



Nextcloud

Nextcloud User Manual

Release 32

The Nextcloud developers

Sep 15, 2026

CONTENTS

1	Nextcloud 32 user manual introduction	1
2	The Nextcloud Web interface	3
2.1	Web browser requirements	3
2.2	Navigating the main user interface	4
3	Files & synchronization	7
3.1	Accessing your files using the Nextcloud Web interface	7
3.2	Accessing Nextcloud files using WebDAV	12
3.3	Managing deleted files	25
3.4	Desktop and mobile synchronization	26
3.5	Encrypting your Nextcloud files on the server	26
3.6	File Sharing	29
3.7	Federated Shares	35
3.8	Making anonymous uploads	36
3.9	Large file uploads	38
3.10	Storage quota	38
3.11	Version control	39
3.12	Projects	40
3.13	Transfer Ownership	41
3.14	Using Federation Shares	45
4	Groupware	49
4.1	Using the Contacts app	49
4.2	Using the Calendar app	60
4.3	Using the Mail app	95
4.4	Setting out-of-office messages	115
4.5	Synchronizing with Android	116
4.6	Synchronizing with iOS	117
4.7	Synchronizing with macOS	118
4.8	Synchronizing with Thunderbird	125
4.9	Synchronizing with KDE Kontact	128
4.10	Synchronizing with the GNOME desktop	141
4.11	Synchronizing with Windows 10	143
4.12	Migrate data between instances	144
5	Talk	147
5.1	Basics of Nextcloud Talk	147
5.2	Advanced Talk features	180
5.3	Join a call or chat as guest	200

6	Desktop Clients	207
6.1	Installation	207
6.2	Using the Synchronization Client	213
6.3	macOS Virtual Files client	224
6.4	The Automatic Updater	229
6.5	Update channels	231
6.6	Conflicts	232
6.7	FAQ	232
7	Setting your preferences	239
7.1	Sharing your data in the global address book	241
7.2	Restrict who can see your profile data	241
8	Universal access	245
8.1	Zoom and responsiveness	245
8.2	Navigating via keyboard	245
8.3	Included themes	246
9	Using two-factor authentication	247
9.1	Configuring two-factor authentication	247
9.2	Recovery codes in case you lost your 2nd factor	248
9.3	Logging in with two-factor authentication	248
9.4	Using two-factor authentication with hardware tokens	251
9.5	Using client applications with two-factor authentication	251
9.6	Considerations	251
10	Manage connected browsers and devices	253
10.1	Managing connected browsers	253
10.2	Managing devices	254
10.3	Device-specific passwords and password changes	256
11	External Storage	257
11.1	Configuring External Storage	257
	Index	259

NEXTCLOUD 32 USER MANUAL INTRODUCTION

Welcome to Nextcloud: A safe home for all your data.

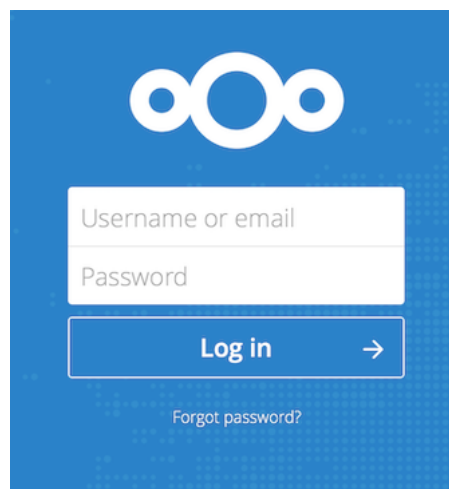
Nextcloud is open source file sync and share software for everyone from individuals operating the free Nextcloud Server in the privacy of their own home, to large enterprises and service providers supported by the Nextcloud Enterprise Subscription. Nextcloud provides a safe, secure, and compliant file synchronization and sharing solution on servers that you control.

You can share one or more files and folders on your computer, and synchronize them with your Nextcloud server. Place files in your local shared directories, and those files are immediately synchronized to the server and to other devices using the Nextcloud Desktop Sync Client, Android app, or iOS app.

[Help translate.](#)

THE NEXTCLOUD WEB INTERFACE

You can connect to your Nextcloud server using any Web browser. Just point it to your Nextcloud server URL (e.g. `cloud.example.com`) and enter your username and password:



2.1 Web browser requirements

For the best experience with the Nextcloud web interface, we recommend that you use the latest and supported version of a browser from this list:

- Google **Chrome**/Chromium (Desktop and Android)
- Mozilla **Firefox** (Desktop and Android)
- Apple **Safari** (Desktop and iOS)
- Microsoft **Edge**

Note

Not all versions are supported. Nextcloud is tested and built to work with [these versions only](#).

