url.com" -PropertyType String -Force
135
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'allowcentralmgmt' -Value "1"
       -PropertyType String -Force
136
              "Creating predefined parameters" | Out-File $Logfile -Append
137
          }
138
          Catch {
               $message = $_
139
              "ERROR $_ " | Out-File $Logfile -Append
140
141
          }
142
143
144
          # Exits the registry
145
          Pop-Location
146
147
          #Start FileCloud Sync#
148
          Try {
```

```
149
              Start-Process -FilePath "C:\Program Files\FileCloud
      Sync\cloudsync.exe"
150
              "Starting FileCloud Sync" | Out-File $Logfile -Append
151
152
          Catch {
              $message = $_
153
              "ERROR $_ " | Out-File $Logfile -Append
154
155
          }
156
157
          ##CleanUp- Deletes the folder created and the installer within#
158
159
              Remove-Item 'C:\FileCloudSync' -Recurse
160
              "Deleting FileCloudSync download folder under C:\FileCloudSync " |
161
      Out-File $Logfile -Append
162
          }
          Catch {
163
              $message = $_
164
              "ERROR $_ " | Out-File $Logfile -Append
165
166
          }
167
          ##Installation Completed - Closes PowerShell##
168
169
          "Installation Completed" | Out-File $Logfile -Append
170
171
          stop-process -Id $PID
          exit
172
173
      }
```





FileCloud Drive Installation & Mass Deployment automation - Script

```
FileCloud Drive Installation & Mass Deployment automation
           ####Silent FileCloud Drive Installation & Mass Deployment Configuration####
      1
      2
      3
          ##Allows the script to be executed without user consent##
      4
           set-ExecutionPolicy RemoteSigned -Force
      5
      6
      7
           ### Sets the absolute path for the log file##
           $Logfile = 'C:\FileCloudDrive_SilentInstaller.log'
      8
      9
     10
     11
           ##Validates if the log file already exists if so it deletes it and creates a
           new log file##
          if (Test-Path -Path "C:\FileCloudDrive_SilentInstaller.log") {
     12
     13
               Remove-Item 'C:\FileCloudDrive_SilentInstaller.log' -Recurse
     14
               New-Item -Path "c:\" -Name "FileCloudDrive_SilentInstaller.log" -ItemType
           "file"
```

```
15
         "#######Created log file and started loggin######" | Out-File
     $Logfile -Append
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
16
17
     }
18
     else {
         New-Item -Path "c:\" -Name "FileCloudDrive_SilentInstaller.log" -ItemType
19
     "file"
20
         "#######Created log file and started loggin#######" | Out-File
     $Logfile -Append
21
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
22
     }
23
24
     ##Check if FileCloud Drive is already installed if its installed cancel the
25
     installation else continue##
     if (Test-Path -Path "C:\Users\
26
     $env:USERNAME\AppData\Roaming\FileCloudDriveData\client") {
27
         "FileCloud Drive is already installed, Unable to proceed with the
     installation" | Out-File $Logfile -Append
28
         clear
29
         Write-Warning "FileCloud Drive is already installed, Please uninstall
     FileCloud Drive in order to proceed"
30
         $Input = Read-Host -Prompt "Press any key to Exit"
         Exit
31
32
     }
     Else {
33
34
35
36
37
38
         ##Create the directory where FileCloud Drive will be downloaded##
39
         Try {
40
             if (Test-Path -Path "C:\FileCloudDrive") {
                 Remove-Item 'C:\FileCloudDrive' -Recurse
41
42
                 "Folder already exists, Deleted Folder under C:\FileCloudDrive "
       | Out-File $Logfile -Append
                 New-Item -Path "c:\" -Name "FileCloudDrive" -ItemType "directory"
43
     -ErrorAction Stop
                 "Created folder under C:\FileCloudDrive " | Out-File $Logfile
44
     -Append
45
46
             }
47
             else {
                 New-Item -Path "c:\" -Name "FileCloudDrive" -ItemType "directory"
48
     -ErrorAction Stop
49
             }
50
         }
         Catch {
51
             $message = $_
52
             "ERROR $_ " | Out-File $Logfile -Append
53
54
         }
55
```

```
56
57
         ##Downloads the FileCloud Drive Installer into the directory created###
58
59
              "Downloading FileCloud Drive.msi installer" | Out-File $Logfile
     -Append
60
              $url1 = "https://patch.codelathe.com/tonido/live/installer/x86-win32/
     FileCloudDrive2eSetup.msi"
61
             $output1 = "C:\FileCloudDrive\FileCloudDrive2eSetup.msi"
62
              $start_time = Get-Date
63
              Import-Module BitsTransfer
             Start-BitsTransfer -Source $url1 -Destination $output1
64
65
         }
66
         Catch {
67
              $message = $_
             "ERROR $_ " | Out-File $Logfile -Append
68
69
         }
70
71
72
73
         ##Validates if FileCloud has downloaded completely based on the file
     hash##
74
75
         $hashSrc =
     "1FCD2F88DD7615E68A2AD935AECCE4D04DD61ED769E52008002B1F7CA3CB7A17"
76
         $fileToCheck = "C:\FileCloudDrive\FileCloudDrive2eSetup.msi"
         $hashDest = Get-FileHash $fileToCheck -Algorithm "SHA256"
77
78
79
         Try {
80
              if ($hashSrc.Hash -ne $hashDest.Hash) {
81
                 "FileCloud Drive Installer downloaded successfully" | Out-File
     $Logfile -Append
82
             }
83
             else {
                  "FileCloud Drive Installer was NOT downloaded or it has not been
84
     download completely" | Out-File $Logfile -Append
85
                 Exit
86
             }
87
         }
88
         Catch {
89
              $message = $_
             "ERROR $ " | Out-File $Logfile -Append
90
91
         }
92
93
94
95
96
         ##Installs FileCloud Drive silently without needing any end-user
     interaction##
97
         Try {
98
              Start-Process -Wait -FilePath "C:
     \FileCloudDrive\FileCloudDrive2eSetup.msi" -ArgumentList '/quiet', '/passive',
      '/n' -passthru -ErrorAction Stop
```

```
99
              "FileCloud Installation Started" | Out-File $Logfile -Append
100
          }
          Catch {
101
102
               $message = $_
103
              "ERROR $_ " | Out-File $Logfile -Append
104
          }
105
106
107
108
109
          ##Adds the needed registry keys to configure Mass Deployment##
110
          cd HKLM:\
111
112
          Try {
              set-location -path HKLM:\SOFTWARE\ -ErrorAction Stop
113
114
          }
          Catch {
115
116
              $message = $_
              "ERROR $ " | Out-File $Logfile -Append
117
118
          }
119
120
121
122
          # Create the path within the registry
123
          Try {
              Get-Item -Path 'HKLM:\SOFTWARE\' | New-Item -Name 'CodeLathe\FileClou
124
      d\DefaultCfg\' -Force -ErrorAction Stop
              "Creating registry entry" | Out-File $Logfile -Append
125
126
          }
127
          Catch {
128
              $message = $_
              "ERROR $_ " | Out-File $Logfile -Append
129
130
131
          # Create the needed keys to assign the predefined settings
132
133
          Try {
134
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'url' -Value "https://your-
      filecloud-url.com" -PropertyType String -Force
135
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'allowcentralmgmt' -Value "1"
       -PropertyType String -Force
136
               "Creating predefined parameters" | Out-File $Logfile -Append
137
          }
138
          Catch {
               $message = $_
139
              "ERROR $_ " | Out-File $Logfile -Append
140
141
          }
142
143
144
          # Exits the registry
145
          Pop-Location
```

```
146
147
          #Start FileCloud Drive#
148
          Try {
149
              Start-Process -FilePath "C:\Program Files\FileCloud
      Drive\clouddrive.exe"
              "Starting FileCloud Drive" | Out-File $Logfile -Append
150
151
152
          Catch {
153
              sec = s_
              "ERROR $_ " | Out-File $Logfile -Append
154
155
          }
156
157
158
          ##CleanUp- Deletes the folder created and the installer within#
159
          Try {
160
              Remove-Item 'C:\FileCloudDrive' -Recurse
161
              "Deleting FileCloudDrive download folder under C:\FileCloudDrive " |
      Out-File $Logfile -Append
162
          }
163
          Catch {
              $message = $_
164
              "ERROR $_ " | Out-File $Logfile -Append
165
166
          }
167
          ##Installation Completed - Closes PowerShell##
168
          "Installation Completed" | Out-File $Logfile -Append
169
170
171
          stop-process -Id $PID
          exit
172
173
      }
```

FileCloud Outlook Addin Installation & Mass Deployment automation - Script

FileCloud Outlook Addin ####Silent FileCloud OutLook_Plugin Installation & Mass Deployment 1 Configuration#### 2 3 ##Allows the script to be executed without user consent## set-ExecutionPolicy RemoteSigned -Force 4 5 6 7 ### Sets the absolute path for the log file## 8 \$Logfile = 'C:\FileCloudOutlookplugin_SilentInstaller.log' 9 10 11 ##Validates if the log file already exists if so it deletes it and creates a new log file## 12 if (Test-Path -Path "C:\FileCloudOutLook_Plugin_SilentInstaller.log") {

```
13
         Remove-Item 'C:\FileCloudOutLook_Plugin_SilentInstaller.log' -Recurse
14
         New-Item -Path "c:\" -Name "FileCloudOutLook_Plugin_SilentInstaller.log"
     -ItemType "file"
         "########Created log file and started loggin######" | Out-File
15
     $Logfile -Append
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
16
17
     }
18
     else {
         New-Item -Path "c:\" -Name "FileCloudOutLook_Plugin_SilentInstaller.log"
19
     -ItemType "file"
20
         "########Created log file and started loggin######" | Out-File
     $Logfile -Append
         "Set-Execution Policy Successful" | Out-File $Logfile -Append
21
22
     }
23
24
     ##Check if FileCloud OutLook_Plugin is already installed if its installed
25
     cancel the installation else continue##
26
     if (Test-Path -Path "C:\Users\
     $env:USERNAME\AppData\Roaming\FileCloudOutlookAddIn") {
27
         "FileCloud OutLook_Addin is already installed, Unable to proceed with the
     installation" | Out-File $Logfile -Append
28
29
         Write-Warning "FileCloud OutLook_Plugin is already installed, Please
     uninstall FileCloud OutLook_Plugin in order to proceed"
30
         $Input = Read-Host -Prompt "Press any key to Exit"
31
         Exit
32
33
     Else {
34
35
36
37
         ##Create the directory where FileCloud OutLook_Plugin will be
38
     downloaded##
39
         Try {
40
             if (Test-Path -Path "C:\FileCloudOutLook_Plugin") {
41
                 Remove-Item 'C:\FileCloudOutLook_Plugin' -Recurse
                 "Folder already exists, Deleted Folder under C:
42
     \FileCloudOutLook_Plugin " | Out-File $Logfile -Append
                 New-Item -Path "c:\" -Name "FileCloudOutLook_Plugin" -ItemType "d
43
     irectory" -ErrorAction Stop
44
                 "Created folder under C:\FileCloudOutLook_Plugin " | Out-File
     $Logfile -Append
45
46
             }
             else {
47
                 New-Item -Path "c:\" -Name "FileCloudOutLook_Plugin" -ItemType "d
48
     irectory" -ErrorAction Stop
49
50
51
         Catch {
```

```
52
              $message = $_
              "ERROR $_ " | Out-File $Logfile -Append
53
54
         }
55
56
57
         ##Downloads the FileCloud OutLook_Plugin Installer into the directory
     created###
58
         Try {
              "Downloading FileCloud OutLook_Addin.exe installer" | Out-File
59
     $Logfile -Append
              $url1 = "https://patch.codelathe.com/tonidocloud/live/installer/
60
     FileCloudOutlookAddIn.exe"
61
              $output1 = "C:\FileCloudOutLook_Plugin\FileCloudOutLookAddin.exe"
62
              $start_time = Get-Date
63
             Import-Module BitsTransfer
64
             Start-BitsTransfer -Source $url1 -Destination $output1
65
         Catch {
66
67
              $message = $
68
              "ERROR $_ " | Out-File $Logfile -Append
69
         }
70
71
72
73
         ##Validates if FileCloud has downloaded completely based on the file
     hash##
74
75
         $hashSrc =
     "0789F44D02453BEF3A7E9B533325CD90584BF37C5FC0F8F09611A5B7D417F505"
76
         $fileToCheck = "C:\FileCloudOutLook Plugin\FileCloudOutLookAddin.exe"
77
         $hashDest = Get-FileHash $fileToCheck -Algorithm "SHA256"
78
79
         Try {
              if ($hashSrc.Hash -ne $hashDest.Hash) {
80
                  "FileCloud OutLook_Plugin Installer downloaded successfully" |
81
     Out-File $Logfile -Append
82
             }
83
             else {
                  "FileCloud OutLook_Plugin Installer was NOT downloaded or it has
84
     not been download completely" | Out-File $Logfile -Append
85
                 Exit
86
             }
87
         }
         Catch {
88
89
              $message = $_
             "ERROR $_ " | Out-File $Logfile -Append
90
91
         }
92
93
94
95
96
         ##check if outlook is running if so kills it before proceeding.
```

```
97
 98
          Try {
               p = 'OUTLOOK'
99
100
101
               $process = Get-Process $app -ErrorAction SilentlyContinue
102
               if ($process) {
103
                   Stop-Process $process -Force
104
                   Write-Output "$app has been stopped."
105
               }
106
               else {
                   Write-Output "$app is not running."
107
108
               }
109
110
          Catch {
111
               $message = $_
               "ERROR $_ " | Out-File $Logfile -Append
112
113
          }
114
115
116
117
118
          ##Installs FileCloud OutLook_Plugin silently without needing any end-user
      interaction##
119
          Try {
120
               Start-Process -Wait -FilePath "C:
      \FileCloudOutLook_Plugin\FileCloudOutlookAddIn.exe" -ArgumentList '/
      VERYSILENT', '/SUPPRESSMSGBOXES' -passthru -ErrorAction Stop
               "FileCloud Installation Started" | Out-File $Logfile -Append
121
122
          }
123
          Catch {
124
               sec = s_{\underline{}}
               "ERROR $_ " | Out-File $Logfile -Append
125
126
127
128
          ##Adds the needed registry keys to configure Mass Deployment##
129
          cd HKLM:\
130
131
          Try {
132
               set-location -path HKLM:\SOFTWARE\ -ErrorAction Stop
133
          }
134
          Catch {
135
               $message = $_
               "ERROR $_ " | Out-File $Logfile -Append
136
137
          }
138
139
140
141
          # Create the path within the registry
142
          Try {
143
               Get-Item -Path 'HKLM:\SOFTWARE\' | New-Item -Name 'CodeLathe\FileClou
      d\DefaultCfg\' -Force -ErrorAction Stop
144
              "Creating registry entry" | Out-File $Logfile -Append
```

```
145
          }
          Catch {
146
              $message = $_
147
              "ERROR $_ " | Out-File $Logfile -Append
148
149
150
          # Create the needed keys to assign the predefined settings
151
152
          Try {
153
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'url' -Value "https://your-
      filecloud-url.com" -PropertyType String -Force
154
              New-ItemProperty -Path 'HKLM:
      \SOFTWARE\CodeLathe\FileCloud\DefaultCfg' -Name 'allowcentralmgmt' -Value "1"
       -PropertyType String -Force
               "Creating predefined parameters" | Out-File $Logfile -Append
155
156
          }
157
          Catch {
158
               $message = $_
159
              "ERROR $_ " | Out-File $Logfile -Append
160
          }
161
162
          # Exits the registry
163
164
          Pop-Location
165
          ##CleanUp- Deletes the folder created and the installer within#
166
167
          Try {
168
               Remove-Item 'C:\FileCloudOutLook_Plugin' -Recurse
               "Deleting FileCloudOutLook_Plugin download folder under C:
169
      \FileCloudOutLook Plugin " | Out-File $Logfile -Append
170
171
          Catch {
172
               $message = $_
               "ERROR $_ " | Out-File $Logfile -Append
173
174
175
          ##Installation Completed - Closes PowerShell##
176
177
          "Installation Completed" | Out-File $Logfile -Append
178
179
          stop-process -Id $PID
180
          exit
181
      }
```

Creating a .bat file to execute the script

Once created your PowerShell script based on the example above you can automate its execution by creating a .bat file, for details view the example below.

1. Using a notepad or a text editor create a new file with the following content

echo on FileCloud Silent Installer and Mass Deployment Configuration
cd C:\Users\%username%\Downloads
Powershell.exe -File "FileCloudSync_Silent_Installer.ps1"

- 2. Once done save the file as a .bat
- 3. Before executing it you will need to have both, the .bat file and the .ps1 file on the same location as per this example it should be under Downloads.
- 4. Right-click run as administrator.

Converting the PowerShell script to an executable

Once created your PowerShell script based on the example above you can automate its execution by creating an executable file, for details view the example below.

1. Run PowerShell as an administrator and run the following to install and import the ps2exe module

```
Install-Module ps2exe
```

2. Once the above is completed enter "Y" to install the Module

```
Untrusted repository

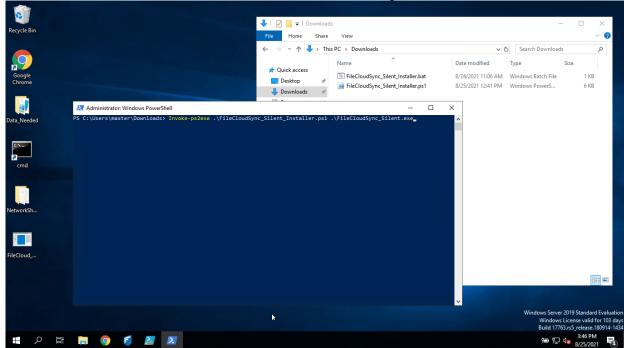
You are installing the modules from an untrusted repository. If you trust this repository, change its InstallationPolicy value by running the Set-PSRepository cmdlet. Are you sure you want to install the modules from 'PSGallery'?

[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): Y
```

3. Once the module has been installed you can convert the .ps1 to .exe by running the following command

```
Invoke-ps2exe .\NAME-OF-YOUR-SCRIPT.ps1 .
\FileCloud_Silent_Installer_and_Mass_Deployment.exe
```

4. Your end result should be a executable for details, review the following:

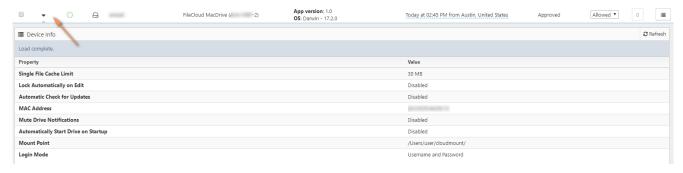


Viewing Client Information

Managing client devices requires the ability to view client information about:

- Health
- State

Figure 1. Device Information



What do you want to view?

Client Health Information

The information shown for each client will depend upon the client type (Sync, Drive, Outlook Add In, iOS, Android, etc.)

To show information related to a device:

1. In the Devices table, click the device.

Client State Information

Each client now has health information represented by the icon in the client table.

	Health color	Information
0	Green	Healthy client
0	Yellow	Some problems reported by client
0	Red	Critical problem reported by client

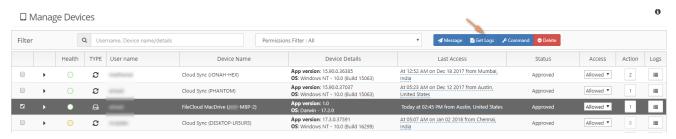
Requesting Client Log Files

Administrators can request clients to upload their latest log files to the server so the administrator can view any errors for troubleshooting.

To get logs, select the device in the list and click on "Get Logs" button.

The logs are uploaded by the client

- When the client connects to the FileCloud server (as a part of login operation)
- If the client is already connected, then it processes the get logs command periodically and uploads the logs to the server.



The get logs request is queued to the client the next time the client is online and processes server commands it will upload the logs to it's logs folder.

Blocking and Remotely Wiping a Client Device

Administrators can selectively block a specific client device from logging into the FileCloud server using FileCloud's RMC function.

In addition to Blocking a Client Device from logging in, Administrator can also wipe FileCloud folders in the remote device.

When a client device is blocked (or blocked with remote wipe action), it will be executed one of the following two ways

- 1. If the client is not connected, the block (and remote wipe) will happen when it tries to log into the server
- 2. If the client is connected, the block and remote wipe will occur and the client will automatically exit out.

Steps to block (but no wipe remote data) in a client device

- 1. Log on to Administration Portal
- 2. Click on "**Devices**" on the left navigation panel
- 3. Locate the client device to be blocked and under the "Permissions" column, Change the value to "Blocked"
- 4. In the "Confirm" dialog, select "NO" to just block but not remote wipe the client device

Steps to block and wipe remote data in a client device

- 1. Log on to Administration Portal
- 2. Click on "Devices" on the left navigation panel
- 3. Locate the client device to be blocked and under the "Permissions" column, Change the value to "Blocked"
- 4. In the "**Confirm**" dialog, Check the "Remote Wipe" button to block and remote wipe downloaded data in the client device

The remote wipe will have the following effect on each of the clients

- FileCloudDrive: Cache folder data will be deleted and application will logout
- FileCloudSync: Synced data will be deleted and application will logout
- iOS and Android: Downloaded data in "This Device" will be deleted and will log out of the server

Sending a Message to a Client's Display

Administrators can display a short message on the remote client using the "Add message" feature.

The entered message(s) will be displayed when the remote client is connected to the FileCloud instance. If more than one message is queued to a device, they will be

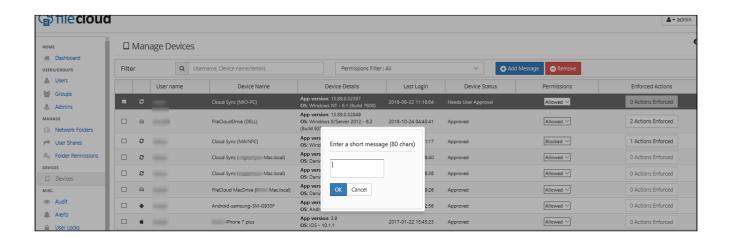
displayed in the order it was entered. The messages will be shown only once per client and during

Message will be shown

- When the client connects to the FileCloud server (as a part of login operation)
- If the client is already connected, then it will retrieve the message periodically and display it to the user

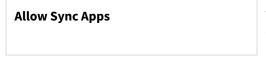
Steps to add message

- 1. Log on Administration Panel
- 2. Select one or more device using the checkbox on the left most column of a device record
- 3. Click on "Add Message" button



iOS Device Management

Administrators can configure how mobile users with an iOS device interact with FileCloud.



This switch can be disabled to block all Desktop Sync Apps from connecting to FileCloud. **Default value is "Enabled"**

Configuring Automatic Camera Uploads

iOS users can automatically upload photos and videos from their mobile device without manually having to upload.

1 As an administrator, you must first enable this feature before users can configure it on their mobile device.

Why would I enable this feature?

- This is a very convenient feature and it mobile users to know that your photos and videos are always saved in a safe location.
- Instead users saving all of their work files on their mobile device, they can save them to the FileCloud.
- Mobile users can spend time constantly managing their images/videos to free up more space unless they are able to save them to FileCloud.
- If you are concerned about privacy and security, work-related files and photos are stored securely in FileCloud.

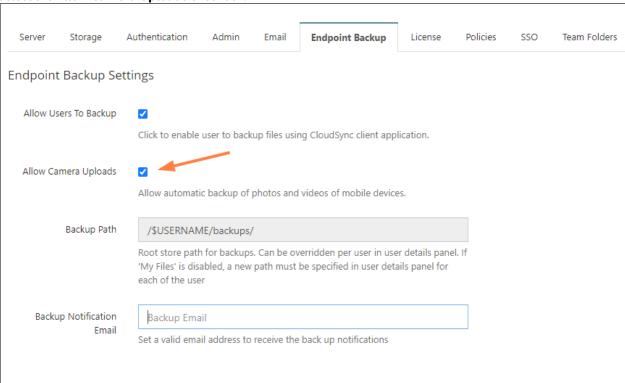
Seep in mind that with the amount of photos and videos generated by the mobile devices, the storage size can run out quickly.

Pre-Requisites

	Software	Version	Notes
Mobile User	FileCloud iOS app	version 7.0 or later	You can get this from the Apple app store
Administrator	A FileCloud account	18.2 and later	Check with your administrator to make sure they are running the latest version

To enable automatic camera uploads:

- 1. Open a browser window and log in to the admin portal.
- 2. From the left navigation menu, select **Settings**.
- 3. Click the **Endpoint Backup** tab.
- 4. Select the Allow Camera Uploads checkbox.



Mass Deployment - Default Configuration Support

The ability to provide defaults for the FileCloud Client Apps like Sync, Drive and Office Add-ins is available in FileCloud Server version 15.0 and later.

The ability to provide defaults for bandwidth limits and **time active controls** in FileCloud Sync is available in FileCloud Server version 18.2 and later.

As an administrator you can roll out a mass deployment of settings for all the client apps across the enterprise.

Notes:

- Mass deployment requires that default configurations be added to the Windows registry.
- These defaults are used by the apps when initially starting up and don't have any effect if they are changed after the apps are initialized.
- Please ensure before adding a value that it is not already present in the "syncclientconfig.xml" before testing. Otherwise, the mass deployment configuration values will not be used.

The following table lists the supported default configuration parameters.

Table 1. Supported Parameters

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
url	String	The server URL. example: https://files.xyz.com	YES	YES	YES	YES	YES
profile	String	User name to use to login. example: john or john@company.com You can use the current OS user as the username by specifying \${USER}	YES	YES	YES	YES	YES
checkupdates	String	'0' to disable, '1' to enable	YES	YES	YES	NO	NO
httpproxyena bled	String	'0' to disable, '1' to enable	NO	YES	YES	NO	NO
httpproxyhost	String	Proxy Hostname to use for connection	YES	YES	YES	YES	YES
httpproxyport	String	Proxy Port to use for connection	YES	YES	YES	YES	YES
httpproxyuser	String	Proxy User Authentication name to use	YES	YES	YES	YES	YES

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
httpproxypass word	String	Proxy User Authentication password to use	YES	YES	YES	YES	YES
ssllevel	String	Special directive to allow apps to connect to TLS-only servers. Possible usages are CLIENT_USE, TLSV1_1_CLIENT_USE, TLSV1_2_CLIENT_USE, TLSV1_3_CLIENT_USE	YES	YES	YES	NO	NO
officehelperdi sabled	String	FileCloud for Office (FFO)/DocIQ Office Integration	YES	NO	NO	NO	NO
officehelperlo ckonedit	String	Automatic locking in FileCloud for Office (FFO)/DocIQ	YES	NO	NO	NO	NO
syncfolderloc ation	String	Path to use for the sync folder location. DEFAULT - use the default location Absolute Full Paths - e.g. c: \filecloudsync Expanded Paths - e.g. %APPDATA% \FileCloudSync (Windows Only) or \$ {HOME}\FileCloudSync (Windows and Mac OSX)	YES	NO	NO	NO	NO
syncclientloca tion	String	Path to use for the sync folder data and cache location. DEFAULT - use the default location Absolute Full Paths - e.g. c: \filecloudsyncdata Expanded Paths - e.g. %APPDATA% \FileCloudSyncData (Windows Only) or \${HOME}\FileCloudSyncData (Windows and Mac OSX)	YES	PasN O	NO	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
removeunshar ed	String	Directive to require sync to delete shared folders from local device if they are no longer shared for synching "0" - Default, does not remove unshared folders "1" - Removes shared folders from local when they are no longer shared from the server	YES	NO	NO	NO	NO
authmode	String	Directive to use password authentication, SSO, or device code authentication for log in to Sync. "password" - Password authentication "sso" - SSO authentication "devauth" - Device code authentication	YES	NO	NO	NO	NO
drivecacheloc ation	String	Path to use for drive cache DEFAULT - use the default location Absolute Full Paths - e.g. c: \fileclouddrive Expanded Paths - e.g. %APPDATA% \FileCloud Drive\data (Windows Only) or \${HOME}\FileCloud Drive (Windows and Mac OSX)	NO	YES	NO	NO	NO
enableshortca chepath	String	Whether to use a short path made up of random digits or to use "DOMAIN@USERNAME" for the folder in the cache. Use this option to avoid exceeding the maximum path length. "0" - Default, use DOMAIN@USERNAME "1" - Use short path made up of random digits	NO	YES	YES	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
drivedefaultst orageingb	String	The value in GB of the default user quota setting	NO	YES	YES	NO	NO
drivemountpo int	String	Mount point to override Can be empty or it must be a drive letter with ":" like "F:"	NO	YES	NO	NO	NO
sslverify String	String	Directive to disable strict checking of SSL cerificates. If this key is not provied, the default is strict verification	YES	YES	YES	YES	YES
		VERIFY_NONE: disable SSL Verification checking					
		VERIFY_STRICT: enables strict SSL Verification checking					
driveloginmo de	String	Directive to use password authentication or device code authentication	NO	YES	YES	NO	NO
		"0" - Password authentication					
		"1" - Device Code authentication					
		"2" - SSO authentication					
drivelockonup date	String	Directive to lock file when opened for modification	NO	YES	YES	NO	NO
		"0" - No lock while editing					
		"1" - Auto Lock while editing					
drivemutemes sages	String	Show or hide automatic information messages from drive	NO	YES	YES	NO	NO
		"0" - Do not mute messages					
		"1" - Mute messages					

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
officehelperdi sabled	String	Whether to disable FileCloud for Office (FFO)/DocIQ	NO	YES	YES	NO	NO
		"0" - Do not disable FileCloud for Office (FFO)/DocIQ					
		"1" - Disable FileCloud for Office (FFO)/DocIQ					
showdashboa rdonstartup	String	Whether to show the dashboard on startup	NO	YES	YES	NO	NO
		"0" - Do not display dashboard on startup					
		"1" (default) Display dashboard on startup					
driveopenexpl oreronstartup	String	Automatically launch explorer on startup of drive	NO	YES	YES	NO	NO
		"0" - Do not start explorer on startup					
		"1" - Launch explorer on startup					
useuniquemo untlabel	String	When enabled, sets mount label to a unique value (by adding the user name to the label).	NO	YES	NO	NO	NO
		"0" - (default) Do not set mount label to unique value.					
		"1" - Set mount label to unique value (add user name to the label)					
allowthumbsd	String	Whether to upload of thumbs.db files.	NO	YES	NO	NO	NO
bupload		"0" - (default) Do not upload of thumbs.db files.					
		"1" = Upload thumbs.db files					

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
disableautolo gin	String	Whether to prevent Drive from remembering the password and automatically logging in. "0" - (default) Allow auto-login "1" - disable auto-login	NO	YES	YES	NO	NO
multimount	String	Allow multiple FileCloud Drive sessions to run on the same computer (and allow mounting of different cloud locations simultaneously. Note: When this is enabled, log-in information is not saved, and must be re-entered each time Drive is started. "0" - (default) Do not allow multiple instances to run.	NO	YES	NO	NO	NO
currentlangua ge	String	The default language of FileCloud Drive. The value is English by default. Supported values are English, Dutch, French, Spanish, Portuguese, German, Italian, Arabic, and Russian.	NO	YES	YES	NO	NO
language	String	The default language of FileCloud Sync. The value is English by default. Supported values are English, Dutch, French, Spanish, Portuguese, German, Italian, Arabic, and Russian.	YES	NO	NO	NO	NO
cachevalidati onseconds	String	Interval in seconds between checks for changes in values stored in cache. Default, recommended value is 60.	NO	YES	YES	NO	NO
autolocktypes	String	Lists file types that are exempt from download limits. Default types are: txt,rtf,doc,docx,xls,xlsx,ppt,pptx,indd	NO	YES	YES	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
disablerecove ring Str	String	By default, files are copied to the recovered folder before they are uploaded to Drive and deleted after upload succeeds. You may change the setting to copy the files to the recovered folder only after upload to Drive is attempted and fails.	NO	YES	YES	NO	NO
		"0" - (default) Files are copied to recovered folder before upload occurs.					
		"1" - Files are copied to recovered folder after upload is attempted if upload fails.					
disableprecac Str hing	String	By default, when Drive starts up, the file/folder directory is retrieved from the server so that it is immediately available to Drive users. You may change the setting so that the file/folder directory is retrieved when the user begins navigating the folders to reduce the load on the server after startup; in this case, initially navigating the folders may be slower.	NO	YES	YES	NO	NO
		"0" – (default) File/folder directory is retrieved when Drive starts up.					
		"1" - File/folder directory is retrieved when a user starts navigating the folders.					
lockexpiration inmin	String	Value, in minutes, that a lock on a file is maintained before it expires. Default and minimum is 10; if value is set below 10, expiration time still occurs in 10 minutes.	NO	YES	YES	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
disablelockex piration	String	Whether or not to enable expiring of locks. By default, locks on files expire after 10 minutes or the time set in lockexpirationinmin.	NO	YES	YES	NO	NO
		"0" - (default) Use expiration times set for file locks.					
		"1" - Do not use expiration times on locks. Locks expire on files when users close them.					
enablethumb nailpreview	String	Whether or not to display thumbnails and previews of listed files.	NO	NO	YES	NO	NO
		"0" - (default) Do not display thumbnails and previews (this reduces network traffic since files are downloaded when thumbnails and previews are generated)					
	"1" - Display thumbnails and previews.						
maxdownload sizeinmb	String	Default single file download limit in MB.	NO	YES	YES	NO	NO
		0 - No limit					
		Other options can be 10,30,50, 100					
allowcentralm	String	Allow central management	YES	NO	NO	NO	NO
gmt		0 - No Central Management					
		1- Allow Central Management					
globalbwforu pload	String	Specifies the bandwidth limit when uploading files from the client to the server in terms of KB only.	YES	NO	NO	NO	NO
globalbwford ownload	String	Specifies the bandwidth limit when downloading files from the server to the client in terms of KB only.	YES	NO	NO	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
altbwforuploa d	String	Specifies that alternative settings should be used instead of the global bandwidth limit when uploading files from the client to the server in terms of KB only.	YES	NO	NO	NO	NO
altbwfordown load	String	Specifies that alternative settings should be used instead of the global bandwidth limit when downloading files from the server to the client in terms of KB only.	YES	NO	NO	NO	NO
altbwfromtim e	String	Specifies the starting time when the alternative settings should be used instead of the global bandwidth limit.	YES	NO	NO	NO	NO
altbwtotime	String	Specifies the ending time when the alternative settings should be used instead of the global bandwidth limit.	YES	NO	NO	NO	NO
		Time must be expressed in the format HH:MM:SS					
altbwschedul e_dayofweek	String	Specifies the days of the week when the alternative settings should be used instead of the global bandwidth limit.	YES	NO	NO	NO	NO
		This value can be any number such as: {-1, 0, 1, 2, 3, 4, 5, 6} where:					
		-1 means every day0 means Sunday1 means Mondayand so on					

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
timeactivecon trolsset	Enables/ Disables the Active Sync Hours settings 1 = enabled 0 = disabled	<timeactivecontrolsset>1</timeactivecontrolsset>	YES	NO	NO	NO	NO
activesync_da ysofweek	Specifies the days of the week when a client can run the Sync app Any number {-1, 0, 1, 2, 3, 4, 5, 6} where: • -1 = Everyd ay • 0 = Sunda y • 1 = Monda y	<activesync_daysofweek>5</activesync_daysofweek>	YES	NO	NO	NO	NO

Parameter	Туре	Notes	Sync	Wind ows Drive	Mac Driv e	Office Add- On	Outl ook Add- On
activesync_ti meofday	Specifies the times during the days of the week when a client can run the Sync app	<activesync_timeofday>8:00:00-20:00 :00</activesync_timeofday>	YES	NO	NO	NO	NO
	Use the format HH:MM:SS- HH:MM:SS						

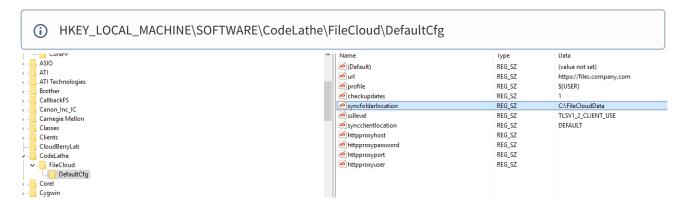
FAQs

In Windows, where is the default configuration located?

The location of the default configuration is in the Windows Registry.

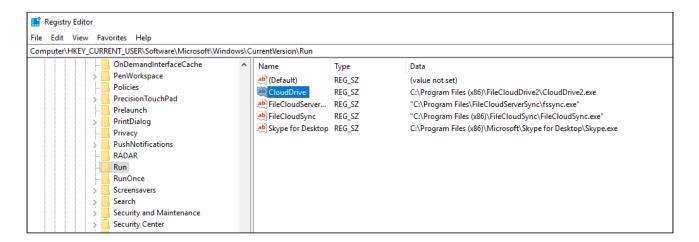
An example configuration is shown below.

Note: The registry key (*HKEY_LOCAL_MACHINE\SOFTWARE\CodeLathe\FileCloud\DefaultCfg*) must be created manually, including the default values.



How to setup Run on Windows Startup for MSI installation for Drive?

HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Run



In Mac OSX, where is the default configuration located?

The location of the default configuration is a plist file in

~/Library/Preferences/com.codelathe.filecloud.defaultcfg.plist

Example plist

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/
PropertyList-1.0.dtd">
<pli><pli>t version="1.0">
<dict>
 <key>url</key>
 <string>https://mysite.company.com</string>
 <key>profile</key>
 <string>jsmith</string>
 <key>maxdownloadsizeinmb</key>
 <string>0</string>
 <key>drivelockonupdate</key>
 <string>1</string>
 <key>drivemutemessages</key>
 <string>1</string>
 <key>driveopenexploreronstartup</key>
 <string>1</string>
 <key>driveloginmode</key>
 <string>1</string>
 <key>checkupdates</key>
 <string>0</string>
</dict>
</plist>
```

Search in the Admin Portal

FileCloud's Federated Search

In the Admin Portal, FileCloud includes a federated search that looks for matches in file names, folder names, file content, and metadata. It is also capable of searching for complex strings using regular expressions.

(i) The ability to search the entire FileCloud system for files and folders is available in FileCloud Server version

The PCRE search is available in FileCloud Version 21.1 and higher.

As an administrator, you may need to find a file or folder quickly in a large data set.

- FileCloud supports searching the entire FileCloud system for files and folders with the Federated Search feature.
- The search may be a basic file or folder name search.
- Search results may contain matches from both managed storage and network folders.
- Search results can be downloaded, and if applicable, previewed.
- Search results cannot be copied, moved or deleted.

Note: For full content search or PII search, configure content search for documents.

Basic Search

A basic search searches for the search term in file and folder names, and if content search is enabled, in the content of files.

The following procedure assumes that you have enabled full content search for documents.

To perform a basic search on the entire site:

- 1. From the left navigation panel of the Admin Portal, under Misc., click Federated Search.
- 2. On the search screen, in the search box, type the search term and press enter. Files and folders with the search term in their names as well as files containing text that contains the search

FILECLOUD å admin → User Shares Search Results Location : All 1 of 2 ▶ Q user Folder Permissions search term "user" in filename Notifications arch completed 18 hours ago. Found 11 results. 🔾 Search Again 🕹 Download Results Devices FCInactiveUsers.png GOVERNANCE UsersOne.txt m Dashboard AA-Sharing Flows.pptx Retention ■ Smart DLP Share Add User Smart Classification Search search term "user" in contents MISC. Alerts 4 users.csv User Info.txt Reports Q Federated Search Metadata 123-45-6789 SETTINGS Settings

term are listed as search results. Text in files containing the search terms is shown.

Advanced Searches

An advanced search lets you search on the search term and any of the options shown and listed below:

Advanced search box

Search options

Term - (required) The string to search for.

Scope - Which content to search.

All - File and folder names if content search is not enabled. File and folder names and content in files when content search is enabled. See **All search**, below.

Name Only - File and folder names only. See Name only search, below.

Content Only - Content in files only. See **Content only search**, below.

Metadata - Content stored in metadata fields only. You must define conditions to search for instead of entering a search term. See **Metadata search**, below.

PII - Personally identifiable information in content only. You must select a PII type instead of entering a search term. See **PII** and **PCRE searches**, below.

PCRE - Only appears when the **PCRE mode** setting is enabled. Searches on regular expressions. See **PII and PCRE searches**, below.

Search Type - Options are **All files/folders**, **Files Only**, and **Folders Only**. Not applicable for Metadata search.

Path Selection - Either **All** or **Selected**. If **Selected** is chosen, **Selected Path** is enabled for you to enter a path.

Selected Path - When **Selected** is chosen for **Path Selection**, this is enabled. Enter the path to search on.

Date - Range of Last Modified dates to search on.

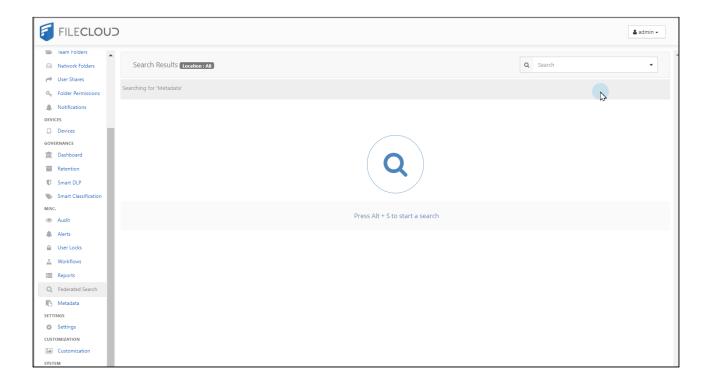
Results Count - Number of results to return. Choose **Limit 50** or **All**. Use **Limit 50** to reduce lengthy search times.

Use Cache Results - When checked, this returns any saved results of the same search instead of performing the search again. This gives you faster results but does not take into account changes since the previous search.

All search

All search

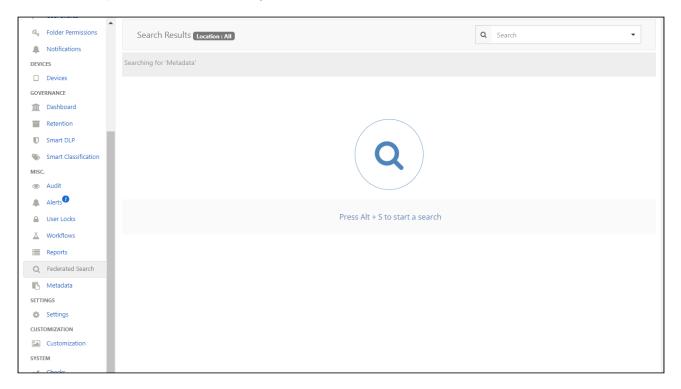
All is selected by default. This search looks for matches in file and folder names when content search is not enabled. It looks for matches in file and folder names and in the content of files when content search is enabled.



Name only search

Name Only search

When Name Only is selected, the search only looks for matches in file and/or folder names.

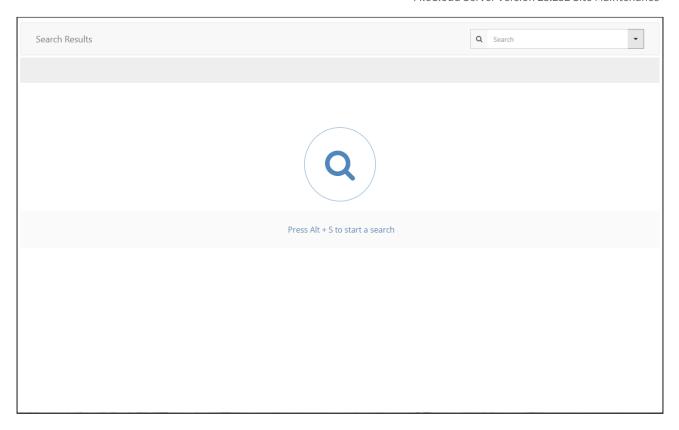


Content only search

Content Only search

When **Content Only** is selected, the search only looks for matches in the text of files. To perform a content search, your system must have full content search enabled.

