opentext™

OpenText Filr 24.4

Maintenance Best Practice Guide

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Legal Notice

Contents

About This Guide

This guide is for Filr administrators and covers various Filr administrative tasks that come into play after your Filr system is deployed and providing services to end users.

Audience

This guide is intended for Filr administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the **comment on this topic** link at the bottom of each page of the online documentation.

Documentation Updates

For the most recent version of this guide and other documentation, visit the OpenText Filr CE 23.4 Documentation website (http://www.microfocus.com/documentation/filr/filr-23.4).

1 Access to Filr—Maintenance Tasks

All of the links below point to rows within UI help tables in the *Administrative UI Reference*. See the Path statements before each table for UI navigation help.

Desktop Application Access

- Desktop Default—Enable/Disable
- Desktop Selected Users—Enable/Disable

Guest User (Public) Access

- Guest (Public)—Enable/Disable

Local User (non-LDAP) Access

- Local (non-LDAP) Users—Enable/Disable

Making Public URLs Searchable

You can provide Internet search engines (such as Google) with the Filr permalinks for folders that you want to make publicly available on the Internet.

1. Access the folder in Filr.
2. Click **Permalinks** at the bottom of the folder page.

Mobile Device App Access

- Mobile Default—Enable/Disable
- Mobile Selected Users—Enable/Disable

Web Browser Access

- Web Default—Enable/Disable
- Web Selected Users—Enable/Disable

2 Adding a Filr Appliance to an Existing Deployment

To accommodate additional load, you can add Filr appliances to the Filr system only if your original Filr system was configured with shared storage (`/vashare`).

Prerequisites

You can add a Filr appliance to an existing Filr deployment only if your Filr deployment meets the following prerequisites:

- **It is an expandable deployment:** Small (all-in-one) and non-expandable Filr deployments cannot be expanded.
- **Shared storage is enabled:** Ensure that a shared storage CIFS or NFS mount (`/vashare`) exists for the Filr deployment. You configure shared storage during the Filr appliance installation, as described in "Setting Up Shared Storage" in the *Installation, Deployment, and Upgrade Guide*.

  IMPORTANT: If shared storage (/vashare) was not configured at the time you installed your original Filr system, you cannot add Filr appliances to the system.

- **The CIFS or NFS mount is accessible to all Filr appliances:** All Filr appliances in the cluster need to have access to the CIFS or NFS mount.
- **(Recommended) A load balancing solution is in place:** If you want to provide a common access URL for all your Filr users, you must provide a solution for load balancing between the Filr appliances.

  OpenText does not provide a load balancing appliance; however, there are many software solutions available, such as Apache, HAProxy, and NGinx.

  There are also hardware solutions available, such as F5 Networks, Juniper, Riverbend, and A10 Networks.

  Searching the web for `Layer 4-7 switches` or `Application Delivery Controller` is a good place to start finding a solution that meets your requirements.

Adding Filr Appliances to an Existing Deployment

To add Filr appliances to an exiting large Filr deployment:

1. Ensure that your system meets the necessary prerequisites.
2. Assuming that you have planned the installation, downloaded the software, and so on, install the additional Filr appliance, beginning with "Deploying the Virtual Machines(VM)" in the *Installation, Deployment, and Upgrade Guide*.

   The process is the same as when you installed the original Filr appliance.

   IMPORTANT: Choose the same configuration options (including the same CIFS and NFS mount) that you chose when you installed the original Filr appliance.

   ---
3. Run the installation wizard for a large deployment (at port 9443), as described in "Setting Up the Filr Appliances" in the *Installation, Deployment, and Upgrade Guide*.
4. After the configuration is complete, complete the steps in "Completing the Expandable Filr Deployment" in the *Installation, Deployment, and Upgrade Guide*.. Then verify that clustering is enabled and that the Memcached configuration matches the configuration of the original Filr appliance.

3 Administrative Access Maintenance

Adding or Removing Administrative Rights for Users and Groups

See "Assigning and Managing Port 8443 Direct Administrators" in the *Administrative UI Reference*.

Administrative Maintenance—Port 8443 Admins

About Port 8443 Administrators

There are two types of Port 8443 Administrators

- **Built in:** Have full rights to the Port 8443 console, including the right to add or remove Direct administrators.
- **Direct:** Have rights to administer only
  - Users
  - Groups
  - Mobile Devices
  - Net Folders
  - Net Folder Servers

Modifying Port 8443 Administrators

The modifications you can make depend on the type of user, as follows:

- **Built in admin:** You can change this username and password by logging in as the user, clicking the ***Username*** (upper right), selecting **View Profile**, clicking **Edit**, and making the changes.

  Changing this affects
  - The name you enter to log in as the built-in administrator
  - The name that appears in the upper-right corner of the Port 8443 console
  - The name that appears in the administration console under **Administrators**
- **LDAP users (Direct administrators):** User names and passwords are controlled in the LDAP source.
- **Internal Filr users:** User names cannot be changed; passwords can.

Administrators click the user in the Users list, click the Profile button, and enter a new password.

Internal users edit their profile to change their passwords.

Simplifying Management through Administrative Groups

You can simplify your management tasks by creating administrative groups and assigning group members with specific administrative tasks.

For example, Net Folder setup and indexing, etc. is time-intensive.

1. Create a group.
2. Add it to the **Administrators** list.

   See "Assigning and Managing Port 8443 Direct Administrators" in the *Administrative UI Reference*
3. Assign users to the group.

   By default the users added to a administrator group will gain the rights to manage and setup the net folders and net folder servers. All direct admin users will have the rights to setup net folders.

4 Branding and Changing the User Interface

Branding Desktop Apps (Advanced-Edition License Only)

As the direct administrator of port 8443 , you can brand your Filr desktop apps to match your organization's brand.

IMPORTANT: Direct administrators of Port 8443 do not have rights to administer branding. For more information, see Branding the Desktop Apps (Advanced-Edition License Only)

To customize the branding of the desktop application, you must first create a ZIP file containing the files outlined in Table 4-1 on page 17.

IMPORTANT: The following files must be directly zipped and should not be contained within a folder.

Table 4-1 *Desktop Branding Files*

File Name and format	File Size	Sample File Format	Description
about.png	418 x 200 Pixels		To view the about image: • **On Windows:** Right-click and then click **About *Company Name* - Filr**. • **On Mac:** Click and then click **About *Company Name* - Filr**. **NOTE:** Ensure that your custom branded image is of the same size as the sample file. Otherwise, the text information such as version number and the copyright information that Filr adds might overlap your custom branded image.

File Name and format	File Size	Sample File Format	Description
console_header.png	205 x 48 Pixels		To view the console header image: ◆ **On Windows:** Right-click and then click **Open Filr console**. ◆ **On Mac:** Click and then click **Open Filr Console**. **NOTE:** Ensure that your custom branded image is of the same size as the sample file. Otherwise, the Desktop Console text that Filr adds might overlap your custom branded image.
login_header.png	400 x 56 Pixels		To view the login header image: ◆ **On Windows:** Right-click and then click **Login**. ◆ **On Mac:** Click and then click **Login**.

FilrBranding.xml	NA	`<?xml version="1.0" ?>`
		`<FilrBranding>`
		`<CompanyName>`*`Company Name`*`</CompanyName>`
		`<AboutFilrColor>`*`Font_Color_in_hexadecimal_format`*`</AboutFilrColor>`
		`<AboutFilrBgColor>`*`background_Color_in_hexadecimal_format`*`</AboutFilrBgColor>`
		`</FilrBranding>`
			Create an XML file using the sample file format.
			The company name that you specify in this file replaces all the instances where company name is displayed in the desktop application. For example, in the **About *Company Name* - Filr** option that appears when you right-click on Windows or click on Mac.
			The font color and the background color that you specify is applied on all the text information such as Filr version and copyright information. You must specify the color only in hexadecimal format. For example: #17202A.

NOTE: If the .png files are not as per the latest standards, then the UI might stop responding.

Branding Mobile Apps (Advanced-Edition License Only)

As the direct administrator of Port 8443, you can brand your Filr mobile apps to match your organization's brand.

IMPORTANT: Direct administrators of port 8443 do not have rights to administer branding. For more information see, Branding the Mobile Apps (Advanced-Edition License Only).

Android UI Branding

To custom brand the Android Filr app, you must first create a folder on your system that will be used to hold the resources used for custom branding. We will refer to this as the *android-branding* folder in the rest of this document.

You can customize the colors and the images that Android uses to customize the filr app. Let's deal with the images first and then the colors.

Customizing Images for Android Branding

About Image Density

Because Android runs on devices with a wide variety of screen densities, you should always provide bitmap resources tailored to each of the generalized density buckets: low, medium, high and extra-high density. This will help in achieving good graphical quality and performance on all screen densities. If for some reason, you can't provide images for all of the density buckets, then you must provide at least one image matching the XXXHDPI/XXHDPI/XHDPI scale factor. The higher resolution image, the better the display quality.

First start with a base image and then generate the images for each density using the following scale table. Remember in Android, 1dp (device independent) is equal to 160 pixels.

Density Bucket Name	Scale Factor	Pixels
LDPI	0.75	160 x 0.75 = 120 pixels
MDPI	1.0	160 x 1 = 160 pixels
HDPI	1.5	160 x 1.5 = 240 pixels
XHDPI	2.0	160 x 2 = 320 pixels
XXHDPI	3.0	160 x 3 = 480 pixels
XXXHDPI	4.0	160 x 4 = 640 pixels

For example, if you create a 75x75 image for LDPI then you need to create the following images to match other densities.

Density Bucket Name	Density Scale	Create Image
LDPI	0.75 – Base Image	0.75 x 0.75
MDPI	1.0 - 100	100 x 100
HDPI	1.5 – (100 x 1.5) - 150	150 x 150
XHDPI	2.0 – (150 x 2) - 200	200 x 200
XXHDPI	4.0 – (200 x 3) - 600	600 x 600
XXXHDPI	HDPI6.0 – (600 x 4) - 2400	2400 x 2400

Creating and Naming the Images

Filr Android-app customizing involves the following branding images.

Table 4-2 *Android Image Names and Default Sizes*

Image Name	Location Where Displayed	Recommended Dimension Ratio*
`ic_launcher.png`	This image is shown on the passcode lock screen.	144 x 144 pixels
`login_header.png`	This image is shown on the login screen.	775 x 144 pixels
`main_page_logo.png`	This image is shown next to the up button.	475 x 96 pixels

* Images that conform with the ratios shown will render without distortion in the locations indicated. For example, an `ic_launcher.png` image that is 288 X 288 pixels will render without distortion.

Create the following folder/folders in the *`android-branding`* folder that you created on your system. You don't have to create all folders matching different scaling factors. You can create one generic folder called "drawable" and place higher resolution images in this folder. This higher resolution image will be scaled dynamically by Android to make it look good on different Android devices. Providing a lower resolution image will not yield satisfactory results.

Table 4-3

Folder Name	Description
drawable-ldpi	Place all lower resolution images here
drawable-mdpi	Place all base resolution images here
drawable-hdpi	Place all high resolution images here
drawable-xhdpi	Place all extra high resolution images here
drawable-xxhdpi	Place all extra extra high resolution images here
drawable-xxxhdpi	Place all extra extra extra high resolution images here
drawable	Place the highest possible resolution images here. Images placed here may not be required to be placed in other folders. Images placed in this folder are dynamically scaled by Android to make them look good on various devices.

Customizing Colors for Android Branding

To customize the colors in Filr's Android mobile app, create a file called `colors.xml` in the *`android-branding`* folder and add the colors with your chosen values. Filr's Android app supports customizing the following colors.

Table 4-4 *Android Color Tags*

Color Name	Where it is shown
main_header_start main_header_end	These two colors are used for creating a gradient shade that is applied to the header bar. This change is visible only in the **What's New** section.
view_header_start view_header_end	These two colors are used for creating a gradient shade that is applied to the header bar. This change is visible throughout the UI, except in the **What's New** section and on the main page where the tabs are shown.
list_header_text	This color is used for list-header text. It is visible in the Share-action dialogs.
form_background	This color is used in the Add Comments dialog.
property_value_text	This color is used to display links and text.

Example content of the `colors.xml` file:

```
<branding>
  <main_header_start>#75717c</main_header_start>
  <main_header_end>#4D2525</main_header_end>
  <view_header_start>#9CCCDC</view_header_start>
  <view_header_end>#519217</view_header_end>
  <list_header_text>#7EB5C1</list_header_text>
  <form_background>#F7G2G4</form_background>
  <property_value_text>#246d9g</property_value_text>
</branding>
```

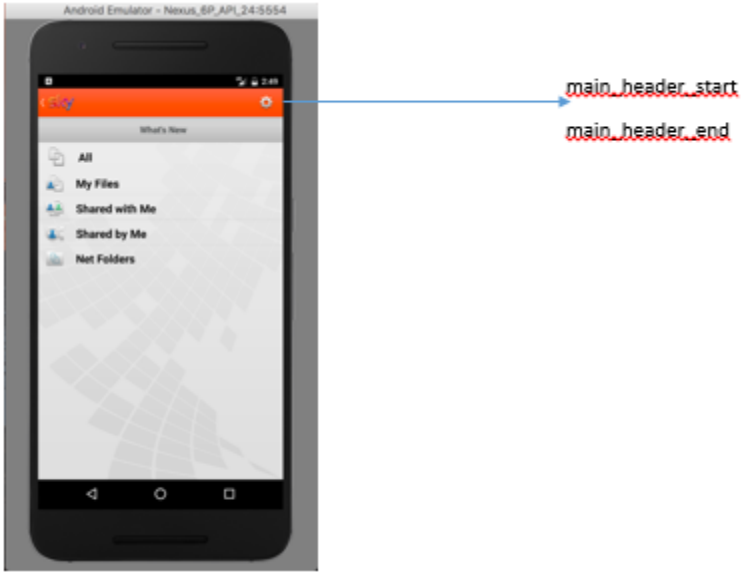
NOTE: The custom-branding-resource subsystem is very stringent in interpreting hex codes. You must specify the fully valid color hex code including the pound sign (#). If you miss specifying this sign, then the color value is ignored and default color hex code is used. The supported formats are #FFFFFF and #FFFFFFFF

Select the `colors.xml` file and the `drawable...` folders in your *`android-branding`* equivalent folder and create a zip archive. Store the zip archive somewhere on your system for use when configuring the branding on the Android client.

To apply the branding you have created, see "Using the Mobile App Branding dialog" in the *Administrative UI Reference*.

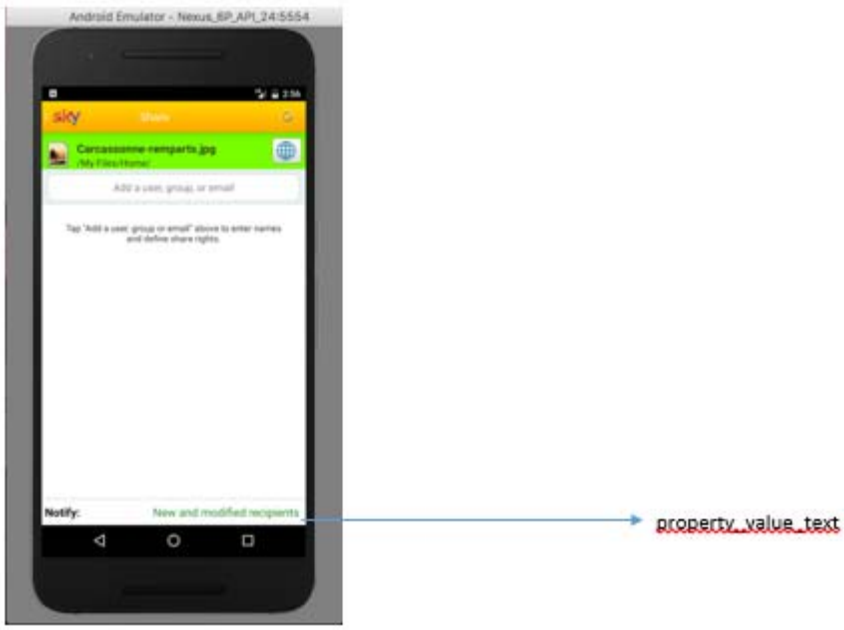
Android Image Examples

Android Color Examples




Android Emulator - Nexus_6P_API_24:5554
sky
File Details
apple_logo.bmp
Shared with
File Link
view_header_start
view_header_end
list_header_text


Android Emulator - Nexus_6P_API_24:5554
Add comment for Certified Support Professional
10.6.png
Add
form_background



Downloading Example Files

You can download an example set of Android Branding Files here.

iOS UI Branding

To brand your iOS mobile devices, you create a .zip file that includes branding images and color specifications, as described in the following sections.

Tips and Caveats

The following points apply to iOS branding files:

- Inclusion of any of the customized branding files is optional.

  The iOS app will work fine whether or not they are found in the .zip file.
- If a file is in the zip file it will be used.

  Otherwise, the default OpenText branding displays.
- Files must be named exactly as specified or iOS applications will not find them.
- All image files should be set to 72 PPI (pixels per inch). Increasing the resolution beyond this can negatively affect app performance.

Downloading iOS Example Files

You can download an example set of iOS Branding Files here.

iOS Branding File Details

Overview of iOS Branding Files

Table 4-5 *iOS Branding File Summary*

Image Names	Where Used	Dimensions in Pixels
• `Filr_40_ios.png` • `Filr_40_ios@2x.png` * • `Filr_40_ios@3x.png` *	PIN/Passcode and Document Picker dialogs	• 40 X 40 • 80 X 80 • 120 X 120
• `Filr_header.png` • `Filr_header@2x.png` * • `Filr_header@3x.png` *	Account Settings dialogs and Login dialog for iPhone	• 300 X 72 • 600 X 144 • 900 X 216
• `Filr_icon_login.png` • `Filr_icon_login@2x.png` * • `Filr_icon_login@3x.png` *	iPad Login dialog	• 600 X 233 • 1200 X 466 • 1800 X 699
• `Filr_signature.png` • `Filr_signature@2x.png` * • `Filr_signature@3x.png` *	Home Selection View	• 248 X 60 • 496 X 120 • 640 X 155

* The files named `...@2x` and `...@3x` support optimal image scaling on multiple devices.

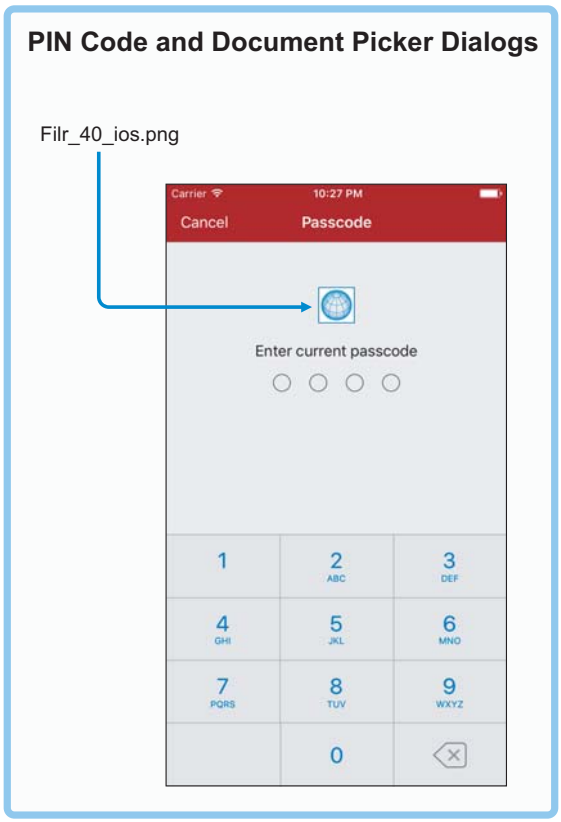
Although it is not required that you create scaled images, OpenText recommends that you follow the image guidelines in the iOS Human Interface Guidelines published by Apple (https://developer.apple.com/ios/human-interface-guidelines/graphics/image-size-and-resolution/).

The iOS sample files include examples of each file in the sizes indicated.

Example: PIN Code and Document Picker Extension

To brand the PIN Code and Document Picker Extension dialogs, create a `Filr_40_ios.png` file and include it in the .zip file.

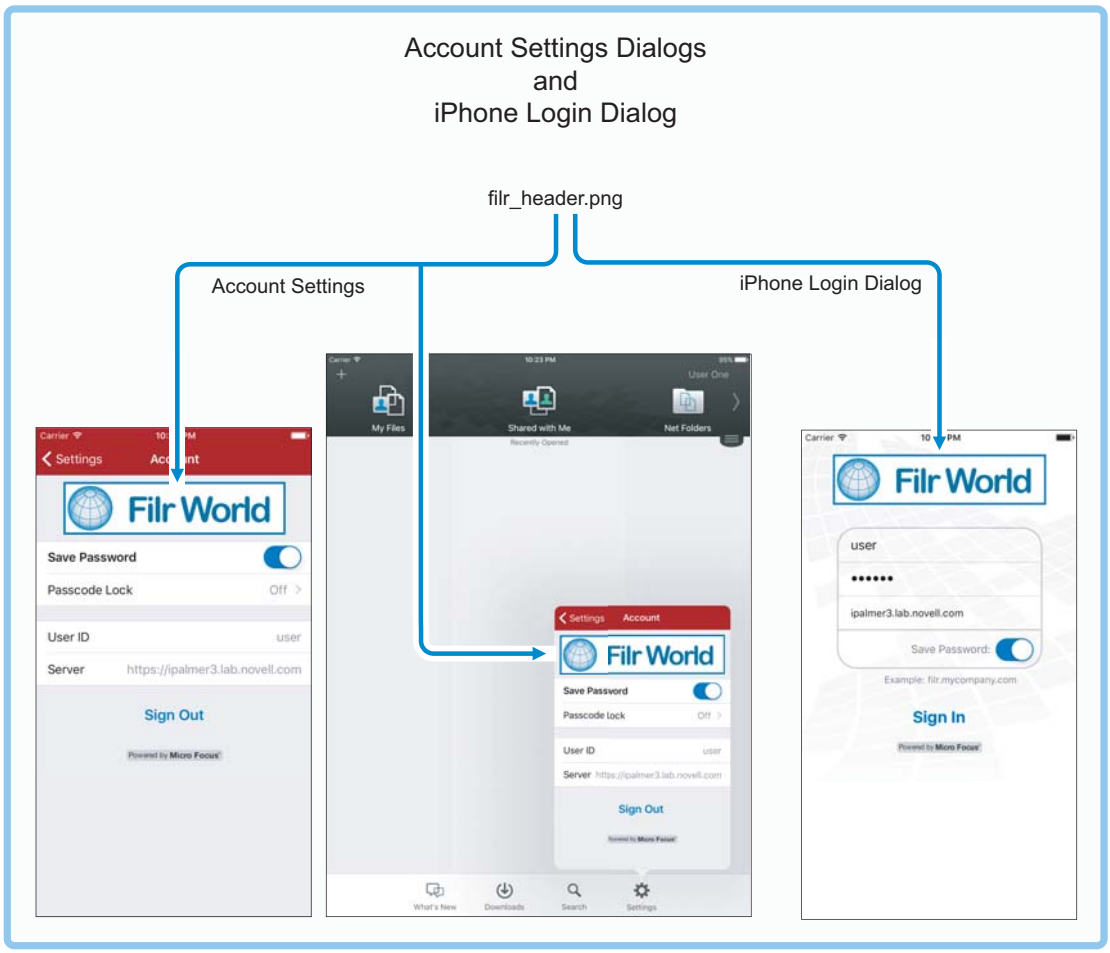
Figure 4-1 *Filr_40_ios.png Example*



Example: Account Settings Dialogs and the Login Dialog for iPhone

To brand the account settings dialog and the login dialog for iPhone devices, create a `filr_header.png` and include it in the zip file.

Figure 4-2 *filr_header.png Example*



Example: iPad Login Dialog

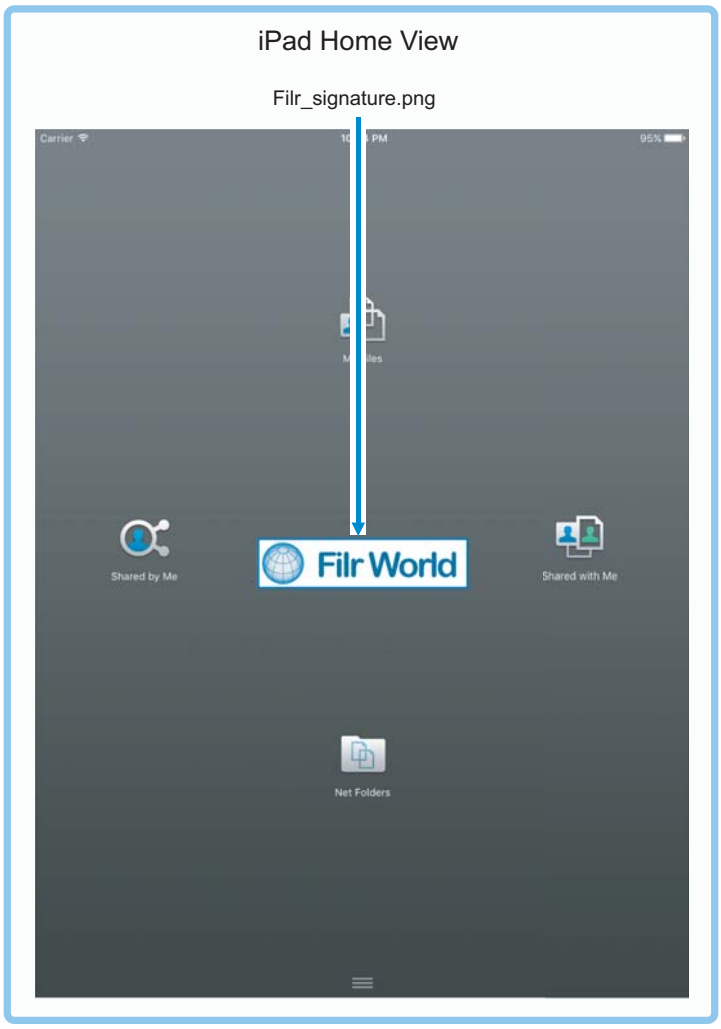
To brand the login dialog on iPad devices, create a `Filr_icon_login.png` file and include it in the .zip file.

