

Desktop Client

- [Desktop Client](#)
- [Installation](#)
- [Uninstallation](#)
- [Using the Synchronization Client](#)
- [Using the macOS File Provider](#)
- [Using the Command-Line Client](#)
- [Command-Line Options](#)
- [Configuration File](#)
- [Environment Variables](#)
- [The Automatic Updater](#)
- [Update channels](#)
- [Conflicts](#)
- [FAQ](#)

Desktop Client

The Nextcloud desktop client for Windows, macOS, and Linux keeps files synchronized between your computer and your Nextcloud server.

- [Installation](#)
- [Uninstallation](#)
- [Using the Synchronization Client](#)
- [Using the macOS File Provider](#)
- [Using the Command-Line Client](#)
- [Command-Line Options](#)
- [Configuration File](#)
- [Environment Variables](#)
- [The Automatic Updater](#)
- [Update channels](#)
- [Conflicts](#)
- [FAQ](#)

For additional information, see:

- [Admin manual](#)
- [Developer manual](#)

Installation

Download

You can download the latest version of the Nextcloud Desktop Synchronization Client from the [Nextcloud download page](#). Clients are available for Linux, macOS, and Microsoft Windows.

You will also find links to source code archives and older versions on the download page.

Supported server versions

Each desktop client release supports the latest three stable Nextcloud server major versions at the time of release. See the [Nextcloud Server release schedule](#) for supported major versions.

System Requirements

- Windows 10+ (64-bits only)
- macOS 12.0+ (64-bits only)
- Linux (Ubuntu 24.04 or openSUSE 15.5 or Alma 8 or ...) (64-bits only)

For Linux distributions, we support, if technically feasible, the current LTS releases. For BSD, we support them if technically feasible, but we do not test them.



We do not support Citrix.

- We will do our best to advise Citrix users from the desktop client point of view.
- We will fix issues that are also reproducible on the standard supported systems.
- Everything else is outside of our scope.

Install on macOS and Windows

Installation on macOS and Windows is the same as for any other software application: download the program and then double-click it to launch the installation, and then follow the installation wizard. After it is installed and configured the desktop client will automatically keep itself updated; see [The Automatic Updater](#) for more information.

For administrator-focused deployment options such as advanced Windows MSI configuration, non-interactive account provisioning, and command-line wizard preconfiguration, see the Admin Manual chapter on desktop client deployment and setup.

Install on Linux

For Linux, Nextcloud officially provides the desktop client as an AppImage on the [Nextcloud download page](#).

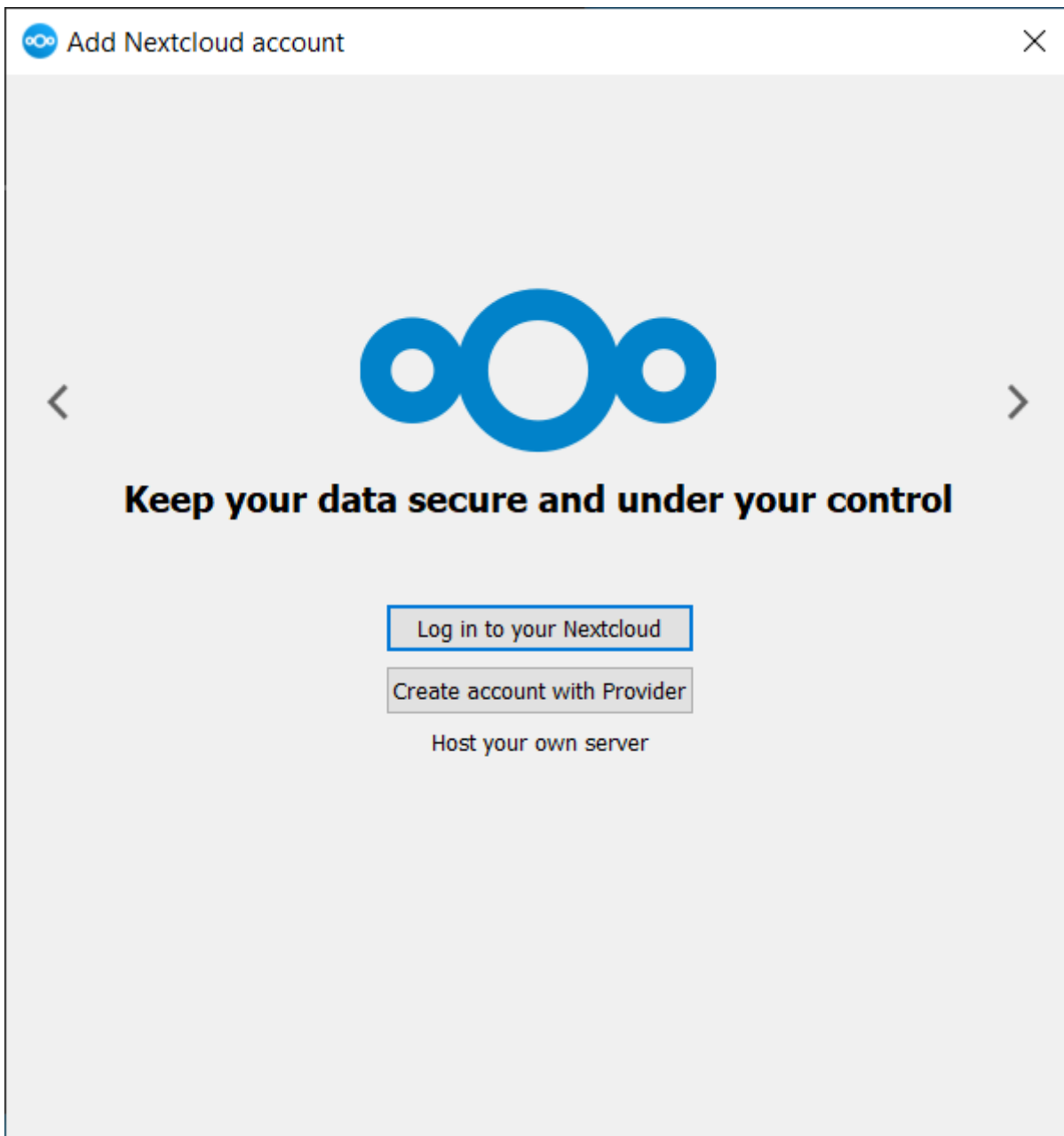
Some Linux distributions also provide the Nextcloud desktop client through their package managers. These packages are maintained by the distribution or community, not by Nextcloud. If you prefer a package-managed installation, refer to your distribution's documentation.

Linux users must also have a password manager enabled, such as GNOME Keyring or KWallet, so that the desktop client can log in automatically.

Initial Setup

After installation, the initial setup wizard is triggered. In the setup wizard, you can log in to your server, create an account with a provider, and configure which folders to sync. The wizard will guide you step-by-step through the essential configuration options and basic account setup.

First, you need to enter the URL of your Nextcloud server.



If you already have an account on a Nextcloud instance, click `Login to your Nextcloud`. If you do not yet have a Nextcloud instance or an account, you may need to create one first. Alternatively, you might want to register an account with a provider. Press `Create account with Provider` in that case.

“ ”

The desktop client build you are using may have been built without provider support. In that case, you won't see this page and will immediately see the next page.

 Add Nextcloud account ✕

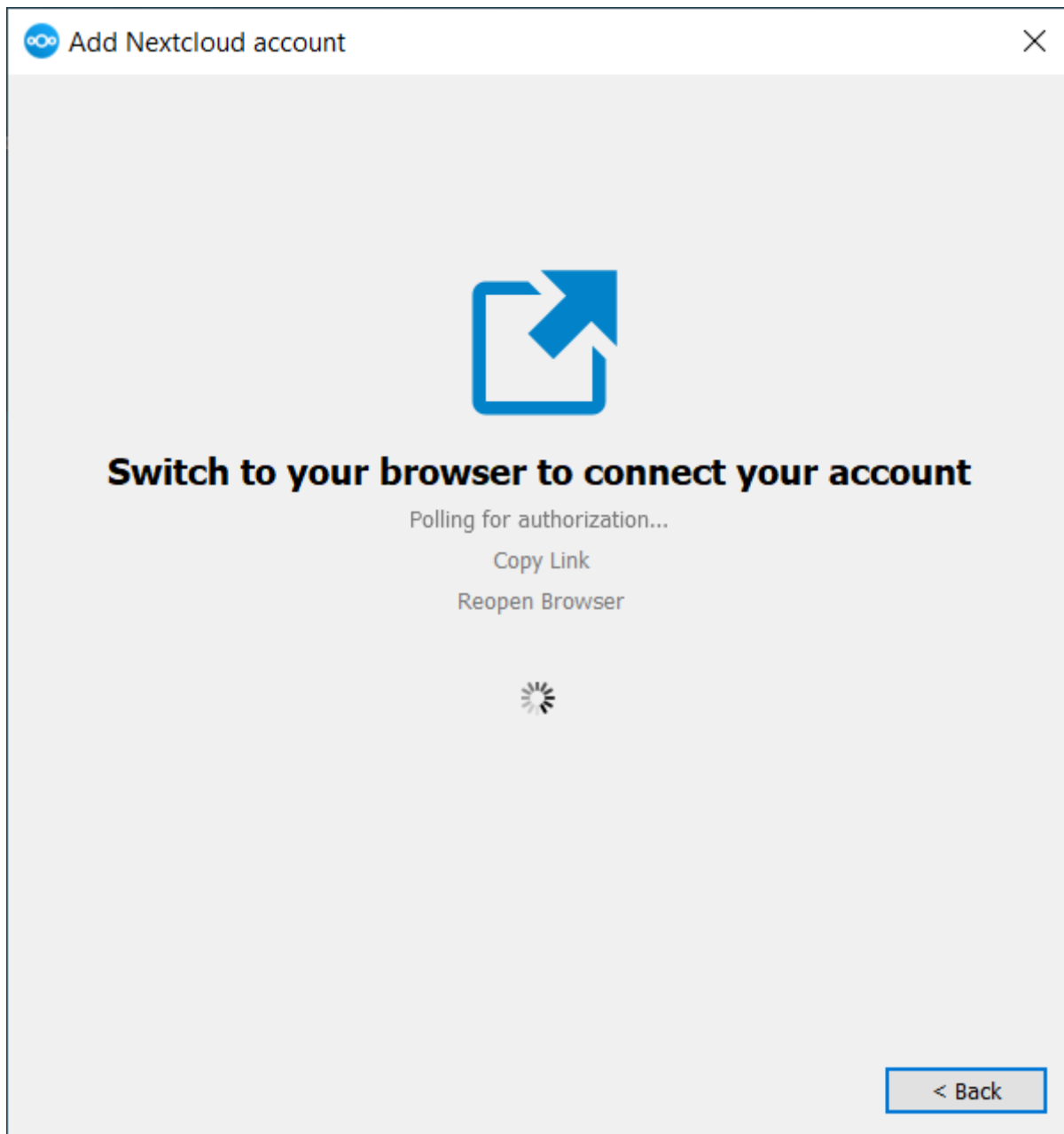


Server address

The link to your Nextcloud web interface
when you open it in the browser.

< Back Next >

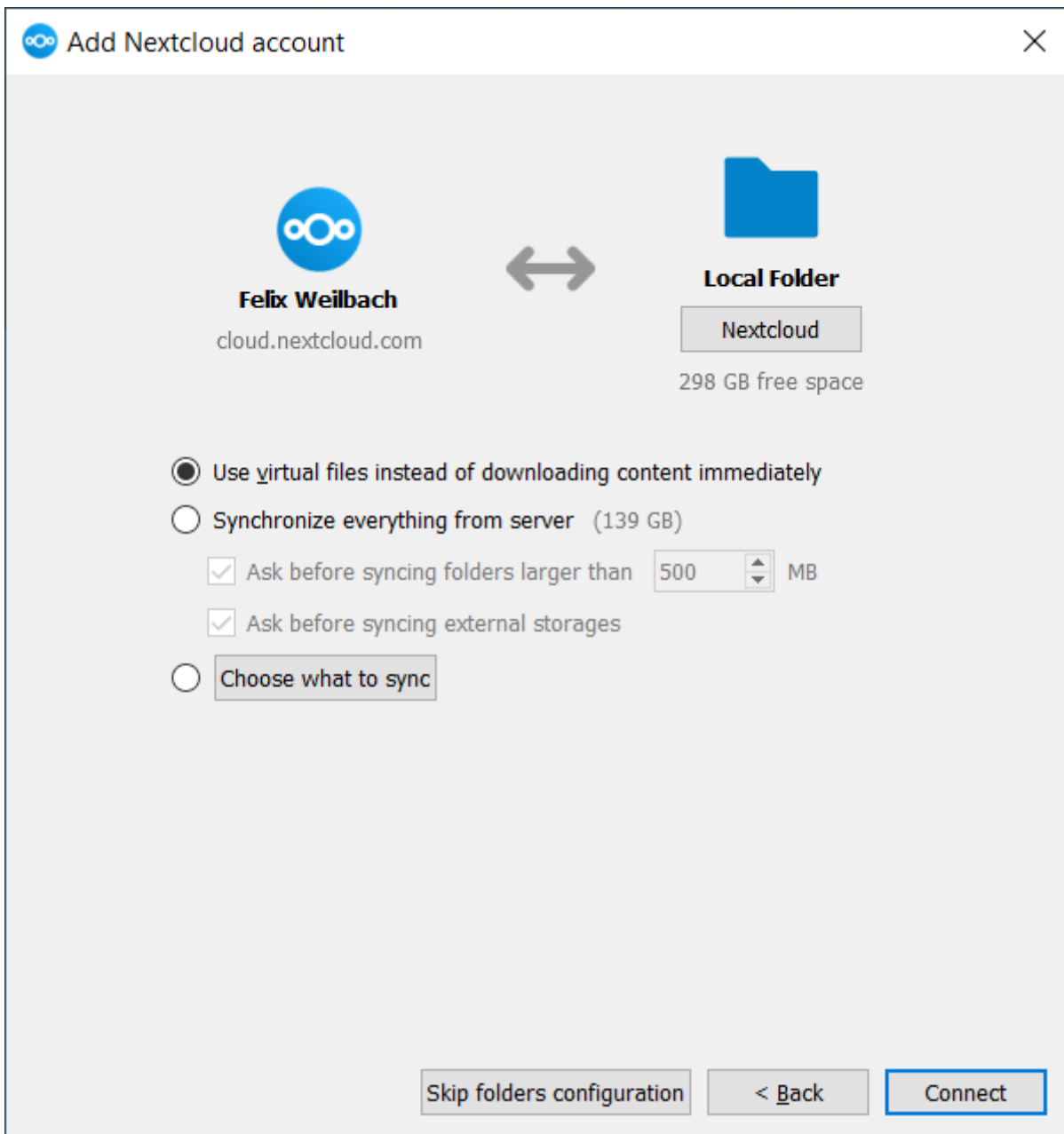
Enter the URL for your Nextcloud instance. The URL is the same URL that you type into your browser when you try to access your Nextcloud instance.