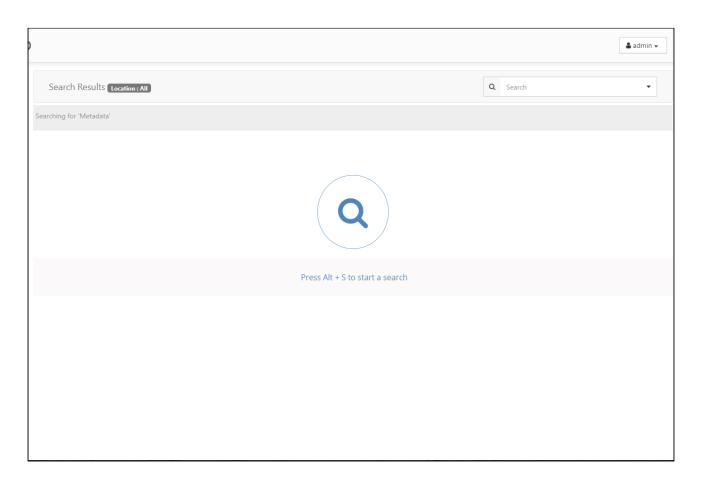
Content search hits are returned with the matching string highlighted except in the case of lengthy search results, where omitting highlighting achieves quicker response time.



Metadata search

Metadata search

To perform a metadata search, select **Metadata** and define a condition specifying the metadata field value that you are searching for. In the example below, the search is configured to look for content with the image orientation field set to horizontal.



PII and PCRE Searches

PII and PCRE searches

The PII search and the PCRE search both search for regex patterns, but each has its own advantages.

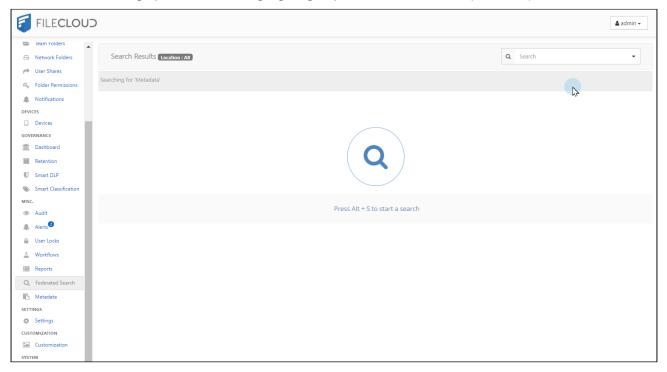
- **PII search** The PII search is faster and more efficient than the PCRE search, and it displays the content it matches; however, it cannot match text that includes spaces or special characters. Therefore, you must use a PCRE search to find defined PII patterns that include spaces or special characters (such as US social security numbers with dashes).
- **PCRE search** The PCRE search is much more powerful than the PII search and can match patterns with spaces and special characters. However it is slower and less efficient, and it displays the file names of matches but it does not display the matched text. When you perform a PCRE search you must enter the entire pattern into the search field; you cannot choose it from a list of predefined patterns.

PII search

The PII search searches for patterns that are set up in the Manage PII Search box in your **Settings > Content Search** tab (but cannot match PII patterns with spaces or special characters in them).

It is simpler than PCRE search and highlights content it matches. It also supports management and groupings of PII patterns which is convenient when needing to re-use a particular regex often.

Note: In the case of lengthy search results, highlighting may be omitted to achieve quicker response time.



PCRE search

The PCRE search is a content search that uses the regex engine of Perl Compatible Regular Expressions (PCRE). It is meant to be used by regex experts, search power users, and users who want to cross check patterns used in Smart Classification (CCE).

The PCRE search enables you to search directly on patterns typically used in CCE, for example, Amex CC numbers with the following patterns:

- 3[47]{1}[0-9]{13}
- 3[47]{1}[0-9]{2}-[0-9]{6}-[0-9]{5}
- 3[47]{1}[0-9]{2} [0-9]{4} [0-9]{4} [0-9]{3}

The **PCRE** search option only appears when you enable PCRE mode in your system configuration.

To enable PCRE mode:

Note: Enabling PCRE mode has a performance impact on searches.

- 1. Open cloudconfig.php.
 - Windows Location : C:\xampp\htdocs\config\cloudconfig.php
 - Linux Location:/var/www/html/config/cloudconfig.php

2. Add the following:

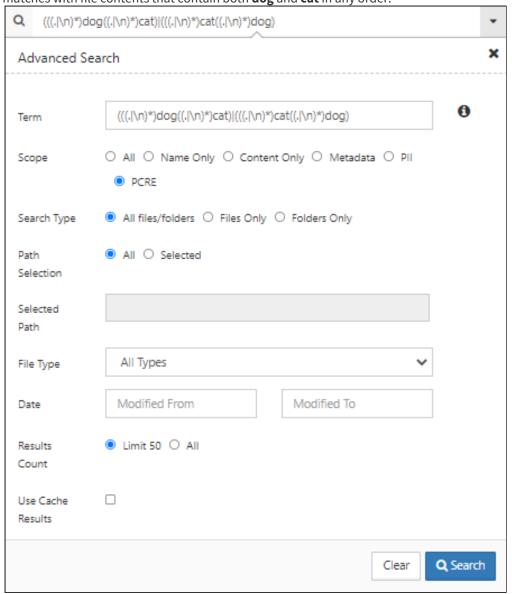
```
define("TONIDOCLOUD_PII_PATTERN_SEARCH_PCRE_MODE_ENABLED",1)
```

- 3. Save your edits.
- 4. Re-index your content; otherwise, existing files are not searchable by PCRE.

After PCRE search is enabled, newly uploaded files are automatically searchable by PCRE.

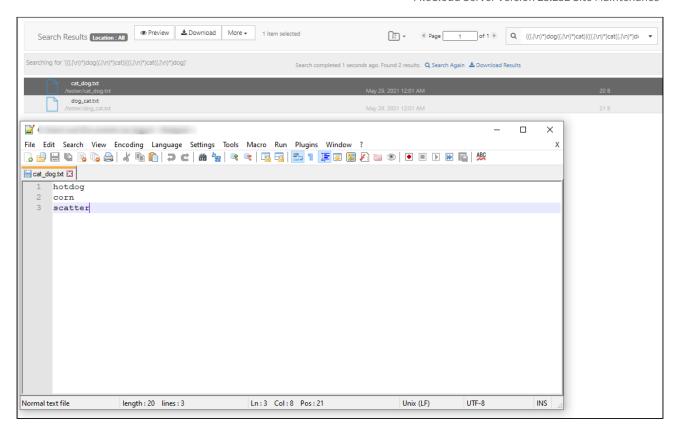
Complex searching with PCRE mode

The PCRE search is capable of using complex patterns to match strings. In the following example, the PCRE term matches with file contents that contain both **dog** and **cat** in any order.



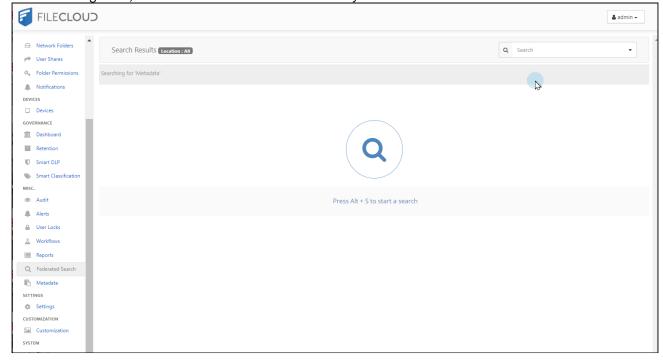
The following files are returned. The first is opened to show the matching content.

Search in the Admin Portal 217



Performing a PCRE Search

In the following video, the PCRE search looks for social security numbers.



Search in the Admin Portal 218

FileCloud Server Version 23.232 Site Maintenance

Search in the Admin Portal

Audit Logs



FileCloud has extensive auditing support and every operation is logged.

As an administrator, you can use audit logs to quickly see what has changed on your FileCloud site, such as:

- Were any new accounts created recently
- · How many clients are logged in
- What are users commonly searching for on the site
- · How many files are being uploaded and downloaded

Since every operation is logged, the audit database entries can grow very large very quickly.

To manage log file growth, you can:

- · Remove log entries using the Admin dashboard
- · Limit what operations are logged
- Export log files to CSV as an archive

Note: You can configure your system to prevent administrators from deleting audit log entries. See Delete Audit Log Entries below.

It is important to keep in mind that removing log entries from the Admin dashboard does removes them from the database. However, MongoDB does not release the space but keeps it for new entries to be added in the future. If you need to reclaim the space, you should compact the database.

What do you want to do?



View Audit Logs

Filter Audit Log Views

View Logs

Delete Audit Log Entries

Configure What is Logged

Export Audit Logs

Manage Logs

Compact the Audit Database

View Audit Logs

As an administrator, you can read log files as an important part of maintaining proper operation and ensuring system security of your FileCloud site.

- Log files can be extremely useful in troubleshooting issues
- Only an Administrator can read FileCloud log files

Devices Audit Logs GOVERNANCE Filter-optionsm Dashboard Search Term 2020-04-01 2020-04-15 Retention v 0 7 O Operation Filter: Dowr User Agent : Drive Show 10 Items Filter ■ Smart DLP - Export the log Manage Smart Classification Rerun with current filter options -**Refresh** MISC. Message Created On User name Agent Audit jenniferp downloaded file /jenniferp/New-Commu Alerts 4 jenniferp FileCloud Drive 2020-Apr-14 06:12 PM 127.0.0.1 nity-Edition-Boxes.docx jenniferp downloaded file /jenniferp/External/Lore jenniferp 127.0.0.1 FileCloud Drive 2020-Apr-14 06:12 PM m lpsum.docx jenniferp downloaded file /jenniferp/PGT Order F Workflows jenniferp 127.0.0.1 FileCloud Drive 2020-Apr-14 06:12 PM orm.doc jenniferp downloaded file /jenniferp/IconEmailLin 127.0.0.1 jenniferp FileCloud Drive 2020-Apr-14 01:37 PM k.jpg Q Federated Search jenniferp downloaded file /jenniferp/DriveSSOLog jenniferp FileCloud Drive 2020-Apr-14 01:37 PM 127.0.0.1 in.jpg

To view the audit log, in the navigation panel, click Audit.

Metadata

At the top of the Audit Log screen are fields that enable you to filter log results. Below them, a **Manage** button opens a dialog box for exporting the log to a csv file and downloading it. A **Refresh** button regenerates the log with the current filter settings.

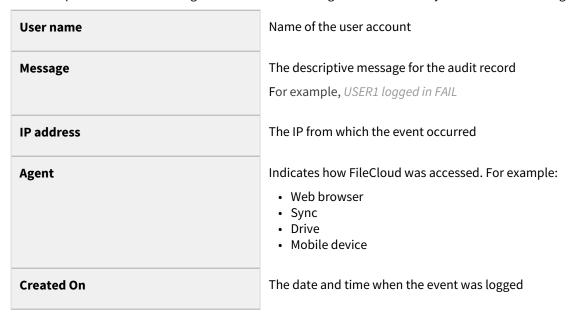
127.0.0.1

FileCloud Drive

2020-Apr-14 01:37 PM

The main portion of the Audit Log screen lists the audit log entries. Each entry includes the following information:

jenniferp downloaded file /jenniferp/Thumbs.db



Filter Audit Log Views

(i)

The ability to filter the Audit Log list for Metadata and User Agent operations is available in FileCloud version 18.2 and later.

Since every operation is logged and displayed in the Audit screen, the display will show a lot of information and there may be times when you only want to see a specific event.

For example, if you want to see if a specific user was able to login but hundreds of operations are occurring on the server, finding your user may be difficult.

Therefore, you can search or filter your views to find the information you need.

The audit log can also be sorted, trimmed, or filtered after exporting it to a CSV file. Exporting the audit log can also reduce the size taken up in the database.



Filtering your view of log entries does not trim or decrease the size of your log database. If your log database is growing too large, you can:

- Export Audit Logs
- Configure What is Logged
- Delete Audit Log Entries
- Compact the Audit Database

How do you want to filter the Audit log?

Searching



To filter the audit log by searching:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Audit.
- 3. In the Search box, type in your key words.

Specify Start and End Dates



To filter the audit log by date:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Audit.
- 3. In the Filter Start Date box, select a date or type in a date in the following format: YYYY-MM-DD.
- 4. In the Filter End Date box, select a date or type in a date in the following format: YYYY-MM-DD.

Select an Operation

The Audit log can be filtered by the following operations or actions that occur on the FileCloud server:

Operation	Description	
all	Displays all operations logged by FileCloud Server	
common	Displays 6 of the most commonly logged operations: create new account login create file or folder upload file download file or folder share file or folder This is the default filter if no other is selected.	
Deleted	Displays logs created when a file or folder was moved to the recycle bin on the FileCloud Server site	
Uploaded	Displays logs created when a file or folder was uploaded to the FileCloud Server site	
Downloaded	Displays logs created when a file or folder was downloaded from the FileCloud Server site	
Metadata	Displays logs created when a file or folder's metadata was added, edited or removed	
Files	Displays logs created when a change is made to all the files on the FileCloud Server site	
Retention	Displays logs of retention policy actions.	
DLP	Displays logs for failed DLP rules.	
Moved	Displays logs created when a file or folder was moved to another location in FileCloud.	



To filter the audit log by operation:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click *Audit*.
- 3. In Operation Filter, select the action or group of actions for which you want to view the log entries.

Select an Agent

An agent is any client or device that connects or communicates with FileCloud Server.

You can select from the following user agents:

- · Web browser
- Sync
- Drive
- Outlook
- Office
- iOS
- Android
- Workflow
- Mqworker
- · FileCloud Desktop



To filter the audit log by Agent:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Audit.
- 3. In User Agent, select which client or device for which you want to see log entries.

Compact the Audit Database

Although deleting entries from the audit logs on the Audit screen removes the entries from the database, MongoDB doesn't free up that space.

• MongoDB retains the space to use for new entries that will be added in the future.

If for some reason, you need to reclaim the space, you can compact or repair the database.

To compact a MongoDB database:

1. Open MongoDB client command interface, which is typically located in:



2. Run the following command in the MongoDB client.

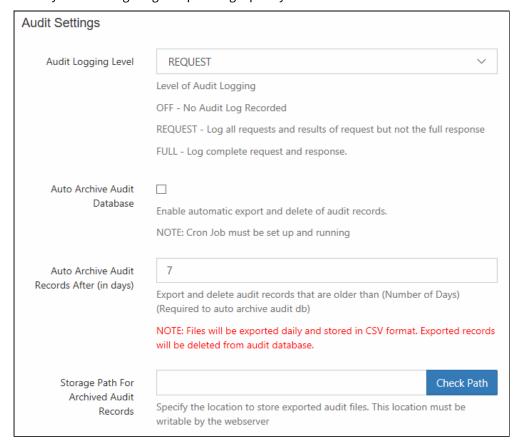
```
> use tonidoauditdb;
> db.runCommand({ compact: 'audit' });
> show dbs;
> exit;
```

Now the unused space is available on your server.

Configure What is Logged

There might be some operations that you do not want logged in your Audit logs.

• For example, if a specific WebDAV client sends in hundreds of information requests or login requests it can cause your Audit logs to grow quite large quickly.



To configure what is logged, you can:

Set a logging level

You can choose to set logging to one of the following levels:

· OFF - Nothing will be recorded in the Audit log files

- REQUEST This limits the logging to requests from agents or clients and the results of a request. The full response to the agent or client is not recorded.
- FULL This records entries for all requests from agents or clients, the full response, and the and the results of the request.

To set a log level:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation pane, click Settings.
- 3. On the Admin tab, scroll down to the bottom of the page.
- 4. Under Audit Settings, in Audit Logging Level, select OFF, REQUEST, or FULL.

Specify which operations and from which agents don't get logged

To configure what information is logged:

1. On the FileCloud Server, navigate to the following folder:

WWWR00T\config

2. Open the following file for editing:

cloudconfig.php

3. Add the following lines:

Configuration Lines to add	Notes	Example	
define("TONIDOCLOUD_A UDIT_IGNORE_OPS", "");	When specified, does not add audit logs for specific FileCloud requests. You can specify multiple requests by using a ' ' symbol as a delimiter. For example, if you add "deletefile	define("TONIDOCLOUD_AUDIT_IG NORE_OPS", "deletefile loginguest createfolder");	
	loginguest", both these operations would not be added to the audit log.		
<pre>define("TONIDOCLOUD_A UDIT_IGNORE_AGENT", "");</pre>	When specified, does not add audit logs for any requests coming in from specified FileCloud clients. You can specify multiple clients by using a ' ' symbol as a delimiter.	define("TONIDOCLOUD_AUDIT_IG NORE_AGENT", "Cloud Sync Mozilla/5.0 (Windows NT 6.3; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0 FileCloudDrive");	

1 If both defines are specified, then only requests that match both conditions are excluded from the Audit Log.

For example:

define("TONIDOCLOUD_AUDIT_IGNORE_OPS", "deletefile|loginguest|createfolder");
define("TONIDOCLOUD_AUDIT_IGNORE_AGENT", "Cloud Sync");

The above configuration will skip adding audit logs when the Cloud Sync client requests to:

- · Delete File
- · Login Guest
- · Create Folder

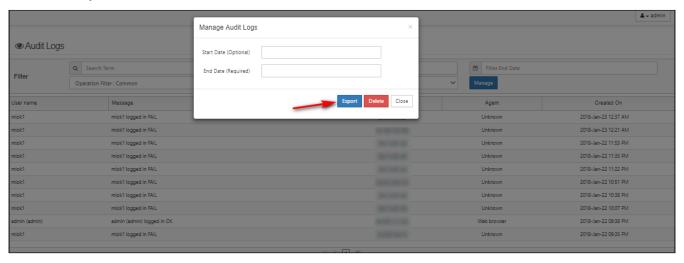
A Remember that the information in audit logs can be extremely important for troubleshooting. Be careful not to exclude too much information from your log files.

Export Audit Logs

You can export FileCloud Server audit logs as CSV files.

To export the audit logs:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Audit.
- 3. To open the Manage Audit Logs window, click Manage.
- 4. In Start and End date, select a date or type in a date in following format, YYYY-MM-DD.
- 5. Click Export.



Delete Audit Log Entries

(i) The ability to configure an automatic archival and deletion of audit records in the database is available in FileCloud Server version 11.0 and later.



(i) Admin Audit Log Deletion

Beginning with version 19.3, admins can now prohibit other admins from deleting audit logs.

If you need to you can remove entries from the log file manually or configure an automatic archival and deletion of log entries.



It is important to keep in mind that removing log entries from the Admin dashboard also removes them from the database. However, MongoDB does not release the space but keeps it for new entries to be added in the future.

Some reports, such as reports on file actions and failed logins, get their data from the audit log. These reports only include events that are in the audit logs when you run the report. See Custom Reports for information about specific reports



f you need to reclaim the space, you should compact the database.

How do you want to remove Audit log entries?



Manually Trim the Audit Database

Manually delete entries

To manually remove audit log entries:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Audit.
- 3. On the Audit Logs window, click Manage.



- 4. In Start Date, select a date or type in a date in the following format: YYYY-MM-DD. If you do not specify a start date, the deletion will occur for the very first log entry until specified End Date.
- 5. In End Date, select a date or type in a date in the following format: YYYY-MM-DD.
- 6. Click Delete.
- 7. On the Confirm dialog box, click OK.p

Enable automatic archival and removal

To ensure that audit database does not grow too large for its allotted disk space, audit records should be archived and removed regularly.

⚠ Before you enable Automatic Archiving, you must ensure that Cron job or Task Scheduler is installed and running.

When you are deciding whether or not to automatically archive and remove audit records (or how often to archive and remove them), please note that some reports use the audit log and can only show events if they are still contained in the audit log.

As part of the daily cron job (scheduled task), you can configure FileCloud to export records to a .csv file and delete those records from the audit database.

This is configured in the Settings screen on the Admin tab.

To auto archive audit log entries:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation panel, click Settings.
- 3. Click the Admin tab.
- 4. Scroll down to Audit Settings.
- 5. Fill in all of the settings as indicated in the following table:

Setting	Description
Audit Logging Level	 Options are OFF - No Audit Log Recorded. REQUEST - Log all requests and results of request but not the full response. FULL - Log complete request and response.
Auto Archive Audit Database	Check the check box to enable auto archive. NOTE: Cron Job must be set up and running.
Auto Archive Audit Records after (in days)	Number of days to store the audit records in the database. After the number of days specified, audit records are exported to csv and deleted from the audit database
Storage Path for Archived Audit Records	Folder path to store the exported audit records in CSV format. For example, C:\archives

(i) If you want to automatically remove records but not archive them, you can configure FileCloud to remove audit records but not export them to a csv file.

To auto remove records without exporting them:

1. Open cloudconfig.php: Windows Location: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux Location: /var/www/config/cloudconfig.php

2. Add the following: Define("TONIDOCLOUD_AUDIT_AUTO_ARCHIVE_OMIT_BACKUP", true);

Disable manual deletion

To disable manual deletion by administrators.:

1. Open cloudconfig.php:

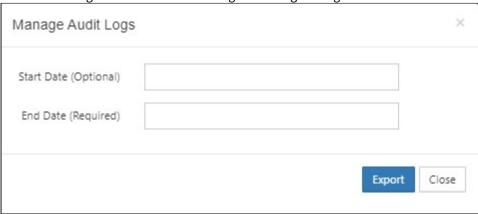
Windows Location: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux Location: /var/www/config/cloudconfig.php

2. Add the line:

define("TONIDOCLOUD_DISALLOW_ADMIN_AUDIT_DELETE", true);

3. Save and close cloudconfig.php.

Now, in the *Admin Portal* when you click *Audit* in the navigation pane, and then click *Manage*, the Delete button is no longer available on the Manage Audit Logs dialog box.



Manually Trim the Audit Database

Removing older data by archiving it in a CSV file can help reduce the size of your audit database as well as improve the performance of audit logging and the system where the audit logs are stored.

Trimming the audit database for FileCloud uses the following procedure:

1. Log In to the MongoDB Shell

You will need to log in to the MongoDB database to trim it. Use the following information when logging on.

Table 1. MongoDB Log In Options

Option	Description	Example Palways replace the sample values in the examples with the values used in your deployment.
port <port></port>	Specifies the port where the mongod or mongos instance is listening. Ifport is not specified, mongo attempts to connect to port 27017.	port 27017
username <username>, -u <username></username></username>	Specifies a username with which to authenticate to a MongoDB database that uses authentication. Use in conjunction with the password and authenticationDatabase options.	-u "myUserAdmin"
password <password>, -p <password></password></password>	Specifies a password with which to authenticate to a MongoDB database that uses authentication. Use in conjunction with the username and authenticationDatabase options. To force mongo to prompt for a password, enter thepassword option as the last option and leave out the argument.	-p "abc123"
authenticationDatabase <dbname></dbname>	Specifies the database in which the user is created. See Authentication Database. If you do not specify a value for — authenticationDatabase, mongo uses the database specified in the connection string.	authenticationDatabase "admin"

To log in to the mongo shell, use the following command: (replace the settings in this example with settings used in your deployment)

```
mongosh --port 27017 -u "myUserAdmin" -p "abc123" --authenticationDatabase "admin"
```

2. Export the Mongo database collection that contains the audit entries.

You can use mongoexport to produce a JSON or CSV export of data stored in a MongoDB instance.

Table 1. MongoExport Options

Option	Description	Example	
db <database>, -d <database></database></database>	Specifies the name of the database on which to run the mongoexport .	db tonidoauditdb	
collection <collection>, -c <collection></collection></collection>	Specifies the collection to export.	collection audit	
type <string></string>	Default: json	type=csv	
	New in version 3.0.		
	Specifies the file type to export. Specify csv for CSV format or j son for JSON format.		
	If you specify csv, then you must also use either thefields or thefieldFile option to declare the fields to export from the collection.		
<pre>fields <field1[,field2]>, -f</field1[,field2]></pre>	Specifies a field or fields to <i>include</i> in the export. Use a comma separated list of fields to specify multiple fields.	fields createdon,username,how,ip,u seragent,operation,request,	
<field1[,field2]></field1[,field2]>	If any of your field names include white space, use quotation marks to enclose the field list.	deviceinfo	
	For example, to export two fields, phone and user number, you would specify fields "phone, user number".		
	For csv output formats, mongoexport includes only the specified field(s), and the specified field(s) can be a field within a sub-document.		
out <file>, -o <file></file></file>	The output directory where you need to export data as a csv.	out c:\xampp\test.csv	
	You must change this location to match the directory in your deployment.		

Export considerations:

- You must run mongoexport against a running mongod or mongos instance as appropriate.
- Avoid using mongoimport and mongoexport for full instance production backups. These utilities do not reliably preserve all rich BSON data types, because JSON can only represent a subset of the types supported

by BSON. Use mongodump and mongorestore as described in MongoDB Backup Methods for this kind of functionality.



To read more about this utility, read the MongoDB documentation for MongoExport.

To export the Audit database:

- 1. Ensure that MongoDB is running before attempting to start the mongo shell.
- 2. Log into the primary database as the admin user through mongo shell.
- 3. Run the following command:

```
mongoexport.exe --db tonidoauditdb --collection audit --type=csv --fields
createdon,username,how,ip,useragent,operation,request,deviceinfo --out c:
\xampp\test.csv
```

3. Verify the CSV contains valid information.

It is important to check that the data has been successfully exported before removing it from the MongoDB database.

To verify the exported data:

- 1. Navigate to the output directory where you saved the csv file. For example: c:\xampp\test.csv
- 2. Open the csv file in Excel or another editor.
- 3. Verify the data looks correct.

4. Remove the exported audit data from the Mongo database.

After you have exported the data to a csy file, you can now drop the collections in the auditdb database.

The drop command removes a collection or view from the database.



• The drop method also removes any indexes associated with the dropped collection.

- The method provides a wrapper around the drop command.
- This method obtains a write lock on the affected database and will block other operations until it has completed.
- The db.collection.drop() method and drop command create an invalidate Event for any Change Streams opened on dropped collection.
- Starting in MongoDB 4.0.2, dropping a collection deletes its associated zone/tag ranges.

To drop the exported data from auditdb:

- 1. Ensure that MongoDB is running before attempting to start the mongo shell.
- 2. Log in to the mongo shell
- 3. To print a list of all databases on the server, run the following command:

show dbs;

4. To switch to the database provided as a parameter, run the following command:

use tonidoauditdb

5. To list all the databases available for use on the connected MongoDB instance, run the following command:

show collections

6. To remove an entire collection from a database, use the following command:

db.audit.drop()

7. You will see one of the following responses:

Returns:

true when successfully drops a collection. false when collection to drop does not exist.

8. To list all the databases available for use on the connected MongoDB instance, run the following command:

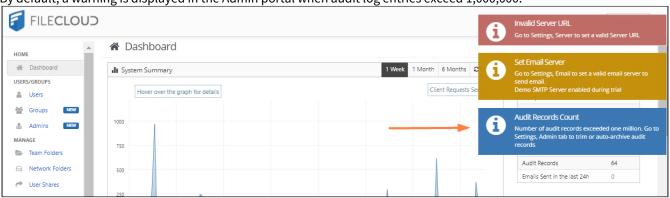
show collections

You should see responses similar to the following example:



Change the Audit Log Warning Limit

By default, a warning is displayed in the Admin portal when audit log entries exceed 1,000,000:



You may customize the number of entries that triggers the warning.

To change the number of audit log entries that triggers a warning:

 Open cloudconfig.php: Windows Location: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux Location: /var/www/config/cloudconfig.php

2. Add the following:

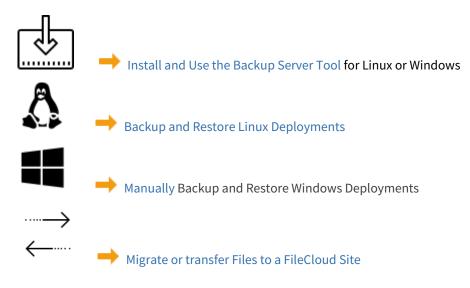
define("TONIDOCLOUD_AUDIT_ENTRIES_WARNING_THRESHOLD,1000000)

3. Replace 1000000 with the number of entries that will trigger the warning. Any number is valid.

Backing Up and Restoring FileCloud Server

FileCloud Server provides many ways to back up data. Having a copy of the database and the FileCloud Server site allows you to restore the site if you encounter a catastrophic failure.

What do you want to do?



The FileCloud Server Backup Tool

FileCloud Server Backup and Restore option is available for administrators in version 11.0 and later.

You can use FileCloud Backup Server to create a copy of an entire server installation.

The backup includes:

- files
- folders
- users
- groups
- shares
- audit logs
- FileCloud Backup Server Features
- FileCloud Backup Server Installation

- FileCloud Backup Server Configuration
- Backup Server Configuration Using RSync
- FileCloud Backup Server Operations
- FileCloud Backup Server Troubleshooting

FileCloud Backup Server Features



Warning

FileCloud backup server is still a beta feature. Please test the capabilities and features before using in a production environment.

Introduction

FileCloud backup server feature is available with FileCloud server version starting from v11.0.

Features

FileCloud backup server is same as any FileCloud server except it will only backup other FileCloud installations. Following are some of the features of FileCloud backup server.

- Backup server can be installed on Windows or Linux. It is supported in the distros on which FileCloud server is supported.
- Backup server supports backing up of multiple sites.
- Backup server supports backing up of multiple FileCloud servers.
- Backups can be started immediately or scheduled for later.
- Backups can be started from command line.
- Backup schedules can be repeated daily, weekly or monthly.
- Backup server uses security key to connect to FileCloud servers for backup.
- By default, the backup server URL is not enabled. To enable the backup server URL see Enabling the Backup Server URL.

Limitations

Current version of FileCloud backup server has some limitations:

- Backup server cannot backup files if the backend storage is S3.
- Backup server cannot backup or restore files if the storage is encrypted.
- When the backup server uses the HTTP protocol for downloads, it will not scale for larger installations. We recommend using the Rsync method for larger installations.
- Backup server might affect performance if backup is performed during peak production time.

FileCloud Backup Server Installation

Introduction

Follow these steps to install FileCloud backup server.

A

Note

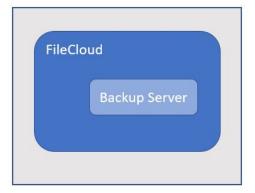
- The FileCloud backup server has to be installed on a new server. Installing the backup server on the production server is not supported by the backup solution. Please refer to Figure 1 for the recommended setup.
- The FileCloud backup server is added to a fresh FileCloud installation without the need for a FileCloud user license. For this installation, the administrator has to first install FileCloud on the new server and then add backup server capability to it.
- The target/production FileCloud server must be running same FileCloud version as the FileCloud backup server.

Figure 1: Backup Server Setup

FileCloud Production Server



FileCloud Backup Server



Step 1: Install FileCloud Server

Install latest FileCloud on the backup server. Note that this FileCloud installation is different from the production FileCloud installation. Backup server is same as any FileCloud server except it will only backup other FileCloud installations. The installation of FileCloud backup server starts with installing a FileCloud server using the OS specific installation packages, available in your trial portal. Please find the installation instructions here.

Step 2: Install Backup Server

In FileCloud version 19.1 and later, Backupserver is bundled as part of the main installer. If you are installing 19.1 or later, there is no need for a separate download.

By default, the backup server URL is disabled. You must add a setting to both the backup server config file and the production server config file to enable it and access it as a site.

To enable the backup server URL:

- 1. In your production server's FileCloud directory, open cloudconfig.php: Windows Location: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux Location: /var/www/config/cloudconfig.php
- 2. Add the following:

define("TONIDOCLOUD_ENABLE_BACKUPSERVER_APP", true);

3. Repeat steps 1 and 2 in your backup server's FileCloud directory.

I am installing a version earlier than 19.1 (18.2 and earlier)

Now that the base FileCloud server is installed, download the backup server installation package(backupserver.zip) from here. Assume the file is downloaded to a temporary location as follows:

os	Temporary Location	
Linux	/tmp/backupserver.zip	
Win	C:\temp\backupserver.zip	

Now to install backup server, unzip the contents of backup server zip onto the WWWROOT folder of FileCloud server.

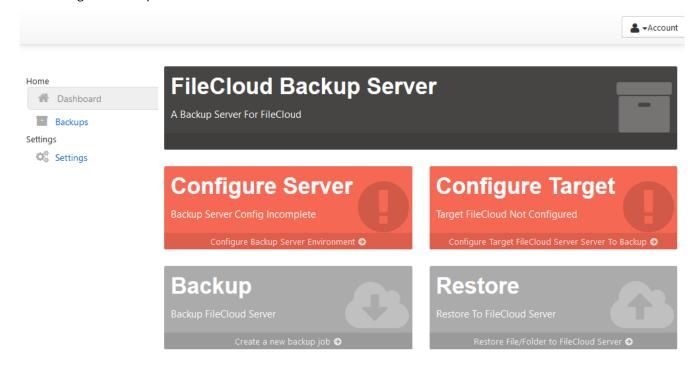
os	Unzip command	Remarks
Linux	\$ sudo cd /var/www/app \$ sudo su - www-data -s /bin/bash -c "unzip / tmp/backupserver.zip"	If your WWWROOT is a different folder, adjust the command accordingly.
Win	Place the contents of backupserver.zip onto C:\xampp\htdocs\app	If your xampp WWWROOT is a different folder, adjust the command accordingly.

Step 3: Access Backup Server UI

Once the above steps are completed, access the backup server web UI by using the following information:

Parameter	Value	Remarks
URL	http:// <server_ip>/ui/backupserver/index.html</server_ip>	
User name	admin	
Password	Default value is 'password'	The default password can be changed by visiting the admin server (http:// <server_ip>/ui/admin/index.html).</server_ip>

An unconfigured backup server UI will look like this:



FileCloud Backup Server Configuration

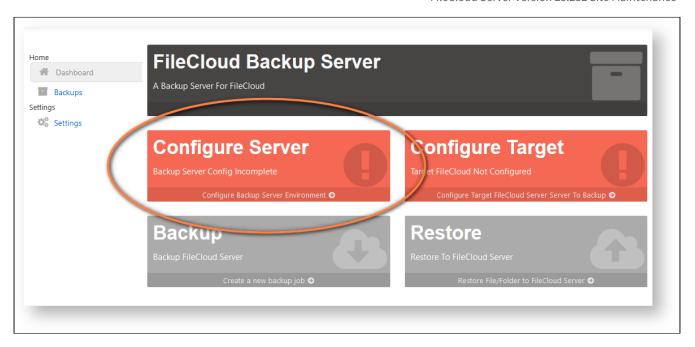
Introduction

A new FileCloud installation needs to be configured before it can be used for backup purposes.

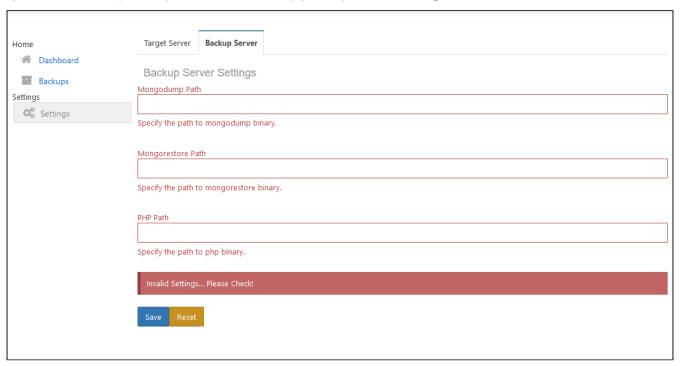
Step 1: Configuring Backup Server

This step is necessary to configure some basic parameters necessary for backup server. To configure the backup server, open the backup server UI and click on Settings -> "Backup Server" tab.

The backup server settings can also be opened by clicking on the "Configure Server" button on the dashboard.



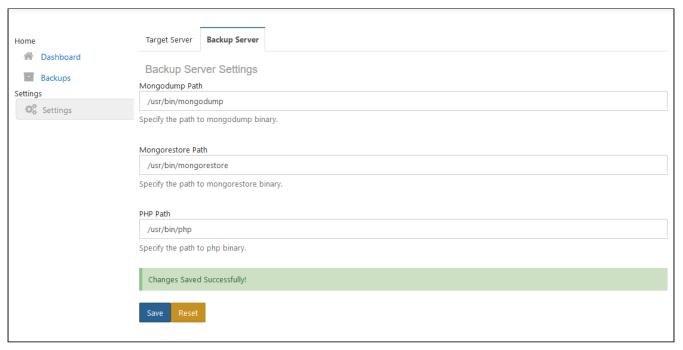
By default the backup server parameters will be empty and update them using the table below.



Parameter Label	Value	Remarks
Mongodump Path	Linux: /usr/bin/mongodump Win: C: \xampp\mongodb\bin\mongodump.exe	Path to the mongodump command.

Parameter Label	Value	Remarks
Mongorestore Path	Linux: /usr/bin/mongorestore Win: C: \xampp\mongodb\bin\mongorestore.exe	Path to the mongorestore command.
PHP Path	Linux: /usr/bin/php Win: C:\xampp\php\php.exe	Path to the php executable.

A properly configured backup server settings should like this:



Step 2: Preparing Target FileCloud Server

Before a FileCloud server can be added to the backup server as a backup target, it needs to be prepared with a access key. This access key serves as a security mechanism, allowing only backup requests made along with this key.

To enable this access key, follow these steps:

- 1. Open the folder WWWROOT/config/ on the target FileCloud server.
- 2. Copy the file backupagentconfig-sample.php as backupagentconfig.php
- 3. Edit the backupagentconfig.php file and set a backup security key.

```
<?php
/* Configuration values for FileCloud */

// ... Server URL
define("BACKUPAGENT_ACCESS_KEY", "test908acc" );
?>
```

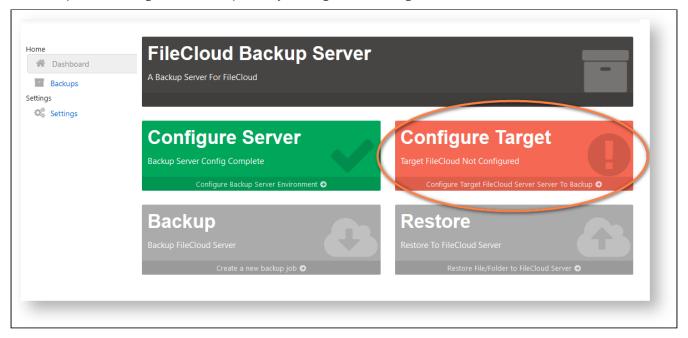
4. **Optional:** If your installation is not the default location, then you can specify the installation paths using the following keys in backupagentconfig.php

```
define("BACKUPAGENT_DBDATA_PATH", "D:\\xampp\\mongodb\\bin\\data");
define("BACKUPSERVER_MONGODUMP_PATH", "D:\\xampp\\mongodb\\bin\
\mongodump.exe");
```

Step 3: Adding Target FileCloud Server

After setting the access key, the prepped FileCloud server can be added as a backup target. To add a new FileCloud server target, open the backup server UI and click on Settings -> "Target Server" tab.

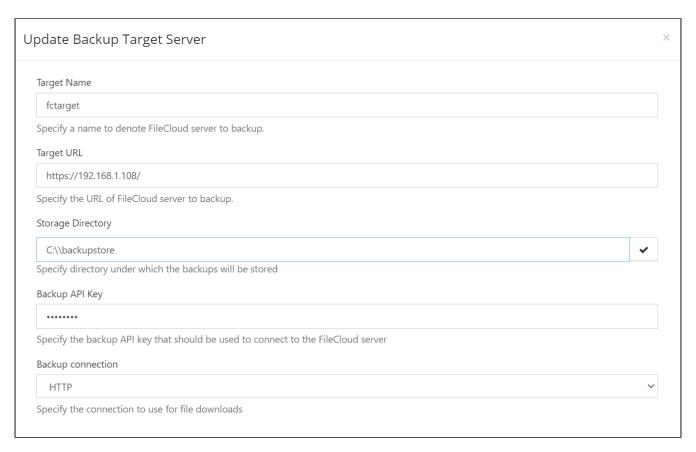
The backup server settings can also be opened by clicking on the "Configure Button" button on the dashboard.



This will navigate to 'Settings' tab. Click on the 'Add' button, to add a new target site.



Clicking 'Add' button will bring up the backup target server dialog.

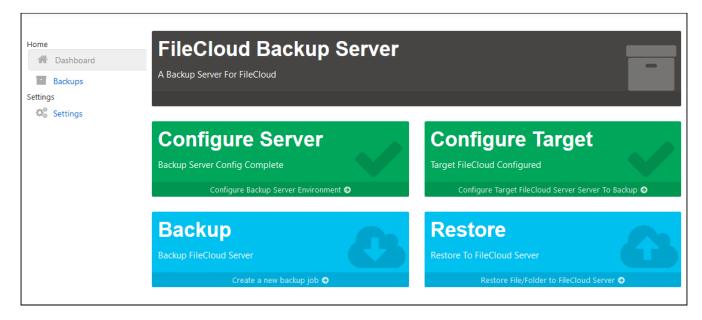


By default the target server parameters will be empty and update them using the table below. Click 'Add' once all the information has been added.

Parameter Label	Sample Value	Remarks
Target Name	fctarget	A string to represent the target.
Target URL	http://192.168.1.108/	Base URL to the target FileCloud server.
Storage Directory	Linux: /backupstore/ Win: C:\\backupstore	A folder in the backup server where the backups from this target will be stored. Admins can use the "Check Path" button to check if the folder is valid and writable for the backup server. Note: This directory must be mounted locally; it cannot be a remotely mounted network share.
		ŕ
Backup API Key	test908acc	The target access key set in the previous step (Step 2).
Backup Connection	НТТР	You can set the backup connection to HTTP or RSYNC. This example shows you the setup for using HTTP. To set up using RSYNC, see Backup Server Configuration Using RSync.

Note:

A dashboard with at least one fully configured backup target will look like this:



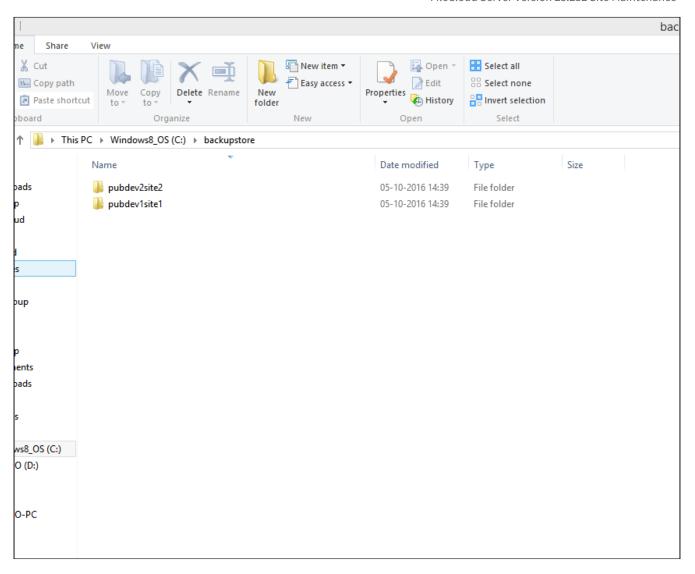
Step 4: Adding Multiple Target FileCloud Servers

Adding multiple target servers is same as adding a single server. From the 'Settings' tab, click on 'Add' button, to bring up the target server dialog. Enter all the information there and click 'Add' button.
Following screenshot shows multiple target servers added to the backup server.



Multi-sites can also be added as multiple target servers which is same as adding single server.

Once the backup is done, the contents are stored separately for each multi-site backed up.