Figure 4-3 *Filr_icon_login.png Example*

Example: Home Selection View

For branding the Home Selection View, create a `Filr_signature.png` file and include it in the .zip file.

Figure 4-4 *Filr_signature.png Example*



iOS Color Customization Details

The FilrBranding.xml file defines the colors displayed. Examples are included after the XML sample below.

```
<?xml version="1.0"?>
<FilrBranding>
   <ViewHeaderColor>#0d467f</ViewHeaderColor>
   <SubheadColor>#c1d7ec</SubheadColor>
   <ListHeadTextColor>#0d467f</ListHeadTextColor>
   <FormHeadTextColor>#0d467f</FormHeadTextColor>
   <FormBackgroundColor>#d7e6f5</FormBackgroundColor>
   <HighlightBlendStartColor>#afd4fa</HighlightBlendStartColor>
   <HighlightBlendEndColor>#3d86ce</HighlightBlendEndColor>
   <StatusBarTextColor>light</StatusBarTextColor>
</FilrBranding>
```

Hex values are valid as well as the colors defined in the iOS UIColor class such as red, blue, yellow, etc. They can be defined in upper, lower or mixed case.

An example would be <ViewHeaderColor>green</ViewHeaderColor>.

There are two valid values for StatusBarTextColor: “dark” and “light”.

The following are examples.

Figure 4-5 *Example 1*

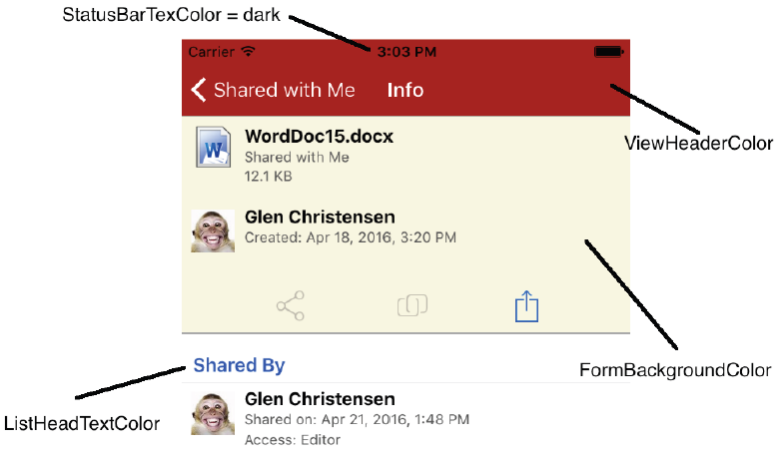


Figure 4-6 *Example 2*

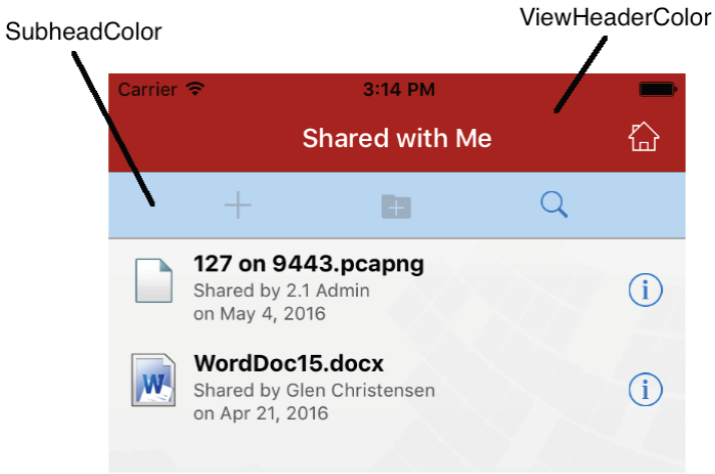


Figure 4-7 *Example 3*

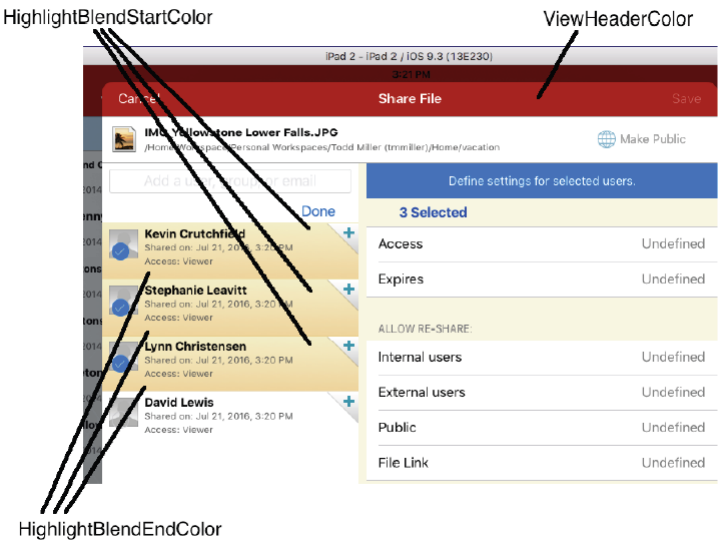
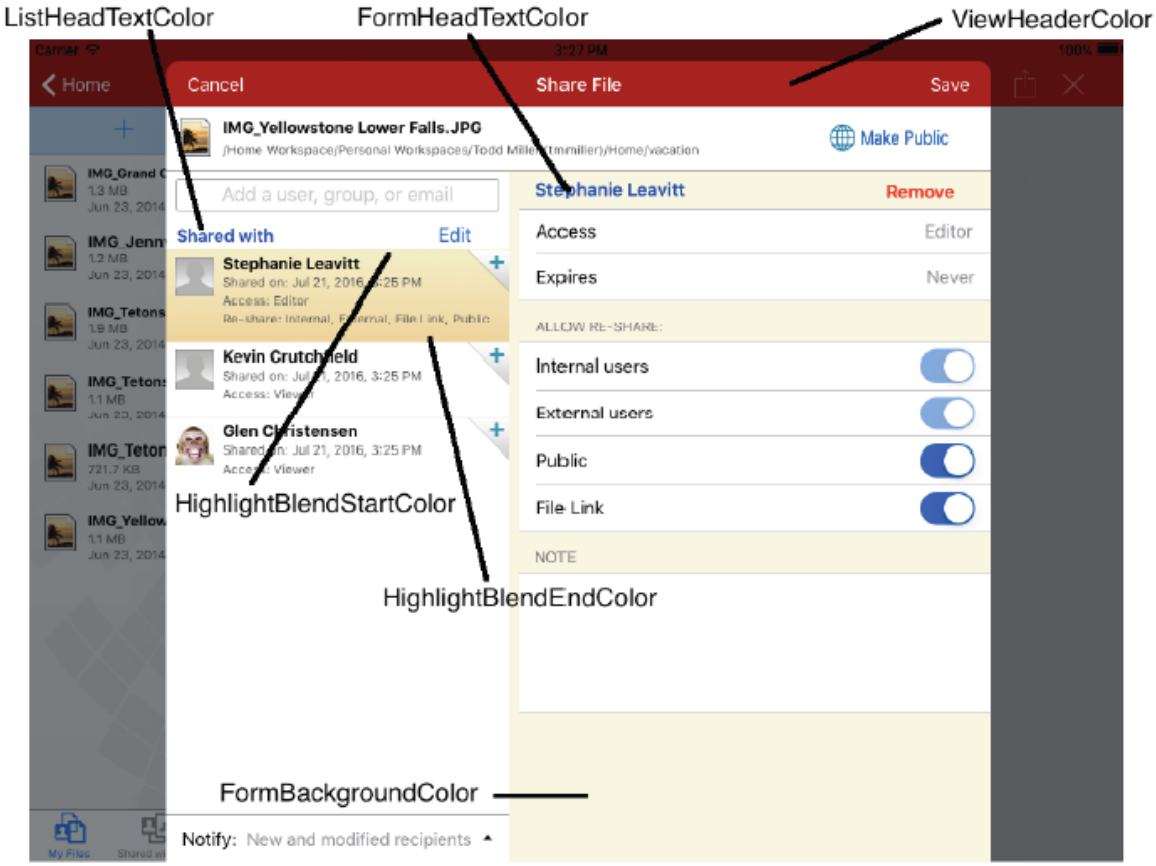


Figure 4-8 *Example 4*



Creating an iOS Branding .zip File

To apply custom branding to the iOS client, you create the image files for the dialogs you want to brand and define banner and other colors, as follows:

1. Create `.png` files for the dialogs that you want to brand.

   Example files are contained in the downloadable `iOS-branding-sample.zip` (../../resources/ios-branding-sample.zip) file.

   To support optimal image scaling on multiple devices, OpenText recommends that you follow the imaging naming conventions outlined in the iOS Human Interface Guidelines published by Apple (https://developer.apple.com/ios/human-interface-guidelines/graphics/image-size-and-resolution/).
2. Define the colors you want to use in banners and so on, by creating a `FilrBranding.xml` file.
3. Compress the files that you have created into an arbitrarily named `.zip` file.
4. Upload the `.zip` file using the instructions in "Branding the Mobile Apps (Advanced-Edition License Only)" in the *Administrative UI Reference*.

Branding the Web User Interface

See "Branding the Web Client" in the *Administrative UI Reference*.

5 Desktop Application Maintenance

Client Management Software and the Filr Desktop Applications

You can manage the Filr desktop application on users' workstations with client management software such as OpenText ZENworks.

When following the instructions in this section, you must use the `.msi` file available on the OpenText Marketplace.

If you use the `.msi` file to distribute the Filr desktop application to user workstations, you need to install the following items to each user workstation, independent of the Filr software:

- Microsoft .NET Framework 4.6.2 or later

  You can download Microsoft .NET Framework from the Microsoft .NET Downloads page.
- Microsoft Visual C++ 2013 redistributable package (applies to all workstations)

  You can download the redistributable package from the Microsoft Download Center.
- Filr client installs Microsoft Edge WebView2 Runtime. WebView2 is required to edit files online. For the MDM solutions, WebView2 should be downloaded from the Microsoft Download Center and installed before installing the Filr client.

NOTE: The ability to manage the Filr desktop application is available only with Filr desktop 1.0.2 and later.

You can customize the installation and control whether Windows Explorer is restarted.

Customizing the Installation for the Filr Desktop Application

You can customize the installation process of the Filr desktop application for your organization in the following ways:

- Configure default values for each installation option of the Filr desktop application. (Users can change these default values when configuring the Filr desktop application.)

- Auto-configure all values for each installation option of the Filr desktop application. (Users specify only their user name and password when configuring the Filr desktop application; users cannot change the default values during initial configuration.)
- Disallow users from modifying configuration options in the Filr desktop application. (Users cannot change the default values during initial configuration, and cannot modify the values via the Filr console after initial configuration.)

  NOTE: This does not prevent users from manually modifying configuration settings in the registry or file system.

The following sections describe how to make these customizations.

Configuring Default Values

You can configure the default values for each installation option of the Filr desktop application. Users can change these default values when configuring the Filr desktop application.

You accomplish this on Windows by creating registry values, and on Mac by adding properties to the application's `Info.plist` file.

1. **Windows:** Access the following location where you will create registry values:

   `\\HKLM\Software\Novell\Filr`

   Mac: Access the `Info.plist` file where you will add properties. This file is usually in the following location:

   `/Applications/Microfocus Filr/Contents/Info.plist`

2. Create Windows registry values and add properties to the `Info.plist` file for the values for which you want to configure defaults.

   The following table displays the available options for configuring default values.

Table 5-1 *Default Value Configuration Options*

Windows Registry Value Name	Value Type	Mac Property Name	Value Type	Supports Env Variables	Default Value
Default Server URL	REG_SZ	FilrDefaultServerURL	string	No	https://
Default Username	REG_SZ	FilrDefaultUsername	string	Yes	%USERNAME% or $USER
Default Account Name	REG_SZ	FilrDefaultAccountName	string	No	Hostname in server URL
Default Remember Password	REG_SZ ("true" or "false")	FilrDefaultRememberPassword	<true/> or <false/>	No	false

Windows Registry Value Name	Value Type	Mac Property Name	Value Type	Supports Env Variables	Default Value
Default Sync Dir	REG_SZ	FilrDefaultSyncDir	string	Yes	%USERNAME%\Filr or $USER\Filr
Default Start On Login	REG_SZ (“true” or “false”)	FilrDefaultStartOnLogin	<true/> or <false/>	No	true

Enabling Auto-Configuration

After you have configured default values for the Filr desktop application installation, you can enable auto-configuration. When auto-configuration is enabled, users cannot change the default values during initial configuration. (Users specify only their user name and password when configuring the Filr desktop application.)

You accomplish this on Windows by creating registry values, and on Mac by adding properties to the application’s `Info.plist` file.

1 **Windows:** Access the following location where you will create registry values:

`\\HKLM\Software\Novell\Filr`

Mac: Access the `Info.plist` file where you will add properties. This file is usually in the following location:

`/Applications/Microfocus Filr/Contents/Info.plist`

2 Create Windows registry values and add properties to the `Info.plist` file for the values for which you want to configure defaults.

The following table displays the available options for auto-configuration.

Table 5-2 *Auto-Configuration Options*

Windows Registry Value Name	Value Type	Mac Property Name	Value Type	Supports Env Variables	Default Value
Auto Configure	REG_SZ (“true” or “false”)	FilrAutoConfigure	<true/> or <false/>	No	false

Disallowing User Configuration

You can disallow users from modifying configuration options in the Filr desktop application. This means that users cannot change the default values during initial configuration, and they cannot modify the values via the Filr console after initial configuration.

NOTE: This does not prevent users from manually modifying configuration settings in the registry or file system.

You accomplish this on Windows by creating registry values, and on Mac by adding properties to the application's `Info.plist` file.

1 **Windows:** Access the following location where you will create registry values:

   `\\HKLM\Software\Novell\Filr`

   Mac: Access the `Info.plist` file where you will add properties. This file is usually in the following location:

   `/Applications/Microfocus Filr/Contents/Info.plist`

2 Create Windows registry values and add properties to the `Info.plist` file for the values for which you want to configure defaults.

   The following table displays the available options for disallowing user configuration.

Table 5-3 *Disallow User Configuration Options*

Windows Registry Value Name	Value Type	Mac Property Name	Value Type	Supports Env Variables	Default Value
Allow User Configuration	REG_SZ ("true" or "false")	FilrAllowUserConfiguration	<true/> or <false/>	No	true

Modifying the Filr Desktop Configuration

If you have configured the Filr desktop application with auto-configuration (as described in "Enabling Auto-Configuration" on page 37), you can modify the configuration settings:

1 Change the options in the registry or `.plist` file, then restart the Filr desktop application.

   When the Filr desktop application starts, it detects that the default settings have changed and applies the new settings.

   NOTE: The one exception is that the synchronization directory cannot be changed after the Filr desktop application has been configured.

Controlling Windows Explorer Restart

The Filr desktop application for Windows includes overlay icons that do not appear until Windows Explorer is restarted.

The Windows installer supports four basic user interface levels for installing `MSI` files:

- No UI ("msiexec /qn")

  Windows Explorer is never restarted when using this option.
- Basic UI ("msiexec /qb")
- Reduced UI ("msiexec /qr")
- Full UI ("msiexec /qf" or simply "msiexec", since this is the default)

For example, use the following command to install the `MSI` with basic UI and without restarting Windows Explorer:

```
msiexec /qb /i MicroFocusFilr-version.msi RESTARTEXPLORER=no
```

Controlling File Downloads by the Filr Desktop Applications

Path to Configuration Page: Filr Administration Console > **System** > **Desktop Application > Application Whitelist/Blacklist**

Why File-Download Control Is Important

Filr can download large numbers of online files when workstation-based applications, such as antivirus scanners and backup software, request access to them. Downloading the files stored in Net Folders can quickly fill up a local disk.

How File-Download Control Works

To let you control application-driven downloads and prevent Filr from filling up local disks, Filr provides the **Application Whitelist/Blacklist** dialog and the following options:

NOTE: for more information regarding the user experience, see "Preventing Application-Driven Downloads From Filling Up the Local Disk" in the *Desktop Guide for Windows* and the *Desktop Guide for Mac*.

Always Blacklist Macintosh Antivirus Applications

Antivirus software running on Mac workstations downloads files automatically. Therefore, you should always include Mac antivirus applications in the Blacklist.

Managing File Downloading

If your organization deploys the Filr desktop application, we recommend that you identify a file-download control strategy by doing the following:

1. Log in to the Filr administration console and navigate to **System** > **Desktop Application > Application Whitelist/Blacklist**.
2. Review the list of applications that are blocked by default for the desktop platforms (Windows and Mac) that your organization uses.
3. If you want to only block certain applications from downloading files through Filr, ensure that the applications are listed in the appropriate Windows and Mac blacklists.

   For example, if you know that a specific set of company-approved virus scanners are the only applications that could trigger mass downloads, then simply ensure that those scanners are in your blacklists.

   Download requests from applications that are listed, such as virus scanners, will trigger a system alert to users.

If you add entries to the blacklists, use the existing entries as a pattern. Windows and Mac have unique requirements for identifying the applications to be blocked.

4 If you want to control exactly which applications can download files through Filr, you should create a whitelist.

   For example, if your users are only authorized to work with the applications in an office suite, then you should create a whitelist with only those applications listed.

   Applications that are not listed, such as virus scanners, will trigger a system alert to users. Attempts to open any online-only files by unauthorized applications will fail.

   As you create a whitelist, use the existing blacklist entries as a pattern. Windows and Mac have unique requirements for identifying the applications to be allowed.

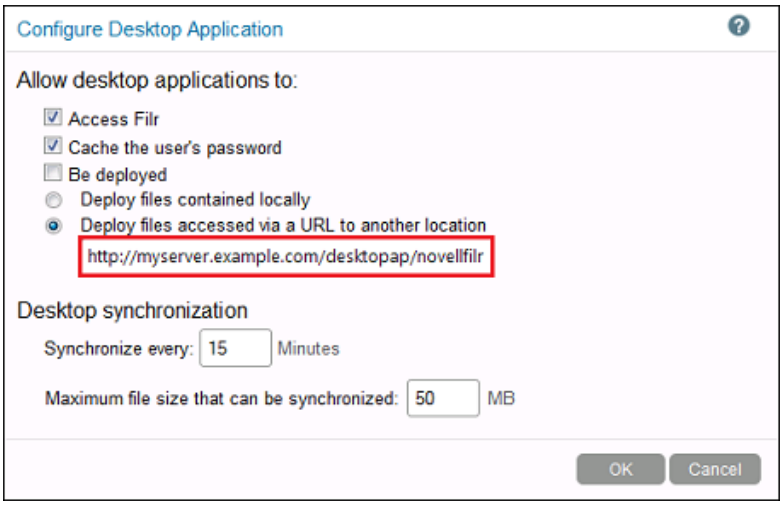
5 If you want a flexible approach that allows downloading by specified applications, blocks downloading by other applications, and lets users deny or approve download requests by unlisted applications, then deploy both a whitelist and a blacklist.

6 Periodically review and update your file-download strategy. Make sure that new antivirus and backup software is included. Consult with users about applications that they have allowed or blocked, and consider adding these to your lists as applicable.

Desktop Application Installation Files—Location

Although you can specify that the clients be downloaded from the local appliance, OpenText recommends hosting the Filr desktop applications on a separate web server, as documented in Chapter 7, “Hosting Desktop Application Installation Files on a Separate Server,” on page 47.

For example, if the server host name is myserver.example.com, then a URL similar to the following would need to be set in the Web Administration Console (port 8443). Click **Desktop Application** in the left frame.



The Filr desktop applications can also be hosted on Filr appliances, as documented in Chapter 7, “Hosting Desktop Application Installation Files on a Separate Server,” on page 47, provided that the appliances are not fronted by an L4 or L10 switch.

For more information on configuring the desktop applications, see “Desktop Access—Default Settings” in the *Administrative UI Reference*.

Desktop Application Software Management

You can update the Filr desktop application on users' workstations by updating the application on the Filr server or on a separate web server. You can also distribute the application using the `.msi` file in conjunction with client management software such as OpenText ZENworks. However, there are certain dependencies that are not installed by default when using the `.msi` file. These are described in the following sections:

Understanding Missing Dependencies Related to Updating the Filr Desktop Application by Using the MSI File

If you use the `.msi` file to distribute the Filr desktop application to user workstations (by using client management software such as OpenText ZENworks), you need to install the following items to each user workstation, independent of the Filr software:

- Microsoft .NET Framework 4.6.2 or later

  You can download Microsoft .NET Framework from the Microsoft .NET Downloads page.
- Microsoft Visual C++ 2013 Redistributable Package (Applies to all workstations)

  You can download the redistributable package from the Microsoft Download Center (https://www.microsoft.com/en-us/download/details.aspx?id=40784).

Updating the Filr Desktop Application on the Filr Appliance

If you have configured your Filr system to deploy the Filr desktop application (as described in "Enabling Desktop Access for Users" on page 42), or if you have configured a separate web server to deploy the Filr desktop application (as described in Chapter 7, "Hosting Desktop Application Installation Files on a Separate Server," on page 47), you can replace the Filr desktop application download files on the Filr back end so that users are prompted to update the Filr desktop application on their individual workstations.

The files to use for updating the Filr desktop application are the same for all versions of Windows.

To download the Filr desktop application:

1. Before downloading the new version of the Filr desktop application, you need to preserve your existing Filr desktop installation. This will allow you to roll back to the older version if the need arises.

   To preserve your existing installation of the Filr desktop application, rename the existing directory on the server so that the old files are not overwritten when the new version is downloaded:

   1a. Change to the directory where the files are being stored. For example:

   ```
   cd /opt/novell/filr/apache-tomcat/webapps/desktopapp/
   ```

   This is the default location if the Filr desktop application is installed on the Filr server.

   1b. Rename the `novellfilr` directory to `novellfilr.bak`. For example:

```
mv novellfilr novellfilr.bak
```

1c (Optional) If you need to roll back to the older version of the Filr desktop application, you can do so by deleting the new `novellfilr` directory and renaming the `novellfilr.bak` directory to `novellfilr`.

2 Download and extract the `MicroFocusFilrAutoUpdate.tgz` file onto your Filr server or separate web server.

```
tar xvzf MicroFocusFilrAutoUpdate.tgz
```

You can download the `MicroFocusFilrAutoUpdate.tgz` file from the Filr software download site.

If you are installing onto the Filr server, download and extract this file to the `opt/novell/filr/apache-tomcat/webapps/desktopapp/` directory.

```
cd /opt/novell/filr/apache-tomcat/webapps/desktopapp
```

This compressed file contains all of the files required for updating the Filr desktop application.

3 Run the following commands on the extracted directory to appropriately modify the file permissions:

```
chown -R wwwrun:www novellfilr/
chmod -R g-w novellfilr/
chmod -R o-rwx novellfilr/
```

Enabling Desktop Access for Users

Desktop access is not enabled by default.

The Filr desktop application lets users synchronize their Filr files with their personal computers. You can enable this functionality for all users in the Filr system, or for individual users and groups.

In addition to enabling or disabling this functionality for users, you can also make configuration changes that affect the load that the Filr desktop application puts on your Filr system, as well as make changes that ensure tighter security.

Users need to download, install, and configure the Filr desktop application on their personal computers. For more information, see the *Open Text Filr Desktop Application Guide for Windows* and the *Open Text Filr Desktop Application Guide for Mac*.

Synchronization-Traffic Management

The Filr desktop application can cause a large amount of traffic on the Filr servers. To prevent the Filr desktop application synchronization process or the Filr site from becoming slow, you can distribute the Filr desktop application traffic among dedicated Filr servers with your load balancer or reverse proxy server.

For example, if you have a Filr installation with four servers, you could dedicate one server to handle the Filr desktop application traffic and use the remaining three servers to serve the main Filr Web application. This configuration prevents an unusual spike in the Filr desktop application traffic from impacting the Filr site.

You can distribute the Filr desktop application traffic differently, depending on whether you want traffic from all applications (not just the Filr desktop application) that are accessing Filr to be handled in the same way, or whether you want the Filr desktop application traffic to be handled independently from each other and from other applications that are accessing Filr.

Distributing Filr Desktop Application Traffic Separately from Other Applications

You can configure your load balancer or reverse proxy server to distribute Filr desktop application synchronization traffic among multiple Filr servers. Filr desktop application traffic is independent of traffic from other applications that are accessing Filr.

NOTE: Your load balancer or reverse proxy server must be able to make routing decisions based on the request headers.

---

1. Configure your load balancer or reverse proxy server to use the user agent request header. For the Filr desktop application, the request header begins with `NovellFilrDesktop`. For example: .

   For macOS desktop clients, `User-Agent = NovellFilr/23.2 (macOS 12.5 ; Python/3.9.12; en_IN)`

   For Windows desktop clients, `User-Agent: NovellFilr/23.2 (1488) (Windows NT 10.0; Python/3.9.12; en_US)`

   For specific information on how to configure the load balancer or reverse proxy server, see “Load Balancer and Reverse Proxy Server Configuration” on page 43.

Load Balancer and Reverse Proxy Server Configuration

To configure a reverse-proxy server for your Filr site, see “Reverse Proxy Configuration Settings” in the *Administrative UI Reference*.

6 Helping OpenText Improve Filr

In order to improve the Filr product, it is critical that the Filr development team understands how organizations are deploying Filr.

Organizational Privacy Is Protected

We do not collect information that can be used to identify specific organizations. Rather we collect the following, depending on how you configure your system.

At a basic level (Tier 1), Filr collects the following information:

- Product version
- License type
- Number of users

If you allow us to, we also collect basic information about the deployment size and configuration:

- Number of files
- Number of folders
- And so on

You can view the information collected after the system has been running for 24 hours, by using the View the information collected link in the Product Improvement dialog.

How OpenText Collects Product Improvement Data

The first time you log in to Filr, after changing the admin user's password, a dialog displays that explains the purpose of the Filr data collection system and lets you change the configuration.

The data collection process runs for the first time when a Filr appliance has been running for 24 hours. Thereafter, it runs weekly.

See "Product Improvement" in the *Administrative UI Reference*.