Now your web browser should open and prompt you to log in to your Nextcloud instance. Enter your username and password in your web browser and click *Grant access* when prompted. After you do that, go back to the wizard.



You might not need to enter your username and password if you are already logged in to your web browser.



On the local folder options screen, you may sync all of your files on the Nextcloud server, or select individual folders. The default local sync folder is `Nextcloud`, in your home directory. You may change this as well.

When you have completed selecting your sync folders, click the *Connect* button. The client will attempt to connect to your Nextcloud server. If it is successful, the wizard will close itself. You can then observe the sync activity and open the main dialog by clicking on the tray icon.

Uninstallation

It is safe to uninstall the files desktop client by using the built-in tools within your operating system.

General instructions

In each operating system:

1. Make sure to *quit the desktop client* before removing it.
2. *Uninstall* the desktop client.
3. You may also need to take into consideration that uninstalling the desktop client will not remove the [user's configuration](#) file and synced data.

“ For data removal (sync folders), consider using the server feature [remote wipe](#). This feature is available across all clients.

Below are platform specific instructions.

Windows

There are two ways of removing the desktop client:

1. Using Add or Remove Programs.
2. You can use the [msiexec](#) command line options:

```
msiexec /uninstall Nextcloud-x.y.z-x64.msi /quiet``
```

3. The [user's configuration](#) is located at `%APPDATA%\Nextcloud\nextcloud.cfg`.

macOS

Beyond deleting the desktop client from the *Applications* folder, you may also need to remove all related data, specially if you are using virtual files.

1. To simply uninstall the software: you can do this from the [Launchpad or the Finder](#).

2. For the complete removal of all related data, the following commands can be used:

```
rm -rf "$HOME/Library/Application Scripts/com.nextcloud.desktopclient"*
rm -f "$HOME/Library/Application Support/CrashReporter/Nextcloud_"*
rm -rf "$HOME/Library/Application Support/Nextcloud"
rm -rf "$HOME/Library/Caches/Nextcloud"
rm -rf "$HOME/Library/Containers/com.nextcloud.desktopclient"*
rm -rf "$HOME/Library/Group Containers/NKUJUXUJ3B.com.nextcloud.desktopclient"
rm -rf "$HOME/Library/Group Containers/com.nextcloud.desktopclient"
rm -f "$HOME/Library/LaunchAgents/com.nextcloud.desktopclient.plist"
rm -rf "$HOME/Library/Preferences/Nextcloud"
rm -f "$HOME/Library/Preferences/com.nextcloud.desktopclient.plist"
```

3. From version 33.0.0 the [user's configuration](#) is located at

```
$HOME/Library/Containers/com.nextcloud.desktopclient/Data/Library/Preferences/Nextcloud/nextcloud.cfg
```

. On older versions it is located at

```
$HOME/Library/Preferences/Nextcloud/nextcloud.cfg
```

.

Linux

It depends on how you installed the desktop client:

1. If you are running the Nextcloud AppImage, you can simply delete the AppImage file.
2. If you have used your package manager to install the desktop client, you can use it to uninstall the desktop client as well. For example, on Ubuntu you can use the following command:

```
sudo apt remove nextcloud-desktop
```

3. The [user's configuration](#) is located at `$HOME/.config/Nextcloud/nextcloud.cfg`.

Using the Synchronization Client

The Nextcloud Desktop Client remains in the background and is visible as an icon in the system tray (Windows, KDE), menu bar (macOS), or notification area (Linux).



The status indicator uses icons to indicate the current status of your synchronization. The green circle with the white checkmark tells you that your synchronization is current and you are connected to your Nextcloud server.



The blue icon with the white semi-circles means synchronization is in progress.



The grey icon with the parallel lines tells you your synchronization has been paused. (Most likely by you.)



The gray icon with three white dots means your sync client has lost its connection with your Nextcloud server.



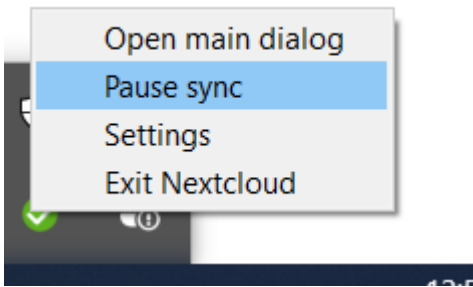
When you see a yellow circle with the sign "!" that is the informational icon, so you should click it to see what it has to tell you.



The red circle with the white "x" indicates a configuration error, such as an incorrect login or server URL.

Systray Icon

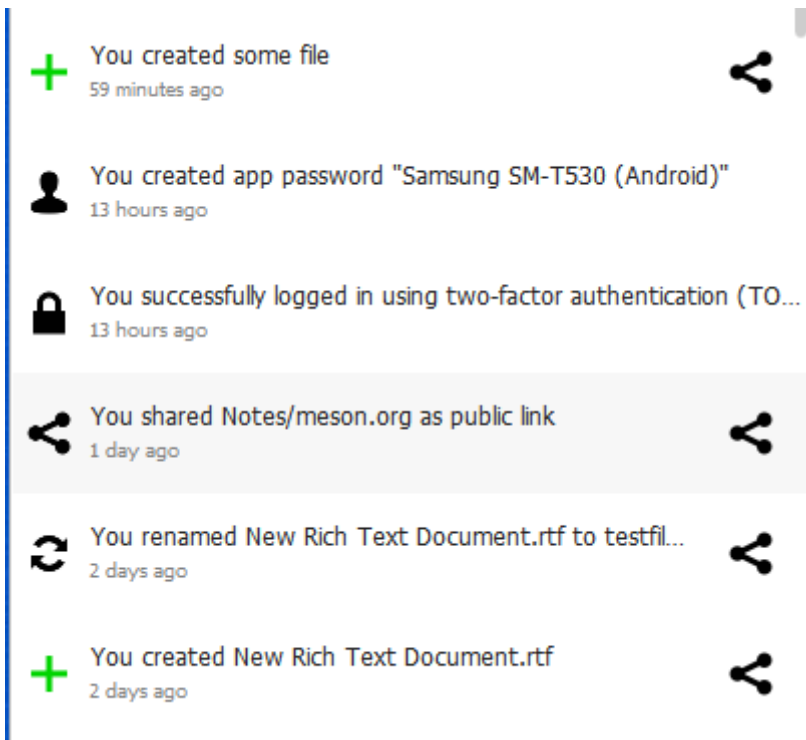
A right-click on the systray icon opens a menu for quick access to multiple operations.



This menu provides the following options:

- Open main dialog
- Pause sync/Resume sync
- Settings
- Exit Nextcloud, logging out and closing the client

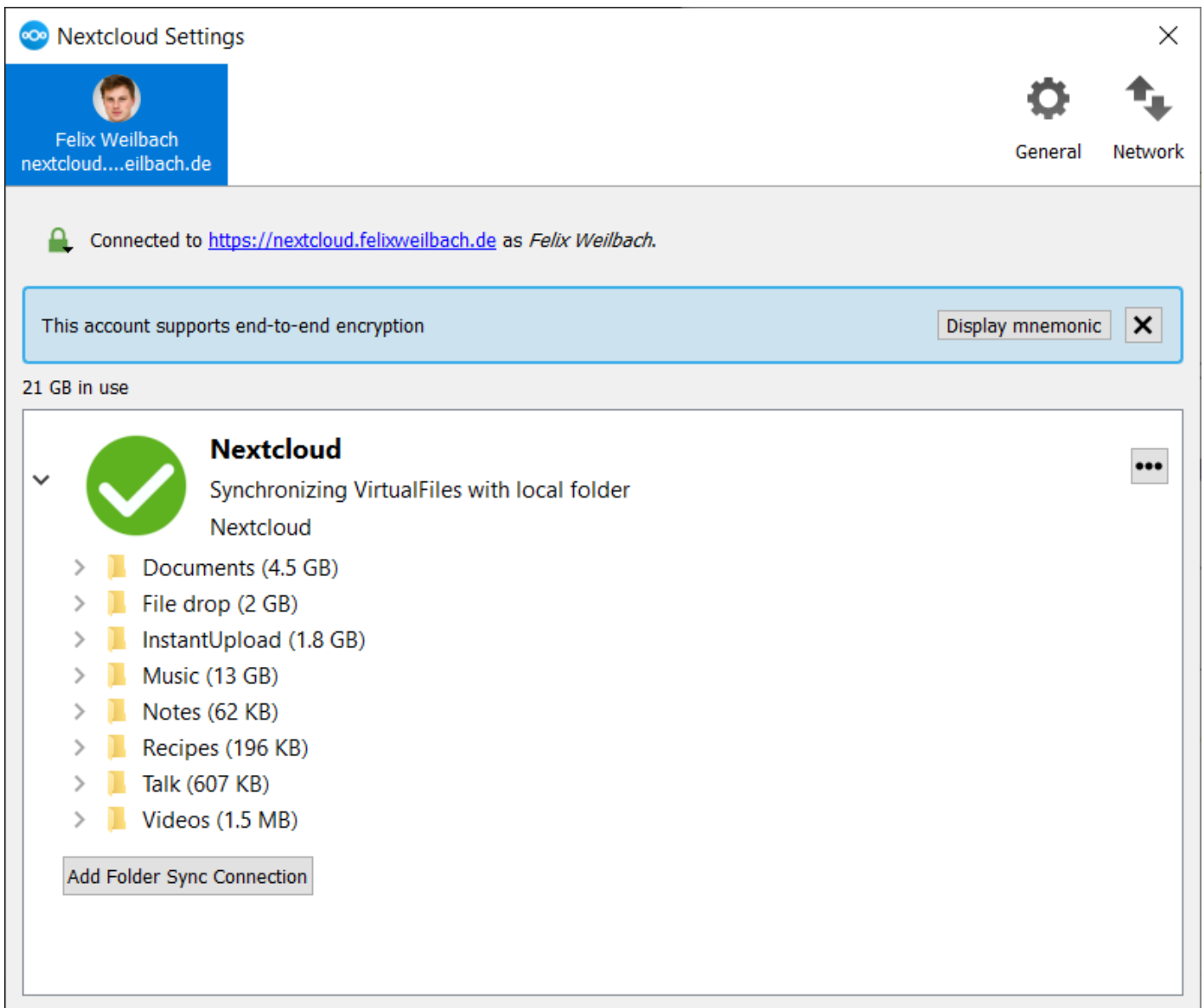
A left-click on your systray icon opens the main dialog of the desktop client.



The main dialogs show recent activities, errors and server notifications.

When clicking on the main dialog and then clicking on the avatar of the user, the Settings can be opened.

Configuring Nextcloud Account Settings



At the top of the window are tabs for each configured sync account, and two others for General and Network settings. On your account tabs you have the following features:

- Connection status, showing which Nextcloud server you are connected to, and your Nextcloud username.
- Used and available space on the server.
- Current synchronization status.
- **Add Folder Sync Connection** button.

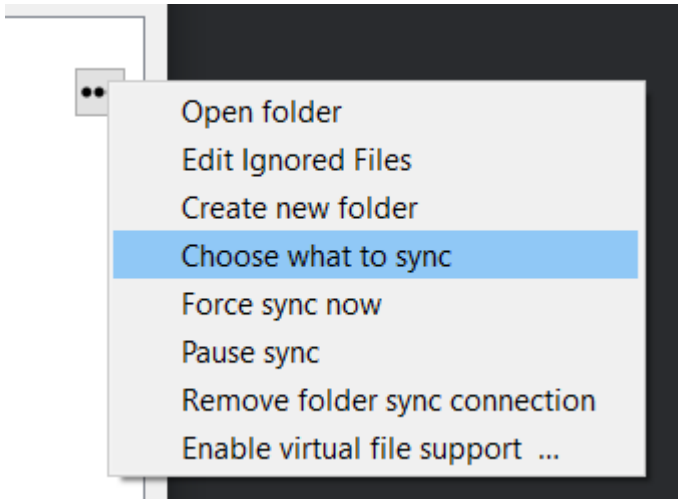
The little button with three dots (the overflow menu) that sits to the right of the sync status bar offers additional options:

- Open Folder
- Choose What to Sync (This appears only when your file tree is collapsed, and expands the file tree)
- Pause Sync / Resume Sync
- Remove folder sync connection
- Availability (Only available if virtual files support is enabled)

- Enable virtual file support/Disable virtual file support

Open Folder opens your local Nextcloud sync folder.