Note

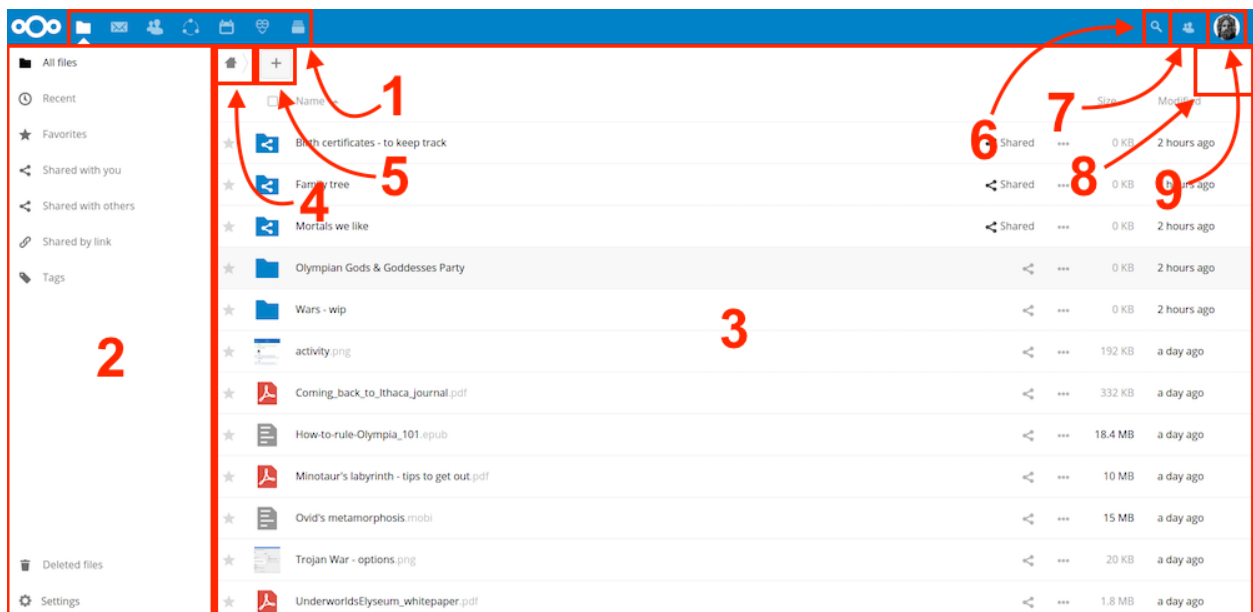
If you want to use Nextcloud Talk you need to run Mozilla **Firefox** 52+ or Google **Chrome**/Chromium 49+ to have the full experience with video calls and screensharing.

Warning

Microsoft **Internet Explorer** is **NOT** supported.

2.2 Navigating the main user interface

By default, the Nextcloud Web interface opens to your Dashboard or Files page:



In Files you can add, remove, and share files, and the server administrator can change access privileges.

The Nextcloud user interface contains the following fields and functions:

- **Apps Selection Menu** (1): Located in the upper left corner, you'll find all your apps which are available on your instance of Nextcloud. Clicking on an app icon will redirect you to the app.
- **Apps Information** field (2): Located in the left sidebar, this provides filters and tasks associated with your selected app. For example, when you are using the Files app you have a special set of filters for quickly finding your files, such as files that have been shared with you, and files that you have shared with others. You'll see different items for other apps.
- **Application View** (3): The main central field in the Nextcloud user interface. This field displays the contents or user features of your selected app.
- **Navigation Bar** (4): Located over the main viewing window (the Application View), this bar provides a type of breadcrumbs navigation that enables you to migrate to higher levels of the folder hierarchy up to the root level (home).
- **New** button (5): Located in the Navigation Bar, the **New** button enables you to create new files, new folders, or upload files.

Note

You can also drag and drop files from your file manager into the Files Application View to upload them to your instance.

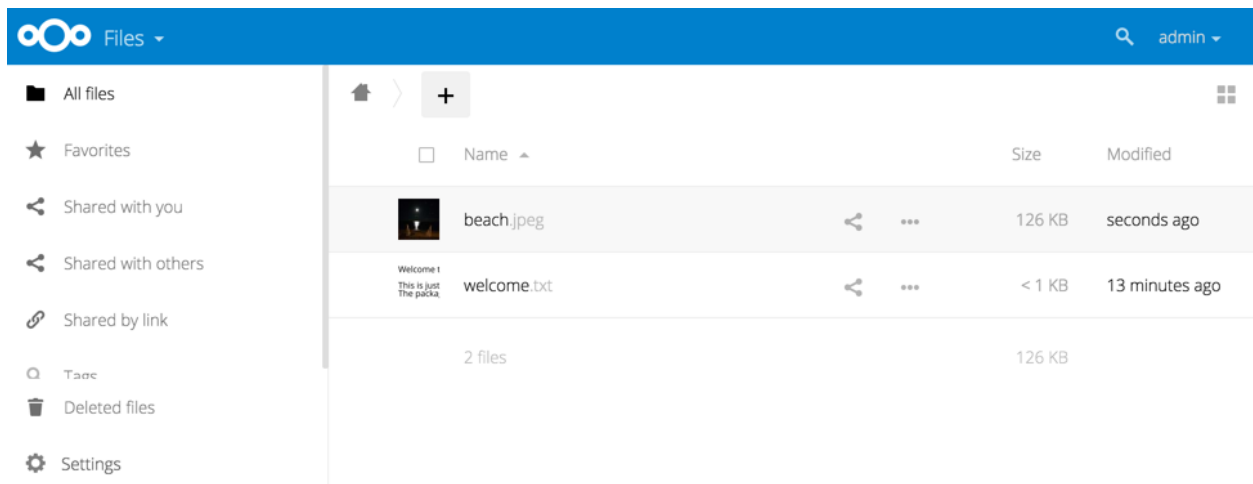
- **Search** field (6): Click on the Magnifier in the upper right corner to search for files and entries of the current app.
- **Contacts Menu** (7): Gives you an overview about your contacts and users on your server. Dependent on the given details and available apps, you can directly start a video call with them or send emails.
- **Grid view** button (8): This looks like four little squares, which toggles the grid view for folders and files.
- **Settings** menu (9): Click on your profile picture, located to the right of the Search field, to open your Settings dropdown menu. Your Settings page provides the following settings and features:
 - Links to download desktop and mobile apps
 - Server usage and space availability
 - Password management
 - Name, email, and profile picture settings
 - Manage connected browsers and devices
 - Group memberships
 - Interface language settings
 - Manage notifications
 - Federated Cloud ID and social media-sharing buttons
 - SSL/TLS certificate manager for external storages
 - Your Two-factor Settings
 - Nextcloud Version information

See [Setting your preferences](#) section to learn more about these settings.