How OpenText Receives Product Improvement Data

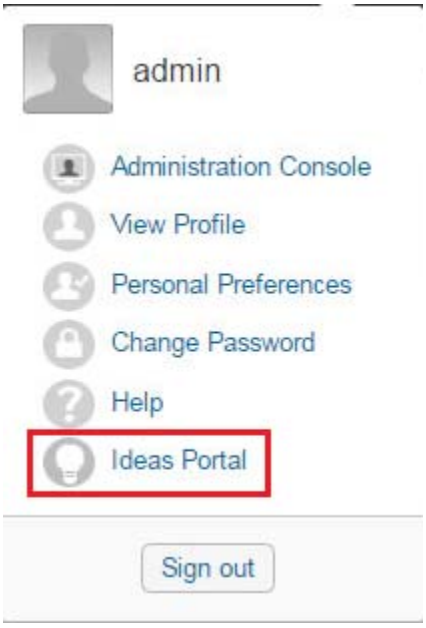
After the weekly data collection process concludes, the system creates a `.json` data file and sends it to `ftp://productfeedback.novell.com/stats/filr`.

If the FTP transfer is unsuccessful, the system attempts to send it again during the next weekly cycle. No send attempts are made outside of the weekly cycles.

Data files are sent through a regular non-secure FTP connection. File contents are not encrypted because no sensitive or identifying information is included.

Submitting Your Product Improvement Ideas

When you are logged in as an administrative user, you can access the OpenText Filr Ideas Portal page from the Port 8443 Filr Administration Console by clicking your user name and selecting the **Ideas Portal** link.



You can also view the ideas that others have submitted, add comments, and vote for your favorite product-improvement ideas.

7 Hosting Desktop Application Installation Files on a Separate Server

By default, the Filr server is configured to deploy the Filr desktop application and to provide the auto-update information. As a best practice to minimize load on the Filr server, we recommend that you set up a separate web server and configure it to deploy the desktop application and provide the auto-update information.

1. Set up a web server as a host for the Filr desktop application auto-update information.

   This web server must be set up so that it does not require authentication.

2. Download and extract the file from the Filr downloads page on the OpenText Marketplace. You can click the download option, the .exe and .msi files are zipped together and downloaded. You can also browse into the details and can download .exe and .msi individually from the OpenText Marketplace. The OpenText Filr <version>.zip is downloaded.

   This compressed file contains all of the files required for installing the Filr desktop application.

   For example, if you download this file to the Desktop, extracting the file results in the following directories:

   `https://web_server_DNS_or_IP/filr/desktop/novellfilr/osx`

   `https://web_server_DNS_or_IP/filr/desktop/novellfilr/windows`

3. (Optional) Ensure that you can access the files on your web server through one of the following methods:

   - From a browser

     For example:

     `http://web_server_address/desktopapp/novellfilr/windows/x64/version.json`

   - From a command line

     For example, from the Web server, SSH to the Filr appliance and run the following command:

     `#wget http://web_server_address/desktopapp/novellfilr/windows/x64/version.json`

4. Configure the Filr desktop application using the Port 8443 Administrative Console > **System** > **Desktop Application** dialog.

   In the **Deploy files accessed via a URL to another location** field, specify one of the following URLs, depending on whether your web server is configured with secure HTTP:

   `https://web_server_DNS_or_IP:8443/file_path/desktopapp/`

   `http://web_server_DNS_or_IP:8080/file_path/desktopapp/`

5. Click **OK**.

8 KeyShield Integration with Filr

Use the information and instructions in the following sections to configure Filr to work with an existing KeyShield installation.

Prerequisites

For Filr to work with an existing KeyShield installation, you must have the following already in place.

- A KeyShield SSO server that is registered with DNS and provides single sign-on services to your network users.
- An API Key that is displayed in a defined API Authorization configuration.
- One or more Authentication Connectors (defined on the KeyShield server) that are allowed to be used with the API Key.
- Administrative Access to the KeyShield server for obtaining the following:
  - The API Authorization Key associated with the KeyShield Connectors you are leveraging for Filr
  - The SSL certificate, downloadable as a .CER file for importing into the Filr keystore.

(Conditional) Allowing the Authorization Connectors to Access the API Key

Continuing in the **General** tab (accessed in the previous section), if access to the KeyShield SSO APIs is restricted to users on specific connectors, ensure that the connectors that your Filr users will be connecting through are listed by doing the following:

1. If the connectors your users will use are not listed, click the bar below the already-allowed connectors.
2. Select the connectors for your users, then click **OK**.

Configuring Filr for KeyShield SSO Support

1. Open a new tab or a new browser session to access Filr on port 8443:

   `https://filr-ip-address-or-dns-name:8443`

   For example `https:192.168.30.150:8443`

   Having a new session will let you easily switch between the KeyShield administration console and the Filr Administration console.
2. In the new browser session, log in to Filr as an administrator.
3. Click the admin link in the upper-right corner of the page, then click the Administration Console icon  .
4. In the left frame, click **KeyShield SSO**.
5. In the KeyShield SSO Configuration dialog, click **Enable KeyShield SSO**.
6. In the **KeyShield Server URL** field, type the access URL for the KeyShield server:

   `https://ks-server-dns-name_or_ip-address:ks-server-https-port/`
7. Switch to the KeyShield browser-based console, toggle open the API Key, then select and copy the key to your clipboard.
8. Switch to the Filr Administration panel and paste the API Key into the **API Authorization** field.
9. The **HTTP Connection Timeout** controls how long the Filr Appliance will wait for a response from the KeyShield server before prompting users for their login credentials.

   Open Text doesn't recommend changing this value unless the connection between the Filr Appliance and the KeyShield SSO server doesn't facilitate a quick response. For example the appliance and server are connected over a WAN.
10. In the Connector Names field, type the names of each KeyShield SSO connector that Filr users will connect through.
11. Continue with the next section, "KeyShield Attribute Alias Support."

KeyShield Attribute Alias Support

Filr lets administrators provision users from different LDAP sources, such as eDirectory and Active Directory. It also allows for flexibility in specifying which LDAP attribute will be imported as the Filr username.

In addition to Filr, organizations have email applications, RADIUS clients, and so on, that use different LDAP attributes for their usernames.

KeyShield 6 includes support for ***Attribute Aliases***. These let KeyShield match username validation requests from each application with the LDAP attribute that the application uses for its usernames.

A Filr Example

1. Jane Smith logs in through KeyShield's SSO service using jsmith (her UID in LDAP) as her Username.
2. Jane then launches Filr.

Unfortunately, the Filr administrator who configured the LDAP import, specified CN as the LDAP username attribute and JaneSmith was imported as Jane's Filr username.

3. When Filr tries to authenticate Jane Smith, KeyShield doesn't find her as an authenticated user and the attempt fails.

   Jane is then prompted to log in to Filr.

4. To fix the mismatch of LDAP attributes, Jane's KeyShield administrator adds `x-filr = cn` as an **Attribute Alias** in Keyshield.
5. Jane's Filr administrator adds `x-filr` as the **Username Attribute Alias** in Filr.
6. The next time Jane launches Filr after signing in through KeyShield' SSO service, KeyShield verifies to Filr that JaneSmith is authenticated and no additional login is required.

Configuring Attribute Alias Support

1 In Keyshield, specify the appropriate **Attribute Alias** for each Authentication Connector.

For example, if your Filr deployment uses the CN attribute as the username for an eDirectory server that is defined as an Authentication Connector in KeyShield, then in the Attribute Alias field in the connector configuration, you would specify

```
x-filr = cn
```

This means that for this Authentication Connector, when authentication verification requests arrive with the Attribute Alias `x-filr`, KeyShield needs to request a match in the CN attributes in the targeted eDirectory Authentication Connector.

2 By default, the Filr 23.4 KeyShield SSO Configuration dialog, the Username Attribute Alias is set to `x-filr`.

We strongly recommend that you not change this value. However, if you do, be sure that the name is changed in each KeyShield Authentication Connector configuration as well.

3 Continue with "Configuring Two-Factor Authentication."

Configuring Two-Factor Authentication

KeyShield 8.4.0 adds the ability to require a hardware token in addition to usernames and passwords for LDAP users seeking access through a web browser or WebDAV.

NOTE: Two-factor authentication doesn't apply to desktop or mobile device applications.

Filr 23.4 supports KeyShield's two-factor authentication capability through two new options in the KeyShield SSO Configuration dialog:

- **Require Hardware Token:** Requires a physical token, such as an access card, for access to Filr.

  You can also specify the error messages that you want displayed when the required token is either not presented or not recognized by KeyShield for web browser or WebDAV access.

- **Allow Username/Password based Fallback Authentication (non-SSO) for LDAP Users:** Allows authentication by entering a username and password as an alternative to the hardware token.

  Use this option if you want users to be able to effectively bypass the hardware token requirement by typing in their username and password.

1. If you want to configure two-factor authentication for your KeyShield 8.4.0 SSO service, select the options and specify the text accordingly.
2. Click **Test Connection**.

   Because the Filr appliance doesn't yet have the KeyShield SSO SSL certificate in its keystore, the test fails.
3. Continue with "Downloading and Installing the KeyShield SSO SSL Certificate" on page 52

Downloading and Installing the KeyShield SSO SSL Certificate

1. Open a third browser session and access the Filr appliance on port 9443:

   `https://filr-ip-address-or-dns-name:9443`

   For example `https:192.168.30.150:9443`
2. Log in as `vaadmin`.
3. Switch to the KeyShield browser-based console and under General/Web Interface, click Edit.
4. Click the **Download** button for the **HTTPS Keystore**.
5. Save the `Keyshield.cer` file on the workstation running the browser.
6. Switch to the browser session opened in Step 1 on page 52 and click the **Appliance Configuration** icon.
7. Click the **Digital Certificates** icon.
8. Click **File > Import > Trusted Certificate**.
9. Click **Browse**, then browse to the location where you saved the `Keyshield.cer` file and click **Open**.
10. Click **OK** to import the certificate file.
11. Acknowledge the message about restarting the appliance by clicking **OK**.
12. Click the back arrow in the browser, then select **Reboot**.
13. After the system restarts, continue with the next section, Testing the KeyShield SSO Configuration.

Testing the KeyShield SSO Configuration

1. Switch back to the Filr administration console (port 8443).
2. Click **Test Connection**.

   The test should succeed.
3. Click **OK** to finalize the configuration and complete the Keyshield SSO integration.

9 Using Multi-Factor Advanced Authentication with Filr

Beginning with Filr 23.2, Advanced Authentication support for Power External and LDAP users is provided. Users are prompted for additional authentication steps in addition to the typical username and password authentication to log in to Filr provided the Filr administrator has enabled multi-factor authentication on the Filr server.

Advanced Authentication is a multi-factor authentication solution that enables you to protect your sensitive data by using a more advanced way of authentication, in addition to the typical username and password authentication. This additional layer of security helps to ensure the identity of a user and reduce the risk of unauthorized access to Filr.

Advanced Authentication provides a single authentication framework that ensures secure access to all your devices with minimal administration. With Advanced Authentication, you can use different types of authenticators such as a Security Question, a PIN, and an OTP to authenticate on diverse platforms.

Authentication comprises the following three factors:

- Something that you know such as password, PIN, and security questions.
- Something that you have such as smartcard, token, and mobile phone.
- Something that you are such as biometrics (fingerprint or iris).

You can achieve multi-factor or strong authentication by using any two factors out of this list. For example, multi-factor authentication can include the combination of a password and a token or a smartcard and a fingerprint.

For more information about using the NetIQ Advanced Authentication Framework and the supported authentication providers, see the NetIQ Advanced Authentication Framework documentation website.

Prerequisites for Using Advanced Authentication with Filr

- ❒ For external power users, a Filr appliance installed and configured with a power advanced license.
- ❒ For LDAP users, a Filr appliance installed and configured with an advanced-edition license.
- ❒ Latest versions of NetIQ Advanced Authentication Framework appliance is installed and configured. For more information, see Advanced Authentication product site.
- ❒ All the Filr clients must be up-to-date with the latest patch installed before enabling multi-factor authentication.

  When multi-factor authentication is enabled on a Filr server, users with older versions of the Filr client cannot log into the server and therefore will not receive any system alerts to update the client.

- ❒ A valid SSL certificate that is signed by a well-known certificate authority (CA). Self-signed certificates are not supported.
- ❒ For accurate and consistent time synchronization between the Filr server and the NetIQ Advanced Authentication server, use a Network Time Protocol (NTP) server.
- ❒ If you are using Filr 23.4 server with MFA integrated in Android 7 and below devices, you have to update the Android Version to 8 or above.

Configuring OAuth2 Event in Advanced Authentication Server Appliance for LDAP Users

In the Advanced Authentication Administration Portal, you can configure and manage various authentication settings such as methods, events, and so on. You can also configure various policies that are required for authentication. For more information about configuring Advanced Authentication Server Appliance, see Advanced Authentication Administration Guide on the documentation website.

To configure,

1. Log into the Advanced Authentication Administrative Portal as follows:

   `https://advanced_authentication_dns_name_or_IP_Address/admin`

2. Add an Active Directory or eDirectory repository where your Filr users are stored.
3. Configure an authentication method for Advanced Authentication.

   NOTE: The following methods have been tested with Filr.

   - LDAP Password
   - Password
   - SMS OTP
   - Email OTP
   - Security Questions
   - Smartphone
   - TOTP

   Other authentication methods that NetIQ Advanced Authentication with OAuth2 event supports would also work, but they have not been explicitly tested. All the users must be registered at Advanced Authentication Self-Service Portal with the specific method else the user is not allowed to log in to the Filr application.

   ---

4. Create an authentication chain that is a combination of all the authentication methods that users must pass for successful authentication.
5. Configure OAuth2 type event.
   - **5a** Specify a name for the event.
   - **5b** Enable the event by changing **Is enabled** to **ON**.
   - **5c** Select the **OAuth2** event type.The client ID and client secret are generated automatically.

5d Note down the client ID and client secret values. You must specify these values in the **NetIQ Advanced Authentication** page of the Filr Administration Console (**Port 8443 Filr Admin Console > > System > NetIQ Advanced Authentication**). You can copy the values and paste them in the Filr admin Console. See NetIQ Advanced Authentication Configuration in the Administrative UI Reference.

5e Select the chains that you want to assign to the event.

5f In the **Redirect URIs** option, specify the following redirect URIs for redirection to Filr page after successful authentication:

- The URI of the Filr web page
- The URI of the Filr client application

You can copy the URIs from the **Redirection URIs** option on the **NetIQ Advanced Authentication** page of the Filr Administration Console (**Port 8443 Filr Admin Console > > System > NetIQ Advanced Authentication**) and paste them here. See NetIQ Advanced Authentication Configuration in the Administrative UI Reference.

5g Click **Save**.

Configuring OAuth2 Event in Advanced Authentication Server Appliance for Power External Users

External users are allowed to connect to Filr through the Multi Factor Authentication. A new SQL repository is configured with the table that provides a power external user's details like email address and phone number.

To create SQL repository,

1 Log into the Advanced Authentication Administrative Portal as follows:

```
https://advanced_authentication_dns_name_or_IP_Address/admin/
repositories
```

2 Enter the following details to add a new SQL repository.

Table 9-1 *AAF Repository page*

Field, Option, or Button	Information and/or Action
◆ **Name**	◆ Enter the name of the repository. For example "External DB"
◆ **Database Type**	◆ For small deployment, select Postgresql. For large deployment, select the configured database type.
◆ **DB host**	◆ Enter the IP address of the database. For small deployment, enter the IP address of the Filr appliance.
◆ **DB name**	◆ Enter the name of the database.
◆ **DB user**	◆ Enter the name of the database user.

Field, Option, or Button	Information and/or Action
◆ **Password**	◆ Enter the database password.
◆ **Table or view name**	◆ Enter the table name as “ss_principals”.
◆ **User’s id column**	◆ For PostgreSQL and MySQL, enter “id”. ◆ For MSSQL, enter “emailaddress”.
◆ **User’s id type**	◆ For PostgreSQL and MySQL, select “Integer”. ◆ For MSSQL, select “String”.
◆ **User’s name column**	◆ Enter “emailaddress”.
◆ **User’s name type column**	◆ Select “String”.
◆ **User’s phone column**	◆ Enter “phone”.
◆ **User’s email column**	◆ Enter “emailaddress”.

NOTE: If the AA server in unable to connect to the Filr small deployment server, run

```
# sh /opt/novell/filr_config/pgRemoteAccess.sh <AA_ip_address/nw_mask>
```

If no IP address is specified, access is enabled for all servers (0.0.0.0/0)

3 In the Advanced Authentication Administrative Portal, go to :

`https://advanced_authentication_dns_name_or_IP_Address/admin/chains`

4 Configure an authentication method for Advanced Authentication.

NOTE: The following methods have been tested with Filr.

- SMS OTP

  The administrator must choose another authentication method along with SMS OTP. Since the Mobile Number field is optional in the Self-registration form, the external users who have not entered the mobile number or have entered an incorrect mobile number will not be able to receive the SMS OTP and may not be able to log in to Filr.

- Email OTP

Other authentication methods that NetIQ Advanced Authentication with OAuth2 event supports would also work, but they have not been explicitly tested. All the users must be registered at Advanced Authentication Self-Service Portal with the specific method else the user is not allowed to log in to the Filr application.

5 Create an authentication chain that is a combination of all the authentication methods that users must pass for successful authentication.

6 Configure OAuth2 type event.

6a Specify a name for the event.

6b Enable the event by changing **Is enabled** to **ON**.

6c Select the **OAuth2** event type.The client ID and client secret are generated automatically.

6d Note down the client ID and client secret values. You must specify these values in the **NetIQ Advanced Authentication** page of the Filr Administration Console (**Port 8443 Filr Admin Console > System > NetIQ Advanced Authentication**). You can copy the values and paste them in the Filr admin Console. See NetIQ Advanced Authentication Configuration in the Administrative UI Reference.

6e Select the chains that you want to assign to the event.

6f In the **Redirect URIs** option, specify the following redirect URIs for redirection to Filr page after successful authentication:

- The URI of the Filr web page
- The URI of the Filr client application

You can copy the URIs from the **Redirection URIs** option on the **NetIQ Advanced Authentication** page of the Filr Administration Console (**Port 8443 Filr Admin Console > System > NetIQ Advanced Authentication**) and paste them here. See NetIQ Advanced Authentication Configuration in the Administrative UI Reference.

6g Click **Save**.

10 Language Settings

About the Filr Site Default Language

There can be only one default language for the entire Filr site.

When you create Filr users, you can select a locale for each user, which determines the language of each personal profile. However, when users who speak various languages work together on a Filr site, they can often see interface text that is not in their preferred language. For example:

- Standardized group names, such as All Users
- Login page

You cannot change standardized group names, such as All Users. Although the Filr login page can be displayed in only one language, you can change the page's default language. You must be logged in as the Filr administrator.

Changing the Language on the Login Page

The language of the Filr login page is decided by the Guest user account. Because of this, you can display only one language for your entire Filr site in the login page.

To change the language of the Guest user account and change the language that is displayed on the Filr login page:

1. Navigate to the Guest profile.
2. On the Profile page, click **Edit**.

   The User page is launched.
3. In the **Locale** drop-down list, select the language that you want to be displayed on your login page.

   Users who log in as Guest view the Filr site in the language that you select.
4. Click **OK**.

Each Filr user can change the language on a per-user basis by changing the **Locale** setting in the user profile.

11 Mobile Device Management

NOTE: If the Filr server uses a self-signed certificate, then you cannot preview some applications such as `.pdf`, `.odt`, `.odp`, `.dwg` on an iOS device. To preview these applications on an iOS device, you must ensure that the Filr server uses a valid SSL certificate that is signed by a well-known certificate authority (CA).

Key-Value Pairs

Key-value pairs allow you to populate user login information and set configuration options, such as whether the Filr app allows for opening into other apps or copying information to other apps.

Select the key-value pairs depending on your MDM solution for setting the configuration options. For example, if you are using MobileIron as your MDM solution, you can set configuration options for opening into third-party apps by using the MobileIron interface.

Table 11-1 *Filr Key-Value Pairs*

Key	Value
server	Specify the URL of your Filr site. For example, `filr.acme.com`.
username	Specify `${LoginName}` or `${USERNAME}`to cause MDM to automatically populate the app with the user's MDM user ID Alternatively, you can specify an individual user's user ID.
password	(optional) Specify $PASSWORD$ to cause MDM to automatically populate the app with the user's MDM password. Alternatively, you can specify an individual user's password.
configLocked	The value is true or false. If the value is true, the app users cannot modify the settings of the Filr app on their devices.

Key	Value
allowOpenIn	Specify 1 as the value if you have disabled Open In or Send To support for the mobile apps in the Filr administration console, but you want to allow the Filr secure app to integrate with other secure apps. A value of 1 indicates that users can open Filr files into any secure app. A value of 2 allows you to designate specific apps that users can open Filr files into. You do this by creating a whitelist of apps using the `openInWhitelist` key.
openInWhitelist	Specify 1 as the value if you want to allow the Filr secure app to integrate with only the specific secure apps that you designate. To designate apps for the whitelist, specify the applications' bundle ID (for iOS apps) and package name (for Android apps) in a comma-delimited list. In order for the `openInWhitelist` values to be recognized, the value for the `allowOpenIn` key must be set to 2. An easy way to find the package name for an Android app is to install the `Package Name Viewer` app from the Google Play store. This app displays the package name for each app that is currently installed on the device. To find the bundle ID for an iOS app: 1. (Conditional) If the app for which you want to location the bundle ID has not yet been synchronized to iTunes from your device, you must sync the device with iTunes. 2. In your iTunes library on your Mac or PC, open the `Mobile Applications` folder. On a Mac, this is usually in your Home directory, at the following location: `~/Music/iTunes/Mobile Applications/` On Windows 7, this is usually at the following location: `C:\Users\`*`username`*`\My Music\iTunes\Mobile Applications/` 3. In the `Mobile Applications` folder, locate the app for which you want the bundle ID. 4. Create a copy of the file, and re-save the copy as a `.zip` file. 5. Unzip the newly created `.zip` file. You now see a folder by the name of the application name. 6. Locate the `iTunesMetadata.plist` file within the folder and open it in a text editor. 7. Locate the `softwareVersionBundleid` key within the file. The string value below this key is the bundle ID.
allowCutCopy	Specify 1 as the value if you want users to be able to copy information from the Filr app and paste it into other apps.

Sample Format of the Configuration File

```
<dict>
     <key>server</key>
     <string>filr.acme.com</string>
     <key>username</key>
     <string>admin</string>
     <key>password</key>
     <string></string>
     <key>configLocked</key>
     <string>true</string>
</dict>
```

Configuring ZMM to Manage the Filr App

IMPORTANT: ZENworks Mobile Management (ZMM) can be used with the iOS and Android Filr mobile apps with the following version requirements:

- **Android requirements:** Filr mobile app 4.0 or later with Android 5.0 or later.
- **iOS requirements:** Filr mobile app 4.0 or later with iOS 14.0 or later.

For information about how to configure ZMM to manage the Filr app, see "OpenText Filr" in the *ZENworks Mobile Management 2.9.x Organization Administration Guide*.

Configuring MobileIron to Manage the Filr App

MobileIron Environment Support

The Filr 3 mobile apps have been validated in the following MobileIron environments:

- Sentry-AppTunneling
- MobileIron 8.4 AppConnect

Device-Specific Support Information

When using MobileIron to manage the Filr app, the following features are supported:

iOS Supported Features

- Populate the **Server IP Address** field for login

- Populate the **User ID** field for login
- Open In support to allow or disallow users to open files in other applications

  If you are using MobileIron to manage devices in your organization, the Open In setting exists both in the Filr administration console and in the MobileIron administration console. This setting should be consistent in both locations (if it is enabled in Filr, it should also be enabled in MobileIron). The one exception to this rule is if you want Open In functionality to be enabled for devices that are being managed by MobileIron and disabled for devices that are not being managed by MobileIron. To achieve this, you can enable this setting in MobileIron and disable it in Filr. In this case, only devices that are being managed by MobileIron are able to use Open In functionality; devices that are not being managed by MobileIron are not able to use Open In functionality.

  To configure Open In functionality for all users, see "Mobile Device Access—Default Settings" in the *Administrative UI Reference*. To configure Open In functionality for individual users and groups, see

Android Supported Features

- Populate the **Server URL** field for login
- Populate the **User ID** field for login
- Populate the **User Password** field for login

Adding the Filr App to MobileIron

- "Adding the Android Filr App" on page 64
- "Adding the iOS Filr App" on page 65

Adding the Android Filr App

To add the Android Filr app to MobileIron, you need to upload the `.apk` file and then apply the Android label to the application:

1. Download the `.apk` file for the Filr mobile app from the OpenText downloads site.
2. Upload the file to MobileIron.
   - **2a** In the MobileIron Admin Portal, click the **Apps** tab.
   - **2b** On the **App Distribution Library** tab, in the **Select Platform** drop-down list, select the platform for the app that you want to add. For example, if you are uploading the Filr mobile app for Android, select **Android**.
   - **2c** Click **Add App**.

     The Add App Wizard is displayed.
   - **2d** Click **Next**, then specify the following information:

     Distribution Type: Select **In-house App**.

     Silently Install: If your device supports a silent install, you can select **Yes**. If the device does not support a silent install or you are unsure, select **No**.

     App Upload: Browse to and select the `.apk` file that you downloaded in Step 1.

2e Click **Next**, then specify the following information:

App Name: `OpenText Filr` is already specified for you. This cannot be changed.

Display Version: The version is already specified for you. This cannot be changed.

Code Version: The version is already specified for you. This cannot be changed.

Description: Specify a short description for the app.

Override URL: For information about this feature, see the blue information icon next to this field.

Featured: Select whether you want to feature this app.

Category: Select the category that most closely matches the app. You can add a new category as described in the dialog box.

2f Click Next, then click **Browse** to upload any screen shots that you have for the app.

The mandatory image size is displayed in the dialog box.

2g Click **Finish** to close the Add App Wizard.

3 Apply the Android label to your application:

3a From the **App Distribution Library** tab on the **Apps** tab, select the OpenText Filr app that you just created, then click **Actions** > **Apply To Label**.