Pause Sync pauses sync operations without making any changes to your account. It will continue to update file and folder lists, without downloading or updating files. To stop all sync activity use **Remove Folder Sync Connection**.



“ ”

Nextcloud does not preserve the mtime (modification time) of directories, though it does update the mtimes on files. See [Wrong folder date when syncing](#) for discussion of this.

Adding New Accounts

You may configure multiple Nextcloud accounts in your desktop sync client. Simply click the **Account** > **Add New** button on any account tab to add a new account, and then follow the account creation wizard. The new account will appear as a new tab in the settings dialog, where you can adjust its settings at any time. Use **Account** > **Remove** to delete accounts.

File Manager Overlay Icons

The Nextcloud sync client provides overlay icons, in addition to the normal file type icons, for your system file manager (Explorer on Windows, Finder on Mac and Nautilus on Linux) to indicate the sync status of your Nextcloud files.

The overlay icons are similar to the systray icons introduced above. They behave differently on files and directories according to sync status and errors.

The overlay icon of an individual file indicates its current sync state. If the file is in sync with the server version, it displays a green checkmark.

If the file is ignored from syncing, for example because it is on your exclude list, or because it is a symbolic link, it displays a warning icon.

If there is a sync error, or the file is blacklisted, it displays an eye-catching red X.

If the file is waiting to be synced, or is currently syncing, the overlay icon displays a blue cycling icon.

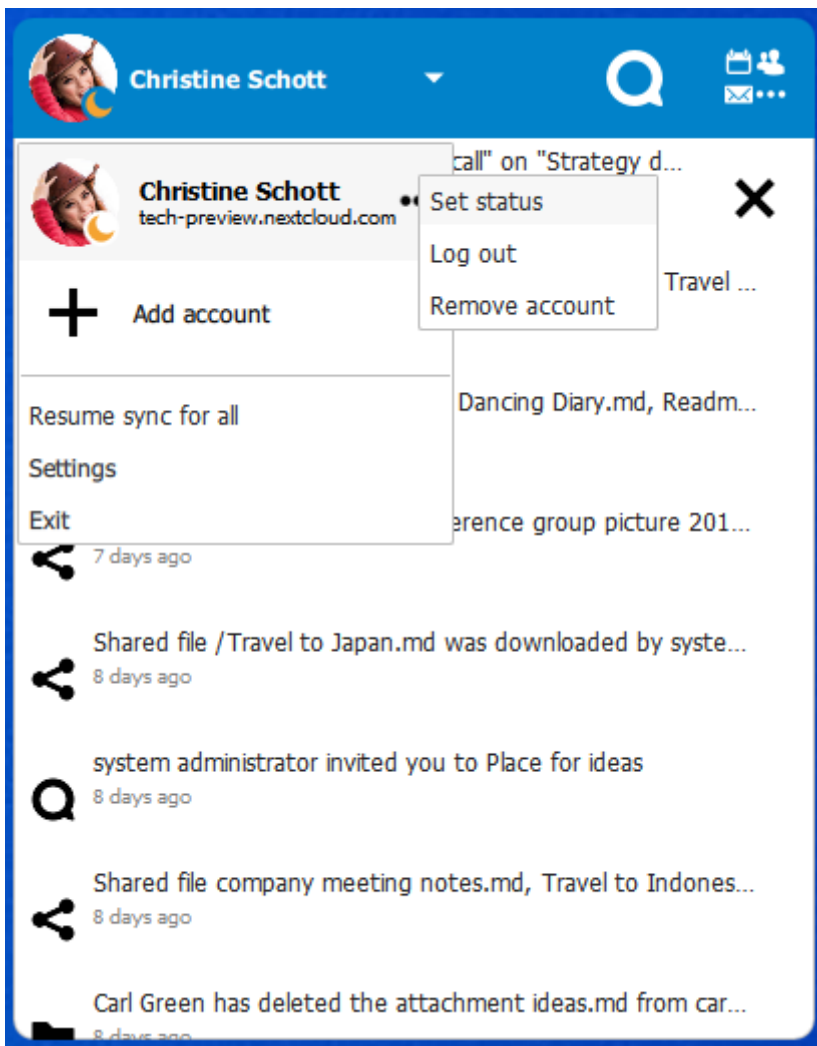
When the client is offline, no icons are shown to reflect that the folder is currently out of sync and no changes are synced to the server.

The overlay icon of a synced directory indicates the status of the files in the directory. If there are any sync errors, the directory is marked with a warning icon.

If a directory includes ignored files that are marked with warning icons that does not change the status of the parent directories.

Set the user status

If you have the user status app installed on your Nextcloud server, you can set your user status from the desktop client. To do so, open the main dialog. Then click on your avatar and then click on the three dots. In the menu that opens click on **Set status**.



In the dialog that opens, you can set your online status if you click on either **Online**, **Away**, **Do not disturb** or **Invisible**. You can also set a custom status message with the text field below or choose one of the predefined status messages below. It is also possible to set a custom emoji if you click on the button with the emoji beside the text input field. The last thing you might want to set is when your user status should be cleared. You can choose the period after which the user status will be cleared by clicking on the button on the left hand side of the text **Clear status message after**.

 Set user status ✕

Online status

 Online

 Away

 Do not disturb

 Invisible

Status message



Learning

 **In a meeting** - 1 hour

 **Commuting** - 30 minutes

 **Working remotely** - Today

 **Out sick** - Today

 **Vacationing** - Don't clear

Clear status message after

Today 

Clear status message

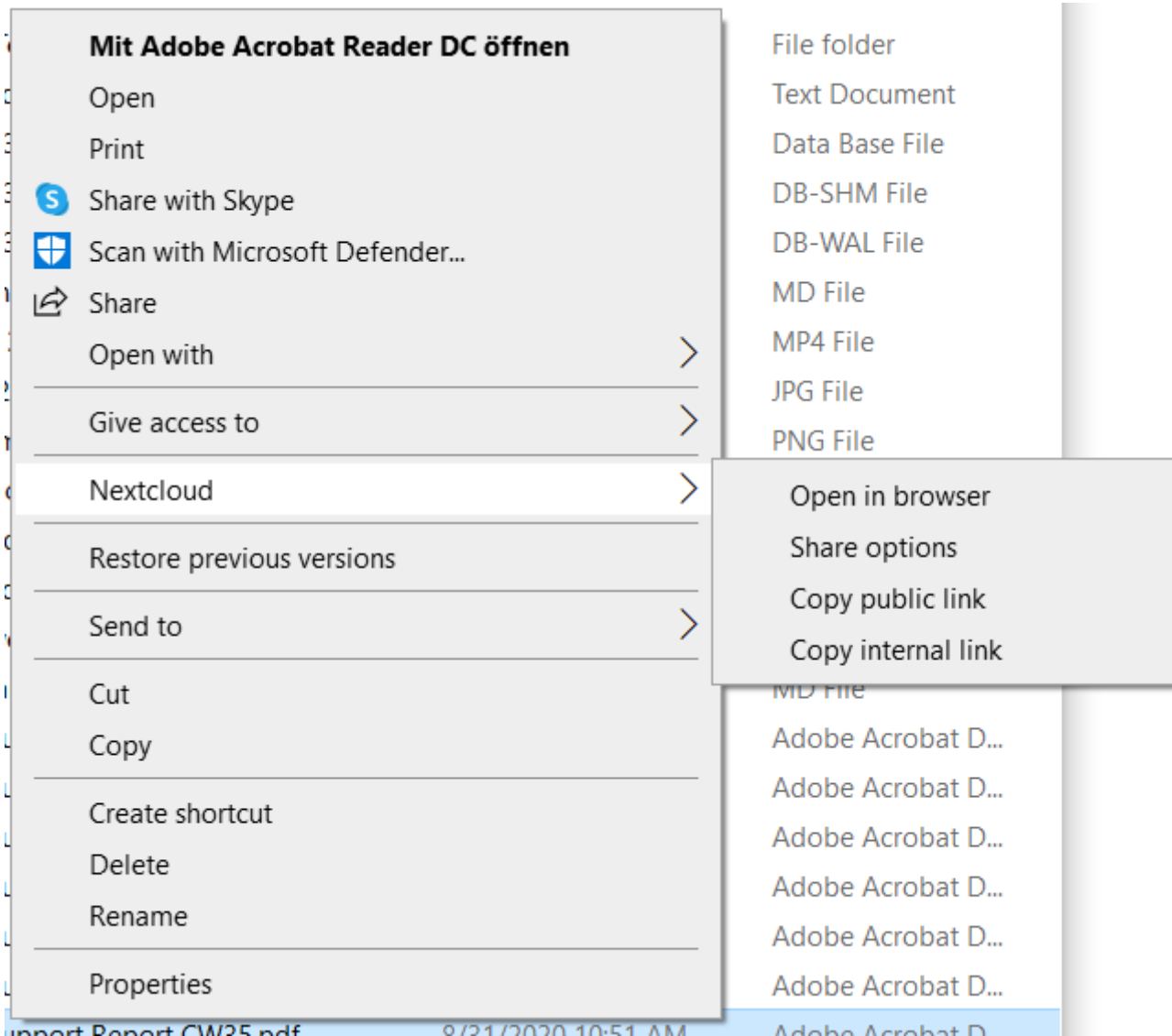
Set status message

If you are happy with the status you have created you can enable this status with the button **Set status message**. If you had already a status set, you can clear the status by clicking the button **Clear status message**.

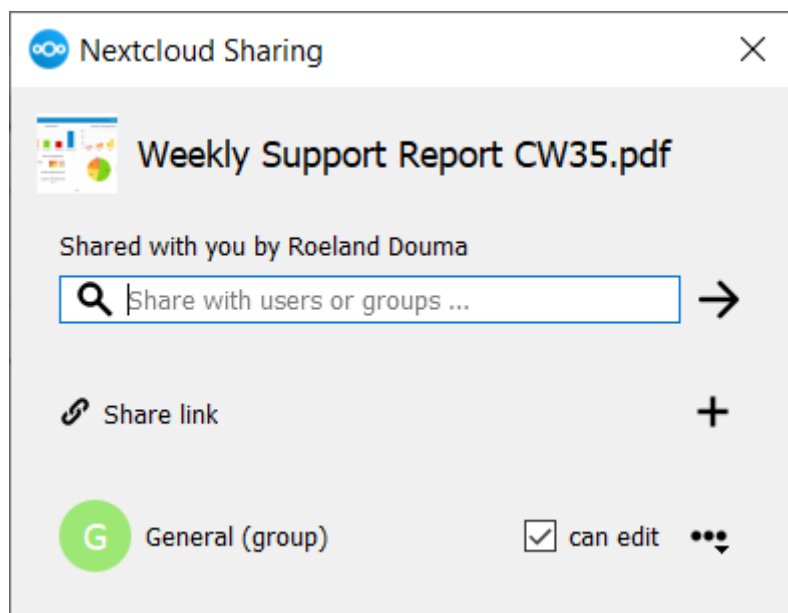
Sharing From Your Desktop

The Nextcloud desktop sync client integrates with your file manager. Finder on macOS and Explorer on Windows. Linux users must install an additional package depending on the used file manager. Available are e.g. `nautilus-nextcloud` (Ubuntu/Debian), `dolphin-nextcloud` (Kubuntu), `nemo-nextcloud` and `caja-nextcloud`. You can create share links, and share with internal Nextcloud users the same way as in your Nextcloud Web interface.

In your file explorer, click on a file and in the context menu go to **Nextcloud** and then click on **Share options** to bring up the Share dialog.