Backup Server Configuration Using RSync

 $\begin{tabular}{ll} \hline \textbf{(i)} & Please make sure the Filecloud Production server and the backup server are the same version. \\ \hline \end{tabular}$

Configure the backup server using Rsync:

- 1. Download the Rsync tool from: https://patch.codelathe.com/tonidocloud/live/installer/backupserver-rsynctool-win.zip
- 2. Unzip it and place it under xampp\tools.
- 3. To run the PowerShell scripts, first run the following command in PowerShell: **Set-ExecutionPolicy -Scope Process -ExecutionPolicy Bypass**

4. To install and configure the rsync and ssh binaries in the backup server and the production server, run **xampp\tools\install_client.ps1** on the backup server and **xampp\tools\install_server.ps1** on the production server:

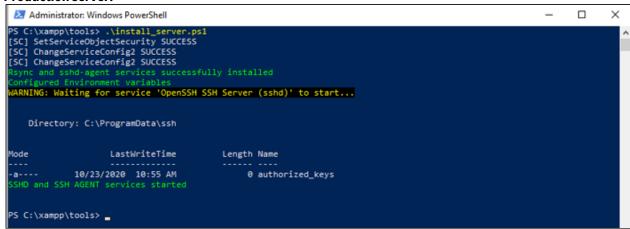
Backup server:

```
Administrator: Windows PowerShell

PS C:\xampp\tools> .\install_client.psl
[SC] SetServiceObjectSecurity SUCCESS
[SC] ChangeServiceConfig2 SUCCESS
SSHD-agent services successfully installed
Configured Environment variables
Home Dir setup completed
Generating SSH keys completed
Copy the PublicKey file C:\xampp\tools\cwrsync\bin\fcbackups.pub into the Filecloud Production server's authorized_keys
at C:\range\taupp\tools> _

PS C:\xampp\tools> _
```

Production server:



File Action View Help (n 🖚 | 🙇 🔐 🛅 Actions Inbound Rules Name Group **CAN** Outbound Rules Filecloud SSH(Backupserver) Properties Filecloud SSH(Backupserver) K Connection Security Rules Filecloud Monitoring Programs and Services Remote Computers AllJoyn Router (TCP-In) AllJoyn Router Protocols and Ports Scope Advanced Local Principals Remote Use AllJoyn Router (UDP-In) AllJoyn Router BranchCache Content Retrieval (HTTP-In) BranchCache - Co Any IP address BranchCache Hosted Cache Server (HTT... BranchCache - Ho BranchCache Peer Discovery (WSD-In) BranchCache - Pee O These IP addresses Cast to Device functionality (qWave-TCP... Cast to Device functionality) Cast to Device functionality (qWave-UDP... Cast to Device fun-Cast to Device SSDP Discovery (UDP-In) Cast to Device fun Cast to Device streaming server (HTTP-St... Cast to Device fun Cast to Device streaming server (HTTP-St... Cast to Device fundamental Control of Con Cast to Device streaming server (HTTP-St... Cast to Device fundamental control of the Cast to Device fundamenta Remote IP address Cast to Device streaming server (RTCP-St... Cast to Device fundamental control of the control Any IP address Cast to Device streaming server (RTCP-St... Cast to Device fundamental Control of Con (a) These IP addresses Cast to Device streaming server (RTCP-St... Cast to Device fundamental control of the Cast to Device fundamenta 192.168.1.8 Cast to Device streaming server (RTSP-Str... Cast to Device fundamental control of the Cast to Device streaming server (RTSP-Str... Cast to Device fundamental control of the Cast to Device fundam Cast to Device streaming server (RTSP-Str... Cast to Device fundamental control of the Contro Cast to Device streaming server (RTSP-Str... Cast to Device fundamental control of the contro Cast t Device fund COM: Network As Cast to Device UPnP Events (TCP-In) COM+ Network Access (DCOM-In) letwork A COM+ Remote Administration (DCOM-In) COM- A mote Ad Ocore Networking - Destination Unreacha... Core Networking Ocore Networking - Destination Unreacha... Core Networking Core Networking - Dynamic Host Config... Core Networking Ocore Networking - Dynamic Host Config... Core Networking Ocore Networking - Internet Group Mana... Core Networking Core Networking - IPHTTPS (TCP-In) Core Networking Core Networking - IPv6 (IPv6-In) Core Networking Cancel Apply Core Networking - Multicast Listener Do... Core Networking Ocore Networking - Multicast Listener Qu... Core Networking Ocore Networking - Multicast Listener Rep... Core Networking All

5. Open firewall access to the backup server on port 2233 (the default SSH port for the production server).

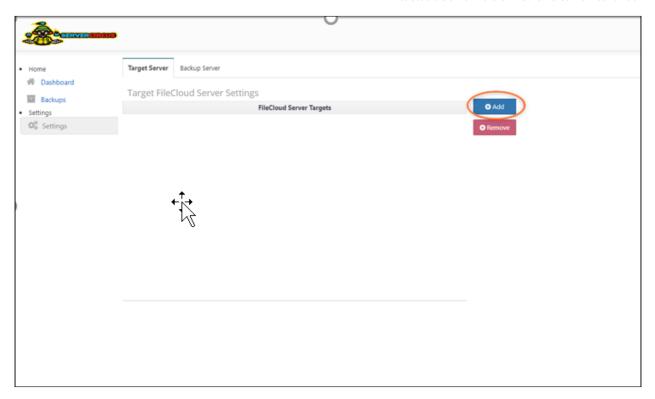
6. Copy the PUB key from the backup server at:

xampp\tools\cwrsync\bin\fcbackups.pub to:

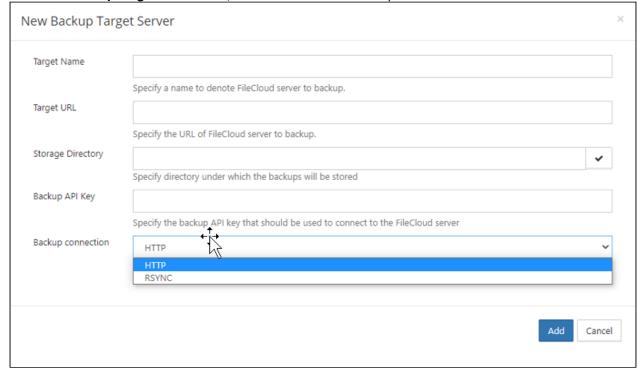
C:\ProgramData\ssh\authorized_keys

- 7. On the production server, restart SSH services.
- 8. Configure the target server on the backup server.

 See Step 3 in FileCloud Backup Server Configuration for help navigating to the **Settings > Target Server** tab in the Backup Server user interface.



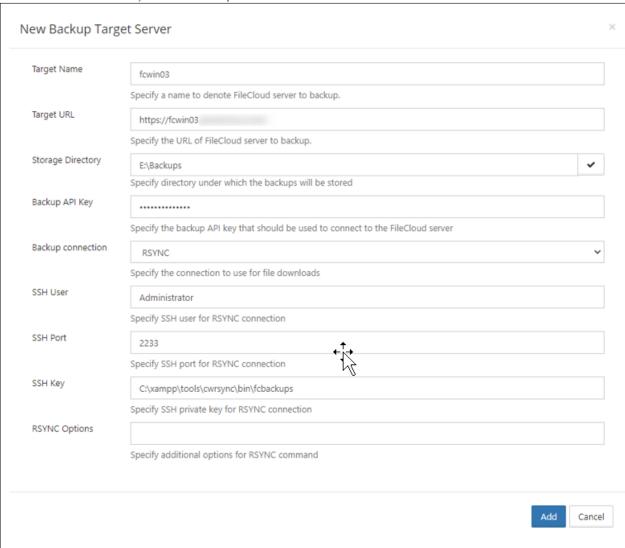
9. In the **New Backup Target Server** form, choose **RSYNC** as the backup connection:



After you choose **RSYNC**, the additional fields appear.

10. Enter the other settings.

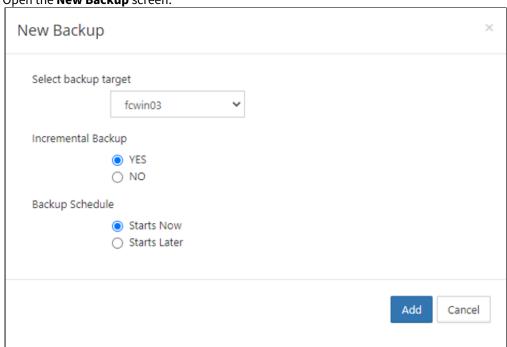
If the Admin is an AD user, enter **DOMAIN\Administrator** for **SSH User**.



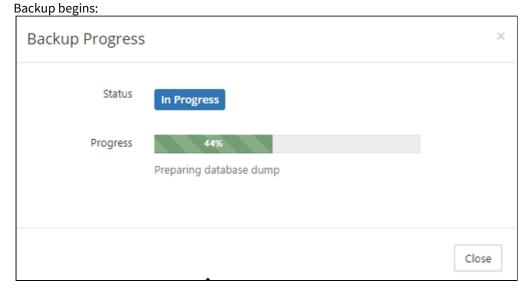
11. Click Add.

Run the backup for the target server

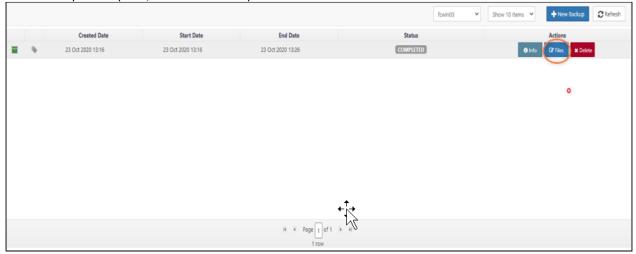
1. Open the **New Backup** screen.



2. Configure the settings and click **Add**.



3. When backup is complete, review the backup details:



To install on Linux

Install the Rsync client and SSH service on the servers from the respective repositories.

In Ubuntu, enter:

apt-get install rsync openssh-server -y

In Centos enter:

yum -y install openssh-server openssh-clients rsync

Proceed from Step 5 under Configure the backup server using RSync.

FileCloud Backup Server Operations

Introduction

Various operations supported by the backup server is explained in the following sections.

- Backup Server Backup
- Backup Server Restore Files and Folders
- Backup Server Export
- Backup Server Download
- Backup Server Cron Command

Backup Server - Backup

The main functionality of the backup server is to make backups of FileCloud server. Once the backup server is properly configured, it can perform manual and automatic backups.

Type Of Backups

Backup server supports two types of backup jobs:

- 1. Full backup
- 2. Incremental backup

Look below for detailed comparison of these backups.

	Full Backup	Incremental Backup
Description	Takes a complete backup of the target FileCloud server.	Backups only changed files, since the previous backup.
Space Usage	Takes the same size as the backed up FileCloud server. This includes both files and the database.	Takes only fractional space compared to full backups, as it captures only the delta changes.
Dependency	It is standalone and not dependent on any other backups.	It is not a standalone backup and dependent on the previous complete backup.
Time Taken	Takes more time, as it copies every single file from the target.	Takes less time, as it copies only changed files from the target.

Backup Schedule

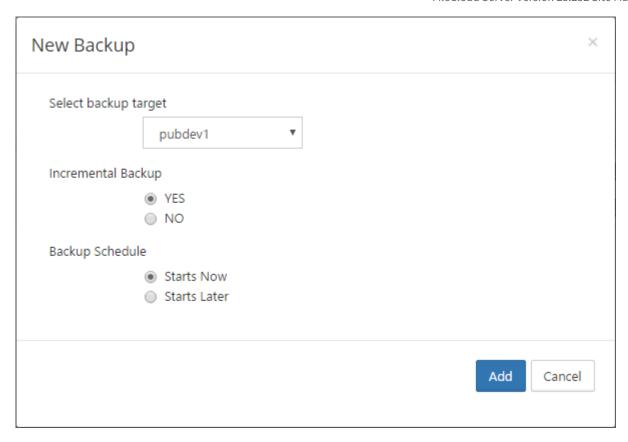
Backup server supports scheduling of backup operations. There are two types of schedules:

- 1. Backup starting now: This schedule lets the backup operation to start immediately.
- 2. Backup starting later: This schedule lets the backup operation to start at a later time.

Schedule New Backup

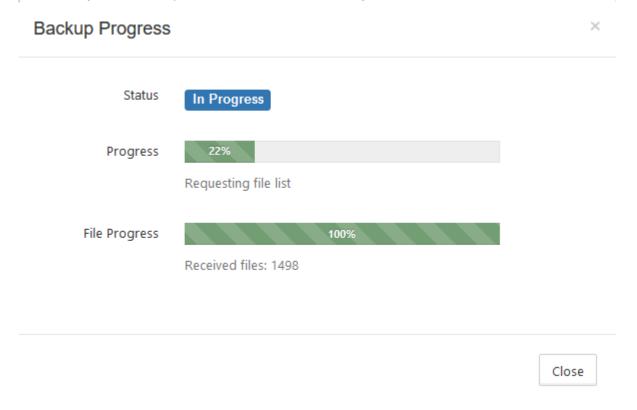
A new backup can be scheduled by going to the "Backups" tab of backup server UI and clicking on the "New Backup" button. This brings up the "New Backup" popup, which requires the following information.

- Backup Target: The target of this backup. If there were multiple targets configured, select the target that needs to be backed up.
- Incremental Backup: Select 'Yes', if this backup has to be incremental. Note if the new backup is the first backup for the target, even selecting an incremental backup, will result in a full backup. The reason for this is that there are no existing backups available.
- Backup Schedule: Select 'Starts Now' or 'Starts Later', depending when the backup job has to be started.



Monitoring Backup Progress

The progress of a backup job that is currently executing can be monitored from the web UI. If progress dialog opens automatically when a backup is scheduled to start immediately.



This dialog can also be opened again later by selecting the target from the drop-down and clicking on the 'Status' button of the backup job.



Backup States

While monitoring backup progress, the following states may be encountered. The states of all jobs can be seen on the table under the 'Status' column.

State	Meaning
QUEUED	The backup job is scheduled to start during a later time.

State	Meaning
INPROGRESS	The backup job is currently in progress.
COMPLETED	The backup job has completed successfully.
FAILED	The backup job failed during execution. Check logs and email notifications for details in this case.
CANCELLING	A cancel request has been received for the job and it is in the process of stopping.
CANCELLED	The backup job is stopped because a cancel request.

Backup Actions

Each backup job in the 'Backup' table has a bunch of actions associated with it.

Action	Remarks
Info	The details of the backup job such as start/end dates, full/incremental backup, target, status.
Start	Starts the job. This action is available only for the jobs that are not in progress.
Status	Monitor the progress of the job. This action is available only for 'INPROGRESS' jobs.
Delete	Delete a backup job. While deleting a job, the files that are associated with this backup can be also be optionally deleted.
Cancel	Request a job cancel. This action is available only for 'INPROGRESS' jobs.

Backup Server - Restore Files and Folders

FileCloud backup server supports restoring of files/folders from the backups.

When a file/folder is selected for restore, it will be uploaded directly to its original location as found in the backup.



- You can restore user files and folders using Backup Server.
- You can restore databases and the entire cloud storage path manually, using the back ups you have created.

Figure 1. Restoring a user's files.



To restore a User's files and folders:

- 1. Log in to the FileCloud Admin portal.
- 2. On the left Home panel, select Backups.
- 3. Select the backup you want to restore, and then click the Files button.
- 4. On the Files screen, select the path containing the files or folder to be restored, and then click the Restore button.
- 5. The selected files or folders will be sent to the restore queue. To see the queue, click the Restore Queue tab.
- 6. Continue adding more files or folders as necessary.
- 7. When all the files and folders you need to restore are added to the restore queue, click the Restore Queue tab.
- 8. To restore everything listed, click the Restore button.

9. You will see the progress of files and folders being restored to the FileCloud target server.

Backup Server - Export

Introduction

FileCloud backup server also supports exporting of files/folders from the backups. When a file/folder is selected for export, it will be copied to a local path on the backup server.



Note

- Export from backup server UI supports files and folders.
- Main difference between export and restore is that export stores the file locally on the backup server, while restore stores file directly on the target FileCloud server.
- When export is selected, the current path will be chosen as path to export.

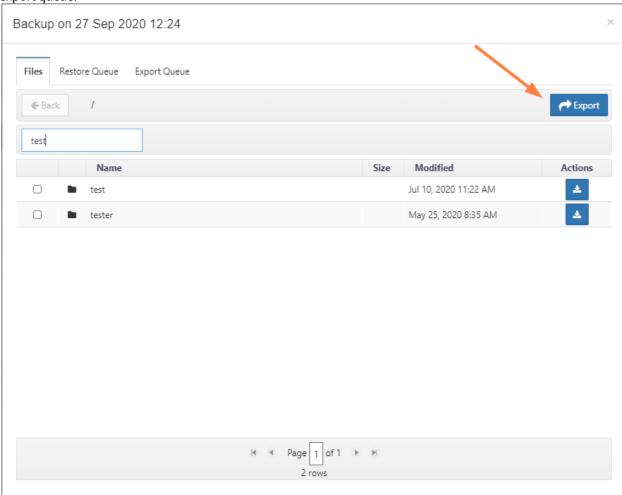
Exporting File/Folder

User file/folders can be exported with the following steps:

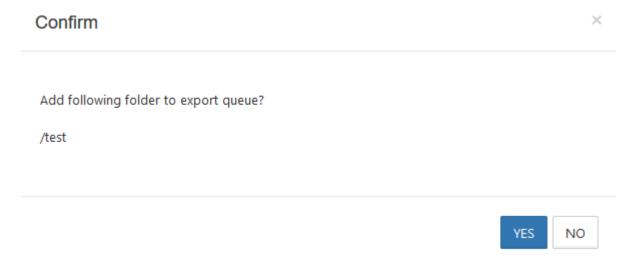
- 1. Select the backup from which the file/folder has to be exported.
- 2. Select the target from the drop-down and click on the 'Files' button for the backup that needs to be restored.



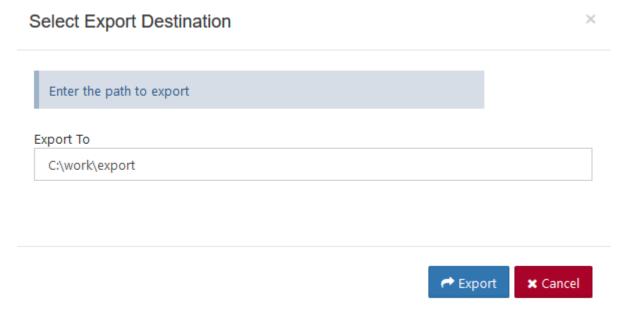
- 3. In the files dialog, navigate to the path containing the file/folder to be exported.
- 4. Select one or more file/folders and click on the 'Export' button. The selected file/folders will be sent to the export queue.



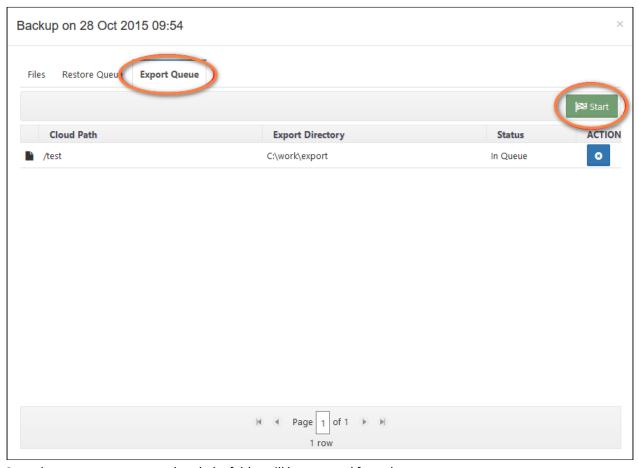
5. A prompt will appear to confirm the export path, select 'Yes' to continue.



6. Next prompt will require the local path where the exported folder/file(s) are to be stored. Enter a path with write access and click on 'Export' button. This will add the export request to the queue.



- 7. Continue adding more folders to export as necessary.
- 8. When all the folders to be restored are added to the export queue, switch to 'Export Queue' tab. Click on the 'Start' button.



- 9. Once the export process completed, the folder will be removed from the queue.
- 10. Look at the local destination folder for the exported files.

Backup Server - Download

Introduction

FileCloud backup server also supports downloading of files/folders from the backups directly from the web UI. When a folder is selected for download, it will be downloaded as a zip.



Note

• Download of only one file or folder is supported at this time.

Downloading File/Folder

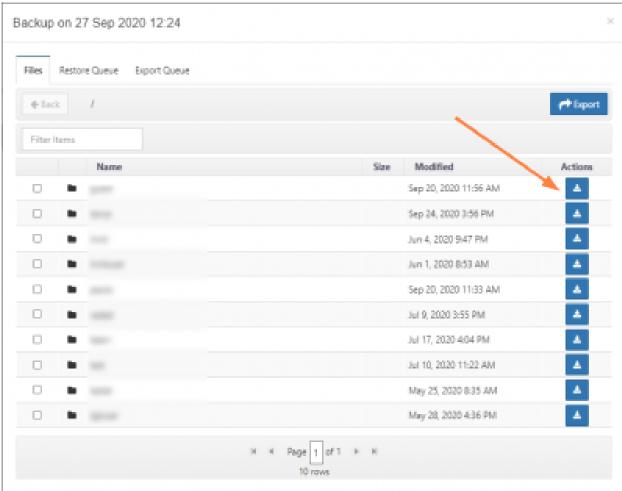
User file/folders can be downloaded using the following steps:

1. Select the backup from which the file/folder has to be restored.

2. Select the target from the drop-down and click on the 'Files' button for the backup that needs to be restored.



- 3. In the files dialog, navigate to the path containing the file/folder to be downloaded.
- 4. Select the download button for the file or folder to start the download.



Backup Server - Cron Command

Introduction

FileCloud backup server is bundled with a command line utility (starting v12.0) that can be used for automation or in OS specific cron jobs. This section shows the various options supported by the cron utility command.

Running Cron Command

Cron command can be invoked as follows:

Windows	C:\xampp\htdocs\app\backupserver\> c:\xampp\php\php.exe backupcron.php
Linux	\$ cd /var/www/app/backupserver/ \$ php backupcron.php

Create New Backup Job

To create a new backup job, but not start it, use the following command:

Command	backupcron.phpcommand=backup <targetid=target_db_id targetname="target_name">incremental=[0 1]</targetid=target_db_id>
Parameters	command=backup specifies that a new backup job is to be created <mandatory></mandatory>
	targetid specifies the id of the target for which the backup job is to be created. This is the database id of target. <optional></optional>
	targetname specifies the name of the target. This is the name assigned for the target during its creation in the UI <optional></optional>
	incremental specifies whether the backup job is full or incremental. Use 0 for full or 1 for incremental. Default is 0. <optional></optional>
	Note: Thoughtargetid andtargetname is optional individually, one of these two should be present to uniquely identify the target.

Create And Start Backup Job

To create a new backup job and start it immediately, use the following command:

Command	backupcron.phpcommand=backupnow <targetid=target_db_id targetname="target_name" ="">incremental=[0 1]</targetid=target_db_id>	
Parameters	command=backupnow specifies that a new backup job is to be created and started <mandatory></mandatory>	
	targetid specifies the id of the target for which the backup job is to be created. This is the database id of target. <optional></optional>	
	targetname specifies the name of the target. This is the name assigned for the target during its creation in the UI <optional></optional>	
	incremental specifies whether the backup job is full or incremental. Use 0 for full or 1 for incremental. Default is 0. <optional></optional>	
	Note: Thoughtargetid andtargetname is optional individually, one of these two should be present to uniquely identify the target.	

List Old Backup Jobs

To get a list of backup jobs, which were completed x days or earlier, use the following command:

Command	backupcron.phpcommand=listold <targetid=target_db_id <br="">targetname=target_name>daysold=x</targetid=target_db_id>
Parameters	command=listold specifies that a list of all the backup jobs completed x days and earlier should be returned <mandatory></mandatory>
	targetid specifies the id of the target for which the backup job is to be created. This is the database id of target. <optional></optional>
	targetname specifies the name of the target. This is the name assigned for the target during its creation in the UI <optional></optional>
	daysold specifies the number of days or earlier for which the list should be generated. Default is 14. <optional></optional>
	Note: Thoughtargetid andtargetname is optional individually, one of these two should be present to uniquely identify the target.

Delete Old Backup Jobs

To delete a bunch of backup jobs, which were completed x days or earlier, use the following command:

Command	backupcron.phpcommand=deleteold <targetid=target_db_id <br="">targetname=target_name>daysold=x</targetid=target_db_id>
Parameters	command=listold specifies that a list of all the backup jobs completed x days and earlier should be returned <mandatory></mandatory>
	targetid specifies the id of the target for which the backup job is to be created. This is the database id of target. <optional></optional>
	targetname specifies the name of the target. This is the name assigned for the target during its creation in the UI <optional></optional>
	daysold specifies the number of days or earlier for which the list should be generated. Default is 14. <optional></optional>
	Note: Thoughtargetid andtargetname is optional individually, one of these two should be present to uniquely identify the target.

FileCloud Backup Server Troubleshooting

Sometimes the backup job stops before completion. The backup server logs can give more details on the reason for this failure. Following are few reasons for a backup job failure.

Unable to request a db dump. Already one in progress.

Everytime a backup job is started, the production FileCloud server creates a lock, so that it cannot be interfered by another backup job.

This error can be seen in the backup server logs if there was a backup job that failed or canceled previously and the lock is not removed.

To remove the lock, on the FileCloud server, which is to be backed up, look for the folder WWWROOT/scratch/dbdump* If there is no other backup job running currently, this directory can be removed safely and a new backup job can be started.

Skipping Large AuditDB for backup

You need to add this flag in the file backupagent.php of production server if the auditdb is too large to take backup.

define('BACKUPAGENT_DBS_TO_BACKUP',"tonidosettings, tonidoclouddb, tonidosyncdb,
tonidostoragedb")

So the AuditDB will be skipped during backups.

Backing Up and Restoring Linux

You can back up and restore FileCloud Server deployments running on Linux. Having a copy of the database and the FileCloud Server site allows you to restore the site if you encounter a catastrophic failure.

What do you want to do?

→ Use the FileCloud Server Backup Tool

Manually Create a Linux Backup to Restore

FileCloud Backup and Restore - Linux Tool

(i) Note: This utility is deprecated and will be removed in future releases.

Starting with FileCloud 11.0, an easy to use FileCloud Server Backup and Restore option is available for administrators.

See FileCloud Server Backup **for more details**

FileCloud is bundled with necessary tool to perform full backups of your cloud installation ie., both files and database.

Some of the features of these backup scripts:

- can be run at anytime manually from command line
- can be part of an automated system like cron job.
- can be run on a live cloud installation (though its safer to do backup of cloud in maintenance mode).
- can backup to local or remote linux targets.

In this section you can learn some basic tasks such as

- 1. Initializing backup system
- 2. Adding a new host to the backup system
- 3. Removing a target
- 4. Creating new backups
- 5. Removing existing backups
- 6. Listing existing backups
- 7. Restoring a backup

Terminologies

Here are some basic terminologies used to explain the backup tool.

Backup Target: Host where the backups are stored.

Backup Directory: Directory under which the backups are stored.

Initializing Backup Tool

Backup tool has to be initialized before it can be used to backup your cloud installation. This initialization needs to be done only once and tool will automatically initialize itself upon first use. During this initialization process, the tool performs an important routine that the user needs to be aware of.

SSH Key Generation: The tool generates a RSA ssh key pair during initialization. This key pair will be used to communicate between the tool and backup targets. This enables tool to communicate with the backup target without prompting for password every time. These are encrypted keys and are safer than entering passwords everytime for communication. Also the tool exchanges the key with the localhost and will be used to run even commands on the local host.

When the backup tool is run without any options, it initializes the tool on first run and then displays help. Further runs only displays help. Following section shows a session initializing the backup tool.

Initializing backup tool

```
madhan@li111-150:~$ cd /var/www/resources/backup
madhan@li111-150:/var/www/resources/backup$ sudo chmod +x backup.sh
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh
Feb 18 01:26:05 : Initializing backup system
Feb 18 01:26:05 : Generating ssh encryption keys
Generating public/private rsa key pair.
Your identification has been saved in ./keys/id_rsa.
```

```
Your public key has been saved in ./keys/id_rsa.pub.
The key fingerprint is:
f4:cd:e8:ff:1e:db:e6:b4:7f:f7:da:d4:02:16:dd:ba root@li111-150
The key's randomart image is:
+--[ RSA 2048]----+
1 1
|\cdot\cdot|
| \cdot \cdot \cdot |
| . . + . . |
| S o = . |
| . . . . . |
| . E +|
| . 0=|
| .o==@|
+----+
Feb 18 01:26:06 : Please enter local user to store backups :
madhan
Feb 18 01:26:22 : Exchanging ssh keys with host 127.0.0.1
madhan@127.0.0.1's password:
Feb 18 01:26:30 : Successfully initialized localhost to store backups
Script to backup tonidocloud data
Usage :
sudo /path/backup.sh <command>
where <command> could be on of the following:
    addtgt <user> <host> <tgtdir> - Adds the <tgtdir> in machine <user>@<host> as a
valid backup directory
    rmtgt <index>
                            - Removes the backup target at specified index.
                      If index parameter is missing, a list of available targets will be
shown to choose one from.
                      - Lists available backup directories
    crtbkup <index>
                            - Create a new backup of tonidocloud at specified backup
target index.
                      If index parameter is missing, a list of available targets will be
shown to choose one from.
    lstbkups <index>
                            - List all backups under the specified target index.
                      If index parameter is missing, a list of available targets will be
shown to choose one from.
    rmbkup <index1> <index2> - Removes index2 directory from index1 backup target.
                      If index parameters is missing, a lists of available targets and
directories will be shown to choose one from.
    resbkup <index1> <index2> - Restores index2 directory from index1 backup target.
                      If index parameters is missing, a lists of available targets and
directories will be shown to choose one from.
```

Add Backup Target

The backup tool has to have atleast one backup target before it can create and store backups. Even if you plan to store the backups on the local system, you still need to the local host as a backup target. When multiple backup target directories are added to the tool, the ssh keys are exchanged only the first time.

To add a backup target you need

- a user
- ip address of the remote host.
- a directory to store backups (and the above user should have write permissions)

Use the option addtgt to add a new backup target to the tool. The following snippet shows commands to add 2 backup targets.

Local host (madhan, 127.0.0.1, /backup)

Adding a localhost target

```
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh addtgt madhan 127.0.0.1 /
cloudbackup/
Feb 18 02:20:23 : Adding backup target : madhan@127.0.0.1:/cloudbackup/
Feb 18 02:20:25 : Added backup target : madhan@127.0.0.1:/cloudbackup
```

Remote host (cloud, 192.168.1.148, /backup)

Adding a remote host target

```
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh addtgt cloud
192.168.1.148 /cloudbackup/
Feb 17 18:31:47 : Adding backup target : cloud@192.168.1.148:/cloudbackup/
Feb 17 18:31:47 : Exchanging ssh keys with host 192.168.1.148
cloud@192.168.1.148's password:
Feb 17 18:31:51 : Added backup target : cloud@192.168.1.148:/cloudbackup
```

Remove Backup Target

To remove a backup target use the option rmtgt. This option lists the available backup targets and prompts for the target to be deleted. Upon entering the target number, the tool deletes the target. When a target is deleted, the tool just removes pointer to the target from its internal list. The physical directory is not deleted. This allows admins to add the same target at later point of time with all the backups intact.

Note: The target number can also be specified from the command line

Removing a target

```
madhan@lill-150:/var/www/resources/backup$ sudo ./backup.sh rmtgt
No Targets
------
0) madhan@l27.0.0.1:/cloudbackup
1) cloud@192.168.1.148:/cloudbackup
```

```
Feb 17 18:41:20 : Select a backup target to remove from the above list :

1
Feb 17 18:41:37 : Selected backup target cloud@192.168.1.148:/cloudbackup
Feb 17 18:41:37 : Backup target removed : cloud@192.168.1.148:/cloudbackup
```

List Backup Targets

To list the available backup targets in the tool use the option lstgts.

```
Listing targets

madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh lstgts
No Targets
------
0) madhan@127.0.0.1:/cloudbackup
```

Create New Backup

To create a new backup use the option crtbkup.

```
Create Backup
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh crtbkup
Feb 18 03:22:19 : Creating backup
No Targets
0) madhan@127.0.0.1:/cloudbackup
Select a backup target from the above list: 0
Feb 18 03:22:21 : Selected backup target madhan@127.0.0.1:/cloudbackup
sending incremental file list
5108a8b6bff4d/
5108a8b6bff4d/5108a8b6c26d2/
5108a8b6bff4d/5108a8b6c26d2/510d2ecb07217.dat
42.55K 100% 9.33MB/s 0:00:00 (xfer#1, to-check=54/57)
5108a8b6bff4d/5108a8b6c26d2/510d2ecb08d48.dat
5108a8b6bff4d/5108a8b6c26d2/51132eeb6a45a.dat
174.84K 100% 241.84kB/s 0:00:00 (xfer#55, to-check=0/57)
sent 60.89M bytes received 1.06K bytes 24.36M bytes/sec
total size is 60.88M speedup is 1.00
```

```
tonidobak.log 100% 20KB 19.8KB/s 00:00
```

Note: The target number can also be specified from the command line.

List Backups

To list backups available on a particular backup target directory use the option lstbkups.

```
Listing Backups
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh lstbkups
No Targets
0) madhan@127.0.0.1:/cloudbackup
______
Feb 18 03:26:39 : Select a target from above to list available backups :
Feb 18 03:27:03 : Selected backup target madhan@127.0.0.1:/cloudbackup
                                    Files
                                                               Status
 No
Path
 0)
          03:22:21 2013-02-18
                                  59M
                                               44
COMPLETE
                /cloudbackup/1361157741
```

Note: The target number can also be specified from the command line.

Delete Backup

To delete a backup target directory use the option rmbkup.

```
0) 03:22:21 2013-02-18 59M 44

COMPLETE /cloudbackup/1361157741

Feb 18 03:31:30 : Select a backup directory
0
Feb 18 03:31:34 : Selected backup path /cloudbackup/1361157741
madhan@li111-150:/var/www/resources/backup$ sudo ./backup.sh lstbkups 0
Feb 18 03:32:01 : Selected backup target madhan@127.0.0.1:/cloudbackup
No Date Files Size Status
Path
```

Note: The backup target number and backup target directory number can also be specified from the command line.

Restore Backup

To restore a backup from a particular backup target directory use the option resbkup.

Note: When a backup is restored, the cloud service will be stopped to restore the backup. Upon restoring the snapshot the service will be started again.

madhan@li1 No	11-150:/var/www/resourc Targets	es/backup\$ sudo ./ 		p
•	madhan@127.0.0.1:/cl	oudbackup		
	42:00 : Select a target			ups
	42:05 : Selected backup			
No Path 	Date	Files	Size 	Status
 0)	03:40:16 2013-02-18	59M	44	
COMPLETE	/cloudbackup/	1361158816		

utility, e.g. service mongodb stop

Since the script you are attempting to invoke has been converted to an Upstart job, you may also use the stop(8) utility, e.g. stop mongodb mongodb stop/waiting

Rather than invoking init scripts through /etc/init.d, use the service(8) utility, e.g. service mongodb start

Since the script you are attempting to invoke has been converted to an Upstart job, you may also use the start(8) utility, e.g. start mongodb mongodb start/running, process 17363

Note: The backup target number and backup target directory number can also be specified from the command line.

FileCloud Backup and Restore - Linux Manual

FileCloud can be backed up and restored on Linux following these manual steps.

While performing the backup/restore, these are the important file categories that should be backed up/restored:

- · cloud cloud files.
- · cloud database.
- · cloud user files.

Backup

High level steps to backup FileCloud in windows:

- 1. Stop webserver
- 2. Backup configuration files
- 3. Backup database.
- 4. Backup user files.
- 5. Start webserver

Stop Webserver and MongoDB

Before backup is performed, stop the apache webserver and mongodb. This prevents any client from adding/removing files while the backup is in progress.

Stopping services

```
# sudo /etc/init.d/apache2 stop
# sudo /etc/init.d/mongodb stop
```

Please use equivalent commands applicable for your OS distro.

Backup FileCloud installation

Once the apache server is stopped, make a copy of entire cloud installation. The cloud installation is typically under /var/www/ directory.

Backing up FileCloud installation

```
# mkdir -p /filecloudbackup/www
# sudo cp -dprv /var/www/. /filecloudbackup/www
```

If your installation uses a different directory, update the above commands accordingly.

Backup database

Once the mongodb is stopped, backup the database files.

Backing up FileCloud database.

```
# mkdir -p /filecloudbackup/db
# sudo cp -dprv /var/lib/mongodb/. /filecloudbackup/db
```

Check your mongodb installation to make sure /var/lib/mongodb is the correct database path.

Backup user files

To backup user files, make a copy of the entire directory specified for the managed storage settings, in the "Storage Path". This is found in Settings->Storage tab in the FileCloud Admin panel.

Note: In the following case, the entire "/opt/filecloud/data" directory has to be backed up.

Use the following commands, to backup user files.

Backing up user data files

```
# mkdir -p /filecloudbackup/userdata
# sudo cp -dprv /opt/filecloud/data/. /filecloudbackup/userdata
```

Start Webserver and MongoDB

After the above backup steps are performed, start the apache webserver and mongo db processes.

Starting services

```
# sudo /etc/init.d/mongodb start
# sudo /etc/init.d/apache2 start
```

Please use equivalent commands applicable for your OS distro.

Restore

High level steps to restore FileCloud in windows:

- 1. Stop webserver
- 2. Restore configuration files
- 3. Restore database.
- 4. Restore user files.
- 5. Start webserver

Stop Webserver and MongoDB

Before restore is performed, stop the apache webserver and mongodb. This prevents any client from adding/removing files while the backup is in progress.

Stopping services

- # sudo /etc/init.d/apache2 stop
- # sudo /etc/init.d/mongodb stop

Please use equivalent commands applicable for your OS distro.

Restore FileCloud installation

Restore the FileCloud installation files using the following command.

Note: Check your apache installation to ensure /var/www/ is the document root directory.

Restoring FileCloud installation

sudo cp -dprv /filecloudbackup/www/. /var/www/

Restore database

Restore the database using the following command.

Note: Check your mongodb installation to ensure /var/lib/mongodb is the database path.

Restoring FileCloud installation

sudo cp -dprv /filecloudbackup/db/. /var/lib/mongodb/

Restore user files

To restore user files, restore the user files to the directory specified and then make sure that path is set correctly in Managed Storage Settings in "Storage Path".

Note: In the following case, the entire "/opt/filecloud/data" directory has to be restored.

Use the following commands, to restore user files.

Backing up user data files

```
# sudo cp -dprv /filecloudbackup/userdata/. /opt/filecloud/data
```

Check your mongodb installation to make sure /var/lib/mongodb is the correct database path.

Start Webserver and MongoDB

After the above restore steps are performed, start the apache webserver and mongodb process.

Starting services

```
# sudo /etc/init.d/mongodb start
# sudo /etc/init.d/apache2 start
```

Please use equivalent commands applicable for your OS distro.

FileCloud Backup and Restore - Windows Manual

Starting with FileCloud 11.0, an easy to use FileCloud Server Backup and Restore option is available for administrators.

See The FileCloud Server Backup Tool for more details

FileCloud can be backed up and restored on windows following these manual steps.

While performing the backup/restore, these are the important file categories that should be backed up/restored:

- · cloud cloud files.
- · cloud database.
- · cloud user files.

Backup

High level steps to backup FileCloud in windows:

- 1. Stop webserver
- 2. Backup configuration files
- 3. Backup database.

- 4. Backup user files.
- 5. Start webserver

Stop Webserver and MongoDB

Before backup is performed, stop the apache webserver and mongodb. This prevents any client from adding/removing files while the backup is in progress. To stop the apache webserver, open the FileCloud control panel and hit stop for Apache. Also stop the Mongo DB process.

Backup cloud files

Once the apache server is stopped, make a copy of entire cloud installation. The cloud installation can be found under the installation directory under htdocs. (e.g. c:\xampp\htdocs)

Backup database

To backup the database, copy the mongodb database files under c:\xampp\mongodb\bin\data

Backup user files

To backup user files, make a copy of the entire directory specified in the "Storage Path" in Managed Storage Settings (Admin Panel->Settings->Storage Tab)

Note: In the following case, the entire "c:\Filecloud\userdata\" directory has to be backed up..

Start Webserver and MongoDB

After the above backup steps are performed, start the apache webserver and mongo db processes.

Restore

High level steps to restore FileCloud in windows:

- 1. Stop webserver
- 2. Restore configuration files
- 3. Restore database.
- 4. Restore user files.
- 5. Start webserver

Stop Webserver and MongoDB

Before restore is performed, stop the apache webserver and mongodb. This prevents any client from adding/removing files while the restore is in progress.

Restore cloud files

Once the apache server is stopped, restore copy of entire cloud installation files to <cloud_install_dir>. (c: \xampp\htdocs)

Restore database

To restore the database, copy the mongodb files into the mongodb data directory. (c:\xampp\mongodb\data)

Restore user files

To restore user files, restore the user files to the directory specified in the Storage Path specified in the Managed Storage Settings. (Admin Panel->Settings->Storage Tab)

Note: In the following case, the user files had to be copied to "c:\FileCloud\userdata\".

Start Webserver and MongoDB

After the above restore steps are performed, start the apache webserver and mongodb process.

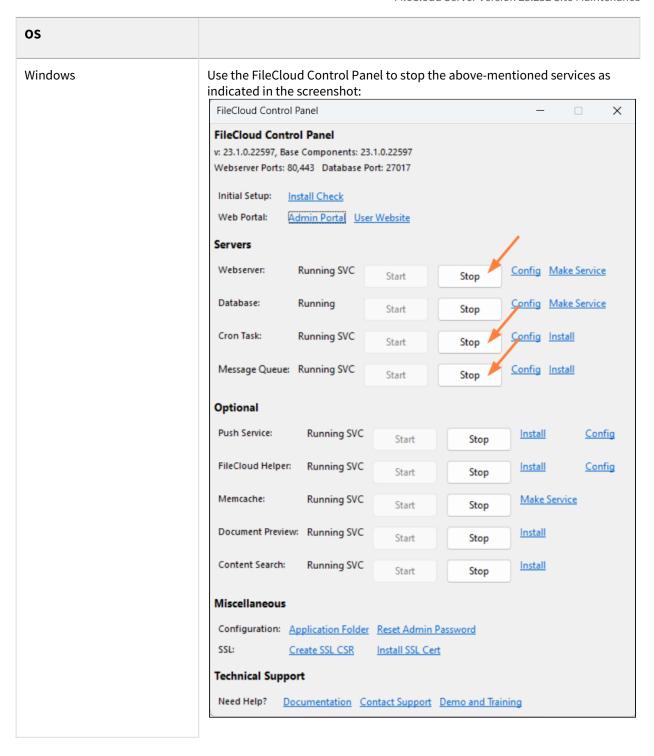
Migrating FileCloud Server to Another Server

Use the following instructions to migrate an existing FileCloud Server to another physical or virtual server.

- 1. Install the latest FileCloud Server on the new server.

 Do not start any services after successful installation; only the database should be running.
- 2. Stop Apache, cron and the message queue (fcorchestrator) services in the source system to prevent user access and changes:

os	
Linux	Wbuntu: systemctl stop apache2 systemctl stop cron systemctl stop fcorchestrator
	RedHat: service stop httpd service stop crond service stop fcorchestrator



3. Create a database dump on the source system.

os	
Linux	mongodumpout /tmp/mongodump
Windows	cd C:\xampp\mongodb\bin
	mongodumpout C:\mongodump

4. Copy the database dump to the new system and restore it.

os	
Linux	mongorestorenoIndexRestoredrop /tmp/mongodump
Windows	cd C:\xampp\mongodb\bin
	mongorestorenoIndexRestoredrop C:\mongodump

5. Copy the managed storage files to the new server. Some common scenarios are shown below.



Managed storage files: Files stored in the storage path specified in the Managed Storage settings. (Admin Panel->Settings->Storage Tab).

Scenario 1: When using an SMB/NFS/CIFS share as managed storage:

- If the SMB/NFS/CIFS share is accessible through the network from the new FileCloud Server, then no action is needed at FileCloud application level.
- If the SMB/NFS/CIFS share is not accessible from the new FileCloud Server, then either:
 - Allow this access.