The Apply To Label dialog box is displayed.

3b Select the **Android** label, then click **Apply** > **OK**.

Adding the iOS Filr App

To add the iOS Filr app to MobileIron, you need to import it from the Apple Appstore and then apply the iOS label to the application:

1 Import the app from the Apple Appstore.

1a In the MobileIron Admin Portal, click the **Apps** tab.

1b On the **App Distribution Library** tab, in the **Select Platform** drop-down list, select **iOS**.

1c Click **App Store Import**.

The App Store Search dialog box is displayed.

1d In the **App Name** field, type `OpenText Filr`.

1e In the **App Store** field, select the country appropriate to your location.

1f Click **Search**.

1g Click **Import** next to the OpenText Filr app, then click **OK** after it is imported.

1h Close the App Store Search dialog box.

1i From the **App Distribution Library** tab on the **Apps** tab, click the **Edit** icon next to the OpenText Filr app that you just imported.

The Edit App for iOS dialog box is displayed.

1j Make any desired changes to the app details and icon, then click **Save**.

2 Apply the iOS label to your application:

2a From the **App Distribution Library** tab on the **Apps** tab, select the OpenText Filr app that you just created, then click **Actions** > **Apply To Label**.

The Apply To Label dialog box is displayed.

2b Select the **iOS** label, then click **Apply** > **OK**.

Pre-Populating Fields for Filr Login

You can pre-populate the fields on the Filr login screen for users in your system by configuring the Filr key-value pairs in MobileIron. You can pre-populate the server URL and user ID fields for both the iOS and Android apps. For the Android app, you can also pre-populate the user password field.

You accomplish this within MobileIron by modifying the app configuration for Android, and by creating a new app configuration for iOS.

- "Modifying the Android Filr App Configuration for MobileIron" on page 66
- "Creating the iOS Filr App Configuration for MobileIron" on page 66
- "Key-Value Pairs" on page 67

Modifying the Android Filr App Configuration for MobileIron

1. In the MobileIron Admin Portal, click the **Policies & Configs** tab.
2. On the **Configuration** tab, in the **Name** column, click the name of the Filr configuration for the Filr app that you uploaded, as described in "Adding the Android Filr App" on page 64.
3. Click **Edit**.

   The Modify AppConnect App Configuration dialog is displayed.
4. Specify the following information:

   Name: Provide a name for the configuration, or keep the default.

   Description: (Optional) Provide a description for the configuration, or keep the default.

   Application: Select `OpenText Filr` from the drop-down list.
5. In the **App-specific Configurations** section, keep or remove the key-value pairs that are shown in "Key-Value Pairs" on page 61. Key-value pairs that remain in the table represent the information that will be pre-populated for Filr login.
6. Click **Save**.

Creating the iOS Filr App Configuration for MobileIron

1. In the MobileIron Admin Portal, click the **Policies & Configs** tab.
2. On the Configuration tab, click **Add New** > **AppConnect** > **Configuration**.

   The New AppConnect App Configuration dialog box is displayed.
3. Specify the following information:

   Name: Provide a name for the configuration, such as `Filr iOS Configuration`.

   Description: (Optional) Provide a description for the configuration.

   Application: Specify the Filr iOS bundle ID, which is `com.novell.vibefilr`.

4 In the **App-specific Configurations** section, click the **Plus** icon to add a new field to the key-value pair table; you can then specify the key-value pair to be included in the configuration. The key-value pairs that you can add are shown in "Key-Value Pairs" on page 61. Key-value pairs that you add to the table represent the information that will be pre-populated for Filr login.

5 Click **Save**.

Key-Value Pairs

If you modify key-value information after the Filr app has already been pushed to user devices, devices where the app is already installed are not refreshed with the updated information.

The key-value pairs are server, username, and password. For more details, see "Key-Value Pairs" on page 61.

Configuring Data Loss Prevention Policies

You can configure policies to restrict users from performing actions that could lead to data loss. For iOS devices, you can restrict users' ability to print, copy or paste, and open in other apps. For Android, you can restrict users' ability to take a screen capture.

You accomplish this within MobileIron by modifying the app policy for Android, and by creating a new app policy for iOS.

Modifying the Android Filr App Policy for MobileIron

1 In the MobileIron Admin Portal, click the **Policies & Configs** tab.

2 In the **Name** column, click the name of the Filr policy for the Filr app that you uploaded, as described in "Adding the Android Filr App" on page 64.

3 Click **Edit**.

The Modify AppConnect App Container Policy dialog is displayed.

4 Specify the following information:

Name: Provide a name for the policy, or keep the default.

Description: (Optional) Provide a description for the policy, or keep the default.

Application: Select `OpenText Filr` from the drop-down list.

5 In the **Data Loss Prevention Policies** section, you can change the following configuration option for Android devices:

Screen Capture: Allow users to take a screen capture from within any AppConnect app (including Filr).

6 Click **Save**.

Creating the iOS Filr App Policy for MobileIron

1. In the MobileIron Admin Portal, click the **Policies & Configs** tab.
2. On the Configuration tab, click **Add New** > **AppConnect** > **Container Policy**.

   The New AppConnect App Configuration dialog box is displayed.
3. Specify the following information:

   Name: Provide a name for the policy, such as `Filr iOS Policy`.

   Description: (Optional) Provide a description for the policy.

   Application: Specify the Filr iOS bundle ID, which is `com.novell.vibefilr`.
4. In the **Data Loss Prevention Policies** section, you can change the following configuration options for iOS devices:

   Print: This setting is not honored in the Filr app. There is no printing ability from within the Filr app.

   Copy/Paste To: This setting is ignored in this release of the Filr mobile app. Copy/Paste functionality is included in the Open In setting. In other words, you must disable Open In in order to disable Copy/Paste.

   Open In: Allow users to use the Open In functionality. If allowed, specify whether users can open into all apps on the device, only into AppConnect apps, or only into a list of apps that you specify.

   To specify individual apps via the whitelist option, specify the apps bundle ID. For example, the bundle ID for the Pages app is `com.apple.iwork.pages`.
5. Click **Save**.

Distributing the Filr App to Devices

You need to distribute the Filr app to devices in your organization via MobileIron if this is the first time your organization is using MobileIron with Filr, or any time a new device enters the organization.

It is possible that some users independently download the Filr app from the app store before their device is managed by MobileIron. In this case, you still need to push the app to their device via MobileIron. (These devices will lose any cached or downloaded files within the Filr app after their device becomes managed and the Filr app is pushed to their device.)

Preventing Frequent Prompts for a Passcode

Each time the Filr app checks in with MobileIron, it is briefly forced into the background by the MobileIron app. This happens so quickly, that users might not notice unless they are looking directly at the screen.

When the Filr app returns to the foreground, if it is set to require an Access Passcode/PIN, the user is prompted for the code.

To control how often app users are interrupted, access the MobileIron administrative console and adjust the **Global Policy > App Check-in Interval**.

Managing Mobile Devices with Filr

You can view users who have accessed your Filr system from a mobile device, and if necessary, wipe all Filr data from the user's device.

For more information, see Viewing, Wiping, and Disconnecting Registered Clients.

12 Monitoring

For information on all Filr monitoring capabilities, see “Logging and Monitoring” in the *Administrative UI Reference*.

Enabling Debug Logging

IMPORTANT: Do not adjust the settings described in this section unless you are instructed to do so by a Filr support engineer.

Adjusting the settings without guidance from Filr support can negatively impact the performance of your Filr deployment.

Enabling Debug Logging for Filr

IMPORTANT: These steps should only be followed in consultation with a Filr support engineer.

1. In a text editor, open the `log4j2.properties` file from the following location:

   `/opt/novell/filr/apache-tomcat/conf`

2. Uncomment each line for which you want to enable debug logging in the `log4j2.properties` file.

   For example, to **trace file synchronization and accesses through mirrored folders**, uncomment the following lines:

```
logger.com_novell_teaming_module_folder_impl_PlusFolderModule.name=com
.novell.teaming.module.folder.impl.PlusFolderModule

logger.com_novell_teaming_module_folder_impl_PlusFolderModule.level=DE
BUG

logger.org_kablink_teaming_module_file_impl_FileModuleImpl.name=org.ka
blink.teaming.module.file.impl.FileModuleImpl

logger.org_kablink_teaming_module_file_impl_FileModuleImpl.level=DEBUG

logger.org_kablink_teaming_fi.name=org.kablink.teaming.fi
logger.org_kablink_teaming_fi.level=DEBUG
logger.com_novell_teaming_fi.name=com.novell.teaming.fi
logger.com_novell_teaming_fi.level=DEBUG
logger.com_novell_teaming_repository_fi.name=com.novell.teaming.reposi
tory.fi
logger.com_novell_teaming_repository_fi.level=DEBUG
```

To **trace interactions with resource drivers**, uncomment the following lines:

```
logger.org_kablink_teaming_util_TraceableInputStreamWrapper.name=org.k
ablink.teaming.util.TraceableInputStreamWrapper

logger.org_kablink_teaming_util_TraceableInputStreamWrapper.level=DEBU
G

logger.com_novell_teaming_fi_TraceableAclResourceDriverWrapper.name=co
m.novell.teaming.fi.TraceableAclResourceDriverWrapper

logger.com_novell_teaming_fi_TraceableAclResourceDriverWrapper.level=D
EBUG

logger.com_novell_teaming_fi_TraceableAclResourceSessionWrapper.name=c
om.novell.teaming.fi.TraceableAclResourceSessionWrapper

logger.com_novell_teaming_fi_TraceableAclResourceSessionWrapper.level=
DEBUG
```

3. You can view the logs at `/var/opt/novell/tomcat-filr/logs/appserver.log`
4. Restart the Filr service.

Enabling Debug Logging for FAMT and SMBhelper Server

IMPORTANT: The instructions in this section should only be followed in consultation with a Filr support engineer.

- "Setting Debug Logging for FAMT and SMBhelper Server" on page 73
- "Viewing FAMT and SMBhelper Server Log Files" on page 73
- "Clearing FAMT Log Files" on page 73

Setting Debug Logging for FAMT and SMBhelper Server

NOTE: If FAMT restarts, the Smbhelper Server restarts automatically.

1 From the command line of the Filr appliance, change to the following directory:

`/opt/novell/filr/bin`

2 Set the log level for FAMT and SMBhelper server.

2a For the FAMT:

`./famtconfig -s loglevel 4`

or

To view the current log level:

`./famtconfig -g loglevel`

2b For the Smbhelper server:

`./SetSmbHelperServerLogLevel 4`

Viewing FAMT and SMBhelper Server Log Files

1 Change to the following location on the Filr server:

`/var/opt/novell/filr/log`

The `famtd.log`, `smbhelper-server.log`, debug, and core files are available for debugging functionality issues related to FAMT and SMBhelper server.

Clearing FAMT Log Files

1 Run the following command to clear the log files:

`/etc/logrotate.d/novell-famt-logs`

FAMT logs are rotated after the log size exceeds 5MB.

Configuring Debug Logging for SMB Communications

IMPORTANT: These steps should only be followed in consultation with a Filr support engineer.

The `/var/opt/novell/filr/log/smbclient.log` log file captures SMB/CIFS communications with Net Folders on Windows and OpenText OES servers (including OES for NSS AD).

About the smbclient.log File

Filr support engineers use the information captured in the smbclient.log file to troubleshoot SMB communication issues.

Log levels can range from 1 (the default) to 10. Each increase in level causes the system to log additional information.

The `smbclient.log` file gets rotated to `smbclient.log.old` when it reaches approximately 5 MB in size. Depending on the scope of the issue being addressed, your Filr support engineer might instruct you to increase the log-file size setting by modifying the `max log size` parameter under the `[global]` section of the `smb.conf` file.

Your Filr support engineer might also ask you to redirect log output to another file by using the following command at the terminal prompt: `# tail -F /var/opt/novell/filr/log/smbclient.log >> file-name-with-path`

Changing the Debug Level

As directed by a Filr support engineer, do the following:

1. At the appliance terminal prompt, launch a text editor such as VI and open the smb.conf file located here:

   `/etc/opt/novell/filr/.smb/smb.conf`
2. Add a parameter to control the SMB log level by inserting the following line under the `[global]` section in `smb.conf`:

   `log level = number-specified-by-Filr-support-engineer`
3. Save the smb.conf file.
4. Restart famtd by entering the following command:

   `# rcnovell-famtd restart`
5. After your support issue is resolved, ensure that you reset the log level to `1` and restart `famtd` by using the instructions above.

Monitoring File Meta-Data Synchronization in a Filr Cluster

Synchronization requests can go to any of the Filr appliances in a Filr cluster, regardless of which appliance a user logs in to. This makes monitoring the status of outstanding synchronization requests a little more involved.

All synchronization status is logged to /var/opt/novell/tomcat-filr/logs/appserver.log. However, this is a per-server log. In a Filr clustered implementation, all of the Filr appliances' appserver.logs need to be examined.

1. On each server, run the following command:

   ```
   grep -i "(full) Starting" /var/opt/novell/tomcat-filr/logs/
   appserver.log
   ```

   This lists all of the sync processes that have been started and have been recorded in the log file.

   If the command finds any log entries, it returns something similar to:

   ```
   2013-07-08 14:27:54,418 INFO  [Sitescape_Worker-1]
   [com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
   Starting synchronization on folder [/Home Workspace/Net Folders/shared]
   (id=41)
   ```

```
2013-07-08 09:05:25,969 INFO  [http-apr-8443-exec-1]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Starting synchronization on folder [/Home Workspace/Net Folders/
support] (id=305)

2013-07-08 09:29:36,566 INFO  [http-apr-8443-exec-3]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Starting synchronization on folder [/Home Workspace/Net Folders/shared]
(id=41)

2013-07-08 09:32:27,887 INFO  [http-apr-8443-exec-6]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Starting synchronization on folder [/Home Workspace/Net Folders/shared]
(id=41)
```

This shows that on this particular server, four full synchronization tasks were started in the last 24 hours. Prior to this time, the `appserver.log` would have already been rolled over to a different file name. The lines extracted from the log show the folder name that is being synced.

2 After the Filr Appliance that executed the sync has been found, another grep can be used:

```
grep -i "(full) Completed synchronization" /var/opt/novell/tomcat-filr/
logs/appserver.log
```

This shows the number of completed synchronization tasks within the scope of the log file.

3 Based on the previous output, the following text could be retrieved.

```
grep -i "(full) Completed synchronization" /var/opt/novell/tomcat-filr/
logs/appserver.log

2013-07-08 08:29:39,215 INFO  [Sitescape_Worker-1]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Completed synchronization on folder [/Home Workspace/Net Folders/
shared] (id=41) -

2013-07-08 09:05:26,084 INFO  [http-apr-8443-exec-1]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Completed synchronization on folder [/Home Workspace/Net Folders/
support] (id=305) -

2013-07-08 09:31:03,127 INFO  [http-apr-8443-exec-3]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Completed synchronization on folder [/Home Workspace/Net Folders/
shared] (id=41) -

2013-07-08 09:33:28,973 INFO  [http-apr-8443-exec-6]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Completed synchronization on folder [/Home Workspace/Net Folders/
shared] (id=41)
```

This shows that each of the tasks that started on the server actually finished.

4 Further details of a completed synchronization can be extracted by using the `vi` or `less` commands on the log file in question.

In `vi`, issue the following command to see the first occurrence of the “Completed” string.

```
/Completed
```

This will find the text “Completed” in the log file and will show something similar to the text below:

```
2013-07-08 08:29:39,215 INFO  [Sitescape_Worker-1]
[com.novell.teaming.module.folder.impl.PlusFolderModule] - (full)
Completed synchronization on folder [/Home Workspace/Net Folders/
shared] (id=41) -

  Sync time: 104.010406956 seconds

  Files: found=2484 add=0 modify=0 expunge=0 acl=0 ownership=0

  Folders: found=260 add=0 expunge=0 acl=0 ownership=0 processed=261
qsize=120

  Entries: expunge=0

  Failure count=0
```

If this is not the sync in question, then selecting “n” will page through the log file until you find the correct information.

Monitoring the Indexing Process

1. After re-indexing has started, watch the `appserver.log` file for the following statement:

   ```
   2013-06- INFO  [http-bio-8080-exec-1]
   [org.kablink.teaming.module.binder.impl.BinderModuleImpl] - indexTree
   took 1480.470827 ms
   ```

2. Check the results using `grep indexTree /var/opt/novell/apache-tomcat/logs/appserver.log`.

   Look for the key words "indexTree took" as shown above.

   This shows that the re-indexing previously triggered has now completed.

   Note that the indexing recommendations made elsewhere in this guide still apply, and a pair of Filr Search appliances should be deployed as part of your system. Start both Filr Search appliances as read/write and make them available to Filr Clients. Change one of the appliances to be indexed to write and use that server for the re-index process.

   This forces all the Filr clients to use the other indexing server.

   After the re-indexing process is complete, as indicated by the log file discussed earlier, the appliance can be changed back to `Read/Write`. Any deferred updates should be applied, and the second server can then be re-indexed by using the same process.

Monitoring User Access, including the Guest User

1. Create a report for any system user with the User Access Report functionality.

13 Net Folder Maintenance

Manually Synchronizing a Net Folder Server

Path: Port 8443 Filr Administration Console **Management > Net Folder Servers**

Table 13-1 *Net Folder Server Manual Synchronization*

Field, Option, or Button	Information and/or Action
Manage Net Folder Servers page	1. Select the Net Folder Server that you want to manually synchronize 2. Click **Sync**.

Manually Synchronizing a Net Folder

Path: Port 8443 Filr Administration Console **Management > Net Folders**

Table 13-2 *Net Folder Manual Synchronization*

Field, Option, or Button	Information and/or Action
Manage Net Folders page	1. Select the Net Folder that you want to manually synchronize. 2. Click **Sync**.

Viewing the Synchronization Status of a Net Folder

Path: Port 8443 Filr Administration Console **Management > Net Folders**

Table 13-3 *Net Folder Synchronization Status*

Field, Option, or Button	Information and/or Action
Manage Net Folders page	1. The **Sync status** column displays the synchronization status of each Net Folder. 2. Click the icon for more detailed status information.

14 Notification (Email) Customization

You can customize many of the Filr-generated strings that appear in notifications sent to Filr users.

About Filr's Email Templates

Filr generates email notifications using Apache Velocity version 1.5 templates.

You can customize the following templates:

Template Name	Purpose
externalConfirmation.vm	Confirmation notification sent to an external user after the user is successfully registered with Filr server.
fileRequestNotification.vm	A mail is sent requesting the external user to upload a file to the Filr server.
fileRequestUploadNotification.vm	A confirmation mail is received by the Filr user when the file is uploaded to the Filr server.
footer.vm	Text or images applied at the end of each email.
followEmailOnly.vm	On enabling **Follow**, an email notification is sent to a user for each operation performed on the file or a folder.
followEmailDigest.vm	On enabling **Follow**, an email with the summary of all the operation performed on the files in a folder is sent to a user.
forgottenPasswordNotification.vm	Forgotten password notification sent to a user when the user clicks **Can't login** link on the login page to request for a new password.
header.vm	Text or images applied at the beginning of each email
passwordChangedNotification.vm	Notification that user's password changed
publicLinkNotification.vm	Notification of a publicly available link to a file
selfRegistrationRequired.vm	Shared item notification to user who must register with Filr in order to view it
shareAccessedNotification.vm	Notification that the file or folder is accessed by the user.
sharedEntryInvite.vm	Shared file invitation to an external user
sharedEntryNotification.vm	Shared file notification of change to existing Filr user

Template Name	Purpose
sharedFolderInvite.vm	Shared folder invitation to external user
sharedFolderNotification.vm	Shared folder notification of change to existing Filr user
storageAlertEmail.vm	Storage notification that the Filr server sends to Filr administrators when vashare or vastorage storage is 90% filled.
style.vm	CSS style sheet for email notifications
teaming.vm	Macros that get applied to all emails
zoneQuotaAlertEmail.vm	An alert mail to the zone administrator and inbuilt (main) administrator when a user has used all the allocated space.
dataQuotaAlertNotification.vm	An alert mail on exceeding data quota and not being able to upload the file. The mail also says the user to delete the files from the My Files area and the trash, or contact the Filr administrator.

Template Tips and Documentation

IMPORTANT: OpenText does not attempt to document third-party products, such as Apache Velocity.

For complete information and instructions for the Apache Velocity version 1.5 template language, visit the Apache Velocity Project website.

The following are tips about the template files in Filr.

- Each template contains a brief explanation about what it affects and what you can customize in it.
- Filr system-generated emails contain both text and HTML MIME parts.

  You can customize these independently.
- You can customize for specific languages to localize the emails your Filr system generates.
- You can revert back to the default template by selecting a customized template in the list and then clicking the Delete button.
- Make sure you use the Velocity documentation.

  For example, one user assumed that the hash marks (#) indicated comments, when in fact they are part of the Velocity scripting language.

Modifying the Email Template Files

The default email templates that reside on the Filr system cannot be changed or deleted, but you can create and deploy customized copies of them by doing the following:

1. Download a template to your local disk by clicking it in the Email Templates dialog.
2. Open the downloaded template in a text editor.

3 Customize the file as discussed in the Video Walkthrough below and documented on the Apache Velocity Project website.

4 Save the template on your local disk.

5 Upload the customized file by dragging and dropping it into the Email Templates dialog.

The **Type** then changes to **Customized**.

Email Template Customization—A Video Walkthrough

To see a demonstration of the email template customization process, view the following video:

 http://www.youtube.com/watch?v=AA4A-nG3dIY

15 Search Index Maintenance

Optimizing the Lucene Index to Improve Search Performance

IMPORTANT: In order for optimization to run, there must be at least 51% free disk space on the Lucene search index appliance.

For a medium to large Filr system, you should run the optimization once a week during off hours or on weekends when the Filr system is not being heavily used.

Optimizing the Lucene index does not repair a damaged or out-of-date index. To repair a damaged or out-of-date index, you must rebuild the index, as described in "Rebuilding the Lucene Index" on page 88.

Optimizing a Single Search Index

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

   `http://Filr_hostname:8080`
   `https://Filr_hostname:8443`

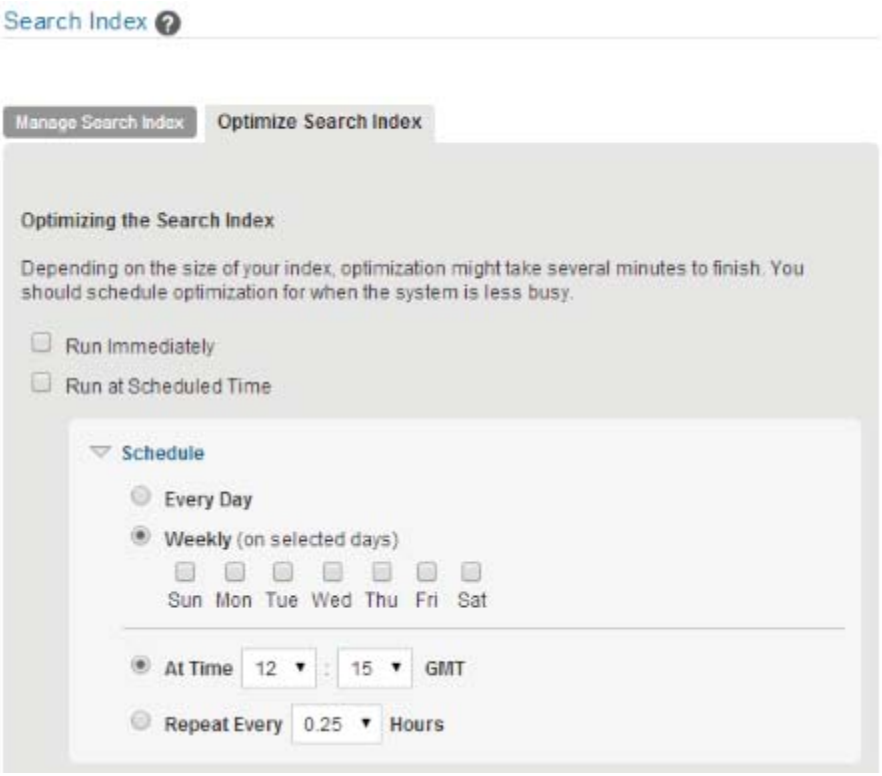
   Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

   Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Search Index**.

4 Click the **Optimize Search Index** tab.



5 Select **Run Immediately** if you want to run the optimization right now.

6 Select **Run at Scheduled Time**, then specify the days and times that you want the optimization to occur.

7 Click **OK**.

Optimizing the Search Index with Multiple Index Servers

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://Filr_hostname:8080`
`https://Filr_hostname:8443`

Replace *`Filr_hostname`* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 In the **Search Index** section, click **Index**.

4 Click the **Optimize Search Index** tab.

5 Select **Run Immediately** if you want to run the optimization right now.

6 Select **Run at Scheduled Time**, then specify the days and times that you want the optimization to occur.

7 Select each node that you want to optimize.

8 Click **OK**.

Maintaining Your High Availability Lucene Index

If you have a high availability Lucene configuration, you can take one Lucene node out of service for maintenance while other Lucene nodes continue to operate. Then you can synchronize the out-of-date Lucene node with the current indexing data.