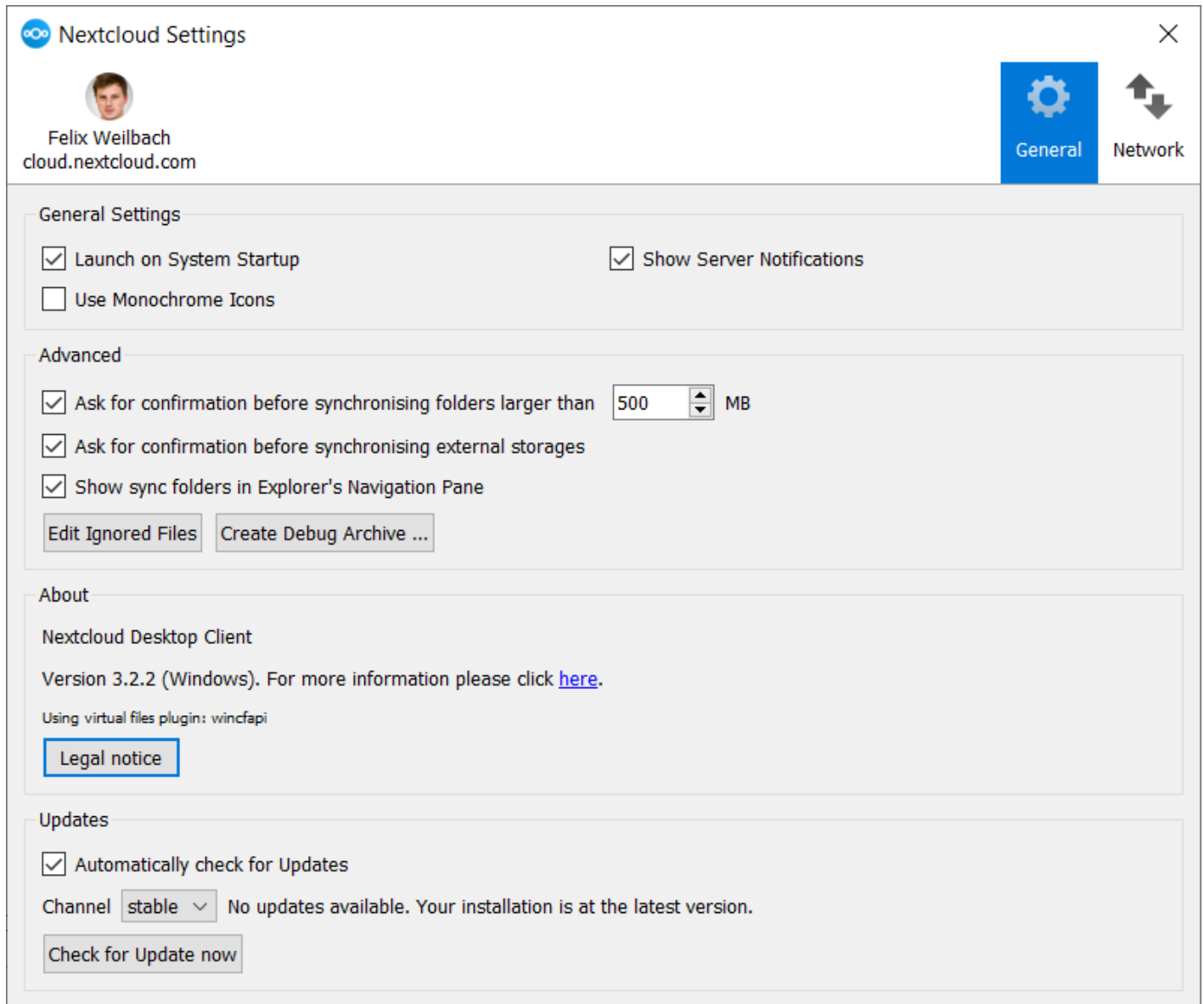


From this dialog you can share a file.



General Window

The General window has configuration options such as **Launch on System Startup**, **Use Monochrome Icons**, and **Show Server Notifications**. This is where you will find the **Edit Ignored Files** button, to launch the ignored files editor, and **Ask confirmation before downloading folders larger than [folder size]**.



The screenshot shows the 'Nextcloud Settings' window with the 'General' tab selected. The window has a title bar with a close button (X) and a header area containing the Nextcloud logo, the user's name 'Felix Weilbach', and the email 'cloud.nextcloud.com'. On the right side of the header, there are two buttons: 'General' (active) and 'Network'. The main content area is divided into several sections: 'General Settings' with checkboxes for 'Launch on System Startup' (checked), 'Use Monochrome Icons' (unchecked), and 'Show Server Notifications' (checked); 'Advanced' with checkboxes for 'Ask for confirmation before synchronising folders larger than' (checked, with a value of 500 MB), 'Ask for confirmation before synchronising external storages' (checked), and 'Show sync folders in Explorer's Navigation Pane' (checked), along with buttons for 'Edit Ignored Files' and 'Create Debug Archive ...'; 'About' with text about the 'Nextcloud Desktop Client' version 3.2.2 (Windows), a link to 'here', and a 'Legal notice' button; and 'Updates' with a checked checkbox for 'Automatically check for Updates', a dropdown menu set to 'stable', and a message 'No updates available. Your installation is at the latest version.', with a 'Check for Update now' button.

Nextcloud Settings

Felix Weilbach
cloud.nextcloud.com

General Network

General Settings

- ☒ Launch on System Startup
- ☐ Use Monochrome Icons
- ☒ Show Server Notifications

Advanced

- ☒ Ask for confirmation before synchronising folders larger than 500 MB
- ☒ Ask for confirmation before synchronising external storages
- ☒ Show sync folders in Explorer's Navigation Pane

Edit Ignored Files Create Debug Archive ...

About

Nextcloud Desktop Client

Version 3.2.2 (Windows). For more information please click [here](#).

Using virtual files plugin: winconfapi

Legal notice

Updates

- ☒ Automatically check for Updates

Channel stable No updates available. Your installation is at the latest version.

Check for Update now

Using the Network Window

The Network settings window enables you to define network proxy settings, and also to limit download and upload bandwidth.

Nextcloud Settings



Felix Weilbach
cloud.nextcloud.com

General

Network

Proxy Settings

☐ No Proxy

☒ Use system proxy

☐ Specify proxy manually as

HTTP(S) proxy

Host

Hostname of proxy server

:

8080

☐ Proxy server requires authentication

Username for proxy server

Password for proxy server

Download Bandwidth

☒ No limit

☐ Limit automatically

☐ Limit to

80

KBytes/s

Upload Bandwidth

☒ No limit

☐ Limit automatically

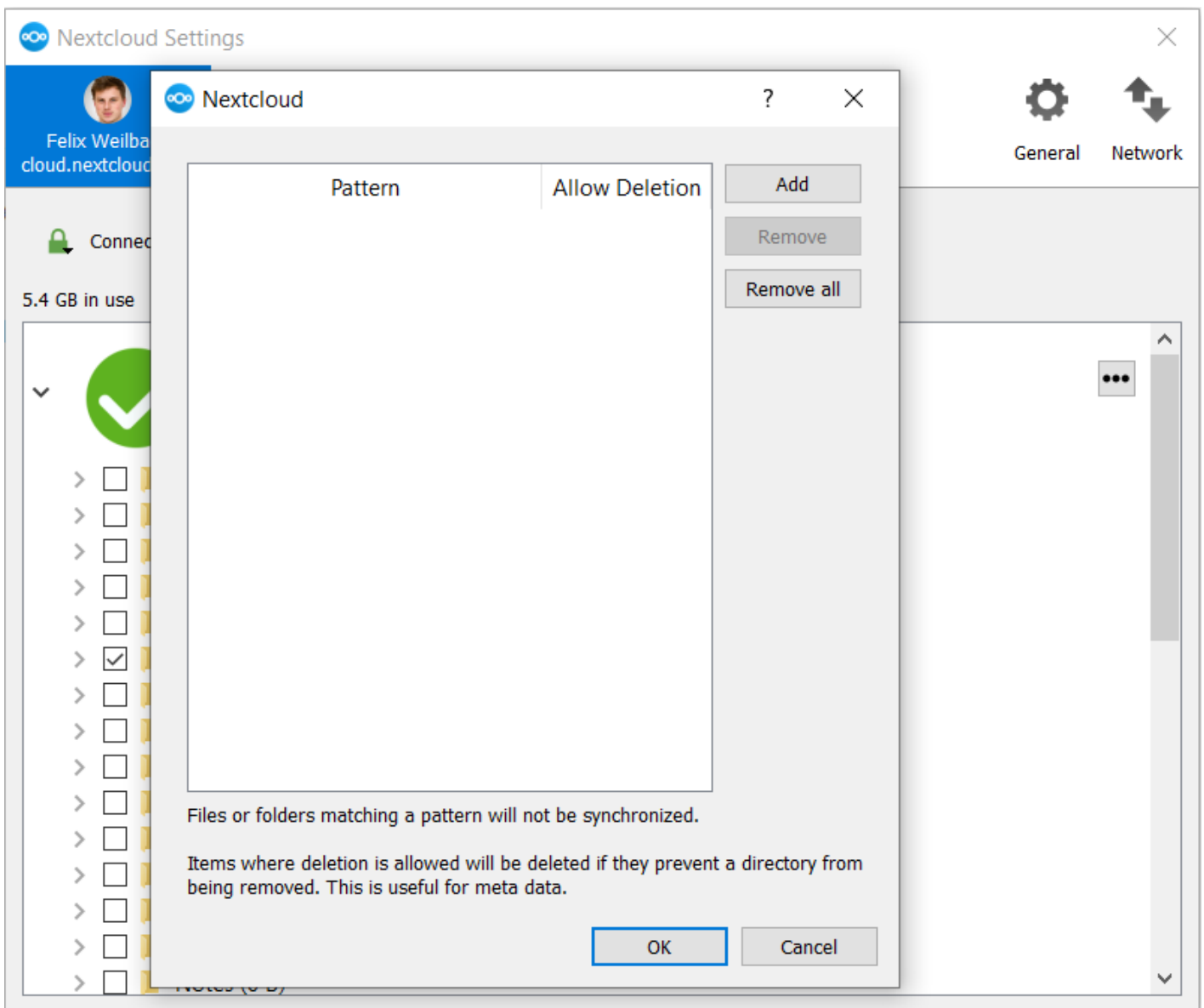
☐ Limit to

10

KBytes/s

Using the Ignored Files Editor

You might have some local files or directories that you do not want to backup and store on the server. To identify and exclude these files or directories, you can use the *Ignored Files Editor* (General tab).



For your convenience, the editor is pre-populated with a default list of typical ignore patterns. These patterns are contained in a system file (typically `sync-exclude.lst`) located in the Nextcloud Client application directory. You cannot modify these pre-populated patterns directly from the editor. However, if necessary, you can hover over any pattern in the list to show the path and filename associated with that pattern, locate the file, and edit the `sync-exclude.lst` file.



Modifying the global exclude definition file might render the client unusable or result in undesired behavior.

Each line in the editor contains an ignore pattern string. When creating custom patterns, in addition to being able to use normal characters to define an ignore pattern, you can use wildcard characters for matching values. As an example, you can use an asterisk (*) to identify an arbitrary number of characters or a question mark (?) to identify a single character.

Patterns that end with a slash character (/) are applied to only directory components of the path being checked.



Custom entries are currently not validated for syntactical correctness by the editor, so you will not see any warnings for bad syntax. If your synchronization does not work as you expected, check your syntax.

Each pattern string in the list is followed by a checkbox. When the check box contains a check mark, in addition to ignoring the file or directory component matched by the pattern, any matched files are also deemed "fleeting metadata" and removed by the client.

In addition to excluding files and directories that use patterns defined in this list:

- The Nextcloud Client always excludes files containing characters that cannot be synchronized to other file systems.
- Files are removed that cause individual errors three times during a synchronization. However, the client provides the option of retrying a synchronization three additional times on files that produce errors.

Using the macOS File Provider

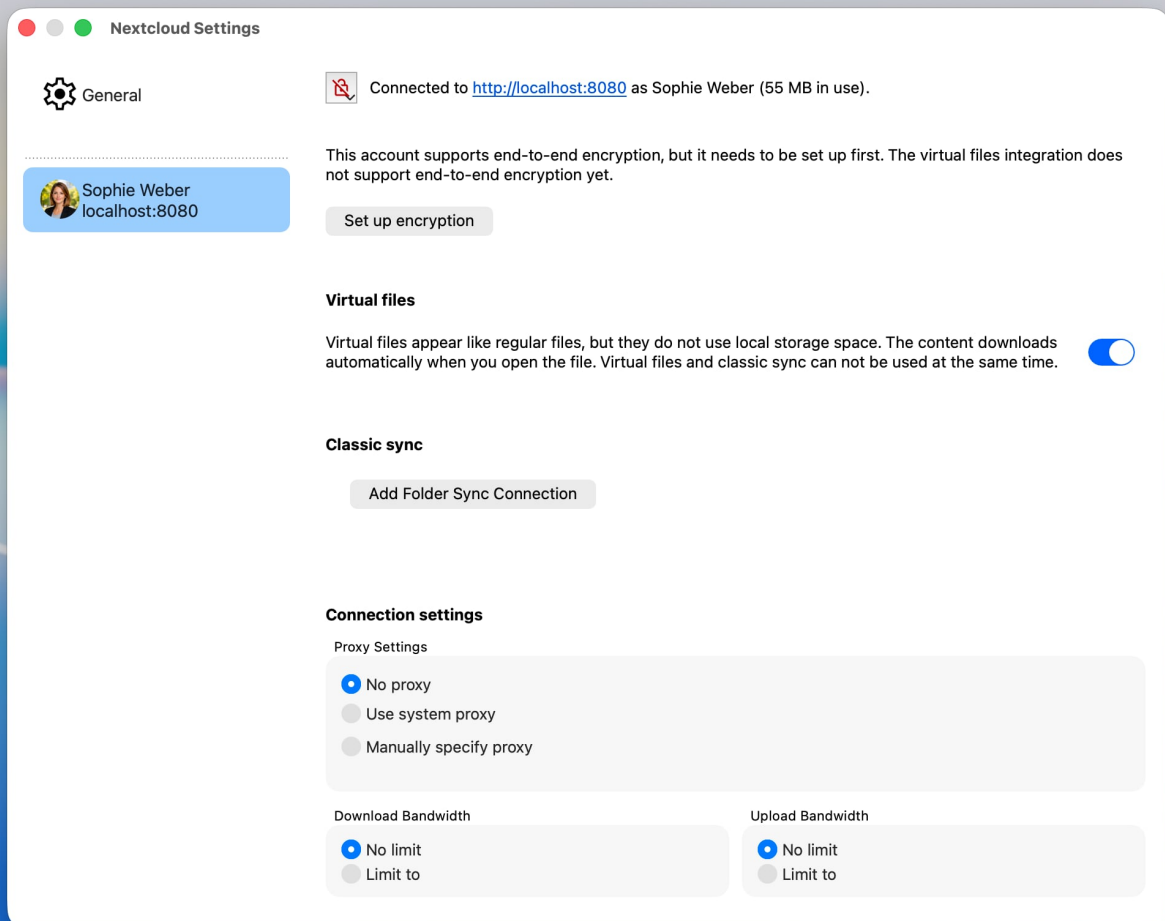
On macOS, our client can also seamlessly integrate Nextcloud files into macOS as a File Provider extension. Any newly configured Nextcloud account will have the integration enabled by default.