• Deploy a new SMB/NFS/CIFS share that is accessible from the new FileCloud Server to an Apache user with the correct permissions. Then copy the data from the existing SMB/NFS/CIFS share to the new one.

Scenario 2: When using local disk (HDD/SSD) as managed storage

- a. Create a new disk partition on the new FileCloud Server, and assign the same drive letter from the existing FileCloud Server.
- b. Copy the data from the existing HDD/SSD disk to the new FileCloud Server HDD/SSD.

Scenario 3: When using S3 storage as managed storage

- a. No action is needed since the S3 configuration/setting is available in the MongoDB dump.
- b. Copy all FileCloud configuration files from the below paths to the new server.

os	
Linux	Ubuntu: /var/www/html/config RedHat: /var/www/html/config
Windows	C:\xampp\htdocs\config

- c. Start all services on the new FileCloud Server.
- d. Log in to the admin portal, and update the managed storage path (**Settings > Storage > Storage Path**). Click **Check Path** to ensure that the path is accessible/writable.
 - Note: This step is only necessary if the directories are different in the old and the new system.
- e. If Auto Archive Audit Database is enabled, in the admin portal, go to **Settings > Admin**, then enter a storage path in **Storage Path For Archived Audit Records**, and click **Check Path** to confirm that the path exists and is writable.

Note: This step is only necessary if the directories are different in the old and the new system.

Note: Steps 4 and 5 must be done for each tenant in a multi-tenant system.

- f. Install SSL certificates on the new FileCloud Server.
- 6. If you are using RHEL OS, check if SELinux is in enforcing mode.

To know the current SELinux mode, enter:

getenforce

If SELinux is in enforcing mode, you may have issues accessing the FileCloud admin portal and user portal unless you disable SELinux, using the following command or follow the steps listed in SELinux Policies For FileCloud Installation.

To disable SELinux, enter:

setenforce 0

Note: Changes made with **setenforce** are lost when you restart the system. To permanently change the SELinux mode, edit the **/etc/selinux/config** file and restart the system.

- 7. If you have added custom settings to any of the the configuration files under **c:/xampp/htdocs/config** or **/var/www/html/config**, copy those files to the new server.
- 8. If you use storage encryption, after migration:
 - a. Confirm that **Memcache** is running.
 - b. In the admin portal go to **Settings > Storage > My Files** and reactivate encryption in the new server using same password.

To set up encryption, see Setting up Managed Storage Encryption or Setting up Managed S3 Storage Encryption.

Migrating a FileCloud Server Site



You can transfer files easily to a FileCloud Server site that is running.

What do you want to do?



Enabling the Backup Server URL

By default, the backup server URL is disabled. You must add a setting to both the backup server config file and the production server config file to enable it and access it as a site.

To enable the backup server URL:

- 1. In your production server's FileCloud directory, open cloudconfig.php: Windows Location: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux Location: /var/www/config/cloudconfig.php
- 2. Add the following:

```
define("TONIDOCLOUD_ENABLE_BACKUPSERVER_APP", true);
```

3. Repeat steps 1 and 2 in your backup server's FileCloud directory.

Monitoring FileCloud

(i) The ability to receive email notification when a MongoDB error occurs is available in FileCloud version 18.2 and later.



For security purposes, to initially access the API, you must now change the default API key. If you do not change it, when you enter a command to call the API, an error is returned.

Note: You are only required to change the default API key initially; after that, you can continue to use the new key you entered.

Administrators can use tools provided by FileCloud Server to review current statistics and monitor MongoDB.

- Get stats using an HTTP REST API. This is useful for integration with external monitoring systems like Nagios.
- · Review email notifications about MongoDB errors. This is useful for preventing loss of data. For example, if you have a High Availability (HA) deployment, and one day after a VMs in the cluster dies you discover that the master MongoDB node replication failed weeks ago, then you would not be able to recover all of your data.

What do you want to do?

Get Current Statistics

API URL

https://<SiteAddress>/admin/?op=getstats&apikey=yourpassword

RETURNED XML DATA

<stats>

<stat>

<totalusers>55</totalusers>

<fullaccessusers>25</fullaccessusers>

<guestaccessusers>27</guestaccessusers>

<totalsize>87.5 GB</totalsize>

<totalsizeused>2.45 GB</totalsizeused>

<totalsizefree>85.05 GB</totalsizefree>

<totalsizeusedraw>2632858720</totalsizeusedraw>

<groupscount>19</groupscount>

<externalscount>10</externalscount>

<scratchuseddisk>19.69 GB</scratchuseddisk>

<scratchfreedisk>9.52 GB</scratchfreedisk>

<scratchsize>375.25 MB</scratchsize>

<sharescount>73</sharescount>

<localstoragefreedisk>9.52 GB</localstoragefreedisk>

Monitoring FileCloud 284 <totalmanagedfiles>1190</totalmanagedfiles>
<totaldevicescount>45</totaldevicescount>
<totalauditrecords>7260</totalauditrecords>
<totalvalidmanagedfiles>818</totalvalidmanagedfiles>
<totalsyncfiles>822</totalsyncfiles>
<totalvalidmanagedfolders>178</totalvalidmanagedfolders>
<totalsyncfolders>171</totalsyncfolders>
<totalsyncfolders>171</totalsyncfolders>
<totalalerts>0</totalalerts>
</stat>
</stat>

The XML can be parsed to graph various values and to trigger various actions.

Monitor MongoDB

In FileCloud Server version 18.2 and later, you will automatically receive an email notification on MongoDB cluster failure status.

⚠ Please note that when MongoDB fails, then nothing will respond through FileCloud including the FileCloud cron jobs.

Therefore, the mongo health monitor must be running separately from and independent of FileCloud's cron jobs.

To run MongoHealth:

1. In FileCloud Server version 18.2 and later, FileCloud includes a mongohealth folder in the following location:

/server/resources/tools

2. The email address that is sent the notification (TO) is configured by the following variable:

TONIDOCLOUD_REPLY_TO_EMAIL

3. Add the /server/resources/tools/index.php to the cron directly.

Monitoring FileCloud 285

FileCloud Alerts

FileCloud Alerts are available in FileCloud's Admin portal.

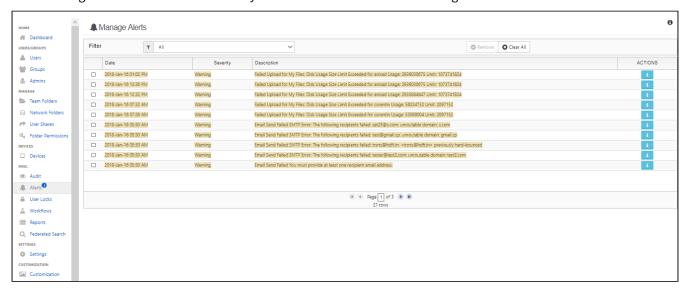
This page tracks all unhandled exceptions, system error messages generated in FileCloud. The number of alerts are shown in the Dashboard and the Alerts page will show detailed information about the various errors encountered.

Depending on the error, you might need to take steps to correct the problem. For example, if alerts indicate that system is frequently running out of memory, then system memory may need to be increased.

To view alerts:

- 1. Log into the Administration portal.
- 2. On the left navigation panel, click *Alerts*.

The following view shows errors detected by FileCloud File Content Heuristic Engine.



FileCloud Alerts 286

File Content Heuristic Engine

Ransomware is a type of malware that an attacker uses to infiltrate your system and make your files inaccessible, usually by encrypting them. The attacker then demands that you pay a ransom to decrypt your files.

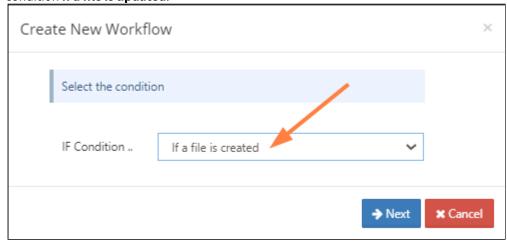
A heuristic engine can help prevent ransomware from entering your system by scanning files for characteristics that are often present in malicious files. FileCloud includes a heuristic engine that looks for files that identify their content inaccurately, a method sometimes used to trick users into opening files containing ransomware. For example, FileCloud's heuristic engine can detect if a file identifies itself as a basic text or image file, but includes code that is not normally present in these types of files.

The FileCloud heuristic engine is available to you, but to use it, you must add it to a workflow in your system by choosing a **Verify file integrity** action. When a file fails the integrity check, the workflow can either delete the file or send a notification.

To create a workflow that uses the heuristic engine to validate uploaded files:

- 1. In the admin portal, in the navigation panel, click **Workflows**.
- 2. In the Manage Workflows screen, click Add Workflow. The Create New Workflow dialog box opens.
- 3. To perform the check on every file that is uploaded for the first time, in the **IF Condition** drop-down list, choose **If a file is created**.

Note: To also apply the condition to files that are re-uploaded, add a verify file integrity action with the condition **If a file is updated**.

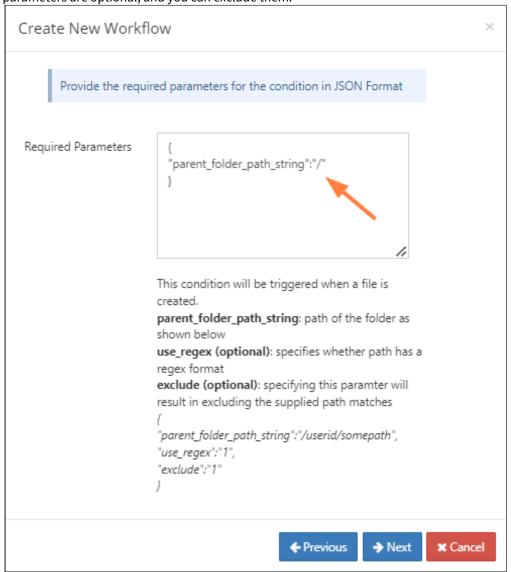


4. Click Next.

The next window prompts you to enter parameters for the workflow.

File Content Heuristic Engine 287

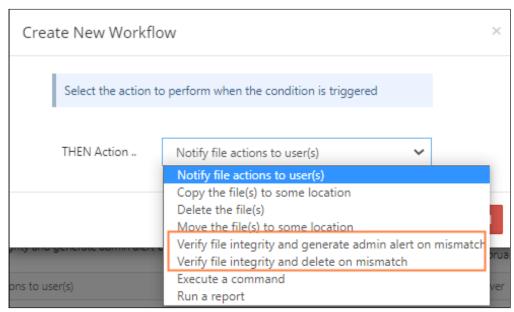
5. Since you want to scan all uploaded files, set **parent_folder_path_string** to **/**, which indicates all files. The other parameters are optional, and you can exclude them.



6. Click Next.

You are prompted to choose an action.

- 7. Choose one of the **Verify file integrity** actions depending on what you want the system to do when a mismatch is detected. The possible actions are:
 - Verify file integrity and generate admin alert on mismatch: Detects the mismatch and adds an entry to the **Alerts** screen of the admin portal. However, the file is uploaded into FileCloud, and if it is determined that it should be deleted, this must be done as a separate action.
 - Verify file integrity and delete on mismatch: Detects the mismatch, adds an entry to the Alerts screen of the admin portal, and deletes the file from FileCloud. An audit entry is added in the admin portal to indicate that the file has been deleted by the workflow.



In both cases, a pop-up in the user interface notifies the user that the content and file type extension do not match, either:

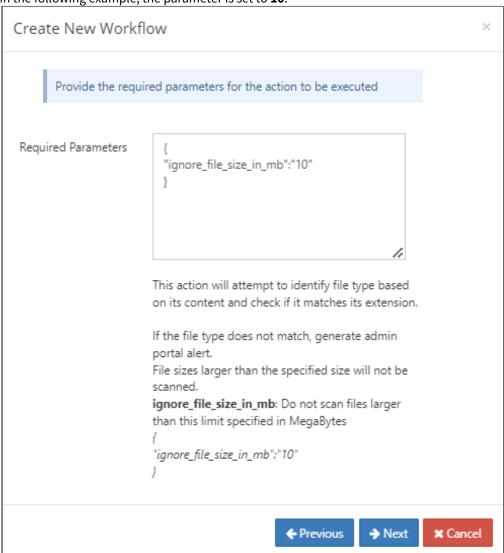


In both cases, alerts also appear in the **Manage Alerts** screen of the admin portal.

- 8. After you choose one of the actions, click **Next**.
- 9. Add the **ignore_file_size_in_mb** parameter. The purpose of this parameter is to prevent the system from slowing down by scanning the content of large files.

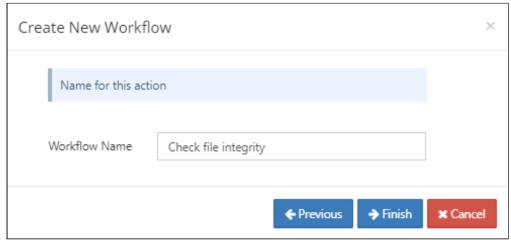
File Content Heuristic Engine 289

In the following example, the parameter is set to 10.



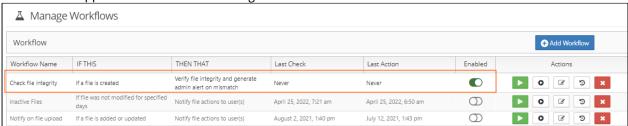
10. Click Next.

11. Enter a name for the workflow.



12. Click Finish.

The workflow appears in the list on the Manage Workflows screen.

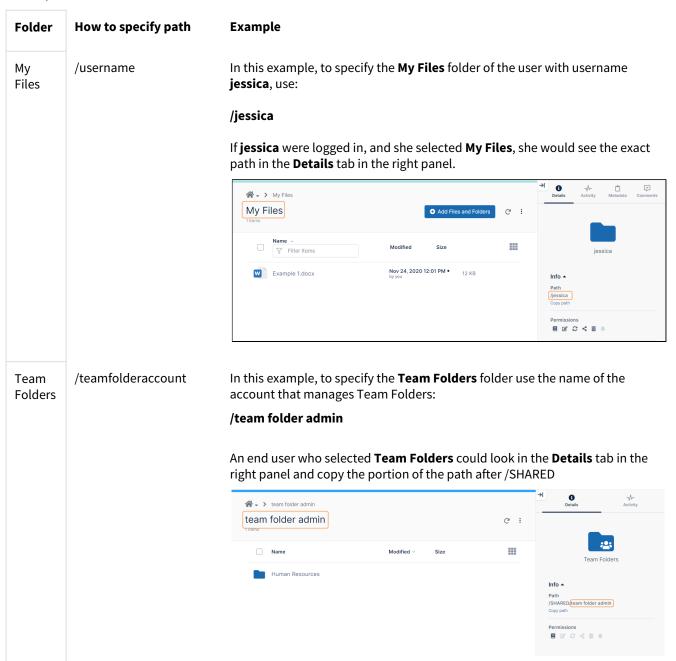


Since the workflow is enabled, now each time a file is uploaded for the first time into FileCloud, its content and file extension are checked for a mismatch.

Identifying a FileCloud Specific Path

For many operations and configurations, FileCloud requires that you specify the FileCloud system path name. For example, when you are configuring a report or a workflow, if you want to specify a path, you must use the path's system name.

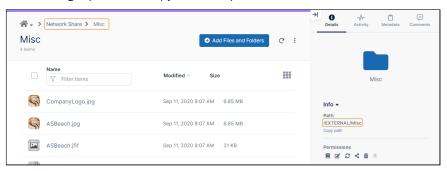
The following table lists the correct way to specify paths for files and folders in **My Files**, **Team Folders**, **Network Shares**, and **Shared with Me**.



Networ k Shares /EXTERNAL/foldername

In this example, to specify the $\bf Network\ Shares\ folder\ Misc\ ,$ use: /EXTERNAL/Misc

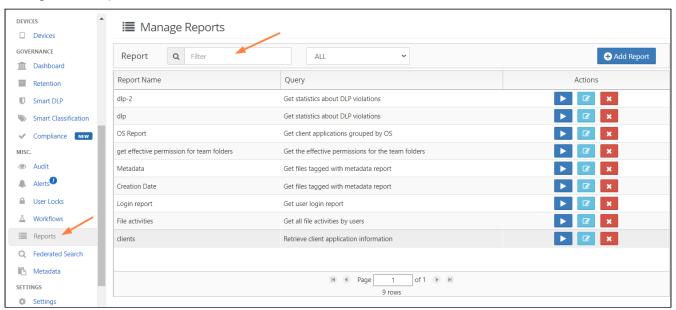
An end user who selected **Network Shares/Misc** could look in the **Details** tab in the right panel and copy the exact path.



Shared with Me Can't be done. You must specify the path from the owner's My Files (use the owner's username)

FileCloud enables you to create custom reports and download them in an Excel format. To get started with the reporting system, go to the Reports menu item in the left navigation menu in admin interface. In order to view the reports, the admin user must be the master admin or must have access to the reports system. An admin user can be granted access to the reports system through the Admins menu item on the left navigation menu.

The reports screen displays the list of existing reports. The filter text box can be used to filter reports by name. The individual reports on the report list can be viewed, downloaded, edited and deleted. New reports can be added by clicking the Add Report button.

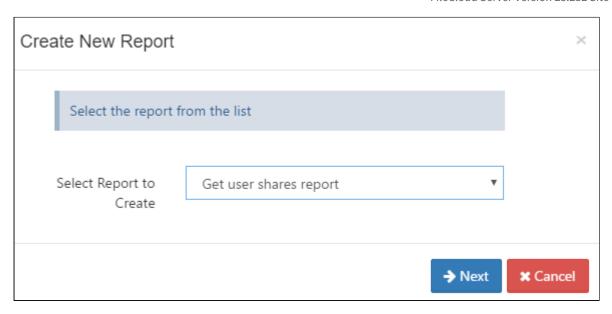




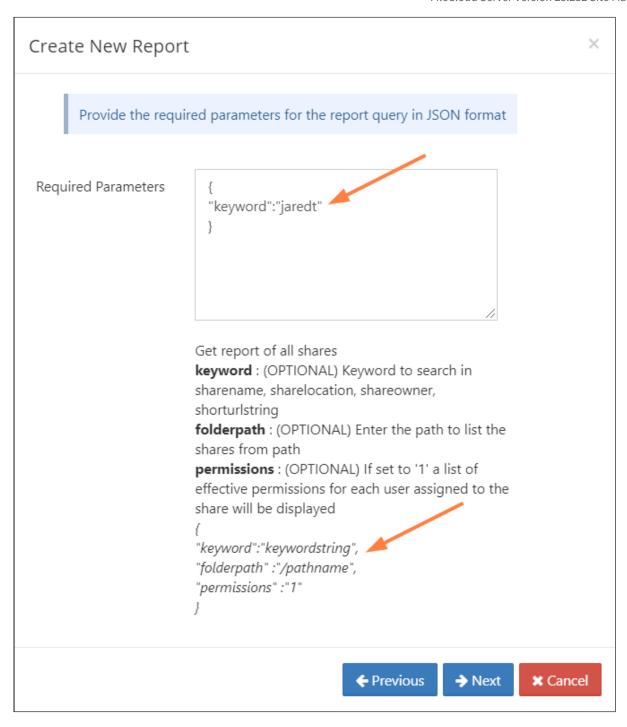
Some reports, such as reports on file actions and failed logins, get their data from the audit log. These reports only include events that are in the audit logs when you run the report.

Add Reports

Click the add report button and Select the report to create from the drop down list.



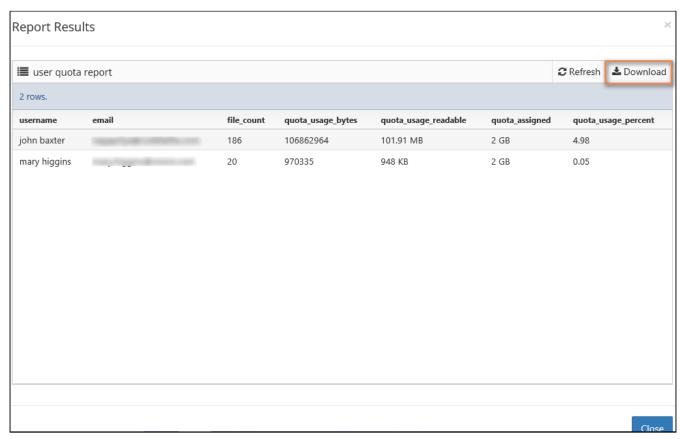
The next step is the set the parameters. The parameters can be entered in the text box. The format for the parameters are given on the bottom of the screen. The screen also indicates whether the parameters are optional or required.



The final step is to set a report name. The same report can be created multiple times with different parameters and named differently. This enables you to execute and download the reports quickly.

Download Reports

From the report list, run the report to view the report results in a separate window. First 30 rows are displayed on the screen. The download button can be used to download the data in csv format.



Available Reports

Report Name	Description
Retrieve client application information	Report of all remote client devices connected to FileCloud and their details. Data Retrieved: userid, client display name, client os type, client OS version, client api level, client last login Parameters: None

Report Name	Description	
Get client application grouped by OS	Report of total client devices that are connected to FileCloud grouped by client OS. Data Retrieved: client OS type(Windows, Android etc), total devices connected. Parameters: None	
Get client apps grouped by TYPE	Report of total client devices that are connected to FileCloud grouped by TYPE. Data Retrieved: Client Type(Sync, Drive etc), total devices connected. Parameters: None	
Get all file activities by users	Report of all add, update, share, download, and delete actions for files. If date parameters are not supplied, actions from last 7 days are retrieved. Data Retrieved: Timestamp of action, username, file name, action. Parameters: user: (OPTIONAL) Enter the username to list the file activities of the user from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s This report is available beginning in FileCloud 20.1.	
Get file type distribution in managed storage	Report of File types stored in FileCloud along with the total count of each type Data Retrieved: File Type, total files stored. Parameters: None	
Get storage usage by file type	Report of amount of storage space used by each file type. Data Retrieved : File type, sizeraw (file size in bytes), size (formatted file size) Parameters : None	
Get users who have most files in managed storage	Report of users who have the most files stored under FileCloud in managed storage Data Retrieved: username, total files stored. Parameters: None	

Report Name	Description	
Get user quota usage report	Report of users who use the maximum quote in FileCloud managed storage	
	Data Retrieved : username, email, file count, quote usage, quote assigned, quote usage percentage. Beginning with FileCloud version 20.3, the CSV file that is downloaded also displays the groups the user belongs to, the user's effective policy, and the user's last log-in date and time.	
	Parameters: None	
Get number of active files in managed storage	Report of total number of files that were changed in the last 1 day, 1 week, 1 month and 6 months Data Retrieved: days, total files changed, percent of files changed. Parameters: None	
Get uploaded files report	Report on what files were uploaded during a given period, or files uploaded by a user or group of users during a particular period.	
	Data Retrieved: Timestamp of upload, user name, user agent, IP address, file path, bytes of file uploaded	
	Parameters:	
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s username: (OPTIONAL) User account name - can be set only when from_date and to_date are specified ignore_from_owner: (OPTIONAL) Define if the uploads made from folders owned by the user are ignored (YES or NO, defaults to NO) 	
Get downloaded files report	Report on what files were downloaded during a given period, or files downloaded by a user or group of users during a particular period.	
	Data Retrieved: Timestamp of download, user name, user agent, IP address, file path, bytes of file downloaded	
	Parameters:	
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s username: (OPTIONAL) User account name - can be set only when from_date and to_date are specified ignore_from_owner: (OPTIONAL) Define if the downloads made from folders owned by the user are ignored (YES or NO, defaults to NO) 	

Report Name	Description
Get files tagged with metadata report	Report listing files/folders and their value for a specified metadata field.
	Data Retrieved: path of folder or file, username, metadata field, value of metadata field
	Parameters:
	 metadata_name: (REQUIRED) Name of the metadata set attribute_name: (REQUIRED) Name of the metadata attribute attribute_value: (OPTIONAL) Metadata attribute value
Get shares report	Report listing shares created.
	Data Retrieved: Timestamp of download, user name, user agent, IP address, file path, password
	Parameters:
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s username: (OPTIONAL) User account name - can be set only when from_date and to_date are specified
File query report	Report listing files or folders filtered by specified parameters if included. Data Retrieved: file or folder name, path, type (file or folder), size, last modification date, create date Note: Prior to FileCloud version 21.3, the year for the modification and create dates is returned in 2 digits (for example Parameters :
	 userid: (OPTIONAL) User id to retrieve listing. If not supplied, all user listings are generated sort: (OPTIONAL) Sort criteria can be "SIZE" or "MODDATE" or "CREATEDDATE" limit: (OPTIONAL) the total number of results searchterm: (OPTIONAL) Match keyword in file or folder name type: (OPTIONAL) Type can be "file" or "folder", default is "file" path: (OPTIONAL) Restrict report to files inside specified path. For help specifying the path correctly, see Identifying a FileCloud Specific Path.

Report Name	Description	
File count report	Report of file count in paths specified in parameters. Data Retrieved: number of files in each specified path. Parameters: List of paths. For help specifying the path correctly, see Identifying a FileCloud Specific Path.	
	Note : This report does not include versions, deleted files and thumbnails; however, these files are considered in quota calculations in other reports, so file counts throughout reports may not be the same.	
Get deleted files report	Report of deleted files.	
	Data Retrieved: Timestamp of delete, user name, user agent, IP address, file path	
	Parameters:	
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s 	
Get bandwidth usage for this instance of FileCloud	Report of the total bandwidth (upload and download) as tracked by this instance of the file cloud server.	
	Data Retrieved: upload bandwidth and download bandwidth	
	Parameters:	
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s 	
Managed Storage File, Folder Count, and Size report	Report of all folders and sub folders within a given path, showing each file count and total size of the folder	
	Data Retrieved : folder and sub folder path, file count and size	
	Parameters:	
	 path: (REQUIRED) Location path. For help specifying the path correctly, see Identifying a FileCloud Specific Path. 	
	This report is available in FileCloud version 20.3 and later.	
Get all exported secure docs report	Report of all files exported securely.	
	Data Retrieved : folder path, user performing the download, options enabled (screenshot/screenshare, secure view, or enable print), # times accessed, max access times, last access date	
	Parameters: None	

Report Name	Description		
Get user shares report	Report of all the shares created in FileCloud and their details. Data Retrieved : share name, share owner, share URL, share type, share location, created on, last access, expiry date Parameters :		
	 keyword - search keyword in share name, share owner, share url string (string following /url/) folderpath - location path. For help specifying the path correctly, see Identifying a FileCloud Specific Path. 		
	The CSV file that is downloaded contains additional information about users and groups that have access to each share.		
	This update is available in FileCloud Server version 18.2 and later.		
Get the advanced share activity of users	Report showing extensive details about the activity on a share. If no parameters are entered, the period reported is the last 7 days.		
	Data Retrieved : timestamp of action, action, action details (share permissions), folder name, path, affected user, affected user email address, author (person performing the action), author email address, change source IP, additional info (indicates if share is a folder), share URL		
	(i) For multiple entries of the same share, the Action Details column on the report shows the most recent share's permissions. If a user shares a folder and shares a file in that folder during the period reported on, the report displays separate entries for the folder and the file.		
	Parameters:		
	from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s owner: (OPTIONAL) Owner name		
	This report is available beginning in FileCloud 20.1.		
Get files/folders shared with user	Report listing the files and folders shared with a specific user		
	Data Retrieved : share name, share owner, share url, share location, type (private or public), expiry date, creation date		
	Parameter: email of share recipient		
	This report is available beginning in FileCloud 21.1.		

Report Name	Description	
Get effective permissions for team folders	Report on the permission level of each user who has access to a team folder.	
	Data Retrieved : folder, type (private or public), share location, user, permission	
	Parameters:	
	 paths: (OPTIONAL) List of the names of the team folders to include on the report. For help specifying the path correctly, see Identifying a FileCloud Specific Path. users: (OPTIONAL) List of users to be included in the report. 	
Get anonymous/unauthorized login geolocation report	Report of unauthenticated and anonymous users who accessed FileCloud showing users' IP addresses and location. To view location, Show Geo IP Chart in Settings > Admin must be set to TRUE .	
	Data Retrieved : IP address, operation, username, user agent, geo area, city, country, create date	
	Parameters:	
	 from_date: (OPTIONAL) From date in Y-M-d H:i:s to_date: (OPTIONAL) To date in Y-M-d H:i:s group_by_ip: (OPTIONAL) Set to "1" to group result by IP 	
	address	
Get user login report	Report of all logins to FileCloud and their details. If no parameters are entered, the period reported on is the last 7 days. Data Retrieved: login time, username, useragent, IP Parameters:	
	 from_date: (OPTIONAL) login from date to_date: (OPTIONAL) login to date OR 	
	last_number_of_hours: (OPTIONAL) number of hours before the present time to begin retrieving login records.	
	The last_number_of_hours parameter is available beginning in FileCloud 20.1. If from_date, to_date, and last_number_of_hours are entered together, last_number_of_hours is ignored.	
Get number of emails sent, grouped by sender	Report of the number of emails sent in the last X hours	
	Data Retrieved: sender, number of emails sent	
	Parameters:	
	 hours: number of hours ago to begin retrieving sent email records. 	

Report Name	Description		
Get statistics about DLP violations	Report of DLP violations by rule.		
	Data Retrieved: user, time of violation, user action, rule violated		
	Parameters:		
	 rule_name: (OPTIONAL) Name of the rule minutes: (OPTIONAL) How many minutes ago to begin looking at violations 		
	The CSV file that is downloaded also displays the files subjected to the rule violation and, beginning in FileCloud 20.1, the metadata and attributes tagged to those files.		
Get a report of active users	Report of active users in the last 15 minutes or for the time defined in minutes		
	Data Retrieved: user name		
	Parameters:		
	 minutes: (OPTIONAL) How many minutes ago to consider users as active 		
Get file movement statistics	Report of last file uploads, downloads, and shares (or share changes)		
	Data Retrieved: number of files downloaded, number of files uploaded, number of files shared and share changes		
	Parameters: None		

Specifying Y-M-d H:i:s values

Many of the report parameters require a date/time value in **Y-M-d H:i:s** format. The following table indicates the allowed values in this format.

Format	Description	Example/Possible values
Υ	Year, in 4-digit format	2021
М	Month, in 2-digit format, with leading 0 if necessary	00 to 12
d	Day, in 2-digit format, with leading 0 if necessary	01 to 31

Format	Description	Example/Possible values
Н	Hour, in 2-digit 24-hour format	00 to 23
i	Minute, in 2-digit format, with leading 0 if necessary	00 to 59
S	Second, in 2-digit format, with leading 0 if necessary	00 to 59

Including the **H:i:s** settings for time is not required.

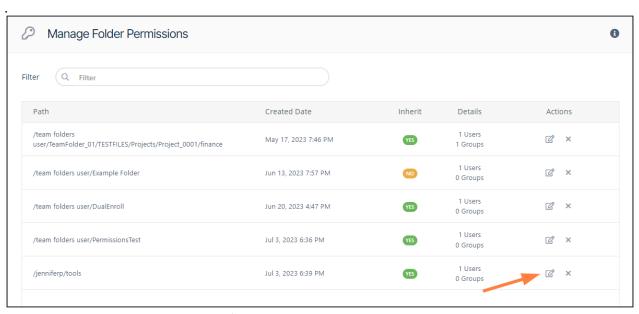
Manage Folder Level Permissions

Starting with FileCloud 14.0, administrators can manage all configured folder-level permissions. In order to view folder-level permissions, the admin must be the master admin or an admin user with access to the folder permissions enabled. An admin user can be granted access to the Folder permissions system through the Admins menu item on the left navigation panel (see Managing Admin Users).

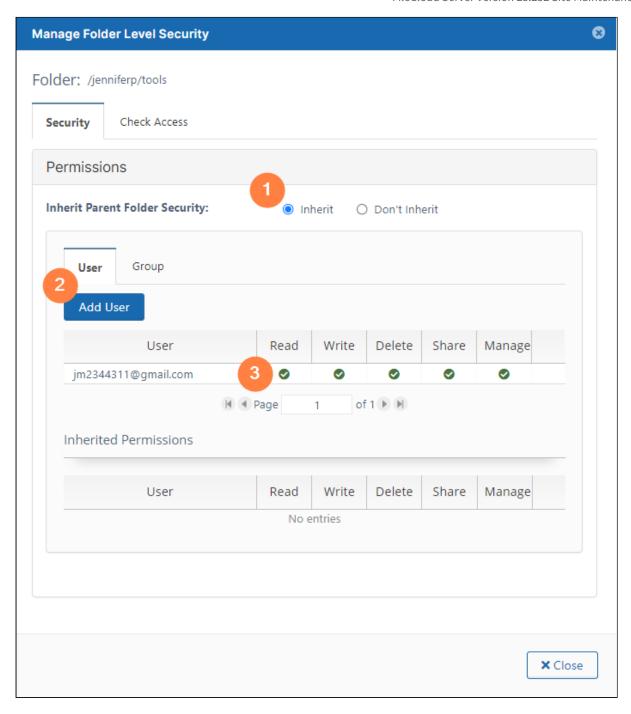
The screen displays the list of existing folder permissions set in the system. Use the **Filter** box to filter folder permissions on the folder path. Individual permissions can then be viewed, edited and deleted.

To Edit Folder Level Security

1. To open the Manage Folder Permissions screen, In the navigation panel, click Folder Permissions.



2. To open the Manage Folder Level Security dialog box, click the edit button.



- 1 By default, **Inherit** is selected. If you select **Don't Inherit**, users do not inherit permissions from a parent folder that they have access to, and the lower **Inherited Permissions** section no longer appears. For more information about inherited permissions, see **Enable Folder Level Permissions**.
- 2 Click **Add User** to add a user who has permission to access the file.
- **3** In the top list of users, check or uncheck levels of permissions. Click the delete button to completely remove the user's permissions to the folder. You cannot change the permissions or delete users with inherited permissions.

Read Only Sync

(i) Read only sync is supported starting from FileCloud 17.3

One way read-only syncing of shared folders is supported in FileCloud for Shared Folders with Folder Permissions.

To allow read-only synchronization of shared folders.

- Add this option to your cloudconfig.php file define("TONIDOCLOUD_ENABLE_READONLYSYNC", 1);
- 2. Setup folder permissions for folders read only permissions.
- 3. Share this folder allowing read, write and sync permissions

Now when users sync this folder using their sync app, read only folders are synchronized down their local sync folders, but any changes that are made are discarded.

- If a new file or folder is added to a local read only sync folder it is ignored.
- If a file is modified, the modifications are discarded in the subsequent sync cycle and replaced with the file from the server.
- In FileCloud versions 23.1 and later, the modified file is saved in the top-level local Sync folder with (ReadOnlyCopy_yyyy-mm-dd hh-mm-ss) appended to its name:

Name	Date modified	Туре
My Files Shared with Me	5/15/2023 1:51 PM 4/11/2023 1:14 PM	File folder File folder
	6/13/2023 2:19 PM	File folder
Sample Markdown(ReadOnlyCopy_2023-06-14 10-06-41).md	6/14/2023 10:06 AM	MD File

• If a file is deleted, the file is re-downloaded from the server and reappears in the local sync folder in the subsequent sync cycle

Read Only Sync 308

Managing Metadata

As an administrator, you can manage **metadata** to provide additional information about files and folders in FileCloud and to use the information when performing actions on them. FileCloud includes built-in metadata sets that include information such as image properties, file create dates, and metadata tags from other applications. FileCloud also allows you to build any number of custom metadata sets.

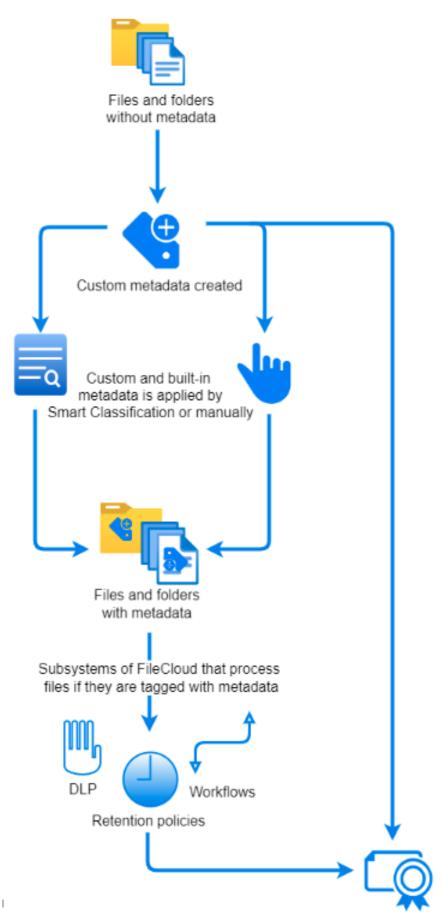
Metadata for governance and other system processes

Metadata serves an important role in the functioning of many processes in FileCloud, including compliance, data leak prevention (DLP), retention policies, and workflows. You can configure these processes to look for files and folders with certain metadata values and then act on matching files and folders accordingly.

The following diagram shows you how metadata is applied and used in FileCloud. First, create your metadata, if necessary. FileCloud includes built-in metadata, but for some purposes, such as identifying confidential or secure information, you must create custom metadata. After your custom metadata is created, Smart Classification automatically applies the correct metadata to files and folders. In addition, users can apply metadata manually.

After files and folders are marked with metadata, the DLP, retention, and workflow sub-systems of FileCloud use metadata to identify content to act on. Some examples are described below the diagram.

Once the necessary metadata, DLP rules, and retention policies have been configured, compliance standards can be met.



Here are some examples of the way the different sub-systems in FileCloud can use metadata:

- DLP: If a file's Confidential metadata attribute is equal to Yes, DLP prevents it from being shared externally.
- **Retention policies**: If a file's **Sensitivity Label** attribute is equal to **general,** then a retention policy of 3 years is applied to it.
- Workflows: If a file's Modified attribute is equal to a date over 3 months ago, then a workflow sends an email to the email address in Last Modified By.

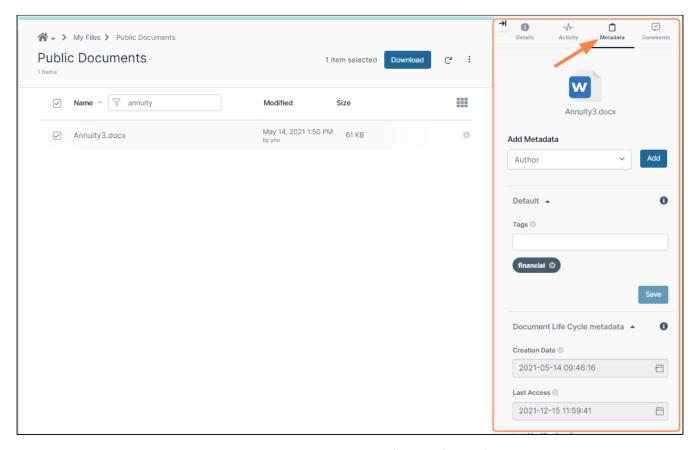
Here are some examples of the way compliance rules are met by metadata:

- The HIPAA section of the Compliance Center requires that your system include metadata that identifies PHI data.
- The ITAR section requires your system to use content classification to apply metadata tags to defense and technical articles, and then use DLP to block public sharing of the tagged articles.

Example of the process: In a medical facility's system, a new file is uploaded. Smart Classification searches its contents for the string **Medical Record Number**. It finds the string and applies the **PHI** metadata tag to the file. When an external user attempts to upload the file, a DLP rule identifies the **PHI** metadata tag, and therefore, does not allow the upload. In 2 weeks, a user attempts to delete the file, but a 6-year retention policy identifies the **PHI** metadata tag, and does not allow the file to be deleted.

Metadata for users

Metadata is also useful to your users, who can view the information it provides about files and folders in the Metadata tab in the side panel of the user portal. In the Metadata tab, users can view the metadata applied to a file or folder, and depending on their permissions, can add and change metadata.



Users can also search on metadata and apply color tag metadata to files and folders for categorization and identification purposes.

In this section

- Metadata Components and Types
- Create a New Metadata Set
- Edit an Existing Metadata Set
- Managing Metadata Attributes
- Managing Metadata Permissions
- Video of Managing Metadata
- Working with Built-In Metadata
- Working with Custom Metadata
- Working with Default MetadataTroubleshooting Metadata
- Finding files without metadata
- Metadata Limitations/Recommendations

Metadata Components and Types

FileCloud defines two levels of metadata definition:

1. Attribute - defines a single piece of information that user can specify for file or folder.

2. Metadata set - a group of related attributes with additional properties and settings. It works as a container for attributes.

See a Description of Metadata Terms

Figure 1. Metadata Terms

I = E: File Object	Metadata	Attribute	上二 三目 Metadata Set	Tag
Every file and folder that exists in FileCloud.	Information about the file data. Describes files and folders available in the system.	A single piece of information that describes the File Object. In FileCloud attributes are defined as a part of the metadata set.	A set of metadata attributes that might be logically grouped and can be attached as a single entity to File Objects.	a special type of attribute (referred to as the Array attribute type) that allows users to provide multiple custom values for each File Object.
For example: • a resume	For example: • Lives in the Human Resources Folder • Has a created date • Has a modified date	For example: • the candidate's photo in their resume	For example, resumes will always have: Photo Name Address Experie nce Educati on	For example: HR wants to tag a resume status as: Candidate New Hire OnBoarding

Metadata Set Types

FileCloud supports the following types of Metadata Sets:

ТҮРЕ	DESCRIPTION	SETS AVAILABLE
Default	This a special type of metadata set that is automatically associated with every single File Object when it is created, copied, uploaded, etc.	Defaults
	 For already existing File Objects it will be associated when the file / folder is accessed for the first time. Exactly one Default Set exists in FileCloud - it cannot be deleted, renamed or disabled, but administrators can customize attributes and permissions. Out of the box it is shipped with a single predefined attribute of Array type - Tags. 	

ТҮРЕ	DESCRIPTION		SETS AVAILABLE
Built-In	These are metadata sets that have been created for you.		 Image metadata Document Life Cycle metadata Microsoft Office Tag metadata Color Tag metadata PDF Tag metadata AIP Sensitivity Label metadata
	 Administrators can edit the attributes Administrators can choose to disable the use of this metadata 		
	When did each built-in metadata set become available?		
	The versions of FileCloud in which each built- in metadata set and its attributes became available are listed in the following table:		
	Built-in Metadata Set	FileClou d Version	
	Image	18.1	
	Document Life Cycles	18.1	
	Microsoft Office Tag	20.1	
	Color Tagging	20.3	
	PDF Tag	21.2	
	AIP Sensitivity Label	21.2	
Custom Metatdata Set	This is a fully customizable set of n defined by the administrator.	netadata,	As many as you want to create

How do I allow users to tag their files?

You must specify which users can access the Metadata attributes. If you do not add them, then the user will not be able to add a tag to their file.

Manage Metadata Permissions

3 Starting with FileCloud Version 20.1, by default, FileCloud files and folders stored on S3 and Azure cannot be downloaded for extraction if they are over 100MB. You may change the default size permitted for download using the procedure under **Allowed Memory Size Exhausted** on the Troubleshooting Metadata page.