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://Filr_hostname:8080`
`https://Filr_hostname:8443`

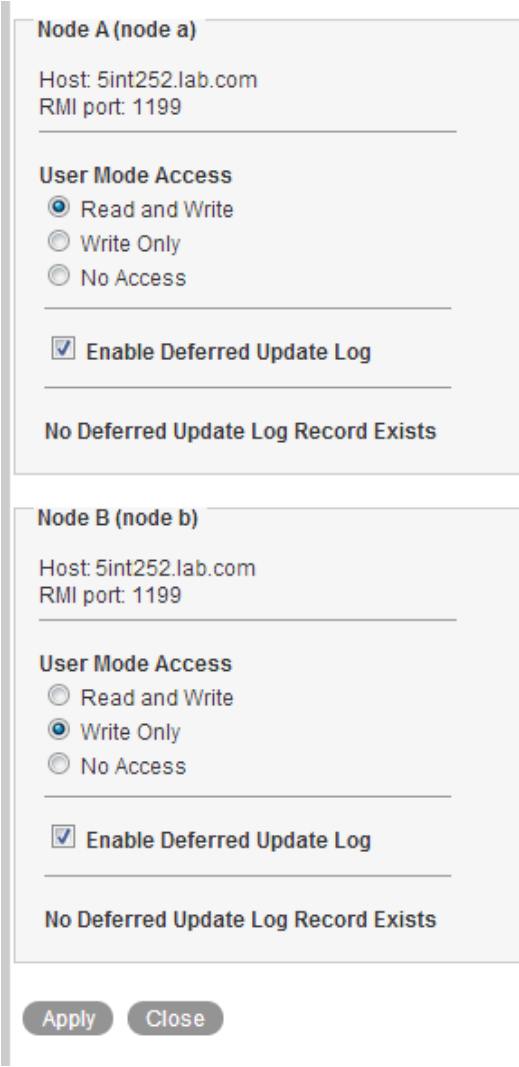
Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Take the Lucene node that needs maintenance out of service:

2a Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

2b Under **Search Index**, click **Nodes**.



2c In the list, locate the node that needs maintenance.

2d Ensure that **Enable Deferred Update Log** is selected.

2e In the **User Mode Access** box, change **Read and Write** to one of the following options, depending on the type of maintenance that you want to perform:

- **Write Only:** Select this option if you are performing a re-index on the search index node.
- **No Access:** Select this option if you are performing other types of maintenance on the search index node, such as upgrading it, adding more disk space or memory, and so forth.

  Selecting this option ensures that no data is written to the index while the maintenance is being performed.

2f Click **Apply**, then click **Close**.

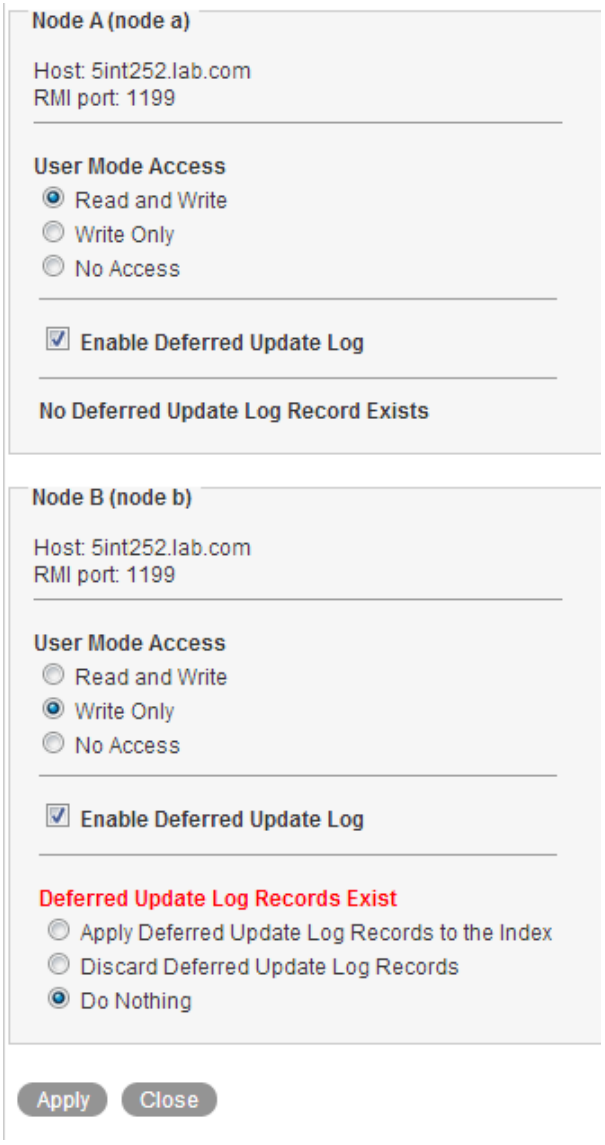
The new setting is put into effect immediately, so that the Lucene node is no longer accessible to Filr users.

3 Perform the needed maintenance on the Lucene node. For example, for information about how to perform a re-index on the node, see "Rebuilding the Lucene Index" on page 88.

4 Return the out-of-date Lucene node to full service:

4a Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

4b Under **Search Index**, click **Nodes**.



If you moved the Lucene node to **No Access**, the out-of-date Lucene node is flagged with **Deferred Update Log Records Exist**.

The **User Mode Access** option shows **Read and Write** because this is the last selected setting.

4c Select **Apply Deferred Update Log Records to the Index**, then click **Apply**.

The Deferred Update Log options disappear if the update is successful.

4d Click **Close**.

The Lucene node that was out of service has now been updated with current indexing data.

5 (Conditional) If both Lucene nodes require maintenance, repeat Step 1 through Step 4 for the second Lucene node.

Rebuilding the Lucene Index

The Lucene index provides access to all data in your Filr site, including objects, such as users, groups, files and folders, and file contents where content indexing is enabled.

If the index becomes damaged or out-of-date for some reason, you can rebuild it.

Users might first notice a problem with the Lucene index if they cannot find information or people that they know should be available on the Filr site. If you are running multiple Lucene Index Servers, follow the instructions in "Maintaining Your High Availability Lucene Index" on page 85.

Rebuilding the Lucene search index can consume a significant amount of resources on your Filr appliance. In a clustered environment, it is a good idea to set aside a single Filr appliance to handle the load of rebuilding the search index.

For information about how to set aside a Filr appliance, see "Dedicating a Filr Appliance to Indexing and Net Folder Synchronization" in the *Installation, Deployment, and Upgrade Guide*.

The steps to reset the search index differ depending on whether you have multiple Lucene Index servers.

- "Rebuilding a Single Search Index" on page 88
- "Rebuilding the Search Index with Multiple Index Servers" on page 89

Rebuilding a Single Search Index

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

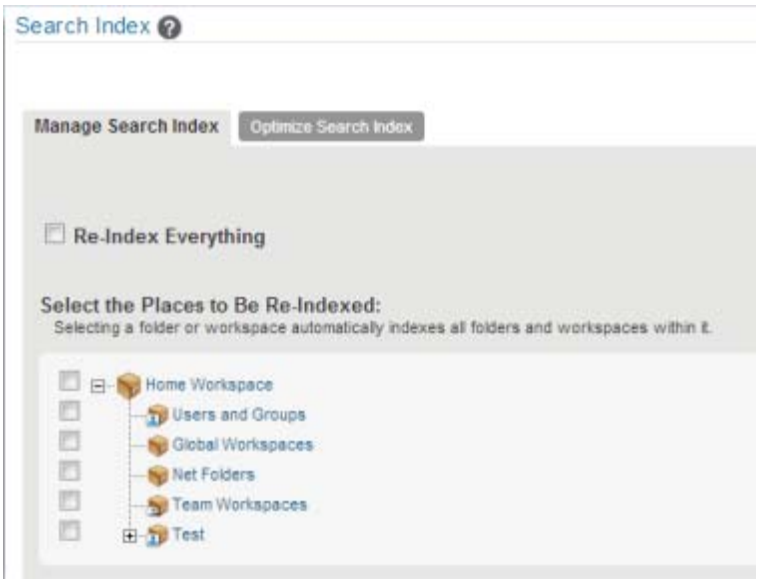
```
http://Filr_hostname:8080
https://Filr_hostname:8443
```

Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 In the **Management** section, click **Search Index**.



4 To reindex the entire Filr site, select **Re-Index Everything**.

Depending on the size of your Filr site, this can be a very time-consuming process.

or

Select one or more parts of your Filr site to re-index.

5 Click **OK** to start the indexing.

Users can still access the Filr site during the indexing process, but search results might not be accurate until the index has been completely rebuilt.

To view when indexing is complete, keep the Search Index dialog box open to see the status. Alternatively, a message is displayed in either the `appserver.log` files stating that reindexing is complete.

6 To ensure that the rebuild was successful, verify that the following messages appear in the `appserver.log` file:

`Completed indexing of tree with` *`xxx`* `binders. Time taken for indexing is` *`xxx.xxx`* `msAdministrative reindexing completed on binders [1]`

For information about how to access the `appserver.log` file, see "Accessing Filr System Log Files" in the *Administrative UI Reference*.

Rebuilding the Search Index with Multiple Index Servers

To avoid downtime when rebuilding the search index with multiple search index servers:

1 Take the first search index node out of service to rebuild it while the other is still running.

For information about how to take a node out of service, see "Maintaining Your High Availability Lucene Index" on page 85.

2 Rebuild the search index node from the **Index** section of the Administration Console.

3 After the first search index node is rebuilt, put it back into service.

For information about how to put a node back into service, see "Maintaining Your High Availability Lucene Index" on page 85.

4 Repeat this process for the second search index node.

To view when indexing is complete, keep the Search Index dialog box open to see the status. Alternatively, a message is displayed in either the `appserver.log` files stating that reindexing is complete.

5 To ensure that the rebuild was successful, verify that the following messages appear in the `appserver.log` file:

`Completed indexing of tree with xxx binders. Time taken for indexing is xxx.xxx msAdministrative reindexing completed on binders [1]`

For information about how to access the `appserver.log` file, see see "Accessing Filr System Log Files" in the *Administrative UI Reference*..

16 Security

Antivirus

- You can leverage what you are doing on your file servers.

Audit Trail

- Every authorization change is logged in Filr.
- Every authentication decision is logged in Filr.
- Enhanced reporting features are planned in this area in future releases.
- Enhanced integration with audit trail analysis tools, such as NetIQ Sentinel.

Backup and Restore

- You can leverage what you are doing on your file servers.
- VMware lets you create virtual disks on remote storage that is able to be backed up and restored independent of Filr.

Brute-Force Attacks and CAPTCHA

CAPTCHA (http://en.wikipedia.org/wiki/CAPTCHA) provides additional security against brute-force attacks on the Filr web application.

Brute-force attack monitoring is enabled on the Filr system by default. Filr considers a brute-force attack to be taking place if any user has 5 failed login attempts to the Filr system within a 30-minute timeframe. During the time that Filr believes that a brute-force attack is occurring, Filr requires all users to specify the CAPTCHA response when logging in to the Filr web application. Filr considers the system to be safe from the brute-force attack as soon as there have been fewer than 5 failed login attempts within the past 30 minutes. At that time, specifying a CAPTCHA response is no longer required.

Certificate Maintenance

OpenText appliances ship with a self-signed digital certificate. However, you should use a trusted server certificate that is signed by a trusted certificate authority (CA) such as VeriSign or Equifax.

The certificate works for both the OpenText Appliance and the Filr software (ports 9443 and 8443). You do not need to update your certificate when you update the Filr software.

Complete the following sections to change the digital certificate for your OpenText Appliance. You can use the digital certificate tool to create your own certificate and then have it signed by a CA, or you can use an existing certificate and key pair if you have one that you want to use.

NOTE: If you are using a Godaddy SSL certificate with Filr, follow the steps in "TID 7023569" (https://support.microfocus.com/kb/doc.php?id=7023569) at the OpenText Support website (https://www.microfocus.com/support-and-services/knowledge-base/).

- "Using the Digital Certificate Tool" on page 93
- "Using an Existing Certificate and Key Pair" on page 94
- "Activating the Certificate" on page 94
- "Managing Certificates" on page 95

Using the Digital Certificate Tool

Creating a New Self-Signed Certificate

Path: Port 9443 Appliance Console

1. Log in to the OpenText appliance at https://*server_url*:9443.
2. Click **Digital Certificates**.
3. In the **Key Store** drop-down list, ensure that **Web Application Certificates** is selected.
4. Click **File** > **New Certificate (Key Pair)**, then specify the following information:

   Alias: Specify a name that you want to use to identify and manage this certificate.

   Validity (days): Specify how long you want the certificate to remain valid.

   Key Algorithm: Select either **RSA** or **DSA**.

   Key Size: Select the desired key size.

   Signature Algorithm: Select the desired signature algorithm.

   Common Name (CN): This must match the server name in the URL in order for browsers to accept the certificate for SSL communication.

   Organizational Unit (OU): (Optional) Small organization name, such as a department or division. For example, Purchasing.

   Organization (O): (Optional) Large organization name. For example, OpenText

   City or Locality (L): (Optional) City name. For example, Provo.

   State or Province (ST): (Optional) State or province name. For example, Utah.

   Two-letter Country Code (C): (Optional) Two-letter country code. For example, US.
5. Click **OK** to create the certificate.

   After the certificate is created, it is self-signed.
6. Make the certificate official, as described in "Getting Your Certificate Officially Signed" on page 93.

Getting Your Certificate Officially Signed

1. On the Digital Certificates page, select the certificate that you just created, then click **File** > **Certificate Requests** > **Generate CSR**.
2. Complete the process of emailing your digital certificate to a certificate authority (CA), such as Verisign.

   The CA takes your Certificate Signing Request (CSR) and generates an official certificate based on the information in the CSR. The CA then mails the new certificate and certificate chain back to you.

3 After you have received the official certificate and certificate chain from the CA:

   3a Revisit the Digital Certificates page by clicking **Digital Certificates** from the Filr Appliance.

   3b Click **File** > **Import** > **Trusted Certificate**. Browse to the trusted certificate chain that you received from the CA, then click **OK**.

   3c Select the self-signed certificate, then click **File** > **Certification Request** > **Import CA Reply**.

   3d Browse to and upload the official certificate to be used to update the certificate information.

   On the Digital Certificates page, the name in the **Issuer** column for your certificate changes to the name of the CA that stamped your certificate.

4 Activate the certificate, as described in "Activating the Certificate" on page 94.

Exporting a Self-Signed Certificate

Path: Port 9443 Appliance Console

1 Log in to the OpenText appliance at https://*server_url*:9443.

2 Click **Digital Certificates**.

3 In the **Key Store** drop-down list, select **Web Application Certificates**.

4 Select the `self-signed_cert` file.

5 Click **File > Export > Public Certificate**.

   This downloads the `self-signed_cert.crt` certificate file.

Using an Existing Certificate and Key Pair

When you use an existing certificate and key pair, use a .P12 key pair format.

1 Go to the Digital Certificates page by clicking **Digital Certificates** from the Filr Appliance.

2 Click **File** > **Import** > **Trusted Certificate**. Browse to and select your existing certificate, then click **OK**.

3 Click **File** > **Import** > **Trusted Certificate**. Browse to your existing certificate chain for the certificate that you selected in Step 2, then click **OK**.

4 Click **File** > **Import** > **Key Pair**, then browse to and select your .P12 key pair file, specify your password if needed, then click OK.

   Because of a browser compatibility issue with HTML 5, the path to the certificate is sometimes shown as `c:\fakepath`. This does not adversely affect the import process.

5 Continue with "Activating the Certificate" on page 94.

Activating the Certificate

1 On the Digital Certificates page, select the certificate that you want to make active, click **Set as Active**, then click **Yes**.

2 Verify that the certificate and the certificate chain were created correctly by selecting the certificate and clicking **View Info**.

Managing Certificates

Filr uses only the certificates that relate to LDAP and SMTP.

You can use the Digital Certificates tool on the Filr appliance to remove certificates that are not used by your organization if you are concerned about keeping them.

Also, you can use the Digital Certificates tool on the Filr appliance to maintain the certificate store by removing certificates that have expired and then installing new certificates as needed, according to your organization's security policies.

To access the Digital Certificates tool:

1 Click **Digital Certificates** from the Filr Appliance.

Comments and Security

- All users that have access to a file or folder (via native rights or shared) can read the comments on that file or folder.
- All users, except public users, can write comments.

  Comment writing for public users is configurable, but it is off by default for two reasons:

  - Because public users are anonymous, there is a risk that they might be abusive, offensive, or meddlesome.
- OpenText plans to add more granular control over who can see comments in the future:
  - Add private comments that are directed at a specific set of users or groups. (In addition to open comments that are visible to all users with access.)
  - External users cannot write comments; they can only view comments.
  - Public users cannot read any comments.

Database Communication Encryption

Filr Administrator can now enable or disable database communication encryption between the Filr server and the database.

The Database Connection page on the Appliance Console now includes a new option **Encrypt Database Communication** that enables you to encrypt the database communication from the Filr server. This option is disabled by default. Before selecting this option, you must ensure that the settings for your database are enabled to allow encryption of the communication from the database server to the Filr server.

- "Configuring the Database Settings" on page 96
- "Configuring the Filr Server Settings" on page 97

Configuring the Database Settings

To enable the database communication encryption between the Filr server and the database server, you must first configure your database settings to support communication encryption followed by configuring the settings on the Filr server.

- "For Other Database Servers" on page 96

For Other Database Servers

Refer to the following database-specific documentation to enable the database communication encryption from the database server to the Filr server:

For MS SQL If you are using the MS SQL server, perform the following steps to secure the database communication:

1. Configure SQL Server to use certificates.
2. Configure encryption settings in SQL Server.
3. Ensure that the server certificate is created with the SHA256 algorithm. For more information, see Configure SQL Server Database Engine for encryption - SQL Server | Microsoft Learn.
4. Export the certificate from the MSSQL Server Certificate. For more information, see SQL Server | Microsoft Learn.
5. Import certificate in Filr - Importing the Root Certificate into the Java Keystore. For more information, see LDAP Synchronization Security - OpenText Filr 23.4: Maintenance Best Practices Guide.

For Postgres Server: If you are using the Postgres server, perform the following steps to secure the database communication:

NOTE: While configuring, ensure that the Postgres database server with Filr appliance uses the Postgres server hostname.

---

1. Configure Postgres Server to use certificates. For more information, see Create certificates section.
2. Configure PostgreSQL Server for SSL by editing the Postgres conf file with required certificates. For more information, see Setting up SSL.
3. Configure pg_hba file for SSL. For more information, see hostssl.
4. Restart the Postgres server.

MariaDB Server: From MariaDB 11.4, SSL is now enabled in the server by default. If not, do the following for enabling the SSL and configuring the server.

1. Certificate Creation. For more information, see here .
2. Configure MariaDB server for SSL. For more information, see here .

For MySQL Server: SSL certificates are automatically generated for MySQL under `/var/lib/mysql` folder in MySQL.

For more information about configuring SSL in MySQL server, see here.

Configuring the Filr Server Settings

Before you configure your Filr server to enable database communication encryption from the Filr server to the database, you must ensure that you have configured your database to enable encryption from the database server to the Filr server. See “Configuring the Database Settings” on page 96.

To configure the Filr server to encrypt data:

1. Log in to the Filr appliance at https://*server_url*:9443.
2. Click **Configuration** > **Database**.
3. Select the **Encrypt Database Communication**checkbox to enable encryption from the Filr server.
4. A message that you must have the encryption from the database server already enabled pops up. Ensure that the encryption from the database server is enabled and then click **OK**.
5. Click **OK**, then click **Reconfigure Filr Server** for your changes to take effect.

   This stops and restarts your Filr server. Because this results in server downtime, you should restart the server at off-peak hours.

NOTE: To disable the data encryption between the Filr server and the database server, you must first disable the secure database communication and then deselect the **Encrypt Database Communication** option. For information about configuring the database settings, see “Configuring the Database Settings” on page 96.

Encrypting Communication between Filr Server and Search Appliance

Prerequisite

- Ensure that the CA-signed certificates are present for Both Filr and Search Appliance and that they are the same. For more information, see “Certificate Maintenance” on page 92.

  If the certificates are not the same, then the user must export the self-signed certificate from Search Appliance and import that certificate to Filr. For more information, see “Exporting a Self-Signed Certificate” on page 94 and “Importing the Root Certificate into the Java Keystore” on page 108.
- Ensure that both Filr Server and Search Appliance version is 24.4 or later to establish secured communication. Also, ensure secure communication is enabled in both Filr Server and Search Appliance.

Encrypt the Communication

By default, the communication between the Filr Server and the Search Appliance is only authenticated and not encrypted. A switch is created to implement encrypted RMI communication between Filr Server and Search Appliance.

To encrypt the communication between Filr and Search appliance, add the following to the properties file:

1. Stop Filr service on all Filr Nodes.
2. Add `lucene.rmi.ssl.enabled=true` to `lucene-server-ext.properties` file in the lucene server (search server).
3. Restart the Search Service.
4. Add `lucene.rmi.ssl.enabled=true` to `ssf-ext.properties` file in all in the Filr Nodes.
5. Start the Filr Services.

Desktop Application Security

To review and adjust security-related settings for the Filr desktop application, see Desktop Access—Default Settings in the Administrative UI Reference.

DMZ Setup for Filr

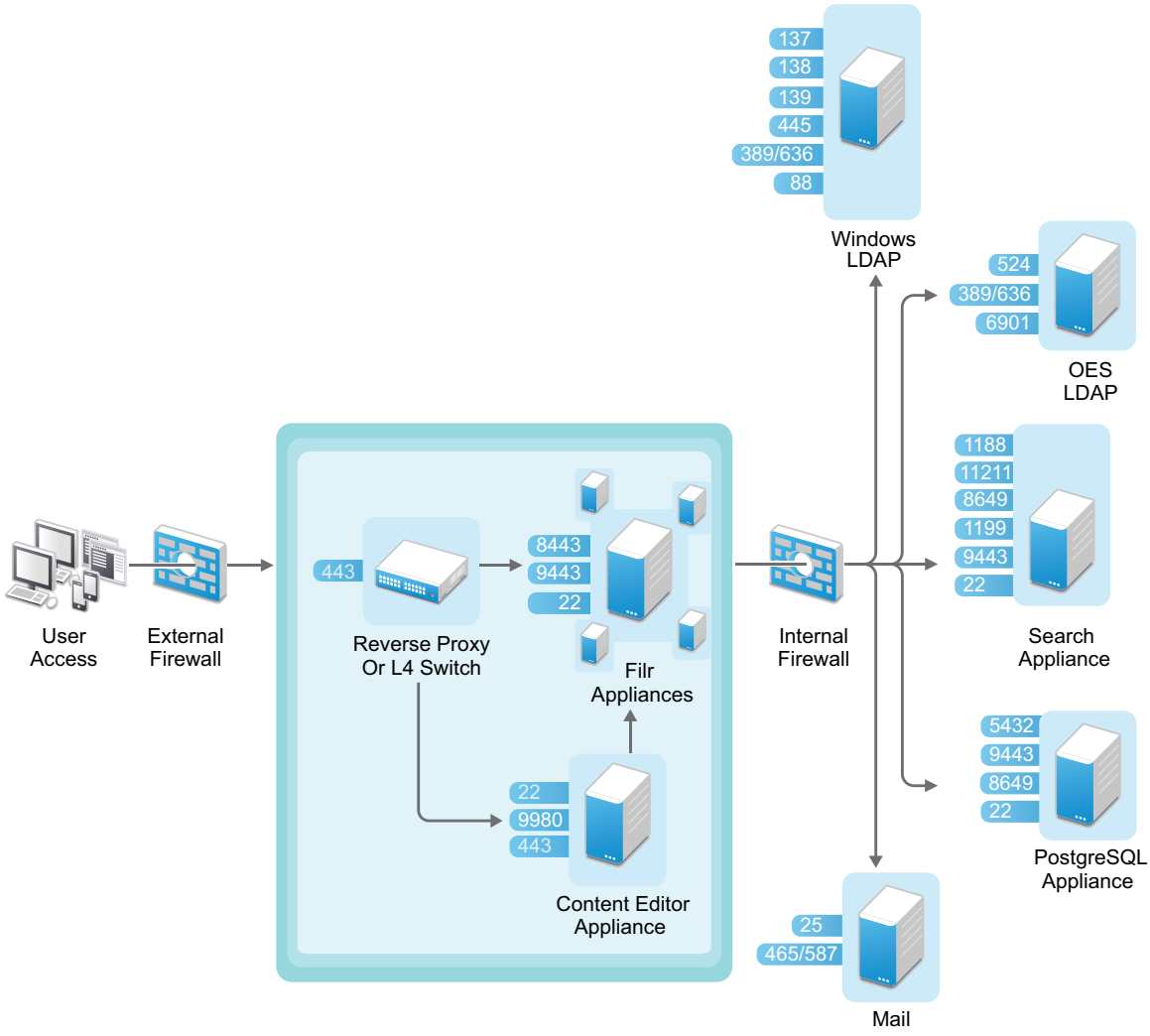
IMPORTANT: Security is a complex subject and OpenText does not attempt to suggest a complete defense solution with this example. OpenText recommends that you consult with your security professional to implement Filr in a DMZ.

To provide an additional level of security, you can set up Filr in a DMZ. You might want to consider setting up Filr in a DMZ especially if you are planning to allow external users to access the Filr system. It is most secure to restrict external user access to Filr appliances that are located in the DMZ, rather than allowing external users access to a Filr appliance behind the internal firewall.

The actual data is never stored in the DMZ. It is stored behind the internal firewall on the database and search appliances, on the Windows and OES servers (for your Net Folders), and on a SAN for files in personal storage.

Figure 16-1 illustrates a basic setup with Filr running in a DMZ, including information about the ports that you need to open for the firewalls and for communication between the various servers.

Figure 16-1 *Filr in a DMZ*



Only traffic destined to the DMZ is allowed through the front-end firewall, and only traffic from the DMZ to the internal network is allowed through the back-end firewall.

In a clustered environment, it is also possible for some of the Filr appliances in the cluster to run behind the internal firewall while others run in the DMZ. Doing so can result in performance benefits for internal users. Setting up Filr in this way requires that you use memcached caching. For more information about configuring memcached caching, see Filr Clustering Configuration in the Administrative UI Reference.

For more information about port configuration in Filr, see "Port Numbers" in the *Administrative UI Reference*.

For information about setting up NetIQ Access Manager as a reverse proxy, see "Access Manager (NAM) and Filr Integration" in the *Installation, Deployment, and Upgrade Guide*.

Downloads through Filr—Disabling

You can disable the ability for users to download files from the Filr site on the web. If you do not disable downloads as described in this section, users can download files to their personal workstations.

IMPORTANT: If you do disable file downloads as described in this section, users can view files only as HTML in a web browser. However, some file types (such as PDF files) cannot be viewed as HTML, and therefore cannot be viewed in Filr if the ability to download files is disabled.