Supported features

- Keeping files or whole folders available offline
- Freeing up local disk space by evicting local copies without deleting items
- Intelligent and automatic local data eviction
- File previews within Finder for files which are not downloaded yet
- Support for Apple-specific formats, for example Pages, Numbers or Keynote bundles
- Support for server-side file locking (if supported by the connected server)
- “Edit locally” support
- Sharing with other users
- Server-side actions integrated directly in Finder's context menu
- Automatic discovery of server-side changes

Configuration

Settings related to the File Provider extension can be adjusted on a per-account basis via the Nextcloud desktop client's settings window.

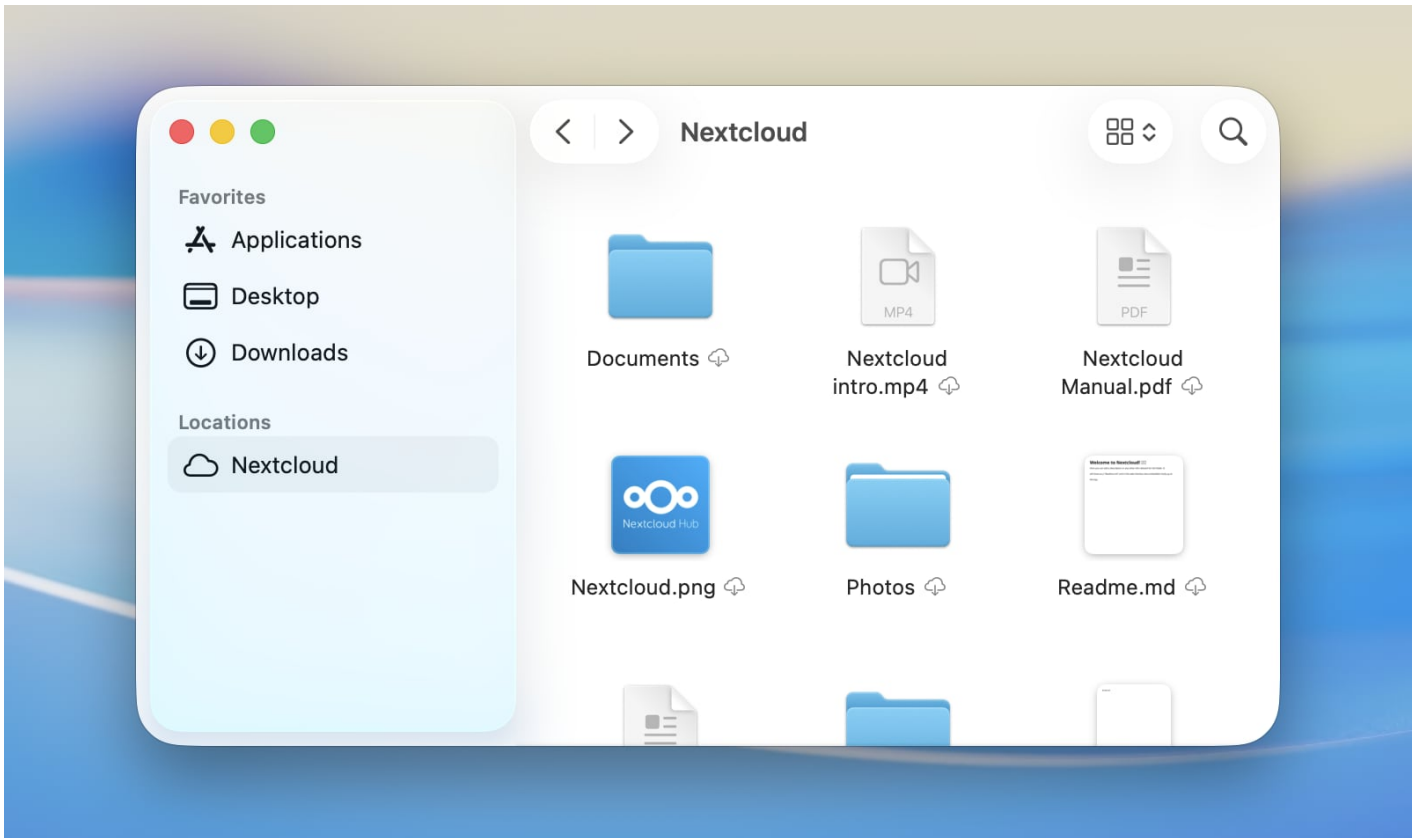


Here the integration into Finder can be enabled or disabled.

When disabling the File Provider extension while still having unsynchronized changes, macOS will save the unsynchronized items in a folder that is automatically revealed after the integration is disabled.

Finder integration

On macOS, remote storage like a Nextcloud files account appears like a dedicated location in the Finder sidebar. The actual location of the content on disk is defined by macOS.



“ ”

To accelerate server-side change detection, we recommend enabling the `notify_push` app on your Nextcloud server. This app will notify the desktop client of changes on the server as soon as they happen, reducing the time it takes for changes to appear in Finder. Otherwise the client needs to poll the server which will result in an increased delay between a change on the server and its local visibility.

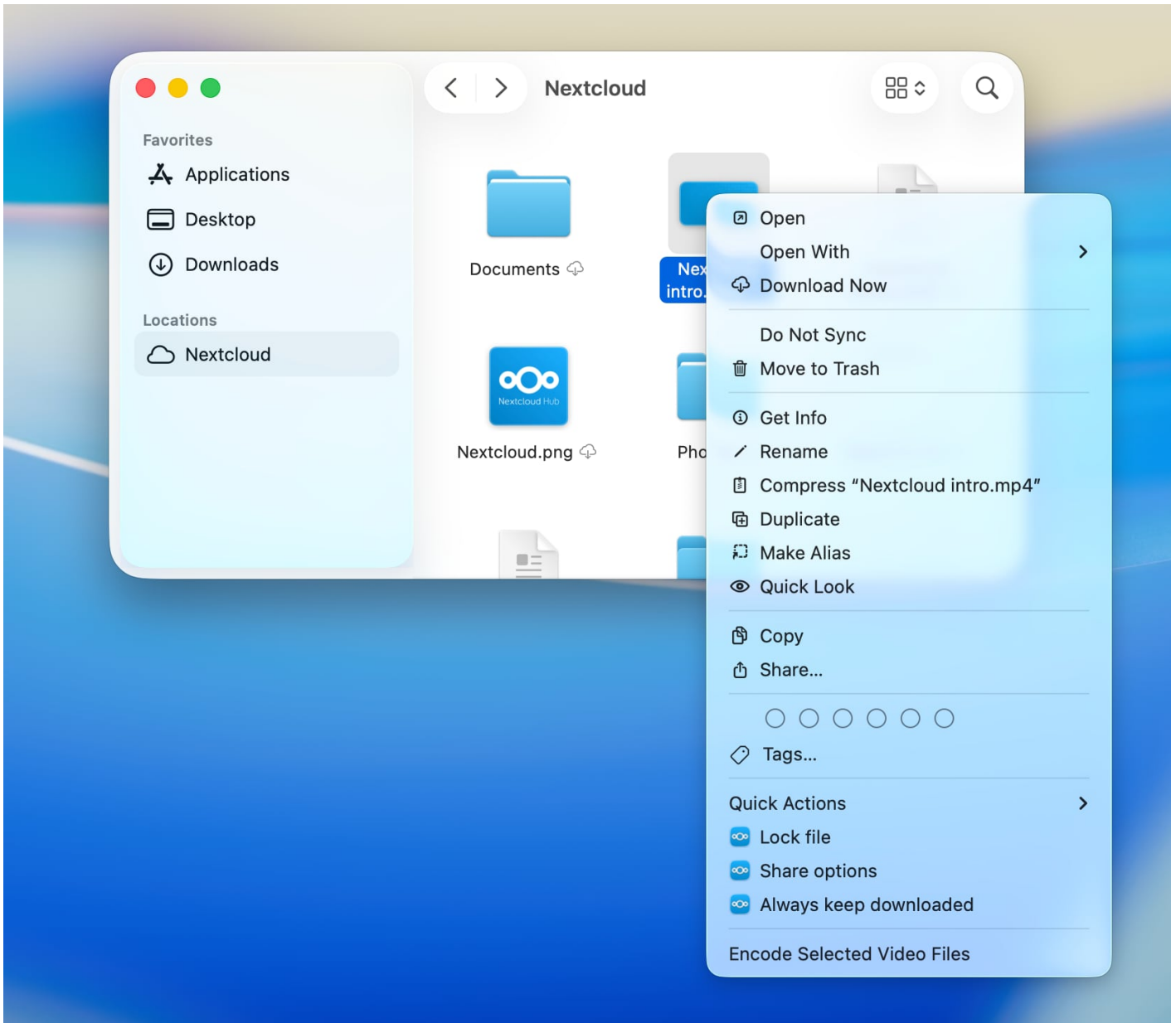
Sync status indicators

Similar to classic synchronization folders, Finder displays status indicators next to items. Unlike the custom indicators in classic synchronization folders, these standardized indicators are provided by macOS to ensure a consistent appearance across all cloud storage apps which a user may use on their system.

- *Cloud with downward arrow*: The item and its descendants are not downloaded yet. They can be downloaded, assuming a network connection is available.
- *Outlined cloud*: The item is not fully uploaded yet in its current local state.
- *Strikethrough cloud*: The item is excluded from synchronization.

- *Pie chart*: The item is currently being uploaded or downloaded, and the progress is visualized.
- *Filled circle with a pin*: The item is available offline and will be kept locally.
- *No icon*: The item is available offline and up to date.

Context menu actions



The File Provider extension also provides special Nextcloud features through the context menu in Finder.

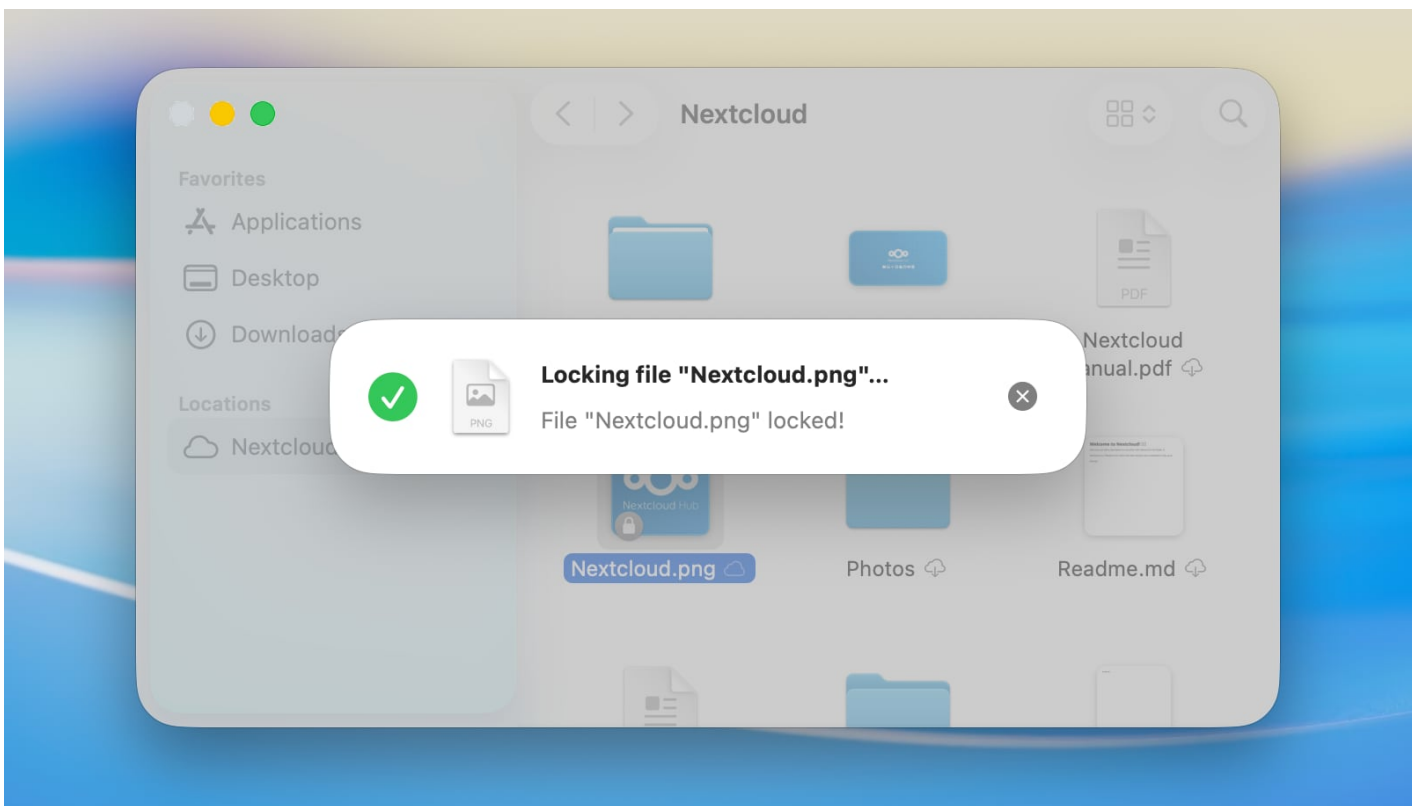
Keep Downloaded

Files and folders can be marked to be kept downloaded and available offline permanently. If this is chosen on folders, it will also apply to all their contents. This is especially useful for users with limited or no network access, as it ensures that they can always access their important files without needing to worry about connectivity. macOS will **not** free up local disk space by evicting items which are marked to be kept downloaded, even if they have not been accessed for a long time.