More Information:

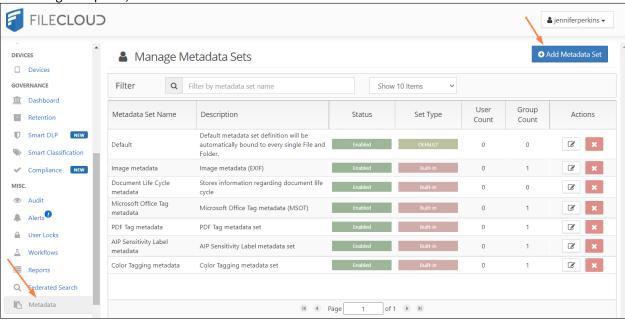
FileCloud Videos	FileCloud Blogs
	How to Best Utilize FileCloud's Metadata

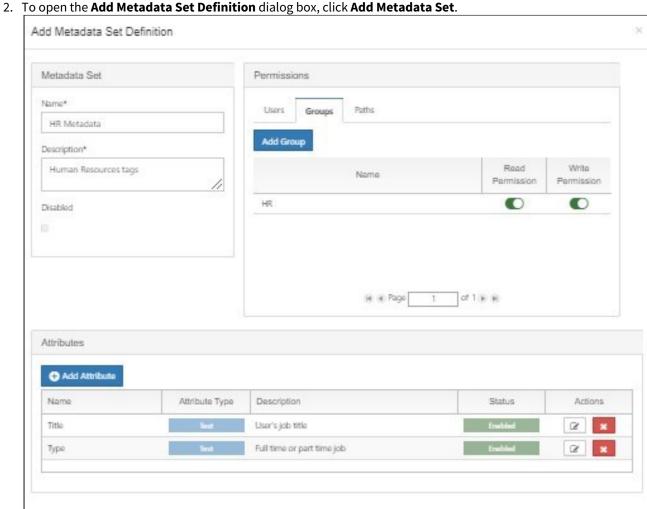
Create a New Metadata Set

Add a new metadata set definition

To add new metadata:

1. In the navigation panel, click Metadata.





- 3. Enter Name and Description and check Disabled if you don't want the metadata set to be enabled when you save. it.
- 4. Add users or groups and specify permissions for them. Define FileCloud paths (locations) that have access to the metadata set. For more details, see Managing Metadata Permissions.
- 5. Click Add Attribute and add at least one metadata attribute definition. For more details, see Create a New Metadata Set.

Metadata permissions

Although user / group permission widgets look very similar to share widgets, their behavior is different. Read / write permission changes for each user / group are not saved when the change happens (this is the process for shares). All changes are saved at the same time when **Create** is clicked.

Edit an Existing Metadata Set

Propagating changes

Once changes to the metadata set definition are saved the background process runs, which propagates changes made to the set definition to metadata_values collection that stores user provided attribute values. This is done to keep both collections in-sync and to increase performance for end-user metadata actions. Metadata info properties (name, description, status) are updated, permissions are omitted as they're not used in the metadata_values collection and the main task is to keep attributes in sync. There are three main use cases that are served by the task:

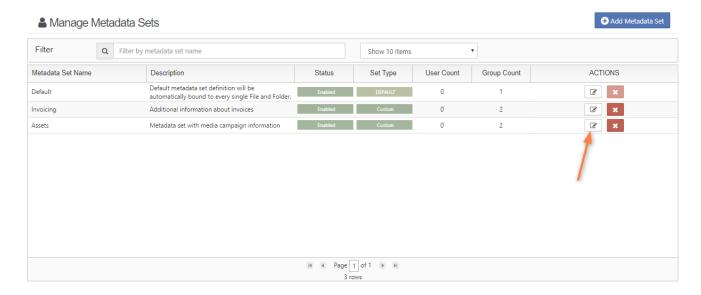
- 1. **New attribute is added** attribute definition is added to each associated metadata_values document. Default value provided for this attribute is used.
- Existing attribute is changed attribute definitions is updated for each associated metadata_values
 document. Existing values remain untouched even when default value was updated (the new value will be
 used for newly associated file objects but not for existing records).
- 3. **Attribute was deleted** attribute definition is removed for all associated file objects. **Values are removed** accordingly. This operation cannot be reverted so all values for this attribute **will be lost**.



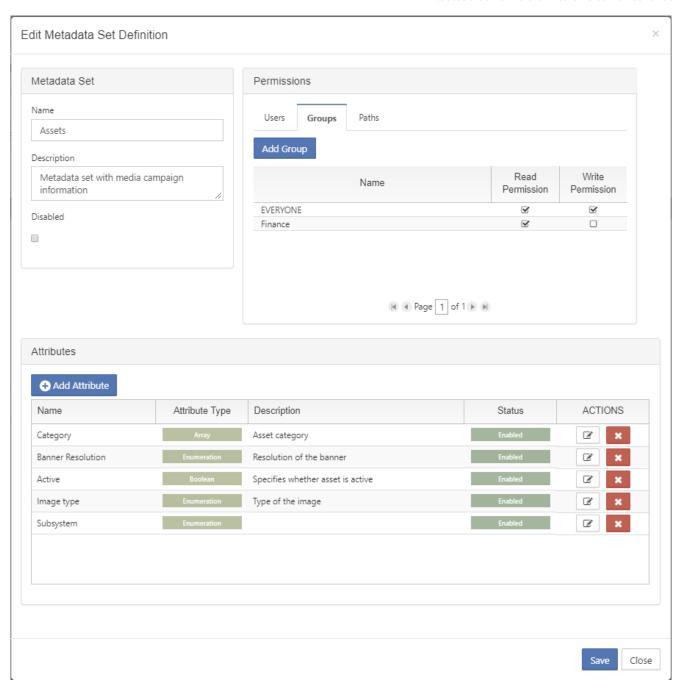
- The Default Metadata set is a special type and cannot be renamed.
- Although user/group permission widgets look very similar to share widgets their behavior is different. Read/ write permission change for each user/group is not saved when the change happens (this is the process for shares). All changes are saved at the same time - when the "Save" button is clicked.
- When an existing attribute is removed **all** associated values will be removed. This operation cannot be reverted.

To edit an existing metadata set:

- 1. Open a browser and log in to the Admin Portal.
- 2. From the left navigation pane, under Misc., click Metadata.
- 3. On the Manage Metadata Sets screen, find the set you want to edit.
- 4. In the row of the set you want to edit, under ACTIONS, click the edit button ().

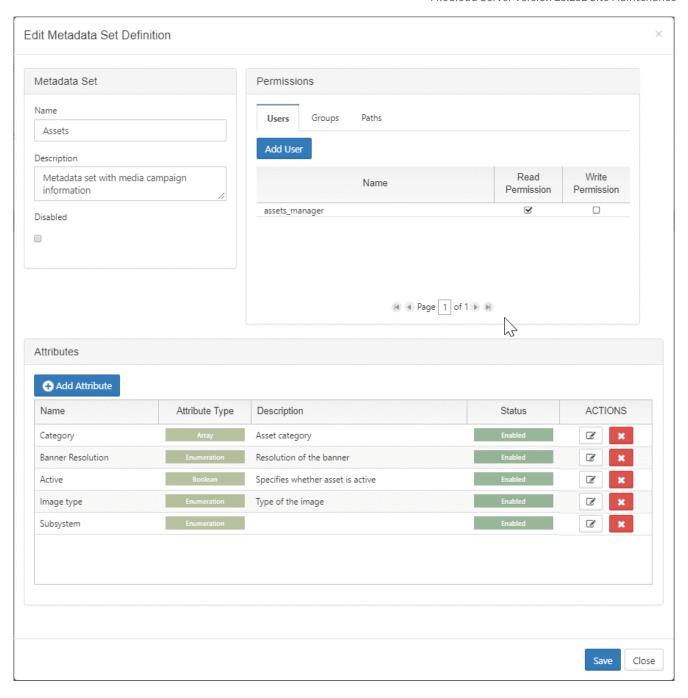


The Edit Metadata Set Widget will appear where set definition can be edited.



Administrator can edit set properties, permissions and attributes. Once edited click "Save" button to store changes.

When there are some pending changes and admin is about to close the edit dialog following confirm prompt will appear.



Managing Metadata Attributes



Administrators can manage metadata tags in FileCloud.

Attribute Types

Each attribute can have one of the following types:

Attribute type	Accepted values	UI editor type	Values validation
Text	Regular text value	TextBox	-
Integer	Integer numbers	TextBox	Type validation
Decimal	Decimal numbers	TextBox	Type validation
Boolean	True / False value	CheckBox	-
Date	Date value	Date picker	-
Enumeration	One value from a list of predefined values	Drop down / Select	-
Array (Tag)	A number of custom values provided by user	Tag Input - custom editor	-

Attribute type cannot change once the definition is saved.

How do I add or delete attributes?

You can use the following ways to manage attributes:

- Edit Metadata Set Definition window
 - A new attribute can be added by clicking the "Add Attribute" button in the Attributes section of the Metadata definition widget.
 - Existing attributes can be edited by clicking the "Edit Attribute Definition" icon.
 - Existing attributes can be removed by clicking the "Delete Attribute Definition" icon.
- Tag Input Editor
 - Tag input is a custom editor that allows users to provide multiple values for a single attribute with a better experience.
 - It looks like a regular TextBox but supports multiple values.
 - When user writes a string and presses the Enter or enters a comma a new value is added to the control.
 - It's called a Tag and appears as a text in a blue rectangle. Values can be removed by pressing the cross icon.

• It is used as the editor for the Array attribute type (in the User Core UI) and as the editor for Predefined values for enumeration attribute type (in the Admin UI).



See a video on Managing Attributes.

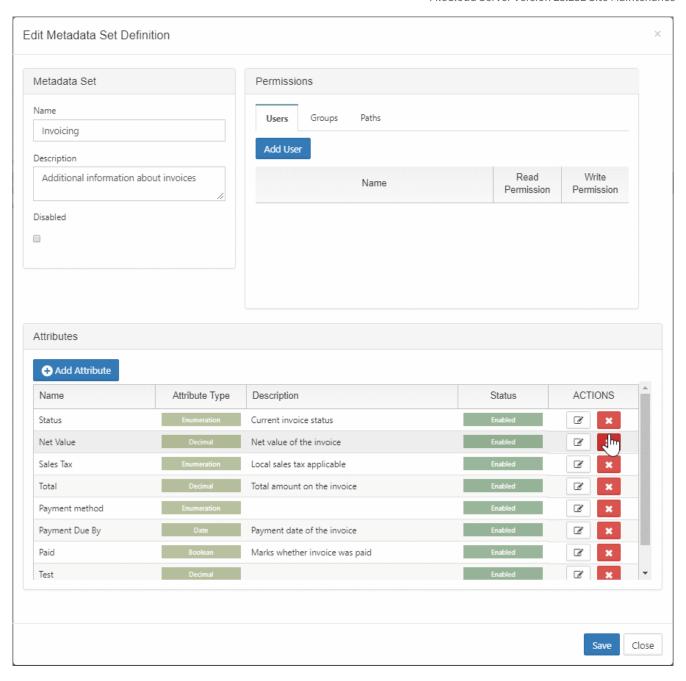


1 All attribute definition changes take effect when the whole set definition is saved.

Video of Managing Metadata Attributes



Administrators can manage metadata tags in FileCloud Server.



Managing Metadata Permissions



Administrators can use FileCloud Server to set the following Metadata types of permissions:

- User/group permissions (read/write) these grant access to specific users and
- Allowed paths support which affects File Objects based on their location.

What are effective permissions?

When setting Metadata permissions, you need to consider additional permissions on the File Object such as:

- · lock permissions,
- · share permissions,
- network folder permissions,

Effective permissions include all of these considerations. For example, on a shared file, if a user has write permission to the metadata set but read-only access to share then the effective metadata permission would be read-only.

Table 1. Permissions Examples

Use r per mis sion s	Gro up per mis sion s	Allowed Paths	File Object	Addit ional permi ssion s	R e a d	W ri t e	Comment
Writ e	Rea donl y	All	/USERNAME/assets	-	Х	х	Write permission is granted based on the user permissions
Writ e	-	All	/USERNAME/assets/ image1.png	write lock	х	-	As lock is applied readonly access to metadata will only be granted
Rea donl y	Writ e	All	/SHARED/user1/ assets	view only acces s for share	x	-	Share permissions will narrow metadata permissions to readonly
Rea donl y	Writ e	/USERNAME/ assets	/USERNAME/assets/ images	-	х	х	As file path is a subpath of one of the allowed paths user will be granted the write access for metadata
Writ e	_	/USERNAME/ assets	/USERNAME/images	-	-	-	The path isn't allowed so no metadata permissions are granted at all

How do I grant users permission to access Metadata?

The process of adding group permissions is similar to adding user permissions. The main difference is that when you use the *Add Group* button, all available groups are listed immediately. The rest of the process is exactly the same.

To grant a user access to the Metadata field:

- 1. Log in to the Admin Portal.
- 2. In the *Home* navigation panel on the left side, under *Misc.*, select *Metadata*.
- 3. In the *Manage Metadata Sets* section, select the one you want to grant access, and then click on the edit icon
- 4. In the Edit Metadata Set Definition window, in Permissions, select the Users tab, and then click Add User.
- 5. In the Search Users window, in Account or Email, type in the user's information, and then click Search.
- 6. Select a user, and then you are returned to the Edit Metadata Set Definition window.
- 7. By default, the user is granted both *Read* and *Write* permissions.
- 8. Select the *Read* checkbox to grant or deny the user Read permissions.
- 9. Select the Write checkbox to grant or deny the user Read permissions.
- 10. At the bottom of the Edit Metadata Set Definition window, click Save.

⚠ It is very important to remember that all changes made to permissions are not saved until "Save" button is clicked and the validation is successful.



Watch a video on granting users permission to access Metadata.

How do I allow paths on which the metadata sets can be added?



All paths have to have one of the following formats:

- /USERNAME/...
- /EXTERNAL/...

Administrators can choose to allow all paths or specific paths on which the metadata sets can be added.

- By default all paths are allowed.
- When an administrator wants to provide a specific set of allowed paths:
 - the "Allow Selected Paths" option has to be selected and
 - all allowed paths have to be specified via the Add Allowed Path dialog.
- When the path is added it will be displayed on the list.
- A path can be removed from the list by clicking on the "Remove Allowed Path" icon.

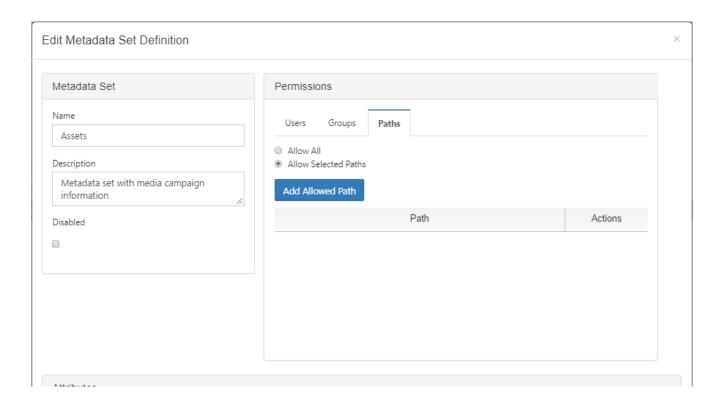
(i) When path is allowed all sub-paths are automatically allowed as well. For example, when path: / USERNAME/assets is allowed than automatically the sub-paths /USERNAME/assets/images, /USERNAME/ assets/videos/HD, etc are allowed.



Watch a video on creating allowed paths.

Video of Allowing Paths for Metadata Permissions

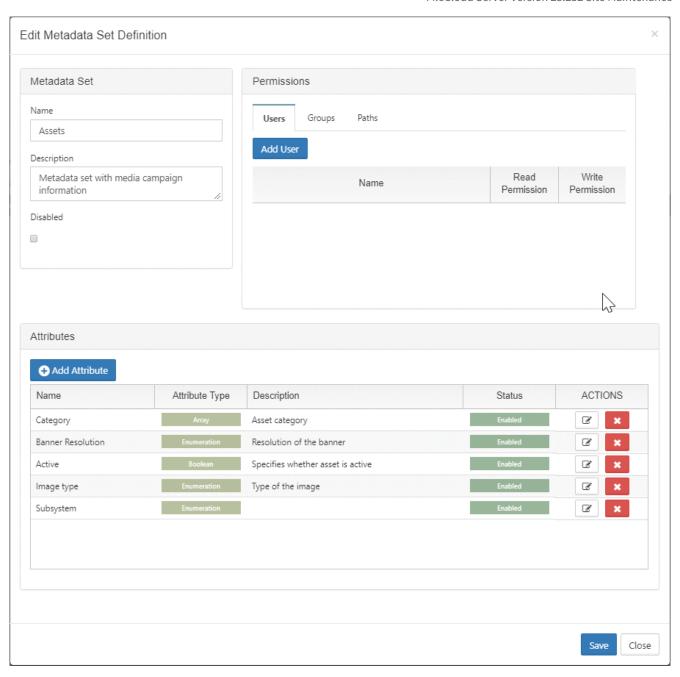
Administrators can use FileCloud Server to set Metadata permissions allowed paths. This affects File Objects based on their location.



Video of Granting a User Metadata Permissions

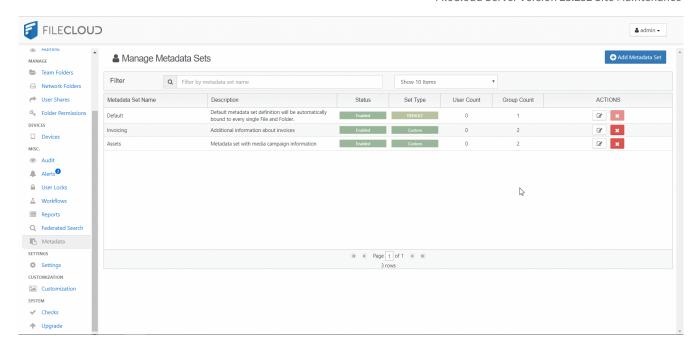


Administrators can grant user permission to access metadata fields for tagging their files.



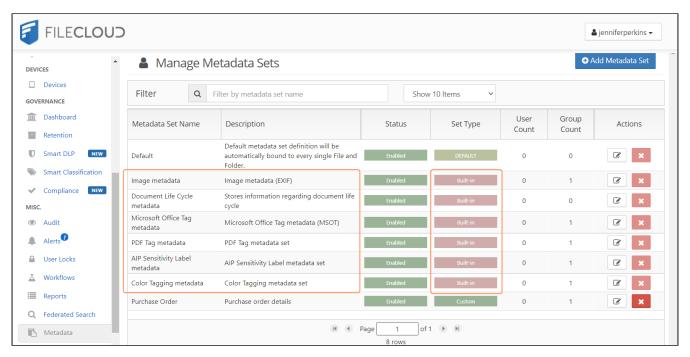
Video of Managing Metadata

Administrators can manage data that provides additional information about files and folders available in FileCloud using **Metadata**.



Working with Built-In Metadata

Built-in is a special type of metadata set that is automatically created for you.



Unlike the Default metadata set:

- · Built-In sets cannot be renamed
- Built-In sets are not limited to paths

The versions of FileCloud in which each built-in metadata set and its attributes became available are listed in the following table:

Built-in Metadata Set	FileCloud Version
Image	18.1
Document Life Cycles	18.1
Microsoft Office Tag	20.1
Color Tagging	20.3
PDF Tag	21.2
AIP Sensitivity Label	21.2

The Color Tagging metadata set differs from the other built-in metadata sets because its Tag attribute can be edited (but not deleted).

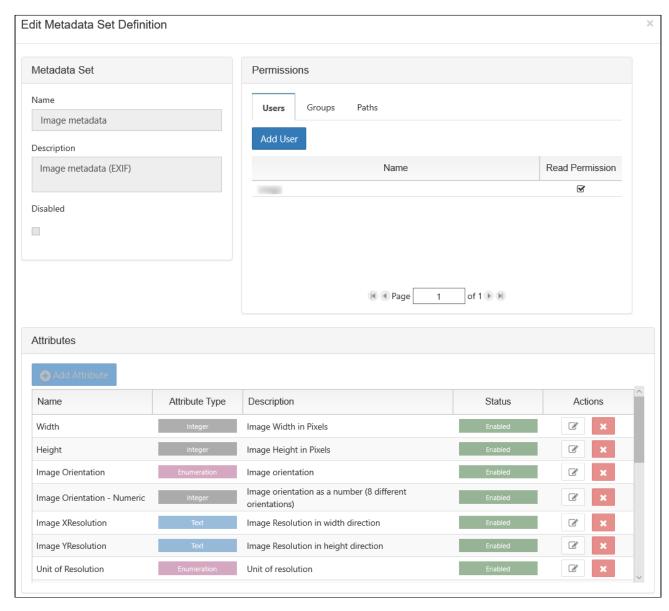
The attributes of all other built-in metadata sets cannot be edited or deleted.

The sets that have been created for you include:

Image Metadata

The Image Metadata set is based on the Exchangeable Image File Format (Exif) and is a standard that records the important data on image files such as shutter speed, aperture, ISO Speed, lens type etc.

- The Exif data provides valuable information to organize photographs, perform searches and provide vital information to photos stored in FileCloud.
- This set is provided to you so that you can allow users to store and search image attributes using metadata.
- FileCloud does not apply Image metadata for Azure/S3 Network Folders.



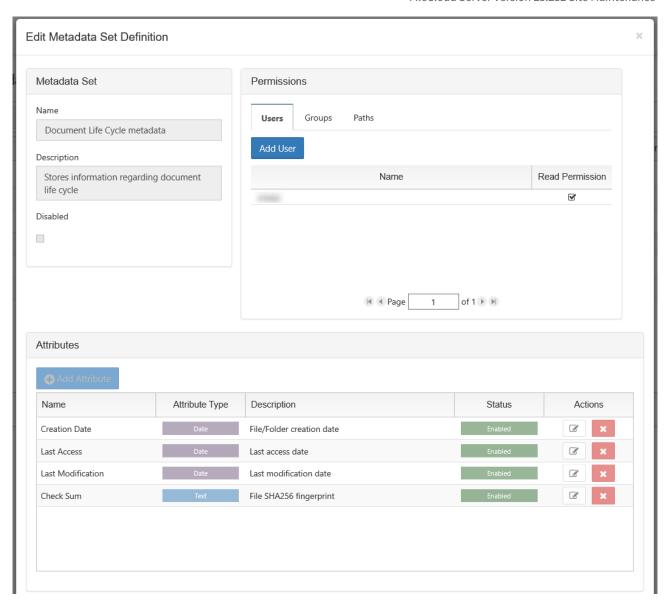
The following attributes exist in the Image BUILT-IN metadata set:

	Description	Options
Name	Title for the metadata set: Image metadata	RequiredThis cannot be changed
Description	By default, says: Image metadata (Exif)	RequiredThis cannot be changed

	Description	Options
Disabled	Stops the metadata set from being automatically bound to every new file and folder.	Not selectedThis cannot be changed
User Permissions	 Grant access to specific users to: Read: this permission displays the metadata to the user in the User Portal For more information, read Managing Metadata Permissions 	Not RequiredRead
Group Permissions	 Grant access to specific groups to: Read: this permission displays the metadata to the user in the User Portal For more information, read Managing Metadata Permissions 	Not RequiredRead
Path Permissions	File Objects in this location will have the metadata set applied	Not availableThis cannot be changed
Attributes	A number of tags that are built-in for image files	 Width: Image width in pixels Height: Image Height in pixels Image Orientation Image Orientation - Numeric: orientation as a number Image XResolution: width direction Image YResolution: height direction Unit of Resolution

Document Life Cycle Metadata

This set stores information about a document's life cycle.



The following attributes are included in the Document Lifecycle metadata set:

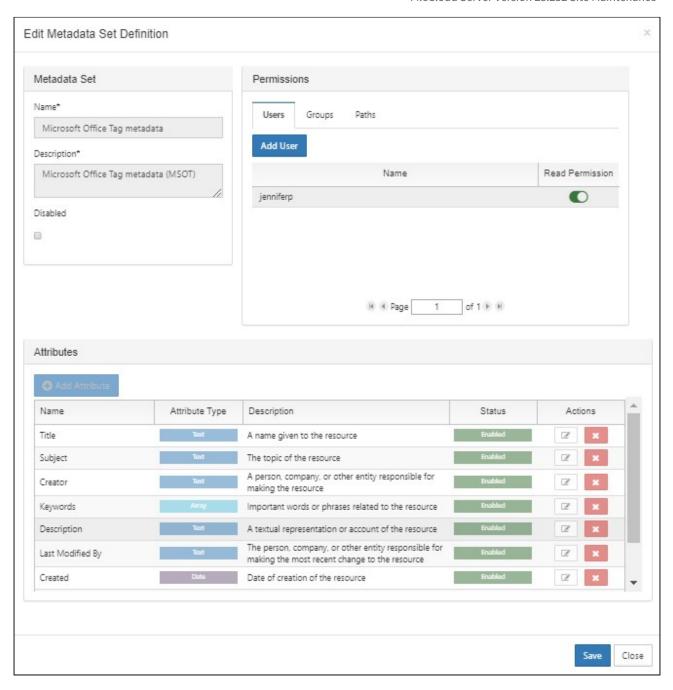
	Description	Options
Name	Title for the metadata set: Document Life Cycle Metadata	RequiredThis cannot be changed
Description	By default, says: Stores information regarding document life cycle	RequiredThis cannot be changed

	Description	Options
Disabled	Stops the metadata set from being automatically bound to every new file and folder.	Not selectedThis cannot be changed
User Permissions	 Grant access to specific users to: Read: this permission displays the metadata to the user in the User Portal For more information, read Managing Metadata Permissions 	Not RequiredRead
Group Permissions	 Grant access to specific groups to: Read: this permission displays the metadata to the user in the User Portal For more information, read Managing Metadata Permissions 	Not RequiredRead
Path Permissions	File Objects in this location will have the metadata set applied	Not availableThis cannot be changed
Attributes	A number of custom values (tags) extracted from the file. One of these attributes is a SHA256 Fingerprint (file checksum). • This is a unique text string generated by the SHA-1 hash algorithm. • It is a standard for the implementation of a secure hash algorithm. • It is a one-way cryptographic function that can be used to act as a 'signature' of a sequence of bytes. • It is very unlikely that 2 different byte sequences would produce the same value (though not impossible)	 Creation Date Last Access Last Modification Check Sum: File SHA256 Fingerprint

Microsoft Ofiice Tag metadata

Microsoft Office Tag metadata enables the system to apply FileCloud tags that match existing tags in MS Office documents (.docx, .xlsx and .pptx files) when they were uploaded to FileCloud.

⚠ FileCloud does not apply Microsoft Office Tag metadata for Azure/S3 Network Folders.



The following attributes are included in FileCloud's Microsoft Office Tag metadata set:

	Description	Options
Title	Name of file.	 Not required Read (can only be changed in Microsoft Office file before uploading)

	Description	Options
Subject	Topic of file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Creator	User who created file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Keywords	Keyword tags assigned to file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Description	Description of file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Last Modified By	Last user who modified file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Created	Date file was created.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Modified	Date file was last modified.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Category	Category of file.	 Not required Read (can only be changed in Microsoft Office file before uploading)
Sensitivity Labels	Sensitivity level of data in file, such as Public or Confidential .	 Not required Read (can only be changed in Microsoft Office file before uploading)
		Note: You can only view and capture sensitivity labels if you have enabled them in Office. They are disabled by default. Please see the following note regarding them.

Use of MSOT Sensitivity Labels in FileCloud

By default, FileCloud does not capture MSOT sensitivity label data even if sensitivity labels are enabled in Office.

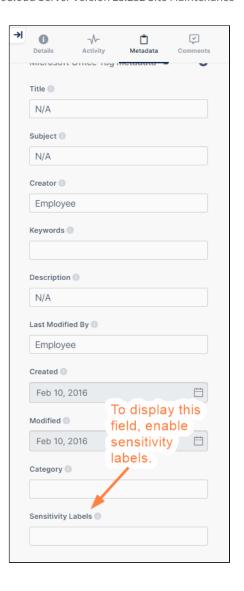
Prior to FileCloud 21.2, enabling the Sensitivity Label field was the only way to extract sensitivity label data. In FileCloud 21.2, AIP Sensitivity Label metadata, which captures more details and applies to more file types was added to replace this method; however, the MSOT sensitivity label is still available for backwards compatibility.

To enable FileCloud to capture MSOT sensitivity label data and to display the **Sensitivity Label** field in the **Metadata** panel, add the following setting to the config file.

To enable MSOT sensitivity labels in FileCloud:

- Open cloudconfig.php: Windows Location: XAMPP DIRECTORY/htdocs/config/ cloudconfig.php Linux Location: /var/www/config/cloudconfig.php
- 2. Add the following:

define('TONIDO_DISABLE_MSOT_SENSITIVITY_LABELS'
, 0);

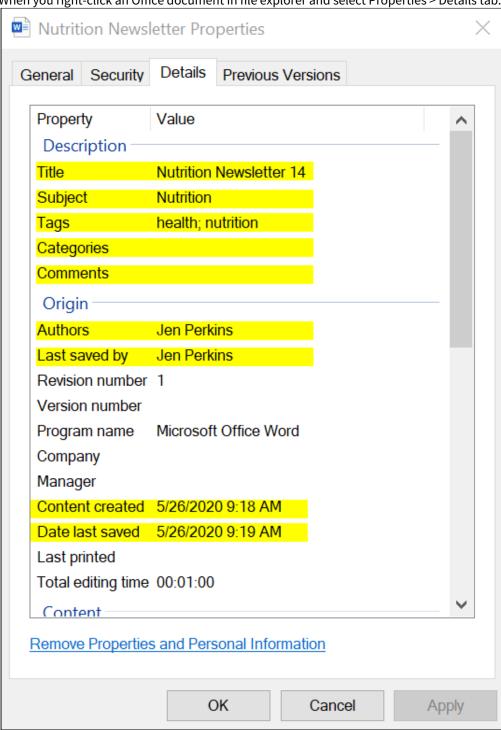


There are several ways in MS Office that you can view, add, and modify the properties:

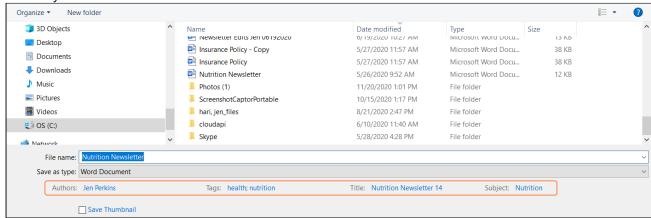
From within an Office document by clicking Properties in the toolbar:

<u> </u>	Protect Document	Properties ~	
<u>Q</u>	Control what types of changes people can make to this	Size	11.5KB
tect nent ~	document.	Pages	1
		Words	7
_	In an a at Da avina ant	Total Editing Time	2 Minutes
	Inspect Document	Title	Nutrition Newsletter 14
k for	Before publishing this file, be aware that it contains: Document properties and author's name	Tags	health; nutrition
es Y	bocament properties and dadions finding	Comments	Newsletter sent to all
			members
	Version History	Related Dates	
sion	View and restore previous versions.	Last Modified	Today, 9:19 AM
ory		Created	Today, 9:18 AM
		Last Printed	loudy, 9.10 Alvi
N	Manage Document	Last Printed	
	而 There are no unsaved changes.	Related People	
anage ument ~	III There are no ansaved changes.	Author	JP Jen Perkins
			Add an author
	Slow and Disabled COM Add-ins Manage COM add-ins that are affecting your Word experience.	Last Modified By	JP Jen Perkins

When you right-click an Office document in file explorer and select Properties > Details tab:



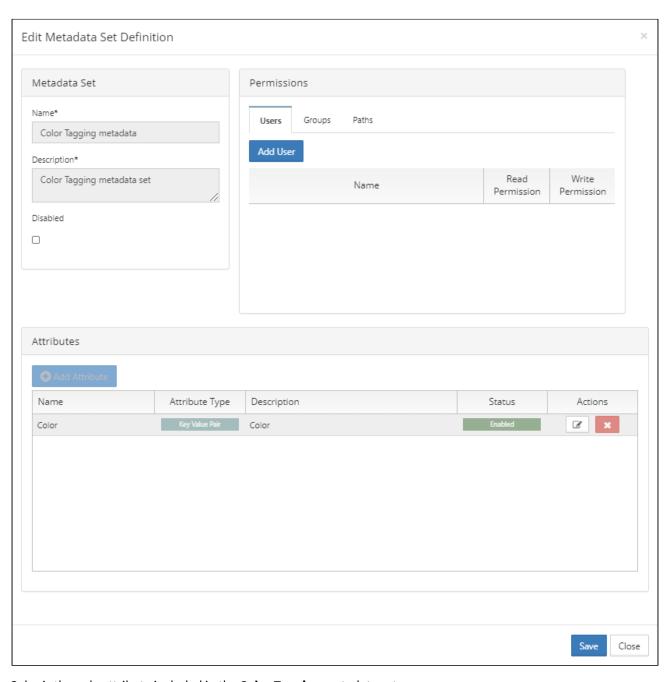
Or when you save an Office document:



Microsoft Office property	Corresponding FileCloud metadata attribute
Title	Title
Subject	Subject
Tags	Keywords
Categories	Category
Comments	Description
Author	Creator
Last saved by/Last modified by	Last modified by
Content created/Created	Created
Date last saved/Last modified	Modified
Sensitivity	Sensitivity Label

Color Tagging Metadata

The **Color Tagging** metadata set enables you to apply color tags to files and folders. It includes a single **Color** attribute that has six default values: Red, Yellow, Green, Aqua, Blue, and Purple. Admins can add other color values to the attribute.



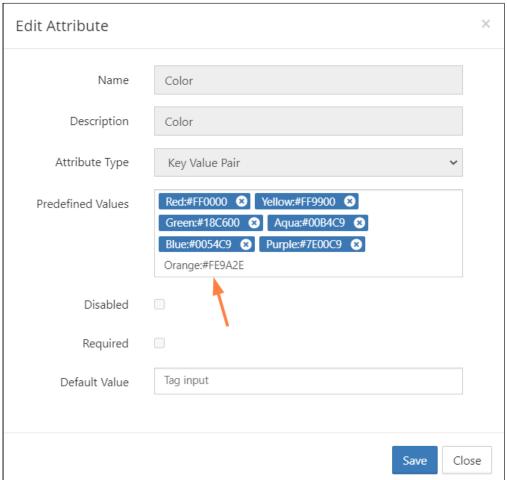
Color is the only attribute included in the **Color Tagging** metadata set.

Name	Description	Options
Color	An array of color tags in the format Color:Hexadecimal value	Not requiredColor tags can be added and deleted.

Color values are added to the **Color** attribute with the name of the color and its hexadecimal value. To find hexadecimal codes for colors, see https://html-color-codes.info/.

To add values to the Color attribute:

- 1. To open the Edit Metadata Set Definition dialog box, click the Edit button for Color Tagging metadata.
- 2. Under **Attributes**, click the Edit button for **Color**. The **Edit Attribute** dialog box opens.
- 3. Click in the **Predefined Values** box, and type the name of a color followed by **:**# and then the hexadecimal color code.



4. Click Enter.

The color is saved and formatted with white letters on a blue background.

Add any number of custom colors and click Save.
 The colors now appear as options to users when they apply color tags to files or folders.

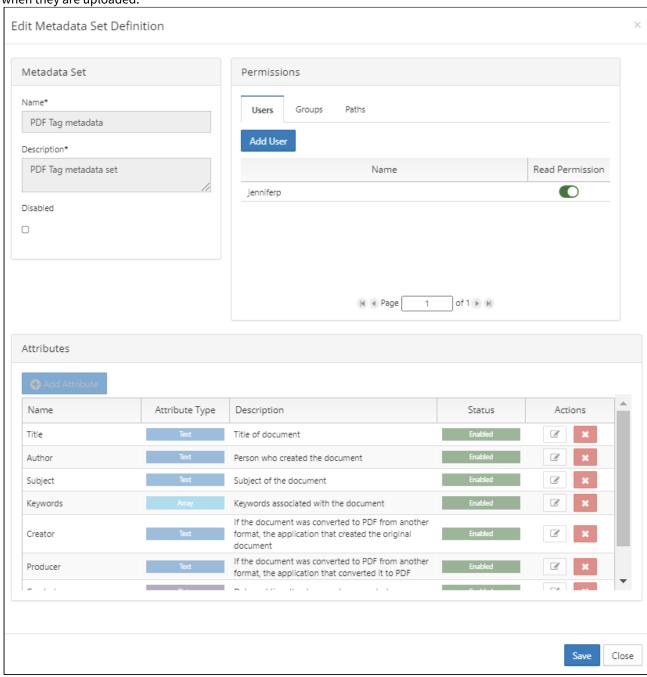
For information on applying color tags to files, see Color Tag Metadata.

Beginning with FileCloud 21.1, the Smart Classification can apply color tag values to files.

(i) Although users can search on color metadata in both the new and classic user interfaces, they can only apply color tags to files and folders in the new interface.

PDF Tag metadata

The **PDF Tag** metadata set enables FileCloud to apply FileCloud tags that match default and custom tags in PDF files when they are uploaded.



The following attributes are included by default in FileCloud's PDF Tag metadata set:

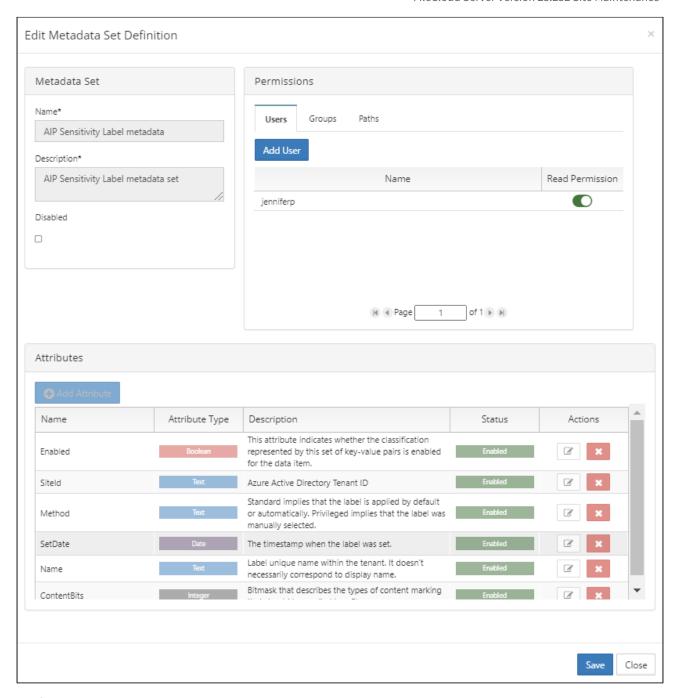
Description	Options
-------------	---------

Title	Title of document.	Read only
Author	Author of document	Read only
Subject	Subject of document.	Read only
Keywords	Keywords associated with document.	Read only
Creator	Application used to create file before it was converted to PDF.	Read only
Producer	Application used to convert this file to PDF.	Read only
Created	Date created.	Read only
Modified	Date last modified.	Read only

AIP Sensitivity Label metadata

Note: AIP Sensitivity Label metadata was added in FileCloud Version 21.2 and currently applies only to Microsoft Office Word, Excel, and Powerpoint files. In the future, it will be applied to additional file types.

AIP Sensitivity Label metadata stores sensitivity label information applied to files using Azure Information Protection when the files are uploaded to FileCloud.



The following attributes are included in FileCloud's AIP Sensitivity Label metadata set:

	Description	Options
Enable d	Whether the sensitivity label is enabled for this item.	Read only

	Description	Options
SiteID	Azure Active Directory tenant ID.	Read only
Method	Indicates whether label was applied by default/automatically or if the label was applied manually. Value may be: Standard - Label was applied by default or automatically. Privileged - Label was applied manually.	Read only
SetDat e	Timestamp when label was set.	Read only
Name	Unique label name (may differ from display name).	Read only
Conten tBits	Bitmask that describes the types of visual marking that should be applied to the file to identify the sensitivity category. See https://docs.microsoft.com/en-us/azure/information-protection/configure-policymarkings for more information.	Read only

Working with Custom Metadata

(i) Metadata functionality is available in FileCloud 18.1 and later.

Administrators can manage data that provides additional information about files and folders available in FileCloud using **Metadata.**

FileCloud allows you to create a fully customizable set of metadata, defined by the administrator.

Managing Metadata Sets

- Create a new Set Definition
- → Manage Metadata Permissions
- → Edit an existing Set Definition

Delete a Set Definition



Default Metadata Set cannot be removed.



You cannot undo or revert this deletion.

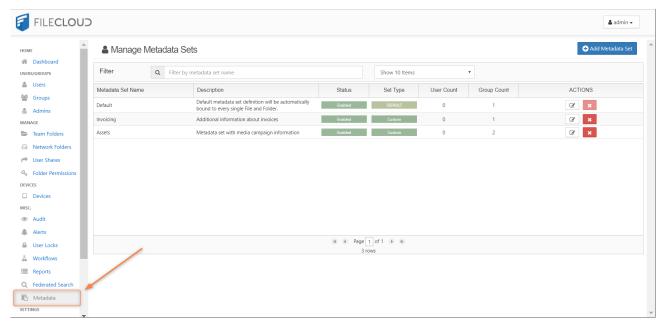
To delete an existing Custom metadata set definition:

- 1. Log in to the Admin Portal.
- 2. In the *Home* navigation panel on the left side, under *Misc.*, select *Metadata*.
- 3. In the Manage Metadata Sets section, select the one you want to grant access, and then click the

View the Set Definition List

The metadata set definitions screen displays the list of defined metadata sets.

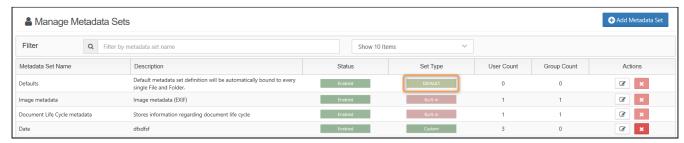
- The filter text box can be used to filter the metadata sets based on the metadata name.
- The individual metadata set on the metadata list can be viewed, edited and deleted.
- New metadata sets can be added by clicking the Add Metadata Set button and filling in the metadata set definition form.



Working with Default Metadata

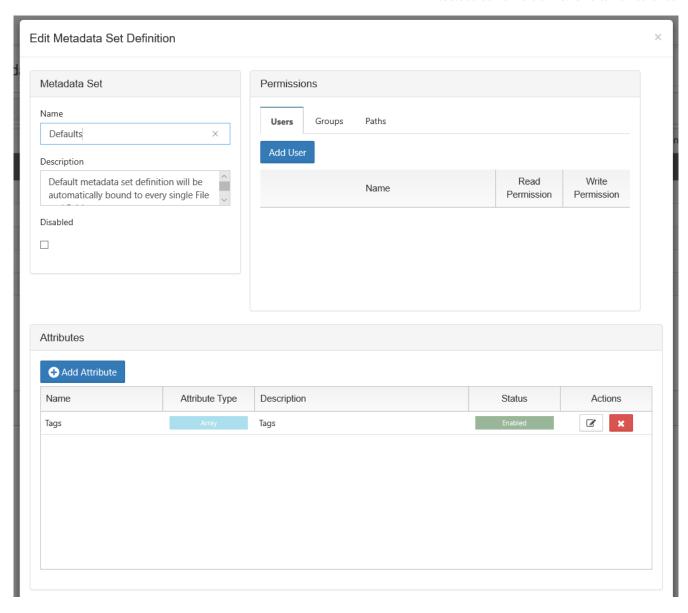
DEFAULT is a special type of metadata set that is automatically associated with every single File Object when it is created, copied, uploaded, etc.

- For already existing File Objects it will be associated when the file or folder is accessed for the first time.
- Exactly one Default Set exists in FileCloud it cannot be deleted, but administrators can customize attributes and permissions or disable it.
- Out of the box it is shipped with a single predefined attribute of Array type Tags.



1 The DEFAULT metadata set can be disabled but it cannot be deleted.

The following attributes can be edited in the DEFAULT metadata set:



	Description	Options
Name	Title for the metadata set.	RequiredThis can be changedValidated on Creation
Description	By default, says: Default metadata set definition will be automatically bound to every single File and Folder.	RequiredThis can be changedValidated on Creation

	Description	Options
Disabled	Stops the metadata set from being automatically bound to every new file and folder.	 By default this is not selected You can choose to disable this set
User Permissions	 Grant access to specific users to: Read: this permission displays the metadata to the user in the User Portal Write: this permission allows the user to add, edit, copy, or paste a value For more information, read Managing Metadata Permissions 	Not RequiredReadWrite
Group Permissions	 Grant access to specific groups to: Read: this permission displays the metadata to the user in the User Portal Write: this permission allows the user to add, edit, copy, or paste a value → For more information, read Managing Metadata Permissions 	Not RequiredReadWrite
Path Permissions	File Objects in this location will have the metadata set applied For more information, read Managing Metadata Permissions	Not Required
Array	A number of custom values (tags) provided by the administrator	NameDescriptionDisabledRequiredTag Input
	How To Edit a Metadata Set	

Troubleshooting Metadata

Allowed Memory Size Exhausted

An error message similar to the following indicates that while uploading a large file, the system could not extract metadata because it required more memory than the allowed PHP memory limit:

019-04-05 5:27:29 - ERROR : CLFC-00004 ERROR | 2019-04-05 05:27:29 | 1 | Allowed memory size of 524288000 bytes exhausted (tried to allocate 316675836 bytes)

Starting with FileCloud Version 20.1, the setting TONIDOCLOUD_MAX_METADATA_EXTRACTION_FILE_SIZE_MB in cloudconfig.php file enables you to override the maximum file size for automatic metadata extraction to take place.