FILES & SYNCHRONIZATION

3.1 Accessing your files using the Nextcloud Web interface

You can access your Nextcloud files with the Nextcloud Web interface and create, preview, edit, delete, share, and re-share files. Your Nextcloud administrator has the option to disable these features, so if any of them are missing on your system ask your server administrator.



3.1.1 Tagging files

You can assign tags to files. To create tags, open a file to the Details view. Then type your tags. To enter more than one tag press the return key after creating each tag. All tags are system tags, and are shared by all users on your Nextcloud server.

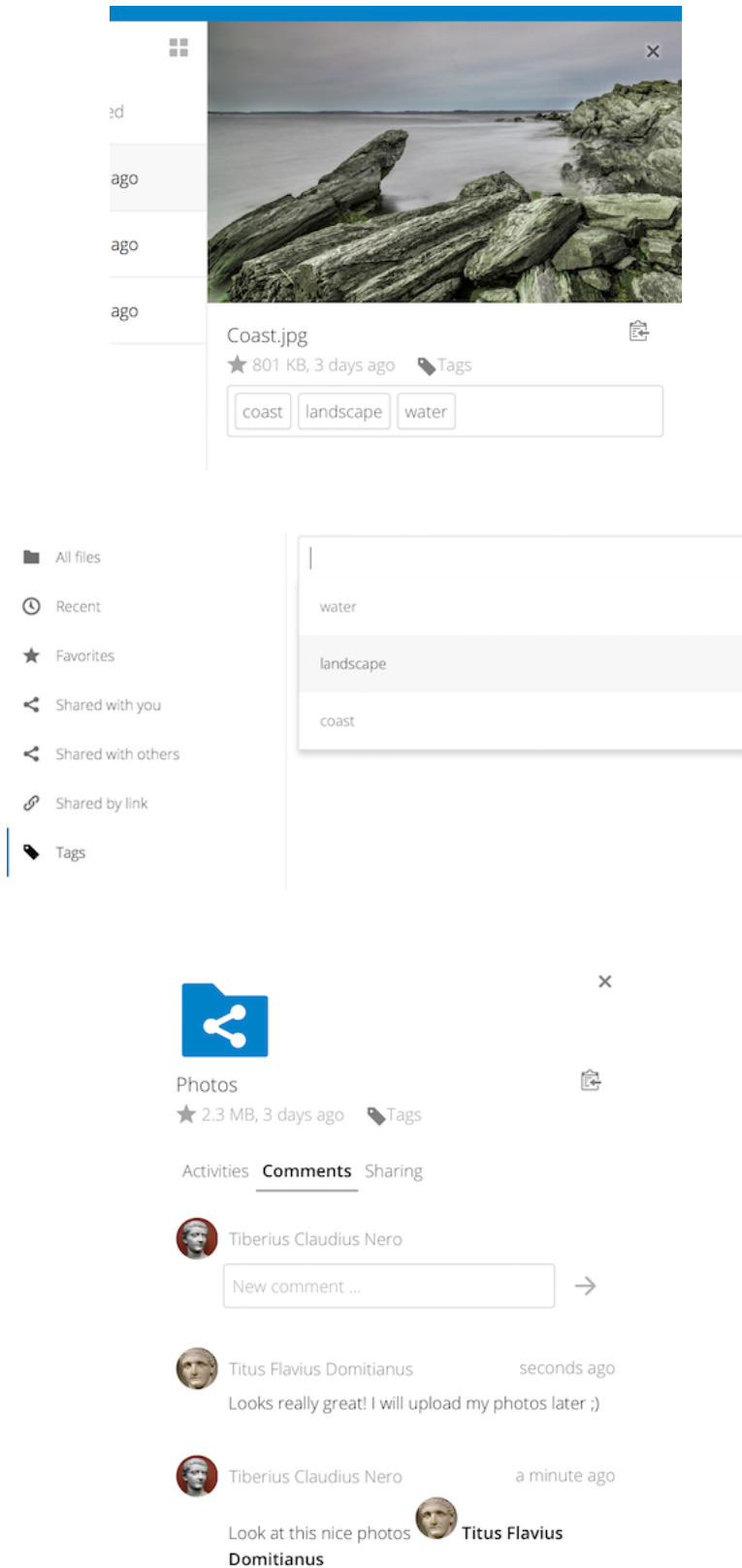
Then use the Tags filter on the left sidebar to filter files by tags:

3.1.2 Comments

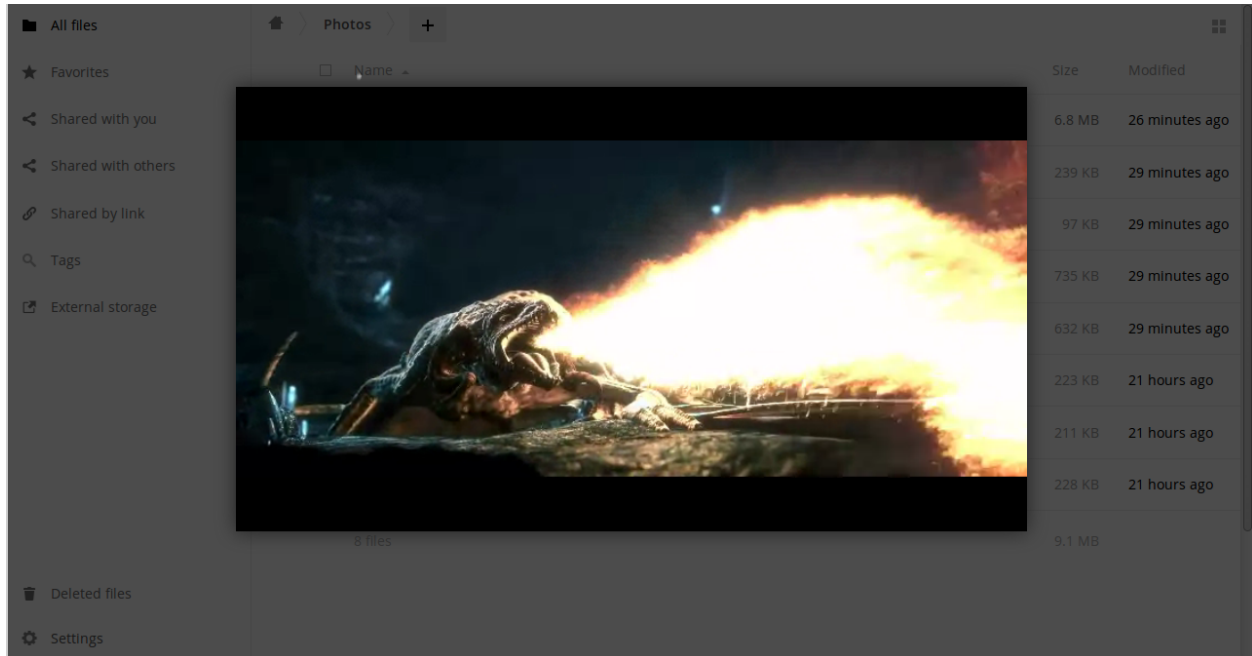
Use the Details view to add and read comments on any file or folder. Comments are visible to everyone who has access to the file:

3.1.3 Video player

You can play videos in Nextcloud with the Video Player app by simply clicking on the file. Video streaming by the native Nextcloud video player depends on your Web browser and the video format. If your Nextcloud administrator has enabled video streaming, and it doesn't work in your Web browser, it may be a browser issue. See <https://developer.mozilla.org/>



[en-US/docs/Web/HTML/Supported_media_formats#Browser_compatibility](#) for supported multimedia formats in Web browsers.

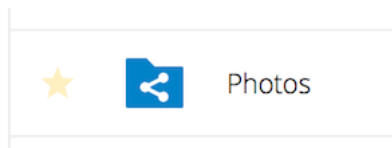


3.1.4 File controls

Nextcloud can display thumbnail previews for various file types, such as images, audio files, and text files. The specific types supported are up to the server administrator. Hover your cursor over a file or folder to expose the controls for the following operations:

Favorites

Click the star to the left of the file icon to mark it as a favorite:



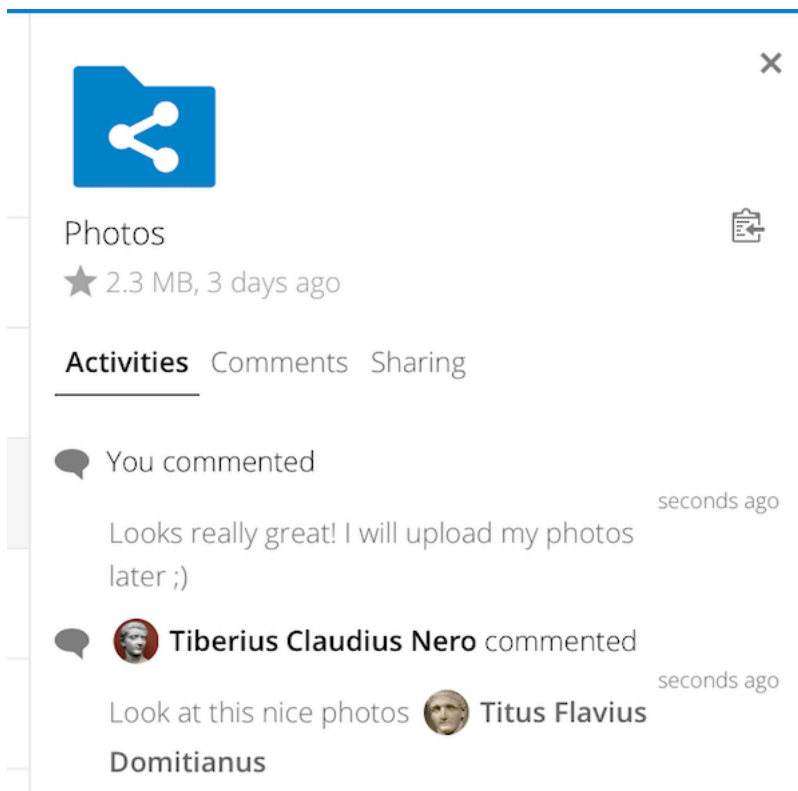
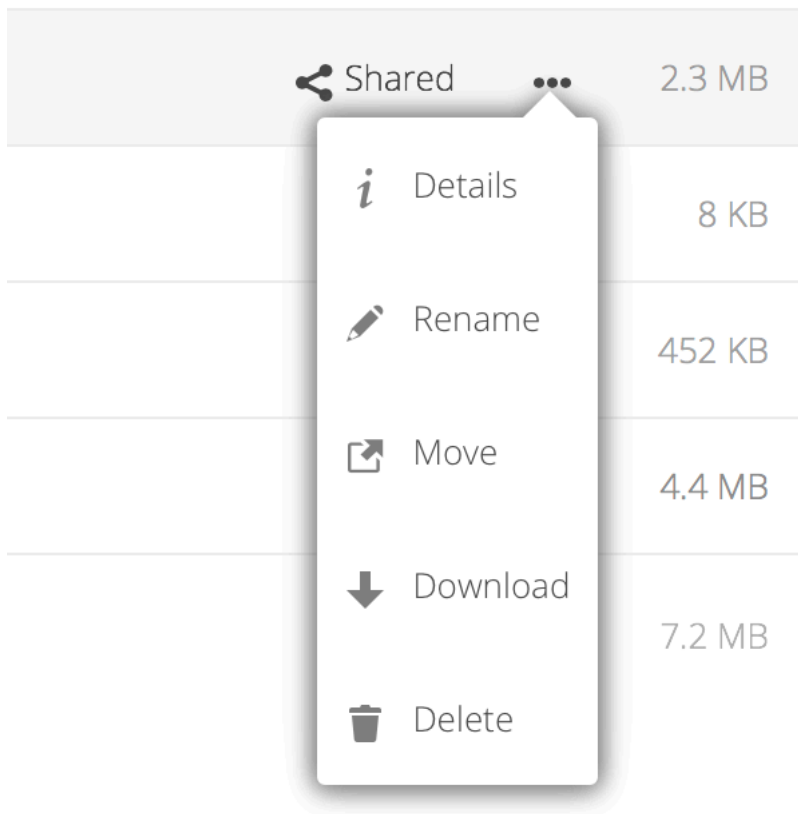
You can also quickly find all of your favorites with the Favorites filter on the left sidebar.