You can disable the ability for users to download files from the Filr site on the web for all users, or for specific users and groups. Alternatively, you can disable downloads for all users and then enable downloads for specific users and groups.

- "Disabling Downloads for All Users" on page 100
- "Disabling or Enabling Downloads for Individual Users" on page 101
- "Disabling or Enabling Downloads for Individual Groups" on page 102

Disabling Downloads for All Users

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

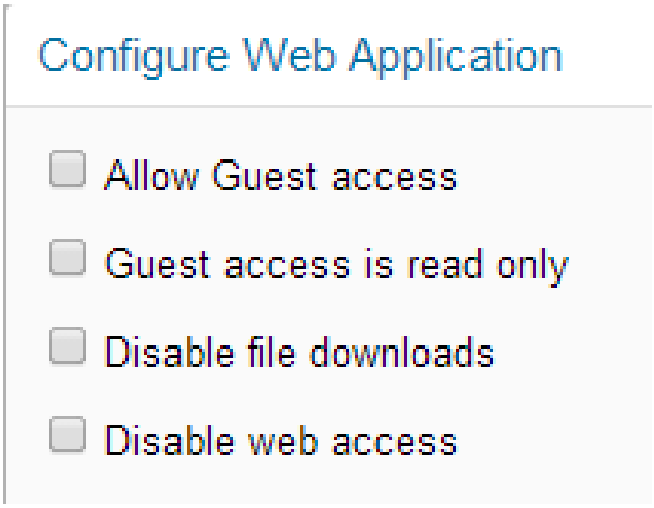
   ```
   http://Filr_hostname:8080
   https://Filr_hostname:8443
   ```

   Replace *Filr_hostname* with the hostname or fully qualified domain name of the Filr server that you have set up in DNS.

   Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **System**, click **Web Application**.



4 Select **Disable file downloads**.

5 Click **OK**.

Disabling or Enabling Downloads for Individual Users

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://Filr_hostname:8080`
`https://Filr_hostname:8443`

Replace *`Filr_hostname`* with the hostname or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Users**.

The Manage Users page is displayed.

4 (Conditional) If you have not disabled downloads for all users (as described in "Disabling Downloads for All Users" on page 100), you can disable downloads for an individual user by clicking the drop-down arrow next to the user's name and then clicking **Disable File Downloads for this User**.

or

To disable access for multiple users, select the users whose access you want to disable, then click **More** > **Disable File Downloads**.

5 (Conditional) If you have disabled downloads for all users, you can enable downloads for an individual user by clicking the drop-down arrow next to the user's name and then clicking **Enable File Downloads for this User**.

or

To enable downloads for multiple users, select the users who you want to allow to download files, then click **More** > **Enable File Downloads**.

Disabling or Enabling Downloads for Individual Groups

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://`*`Filr_hostname`*`:8080`
`https://`*`Filr_hostname`*`:8443`

Replace *`Filr_hostname`* with the hostname or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon  .

3 Under **Management**, click **Groups**.

The Manage Groups page is displayed.

4 (Conditional) If you have not disabled access for all users (as described in "Disabling Downloads for All Users" on page 100), you can disable access for users who belong to an individual group by clicking the drop-down arrow next to the group name and then clicking **Disable Web Access for Users in this Group**.

or

To disable access for multiple users, select the users whose access you want to disable, then click **More** > **Disable File Downloads**.

5 (Conditional) If you have disabled downloads for all users, you can enable downloads for users who belong to an individual group by clicking the drop-down arrow next to the group name and then clicking **Enable File Downloads for Users in this Group**.

or

To enable access for multiple users, select the users whose access you want to enable, then click **More** > **Enable File Downloads**.

Email Transfer Security

When you install OpenText Filr, you can choose whether the Filr internal mail host uses TLS (Transport Layer Security) when it communicates with other SMTP mail hosts.

If your Filr site needs to send email messages to an email system that requires secure SMTP (SMTPS), the Filr site must have the same type of root certificate that is required for secure LDAP (LDAPS). If you have not already set up secure LDAP for your Filr site, follow the instructions in "LDAP Synchronization Security" on page 107 to set up secure SMTP for communications with your email system.

Encryption

- Filr encrypts all sensitive authentication credentials and all data on the wire between each Filr appliance.
- Filr does not encrypt any back-end data on local or remote file servers.
- Filr should work well with compatible back-end servers that support full-disk encryption.
- Filr clients should work well with any client solutions, either desktop or mobile, including OpenText ZENworks Full Disk Encryption.
- Communication between the Filr desktop application and the Filr server is sent with SSL encryption.
- Communication between the Filr mobile apps and the Filr server is sent with SSL encryption.
- Additional encryption features are planned for future releases.

File Server Security

- Filr honors and respects all trustee rights, file attributes, and folder attributes on all targeted file systems.
- Filr never changes any rights or attributes on targeted file systems.
- The only time file system rights are effectively bypassed is when a Filr user shares a file or folder with another user. In this case, the proxy user's rights are used on behalf of the user receiving the share.

  For example, if a user with full file system rights to a folder shares Contributor privileges on that folder with another user, the other user has rights to create new files in the folder via the proxy user, as authorized by Filr.

Filr Component Security

- **Filr Software:** The Filr software is a customized version of Apache Tomcat. The version of Apache used for the Filr software contains all security fixes and patches that were available when Filr was released.
- **PostgreSQL Database:** The Filr database is a PostgreSQL database built with SuSE Studio, and contains all security fixes and patches that were available when Filr was released.

- **Filrsearch:** The Filrsearch index is a Lucene search index. It contains all security fixes and patches that were available when Filr was released.

Filr Data Security

Understanding Administrator Access to Filr Data

The Filr administrator can see all files and folders:

- In each user's My Files area (includes files in personal storage or files in a home directory on a remote file server)
- In every Net Folder

This includes file content as well as file metadata (comments, creation and modification information, and so forth).

Limiting Physical Access to Filr Servers

Servers where OpenText Filr data resides should be kept physically secure so that unauthorized persons cannot gain access to the server consoles.

Protecting the Filr Database

Depending on your local security guidelines, you might want to encrypt the database connections between the Filr software and the Filr database. SSL-encrypted data between the Filr application and the database server imposes a performance penalty because of the increased overhead of encrypting and decrypting the retrieved data.

Support for this is highly dependent on the database client drivers and JDBC connector support, and on how you are configuring your database client and server certificates. You should check with your database vendor on how to set up SSL connections on both the client and server sides of the connection. You might need to modify the JDBC URL on an all-in-one (small) Filr deployment.

Filr's Rights Model

- Filr supports the following file systems:
  - OpenText NTFS
  - OpenText NSS
- Filr supports the following native file access protocols:
  - OpenText SMB/CIFS
  - OpenText NCP

- Many more storage subsystems and protocols are planned to be supported in future Filr releases.
- Instead of mapping the intricate and sophisticated rights models from each of the possibly many storage systems, Filr adopted a simplified rights model that maps to the rights models of many storage systems.

  The four roles in Filr:

  - **None:** No rights
  - **Viewer:** READ and VISIBILITY rights
  - **Editor:** READ, WRITE and VISIBILITY rights (WRITE includes modifying the contents of a file)
  - **Contributor:** READ, WRITE, CREATE, DELETE, RENAME, MOVE, COPY

  IMPORTANT: Folders only, not Files.

  Also, the rights apply only to folder contents, not to the folder itself.

- Filr attempts to mimic the visibility features of each file system.

  For example, if a user Tom has rights to a file in some sub-folders, Filr will ensure that Tom has VISIBILITY rights to all parent folders up to the top level of the Net Folder or My Files container.

Filr Security Defaults

- Client access is only allowed using REST over SSL (HTTPS), using unique self-signed certificates for each instance.
- All access through Filr is turned off by default.
- All Filr sharing is off by default.
- User provisioning can be done via LDAP over SSL (LDAPS).
- Filr supports replacing self-signed certificates with certificates that have been signed by a trusted certificate authority (CA).
- All security-related credentials and passwords are encrypted with unique 2048-bit keys.
- Communication between virtual machines is authenticated and encrypted.
- The supported TLS version is TLS v1.2.
- Perfect Forward Secrecy (PFS) is not supported with Filr.

Filr Site Security

- “Configuring a Proxy Server” on page 106
- “Setting the Filr Administrator Password” on page 106
- “XSS—Filr Is Secure” on page 106

Configuring a Proxy Server

Your OpenText Filr system should be located behind your firewall. If Filr users want to access the Filr site from outside your firewall, you should set up a proxy server outside your firewall to provide access. You can use NetIQ Access Manager to protect your Filr site, as described in Access Manager (NAM) and Filr Integration in the Installation, Deployment, and Upgrade Guide.

Setting the Filr Administrator Password

The Filr site is initially installed to allow administrator access by using the user name `admin` and the password `admin`. You are prompted to change the Filr administrator password the first time you log in to the Port 9443 Appliance Console. Thereafter, you can change the password as described in "Modifying Port 8443 Administrators" on page 15.

XSS—Filr Is Secure

Cross-site scripting (XSS) is a client-side computer attack that is aimed at web applications. Because XSS attacks can pose a major security threat, OpenText Filr contains a built-in security filter that protects against XSS vulnerabilities. This security filter is enabled by default.

The following sections describe the types of content that the security filter blocks from the Filr site, where exactly it blocks it from entering, and how you can disable the security filter or enable specific users to bypass the security filter.

Understanding What Content Is Not Permitted

By default, the XSS security filter in Filr is very strict, and does not allow users to add certain types of content. For example, the following content is not permitted:

- HTML that contains JavaScript
- Forms
- Frames
- Objects
- Applets

Understanding Where the Content Is Not Permitted

The type of content discussed in "Understanding What Content Is Not Permitted" on page 106 is filtered by Filr in the following areas:

- Text and HTML fields in entries and folders
- Uploaded HTML files

Listing All XSS Threats in Your System

Filr enables you to run an XSS report that lists XSS threats that are contained in your Filr system. For more information, see "XSS (Cross-Site Scripting) Report" in the *Administrative UI Reference*.

LDAP Synchronization Security

If your LDAP directory service requires a secure LDAP connection (LDAPS), you must configure OpenText Filr with a root certificate. The root certificate identifies the root certificate authority (CA) for your Filr site, which enables you to export a self-signed root certificate based on your eDirectory or Active Directory tree.

- "Exporting a Root Certificate" on page 107
- "Importing the Root Certificate into the Java Keystore" on page 108

Exporting a Root Certificate

- "Exporting a Root Certificate for eDirectory" on page 107
- "Exporting the Root Certificate for Active Directory" on page 107

Exporting a Root Certificate for eDirectory

1. Launch and log in to iManager for your tree.
2. Click **Directory Administration**.
3. Click **Modify Object**.
4. Click the magnifying glass icon to browse to and select the "*Tree Name* CA" object in the Security container of the eDirectory tree.
5. Click **OK**.
6. Click the **Certificates** tab.
7. Select the check box for the root certificate (this is not the certificate titled **Self Signed Certificate**, but rather the root certificate), then click **Validate**.
8. Select the check box for the root certificate, then click **Export**.
9. Deselect **Export private key**, then click **Next**.
10. Click **Save the exported certificate**, then select **File in binary DER format**.
11. Save the file to a location where it can be accessed later and with a file name that you can remember, such as `SelfSignCert.der`.
12. Click **Close** > **OK**.
13. Continue with "Importing the Root Certificate into the Java Keystore" on page 108.

Exporting the Root Certificate for Active Directory

1. On the Windows server, click **Start > Run**, then enter `mmc`.
2. In MMC, type `Ctrl+M`.

3 If the **Internet Information Services (IIS) Manager** snap-in is not installed on your Windows server, install it.

4 With IIS selected, click **Add**, then click **OK**.

5 In the left frame, click **Internet Information Services**, then click a Windows server that Filr can connect to for synchronizing users.

6 In the Filter list, scroll down to **Server Certificates** and double-click the icon.

7 In the **Actions** list, click **Create Self-Signed Certificate**.

8 Name the certificate with a name you can remember, such as the server name, then click **OK**.

9 Type Ctrl+M, select the **Certificates** plug-in, then click **Add**.

10 Select **Computer account**, then click **Next**.

11 Click **Finish**.

12 In the Snap-ins dialog, click **OK**.

13 In MMC, expand the **Certificates** plug-in, expand **Personal**, then click **Certificates**.

14 Right-click the certificate you created, select **All Tasks**, then click **Export...**.

15 In the Certificate Export wizard, click **Next**.

16 Ensure that **No, do not export the private key** is selected, then click **Next**.

17 Ensure that **DER encoded binary** is selected, then click **Next**.

18 Name the certificate, then click **Next**.

19 Click **Finish > OK**.

The certificate is saved in `C:\Users\Your-User-Name`.

20 Ensure that the certificate is accessible from your management browser.

21 Continue with "Importing the Root Certificate into the Java Keystore" on page 108.

Importing the Root Certificate into the Java Keystore

1 Navigate to the management console of your OpenText Appliance:

`https://ip_address:9443`

2 Under Appliance Configuration, click **Digital Certificates**.

3 In the **Key Store** drop-down list, select **JVM Certificates**.

4 Click **File** > **Import** > **Trusted Certificate**.

A `.der` certificate is required for the import to be successful.

5 Browse to and select the trusted root certificate that you want to import.

If you want to import multiple certificates, ensure that the certificate names are different for each certificate.

6 Do not make any changes to the **Alias** field. It is populated by default.

7 Click **OK**.

The certificate should now be displayed in the list of JVM certificates.

8 Restart Filr so that Tomcat rereads the updated Java keystore file.

You can restart the Filr service as described in "Shutting Down and Restarting the Appliance" in the *Administrative UI Reference*.

You are now ready to configure your Filr site for secure LDAP synchronization, as described in see "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

Mobile Device Data Security

App Security

On Android devices, the application itself and cached content are stored on internal storage. Internal storage on Android devices is always secure (unless the device has been rooted contrary to manufacturer recommendations). iOS devices do not have a concept of external storage, so data within the application is always secure.

File Security

Files that are downloaded or opened in third-party apps are by nature less secure than files that remain within the app. On Android devices, downloaded files are stored on the device's external storage.

It is up to you as the Filr administrator to decide whether to allow users to download files and open them in third-party applications, as described in "Mobile Device Access—Default Settings" in the *Administrative UI Reference*.

In order for downloaded files to remain secure, users should configure their devices to encrypt files. However, not all devices support file encryption. For information about how to enable file encryption on iOS and Android devices, see "Encrypting Downloaded Files" in the OpenText Filr 24.4 Mobile App Quick Start Help.

NESSUS Scans

The Filr development team runs NESSUS scans on all Filr code and fixes all reported problems.

This means that no unexpected ports are open and all open ports are protected according to industry standards.

Proxy User Security

- Filr uses administrator-created proxy users for communicating with LDAP providers and Net Folder servers.
- LDAP proxy users must have sufficient rights to read user and group objects from the desired contexts within LDAP providers.

- Net Folder proxy users must have full rights to the file server volumes or shares that contain the Net Folders.
- Proxy users' identities and credentials are secured, encrypted, and protected in Filr.

Security Scan Risk Reports

Running regular security scans on your network is critical to security administration. Security is a top priority for the Filr development team.

Occasionally, reputable security scanning software reports risks that the Filr team considers to be less significant than reported. The following are specific examples:

- **PHP as a Security Vulnerability:** Although in many cases the presence of PHP scripts is a legitimate concern, in the case of Filr, there is no PHP access without first authenticating through port 9443. Since access through port 9443 is secure by definition, Filr's PHP implementation is secure.
- **Diffie-Hellman 1024 Keys:** If you run a Nessus or equivalent security scan, you might receive a report of "Medium Risk" associated with Diffie-Hellman 1024-bit keys.

  The Filr team is aware of this and is considering increasing the key size in a future release. At this time, however, the team does not feel that this is a significant threat to Filr installations; breaking 1024-bit keys requires computing resources that only a nation-state would have at its disposal.

  If you are concerned or feel that your organization might be vulnerable to nation-state attacks, you can specify a stronger key through the Java security policy.

Sharing and Security

- Sharing is turned off by default.
- Sharing controls must be configured for files in the My Files area (includes users' personal storage and Home directories) and for Net Folders.
  - Sharing for files in the My Files area can be configured on a global level for all users or for individual users or groups.
  - Even if sharing is turned on for a given user or group, it must also be turned on at every Net Folder and for each user for files in their Home folder.
- My Files vs. Net Folders
  - **My Files:** Filr expects that you want users to be able to share their own files and folders.

    After sharing is enabled at the global level, users can share files and folders in their **My Files** area by default (includes users' personal storage and Home directories).
  - **Net Folders:** Filr expects that you do not want users sharing files in **Net Folders** unless they are specifically authorized to do so.

    Sharing is enabled at the global level for **Net Folders**. However, users cannot share the files in any Net Folder until you specifically turn sharing on for them at the Net Folder level (either individually or as part of a group).

    Folders within Net Folders cannot be shared.

- Sharing privileges are granular:
  - **Share Internal:** Users can share only with internal users (provisioned and administrator-created local users).
  - **Share External:** Users can share with external users. These are users that have been invited via an email notification to provision themselves as users in Filr based on their email address identity.
  - **Share public:** Users can share with the public. No authentication is required. The URL that is shared in public sharing can be forwarded, posted, emailed, tweeted, blogged, and disseminated in any way. Anyone who has that URL can access the shared information.

Setting Expiry for Shares with Never

The administrator can disable the **Allow Shares with Never** checkbox in the admin console to hide the Never option for the users. However, the files that are already shared with the **Never** expire option continue to be the same. If the administrator wants to set the expiry of already shared files to a pre-determined date for all the users, then accordingly the value for the expiry days has to be reset to a definite value in the database through the following procedure.

IMPORTANT:
- The administrator has to perform this procedure with caution as it directly updates the database and the changes cannot be undone.
- The administrator has to communicate out-of-band to the end users about this change that happened to their shares.

Prerequisites

- Stop the Filr service on all the Filr appliances in the Filr system. See Managing System Services in Administrative UI Reference.
- Take a backup of SS_ShareItem table.

Steps to update the Shares with Never

By default, **Allow Shares with Never** checkbox is enabled. If it is disabled, then:

- Based on the DB type, run query 1 given in the "Databases and the Queries" on page 112 to get the number of shares in a given zone.
- Run query 2 given in the "Databases and the Queries" on page 112to update the expiration value.

Post to update of Shares with Never

After the **Allow Shares with Never** checkbox is disabled,

- Run query 1 given in the "Databases and the Queries" on page 112 to validate if all the shares with Never are updated. (This is optional).
- Start Filr service on all Filr appliances in the Filr system. See Managing System Services in Administrative UI Reference.

Databases and the Queries

Following are the queries for validating and updating the shares with Never.

MSSQL

1. Check the number of Never shares in a given zone.

   ```
   SELECT COUNT(*) FROM SS_ShareItem WHERE endDate is NULL AND zoneId =
   (SELECT zoneId FROM SS_ZoneInfo WHERE zoneName = 'ZONE_NAME');
   ```

2. Update the Never shares with a default expiry value of 30 days.

   ```
   UPDATE SS_ShareItem SET endDate = GETDATE() + 30, daysToExpire = 30
   WHERE endDate is NULL AND zoneId = (SELECT zoneId FROM SS_ZoneInfo WHERE
   zoneName = 'ZONE_NAME');
   ```

Postgres

1. Check the number of Never shares in a given zone.

   ```
   SELECT COUNT(*) FROM public.ss_shareitem WHERE enddate is NULL AND
   zoneid = (SELECT zoneid FROM public.ss_zoneinfo where zonename =
   'ZONE_NAME');
   ```

2. Update the Never shares with a default expiry value of 30 days.

   ```
   UPDATE public.ss_shareitem SET enddate = current_date + 30,
   daystoexpire = 30 WHERE enddate is NULL AND zoneid = (SELECT zoneid FROM
   public.ss_zoneinfo where zonename = 'ZONE_NAME');
   ```

MARIA / MYSQL

1. Check the number of Never shares in a given zone.

   ```
   SELECT COUNT(*) FROM SS_ShareItem WHERE EndDate is NULL AND ZoneId =
   (SELECT ZoneId FROM SS_ZoneInfo WHERE ZoneName = 'ZONE_NAME');
   ```

2. Update the Never shares with a default expiration value of 30 days.

   ```
   UPDATE SS_ShareItem SET EndDate = DATE_ADD(NOW(), INTERVAL 30 DAY),
   DaysToExpire = 30 WHERE EndDate is NULL AND ZoneId = (SELECT ZoneId FROM
   SS_ZoneInfo WHERE ZoneName = 'ZONE_NAME');
   ```

NOTE: ◆ZONE_NAME has to be modified with Filr zone name (it is case-sensitive)

- Modify the number 30 to the required value to set the expiry of Never shares.

SSH Access for the Root User

By default, the root user is able to SSH to each appliance in the Filr system. You can disable this access on each appliance so that only the vaadmin user can SSH to the system.

See “Changing Passwords and SSH Access for vaadmin and root” in the *Administrative UI Reference*.

Universal Passwords (eDirectory) Security

If you use Universal Passwords and eDirectory LDAP is not NMAS-aware, users are able to log in to Filr with case-insensitive passwords even though the passwords are actually case sensitive. For example, they can log in with 'p@$wrd1!' when their password is 'P@$Wrd1!'

In addition to the security concern, when users log in with the incorrect case, they cannot upload any files.

To prevent users from logging in to Filr with an incorrect password, set eDirectory LDAP to be NMAS-aware by following the instructions in this TID (https://www.novell.com/support/kb/doc.php?id=3307424).

Users and Security

- Filr supports authentication using IDs and credentials that are validated with the LDAP identity source from which they were provisioned. The credentials from these LDAP providers are cached within Filr, but they are never really synchronized from the LDAP provider.
- Local users that are not provisioned via LDAP have their local credentials stored in Filr. These credentials are secured, encrypted, and protected.

WebDAV Support

WebDAV is a standard collaborative editing and file management protocol. OpenText Filr relies on the WebDAV protocol to edit files.

NOTE: Begining with Filr 5.0, by default WebDAV is disabled.

If your Filr users are running a supported client operating system other than Windows 7, editing files works without any problems. Windows 7 must be configured to use a self-signed certificate in order to work with WebDAV.

The information in this section assumes that your environment requires the use of Microsoft Office. If your environment does not require the use of Microsoft Office, see “Using OpenOffice as Your Document Editor for WebDAV” on page 115.

Planning Your WebDAV Implementation

- "Meeting Filr Certificate Requirements on Windows 7" on page 115
- "Using OpenOffice as Your Document Editor for WebDAV" on page 115

Understanding the Different Types of WebDAV Authentication Methods

OpenText Filr supports the following WebDAV authentication methods:

- **Basic Authentication:** The user name and password are encoded with the Base64 algorithm. The Base64-encoded string is unsafe if transmitted over HTTP, and therefore should be combined with SSL/TLS (HTTPS).

  For more information, see "WebDAV Authentication Configuration Settings" in the *Administrative UI Reference*.

  If you plan to use Basic authentication over a non-secure connection (HTTP), you need to modify the registry on each Windows 7 client workstation, as described in "Allowing Basic Authentication over an HTTP Connection on Windows 7" on page 118. The registry modification allows users to use WebDAV with Microsoft Office 2007. However, Microsoft Office 2010 is not supported.

- **Digest Authentication:** Applies MD5 cryptographic, one-way hashing with nonce values to a password before sending it over the network. This option is more safe than Basic Authentication when used over HTTP.

  For more information, see "WebDAV Authentication Configuration Settings" in the *Administrative UI Reference*.

Using WebDAV When Filr Is Fronted by NetIQ Access Manager

If your Filr system is fronted by NetIQ Access Manager, you must use the designated WebDAV authentication method:

Product Fronting Filr	Designated Authentication Method
NetIQ Access Manager	If your Filr installation is fronted by NetIQ Access Manager, as described in see "Access Manager (NAM) and Filr Integration" in the *Installation, Deployment, and Upgrade Guide*, you must use basic authentication for your WebDAV implementation. During the Filr appliance configuration, select **basic** when configuring WebDAV, as described in see "WebDAV Authentication Configuration Settings" in the *Administrative UI Reference*.

Meeting Filr Certificate Requirements on Windows 7

If you are using WebDAV functionality with Filr on Windows 7 with a secure (HTTPS) connection, ensure that the Filr server certificate requirements are met. If all of the requirements are not met, various Windows 7 services fail.

Filr server certificate requirements:

- You must use a trusted server certificate that is accepted by Windows 7. This server certificate must be signed by a trusted certificate authority (CA) such as VeriSign or Equifax.

  NOTE: You can use a self-signed certificate only if the certificate is imported into the Trusted Root Certification Authorities store on each Windows 7 client computer.

- The trusted server certificate must be issued to a name that exactly matches the domain name of the URL that you are using it for. This means that it must match the URL of your Filr site.
- The date range for the trusted server certificate must be valid. You cannot use an expired server certificate.
- The Windows 7 system must be adjusted to enable FIPS-compliant algorithms for encryption, hashing, and signing, unless you are using OpenText Access Manager 4.1.1 or later.
  1. From the Start menu, type **Local Security Policy**, then press Enter.
  2. Expand **Local Policies**, then select **Security Options**.
  3. Enable the following setting:

     System cryptography: Use FIPS compliant algorithms for encryption, hashing, and signing.

Using OpenOffice as Your Document Editor for WebDAV

If your environment does not require the use of Microsoft Office, you might consider migrating users to OpenOffice 3.1 or later as their document editor. Using OpenOffice 3.1 or later provides seamless integration between the WebDAV server and Filr, regardless of which operating system is being used.

Disabling WebDAV for Filr Site

If you do not want your Filr users to use the “Edit with Application” functionality, then disable WebDAV for the Filr site.

To disable WebDAV for a Filr site, perform the following steps or review the KB article (https://www.netiq.com/support/kb/doc.php?id=7021147).

1. In a text editor, open the `/opt/novell/filr/apache-tomcat/webapps/ssf/WEB-INF/classes/config/ssf-ext.properties` file.
2. Add the following setting:

   ```
   access.webdav.enable=false
   ```

Editing Files with “Edit with Application” Functionality

IMPORTANT: ◆Due to security concerns about the NPAPI cross platform plug-in architecture, Google’s Chrome browser version 45 and later and Microsoft’s Edge browser have discontinued support for the Java browser plug-in. Because Filr’s “Edit with Application” functionality relies on the plug-in, “Edit with Application” is no longer supported in these browsers.