By default, the value of the setting is:

- 500MB for local storage
- 100MB for Azure / S3

For example, if the value of the setting is 500, when files over 500 MB are uploaded, metadata extraction will not occur.

Change the maximum file size for metadata extraction:

- 1. Open cloudconfig.php at
 - Windows: XAMPP DIRECTORY/htdocs/config/cloudconfig.php
 - Linux: /var/www/config/cloudconfig.php
- 2. Find the following:

```
define("TONIDOCLOUD_MAX_METADATA_EXTRACTION_FILE_SIZE_MB",500);
```

3. Change the value of the setting. For example:

```
define("TONIDOCLOUD_MAX_METADATA_EXTRACTION_FILE_SIZE_MB",128);
```

Finding files without metadata

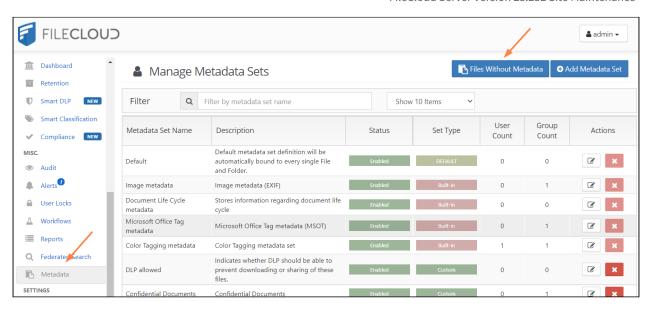
Smart Classification does not apply metadata to files over a specified size, but you can add metadata to those files manually. Beginning in FileCloud 20.1, you can configure your system to search for files without metadata.

Find files without metadata:

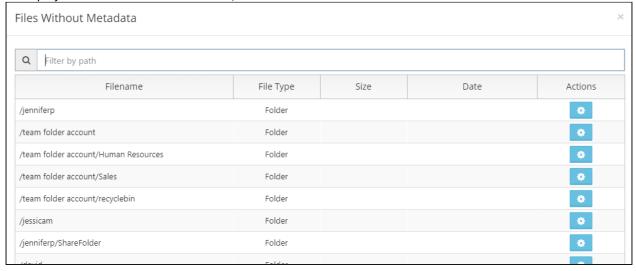
- Open the configuration file: Windows: XAMPP DIRECTORY/htdocs/config/cloudconfig.php Linux: /var/www/config/cloudconfig.php
- 2. Add the line:

```
define('TONIDOCLOUD_SHOW_FILES_WITHOUT_METADATA', true);
```

3. In the navigation bar, click **Metadata**. Now the upper-right corner of the Manage Metadata Sets screen displays a **Files Without Metadata** button.



4. To display a list of files without metadata, click Files Without Metadata.

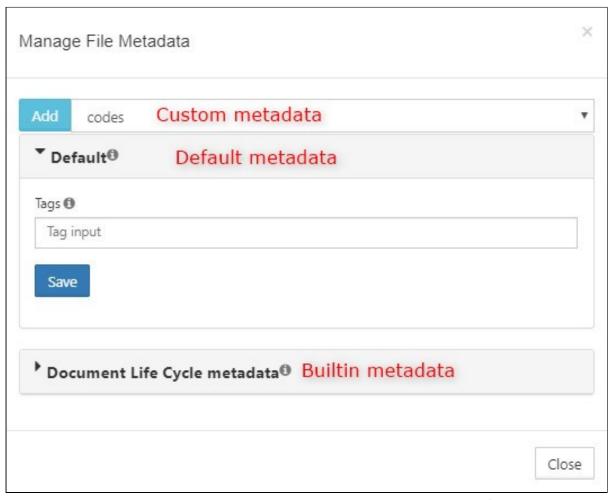


Add metadata from the Files Without Metadata list

- 1. Follow the procedure above to access your Files Without Metadata list.
- 2. Across from a file, click the button under **Actions**.



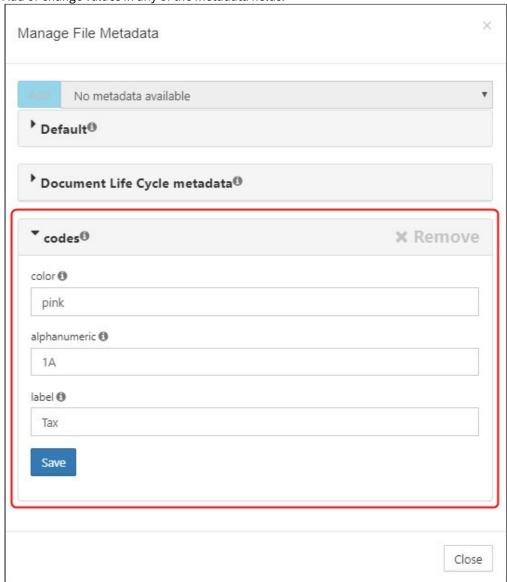
The Manage File Metadata window opens.



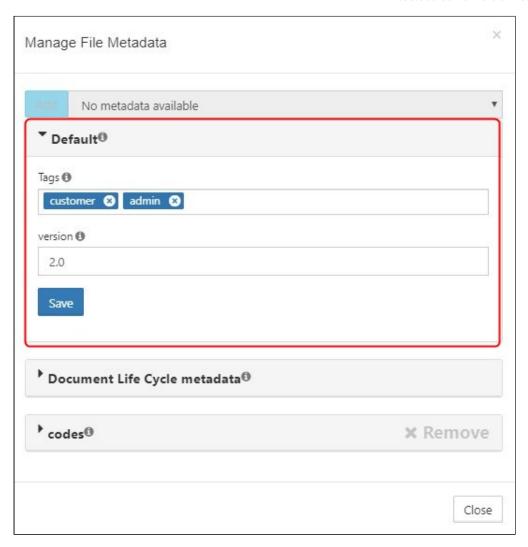
The top drop-down list holds custom metadata, the drop-down list below that holds default metadata, and any drop-down lists below that hold built-in metadata.

3. To add a custom metadata set, choose it in the drop-down list and click **Add**. It is added below the other metadata sets.

4. Add or change values in any of the metadata fields.



5. You can update the value of fields that appear in the **Default** metadata set. Expand the section, and add or change the values in the metadata fields, and click **Save**.



6. You can view, but not update the values in built-in metadata sets. Expand the sections to view the metadata and any values they have.

Metadata Limitations/Recommendations

Metadata feature	Recommended maximum
Metadata set name	128 characters
Metadata set description	128 characters
Attributes per metadata set	99

Metadata feature	Recommended maximum
Attribute name	128 characters
Attribute description	128 characters
Values per enum/array	99
Predefined value (enum)	128 characters
Default value	128 characters
Actual value	128 characters

Managing FileCloud Licenses

Your FileCloud license provides legally binding guidelines on your use and distribution of FileCloud.

In this section:

- FileCloud License Purchase And Renewal
- Install FileCloud License

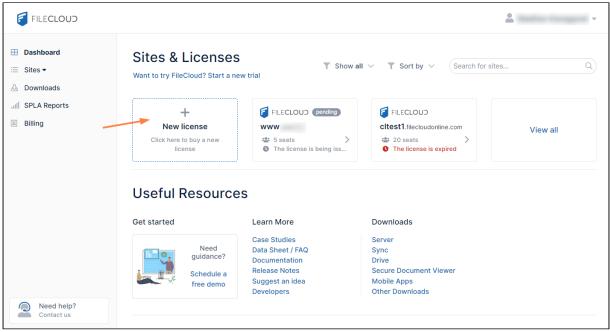
FileCloud - License Purchase And Renewal

Purchase a new license

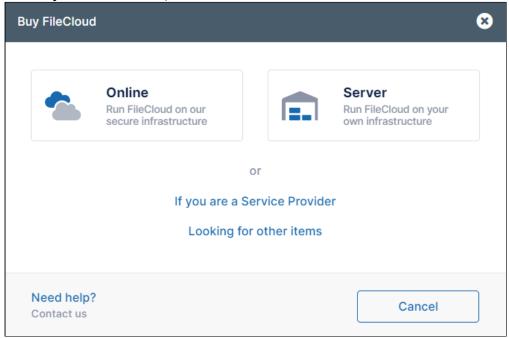
First

Choose a server or online license

- 1. Log into https://portal.getfilecloud.com
- 2. Click the New license icon.



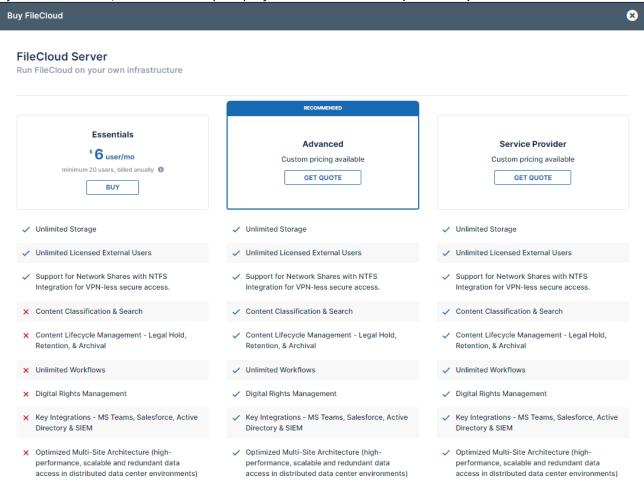
3. In the **Buy FileCloud** window, click **Online** or **Server**.



Then

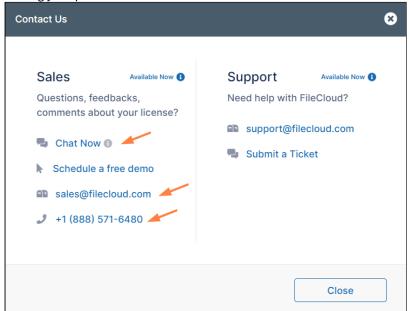
Purchase the server license

If you choose Server, the next window prompts you to choose Essentials, Advanced, or Service Provider.

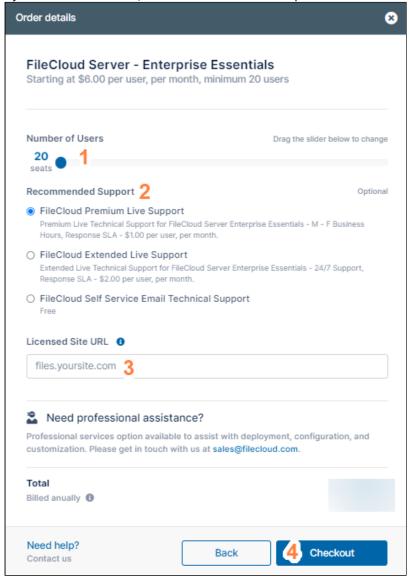


If you click **Advanced** or **Service Provider**, in the window that opens, choose an option for contacting Sales and

making your purchase.



If you choose **Essentials**, an **Order details** window opens.

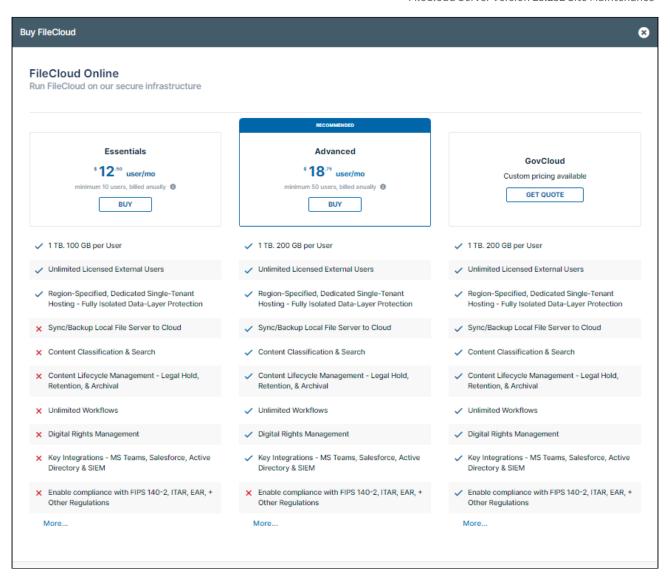


- 1. Move the **Number of Users** slider to indicate the number of users to include on the license.
- 2. Choose a support option.
- 3. In **Licensed Site URL**, enter your site address.
- 4. Click Checkout.
- 5. Perform the checkout process, below.

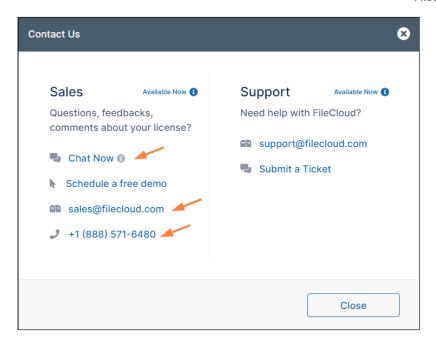
or

Purchase the online license

If you choose Online, the next window prompts you to choose Essentials, Advanced, or GovCloud.

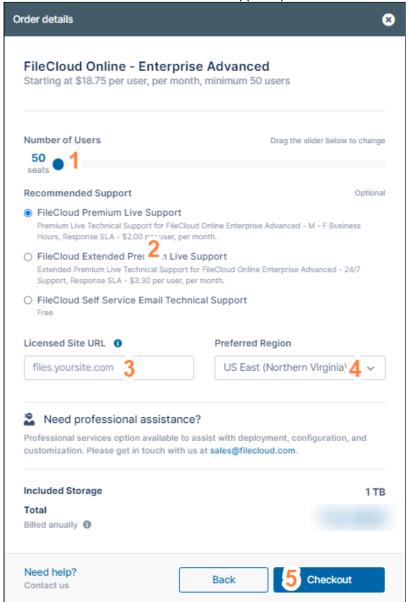


If you click the **GovCloud,** in the window that opens, choose an option for contacting Sales and making your purchase.



If you choose **Essentials** or **Advanced**, an **Order details** window opens. It is similar for both options, but shows

different minimum number of users and support options.



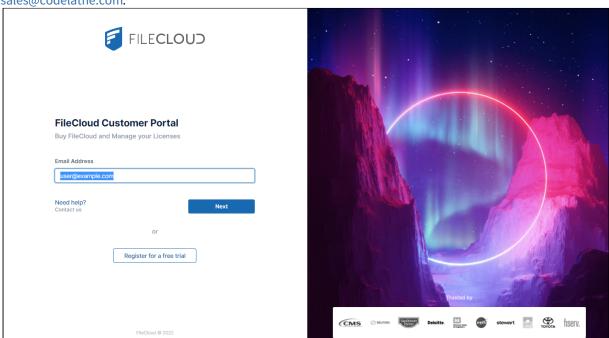
- 1. Move the **Number of Users** slider to indicate the number of users to include.
- 2. Choose a support option.
- 3. In **Licensed Site URL**, enter your site address.
- 4. In **Preferred Region**, choose the region where you want your server located.
- 5. Click Checkout.
- 6. Perform the checkout process, below.

Renew an existing license

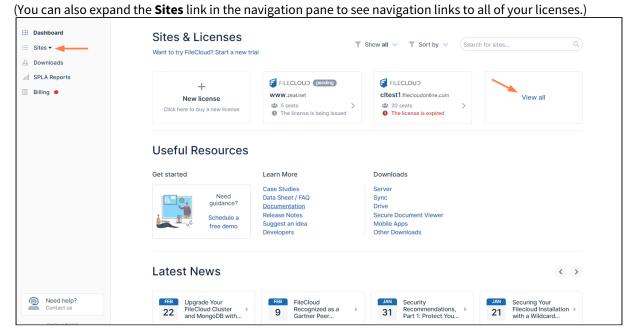
Renew a license

Note: If you are an MSP and want to renew an SPLA License, please follow the purchase a new license instructions, above.

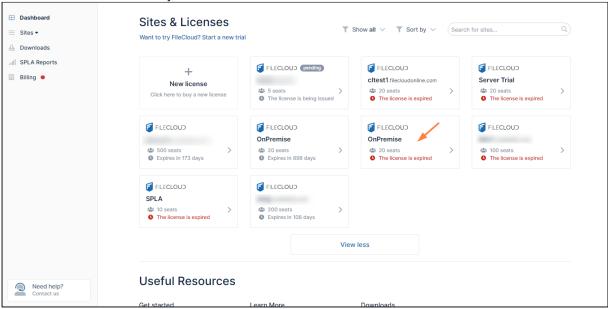
1. Log into https://portal.getfilecloud.com
Note: Enter the email of the license holder. To change the license holder email, please contact
sales@codelathe.com.



2. If you don't see the license you want to renew on the initial dashboard page, click **View all** to view all of your licenses.

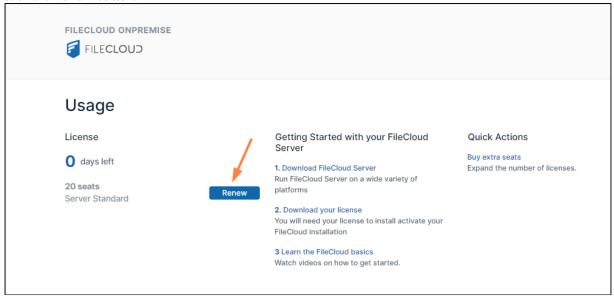


3. Find and click the license that you want to renew.



A screen that displays the license details opens.

4. Click the **Renew** button.



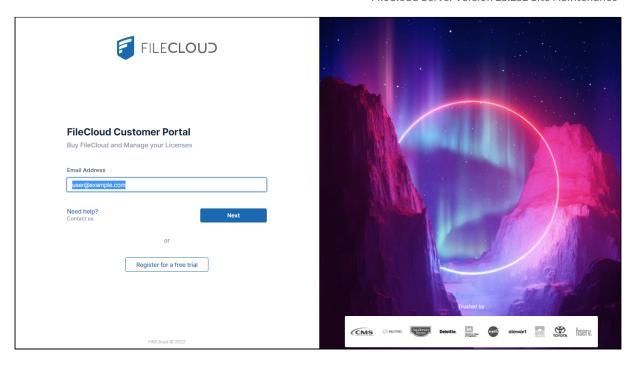
An **Order Summary** opens.

5. Follow the checkout process, below.

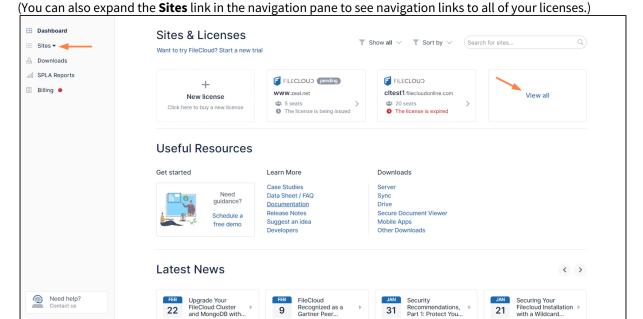
Add additional users to an existing license

Add additional users to a license

Log into https://portal.getfilecloud.com
 Notes: Enter the email of the license holder. To change the license holder email, please email sales@codelathe.com.



2. If you don't see the license you want to add users to on the initial dashboard page, click **View all** to view all of your licenses.

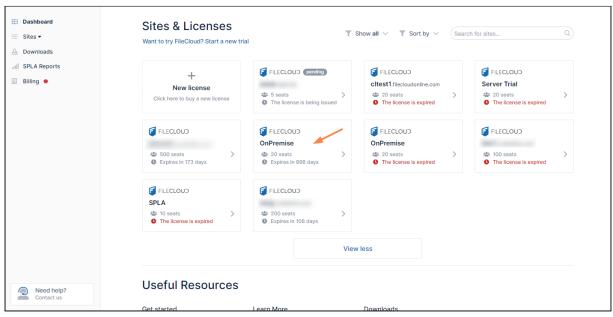


Recognized as a Gartner Peer...

Recommendations, Part 1: Protect You...

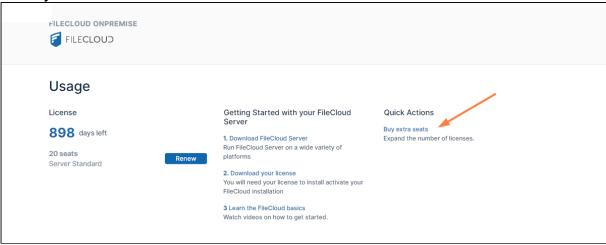
3. Find and click the license that you want to add additional users to.

Managing FileCloud Licenses 368



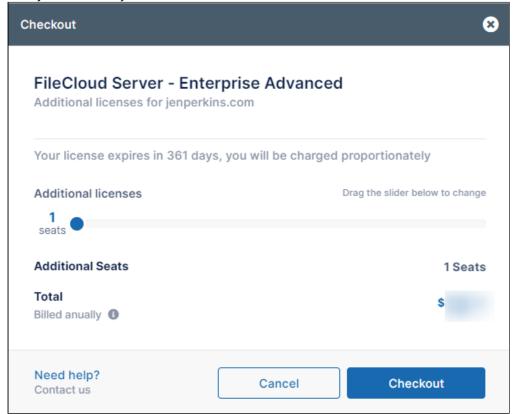
A screen that displays the license details opens.

4. Click Buy extra seats.



A checkout window opens. The number of extra seats is set to 1 by default.

5. If you want to purchase more than 1 extra seat, move the **Number of Users** slider to indicate the number of seats you want to buy.

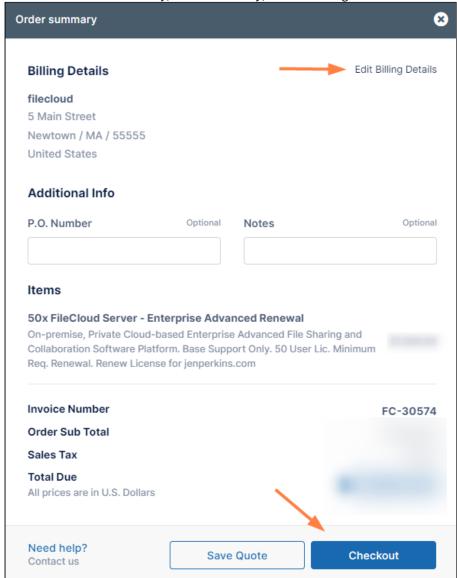


- 6. Click **Checkout**.
 An **Order Summary** opens.
- 7. Follow the checkout process.

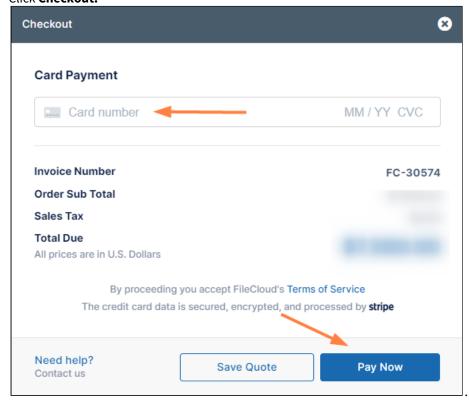
Checkout process

Pay now

1. Look over the order summary, and if necessary, edit the billing details:



2. Click Checkout.



- 3. Enter your credit card number, and click **Pay Now**. A confirmation window appears.
- 4. Click **Dashboard** in the navigation pane to see an icon for your new pending license:

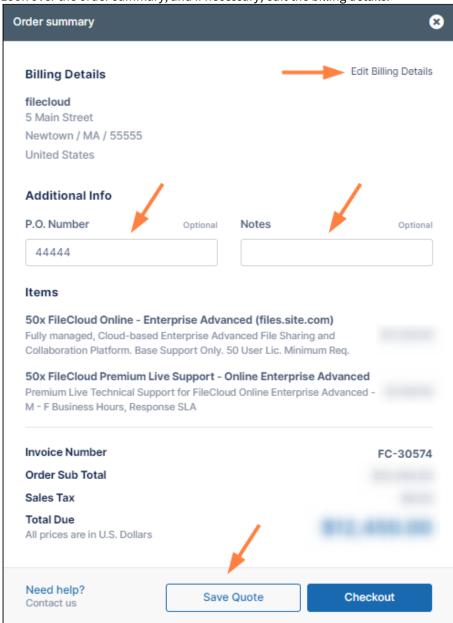


5. When processing of the license is complete, the pending icon disappears. Now you can download and install the license.

or

Send a purchase order

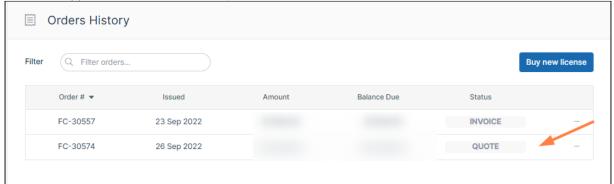
1. Look over the order summary, and if necessary, edit the billing details:



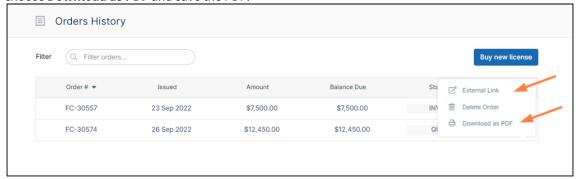
- 2. Optionally, enter a **P.O. Number** and any **Notes** for FileCloud Sales.
- 3. Click **Save Quote**.

The **Billing** screen opens.

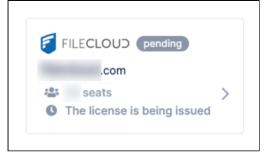
4. Your order appears under **Orders History** with the status **QUOTE**.



- 5. Click the **More** (triple-dot) icon in the row for the order, and either:
 - choose External Link and copy the link,
 - · choose Download as PDF and save the PDF.



- 6. Send a purchase email to sales@codelathe.com with the quote link included or the PDF attached.
- 7. Once FileCloud begins to process the license, it is overlaid with a pending icon.

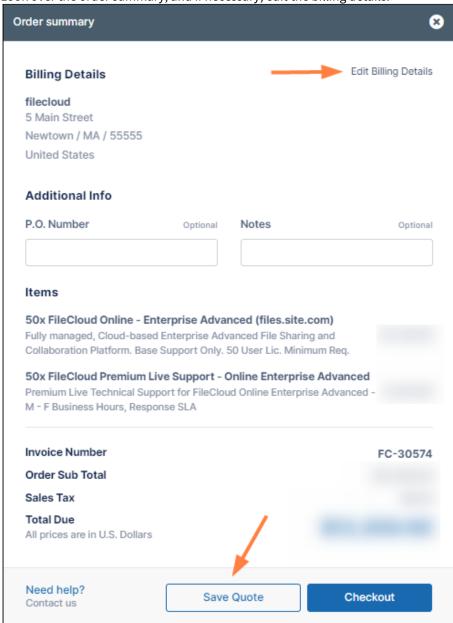


When processing of the license is complete, the pending icon disappears. Now you can download and install the license.

or

Save quote and continue later

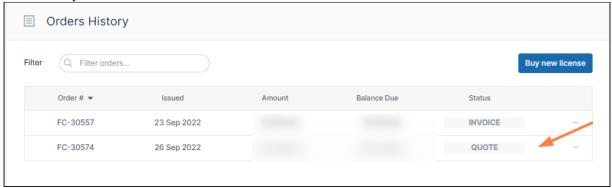
1. Look over the order summary, and if necessary, edit the billing details:



2. Click Save Quote.

The Billing screen opens. Your order appears under Orders History with the status QUOTE, and remains

there unless you delete it.

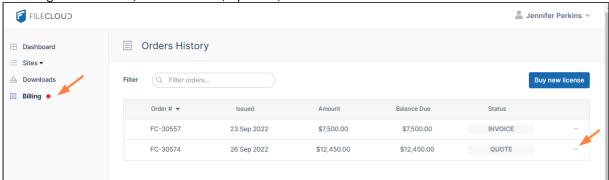


3. When you are ready to continue, return to the **Billing** screen and perform one of the actions in Manage orders, below.

Manage orders

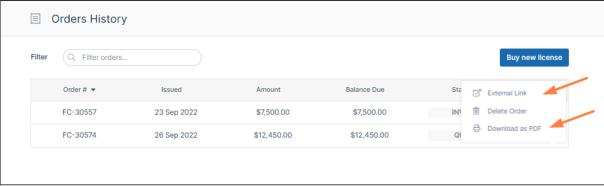
View order, save order link, save to pdf or delete order history

- 1. Log into https://portal.getfilecloud.com
- 2. In the navigation pane, click the **Billing** link.
- 3. To the right of the order, click the **More** (triple-dot) icon.



4. You are given options to view the order in another link, delete it, or download it as a PDF.

If you click **External Link**, you can copy the link and send it to another user to view the order or you can send it to FileCloud to purchase it. You can also send a copy of the PDF to FileCloud to purchase the order.



Install FileCloud License

Your FileCloud license is a document that provides legally binding guidelines on the use and distribution of your newly installed FileCloud software.

Obtaining a FileCloud License

Obtaining a FileCloud License

The length of access and site configuration will vary depending on your license type.

There are two basic forms of FileCloud licenses:

License Type	Duration	Features	Availability
Trial (free)	Temporary 30 days for a server license 15 days for an online license	 All features Mobile and desktop apps Free support Deployment URL will be set as "*" (accessible from any URL) 	Server (Self-host) Online (Hosted by us)
Production	Permanent based on length paid for Usually 1 year	 All features Mobile and desktop apps Choose from 3 levels of support Deployment URL can be set to use your specific domain (URL accessibility from within your 	Server (Self-host) • Essentials • Advanced • Service Provider Online (Hosted by us)
		company and outside access managed by Administrators)	 Essentials Advanced GovCloud

- For more information, read the license descriptions and Key Features on the FileCloud Pricing page.
- To purchase a license, see License Purchase and Renewal
- For a trial license, go to https://www.filecloud.com/#hostedTrial and follow the instructions in the wizard.
 - When you register on the FileCloud web site to access the installation software, you should receive your trial license, although it still needs to be installed.
 - If you already downloaded your license, proceed to the steps for installing it.
 - If you did not download your license yet, use the next procedure to download it, and then proceed to the steps for installing your license.

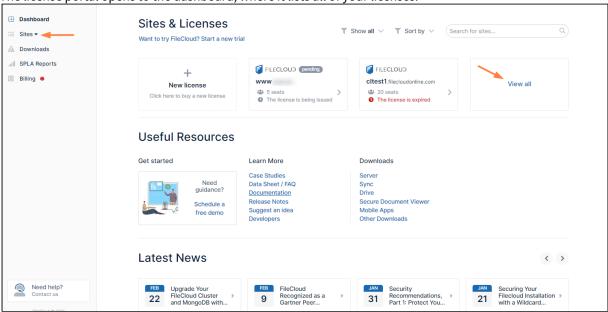
Downloading your license

Managing FileCloud Licenses 377

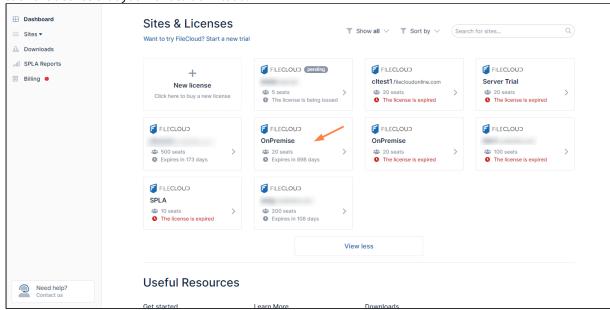
Downloading your License

To downloading your license:

- 1. Navigate to https://portal.getfilecloud.com/ui/user/index.html
- 2. Type in the registered email and the password provided to access the license portal. The license portal opens to the dashboard, where it lists all of your licenses.



- 3. If you don't see the license you want to download listed, click **View all** to see all of your licenses. (You can also expand **Sites** in the navigation pane to access links to all of your licenses).
- 4. Click the license that you want to download.



5. The license is stored on your server as license.xml.

Installing Your License



(i) The ability to install license components such as SALESFORCE is available in FileCloud Server version 18.2 and later.

Installing Your License

You can operate FileCloud Server using any of the license types.

- If you do not need to use individual additional components, such as SALESFORCE, and Pattern Search, you can use an Essentials license.
- However, if you need to use individual additional components, such as SALESFORCE, and Pattern Search, then you must use an Advanced or Service Provider license.

There are multiple places where you can install your FileCloud license:

- · Admin alert dialog box
- The dashboard's License Information widget
- The admin portal's **Settings > License** tab

It doesn't matter which one of these places you use; they all perform the same task.



After installation, to update or manage licenses, use the dashboard's License Information widget or the admin portal's **Settings > License** tab.

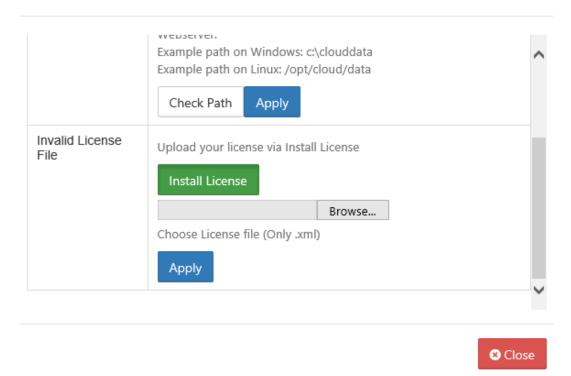
Admin Alert Dialog

During initial setup, when you log in to the admin portal, you see the Admin Attention Required dialog box, which allows you to upload your license.xml file and apply the license.

Managing FileCloud Licenses

×

Admin Attention Required



To install your license from the Admin dialog:

- 1. In the Invalid License File row, click Install License.
- 2. In the new section that appears, click **Browse**.
- 3. Locate the license.xml file, and then click **Apply**.
- 4. The installed license appears in green under the textbox.

Dashboard

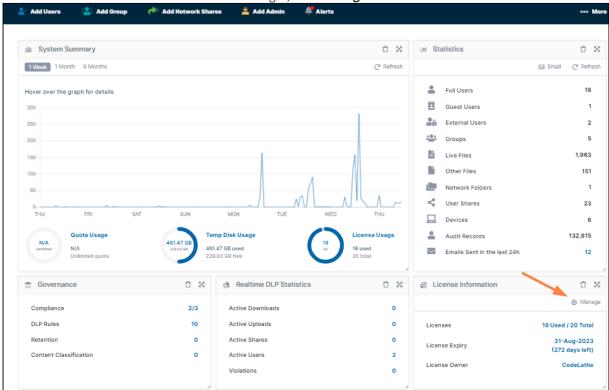
If you close the Admin dialog without installing a license, you can always use the FileCloud dashboard to manage your licenses. You can also use it to update a license.

💡 The dashboard opens the same window that opens when you click **Settings > License**.

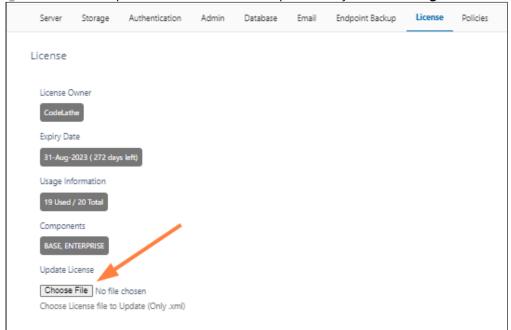
To install your license from the Dashboard:

1. Log in to the Admin Portal.

2. In the dashboard's the License Information widget, click Manage.



The dashboard opens the same window that opens when you click **Settings > License**.



- 3. On the License page, click the Choose File button.
- 4. Select the license.xml file and click **OK**.
- 5. On the License page, click **Save**.

Also see:

- Installing FileCloud License On Multiple SitesViewing Your License Details

Workflows - IFTTT

- **(i)**
 - Creating custom workflows to perform a variety of actions is available in FileCloud Server version 13 and later.
 - A new Workflow Generic Email Template is available in FileCloud Server version 18.2.
 - In FileCloud version 19.1 and later, three new features have been added to the Manage Workflow screen to provide more details about how workflows are functioning and how they impact your FileCloud Server system.
 - Activity All workflows now have the ability to show the Date of an event, and a Description of the event, such as file uploads, moves, and deletions.
 - Suspension Suspending a workflow will prevent the workflow from automatically running at the next Cron job. This option retains the workflow if you want to manually run it.
 - Simulation Use this option to display the list of users or files that a workflow will affect. The Simulate option is only available to workflows that are configured to run on demand and not to run automatically at scheduled times.

Administrators can use workflows to automate certain standard operations within FileCloud.

Workflows operate using the following model:

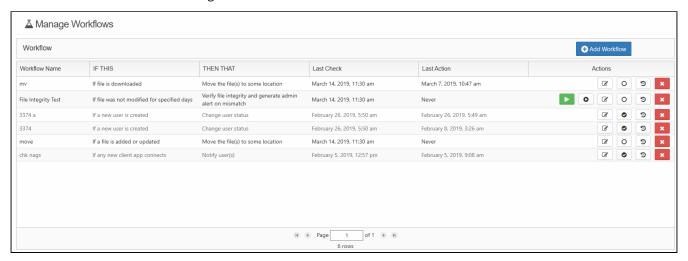
IF "CONDITION" - THEN "ACTION" (IFTTT)

You can setup specific triggers to run when the following conditions occur:

- A system event
- A specific date and time
- · A variety of actions
- Pach of the Conditions and Actions may require a parameter in JSON format.

The Workflow Dashboard

All workflows are created and managed on the Workflows dashboard.



To access the Workflows dashboard:

- 1. Open a browser and log into the Admin Portal.
- 2. On the left hand navigation panel, under MISC., click Workflows.

The actions you can perform on a workflow you have created include:



- 1. Run the workflow (once, on-demand)
- 2. Simulate the workflow
- 3. Edit the workflow
- 4. Enable or Disable the workflow
- 5. See the activity
- 6. Delete the workflow

In this section:

- · Add a New Workflow
- Define an IF Condition
- Define a THEN Action
- Edit a Workflow
- Run a Workflow
- Set Advanced Workflow Options
- Workflow Recipes for FileCloud
- Troubleshooting Workflows

Add a New Workflow



⚠ It is important to note that not all actions are compatible with all conditions. Please see the table on the page Define a THEN Action for compatible settings.

Administrators can add Workflows in the Admin Portal.

You will need to choose a condition, and specify what action should be taken when that condition occurs.

Define an IF Condition

→ Define a THEN Action

To add a new workflow:

- 1. Open a browser and log into the Admin Portal.
- 2. On the left hand navigation panel, click Workflows.
- 3. On the top right, click the Add Workflow button.

- 4. In the Create New Workflow window, select an IF Condition, and then click Next.
- 5. If a condition requires you to specify a value for something, for example a date or time, type in the values in the Required Parameters, and then click Next. Information about what is required is described below this box.
- 6. In the Create New Workflow window, select a THEN Action, and then click Next.
- 7. If an Action requires you to specify a value for something, for example a date or time, type in the values in the Required Parameters, and then click Next. Information about what is required is described below this box.
- 8. In Workflow Name, type in a unique word or phrase that describes the workflow, and then click Finish.



Define an IF Condition

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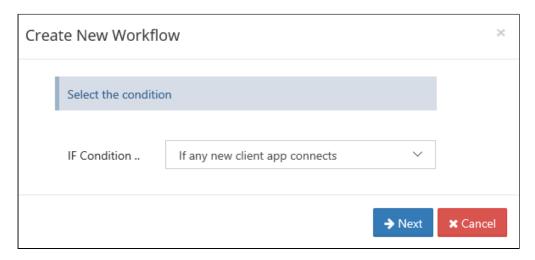
It is important to note that not all actions are compatible with all conditions and it is up to the user to determine and setup correct workflows.

When you create a workflow, you must select a condition to act as a trigger.

- Depending on the trigger, additional parameters may be required.
- Once a Condition is selected, compatible Actions can be selected.

Where do I set up the condition?

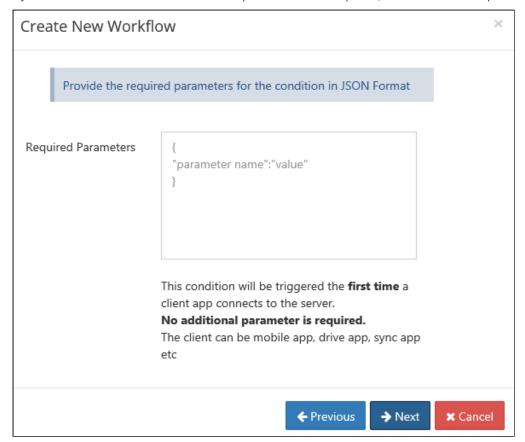
When you create a new Workflow, you will be able to select a condition.



Where do I add my parameters?

After you select a Condition, then you can enter any parameters, such as a date or time.

If you need more information about what parameters are required, look below the Required Parameters box.

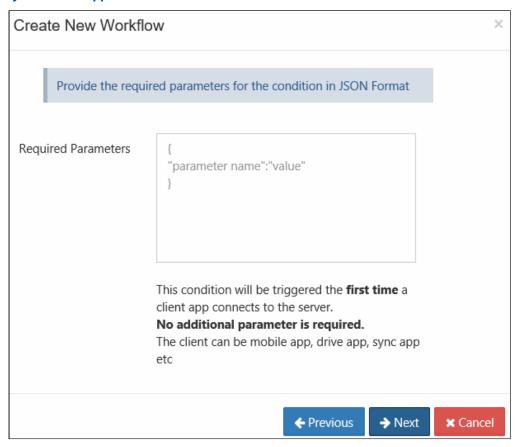


Available Conditions



Client App Conditions

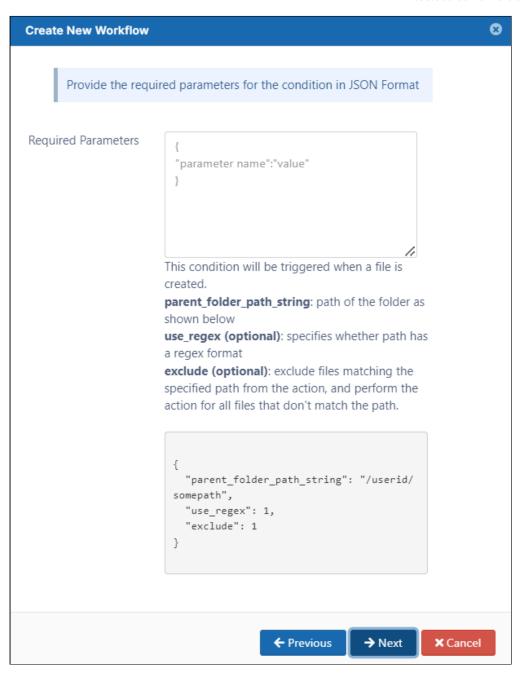
If any new client app connects



Workflow Condition	Parameters	Description
If any new client app connects	No parameters required	This condition is triggered when an external (non-browser) client connects to FileCloud Server.
		For example, this condition will trigger for clients such as:
		FileCloudSyncFileCloudDriveiOSAndroid App



If a file is created



Workflow Condition Parameters Description

If a file is created	{ "parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1" }

This condition will be triggered if a file is created via any means (Browser, Clients, etc.)

parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.

use_regex (optional) - specifies how the folder path is validated.

- 0 or unspecified = use an exact match for the parent folder path string
- 1 = use a regular expression match for the parent folder path string

exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

If a file is updated

Workflow Condition	Parameters	Description
If a file is updated. {	{ "parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1" }	This condition will be triggered if a file is updated.
		parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.
		<pre>use_regex (optional) - specifies how the folder path is validated.</pre>
		 0 or unspecified = use an exact match for the parent folder path string 1 = use a regular expression match for the parent folder path string
	exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).	