Overflow Menu

The Overflow menu (three dots) displays file details, and allows you to rename, download, or delete files:

The Details view shows Activities, Sharing, and Versions information:

The **Settings** gear icon at the lower left allows you to show or hide hidden files in your Nextcloud Web interface. These are also called dotfiles, because they are prefixed with a dot, e.g. `.mailfile`. The dot tells your operating system to hide these files in your file browsers, unless you choose to display them. Usually these are configuration files, so having the option to hide them reduces clutter.



 Settings

☐ Show hidden files

3.1.5 Previewing files

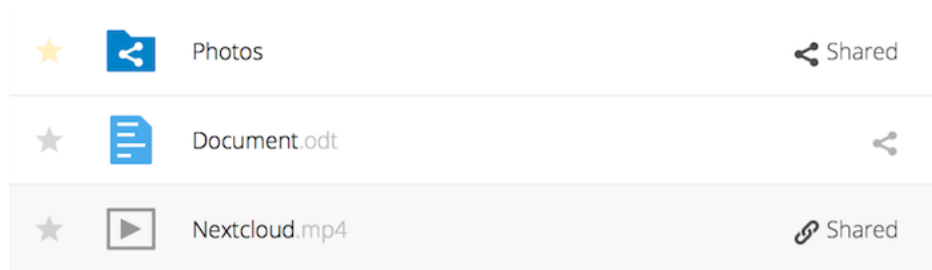
You can display uncompressed text files, OpenDocument files, videos, and image files in the Nextcloud embedded viewers by clicking on the file name. There may be other file types you can preview if your Nextcloud administrator has enabled them. If Nextcloud cannot display a file, it starts a download process and downloads the file to your computer.

3.1.6 Navigating inside your Nextcloud

Navigating through folders in Nextcloud is as simple as clicking on a folder to open it and using the back button on your browser to move to a previous level. Nextcloud also provides a navigation bar at the top of the Files page for quick navigation.

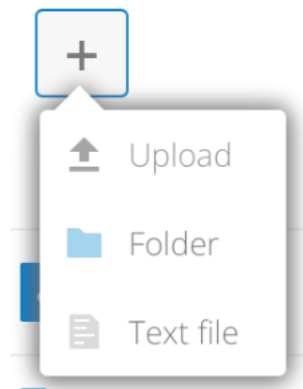
3.1.7 Sharing status icons

Any folder that has been shared is marked with the `Shared` overlay icon. Public link shares are marked with a chain link. Unshared folders are not marked:



3.1.8 Creating or uploading files and directories

Upload or create new files or folders directly in a Nextcloud folder by clicking on the *New* button in the Files app:



The *New* button provides the following options:

Up arrow

Upload files from your computer into Nextcloud. You can also upload files by dragging and dropping them from your file manager.

Text file

Creates a new text file and adds the file to your current folder.

Folder

Creates a new folder in the current folder.

3.1.9 Selecting files or folders

You can select one or more files or folders by clicking on their checkboxes. To select all files in the current directory, click on the checkbox located at the top of the files listing.

When you select multiple files, you can delete all of them, or download them as a ZIP file by using the `Delete` or `Download` buttons that appear at the top.

Note

If the `Download` button is not visible, the administrator has disabled this feature.

3.1.10 Filtering the files view

The left sidebar on the Files page contains several filters for quickly sorting and managing your files.

All files

The default view; displays all files that you have access to.

Favorites

Files or folders marked with the yellow star.

Shared with you

Displays all files shared with you by another user or group.

Shared with others

Displays all files that you have shared with other users or groups.

Shared by link

Displays all files that are shared by you via public link.

External Storage (optional)

Files that you have access to on external storage devices and services such as Amazon S3, SMB/CIFS, FTP...

3.1.11 Moving files

You can move files and folders by dragging and dropping them into any directory.

3.1.12 Creating or connecting to a Federation Share link

Federated Cloud Sharing allows you to mount file shares from remote Nextcloud servers, and manage them just like a local share. See [Using Federation Shares](#) to learn to how to create and connect to new Federated Cloud shares.

3.2 Accessing Nextcloud files using WebDAV

Nextcloud fully supports the WebDAV protocol, and you can connect to and synchronize with Nextcloud Files over WebDAV. This chapter explains how to connect Linux, macOS, Windows, and mobile devices to your Nextcloud server.

WebDAV stands for Distributed Authoring and Versioning. It is an HTTP extension that makes it easy to create, read, and edit files hosted on remote Web servers. With a WebDAV client, you can access your Nextcloud Files (including shares) on Linux, macOS and Windows in a similar way as any remote network share, and stay synchronized.

Before you configure WebDAV, review the recommended way to connect client devices to Nextcloud.