This can be undone by selecting "Allow automatic freeing up space" on the same items.

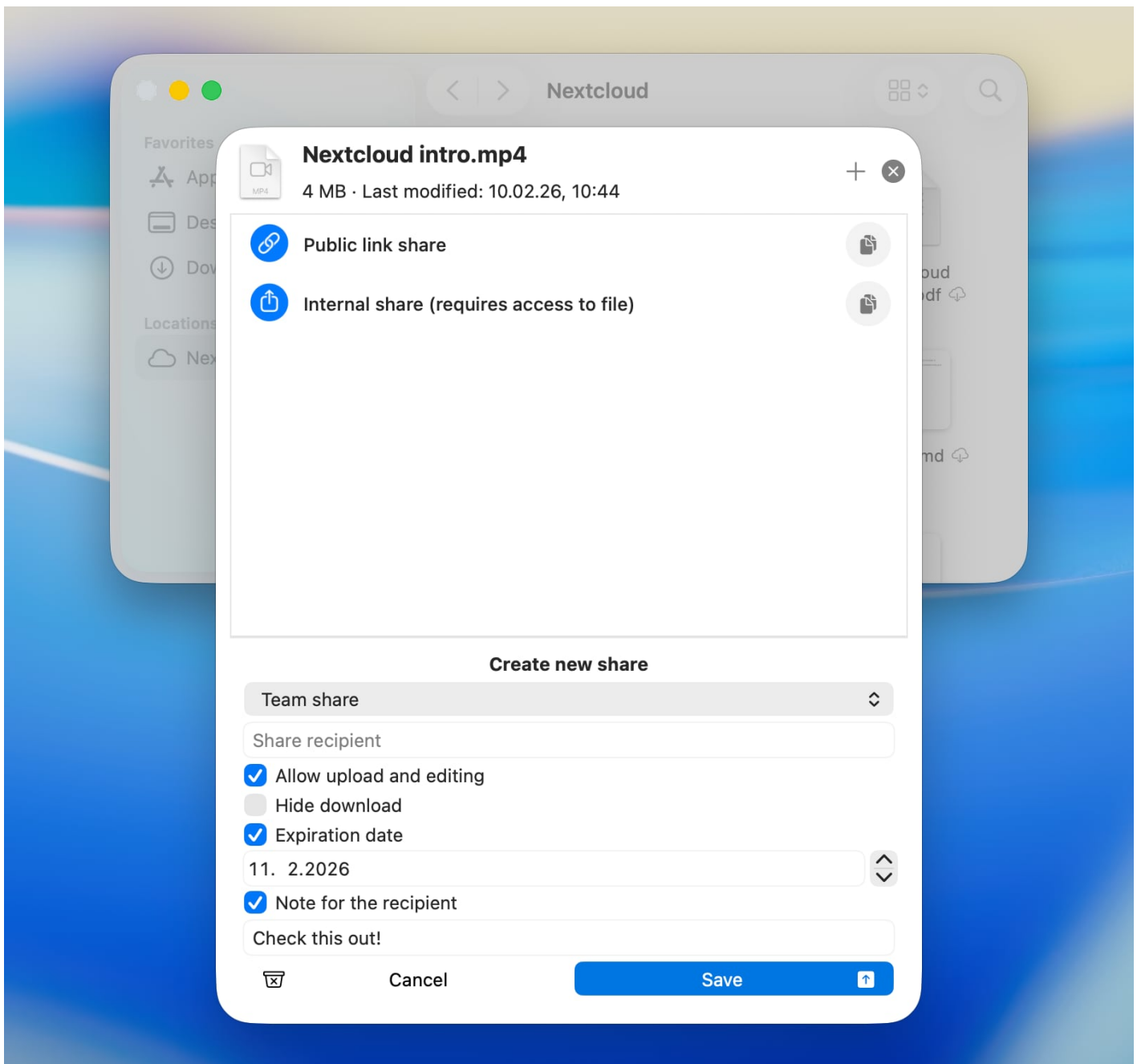
To always keep everything in an account available locally, you can select "Always keep downloaded" on the location root in the Finder sidebar.

Locking



If the server supports file locking, the client will offer manual locking and unlocking of files in Finder.

Sharing



When the server supports sharing and the item is allowed to be shared, then you can create new shares or manage existing shares for an item directly from the context menu in Finder, as in the Nextcloud web interface.

File actions

If the server has apps installed which provide file actions for the selected file types, these actions will also be available in the context menu in Finder. This allows you to use server-side features of your Nextcloud instance directly from the Finder.

Known issues

macOS Extensions conflict

Due to technical limitations in macOS which are imposed by Apple, it is not possible to have the Finder integration for classic sync folders running in parallel to an enabled File Provider extension. This means that item decorations and context menu options will be unavailable for classic sync folders while the File Provider extension is enabled.

Alias files

When opening a macOS alias file stored on Nextcloud for the first time on a device where it has not yet been downloaded, the file may open as a binary document in a text editor instead of jumping to its target. This happens because macOS decides how to open a file before downloading it, and alias files carry no recognisable file extension or type information on the server — the only way to identify them is by reading their content. Once the file has been opened or downloaded once, Nextcloud Desktop learns that it is an alias and stores that information locally, so all subsequent opens will work correctly. To avoid the issue entirely, right-click the alias file in Finder and choose **Keep Downloaded** before opening it for the first time.

Edit locally

The **Edit locally** action offered by the Nextcloud web interface cannot open files that are managed by the File Provider extension. It can only reveal them in Finder.

This is a restriction of macOS itself, not a fault in the client. For your protection, macOS only lets specific apps open a given file, and it does not allow an app to grant itself that permission. The part of the client that is allowed to manage these files is not permitted to launch other apps, and the part that could launch your editor is not permitted to open the file.

Granting Full Disk Access does not help, because a different part of the macOS security system is responsible for this.

Troubleshooting

Debug-level Logging

Debug-level log entries for the File Provider extension are disabled by default. If you want to report an issue with the File Provider, it can be helpful to enable them to get more detailed information about what is happening under the hood. To enable them, you have to issue the following command in Terminal:

```
defaults write com.nextcloud.desktopclient.FileProviderExt debugLoggingEnabled -bool YES
```

The change takes effect within a couple of seconds; no restart of the extension or the Mac is required. It is recommended to restore the default value by deleting the explicit value after you have resolved the problem you were investigating:

```
defaults delete com.nextcloud.desktopclient.FileProviderExt debugLoggingEnabled
```

Using the Command-Line Client

The Nextcloud Client packages contain a command line client, `nextcloudcmd`, that can be used to synchronize Nextcloud files to client machines.

`nextcloudcmd` performs a single *sync run* and then exits the synchronization process. In this manner, `nextcloudcmd` processes the differences between client and server directories and propagates the files to bring both repositories to the same state. Contrary to the GUI-based client, `nextcloudcmd` does not repeat synchronizations on its own. It also does not monitor for file system changes.

Install

OS	Package
Alpine	https://pkgs.alpinelinux.org/package/edge/community/x86_64/nextcloud-client
Debian	https://packages.debian.org/search?suite=all&arch=any&searchon=names&keywords=nextcloud-desktop-cmd
Fedora	https://packages.fedoraproject.org/pkgs/nextcloud-client/nextcloud-client/
Ubuntu	https://packages.ubuntu.com/search?keywords=nextcloud-desktop-cmd
Ubuntu (PPA)	https://launchpad.net/~nextcloud-devs/+archive/ubuntu/client
Windows	https://nextcloud.com/install/#install-clients

Usage

To invoke `nextcloudcmd`, you must provide the local and the remote repository URL using the following command:

```
nextcloudcmd [OPTIONS...] sourcedir nextcloudurl
```

where `sourcedir` is the local directory and `nextcloudurl` is the server URL.

Other command line switches supported by `nextcloudcmd` include the following:

`--path`

Overrides default remote root folder to a specific subfolder on the server(e.g.: /Documents would sync the Documents subfolder on the server)

`--user`, `-u` `<user>`

Use `user` as the login name.

`--password`, `-p` `<password>`

Use password as the password.

`-n`

Use `netrc(5)` for login.

`--non-interactive`

Do not prompt for questions and tries to read `$NC_USER` and `$NC_PASSWORD` from the environment.

`--silent`, `--s`

Inhibits verbose log output.

`--trust`

Trust any SSL certificate, including invalid ones.

`--httpproxy` `http://[user@pass:]<server>:<port>`

Uses server as HTTP proxy.

`--exclude` `<file>`

Exclude list file

`--unsyncedfolders` `<file>`

File containing the list of unsynced folders (selective sync)

`--max-sync-retries` `<n>`

Retries maximum n times (defaults to 3)

`-h`

Sync hidden files,do not ignore them

Credential Handling

`nextcloudcmd` requires the user to specify the username and password using the standard URL pattern, e.g.,

```
$ nextcloudcmd /home/user/my_sync_folder https://carla:secret@server/nextcloud
```

To synchronize the Nextcloud directory `Music` to the local directory `media/music`, through a proxy listening on port `8080`, and on a gateway machine using IP address `192.168.178.1`, the command line would be:

```
$ nextcloudcmd --httpproxy http://192.168.178.1:8080 --path /Music \  
$HOME/media/music \  
https://server/nextcloud
```

`nextcloudcmd` will prompt for the user name and password, unless they have been specified on the command line or `-n` has been passed.

Exclude List

`nextcloudcmd` requires access to an exclude list file. It must either be installed along with `nextcloudcmd` and thus be available in a system location, be placed next to the binary as `sync-exclude.lst` or be explicitly specified with the `--exclude` switch.

The required file content is one exclude item per line where wildcards are allowed, e.g.: :

```
~*.tmp  
._*  
]Thumbs.db  
]photothumb.db  
System Volume Information
```

Example

- Synchronize a local directory to the specified directory of the nextcloud server

```
$ nextcloudcmd --path /<Directory_that_has_been_created> /home/user/<my_sync_folder> \  
https://<username>:<secret>@<server_address>
```

Command-Line Options

You have the option of starting your Nextcloud desktop client with the `nextcloud` command. The following options are supported:

`nextcloud -h` or `nextcloud --help`

Displays all command options.

The other options are:

`--logwindow`

Opens a window displaying log output.

`--logfile` <filename>

Write log output to the file specified. To write to stdout, specify - as the filename.

`--logdir` <name>

Writes each synchronization log output in a new file in the specified directory.

`--logexpire` <hours>

Removes logs older than the value specified (in hours). This command is used with `--logdir`.

`--logflush`

Clears (flushes) the log file after each write action.

`--logdebug`

Also output debug-level messages in the log (equivalent to setting the env var `QT_LOGGING_RULES="qt.*=true;*.debug=true"`).

`--confdir` <dirname>

Uses the specified configuration directory.

`--background`

Launch the application in the background (i.e. without opening the main dialog).

Configuration File

The Nextcloud Client reads a configuration file. You can locate this configuration file as follows:

On Linux distributions:

```
$HOME/.config/Nextcloud/nextcloud.cfg
```

On Microsoft Windows systems:

```
%APPDATA%\Nextcloud\nextcloud.cfg
```

On macOS systems:

Starting with version 33.0.0:

```
$HOME/Library/Containers/com.nextcloud.desktopclient/Data/Library/Preferences/Nextcloud/nextcloud.cfg
```

On older versions:

```
$HOME/Library/Preferences/Nextcloud/nextcloud.cfg
```



In a Citrix workspace, the user's Roaming profile need to be persisted between sessions. The failure on doing so will result in users having to set up their account again in every new session.

The configuration file contains settings using the Microsoft Windows .ini file format. You can overwrite changes using the Nextcloud configuration dialog.



Use caution when making changes to the Nextcloud Client configuration file. Incorrect settings can produce unintended results.

The configuration file also contains account details, sync folder state, window geometry, cache values, migration markers, and updater state. Those values are managed by the client and are not documented here for manual editing.

Some interesting values that can be set on the configuration file are:

[Nextcloud] section

Variable	Default	Meaning
<code>remotePollInterval</code>	<code>30000</code> (30 sec)	Specifies the poll time for the remote repository in milliseconds. Values below <code>5000</code> are ignored and the default is used instead.
<code>forceSyncInterval</code>	<code>7200000</code> (2 hr)	The duration of no activity after which a synchronization run shall be triggered automatically. If this value is lower than <code>remotePollInterval</code> , the client uses <code>remotePollInterval</code> instead.
<code>fullLocalDiscoveryInterval</code>	<code>3600000</code> (1 hr)	The interval after which the next synchronization will perform a full local discovery. Set this to <code>-1</code> to disable periodic full local discovery.
<code>notificationRefreshInterval</code>	<code>60000</code> (1 min)	Specifies the default interval of checking for new server notifications in milliseconds. Values below <code>60000</code> are raised to <code>60000</code> .
<code>skipUpdateCheck</code>	<code>false</code>	Disables update checks and hides the updater user interface.
<code>autoUpdateCheck</code>	<code>true</code>	Enables automatic update checks when update checks are not skipped.
<code>updateCheckInterval</code>	<code>36000000</code> (10 hr)	Specifies the interval for automatic update checks in milliseconds. Values below <code>300000</code> (5 min) are raised to <code>300000</code> .

[General] section

Variable	Default	Meaning
<code>chunkSize</code>	<code>104857600</code> (100 MiB)	Specifies the initial chunk size of uploaded files in bytes. The client can dynamically adjust this size within the maximum and minimum bounds. Server capabilities and environment variables can also affect the effective chunk size.