If a file is deleted

If a file is deleted { "parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1" } This condition will be triggered if a file is deleted. parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path. use_regex (optional) - specifies how the folder path is validated.	Workflow Condition	Parameters	Description
the parent folder path string	If a file is deleted	"parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1"	deleted. parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path. use_regex (optional) - specifies how the folder path is validated. • 0 or unspecified = use an exact match for the parent folder path string • 1 = use a regular expression match for the parent folder path string exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action

If file is downloaded

Workflow Condition	Parameters	Description

If a file is downloaded

```
{
"parent_folder_path_string":"/
userid/somepath",
"use_regex":"1",
"exclude":"1"
}
```

This condition will be triggered if a file is downloaded

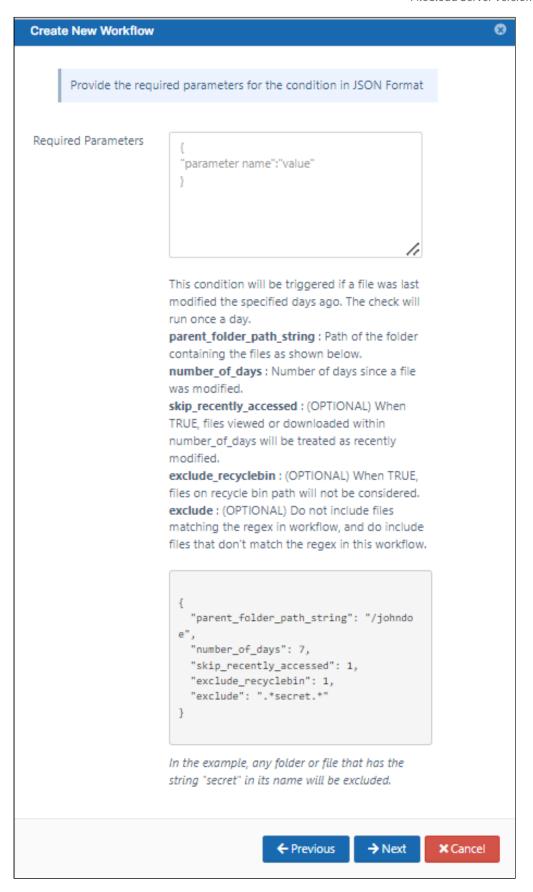
parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.

use_regex (optional) - specifies how the folder path is validated.

- 0 or unspecified = use an exact match for the parent folder path string
- 1 = use a regular expression match for the parent folder path string

exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

If file was not modified for specified days

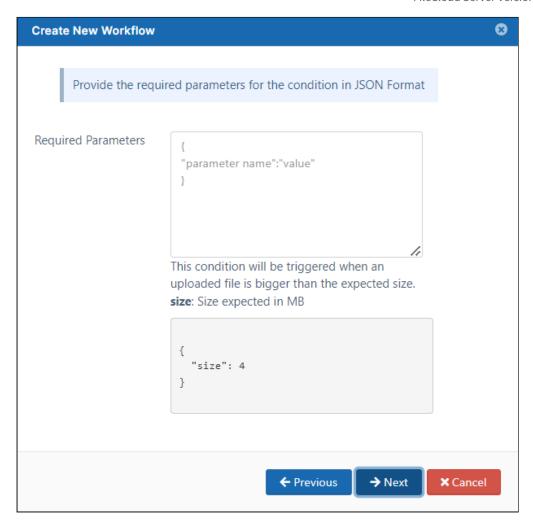


Workflow Condition	Parameters	Description
If a file was not modified for specified days	<pre>Parameters { "parent_folder_path_s tring": "/johndoe", "number_of_days": 7, "skip_recently_access ed": 1, "exclude_recyclebin": 1, "exclude": ".*secret.*" }</pre>	This condition will be triggered if a file is not updated for specified number of days. This is useful for removing old files that are no longer being used This check will run once a day parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path. NOTE: ONLY Managed storage paths are supported for this condition. number_of_days - required to specify the number of days before the current date that a file was last modified. This will be checked once a day and all files that match this condition will be subject to the THEN action you choose. For example, if you specify the number of days as 15, all files in the specified folder that have not been modified in the last 15 days will subject to the THEN action you configure. skip_recently_accessed - required to specify whether files that were viewed or downloaded during the number of days are considered modified. Default is false, viewed or downloaded within number_of_days are considered modified and will not be included in the Then action. exclude_recyclebin - (added in FileCloud version 21.3) optional (default is false) When true, files in recycle bin are not considered. exclude - (added in FileCloud version 22.1) optional - specifies the system should only perform the action on non-matching paths (do not perform the action on mon-matching paths).

If a file is added or updated

Workflow Condition	Parameters	Description
If a file is added or updated	{ "parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1" }	This condition will be triggered if a file is added or updated parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path. use_regex (optional) - specifies how the folder path is validated. • 0 or unspecified = use an exact match for the parent folder path string • 1 = use a regular expression match for the parent folder path string exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

If the file uploaded is bigger than the expected size



Workflow Condition	Parameters	Description
If the file uploaded is bigger than expected size.	{ "size":"4" }	This condition will be triggered when an uploaded file is bigger than the size specified.
		size - specifies the maximum expected file size in MB.

If the file downloaded is bigger than the expected size

Workflow Condition	Parameters	Description
--------------------	------------	-------------

If the file downloaded is bigger than expected size.

```
{
"size":"4"
}
```

This condition will be triggered when a downloaded file is bigger than the size specified.

size- specifies the maximum expected file size in MB.



If a folder is created

Workflow Condition	Parameters	Description
If a folder is created	der is created { "parent_folder_path_string":"/ userid/somepath", "use_regex":"1", "exclude":"1" }	This condition will be triggered when a folder is created in the system
		parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.
		use_regex (optional) - specifies whether system uses an exact match for the parent folder path string ("use_regex": "0" or missing) or whether to use a regular expression match ("use_regex":"1")
		exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

If a folder is deleted

Workflow Condition	Parameters	Description
--------------------	------------	-------------

If a folder is deleted

```
{
"parent_folder_path_string":"/
userid/somepath",
"use_regex":"1",
"exclude":"1"
}
```

This condition will be triggered when a folder is deleted

parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.

use_regex (optional) - specifies whether
system uses an exact match for the parent
folder path string ("use_regex": "0" or missing)
or whether to use a regular expression match
("use_regex":"1")

exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

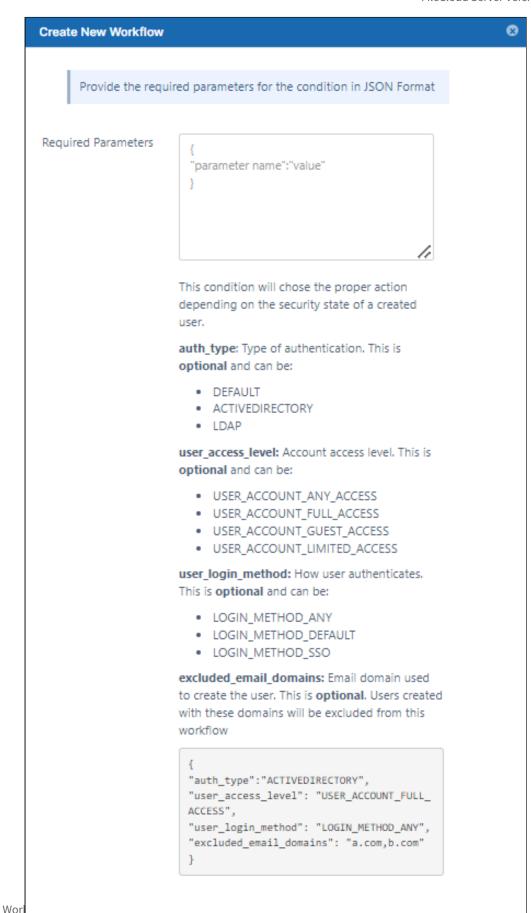
User Account Conditions

If a user's last login is older than...



Workflow Condition	Parameters	Description
If a user's last login is older than	<pre>{ "last_login_days_ago": 30, "user_account_type": "USER_ACCOUNT_LIMITED_ACCESS" , "day_interval": 1, "skip_users_not_logged_in": 1, "include_domain": "domain.com", "exclude_domain": "subdomain.domain.com,@otherdomain.com" }</pre>	If a user's last login is older than the specified number of days, then the THEN condition you configure will be run. last_login_days_ago: last login of a user account in number of days ago. user_account_type - type of account. You must use one of the following values: USER_ACCOUNT_ANY USER_ACCOUNT_FULL_ACCESS USER_ACCOUNT_GUEST_ACCESS USER_ACCOUNT_LIMITED_ACCES S (for external users) USER_ACCOUNT_DISABLED
		day_interval - the number of days between checks
	For example, every five days to check for external (limited) access users who have	 For daily operation, specify a value of 1
not log	<pre>"last_login_days_ago": 30, "user_account_type": "USER_ACCOUNT_LIMITED_ACCESS"</pre>	skip_users_not_logged_in (optional): Skip users who have never logged in to the system. This enables you to only apply the action to users who are already using the system. Values are true and false. include_domain - Optional. If the user's email domain matches one of the domains listed here, the condition applies.
		exclude_domain - Optional. If the user's email matches one of the domains listed here, the condition does not apply.

If a new user is created



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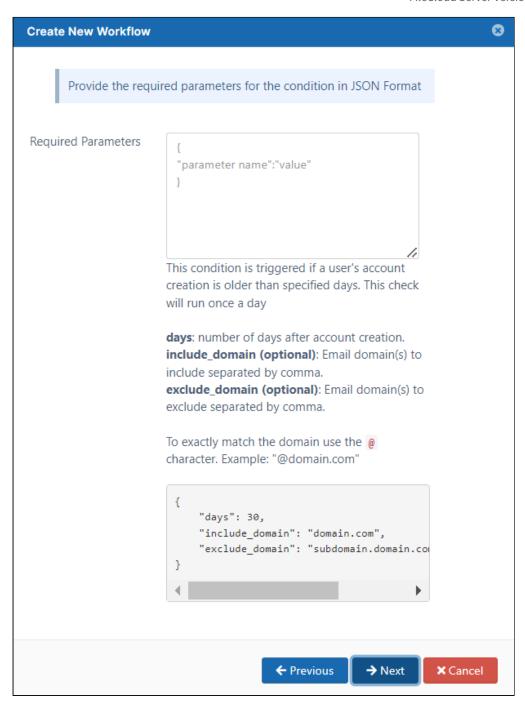
→ Next × Cancel

← Previous

This tells FileCloud that if a new user account is created to trigger the THEN action.

Workflow Condition	Parameters	Description
If a new user is created	None	When a new user account is created, the THEN action you configure will be triggered.
		Optional Parameters
		auth-type - Type of authentication. This is optional and can be:
		DEFAULTACTIVEDIRECTORYLDAP
		user_access_level: Account access level. This is optional and can be:
		 USER_ACCOUNT_ANY_ACCESS USER_ACCOUNT_FULL_ACCESS USER_ACCOUNT_GUEST_ACCESS USER_ACCOUNT_LIMITED_ACCESS (for external users)
		user_login_method: How user authenticates. This is optional and can be:
		LOGIN_METHOD_ANYLOGIN_METHOD_DEFAULTLOGIN_METHOD_SSO
		excluded_email_domains: (Available in FileCloud 21.2 and later) Email domain used to create the user. This is optional . If the new user has any of these domains, the workflow is not triggered.

If a user's create date is older than



```
Workflow Condition Parameters Description
```

If a user's create date is older than

Available in FileCloud Version 23.232

```
{
  "days": 30,
  "include_domain":
  "contractor.com",
  "exclude_domain":
  "subdomain.domain.com,@oth
  erdomain.com"
  }
```

For example, if a user's account was created more than 60 days ago and it is in the domain contractor.com

```
{
    "days": 60,
    "include_domain":
"contractor.com",
}
```

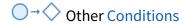
This condition is triggered when a user's create date is older than the number of days specified in **days**.

Parameters

days - Required. When a user's create date is older than this number of days, the condition is triggered.

include_domain - Optional. If the user's email domain matches one of the domains listed here, the condition applies.

exclude_domain - Optional. If the user's email matches one of the domains listed here, the condition does not apply.



If a comment is added



👱 Comments can be added to files and folders.

Workflow Condition

Required Parameters

Description

If a comment is added

```
{
"parent_folder_path_string":"/
userid/somepath",
"use_regex":"1",
"exclude":"1"
}
```

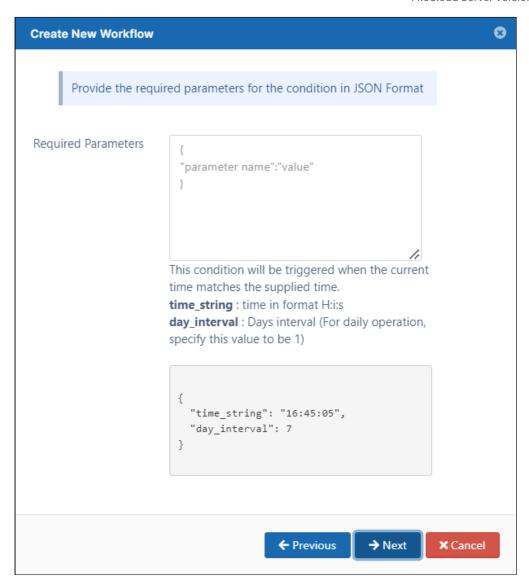
This condition will be triggered when a comment is added

parent_folder_path_string - required as a parameter for this condition to trigger. If the condition needs to be triggered for all folders, then you can set it to be "/". For help specifying the path correctly, see Identifying a FileCloud Specific Path.

use_regex (optional) - specifies whether
system uses an exact match for the parent
folder path string ("use_regex": "0" or missing)
or whether to use a regular expression match
("use_regex":"1")

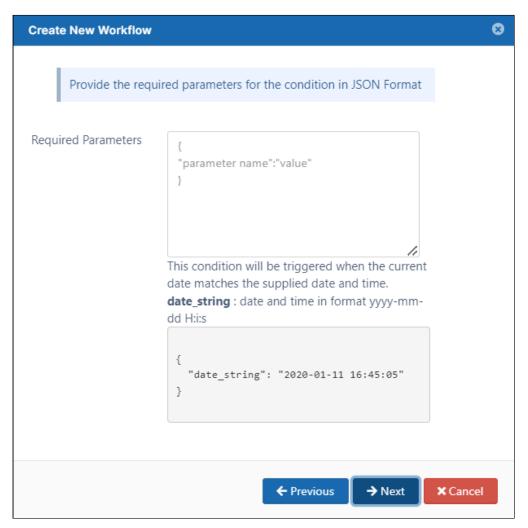
exclude (optional) - specifies the system should only perform the action on nonmatching paths (do not perform the action on matching paths).

Perform an action periodically at specified time and interval



Workflow Condition	Parameters	Description
Perform an action periodically at specified time and interval	{ "time_string":"16:45:05", "day_interval":"7" }	This condition will be triggered when the current time on the FileCloud Server matches the supplied time.
		time_string - the time when you want the THEN action triggered
		 The matching time includes the time zone The time is specified in a 24-hour format of Hours, minutes, seconds
		days_interval - number of days between triggering the THEN action you configure
		 The THEN action you choose will be triggered every "day_interval" days. If the "day_interval" is 1, then it will be done daily

Perform an action on the specified date

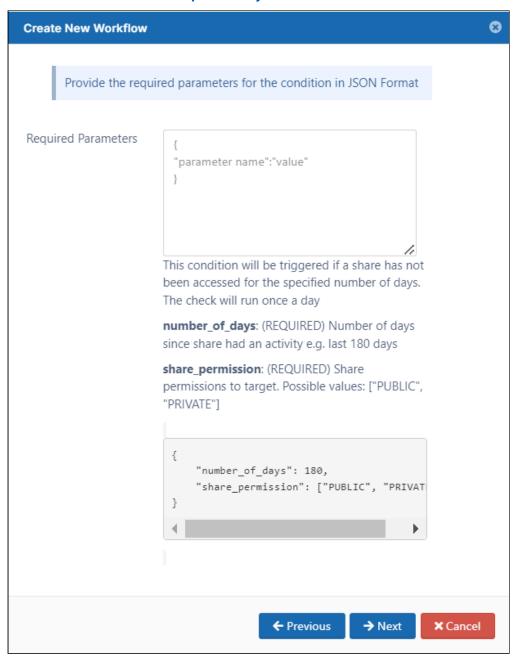


Workflow Condition	Parameters	Description
Perform an action on the specified date	{ "date_string":"2020-01-11" }	When the date matches the supplied date and time, the THEN action you configure will be run.
		<pre>date_string - date and time in a 24-hour format</pre>
		• yyyy-mm-dd H:i:s

Perform an action periodically

Workflow Condition	Parameters	Description
Perform an action periodically	None. The frequency depends on how you configure the cron or task scheduler frequency.	This requires you to set up one of the following: cron job task scheduler

If share has not been accessed for specified days



Workflow Condition	Parameters	Description
If a share has not been accessed for specified days	{ "share_permission": ["PUBLIC", "PRIVATE"], "number_of_days":"180", }	This condition will be triggered when a shared file or folder has not been accessed for the specified number of days. NOTE: The only supported action is Delete share. This is useful for removing shared files that are no longer being used This check will run once a day share_permission - required as a parameter for this condition to trigger. An array that specifies the type of shares to monitor. Valid values are: PUBLIC PRIVATE Both PUBLIC and PRIVATE may be included in the array. number_of_days - required to specify the number of days before the current date that a shared file was accessed. This will be checked once a day and all files that match this condition will be subject to the THEN action you choose. For example, if you specify the number of days as 15, all shared files or folders that have not been accessed in the last 15 days will subject to the THEN action you configure.

Define a THEN Action



A Not all THEN actions are compatible with all IF conditions. Please see the table below for compatible settings.

Once you select an IF Condition, compatible THEN Actions can be selected.

• Actions are performed if the associated Condition is triggered.

Some Actions may require you to specify parameters, such as a specific date or time.

Where do I set up the Action?

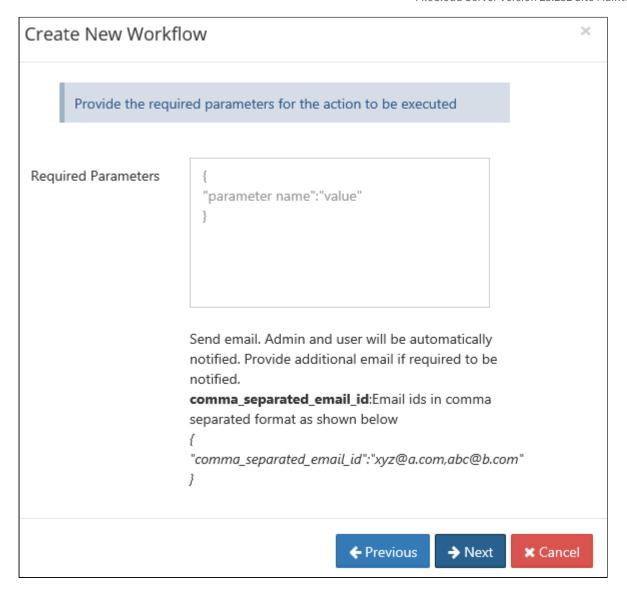
When you create a new Workflow, after you select a condition and specify parameters, then you can select an Action.



Where do I add my parameters?

After you select an Action, then you can enter any parameters, such as a date or time.

If you need more information about what parameters are required, look below the Required Parameters box.



THEN Actions

Notifications

Action	Parameters	Details	Compatible IF conditions
Notify the file actions to	{	Sends an email with information	Click to see If conditions
user(s)	"comma_separated_ email_id":"xyz@a.co	about the file and the action performed.	If a file is created
	m,abc@b.com"	comma_separated_email_id -	If a file is updated
	}	email ids in comma separated format	If a file is deleted
			If a file is downloaded
			If a file was not modified for specified days
			If a file is added or updated
			If a file uploaded is bigger than expected size
			If a file downloaded is bigger than expected size
			If a folder is created
			If a folder is deleted
			If a comment is added
Notify the user that the	None	Notifies the user that the account	Click to see If conditions
account may be deactivated soon		may be disabled or deleted due to inactivity.	If a user's last login is older than
			If a new user is created
			If a user's create date is older than

Action	Parameters	Details	Compatible IF conditions
Notify user(s)	{ "comma_separated_ email_id":"xyz@a.co m,abc@b.com" }	Sends a notification to users matching the criteria and sends an email to the admin and the specified addresses with information about the users who were sent notifications. comma_separated_email_id - email ids in comma separated format	Click to see If conditions If a user's last login is older than If a new user is created If a user's create date is older than
			If a new client app connects

File actions

Action	Parameters	Details	Compatible IF conditions
Copy the file(s) to some	{	Copies files.	Click to see If conditions
location	"target_path":"/usera/ folderb/",	target_path - path to copy the file to.	If a file is created
	"allow_overwrite":"1",	 This path must be in the 	If a file is updated
	"keep_folder_structure ":"1"	same storage type	If a file is deleted
	}	 Files cannot be copied from managed storage to 	If a file is downloaded
		network shares or vice versa.	If a file was not modified for specified days
		allow_overwrite - (Added in FileCloud 20.1) Optional. Allow file to overwrite existing files with the same name in the target path. If allow_overwrite is not included, overwrites are allowed.	If a file is added or updated
			If a file uploaded is bigger than expected size
		keep_folder_structure (Optional): Keep folder structure while copying files. Valid values are 0 (do not keep folder structure) or 1 (keep folder structure). Default is 0 if not provided.	If a file downloaded is bigger than expected size
			If a folder is created
			If a folder is deleted
			If a comment is added
		The placeholders. %who, %when, %path, %how, %filename are available for this action.	

Action	Parameters	Details	Compatible IF conditions
Delete the file(s)	{ "excluded_users":"user 1,user2,user3", "delete_empty_folders ":true, "notify_owner":false, "comma_separated_e mail_id":"email1@ema il.com,email2@email.c om" }	excluded_users (Optional): Users whose files will be excluded from deletion. Names must be provided in a comma separated format. delete_empty_folders (Optional): When files are deleted, delete the parent folder as well if it is empty. notify_owner (Optional): When the files are deleted, send an email to the owners. comma_separated_email_id (Optional): Email ids in comma separated format.	If a file is created If a file is updated If a file is deleted If a file is downloaded If a file was not modified for specified days If a file is added or updated If a file uploaded is bigger than expected size If a file downloaded is bigger than expected size If a folder is created If a folder is deleted If a comment is added

Action	Parameters	Details	Compatible IF conditions
Move the file(s) to some location	{ "target_path":"/usera/ folderb/", "allow_overwrite":"1", "keep_folder_structure ":"1" }	Moves files. target_path - Path to the new file location (where it should be moved). • This path must be in the same storage type • Files cannot be moved from managed storage to network shares or vice versa. allow_overwrite - (Added in FileCloud 20.1) Optional. Allow file to overwrite existing files with the same name in the target path. If allow_overwrite is not included, overwrites are allowed. keep_folder_structure (Optional): Keep folder structure while moving files. Valid values are 0 (do not keep folder structure) or 1 (keep folder structure). Default is 0 if not provided. The placeholders. %who, %when, %path, %how, %filename are available for this action.	If a file is created If a file is updated If a file is deleted If a file is downloaded If a file was not modified for specified days If a file is added or updated If a file uploaded is bigger than expected size If a file downloaded is bigger than expected size If a folder is deleted If a comment is added
Release locks (added in FileCloud 22.1)	{ "days": 7 }	Releases locks on files and folders. days - Number of days after a lock was created on a file or folder to release it.	Click to see if conditions Perform an action periodically at specified time and interval Perform an action on the specified date Perform an action periodically If a user's create date is older than

Action	Parameters	Details	Compatible IF conditions
Verify file integrity and generate admin alert on mismatch	{ "ignore_file_size_in_m b":"10" }	Attempts to identify the file type based on its content and checks if it matches the extension. • If the file type does not match, then generate admin portal alert. Optional ignore_file_size_in_mb: - Do not scan files larger than this limit specified in megabytes.	If a file is created If a file is updated If a file is deleted If a file is downloaded If a file was not modified for specified days If a file is added or updated If a file uploaded is bigger than expected size If a file downloaded is bigger than expected size If a folder is created If a folder is deleted If a comment is added

Action	Parameters	Details	Compatible IF conditions
Verify file integrity and delete on mismatch	{ "ignore_file_size_in_m b":"10" }	Attempts to identify file type based on its content and checks if it matches its mime type. • A MIME type is a string identifier composed of two parts: a "type" and a "subtype". • If the file type does not match, then • the latest version is deleted • users listed in the parameter are notified Optional ignore_file_size_in_mb: - Do not scan files larger than this limit specified in megabytes.	Click to see If conditions If a file is created If a file is updated If a file is deleted If a file is downloaded If a file was not modified for specified days If a file is added or updated If a file uploaded is bigger than expected size If a file downloaded is bigger than expected size If a folder is created If a folder is deleted If a comment is added

Reporting

Action	Parameters	Details	Compatible IF conditions
Run a report	{	Opens a saved report, runs it,	Click to see If conditions
	"report_name":"my_r eport",	and then sends the results in email.	If a file is created
	"comma_separated_	This action requires you to	If a file is updated
	email_id":"a@x.com, b@y.com"	have already created the report	If a file is deleted
	}	from the Admin dashboard.	If a file is downloaded
		Create a Custom Report	If a file was not modified for specified days
		report_name: Name of the report to run. The report must	·
		already be created in the reports	If a file is added or updated
		section and that exact report name must be provided here.	If a file uploaded is bigger than expected size
		comma_separated_email_id: Comma separated email ids to	If a file downloaded is bigger than expected size
		be notified after report is run	If a folder is created
			If a folder is deleted
			If a user's last login is older than
			If a new user is created
			If a user's create date is older than
			If a comment is added
		Perform an action periodically at specified time and interval	
			Perform an action on the specified date
			Perform an action periodically

Action	Parameters	Details	Compatible IF conditions
Generate an email report	{ "comma_separated_ email_id":"xyz@a.co m,abc@b.com" }	Sends an email to the specified addresses with information about the users matching the criteria. comma_separated_email_id - email ids in comma separated format	Click to see If conditions If a user's last login is older than If a new user is created (if the user account was created by the user; not applicable if the user account was created by an admin)
			If a user's create date is older than

Running commands

Action	Parameters	Details	Compatible IF conditions
Execute a	{	Executes the command line.	Click to see If conditions
command	"command_line":"rm -rf/tmp/scratch"	command_line: - Command line	If a file is created
	}	syntax to be executed. Admin is notified after the command runs.	If a file is updated
		The following placeholders are	If a file is deleted
		available: %who, %when, %path, %how, %filename. See Set	If a file is downloaded
		Advanced Workflow Options. The placeholders. %who, %when,	If a file was not modified for specified days
		%path, %how, %filename are	If a file is added or updated
		available for this action.	If a file uploaded is bigger than expected size
		Beginning in FileCloud 23.1, by default, the Execute a command action is not available for admin	If a file downloaded is bigger than expected size
		users. If an admin user selects the action	If a folder is created
		and tries to save the workflow, the	If a folder is deleted
		Totale New Workflow Name for this action Workflow Name DeleteTemp Workflow Command Execution is not allowed, please contact your administrator.	If a user's last login is older than
			If a new user is created
			If a user's create date is older than
		← Previous → Finish X Cancel	If a comment is added
		To enable admin users to choose the Execute a command option, add:	Perform an action periodically at specified time and interval Perform an action on the
		1. Open	specified date
		cloudconfig.php: Windows Location: XAMPP DIRECTORY/ htdocs/config/ cloudconfig.php Linux Location: /var/ www/config/ cloudconfig.php 2. Add the following:	Perform an action periodically

Action	Parameters	Details	Compatible IF conditions
		define("TONI DOCLOUD_ALLO W_ADMIN_WORK FLOW_COMMAND _EXECUTION", 1);	

Modifying users

Action	Parameters	Details	Compatible IF conditions
Disable user account	{ "comma_separated_email_id": "xyz@a.com,abc@b.com" }	Disables the user account and then sends an email with information about the action performed. comma_separated_email_id - email IDs in comma separated format donot_email_user (optional): Do not send email to the user affected (1 or 0). Default 0.	Click to see If conditions If a user's last login is older than If a new user is created If a user's create date is older than
Delete user account	{ "comma_separated_email_id": "xyz@a.com,abc@b.com" }	Deletes the user account and then sends an email with information about the action performed. comma_separated_email_id - email IDs in comma separated format donot_email_user (optional): Do not send email to user affected (1 or 0). Default 0.	Click to see If conditions If a user's last login is older than If a new user is created If a user's create date is older than

Action	Parameters	Details	Compatible IF conditions
Change user	{ "user_status":	<pre>user_account_type - type of account. You must use one of the following values:</pre>	Click to see If conditions
status	<pre>"USER_ACCOUNT_LIMITED _ACCESS", "mark_as_verified": 0, "comma_separated_email_id": "xyz@a.com,abc@b.com" , "donot_email_user": 0 }</pre>	 USER_ACCOUNT_DISABLED_ACCESS USER_ACCOUNT_FULL_ACCESS USER_ACCOUNT_GUEST_ACCESS USER_ACCOUNT_LIMITED_ACCESS (external access) mark_as_verified (optional) - marks the account as verified, so that the user can log in immediately without waiting for the admin to send the verification email. comma_separated_email_id - email IDs in comma separated format donot_email_user (optional) - prevents an email from being sent to the user affected 	If a user's last login is older than If a new user is created If a user's create date is older than
		 when the status is changed 1 = Does not send an email 0 = Sends an email If nothing is specified, the default is 0 	
Set user group	{ "group_name":"Group1,Group	Assigns user to groups.	If a new user is created
	2" }	group_name - Comma separated list of groups to assign user to.	If a user's create date is older than
Set user policy	{ "policy_name":"SamplePolicy Name",	Sends an email notification to the listed users that the user's policy was set as the specified policy	If a user's last login is older than
	"comma_separated_email_id" : "",	policy_name - Name of policy to set	If a new user is
	"donot_email_user": 0	comma_separated_email_id - email ids in comma separated format	created If a user's create
}	J	donot_email_user 0 (default) send the emails 1 do not send the emails	date is older than

Action	Parameters	Details	Compatible IF conditions
Set user properti es	{ "policy_name":"SamplePolicy Name", "user_status":"USER_ACCOUN T_LIMITED_ACCESS", "comma_separated_email_id" :"", "donot_email_user": 0 }	Sends an email notification to the listed users that the user's policy was set as specified and the user access was set as specified policy_name: Name of policy to set. user_status (optional): User status to set. (USER_ACCOUNT_FULL_ACCESS, USER_ACCOUNT_GUEST_ACCESS, USER_ACCOUNT_LIMITED_ACCESS (external access))	If a user's last login is older than If a new user is created If a user's create date is older than
		comma_separated_email_id (optional) : Comma separated emails to notify of workflow action.	
		donot_email_user (optional) : Set to 1 to prevent system from notifying user.	

Share actions

Action	Parameters	Details	Compatible IF conditions
Delete the share(s)	None	Delete the share.	Click to see If conditions If a share has not been accessed for specified days

Device actions

Action	Parameters	Details	Compatible IF conditions
Block the device for admin approval	None	Blocks the device and marks it with "Needs Approval" on the Manage Devices screen	Click to see If conditions If a new client app connects

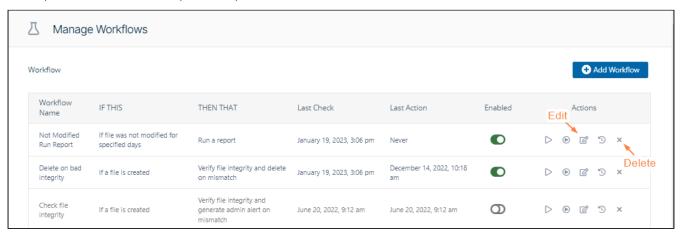
Edit a Workflow

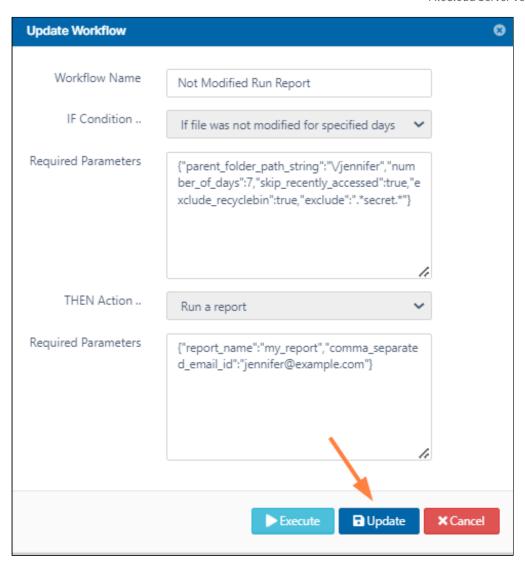


It is important to note that not all actions are compatible with all conditions and it is up to the user to determine and set up correct workflows.

Administrators can edit workflows to change the name or parameters of the conditions and action.

To edit, click on the Edit button; to delete, click on the Delete button.

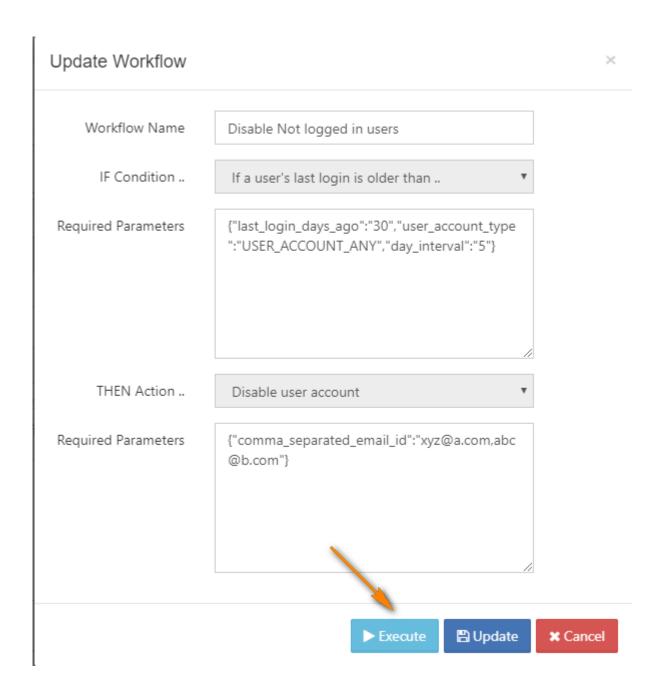




Run a Workflow

- It is important to note that not all actions are compatible with all conditions and it is up to the user to determine and setup correct workflows.
- (i) The ability to run a workflow on demand, where the condition for trigger does not depend on a user action, is available in FileCloud Server version 18.1 and later.

Administrators can run a workflow on demand, where the condition for trigger does not depend on a user action. In previous versions, running a workflow on-demand is set up with condition "If a user's last login is older than.."



Set Advanced Workflow Options

(i) The ability to create and run more advanced scenarios is available in FileCloud version 17.3 and later.

It is important to note that not all actions are compatible with all conditions and it is up to the user to determine and setup correct workflows.

Administrators can create and run more advanced scenarios., such as:

- regular expression in path matching
- the ability to pass additional, runtime-resolved data between conditions and actions

What scenario do you want to use?

Regular Expressions and Path Matching

Be default FileCloud Workflow Conditions use *strict matching* in order to check the file/folder path. In 17.3 version a new feature was introduced to enable regular expressions utilisation. In order to enable regular expression match, administrator has to set the **use_regex** parameter to "1" in the condition definition. This is an optional parameter and by deafult will take the "0" value (don't use regular expressions - use strict match instead). If regular expressions are enabled administrator has to provide a valid regular expression pattern as the **parent_folder_path_string** value. This pattern will be used in the condition resolution process to find all matching paths (files / folders), for which the action should be run.

Regular expressions are supported by the following workflow conditions:

- · if a file is created
- if a folder is created
- · if a file is updated
- · if a file is deleted
- if a folder is deleted
- if a file is downloaded
- · if a comment is added
- if a file is added or updated

Parameters definition - example

Strict match

```
{
"parent_folder_path_string":"/userid/somepath",
}
or
{
"parent_folder_path_string":"/userid/somepath",
"use_regex":"0"
}
Regular expression
{
"parent_folder_path_string":"/userid/somepath",
"use_regex":"1"
}
```

Usage - Example

For simplicity sake assume that Administrator wants to send email notifications whenever someone downloads a file from a given location. The following example shows the difference between *strict match* and *regular expression match*

Strict match

Parameters are defined as follows:

```
{
"parent_folder_path_string":"/userA/downloads",
}
```

For such defined condition action will be triggered whenever a files is downloaded directly from the "/userA/downloads" directory and only from this one.

Regular expression

In this case the definition might look something like:

```
{
"parent_folder_path_string":"~/.*/downloads~",
"use_regex":"1"
}
```

For this condition action will be triggered for **all** directories that match the /user/download format, i.e. /userA/downloads, /userB/downloads, etc. This is a huge change that enables Administrators to define much more universal workflow scenarios.



Important

Regular expression patterns aren't validated for correctness. Please double check them, especially when dealing with the data-changing actions (i.e. delete files / move files, etc.).

Δ

RegEx Patterns

Regular expression definition has to start and end with one of the following characters: '/', '-', '@', ';, '%', '

We strongly advise against the / usage as it adds confusion to the pattern definition.

Reversed Path Matching

The **Exclude** parameter enables the "reversed" path matching. That means that the specified action will be triggered for all files / folders whose path **doesn't match**. It's another huge change that allows administrators to define a new set of workflow. This is a very flexible and poweful feature, especially when combined with regular expressions.

Exclude parameter is supported by the following conditions:

- · if a file is created
- if a folder is created
- if a file is updated
- · if a file is deleted
- if a folder is deleted
- if a file is downloaded
- · if a comment is added
- · if a file is added or updated

Example

Administrator wants to delete all files that were downloaded form the FileCloud, but wants to keep files in one particular location - /userA/prevented. Condition should be then defined as:

```
{
"parent_folder_path_string":"/userA/prevented",
"exclude":"1"
}
```

The match condition will be reversed, so action will be triggered for all files, except the ones located in this particular directory.



Regular Expressions

For a regular expression it is very important to understand that if it is invalid it will return a **NOT MATCH** result for all paths. Administrators have to be very careful when using exclude parameter with regular expressions, especially for a data sensitive operations.

Runtime Resolved Parameters

Runtime resolved parameters is a feature available in FileCloud from verision 17.3. The idea behind the process is that conditions can 'publish' a set of additional parameters (or placeholders to be more precise) which can be later utilize in the action. It is not a default behavior and it has to be implicitly implemented by both: conditions and actions.

In the 17.3 version runtime resolved parameters are provided by the following conditions:

- · if a file is created
- if a folder is created
- · if a file is updated
- · if a file is deleted
- · if a folder is deleted
- if a file is downloaded
- · if a comment is added
- if a file is added or updated
- if the file updated is bigger than the expected size
- if the file downloaded is bigger than the expected size

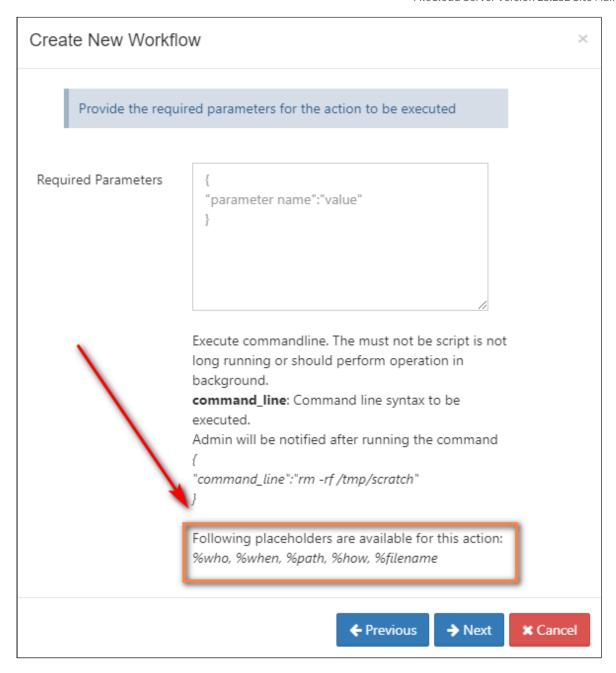
and might be utilized in all compatible actions. The process works as follows:

- 1. Each condition may define a special set of placeholders that might be used as a part of the parameter definition in the compatible action.
- 2. After the condition is met FileCloud resolves values for each placeholder. It is done **at runtime** and might allow, i.e. dynamic path definitions.
- 3. Condition passes the resolved dictionary (placeholder value pairs) to the action.
- 4. If any placeholder is used in the action parameter definition it is replaced with the resolved value.
- 5. Action executes normally with all parameters resolved at **runtime**.

Currently FileCloud supports placeholders only for the file/folder related conditions. The whole set contains:

- %who user who performed the action that triggered the condtion (i.e. file upload or download)
- %when time of the action
- %path path of the file / folder
- %how user agent of the performed action (i.e. a browser type, etc.)
- %filename name of the file

If selected condition implements runtime resolved parameters it will be reflected in the Action definition modal window:



(i) Example - how condition resolves parameters

Assume that **user1** downloaded a file **file1.pdf** from the **/user1/test** folder through a **Firefox** browser on **4pm** on the **01.01.2018**.

Condition will resolve all the parameters and pass it to the action:

- %who user1
- %when 2018-01-01 16:00:00
- **%path** /user1/test/file1.pdf

- %how Web browser
- %filename file1.pdf



Recommended usage

Although it is possible to use resolved parameters in all compatible actions, this feature was designed and implemented mainly for the **command execution** action.

Workflow Recipes for FileCloud

You can create custom workflows to perform a variety of actions.

Workflows operate using the following model:

• IF CONDITION - THEN ACTION (IFTTT)

Since there are many different ways to create custom workflows, this page provides you with some simple recipes to create a specific workflow.

- Using some of these recipes will help you learn how a workflow functions
- After using some recipes you should be able to understand how to create your own workflows

What do you want to do?





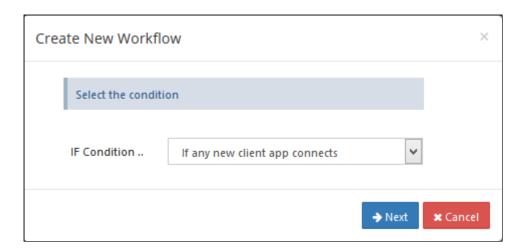
Admin Approval Required Workflow

This workflow recipe blocks the connection of a new app or device until it is approved by an administrator.

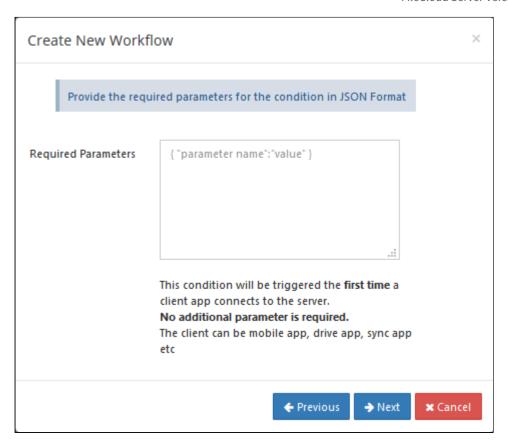
- When a new app or device tries to connect to FileCloud, the action is unblocked ONLY after admin approval.
- In the Admin Portal, you can see the devices in BLOCKED status, awaiting ADMIN approval.