3.2.1 Official Nextcloud desktop and mobile clients

The recommended way to synchronize a computer with a Nextcloud server is by using the [official Nextcloud sync clients](#). You can configure the client to save files in any local directory and you can choose which directories on the Nextcloud server to sync with. The client displays the current connection status and logs all activity, so you always know which remote files have been downloaded to your PC and you can verify that files created and updated on your local PC are properly synchronized with the server.

The recommended way to synchronize Android and Apple iOS devices is by using the [official Nextcloud mobile apps](#).

To connect the official Nextcloud apps to a Nextcloud server use the same URL you use to access Nextcloud from your web browser - e.g.:

```
https://cloud.example.com
```

If Nextcloud is installed in a subdirectory called “nextcloud”:

```
https://example.com/nextcloud
```

3.2.2 Third-party WebDAV clients

If you prefer, you may also connect your computer to your Nextcloud server by using any third-party client that supports the WebDAV protocol (including what may be built into your operating system).

You can also use third-party WebDAV capable apps to connect your mobile device to Nextcloud.

When using third-party clients, keep in mind that they may not be optimized for use with Nextcloud or implement capabilities you consider important to your use case.

Mobile clients that Nextcloud community members have reported using include:

- [FolderSync \(Android\)](#)
- [WebDAV Navigator \(iPhone\)](#)

The URL to use when configuring third-party apps to connect to Nextcloud is a bit lengthier than the one for official clients:

```
https://cloud.example.com/remote.php/dav/files/USERNAME/
```

If Nextcloud is installed in a subdirectory called “nextcloud”:

```
https://example.com/nextcloud/remote.php/dav/files/USERNAME/
```

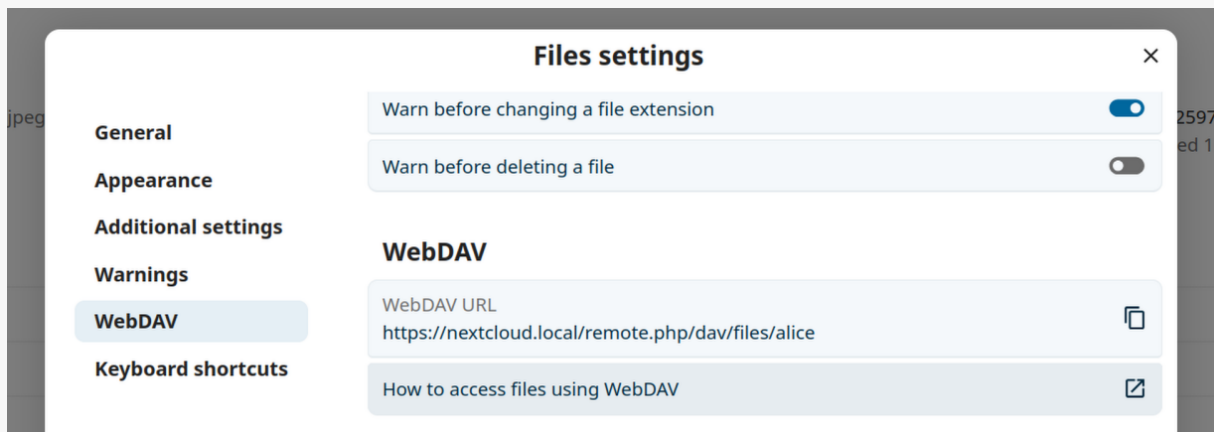
Note

When using a third-party WebDAV client (including your operating system’s built-in client), you should use an application password for login rather than your regular password. In addition to improved security, this [increases performance significantly](#). To configure an application password, log in to the Nextcloud Web interface, click your avatar, and choose *Personal settings*. Then choose *Security* in the left sidebar and scroll to the very bottom. There you can create an app password (which can also be revoked in the future without changing your main user password).

Note

In the following examples, you should replace **example.com/nextcloud** with the URL of your Nextcloud server (omit the directory part if the installation is in the root of your domain), and **USERNAME** with the username of the connecting user.

You can find the WebDAV URL in **Files settings** under **WebDAV** in your Nextcloud account.



3.2.3 Accessing files using Linux

You can access files in Linux operating systems using the following methods.