Variable	Default	Meaning
<code>minChunkSize</code>	<code>5242880</code> (5 MiB)	Specifies the minimum configured chunk size of uploaded files in bytes. Values below the protocol minimum are raised by the sync engine.
<code>maxChunkSize</code>	<code>104857600</code> (100 MiB)	Specifies the maximum configured chunk size of uploaded files in bytes. Server capabilities can override this value at runtime.
<code>forceLoginV2</code>	<code>false</code>	If the client should force the new login flow, even though some circumstances might need the old flow.
<code>promptDeleteAllFiles</code>	<code>false</code>	If a UI prompt should ask for confirmation when all files are detected as deleted or when the number of deleted files exceeds <code>deleteFilesThreshold</code> . This only applies to GUI syncs.
<code>deleteFilesThreshold</code>	<code>100</code>	The number of deleted files above which <code>promptDeleteAllFiles</code> can trigger a confirmation prompt.
<code>timeout</code>	<code>300</code>	The timeout for network connections in seconds. The <code>OWNCLOUD_TIMEOUT</code> environment variable takes precedence when set.
<code>moveToTrash</code>	<code>false</code>	If files deleted on the server should be moved to the local trash instead of being deleted permanently.
<code>showExperimentalOptions</code>	<code>false</code>	Whether to show experimental options that are still undergoing testing in the user interface. Turning this on does not enable experimental behavior on its own. It enables user interface options that can be used to opt in to experimental features.
<code>showMainDialogAsNormalWindow</code>	<code>false</code>	Whether the main dialog should be shown as a normal window even if tray icons are available.
<code>monoIcons</code>	<code>false</code>	Whether monochrome tray icons should be used. On macOS, the official Nextcloud client defaults this to <code>true</code> when monochrome icons are available.
<code>optionalServerNotifications</code>	<code>true</code>	Whether optional server notifications should be shown.

Variable	Default	Meaning
<code>showChatNotifications</code>	<code>true</code>	Whether chat notifications should be shown when optional server notifications are enabled.
<code>showCallNotifications</code>	<code>true</code>	Whether call notifications should be shown when optional server notifications are enabled.
<code>showQuotaWarningNotifications</code>	<code>true</code>	Whether quota warning notifications should be shown when optional server notifications are enabled.
<code>showInExplorerNavigationPane</code>	Platform dependent	Whether synced folders should be shown in the Windows Explorer navigation pane. The default is <code>true</code> on Windows 10 and newer, and <code>false</code> on other platforms.
<code>launchOnSystemStartup</code>	<code>true</code>	Stores whether the option to launch the client on system startup is enabled.
<code>language</code>	empty	Enforces a specific language for the user interface. An empty value uses the operating system language.
<code>updateChannel</code>	Build dependent	The selected update channel. Invalid values are ignored. Branded clients may only support their default channel.
<code>newBigFolderSizeLimit</code>	<code>500</code> (MB)	Folder size limit in MB used when asking before synchronizing large folders.
<code>useNewBigFolderSizeLimit</code>	<code>true</code>	Enables the large-folder confirmation limit.
<code>confirmExternalStorage</code>	<code>true</code>	Ask before synchronizing external storages.
<code>notifyExistingFoldersOverLimit</code>	<code>false</code>	Notify when existing synced folders grow beyond <code>newBigFolderSizeLimit</code> .
<code>stopSyncingExistingFoldersOverLimit</code>	Follows <code>notifyExistingFoldersOverLimit</code>	Stop syncing existing folders that exceed the configured folder size limit.
<code>logToTemporaryLogDir</code>	<code>false</code>	Write logs to a temporary log directory.
<code>logDir</code>	<code><config path>/logs</code>	Directory for client log files.
<code>logDebug</code>	<code>false</code>	Enable debug logging.
<code>logExpire</code>	<code>24</code>	Log retention time in hours.
<code>logFlush</code>	<code>false</code>	Flush log output immediately.



Upload sync options can also be overridden by environment variables.

`OWNCLOUD_CHUNK_SIZE`, `OWNCLOUD_MIN_CHUNK_SIZE`, `OWNCLOUD_MAX_CHUNK_SIZE`, and `OWNCLOUD_MAX_PARALLEL` are applied after configuration values and server capabilities. The dynamic chunk target duration can be overridden with `OWNCLOUD_TARGET_CHUNK_UPLOAD_DURATION`. The `targetChunkUploadDuration` key in `nextcloud.cfg` is currently not applied by GUI sync.

Legacy [Proxy] section

The top-level `[Proxy]` section is the legacy/global proxy configuration. Current account proxy settings are stored per account in the `[Accounts]` section. Proxy passwords are stored in the system keychain where possible.

Variable	Default	Meaning
<code>host</code>	empty	The address of the proxy server.
<code>port</code>	<code>0</code>	The port where the proxy is listening. The settings dialog may show <code>8080</code> as the manual-proxy UI default when no port is configured.
<code>needsAuth</code>	<code>false</code>	Whether the proxy requires authentication.
<code>user</code>	empty	Proxy username.
<code>type</code>	<code>0</code>	<code>0</code> for System Proxy.

Per-account network settings

Current proxy and bandwidth settings are stored below the individual account group in the `[Accounts]` section.

Variable	Default	Meaning
<code>networkProxyType</code>	<code>2</code>	Account proxy type. <code>0</code> is System Proxy, <code>1</code> is SOCKS5 Proxy, <code>2</code> is No Proxy, and <code>3</code> is HTTP(S) Proxy.
<code>networkProxyHostName</code>	empty	Account proxy hostname.

Variable	Default	Meaning
networkProxyPort	0	Account proxy port.
networkProxyNeedsAuth	false	Whether the account proxy requires authentication.
networkProxyUser	empty	Account proxy username.
networkUploadLimitSetting	0	Upload bandwidth limit mode. 0 means no limit and 1 means manual limit. Legacy values -1 and -2 are treated as no limit or migration values.
networkDownloadLimitSetting	0	Download bandwidth limit mode. 0 means no limit and 1 means manual limit. Legacy values -1 and -2 are treated as no limit or migration values.
networkUploadLimit	0	Manual upload limit in KB/s.
networkDownloadLimit	0	Manual download limit in KB/s.

Environment Variables

The behavior of the client can also be controlled using environment variables. The value of the environment variables overrides the values in the configuration file.

The environment variables are:

- `OWNCLOUD_CHUNK_SIZE` (default: 5242880; 5 MiB) - Specifies the chunk size of uploaded files in bytes. Increasing this value may help with synchronization problems in certain configurations.
- `OWNCLOUD_TIMEOUT` (default: 300 s) - The timeout for network connections in seconds.
- `OWNCLOUD_CRITICAL_FREE_SPACE_BYTES` (default: 512*1000*1000 bytes) - The minimum disk space needed for operation. A fatal error is raised if less free space is available.
- `OWNCLOUD_FREE_SPACE_BYTES` (default: 1000*1000*1000 bytes) - Downloads that would reduce the free space below this value are skipped. More information available under the "Low Disk Space" section.
- `OWNCLOUD_MAX_PARALLEL` (default: 6) - Maximum number of parallel jobs.
- `OWNCLOUD_BLACKLIST_TIME_MIN` (default: 25 s) - Minimum timeout for blacklisted files.
- `OWNCLOUD_BLACKLIST_TIME_MAX` (default: 24*60*60 s; one day) - Maximum timeout for blacklisted files.
- `OWNCLOUD_HTTP2_ENABLED` (default: false) - If the client should communicate with the server using HTTP/2. (This may not be compatible with all server setups)

Low Disk Space

When disk space is low the Nextcloud Client will be unable to synchronize all files. This section describes its behavior in a low disk space situation as well as the options that influence it.

1. Synchronization of a folder aborts entirely if the remaining disk space falls below 512 MB. This threshold can be adjusted with the `OWNCLOUD_CRITICAL_FREE_SPACE_BYTES` environment variable.
2. Downloads that would reduce the free disk space below 1 GB will be skipped or aborted. The download will be retried regularly and other synchronization is unaffected. This threshold can be adjusted with the `OWNCLOUD_FREE_SPACE_BYTES` environment variable.

The Automatic Updater

The Automatic Updater ensures that you always have the latest features and bug fixes for your Nextcloud synchronization client.

The Automatic Updater updates only on macOS and Windows computers; Linux users only need to use their normal package managers. However, on Linux systems the Updater will check for updates and notify you when a new version is available.

Basic Workflow

The following sections describe how to use the Automatic Updater on different operating systems.

Windows

The Nextcloud client checks for updates and downloads them when available. You can view the update status under `Settings -> General -> Updates` in the Nextcloud client.

If an update is available, and has been successfully downloaded, the Nextcloud client starts a silent update prior to its next launch and then restarts itself. Should the silent update fail, the client offers a manual download.

“

Administrative privileges are required to perform the update.

macOS

The macOS client has an autoupdater which uses the Sparkle framework. This autoupdater is bundled into the client App Bundle and checks for updates on launch, notifying you if an update is available. This will present a pop-up that can let you automatically download and install the latest client update with one click.

In versions of the client where the Sparkle-based autoupdater is not bundled, a clickable notification will appear informing of an update being available. Upon clicking on said notification, the download page for the latest version of the client will be opened in the system's web browser.

Like on other systems, you can view the update status under `Settings -> General -> Updates` in the Nextcloud client.

Linux

Linux distributions provide their own update tools, so Nextcloud clients that use the Linux operating system do not perform any updates on their own. The client will inform you (`Settings -> General -> Updates`) when an update is available.

Preventing Automatic Updates

In controlled environments, such as companies or universities, you might not want to enable the auto-update mechanism, as it interferes with controlled deployment tools and policies. To address this case, it is possible to disable the auto-updater entirely. The following sections describe how to disable the auto-update mechanism for different operating systems.

Preventing Automatic Updates in Windows Environments

Users may disable automatic updates by adding this line to the [General] section of their `nextcloud.cfg` files:

```
skipUpdateCheck=true
```

Windows administrators have more options for preventing automatic updates in Windows environments by using one of two methods. The first method allows users to override the automatic update check mechanism, whereas the second method prevents any manual overrides.

To prevent automatic updates, but allow manual overrides:

1. Edit this Registry key:

```
"HKEY_LOCAL_MACHINE\Software\Nextcloud GmbH\Nextcloud
```

2. Add the key `skipUpdateCheck` (of type DWORD).
3. Specify a value of `1` to the machine.

To manually override this key, use the same value in `HKEY_CURRENT_USER`.

To prevent automatic updates and disallow manual overrides:



This is the preferred method of controlling the updater behavior using Group Policies.

1. Edit this Registry key:



```
HKEY_LOCAL_MACHINE\Software\Policies\Nextcloud GmbH\Nextcloud
```

2. Add the key `skipUpdateCheck` (of type DWORD).
3. Specify a value of `1` to the machine.



Branded clients use a different key in place of `Nextcloud GmbH\Nextcloud` that matches the branded application vendor and name.

Preventing Automatic Updates in Linux Environments

Because the Linux client does not provide automatic updating functionality, there is no need to remove the automatic-update check. However, if you want to disable it edit your desktop client configuration file, `$HOME/.config/Nextcloud/nextcloud.cfg`. Add this line to the [General] section:

```
skipUpdateCheck=true
```

Update channels

Whether you want the latest features, want to help with testing, or just want to wait until everything is perfectly ready to go, we've got options for you.

The desktop client has 4 update channels: *Enterprise*, *Stable*, *Beta* and *Daily*.

Channels	
Enterprise	Special version for enterprise customers for the best possible experience.
Stable	Latest feature releases ready for most users at minimal risk.
Beta	Short-term versions created in preparation for testers to report bugs against before a stable release.
Daily	Daily versions to reproduce bugs and to follow the development of the next stable version.

References:

- [Enterprise deployment options](#)
- [Latest stable release](#)
- [Pre-releases](#)
- [Daily builds](#)

Conflicts

Overview

The Nextcloud desktop client uploads local changes and downloads remote changes. When a file has changed on the local side and on the remote between synchronization runs the client will be unable to resolve the situation on its own. It will create a conflict file with the local version, download the remote version and notify the user that a conflict occurred which needs attention.

Example

Imagine there is a file called `mydata.txt` in your synchronized folder. It has not changed for a while and contains the text "contents" locally and remotely. Now, nearly at the same time you update it locally to say "local contents" while the file on the server gets updated to contain "remote contents" by someone else.

When attempting to upload your local changes the desktop client will notice that the server version has also changed. It creates a conflict and you will now have two files on your local machine:

- `mydata.txt` containing "remote contents"
- `mydata (conflicted copy 2018-04-10 093612).txt` containing "local contents"

In this situation the file `mydata.txt` has the remote changes (and will continue to be updated with further remote changes when they happen), but your local adjustments have not been sent to the server (unless the server enables conflict uploading, see below).

The desktop client notifies you of this situation via system notifications, the system tray icon and a yellow "unresolved conflicts" badge in the account settings window. Clicking this badge shows a list that includes the unresolved conflicts and clicking one of them opens an explorer window pointing at the relevant file.

To resolve this conflict, open both files, compare the differences and copy your local changes from the "conflicted copy" file into the base file where applicable. In this example you might change `mydata.txt` to say "local and remote contents" and delete the file with "conflicted copy" in its name. With that, the conflict is resolved.

Uploading conflicts (experimental)

By default the conflict file (the file with "conflicted copy" in its name that contains your local conflicting changes) is not uploaded to the server. The idea is that you, the author of the changes, are the best person for resolving the conflict and showing the conflict to other users might create confusion.

However, in some scenarios it makes a lot of sense to upload these conflicting changes such that local work can become visible even if the conflict won't be resolved immediately.