OpenText anticipates that other browser vendors might also discontinue support for the Java browser plug-in in the near future.

- Users can use the “Edit with Application” functionality to edit a file only if WebDAV is enabled on the Filr site. If you do not want your Filr users to use the “Edit with Application” functionality, then disable WebDAV for the Filr site. See “Disabling WebDAV for Filr Site” on page 115.

If you are using a browser that still supports the NPAPI plug-in architecture, you can leverage “Edit with Application” functionality.

If you are using “Edit with Application” functionality over HTTP, no additional setup is required. However, if you are using “Edit with Application” functionality over HTTPS on Windows 7, ensure that you have met the Filr server certificate requirements, as described in “Meeting Filr Certificate Requirements on Windows 7” on page 115.

For more information about editing Filr documents in Microsoft Office with Windows 7, see “TID 7006717: Document editing failure with Windows 7 and Microsoft Office” in the Support Knowledgebase (http://www.novell.com/support/kb/).

Mapping a Filr Folder as a WebDAV Folder

Mapping a OpenText Filr folder as a WebDAV folder on the client computer allows access to Filr files from a WebDAV-compliant file navigation tool such as Windows Explorer or Nautilus.

When you map a Filr folder as a WebDAV folder on Windows 7, ensure that all Filr server certificate requirements are met, as described in “Meeting Filr Certificate Requirements on Windows 7” on page 115.

Configuring Windows to Use a Self-Signed Certificate with Filr

Configuring Windows to use a self-signed certificate with OpenText Filr is a two-step process. The first step is accomplished by the Filr administrator on the Filr server, and the second step is accomplished by each Filr user on his or her Windows workstation.

Administrator Configuration Responsibilities

1 Ensure that the following prerequisites are met in order to configure Windows to use a self-signed certificate with Filr:

- The self-signed server certificate must be issued to a name that exactly matches the domain name of the URL that you use it for. This means that it must match the URL of your Filr site.
- The date range for the trusted server certificate must be valid. You cannot use an expired server certificate.

User Configuration Responsibilities on Windows 7 Workstation

Each Windows 7 workstation user must import the self-signed certificate of the Filr server into the **Trusted Root Certification** Authorities store.

In a controlled corporate environment where the system administrator sets up each client workstation before use, this certificate can be preinstalled on each Windows 7 workstation. This can minimize end-user error and frustration.

1 Launch the Internet Explorer browser.

2 Click **Tools** > **Internet Options** to display the Internet Options dialog box.

3 Click the **Security** tab, then select **Trusted sites**.

4 Click **Sites**.

5 In the **Add this website to the zone** field, specify the URL of the Filr web site, then click **Add** > **Close**.

6 Browse to your Filr site.

7 (Conditional) If a prompt displays indicating that there is a problem with this web site's security certificate, complete the following steps:

7a Click **Continue to this website (not recommended)**.

7b Click **Certificate Error** at the right of the address bar, then click **View certificates**.

7c Click **Install Certificate**, then click **Next** in the wizard.

7d Select **Place all certificates in the following store**.

7e Click **Browse**, browse to and select **Trusted Root Certification Authorities**, then click **OK**.

7f In the wizard, click **Next**, then click **Finish**.

7g (Conditional) If a Security Warning dialog box displays, click **Yes**.

7h Click **OK** to close the Certificate Import Wizard.

7i Click **OK** to close the Certificate window.

7j Shut down all instances of the Internet Explorer browser, then restart the browser.

7k Browse to the Filr site. You should no longer see the certificate error message.

If you continue to see the certificate error message, the server's self-signed certificate might not match the site URL, as described in "Administrator Configuration Responsibilities" on page 117.

User Configuration Responsibilities on Windows 10 Workstation

Each Windows 10 workstation user must import the self-signed certificate of the Filr server into the **Trusted Root Certification** Authorities store.

In a controlled corporate environment where the system administrator sets up each client workstation before use, this certificate can be preinstalled on each Windows 10 workstation. This can minimize end-user error and frustration.

1. On the workstation, click **Start > Run**, then enter `mmc` and click **OK**.
2. In the Console, click **File > Add/Remove Snap-in**
3. In the Add or Remove Snap-ins window, select **Certificates** in left panel and click **Add** to move to right panel, then click **OK**.
4. Select **Computer account** and click **Next**.
5. Select the **Local computer** option, then click **Finish**.
6. Click **OK**.
7. To import trusted certificate, expand **Certificates**. Right-click **Personal > All tasks > Import**.
8. In the Certificate Import Wizard, click **Next**.
9. Click **Browse** to select the `self-signed_cert.crt` certificate file and click **Next**.

   For more about self-signed certificate, see "Exporting a Self-Signed Certificate" on page 94.
10. Select **Place all certificates in the following store** and click **Next**.
11. Click **Finish** to import the certificate.
12. Click **OK**.

    Browse to the Filr site. You should no longer see the certificate error message.

    If you continue to see the certificate error message, the server's self-signed certificate might not match the site URL, as described in "Administrator Configuration Responsibilities" on page 117.

Allowing Basic Authentication over an HTTP Connection on Windows 7

You can modify the Windows registry to allow Basic authentication to WebDAV over an HTTP connection. This registry change allows users to use Microsoft Office 2007 on the Windows 7 operating system, but does not allow them to use Microsoft Office 2010. Microsoft Office 2010 is not supported with Basic Authentication over an HTTP connection.

To modify the Windows registry:

1. On each Windows 7 workstation, click **Start** > **Run**, then specify `regedit` in the **Open** field.
2. Click **OK**.
3. In the Registry Editor window, navigate to the following registry entry:

   ```
   \HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlset\services\WebClient\Parameters\BasicAuthLevel
   ```

4. Change the value of this registry entry to 2.
5. Navigate to the Services interface, then restart the **WebClient** service.

XSS Security Filter

Cross-site scripting (XSS) is a client-side computer attack that is aimed at Web applications. Because XSS attacks can pose a major security threat, OpenText Filr contains a built-in security filter that protects against XSS vulnerabilities.

The XSS security filter protects the Filr site from XSS in two key areas:

- Text and HTML fields in entries and folders
- Uploaded HTML files

17 Storage Management

Backing Up Filr Data

Reliable backups are critical to the stability of your Open Text Filr site.

IMPORTANT: Do not use VMware snapshots as a backup method for Filr. Doing so creates problems when managing the system disk and inhibits your ability to update Filr in the future.

Locating Filr Data to Back Up

In order to keep adequate backups of your OpenText Filr data, you must back up the following types of data:

Filr File Repository (/vastorage)

Back up the following location on the Filr appliance. In a large deployment, back up this location on each Filr appliance in the cluster.

```
/vastorage/filr/filerepository/
```

Filr Database

Back up the following location on the Filr appliance (in a small deployment) or on the PostgreSQL database appliance (in a large deployment):

```
/vastorage/postgres/
```

Lucene Search Index

You can back up the following location on the Filr appliance (in a small deployment) or the Lucene search index appliance (in a large deployment):

```
/vastorage/search/
```

The Lucene search index does not need to be backed up because it can be rebuilt at any time. For information about how to rebuild the Lucene search index, see "Rebuilding the Lucene Index" on page 88.

Certificates

Back up the following location on the Filr appliance. In a large deployment, back up this location on each Filr appliance in the cluster.

```
/vastorage/conf/
```

Scheduling and Performing Backups

You do not need to bring your Opentext Filr site down in order to perform backups. You might want to back up the Filr file repository and the Filr database every night, perhaps doing a full backup once a week and incremental backups on other days. You can back up the Lucene index whenever it is convenient. You can always reindex the Filr site in order to re-create the Lucene index, but being able to restore content from a backup can save time in case of an outage.

Restoring Filr Data from Backup

If you need to restore your Open Text Filr site from a backup, restoring the same backup version for both the file repository and the database creates a Filr site that is consistent within itself but might be missing information that was added after the backups were created. If you lose the file repository but not the database, you can restore the backed-up file repository and keep the more current database, but some files are missing from the file repository.

Manually Restoring Individual Files and Folders

Files and folders from users' My Files area (personal storage) that were moved to the trash and were not permanently deleted can be restored from the trash. Unlike files from users' personal storage, files from Net Folders cannot be restored from the Filr trash.

The Filr administrator can view all items that were moved to the trash and restore them to their previous location, as described in "Restoring Files and Folders from the Trash" on page 126.

Individual Filr users can restore items from the trash.

Changing the CIFS /vashare Mount Point Login Credentials

If the user name and/or password changes for the CIFS share that you created for your Filr appliances, you can change credentials by doing the following:

1. At the Filr terminal prompt, log in as `root`.
2. Type the following command to navigate to the `base` directory:

   ```
   cd /etc/opt/novell/base
   ```
3. Display the first lines of the file:

   ```
   vi .smbcredentials
   ```
4. In the vi editor, modify the credentials as desired.

Configuring Home Folders for Display in the My Files Area

Most organizations using Open Enterprise Server (OES) or Windows will have user Home folders. If your organization has existing Home folders for users, the Net Folder Server will be discovered and created automatically when you provision users during the LDAP synchronization process. (For information about how to synchronize users via LDAP, see "LDAP Servers and Synchronization" in the *Administrative UI Reference*.) After the synchronization is complete, you are reminded to complete the Net Folder Server setup (by adding proxy credentials) when logging in to the Filr administration console.

If your organization does not currently leverage user Home folders on OES or Windows, you must first create a connection to your existing file system by creating a Net Folder Server. Then you can create a connection to specific volumes (on OES servers) and shares (on Windows servers) by creating a Net Folder.

Configuring Home Folders

Prerequisites

If you are using Active Directory, the Active Directory Home folder for users must be configured as if it were on a network folder, even if the Home folder is local to the server. It cannot be configured on a local path.

To change a user's Home folder to be configured as a network folder:

1. In the Active Directory Administrative Center, access a user's profile information.
2. In the **Profile** section, in the **Home folder** area, select **Connect**.

3 Select a drive in the drop-down list, then use the **To** field to specify the path to the local directory.

For example, `\\172.17.2.3\HOME\jchavez`

Configuring Home Folders

To configure Home Folders to be displayed in the My Files area:

1 Configure synchronization from your LDAP directory, as described in "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

2 Configure the Net Folder Server, as described in ."Creating and Managing Net Folder Servers" in the *Administrative UI Reference*

IMPORTANT: The Filr administrator must supply proper proxy account information for Net Folder Servers that contain home directories before any end user logs in to Filr. This is because Filr automatically synchronizes the metadata for each user's Home folder using the appropriate Net Folder Server with its associated proxy user credentials when the user logs in for the first time. See "How Filr Makes Files and Folders Visible to Users" in the *OpenText Filr 24.4: Understanding How Filr Works*.

If you do not supply the proxy account information before the user logs in, the Home directories' metadata is not synchronized correctly and the internal log files contain Null Pointer Exceptions.

Similarly, if the user Home folder is moved on the file system to a different volume or share or a different server, a new Net Folder Server is created and its metadata must be synchronized the first time the user logs in to Filr after the move.

---

3 (Optional) Allow users to have files and folders in personal storage in the My Files area in addition to the Home folder.

Whether users are allowed to have files in personal storage in the My Files area affects how the Home folder is displayed in the My Files area. For more information, see "Enabling Personal Storage for Users and Groups" in the *Administrative UI Reference*.

NOTE: A user's personal workspace (including the Home folder) is not displayed until the user has logged in to one of the Filr clients (web, mobile, or desktop) at least one time.

Editing Home Folders for Individual Users

After Home folders have been configured as described in "Configuring Home Folders" on page 123, you can edit the Home folder settings for individual users:

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://Filr_hostname:8080`
`https://Filr_hostname:8443`

Replace *Filr_hostname* with the hostname or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2. Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .
3. Under **Management**, click **Users**.
4. Click the drop-down arrow next to the user whose properties you want to view, then click **User Properties**.

   The User Properties page is displayed.
5. Click **Edit Home Folder...** . (This option is displayed only if a Home folder has been configured for the user, as described in "Configuring Home Folders" on page 123.)
6. Make any modifications to the configuration, synchronization schedule, and data synchronization settings.

   For information about each option that you can modify for Net Folders, see "Creating and Modifying Net Folders" in the *Administrative UI Reference*.
7. Click **OK** to save your changes.

Understanding How Home Folders Relates to Personal Storage

For information about how Home folders relate to Personal storage in Filr, see "Understanding My Files" in the *OpenText Filr 24.4: Understanding How Filr Works*.

Disk Usage Checks

Each hour, Filr checks the amount of disk space that is being used on the system drive for a given appliance. If disk usage reaches 90% capacity or greater on the system drive for any appliance, the Filr and FAMT services are stopped.

Following are the scripts that are used to monitor disk usage for each type of appliance:

- **Filr Appliance:** `/etc/cron.hourly/filr-diskcheck.sh`
- **Search Index Appliance:** `/etc/cron.hourly/lucene-diskcheck.sh`
- **Database Appliance:** `/etc/cron.hourly/postgresql-diskcheck.sh`

When the Filr and FAMT services are stopped because of low disk space, a message is logged to both the `/var/opt/novell/va_status` and `/var/log/messages` files.

After the services are stopped, you must clean up unneeded data or add additional disk space to the appliance before restarting the services.

Personal Storage (My Files) Management

As an administrator for Open Text Filr, you can perform management functions on all Filr folders. For information on how to perform general folder management functions, such as creating a folder, deleting a folder, moving a folder, and so forth.

You can perform additional folder management tasks as the Filr administrator:

Managing Workspace Disk Space Usage

Disk space usage is managed on a folder basis as well as on an individual user or group basis.

For more information, see "Managing and Restricting Filr-Based Storage" in the *Administrative UI Reference*.

Restoring Files and Folders from the Trash

You can view all items that have been sent to the trash and restore them to their previous location.

IMPORTANT: Only items from a user's My Files area (Personal Storage) that were moved to the trash are able to be restored from the trash. Items that were permanently deleted from a user's My Files area cannot be restored. Items deleted from a Net Folder are never sent to the trash, and cannot be restored.

---

1. Log in to the Filr site as the Filr administrator.
   - **1a** Launch a web browser.
   - **1b** Specify one of the following URLs, depending on whether you are using a secure SSL connection:

     `http://Filr_hostname:8080`
     `https://Filr_hostname:8443`

     Replace *`Filr_hostname`* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

     Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.
2. Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .
3. Under **Management**, click **Users**.

   The Manage Users page is displayed.

4 Click the **Trash** icon , located in the upper-right corner of the page.

5 Select the items that you want to restore, then click **Restore**.

Managing User Data Quotas

Each user's data quota establishes how much disk space the user's files can occupy in the Filr site. Folders that do not contain files do not count toward a user's data quota.

By default, users are not limited in the disk space that their files occupy in the Filr site. As the Filr administrator, you can decide when limiting users' disk space usage becomes appropriate.

Planning User Data Quotas

Understanding User Data Quota Priority

Because users can have multiple data quotas assigned to them (either individually, through group membership, or through the site-wide default), Filr prioritizes the existing data quotas and uses only one for each individual Filr user. If users have multiple data quotas that pertain to them, the priority level is as follows:

1. **User Quota:** A quota that is set for an individual user overrides the site-wide default quota and any other quotas that are associated with any groups where the user is a member.
2. **Group Quota:** A quota that is set for an individual group overrides the site-wide default quota. This pertains to all users who are members of that group.

   When a user is a member of multiple groups that have data quotas associated with them, the user is given the highest data quota. For example, if a Filr user is a member of Group A, Group B, and Group C, and the data quotas for each of these groups is 10, 20, and 30, the Filr user's data quota is 30.
3. **Site-Wide Default:** The site-wide default quota is used for all Filr users who have not been assigned individual quotas, and who are not associated with any groups where a quota has been set.

Selecting the Default User Data Quota for All Users

When you enable the data quota feature, the initial default data quota is 100 MB. This means that each Filr user can upload 100 MB of files and attachments to the Filr site.

When you select the default data quota for your Filr site, consider the size of your Filr site, the number of Filr users, the amount of available disk space, and so on. You can override the default data quota on a per-user and per-group basis, as described in "Setting User Data Quotas" on page 128.

When a user adds enough files and attachments to exceed the data quota, the user can no longer attach files or create versions until existing files have been deleted and purged to free up storage space.

For information about purging deleted files to make storage space available, see "Permanently Deleting Files from the Trash" on page 134.

For information about which data quota is used when users have multiple data quotas that pertain to them, see "Understanding User Data Quota Priority" on page 127.

Selecting an Appropriate High-Water Mark

The high-water mark is the percentage of the data quota that must be reached before the user is made aware that he or she is approaching the data quota (a warning message is displayed on the user's profile page). The default high-water mark is 90% of a user's data quota.

This high-water mark also applies to data quotas that are set on workspaces and folders.

Determining Data Quotas for Specific Users

If there is a user in your Filr site who needs either a higher or lower data quota than the site-wide default, you can assign that user an individual user data quota.

When you set data quotas for specific users, remember that individual user data quotas override the default user data quota, as well as quotas that are assigned to any groups where the user is a member, as described in "Understanding User Data Quota Priority" on page 127.

Determining Data Quotas for Specific Groups

When you set data quotas for specific groups, remember that group data quotas override the default site-wide data quota, but do not override individual user quotas, as described in "Understanding User Data Quota Priority" on page 127.

Setting User Data Quotas

You can set data quotas for the entire Filr site, for individual groups, and for individual users.

Setting a Default Data Quota

Path: Port 8443 Filr Administration Console

When you set a default data quota, the quota applies to all Filr users who have not been assigned individual quotas, and who are not associated with any groups where a quota has been set.

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

   `http://Filr_hostname:8080`
   `https://Filr_hostname:8443`

   Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

   Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Personal Storage**.

4 Select **Enable User Data Quotas**.

5 Set the **Default User Data Quota Size** and **Default High-Water Mark** options as determined in "Planning User Data Quotas" on page 127.

6 Click **Apply** > **Close** to save the user data quota settings.

Setting Data Quotas for Individual Groups

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

   `http://Filr_hostname:8080`
   `https://Filr_hostname:8443`

   Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

   Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Personal Storage Quotas**.

4 Select **Enable User Data Quotas**.

5 Click **Add a Group**.

6 In the **Group** field, start typing the name of the group for which you want to set a quota, then click the group name when it appears in the drop-down list.

Repeat this process to add additional groups for which you want to assign the same data quota.

7 In the **Quota** field, specify the disk space limit for the group.

8 Click **OK**, then click **Apply** > **Close** to save the user data quota settings.

Setting Data Quotas for Individual Users

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

`http://`*`Filr_hostname`*`:8080`
`https://`*`Filr_hostname`*`:8443`

Replace *`Filr_hostname`* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Personal Storage Quotas**.

4 Select **Enable User Data Quotas**.

5 Click **Add a User**.

6 In the **User** field, start typing the name of the user for which you want to set a quota, then click the user's name when it appears in the drop-down list.

Repeat this process to add additional users for which you want to assign the same data quota.

7 In the **Quota** field, specify the disk space limit for the user.

8 Click **OK**, then click **Apply** > **Close** to save the user data quota settings.

Modifying User Data Quotas

Filr enables you to modify data quotas that you have previously set. You can modify data quotas for your entire Filr site, or modify data quotas for individual groups and users.

- "Modifying User Data Quotas for the Entire Filr Site" on page 130
- "Modifying User Data Quotas for Individual Groups and Users" on page 131

Modifying User Data Quotas for the Entire Filr Site

Filr enables you to easily modify the site-wide default user data quota.

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

```
http://Filr_hostname:8080
https://Filr_hostname:8443
```

Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon  .

3 Under **Management**, click **Personal Storage Quotas**.

4 In the **Default User Data Quota Size** field, delete the existing quota and specify the new quota.

You can also modify the default high-water mark in the **Default High-Water Mark** field. For more information about the high-water mark, see "Selecting an Appropriate High-Water Mark" on page 128.

5 Click **Apply** > **Close** to save the user data quota settings.

Modifying User Data Quotas for Individual Groups and Users

Filr enables you to easily modify individual group and user data quota settings that you have previously set.

1 Log in to the Filr site as the Filr administrator.

1a Launch a web browser.

1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

```
http://Filr_hostname:8080
https://Filr_hostname:8443
```

Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon  .

3 Under **Management**, click **Personal Storage Quotas**.

4 In the **Group Quotas** table or **User Quotas** table, click the group name or user name that represents the group or user whose quota you want to modify.

5 In the **Quota** field, delete the existing quota and specify a new quota.

6 Click **OK**, then click **Apply** > **Close** to save the user data quota settings.

Removing User Data Quotas

Filr enables you to disable data quotas that you have previously set. You can disable data quotas for your entire Filr site, or remove data quotas from individual groups and users.

Disabling User Data Quotas for the Entire Filr Site

If you decide that you no longer need to impose limits on the amount of data that users are permitted to upload into the Filr site, you can disable the data quota feature. Disabling the data quota feature enables all Filr users to upload as much data to the Filr site as they want.

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

   ```
   http://Filr_hostname:8080
   https://Filr_hostname:8443
   ```

   Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

   Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon  .

3 Under **Management**, click **Personal Storage Quotas**.

   The Data Quotas and File Upload Limits page is displayed.

4 Deselect **Enable User Data Quotas**, then click **Apply**.

   Data quotas are no longer enabled for your Filr site.

Removing User Data Quotas from Individual Groups and Users

You can remove data quotas that you have previously set for individual groups and users. Users are held to the site-wide data quota default setting if they do not have an individual quota defined for them and they are not members of any groups where a group quota has been assigned.

1 Log in to the Filr site as the Filr administrator.

   1a Launch a web browser.

   1b Specify one of the following URLs, depending on whether you are using a secure SSL connection:

   ```
   http://Filr_hostname:8080
   https://Filr_hostname:8443
   ```

Replace *Filr_hostname* with the host name or fully qualified domain name of the Filr server that you have set up in DNS.

Depending on how you have configured your Filr system, you might not be required to enter the port number in the URL. If you are using NetIQ Access Manager, the Filr login screen is not used.

2 Click the **admin** link in the upper-right corner of the page, then click the **Administration Console** icon .

3 Under **Management**, click **Personal Storage Quotas**.

4 In the **Group Quotas** table or **User Quotas** table, select the check box next to the group or user whose quota you want to remove.

5 Click **Delete**, then click **Apply** > **Close** to save the user data quota settings.

Repairing a User's Data Quota

It is possible for a user's data quota calculation to become inaccurate if errors occur during processing that is related to a user's file handling. If this happens and a user's quota calculation is inaccurate, you can repair the data quota:

- "Repairing a User's Quota When an Individual Data Quota Is Set" on page 133
- "Repairing a User's Quota When a Default or Group Data Quota Is Set" on page 133

Repairing a User's Quota When an Individual Data Quota Is Set

You can repair a user's data quota when an individual data quota is set on the user.

1 Remove the data quota that is set on the user, as described in "Removing User Data Quotas from Individual Groups and Users" on page 132.

2 Set the data quota for the user again, as described in "Setting Data Quotas for Individual Users" on page 130.

Repairing a User's Quota When a Default or Group Data Quota Is Set

You can repair a user's data quota when a default data quota is set, or when a group data quota is set and the user is a member of the group.

1 Set an individual data quota for the affected user, as described in "Setting Data Quotas for Individual Users" on page 130.

2 Remove the individual data quota that you just set, as described in "Removing User Data Quotas from Individual Groups and Users" on page 132.

Managing Your Personal Data Quota

NOTE: As a Filr administrator, you are also held to a data quota if quotas are enabled. If you want to assign yourself a larger quota than the site-wide default, you can add an individual quota for yourself, as described in "Setting Data Quotas for Individual Users" on page 130.

All Filr users need to manage their personal data quotas. When you have a limited allocation of disk space, you need to be aware of the amount of disk space that you have available and how to make more disk space available as you approach your quota.

Monitoring User Data Quotas

You can monitor which users in the Filr site have exceeded or are close to exceeding their data quotas by generating the following reports, as described in "Generating Filr-Monitoring Reports" in the *Administrative UI Reference*:

- Data Quota Exceeded Report
- Data Quota Highwater Exceeded Report

Permanently Deleting Files from the Trash

You might want to permanently delete files in order to make space available within a data quota or to recover disk space.

- "Permanently Deleting Files to Create Data Quota Space" on page 134
- "Permanently Deleting Files to Recover Disk Space" on page 134

Permanently Deleting Files to Create Data Quota Space

When users delete files or file versions, the disk space occupied by the deleted files and versions counts against the data quotas until users permanently delete the files and versions.

As a Filr administrator, you can permanently delete files and versions anywhere on the Filr site in order to make space available within a user's data quota.

Permanently Deleting Files to Recover Disk Space

Whether disk space is recovered after you permanently delete files using the Filr interface differs depending on whether you are deleting files in Net Folders or files from a user's personal storage in the My Files area:

- "Permanently Deleting Files in Net Folders" on page 134
- "Permanently Deleting Files in Personal Storage" on page 134

Permanently Deleting Files in Net Folders

If you want to recover disk space on your file system, permanently deleting files in Net Folders using the Filr interface should also delete the files from the underlying file system, depending on the underlying implementation of the storage.

Permanently Deleting Files in Personal Storage

If you want to recover disk space on the Filr system, you must permanently delete the files from Filr.

18 Troubleshooting

Configuring Filr Server Fails When Using NetApp ONTAP version 8.3.2 As a CIFS Vashare

Problem: If you use NetApp ONTAP version 8.3.2 as a CIFS vashare, then you might encounter a HTTP 500 error when you configure the Filr server for the first time.

To workaround this issue, enter the PostgreSQL and Search IP addresses again to reconfigure the Filr Server.

eDirectory Users Can Log In But Cannot Upload Files

See ““Universal Passwords (eDirectory) Security” on page 113.”

Email Notification URLs Are Not Working

The network and reverse proxy settings that you configure after installing Filr affect how email notification URLs are constructed. If you have configured port redirection and have failed to verify the reverse proxy ports, email notifications from Filr can be constructed in such a way that users who click on the email notification URL are not able to access the Filr site.