Nautilus file manager

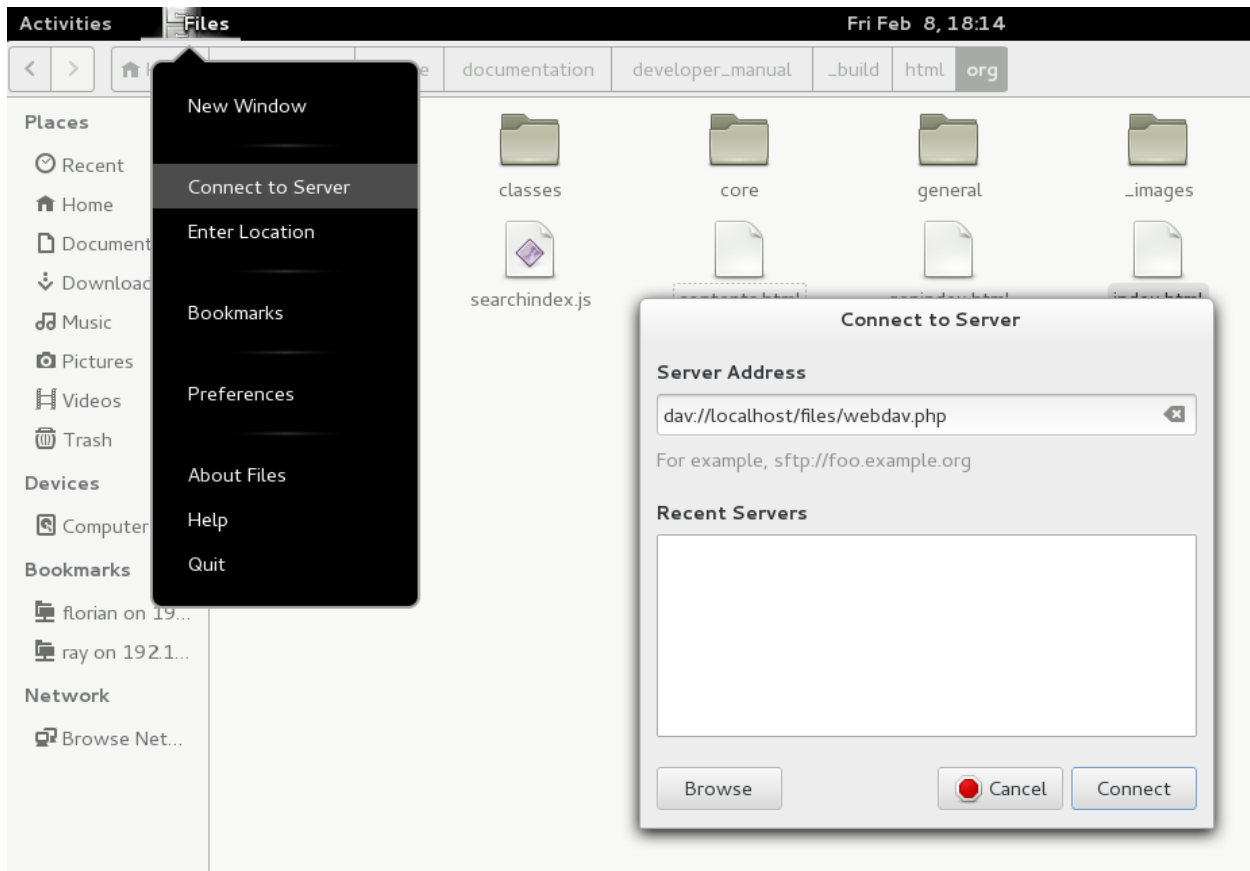
When you configure your Nextcloud account in the *GNOME Control Center*, your files will automatically be mounted by Nautilus as a WebDAV share, unless you deselect file access.

You can also mount your Nextcloud files manually. Use the `davs://` protocol to connect the Nautilus file manager to your Nextcloud share:

```
davs://example.com/nextcloud/remote.php/dav/files/USERNAME/
```

Note

If your server connection is not HTTPS-secured, use `dav://` instead of `davs://`:



Note

The same method works for other file managers that use GVFS, such as MATE's Caja and Cinnamon's Nemo.

Accessing files with KDE and Dolphin

1. Navigate to System Settings -> Networking -> Online Accounts
2. Click "Add Account..."
3. Click Nextcloud
4. Enter your server address
5. Follow the on-screen instructions to log in
6. After logging in, ensure you enable "Storage" in the "Use This Account For" section
7. You can now access your files in Dolphin under "Network" in the sidebar
8. (Optional) To add this location as a shortcut in the sidebar, right-click "Nextcloud Storage", then click "Add to Places"
9. (Optional) To customize the shortcut, right-click it in the sidebar, then click "Edit..." and customize the icon and label

3.2.4 Creating WebDAV mounts on the Linux command line

You can create WebDAV mounts from the Linux command line. This is useful if you prefer to access Nextcloud the same way as any other remote filesystem mount. The following example shows how to create a personal mount and have it mounted automatically every time you log in to your Linux computer.

1. Install the `davfs2` WebDAV filesystem driver, which allows you to mount WebDAV shares just like any other remote filesystem. Use this command to install it on Debian/Ubuntu:

```
apt-get install davfs2
```

2. Use this command to install it on CentOS, Fedora, and openSUSE:

```
yum install davfs2
```

3. Add yourself to the `davfs2` group:

```
usermod -aG davfs2 <username>
```

4. Then create a `nextcloud` directory in your home directory for the mount point, and `.davfs2/` for your personal configuration file:

```
mkdir ~/nextcloud
mkdir ~/.davfs2
```

5. Copy `/etc/davfs2/secrets` to `~/.davfs2`:

```
cp /etc/davfs2/secrets ~/.davfs2/secrets
```

6. Set yourself as the owner and make the permissions read-write owner only:

```
chown <linux_username>:<linux_username> ~/.davfs2/secrets
chmod 600 ~/.davfs2/secrets
```

7. Add your Nextcloud login credentials to the end of the `secrets` file, using your Nextcloud server URL and your Nextcloud username and password:

```
https://example.com/nextcloud/remote.php/dav/files/USERNAME/ <username> <password>
or
$PathToMountPoint $USERNAME $PASSWORD
for example
/home/user/nextcloud john 1234
```

8. Add the mount information to `/etc/fstab`:

```
https://example.com/nextcloud/remote.php/dav/files/USERNAME/ /home/<linux_
↪username>/nextcloud davfs user,rw,auto 0 0
```

9. Then test that it mounts and authenticates by running the following command. If you set it up correctly you won't need root permissions:

```
mount ~/nextcloud
```

10. You should also be able to unmount it:

```
umount ~/nextcloud
```


Now every time you login to your Linux system your Nextcloud share should automatically mount via WebDAV in your `~/nextcloud` directory. If you prefer to mount it manually, change `auto` to `noauto` in `/etc/fstab`.