In the future there might be a server-wide switch for this behavior. For now it can already be tested by setting the environment variable `OWNCLOUD_UPLOAD_CONFLICT_FILES=1`.

FAQ

How the "Edit locally" functionality works

This functionality depends on the desktop client ability to register the nc:// protocol handler. That is the handler used by the server to open a file locally. This will allow the desktop client to open a document with the local editor when you click on the option "Edit locally" in your Nextcloud instance.



Without properly registering the mime, independent of the browser and distro being used, the desktop client will fail to open a document with the local editor when you click on the option "Edit locally" in your Nextcloud instance.

The browser will warn you of the failure: "Failed to launch 'nc://...' because the scheme does not have a registered handler."

How to enable it

In order to do that, you need to install the desktop client with the MSI installer on Windows or use a third party software to integrate the AppImage in your system on Linux.

On Linux

We use AppImage due to its universal compatibility but to take full advantage of the desktop client features you will need a third part software to integrate the AppImage in your system: we have tested [AppImageLauncher](#) and alternatively there is [Go AppImage](#).

On Windows

The MSI installer will alter your system registry to register the nc:// protocol handler.

Alternatively, you can manually register the nc:// protocol handler:

1. Save the following content to a .reg file:

```
Windows Registry Editor Version 5.00

[HKEY_CLASSES_ROOT\nc\shell\open\command]
@="\"C:\\Program Files\\Nextcloud\\nextcloud.exe\" \"%1\""
```

2. Double click on the .reg file to import it into the registry.

See <https://nextcloud.com/blog/nextcloud-office-release-solves-document-compatibility-overhauls-knowledge-management/> for more information.

Some Files Are Continuously Uploaded to the Server, Even When They Are Not Modified.

It is possible that another program is changing the modification date of the file. If the file is uses the `.eml` extension, Windows automatically and continually changes all files, unless you remove `\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\PropertySystem\PropertyHandlers` from the windows registry. See <http://petersteier.wordpress.com/2011/10/22/windows-indexer-changes-modification-dates-of-eml-files/> for more information.

Syncing Stops When Attempting To Sync Deeper Than 100 Sub-directories.

The sync client has been intentionally limited to sync no deeper than 100 sub-directories. The hard limit exists to guard against bugs with cycles like symbolic link loops. When a deeply nested

directory is excluded from synchronization it will be listed with other ignored files and directories in the "Not synced" tab of the "Activity" pane.

There Was A Warning About Changes In Synchronized Folders Not Being Tracked Reliably.

On linux when the synchronized folder contains very many subfolders the operating system may not allow for enough inotify watches to monitor the changes in all of them.

In this case the client will not be able to immediately start the synchronization process when a file in one of the unmonitored folders changes. Instead, the client will show the warning and manually scan folders for changes in a regular interval (two hours by default).

This problem can be solved by setting the `fs.inotify.max_user_watches` sysctl to a higher value. This can usually be done either temporarily:

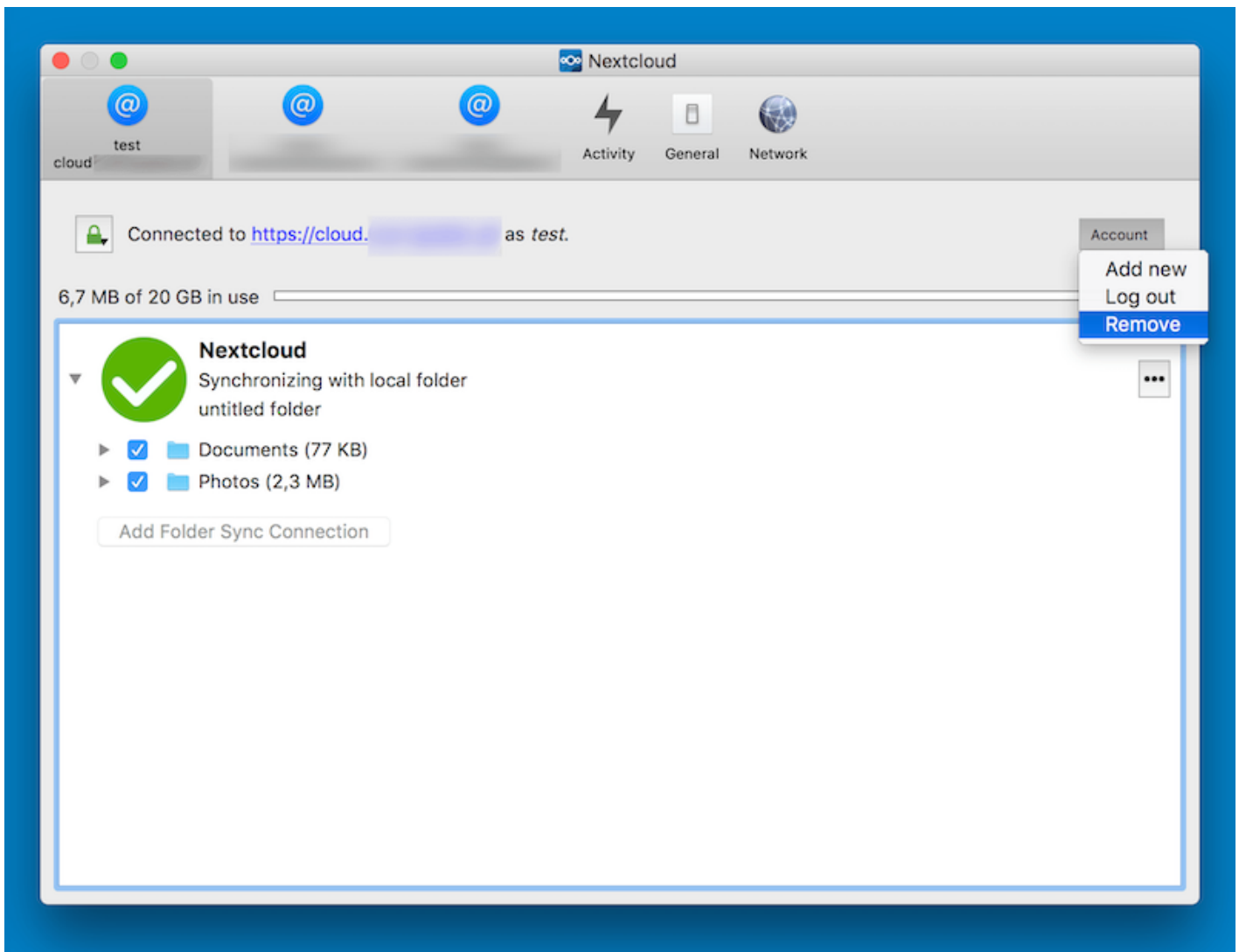
```
echo 524288 > /proc/sys/fs/inotify/max_user_watches
```

or permanently by adjusting `/etc/sysctl.conf`.

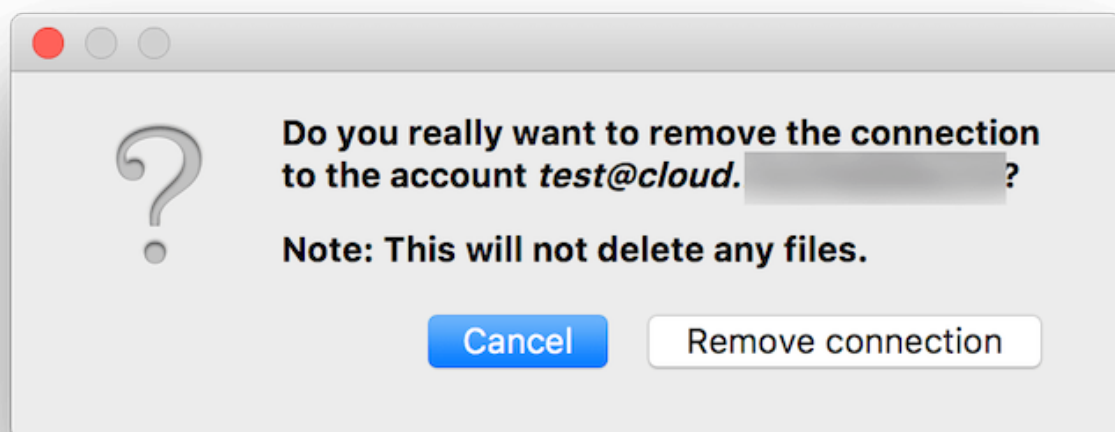
I Want To Move My Local Sync Folder

The Nextcloud desktop client does not provide a way to change the local sync directory. However, it can be done, though it is a bit unorthodox. Specifically, you have to:

1. Remove the existing connection which syncs to the wrong directory
2. Add a new connection which syncs to the desired directory

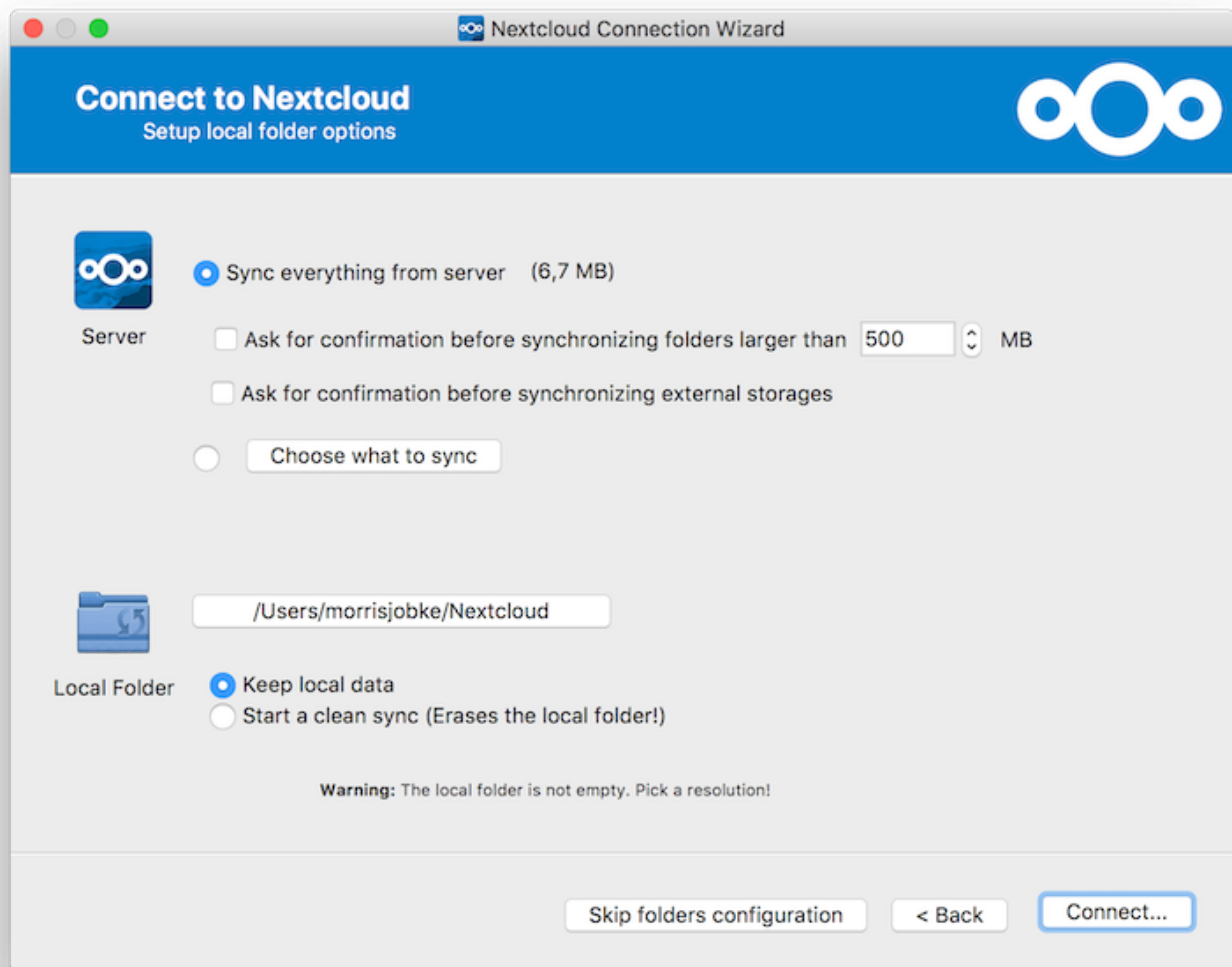


To do so, click the "**Account**" drop-down menu and then click "Remove". This will display a "**Confirm Account Removal**" dialog window.



If you're sure, click "**Remove connection**".

Then, click the Account drop-down menu again, and this time click "**Add new**".



This opens the Nextcloud Connection Wizard *but* with an extra option. This option provides the ability to either: keep the existing data (synced by the previous connection) or to start a clean sync (erasing the existing data).



Be careful before choosing the "Start a clean sync" option. The old sync folder *may* contain a considerable amount of data, ranging into the gigabytes or terabytes. If it does, after the client creates the new connection, it will have to download **all** of that information again. Instead, first move or copy the old local sync folder, containing a copy of the existing files, to the new location. Then, when creating the new connection choose "*keep existing data*" instead. The Nextcloud client will check the files in the newly-added sync folder and find that

they match what is on the server and not need to download anything.

Make your choice and click "**Connect...**". This will then step you through the Connection Wizard, just as you did when you setup the previous sync connection, but giving you the opportunity to choose a new sync directory.

I would like to change the language of the user interface

To do this, the configuration file `nextcloud.cfg` must be changed. A line with the desired language must be added to the `General` section.

```
[General]
language=de
```