To create a workflow that requires admin approval for all clients:

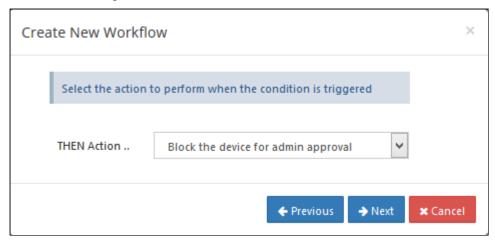
- 1. Login to Admin Portal
- 2. Navigate to Workflow on the left navigation
- 3. Tap on the Add Workflow button
- 4. Set the If Condition "If any new client app connects"



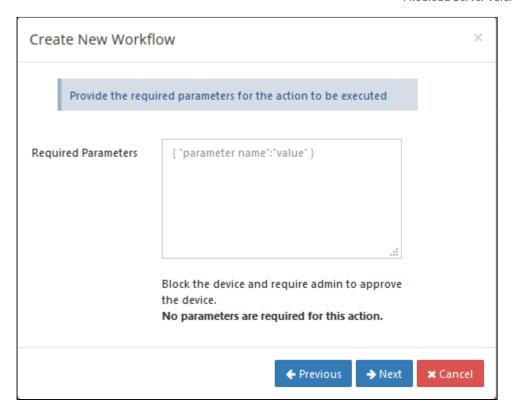
5. Click Next, no required parameters are to be given as ,the condition triggers for any client app that connects to FileCloud.



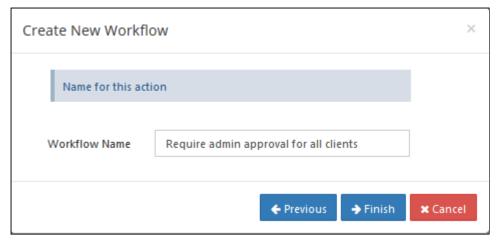
6. click on Next, to give the THEN action



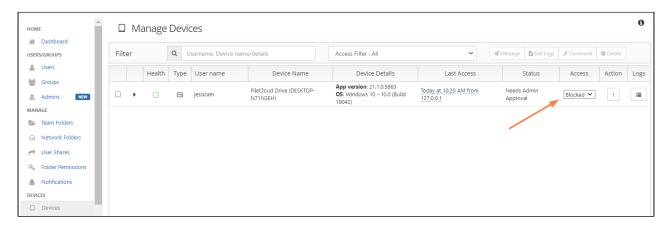
7. Click on Next, No parameters are required for this action



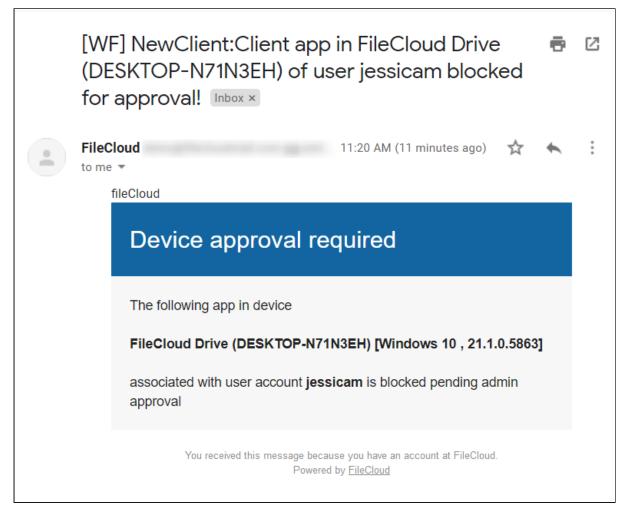
8. Click on Next, to give workflow name



9. In the admin dashboard, the Devices tab will show the status of the devices awaiting Admin approval. The Admin is also sent an email.



10. An email will be sent to the user trying to connect to FileCloud notifying the user that the device needs to be approved by the admin.



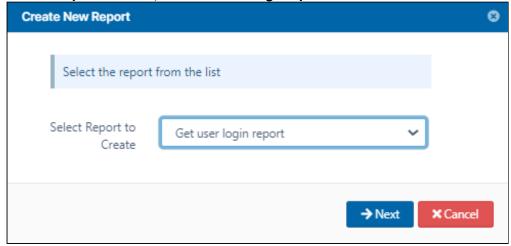
Create Report and Send Email Workflow

This workflow recipe creates a specific report and sends the result to specified emails once a day.

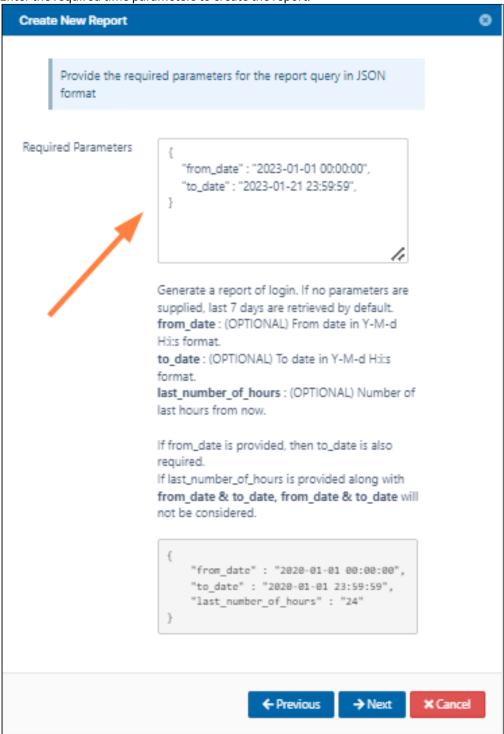
• The email can be configured to be sent at a specific time in the day, and the day interval can be set to daily.

To create a workflow that generates a specific report and sends the result to specified emails:

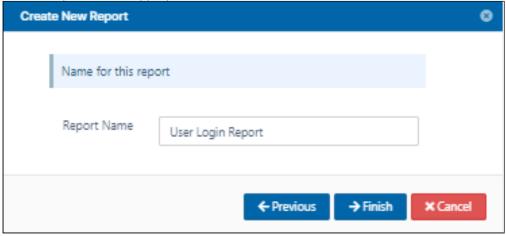
- 1. Log in to the admin portal
- 2. In the navigation panel, click **Reports**.
- 3. Click Add Report.
- 4. In Select Report to Create, choose Get user login report.



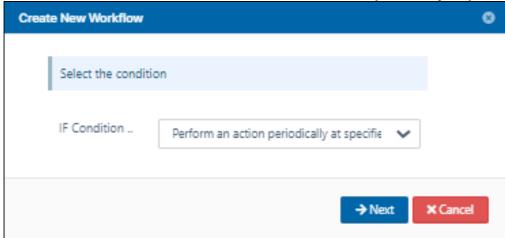
5. Enter the required time parameters to create the report.



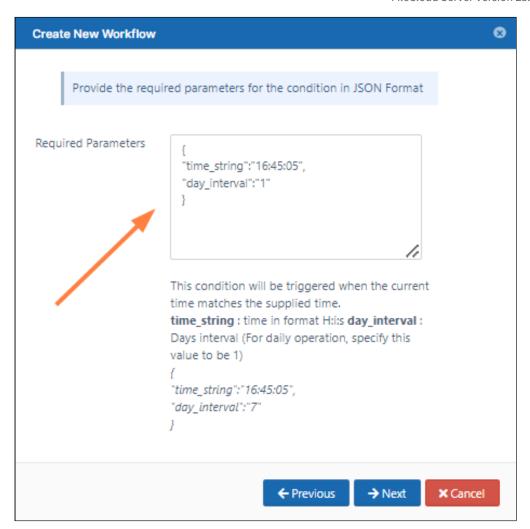
6. Save the report with an appropriate name, and click Finish.



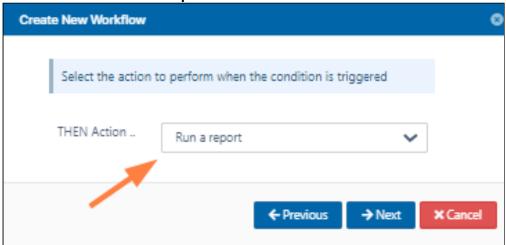
- 7. Click **Workflows** in the navigation panel.
- 8. Click Add Workflow and set the If condition as Perform an action periodically at specified time and interval.



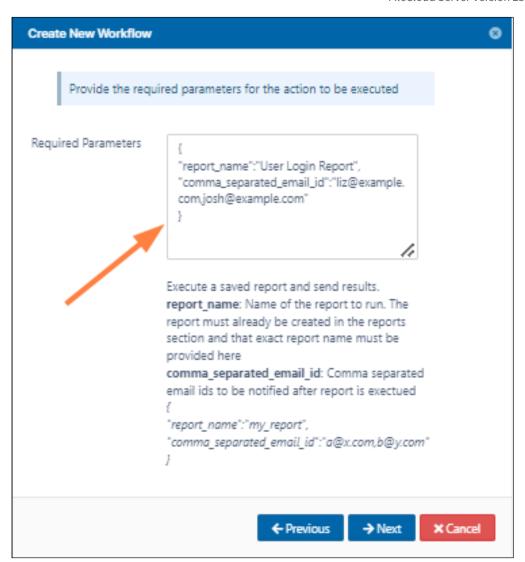
9. Specify the time in the format given in the template. Specify the day interval as 1 to indicate that the workflow should be triggered daily.



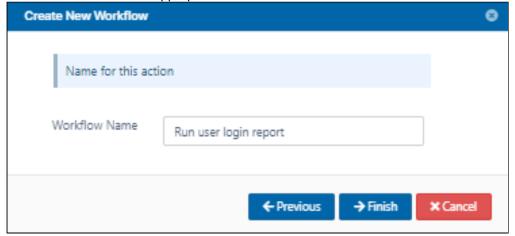
10. Set the **THEN Action** as **Run a report.**



11. Specify the report name created previously and the emails of the users who will receive the report in the format given in the template.



12. Save the workflow with an appropriate name.



13. Once the workflow is run the report results are sent to the email ids specified.



- 3 Similar workflows can be create to run reports with THEN conditions like
 - Perform an action on the specified date
 - Perform an action periodically

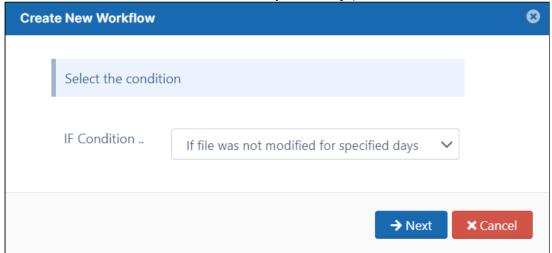
Detect and Delete Inactive Files Workflow

This workflow recipe deletes all unused files.

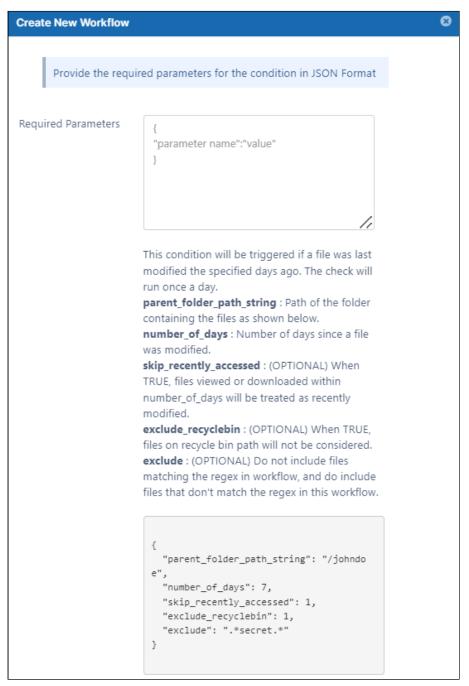
- The workflow checks the number of days a file was unused and deletes those files.
- You can provide a set of email ID's to send the generated report to.

To create a workflow that detects and deletes inactive files:

- 1. Log in to the admin portal.
- 2. Click **Workflow** on the left navigation panel.
- 3. Click Add Workflow.
- 4. Set IF Condition to If file was not modified for specified days, and click Next.



5. Enter the parameters in the given format.



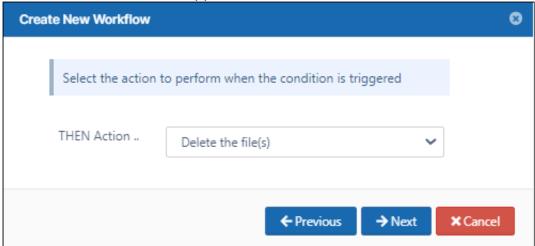
For example:

```
{
  "parent_folder_path_string": "/johndoe",
  "number_of_days": 7,
  "skip_recently_accessed": 1,
  "exclude_recyclebin": 1,
  "exclude": ".*secret.*"
```

}

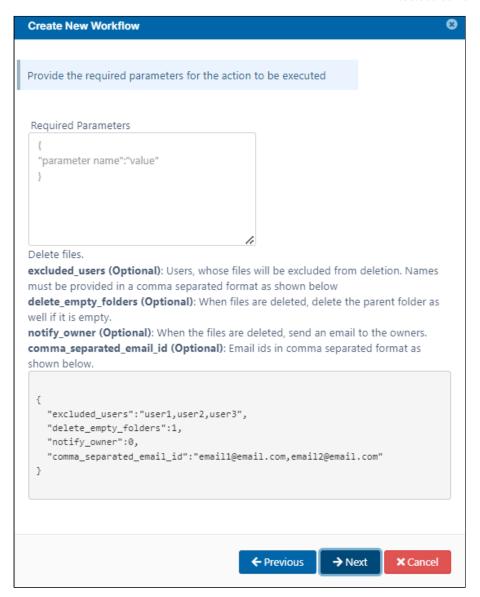
Note - This workflow only applies to Managed Storage and not to Network Folders. To identify a FileCloud specific path for a folder, see Identifying a FileCloud Specific Path.

- 6. Click Next.
- 7. Set **THEN Action** to **Delete the file(s)**.



8. Click Next.

Set any of the parameters. They are all optional.

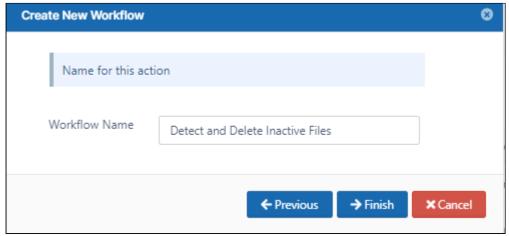


For example:

```
{
"excluded_users":"abose",
"delete_empty_folders":true
}
```

9. Click Next.

10. Enter a Workflow Name and click Finish.



Detect and Disable Inactive Users Workflow

This workflow recipe disables a user when the user is no longer active and notifies the user through email once the account is deactivated.

- The last login date of the user is used to know if the user is Active or Inactive.
- You can avoid looking at users who have not begun using FileCloud.
- You provide the email ID's to which a report of disabled users is sent.

To create a workflow that detects and disables inactive users:

- 1. Login to Admin Portal
- 2. Navigate to Workflow on the left navigation
- 3. Click the **Add Workflow** button
- 4. Set the If Condition " If a user's last login is older than.. "



5. Enter the required parameters in the given format.

```
{
"last_login_days_ago":30,
```

```
"user_account_type":"USER_ACCOUNT_ANY",
"day_interval":1
}
```

FileCloud Server Version 23.232 Site Maintenance

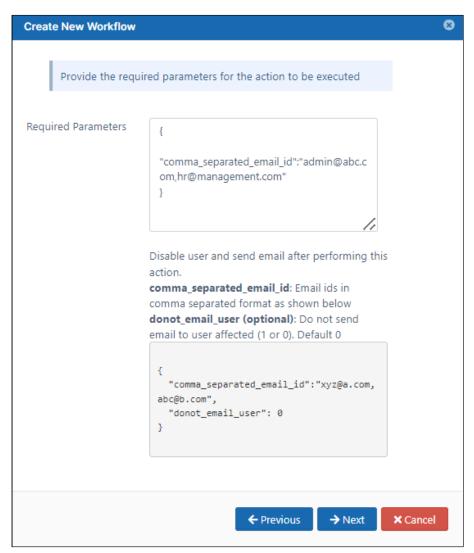


6. Click **Next**, and set the **Then Action** to "Disable user account".



7. Enter the Required parameters in the given format.

```
{
"comma_separated_email_id":"admin@abccompany.com,hr@management.com"
}
```

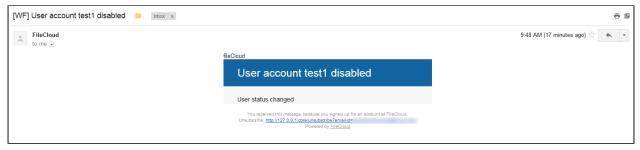


8. Click Next, give an appropriate workflow name and click Finish.



9. The user accounts are disabled and the notifications are sent once the workflow is executed.





10. Go to the users list to confirm that the users are disabled.



Detect and Generate Inactive File List Workflow

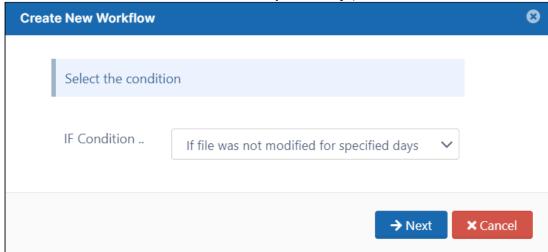
This workflow recipe sends an email report with a list of inactive files.

- The workflow checks the number of days a file was unused and generates a report.
- You can provide a set of email IDs the generated report will be emailed to.

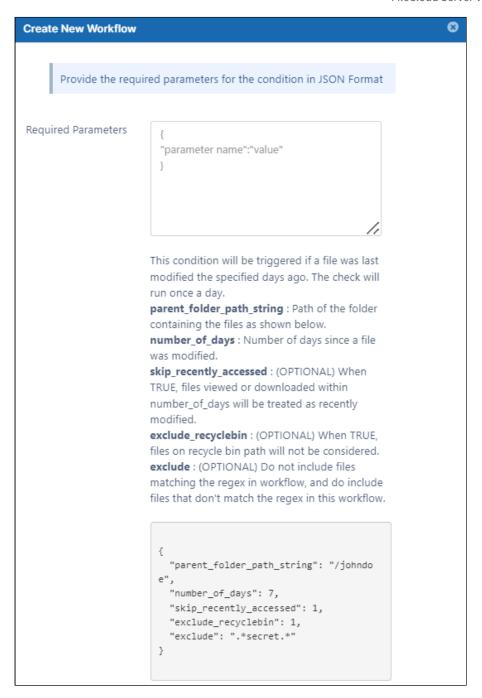
To create a workflow that detects and generates a list of inactive files:

- 1. Log in to the admin portal.
- 2. Click **Workflow** in the navigation panel.
- 3. Click Add Workflow.

4. Set IF Condition to If file was not modified for specified days, and click Next.



5. Enter the parameters in the given format.



For example:

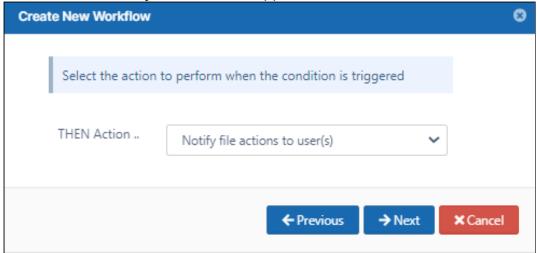
```
{
    "parent_folder_path_string": "/jenniferp",
    "number_of_days": 15,
    "skip_recently_accessed": 1,
    "exclude_recyclebin": 1,
```

```
"exclude": ".*secret.*"
}
```

Note: This workflow applies only to Managed Storage and not to Network Folders.

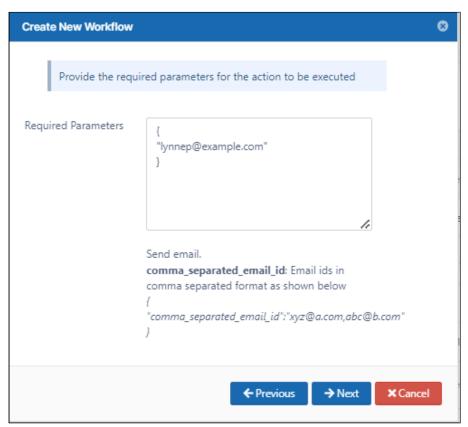
To identify FileCloud specific path for a folder please refer to Identifying a FileCloud Specific Path.

- 6. Click Next.
- 7. Set THEN Action to Notify file actions to user(s).

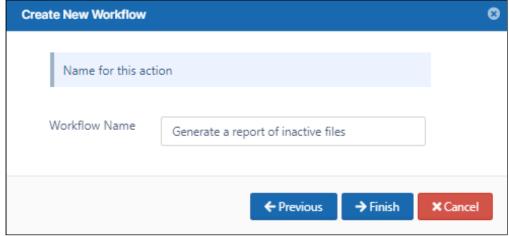


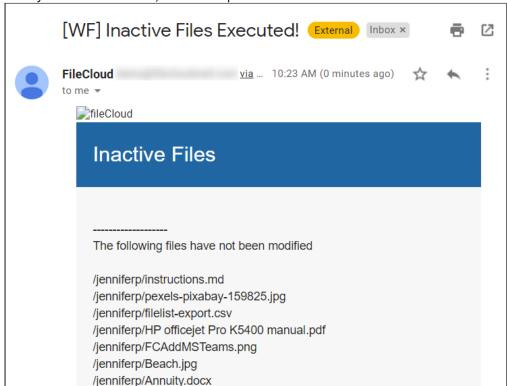
- 8. Click Next.
- 9. Enter the parameters in the given format. For example,

```
{
"comma_separated_email_id":"lynnep@example.com"
}
```



- 10. Click Next.
- 11. Enter a Workflow Name, and click Finish.





When you run the workflow, the emails specified receive an email with a list of inactive files.

Detect and Notify Failed Signatures Workflow

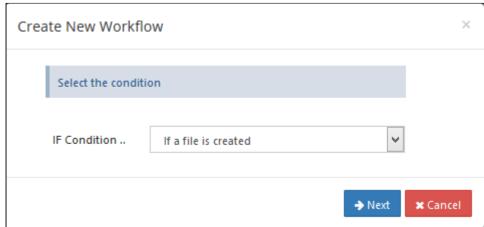
This workflow recipe creates an ALERT notification when a file is created or uploaded to FileCloud with a signature mismatch.

- This ALERT notification can be set for a specific folder location only.
- You can view the alerts on the Admin Portal in the alert panel.

To create a workflow to detect and notify when a file with a signature mismatch is uploaded:

- 1. Login to Admin Portal
- 2. Navigate to **Workflow** on the left navigation panel.
- 3. Click the Add Workflow button.

4. Set the **If Condition** to **If a file is created.**

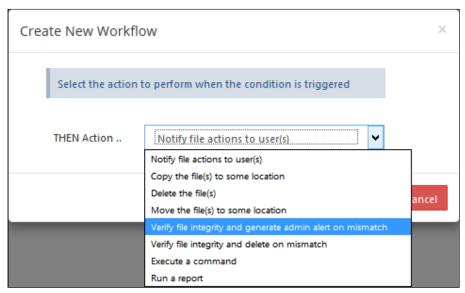


- 5. Click Next.
- 6. Set the parameters as shown in the following screenshot.

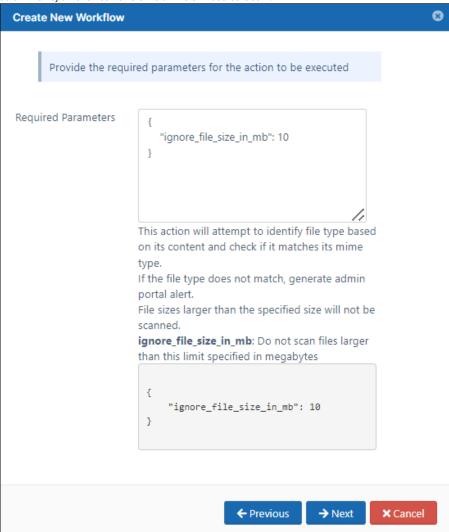
 To identify a FileCloud specific path for a folder please refer to Identifying a FileCloud Specific Path.
 - (i) Set the path to "/" if you want to monitor all the folders in the system.



7. Click Next, and set Then Action to Verify file integrity and generate admin alert on mismatch



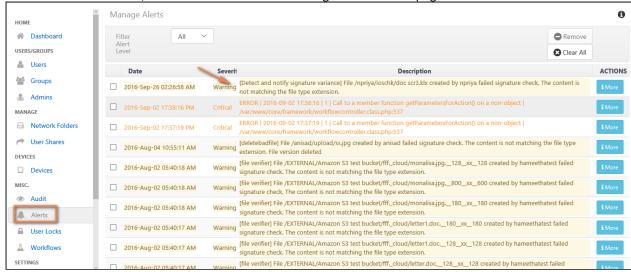
8. Click **Next**, and enter the size limit of files to scan.



9. Click **Next**, and give a name to this workflow.



Once this workflow is set, the Admin receives alert messages in the **Alerts** page.



Detect and Notify Inactive Users Workflow

This workflow recipe sends an email report with a list of all the inactive users.

- The last login date of the user is used to determine if the user is Active or Inactive
- You can avoid looking at users who have not begun using FileCloud
- You provide a set of email ID's to which the generated report will be mailed

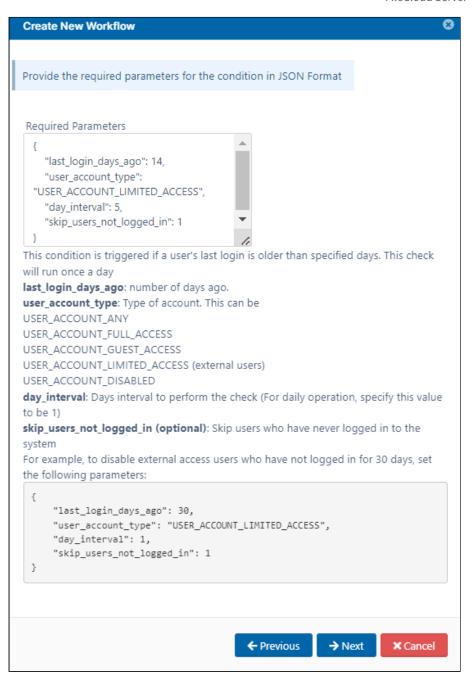
To create a workflow that sends an email report with a list of all the inactive users:

- 1. Login to Admin Portal
- 2. Navigate to Workflow on the left navigation
- 3. Tap on the Add Workflow button
- 4. Set the If Condition If a user's last login is older than.., and click Next.

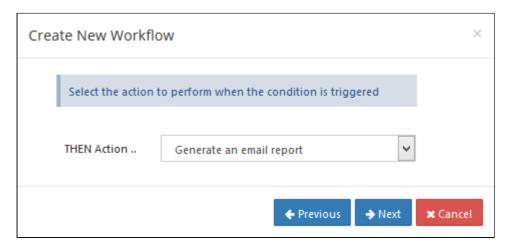


5. Enter the required parameters in the given format

```
{
   "last_login_days_ago": 14,
   "user_account_type": "USER_ACCOUNT_LIMITED_ACCESS",
   "day_interval": 5,
   "skip_users_not_logged_in": 1
}
```

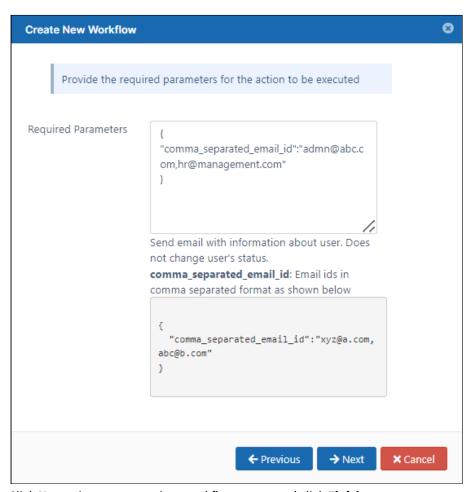


6. Click Next, set Then Action Generate an email report.



7. Enter the Required parameters in the given format

```
{
"comma_separated_email_id":"admin@abc.com,hr@management.com"
}
```



8. Click **Next**, give an appropriate workflow name, and click **Finish**.

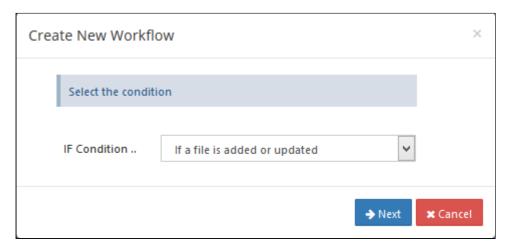
Notify on File Upload Workflow

This workflow recipe sends an email notification when a file is created or uploaded to FileCloud.

- This notification can be set for a specific folder location only
- The admin can provide a set of email ids to which the notification email has to be sent

To create a workflow to notify when a file is uploaded:

- 1. Login to Admin Portal
- 2. Navigate to Workflow on the left navigation
- 3. Tap on the Add Workflow button
- 4. Set the If Condition to If a file is added or updated and click Next

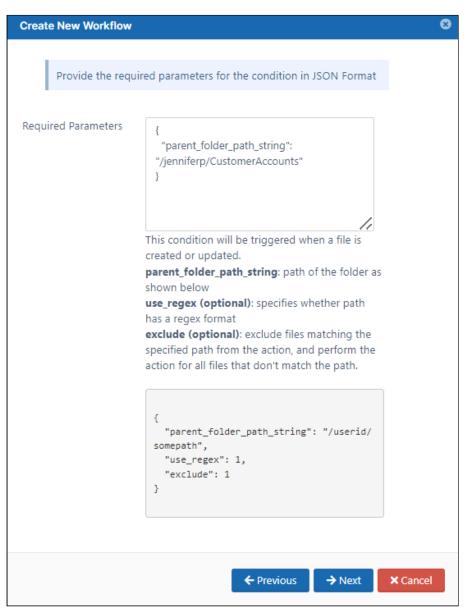


5. Enter the Required parameters in the given format, and click **Next**.

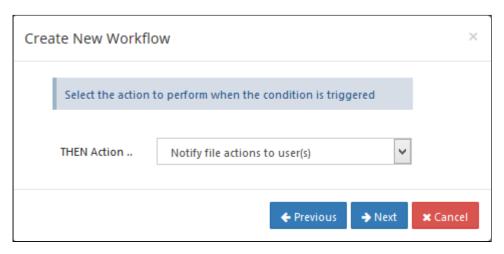
```
eg: Path : My Files Location (/jenniferp/CustomerAccounts)
{
"parent_folder_path_string":"/jenniferp/CustomerAccounts"
}
```

To identify FileCloud specific path for a folder please refer this Identifying a FileCloud Specific Path.

Set the path to "/" if you want to monitor all the folders in the system.

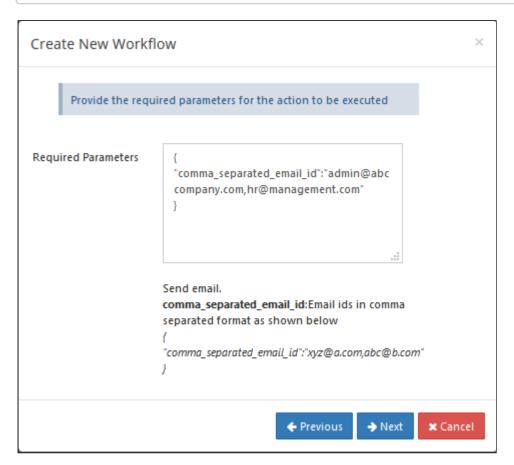


6. Set the then action to Notify file actions to user(s), and click Next.

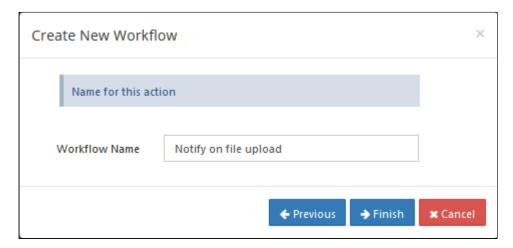


7. Enter the Required parameters in the given format

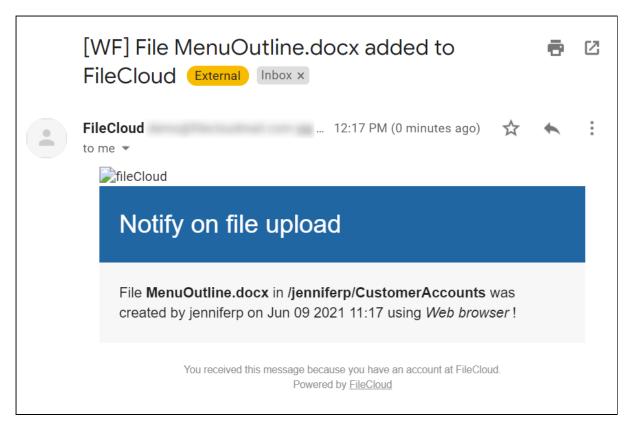
```
{
"comma_separated_email_id":"admin@abccompany.com,hr@management.com"
}
```



8. Click **Next**, then give an appropriate workflow name and click **Finish**.



9. Sample notification email on a file upload.



Periodic Script Workflow

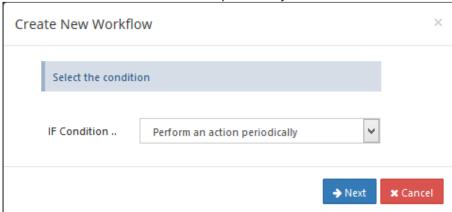
This workflow recipe runs a specified command at a periodic interval.

• This requires you to set up cron job or task scheduler to run the command.

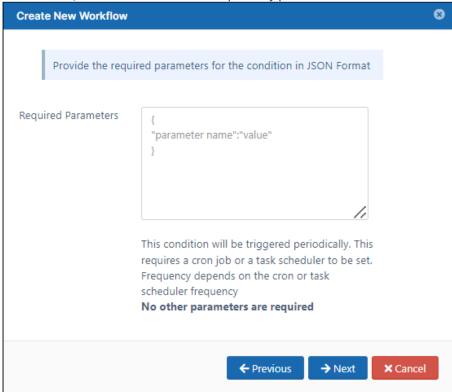
• The frequency depends on the cron or task scheduler frequency you set

To create a workflow that performs a periodic script:

- 1. Login to Admin Portal
- 2. Navigate to Workflow on the left navigation
- 3. Tap on the Add Workflow button
- 4. Set the If Condition " Perform an action periodically "



5. Click on Next, This condition does not require any parameters



6. Set the Then Action "Execute a command"



7. Enter the required Command

```
eg:-
{
"command_line":"ls"
}ls - will list all the folders and files.
```

8. Enter the Workflow name and Finish.



9. A notification email will be sent to the Admin, with the response information of command line execution.



Run workflows commands with /tmp paths in Linux systems

When using Linux as OS for Filecloud systems, some workflows include the /tmp folder.

By default, using the /tmp folder with command workflows does not work as expected because the fcorchestrator services have a private /tmp folder

To change that behavior we need to disable the private tmp folder of fcorchestrator. To do that:

1. Edit the file /etc/systemd/system/fcorchestrator.service

```
>> vi /etc/systemd/system/fcorchestrator.service
[Unit]
Description= Filecloud Queue service
After=httpd.service
[Service]
Type=simple
PIDFile=/run/fcorchestrator.pid
ExecStart=/bin/sh -c '/usr/bin/node /var/www/html/src/Scripts/fcorchestrator.js'
ExecReload=/bin/kill -s HUP $MAINPID
ExecStop=/bin/kill -s QUIT $MAINPID
WorkingDirectory=/var/www/html/src/Scripts/
PrivateTmp=yes
User=www-data
Restart=always
SuccessExitStatus=143
[Install]
WantedBy=multi-user.target
```

2. Change **PrivateTmp** to **no** and execute the command **"systemctl daemon-reload"** and then restart **fc-orchestrator** with **"service fcorchestrator restart"**

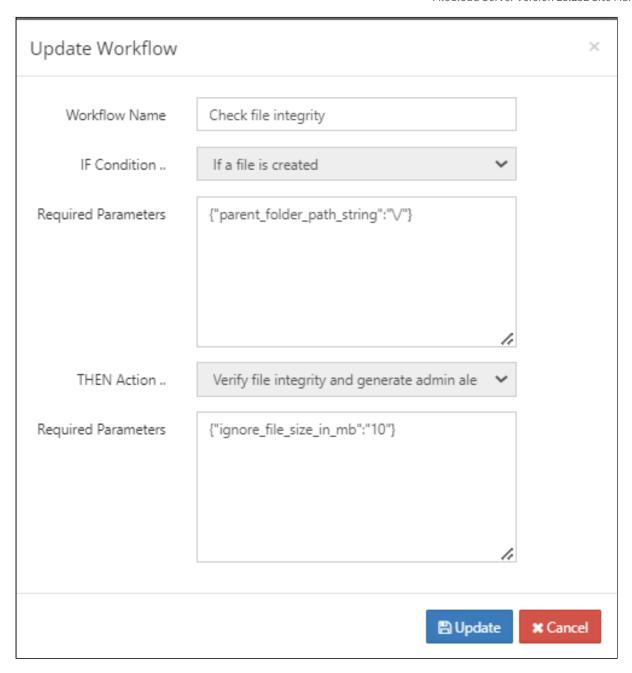
```
>> vi /etc/systemd/system/fcorchestrator.service
[Unit]
Description= Filecloud Queue service
After=httpd.service
[Service]
Type=simple
PIDFile=/run/fcorchestrator.pid
ExecStart=/bin/sh -c '/usr/bin/node /var/www/html/src/Scripts/fcorchestrator.js'
ExecReload=/bin/kill -s HUP $MAINPID
ExecStop=/bin/kill -s QUIT $MAINPID
WorkingDirectory=/var/www/html/src/Scripts/
PrivateTmp=no
User=www-data
Restart=always
SuccessExitStatus=143
[Install]
WantedBy=multi-user.target
>> systemctl daemon-reload
>> service fcorchestrator restart
```

Troubleshooting Workflows

· Integrity Check Not Working in Linux

Integrity Check Not Working in Linux

An integrity check workflow attempts to determine if the content in a file is different from what is expected for the file's extension.



If you are working in a Linux environment, and the logs for the workflow indicate that it cannot detect the file type, the workflow will not be able to perform its integrity check.

This may be due to problems with the locale settings.

To fix this, remove the existing locale and install a new one by entering the following into a command line. Note: It is important that you include the --no-archive flag.

```
rm -f /usr/lib/locale/locale-archive
locale-gen --no-archive en_US.utf8
```

If you are using any additional locale settings, for example, ru_RU.utf8, newly install them as well:

locale-gen --no-archive ru_RU.utf8

Automated Workflow Management

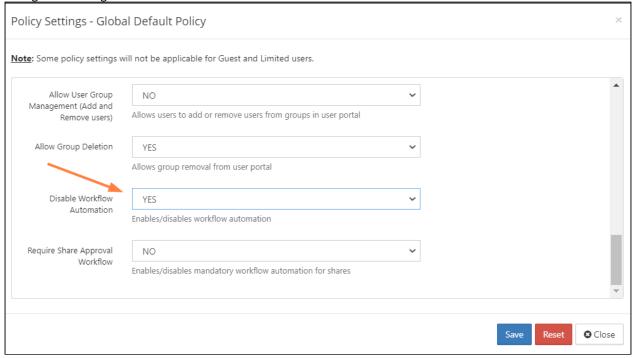
(i) Automated Workflows are available in FileCloud 21.2 and later.

Disabling Automated Workflows

Automated Workflows enable users in the user portal to create automated processes, such as file approvals and file storage. By default the Automated Workflow function is enabled, but you can disable it.

To disable the Automated Workflows for certain users, disable them in the users' policies.

- 1. In the Admin portal, go to **Settings > Policies**.
- 2. Open the policy assigned to the users, and click the **User Policy** tab.
- 3. Change the setting of **Disable Workflow Automation** from **NO** to **YES**.



4. Click Save.

The Workflows navigation link no longer appears in the user portal of users assigned to the policy.

Requiring a Share Approval Workflow

A Share Approval workflow is a specialized type of workflow that requires a share to be approved before it is made available.

In order for a Share Approval workflow to become active for specific users, you must mark it required in their policies and choose the specific Share Approval workflow to use.

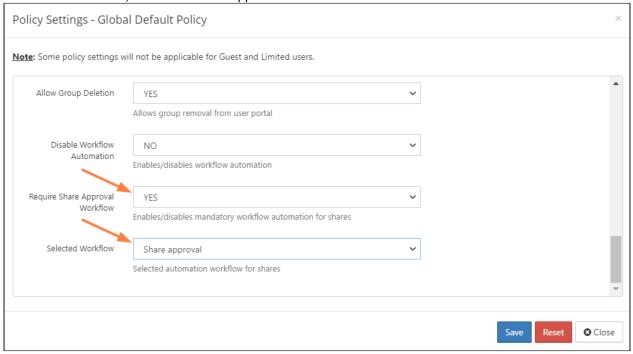
•

For the Share Approval workflow to require approval for all of the policy's users, the Share Approval workflow creator must be a promoted Admin with all User Share permissions enabled.

If the Share Approval workflow creator is not a promoted Admin with all User Share Permissions enabled, only the creator's shares will require approval.

In addition, in order to approve the shares, the share approver(s) specified in a Share Approval workflow (in **Approver Emails**) must be promoted Admins with all User Share permissions enabled. Please confirm this before choosing the workflow as the **Selected Workflow**.

- 1. In the Admin portal, go to **Settings > Policies**.
- 2. Open the policy assigned to the users, and click the **User Policy** tab.
- 3. Change to setting of Require Share Approval from NO to YES.
- 4. In **Selected Workflow**, choose the Share Approval workflow to make effective.



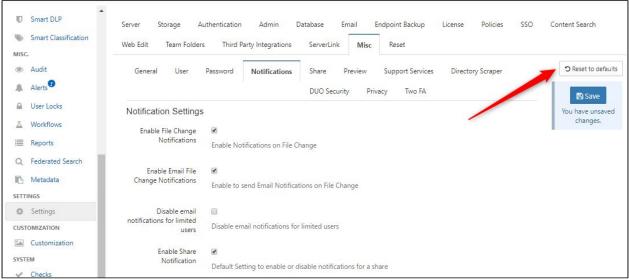
For end user information on creating Automated Workflows, see Workflow Automation.

Reset Settings and Customizations

(i) Beginning in FileCloud 20.1, the option for resetting all selections in the Settings and Customization pages is located in the Reset tab on the Settings page. In FileCloud versions earlier than 20.1, the **Reset All** button appears in the upper-right corner of the Settings and Customization pages and resets both settings and customizations regardless of which page you access it from.

To return to default settings for options on a Settings or Customization tab

- 1. In the navigation pane, click Settings or Customization.
- 2. Click the setting or customization type tab. If there are sub-tabs, click a sub-tab.
- 3. Click the **Reset to Defaults** button in the upper right of the page.



A confirmation dialog box opens.

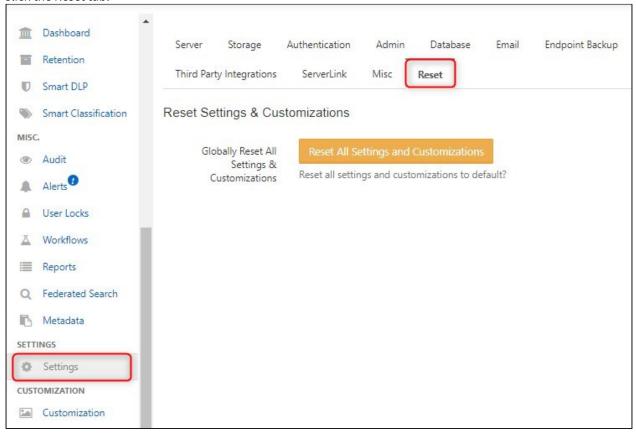
4. Click OK.

The settings on the main tab and the settings on all its the sub-tabs are set back to their default settings. (This is true even if you have clicked **Reset to Defaults** from a sub-tab. The options on its parent tab and all of its sibling tabs are reset to their defaults.).

To return to default settings for all options on the Settings and Customization pages:

1. In the navigation pane, click **Settings**.

2. Click the Reset tab.



3. Click Reset All Settings and Customizations.

A confirmation dialog box opens.

4. Check **Confirm** and continue with the reset.

All of the options that appear on the Settings and Customization pages are reset to their defaults.