When port redirection is enabled (as described in "Using the Network (Port Redirection) dialog" in the *Administrative UI Reference*.), ensure that the reverse proxy ports are set to 80 for the HTTP port and to 443 for the secure HTTP port. To change the reverse proxy ports, see "Reverse Proxy Configuration Settings" in the *Administrative UI Reference*.

NetApp Net Folder Server Test Connection Fails

Problem: Clicking the **Test Connection** option when creating a Net Folder Server for a NetApp device causes the following error to be logged in `/var/opt/novell/filr/log/smbclient.log`.: `Could not retrieve case sensitivity flag: NT_STATUS_REVISION MISMATCH`.

NetApp ONTAP versions earlier than 8.3.*x* have only limited support for the SMB v2 protocol. Nevertheless, NetApp sets the default protocol level to SMB v2.

If your NetApp devices are running an ONTAP version earlier than 8.3.*x*, you must set the protocol level to SMB v1 on the NetApp devices. Filr will then use SMB v1 for connecting and communicating with the devices.

Online Update Service Registration Fails With an Error Message

Problem: While registering the online update service, if you do not specify a value for the **Namespace** path when staging is enabled on the SMT server, the registration fails with a `"An error occurred while communicating with the server"` message.

On refreshing the page, the update service registration with the SMT server message is displayed on the page. However, no patches are displayed on the page even if they are available. Clicking the **Deregister** option in the Registration Status dialog fails to deregister the online update service.

To correctly register the online update service, perform the following steps:

1. In the SSH terminal, run the following command to deregister the existing incorrect registration:

   ```
   zypper rs SMT-http_<HOSTNAME_OF_SMT_SERVER>
   ```

2. Log in to the Filr Appliance Console and register the online update service again.

Previously Available Files and Folders Disappear

Problem: Filr users (desktop, mobile, and web) are suddenly unable to see files and folders that were previously visible.

This happens when the metadata index no longer contains information for the objects that have disappeared, either because the Search server goes down, or because the index itself changes (for example, during a rebuild).

To understand how the index affects object availability and how to prevent file/folder disappearance, see "Filr Search Appliance—Accessibility, and Searchability" in the *OpenText Filr 24.4: Understanding How Filr Works*.

Unable to Connect to the Filr Site (HTTP 500 Error)

Problem: Trying to connect to Filr yields an HTTP 500 error.

To fix this problem, ensure that your DNS server is properly configured and that your Filr server is directed at the proper DNS server.

For information about how to configure Filr to point to your DNS server, see "Changing Network Settings" in the *Administrative UI Reference*.

Using VACONFIG to Modify Network Information

The easiest way to update the configuration information for the appliance (such as the IP address, host name, and so forth) after Filr is already installed is to use the VACONFIG utility from the appliance command prompt:

1. In the vSphere client, select the Filr appliance, then click the **Console** tab.
2. From the command prompt, log in to the appliance.
3. Type `vaconfig`, then press Enter.
4. In the VACONFIG utility, select **Configure**, then press Enter.
5. Press the Tab key until the IP address is selected, then modify the IP address as desired.
6. Select **Next**, then press Enter.

Unable to Access Data on a DFS Junction In an OES Server Cluster Environment

Problem: When the Filr server encounters issue accessing data on a DFS junction in an OES cluster environment, the following error displays:

```
ERROR:ConvertXplatErrToFAMTErr xplat status: 0xc7e90503, sending generic
error
```

To fix this problem, ensure that the VLDB service is up and running. For more information about the VLDB service, see OES Documentation.

Unable to login to Filr WebClient.

Problem: The user is unable to log in to the Filr web client. An error message "Filr requires that you use the domain name to log in" is displayed.

Following are the possible reasons for this issue:

- Incorrect configuration in firewall/proxy
- HTTP Only flag blocked at the firewall.
- Cookie mangling is enabled in NAM (Novell Access Manager)

Home folder is not displayed for a user at first user login.

problem: On the first login, the Home folder is not displayed if the NetFolders have [Public] permissions.

To fix this problem, if needed remove the [Public] permission on the NSS volume.

Unable to download multiple files

Problem: Unable to download multiple files. The files are expected to be zipped and downloaded. Instead of zip file only the first file is downloaded.

If you using a Mac with Safari, zip files will automatically be unzipped. To avoid this, do the following:

1. Open Safari.
2. Click Preferences.
3. Under the General tab, uncheck the ‘Open safe files after downloading’ option.
4. Download the file again.

Log Files

The following are the log files and it’s paths:

Table 18-1 *Log Files for Filr Appliance*

Appliance	Log Files	File Path
Filr Appliance		
	`catalina.out`	`/var/opt/novell/tomcat-filr/logs/catalina.out`
	`appserver.log`	`var/opt/novell/tomcat-filr/logs/appserver.log`
	`datamodel.stderrout.out`	`/var/opt/novell/datamodel-service/logs/datamodel.stderrout.out`
	`famtd.log`	`/var/opt/novell/filr/log/famtd.log`

Appliance	Log Files	File Path
Search Appliance	indexserver.stderrout.out	`/var/opt/novell/search/indexserver/logs/indexserver.stderrout.out`
Content Editor	loolwsd.log	`/var/opt/novell/contenteditor/logs/loolwsd.log`

Table 18-2 *Log Files Client*

Filr Client for Windows	filr.log	`C:\Users\username\AppData\Local\Novell\Filr`. The AppData folder is hidden by default. To access the folder, type the following in the Windows Explorer address bar:`%LOCALAPPDATA%\Novell\Filr`
Filr Client for Mac on FUSE	`filr.log`	`/Users/username/Library/Logs/Novell/Filr` The Library folder is hidden. To access the folder, open Finder and press `Shift-Cmd-G`. Then, type `~/Library/Logs/Novell/Filr`.

Browsers cannot render some of the content of large spreadsheets.

The **Spreadsheet Preview** option limits the number of rows, columns, and sheets so that browsers cannot render some of the content of large spreadsheets

1. Add `keyview.html.preview.spreadsheet.crop=false` in `/opt/ novell/filr/apache-tomcat/webapps/ssf/WEB-INF/classes/config/ssf-ext.properties`.
2. Restart `filr.service`.

How to add a Filr Node when encryption is enabled between Filr and Search Server

Perform the following steps to add a Filr Node when encryption is enabled between Filr and Search Server:

1. Deploy Filr 5.0 appliance
2. Configure Search server via 9443 page
3. As the Filr version is 5.0 and encryption is enabled in the Search server the access to search appliance fails. User will not be seeing their files/folders
4. Upgrade Filr 5.0 to Filr 24.4
5. To encrypt the communication, see “Encrypting Communication between Filr Server and Search Appliance” on page 97.

How to add a Search Node when encryption is enabled between Filr and Search Server

Perform the following steps to add a Search Node when encryption is enabled between Filr and Search Server:

1. Deploy Search 5.0 appliance
2. Upgrade Search 5.0 to Search 24.4
3. To encrypt the communication, see “Encrypting Communication between Filr Server and Search Appliance” on page 97
4. Now add this node via Filr 9443 page. For more information on how to add multiple Search Appliances to Filr, see Managing Filrsearch Configuration Settings.

19 User and Group Maintenance

User accounts change over time and need periodic maintenance.

Adding and Creating Filr Users and Groups

You can add new users to your Filr site in any of the following ways:

- **LDAP:** Synchronize newly-added users from an LDAP directory, as described in "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

  NOTE: When a new user is added to LDAP sources and the same OU is available in Filr, then the user can access Filr without LDAP syn.

- **Local:** Add local users and groups, as described in Managing Users and Managing Groups in the Administrative UI Reference.
- **Profile Files:** Import XML profile files to add and manage local users and groups, as described in "Import Profiles... button" in the *Administrative UI Reference*.

Creating Groups of Users

This section describes how to create groups within Filr. You can also synchronize groups of users from your LDAP directory to your Open Text Filr site, as described in "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

You can create either static or dynamic groups.

Creating Static Groups

Path: Port 8443 Filr Administration Console > **Management > Groups > Add > Group Membership Is Statis > Edit Group Membership**

For help specifying group membership, see "Static Membership for Group dialog" in the *Administrative UI Reference*.

Static groups contain only the users and groups that you specifically select as group members.

Static groups exist in Filr and can contain any users and groups in Filr, including LDAP-synchronized users and groups.

Creating Dynamic Groups

Groups based on LDAP queries are dynamic because they can be configured to have their membership updated when the information in the LDAP directory changes.

Creating groups based on LDAP queries is a quick way to create Filr groups that consist of users who match specific criteria. You can create dynamic groups as described in the following sections:

Creating Dynamic Groups within LDAP

Depending on the LDAP directory that you are using, you might be able to create dynamic groups within your LDAP directory. For example, you can create dynamic group objects in eDirectory with NetIQ iManager (for more information, see the iManager Documentation (https://www.netiq.com/documentation/imanager27/)).

Dynamic groups created within LDAP are stored in your LDAP directory and can then be synchronized to Filr, as described in "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

Creating Dynamic Groups within Filr

Advantages of Filr Dynamic Groups:

- Allows Port 8443 admins, including Direct administrators, to control group membership without having direct access to the group object in the LDAP user store.
- Provides dynamic group functionality whether or not your LDAP directory supports dynamic groups.
- Filr-based dynamic groups don't synchronize to applications other than Filr that are leveraging your LDAP directory.

Path: Port 8443 Filr Administration Console > **Management > Groups > Add > Group Membership Is Dynamic > Edit Group Membership**

For help specifying group membership, see "Edit Dynamic Membership dialog" in the *Administrative UI Reference*.

Deleting Filr Users

When users no longer need access to your Open Text Filr site, you have two options to revoke their access to the Filr site: disabling or deleting their Filr user accounts.

Consider Disabling User Accounts Instead

Open Text recommends that you disable user accounts rather than deleting them, especially if there is a chance that a users might need Filr access in the future.

When you delete a user account, the deleted account can never be re-activated. Also, all files and folders that the user shared with other users are no longer accessible.

When you disable a user account, all the active shares from that user are still accessible. Also, the Filr administrator can use the Admin Console to edit the Filr share rights set on these shares. For more information about editing the shared settings, see "Managing Shared Items" in the *Administrative UI Reference*.

For information on how to disable a user, see "User and Group Maintenance" on page 141.

Deleting User Objects and Workspaces

Path: Port 8443 Filr Administration Console > **Management** > **Users** > ***select the users to delete*** > **Delete**

Important Terminology

- **User Object:** This represents the user in the Filr system and contains:
  - The user's profile information, including the profile picture and other information the user has entered.
  - Access controls to Personal Storage, individually assigned Quotas, and individually assigned Sharing rights.

  If you delete a user object, the above information is permanently deleted from Filr and the user can no longer access Filr.
- **User Workspace:** This is a physical location in the Filr system where the following is stored:
  - Personal Storage, including any files and folders that were shared with other users.

  If you move the workspace to trash, it can be recovered, as described in "Recovering User Workspaces from the Trash" on page 146.

  If you delete a user's workspace, the Personal Storage associated with the users is permanently deleted and cannot be recovered.

  However, the User Object still exists, and the user still has access to Filr, the user's assigned Net Folders, items shared with the user, comments, and so on.

Options

When you choose to delete users, you can select from the following options before confirming the action.

Table 19-1 *Available Options when Deleting Users*

Users Have Home Directories	Options Available and Actions Taken
◆ Yes	◆ **Delete all selected user objects:** 1. Deletes the User Objects Cannot be restored. However, if the user is an LDAP user, a synchronization will create a new user account. 2. Deletes the User Workspaces (Personal Storage). Personal Storage cannot be restored.
◆ No	◆ **Move User Workspaces to Trash:** 1. Moves User Workspaces (Personal Storage) to the trash. Personal Storage can be restored. 2. Does not delete the User Objects. 3. You can restore the user workspaces from the trash, as described in "Recovering User Workspaces from the Trash" on page 146. ◆ **Delete User Workspaces:** 1. Deletes User Workspaces (Personal Storage). Personal Storage cannot be restored. 2. Does not delete the User objects. 3. If the user logs back in, a New User Workspace is created as if the user is new to the Filr system. ◆ **Delete User Objects:** 1. Also deletes the User Objects. Users no longer exist on the system.

Users Have Home Directories	Options Available and Actions Taken
◆ Mixed (some yes, some no)	◆ **Move local user workspaces with only Personal Storage to the trash and delete others:** 1. Moves User Workspaces that do not reference Home folders to the trash. You can restore user workspaces that were moved to the trash, as described in "Recovering User Workspaces from the Trash" on page 146. 2. Deletes user workspaces that reference Home folders. 3. Does not delete the user objects unless sub-option is selected. ◆ **Delete user objects whose workspaces are deleted:** 1. Also deletes the user objects that are associated with the user workspaces that are being deleted. 2. The users no longer exist in the Filr system and cannot log in. 3. Neither the user objects nor the user workspaces can be restored. ◆ **Delete all user workspaces:** 1. Deletes all user workspaces, regardless of whether user workspaces contain a Home folder. 2. Does not delete the user objects. 3. The user workspaces cannot be restored. 4. If the user logs back in, a new workspace is created as if the user is new to the Filr system. ◆ **Delete user objects:** 1. Deletes the user objects and the user workspaces from the Filr system. 2. The users no longer exist in the Filr system and cannot log in. 3. Neither the user objects nor the user workspaces can be restored.

Deleting an LDAP User

If you delete user accounts that were created by the LDAP synchronization process without following the instructions in this section, new users with the same name are created the next time the users log in or the next time the LDAP synchronization occurs.

User accounts can be synchronized to the Filr site with an LDAP directory. Although you can delete Filr user accounts, Open Text recommends that you disable them, as described in "User and Group Maintenance" on page 141.

If you decide to delete Filr user accounts, it is safer to manually delete than to delete them through the LDAP synchronization process. Because user accounts that are deleted cannot be recovered, ensure that you know exactly which users you are deleting; the only way to be sure is to manually delete them.

Manually Deleting User Accounts That Are Being Synchronized through LDAP

The following method is preferred for deleting user accounts from the Filr site if the accounts are being synchronized from an LDAP directory:

1. In your LDAP directory, modify the User objects that you want to delete from the Filr site so that the User objects no longer match the LDAP synchronization criteria that you previously set.

   For information about setting LDAP synchronization criteria, see "LDAP Servers and Synchronization" in the *Administrative UI Reference*.
2. In Filr, manually delete the user accounts, as described in "Deleting User Objects and Workspaces" on page 143.

Having LDAP Automatically Delete User Accounts Is Not Recommended

---

CAUTION: Open Text recommends against having the LDAP synchronization process automatically delete Filr users and workspaces because it might result in unwanted deletion of users!

For example, if the LDAP context is entered incorrectly and none of the users match the incorrect LDAP context, all of the users are permanently deleted.

For more information about configuring LDAP synchronization to automatically delete Filr users and workspaces, see "For user accounts provisioned from LDAP that are no longer in LDAP sub-section" in the *Administrative UI Reference*.

Recovering User Workspaces from the Trash

Path: Port 8443 Filr Administration ConsoleManagement > Users > Trash Can icon (upper right) > *select a workspace to restore* > select Restore

If you have deleted user workspaces, you can restore the workspaces from the trash.

NOTE: It is not possible to restore user objects that have been deleted.

Disabling Filr User Accounts

Path: Port 8443 Filr Administration Console

Open Text recommends that you disable user accounts instead of deleting them. When you delete a user account, the account can never be re-activated. If there is the slightest possibility that the user might return to your Filr site, disable the user account rather than delete it. Also, all files and folders that the user shared with other users are no longer accessible.

Disabled accounts do not count as licensed users. When you disable a user account, all the active shares from that user are still accessible. Also, the Filr administrator can use the Admin Console to edit the Filr share rights set on these shares. For more information about editing the shared settings, see Managing Shared Items in the *Administrative UI Reference*.

The way to disable a user account differs depending on whether the user was created in Filr or in an LDAP directory and then synchronized to Filr.

Disabling or Re-enabling a Local User Account

Path: Port 8443 Filr Administration ConsoleManagement > Users > *select user accounts* > More > Disable or Enable

Disabling an LDAP User Account

If users are being synchronized from an LDAP directory, you must disable the accounts directly from the LDAP directory. User accounts that are disabled in the LDAP directory are disabled in Filr at the next LDAP synchronization.

For more information about LDAP synchronization in Filr, see "LDAP Servers and Synchronization" in the *Administrative UI Reference*.

Renaming a Filr User

Open Text Filr users are identified by

- **User Names:** Identify personal profiles—can be changed.
- **User IDs:** Used for logging in—cannot be changed.

The way you change a user's name depends on how the user was created.

Renaming a Filr User from LDAP

1. In the LDAP directory, change the user's first, middle, and/or last name.

   The name changes with the next LDAP synchronization.

Renaming a Local Filr User

Path: Port 8443 Filr Administration Console > Management > Users > *select a user name* > Profile > *Change the First Name and/or Last Name*

User Maintenance Task Links

Path: Port 8443 Filr Administration Console > Management > Users

The following are links to specific UI fields or dialogs where the tasks indicated are performed. All links point to rows within UI help tables in the *Administrative UI Reference*. See the Path statements before each table for UI navigation help.

With Multiple Users Selected

- Desktop Application Settings...—Set

- Direct Admin Rights—Add/Remove
- Direct Admin Status—View
- Email Addresses—View
- File Downloading—Enable/Disable/Use Default Settings
- Mobile Application Settings...—Set
- Personal Storage—Restore from Trash
- Personal Storage Settings—Enable/Disable/Use Default Settings
- Personal Storage Sharing Rights—Set
- Registered Devices—View
- User Accounts—Enable/Disable
- User IDs—View
- User List—Filter with a text string
- User List—Filter by a user type
- User Type—View
- Web Access—Enable/Disable/Use Default Settings

With a Single User Selected

- Home Folder Settings (Search Indexing, Sync/JITS, Name)—Set
- Personal Storage—Enable/Disable
- Net Folders Sharing Settings—Set
- Personal Storage Sharing Settings—Set
- Profile—View
- Quota—Set

Group Maintenance Task Links

Path: Port 8443 Filr Administration Console > **Management > Groups**

The following are links to specific UI fields or dialogs where the tasks indicated are performed. All links point to rows within UI help tables in the *Administrative UI Reference*. See the Path statements before each table for UI navigation help.

With Multiple Groups Selected

- Desktop Application Settings...—Set
- Direct Admin Rights—Add/Remove
- Direct Admin Status—View
- File Downloading—Enable/Disable/Use Default Settings
- Group List—Filter with a text string
- Group Type—View

- Mobile Application Settings...—Set
- Personal Storage Settings—Enable/Disable/Use Default Settings
- Web Access—Enable/Disable/Use Default Settings

With a Single Group Selected

- Delete the group
- File Downloading—Enable/Disable/Use Default Settings
- Personal Storage—Enable/Disable
- Web Access—Enable/Disable/Use Default Settings

A A Simulation and Some Best Practice Sizing Recommendations

Based on support experiences with large customers, Open Text testers created a Filr deployment in a lab environment as outlined in "Sample Filr Deployment Description" on page 151:

After running simulations and monitoring performance, the test team made some best practice recommendations.

Sample Filr Deployment Description

Back-end File Server and LDAP Identity Store Statistics:	
◆ Files:	◆ 39,000,000 (assumed to be mostly static)
◆ Folders:	◆ 3,500,000
◆ Users:	◆ 29,000
◆ Groups:	◆ 15,000
Filr Deployment Statistics:	
◆ Four Filr appliances	◆ Three assigned to servicing user requests ◆ One dedicated to Filr administration, Net Folder synchronization, and content indexing.
◆ Net Folder Servers:	◆ 95
◆ Net Folders (including Home Folders):	◆ 200
◆ Two Filrsearch appliances	◆ `/vastorage` = 144 GB (size of index after deployment and tests)
◆ One PostgreSQL appliance	◆ `/vastorage` = 155 GB (size of database after deployment and tests)

Filr Appliances

Number of Filr Appliances

- Deploy 4 Filr appliances (minimum) in a Filr cluster (farm).
- Locate 3 behind a load-balancing / round-robin switch.
- Dedicate 1 to Filr administration and to Net Folder synchronization and indexing.

Configuring the Dedicated Filr Appliance

- Include the dedicated appliance in the farm, but do not include it in the load balancing/round robin configuration.
- Disable Net Folder synchronization on the 3 load-balanced Filr appliances so that any scheduled synchronizations are forced to occur on the dedicated appliance.
- For instructions, see "Dedicating a Filr Appliance to Indexing and Net Folder Synchronization" in the Installation, Deployment, and Upgrade Guide.

Use the Dedicated Filr Appliance for Upgrade Testing

When upgrading, use the dedicated appliance as the "test" appliance as follows:

1. Shut down all other appliances
2. Upgrade the dedicated appliance.
3. Make sure the appliance is performing as expected before upgrading the other three Filr appliances and bringing the Filr system back online.

Filr CPUs

- As a best practice, you should always leave the CPU setting on Filr Appliances at 4 CPUs.
- Do not set the CPUs on the dedicated Filr appliance at less than 4 CPU's.

Index Maintenance—Just Let It Run

- Do not re-index after Filr is up and running.
- Net Folder synchronizations will index the file and folder meta-data.

- **IMPORTANT:** Re-Indexing is not necessary to maintain and optimize a Filr environment, only to restore search functionality if issues arise.

  If a future upgrade requires re-indexing because of database version or schema changes, this will be clearly called out in the documentation.

Synchronization Best Practices

Synchronization Priorities

- Synchronize the most frequently accessed files and folders first so that they are accessible and searchable in Filr.

Never Overlap Synchronizations

- Make sure that Net Folder synchronizations never overlap.

  Each synchronization must have time to complete before another starts. Of course, completion time depends on the size and number of Net Folders being synced.

Limit Synchronization Size

- Do not synchronize more than 10 Million files at a time.

Utilize Just-in-Time Synchronization Rather than Scheduled Synchronizations

- After the initial synchronization completes, disable scheduled synchronization at the Filr system level, on Net Folder Servers, or on Net Folders.
- Enable Just-in-Time Synchronization (JITS) for your Net Folders. See "Just-in-Time Synchronization" in the *Administrative UI Reference*.

JITS Settings

In general, JITS settings should be based on the environment.

They can be set in the Synchronization Options tab for a Net Folder Server or in the Configuration tab for a Net Folder.

- **Maximum Age for Just-inTime Results:** This is set to 60 seconds by default.

  This means that Filr will not check with the back-end file server for changes to the requested folder if the previous JITS request was less than 1 minute ago.

  Considering that the files on back-end file servers are mostly static, set this value to 300 seconds (5 minutes).

- **Maximum Age for ACL Just-in-Time Results:** This is set for 3600 Seconds by default.

  This means that JITS will retrieve ACL changes on your back-end file server when the last JITS request was more than one hour ago (3600 seconds).

  Keep this setting at the default.

If a Manual Net Folder Synchronization Is Required

- If a manual Net Folder synchronization is required for some reason, synchronize only a limited number of Net Folders and never more than 10 million files at a time.

  For help, see "Manually Synchronizing a Net Folder" on page 77.

Anticipating Disk-Space Growth

Anticipating Filr Disk Space Growth

- The `/vashare` disk can grow quickly if Personal Storage is enabled.

  To constrain growth, set disk space quotas. See "Managing and Restricting Filr-Based Storage" in the *Administrative UI Reference*.

Filrsearch Disk Space Growth

- The `/vastorage` disk will see the most growth because this is where the indexes reside.

SQL Disk Space Growth

- SQL disk space growth is confined to the database (`/vastorage` on the PostgreSQL appliance).
- Depending on the current size of `/vastorage`, you should expand `/vastorage` to allow for growth as follows:
  1. After synchronizing the first 20 million files, run the following query on the database.

     ```
     SELECT pg_size_pretty(pg_database_size('<database name>')) as
     "Database Size";
     ```

  2. Based on the results, calculate the disk space required for 100 Million files.
  3. Include anticipated growth that in the total.

For for tuning the PostgreSQL database, see (https://www.novell.com/documentation/postgresql-1-2/postgresql-admin/data/resource.html).

The /var Mount Point

- For all appliances, `/var` must be large enough to host logs files and at least one core, one javacore, and one heapdump file at a minimum.
- For Filrsearch, `/var` should be 3 times total RAM.

Monitoring Commands and Tips

SQL Database Monitoring Commands

Table A-1 *SQL Monitoring Commands*

To Find	Use This
PostgreSQL DB size = **IMPORTANT:** This is an important query for tuning the PostgreSQL appliance. For for tuning the PostgreSQL database, see (https://www.novell.com/documentation/postgresql-1-2/postgresql-admin/data/resource.html).	`SELECT pg_size_pretty(pg_database_size('database_name')) as "Database Size";`
Number of Files =	`select count(*) from SS_Attachments;` **NOTE:** This query will take some time. Divide the output number by 2.
Number of Folders =	`select count(*) from SS_Forums;`
Number of Net Folders (including Home Folders) =	`select count(*) from SS_NetFolderConfig;`
Number of Net Folder Servers =	`Select count(*) from SS_ResourceDriver;`
Number of users =	`select count(*) from SS_Principals where type='user';`
Number of Groups =	`select count(*) from SS_Principals where type='group';`

Monitoring Net Folder Synchronization

- If you are running a re-index you can compare the numbers churning in the Administration Console > Search Index > Re-Index UI with the following DB query:

  ```
  select count(*) from SS_Forums;
  ```

- During Net Folder synchronization, keep an eye on /vastorage and /var during the sync.
- If you are running a Net Folder sync you can compare the numbers in the Port 8443: Administration Console > Net Folders > Sync Status icon (click the churning wheel) with the following DB query:

  ```
  select count(*) from SS_FolderEntries;
  ```

Monitoring the Impact of Your Tuning Changes to the Overall System

- Monitor all Filrsearch, PostgreSQL and Filr appliances using `top`, `df -h`, `du -h` (on specific directories), using the DB queries listed above.
- There are 3rd party tools that can be used to specifically monitor the JVM, such as `jvmtop`.