3.2.5 Known issues

Problem

Resource temporarily unavailable

Solution

If you experience trouble when you create a file in the directory, edit `/etc/davfs2/davfs2.conf` and add:

```
use_locks 0
```

Problem

Certificate warnings

Solution

If you use a self-signed certificate, you will get a warning. To change this, you need to configure `davfs2` to recognize your certificate. Copy `mycertificate.pem` to `/etc/davfs2/certs/`. Then edit `/etc/davfs2/davfs2.conf` and uncomment the line `servercert`. Now add the path of your certificate as in this example:

```
servercert /etc/davfs2/certs/mycertificate.pem
```

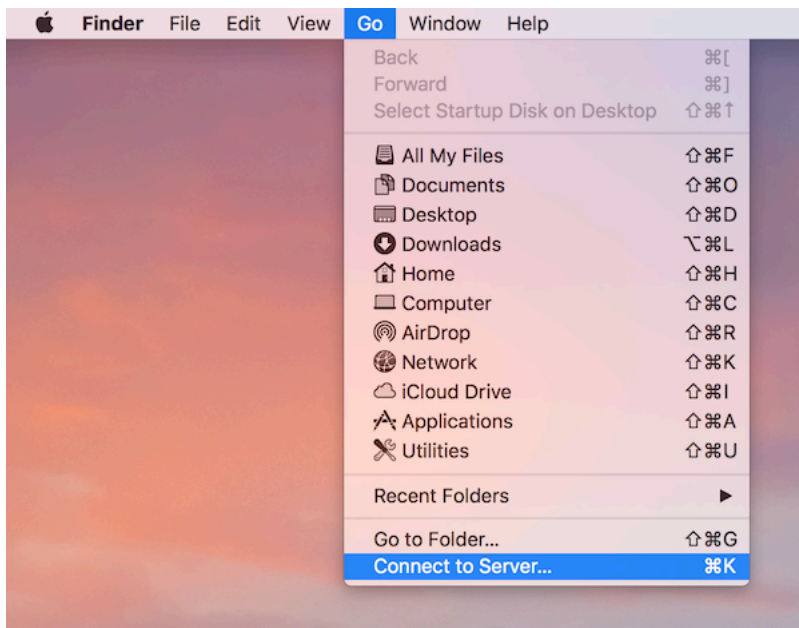
3.2.6 Accessing files using macOS

Note

The macOS Finder suffers from a [series of implementation problems](#) and should only be used if the Nextcloud server runs on **Apache** and **mod_php**, or **Nginx 1.3.8+**. Alternative macOS-compatible clients capable of accessing WebDAV shares include open source apps like [Cyberduck](#) (see instructions [here](#)) and [Filezilla](#). Commercial clients include [Mountain Duck](#), [Forklift](#), [Transmit](#), and [Commander One](#).

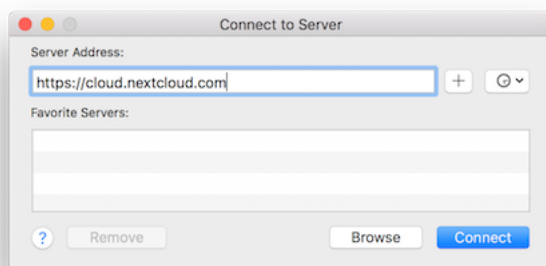
To access files through the macOS Finder:

1. From the Finder's top menu bar, choose **Go > Connect to Server...**:



2. When the **Connect to Server...** window opens, enter your Nextcloud server's WebDAV address in the **Server Address:** field, i.e.:

```
https://cloud.YOURDOMAIN.com/remote.php/dav/files/USERNAME/
```



3. Click **Connect**. Your WebDAV server should appear on the Desktop as a shared disk drive.

3.2.7 Accessing files using Microsoft Windows

If you use the native Windows implementation of WebDAV, you can map Nextcloud to a new drive using Windows Explorer. Mapping to a drive enables you to browse files stored on a Nextcloud server the way you would browse files stored in a mapped network drive.

Using this feature requires network connectivity. If you want to store your files offline, use the Desktop Client to sync all files on your Nextcloud to one or more directories of your local hard drive.

Note

In Windows 10, Basic Authentication is allowed by default when HTTPS is enabled before mapping your drive.

On older versions of Windows, you must permit the use of Basic Authentication in the Windows Registry:

- launch `regedit` and navigate to `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\WebClient\Parameters`.
- Create or edit the `BasicAuthLevel` (Windows Vista, 7 and 8), or `UseBasicAuth` (Windows XP and Windows Server 2003), `DWORD` value and set its value data to 1 for SSL connections. A value of 0 means that Basic Authentication is disabled, and a value of 2 allows both SSL and non-SSL connections (not recommended).
- Then exit Registry Editor, and restart the computer.

Mapping drives with the command line

The following example shows how to map a drive using the command line. To map the drive:

1. Open a command prompt in Windows.
2. Enter the following line in the command prompt to map to the computer Z drive:

```
net use Z: https://<drive_path>/remote.php/dav/files/USERNAME/ /user:youruser_
↵yourpassword
```

with `<drive_path>` as the URL to your Nextcloud server. For example:

```
net use Z: https://example.com/nextcloud/remote.php/dav/files/USERNAME/ /
↵user:youruser yourpassword
```

The computer maps the files of your Nextcloud account to the drive letter Z.

Error

If you get the following error `System error 67 has occurred. The network name cannot be found.`, or frequent disconnections, open the **Services** app and make sure that the `WebClient` service is running and started automatically at startup.

Note

Though not recommended, you can also mount the Nextcloud server using HTTP, leaving the connection unencrypted.

If you plan to use HTTP connections on devices while in a public place, we strongly recommend using a VPN tunnel to provide the necessary security.

An alternative command syntax is:

```
net use Z: \\example.com@ssl\nextcloud\remote.php\dav /user:youruser
yourpassword
```

Mapping drives with Windows Explorer

To map a drive using Microsoft Windows Explorer:

1. Open Windows Explorer on your MS Windows computer.
2. Right-click on **Computer** entry and select **Map network drive...** from the drop-down menu.
3. Choose a local network drive to which you want to map Nextcloud.

- Specify the address to your Nextcloud instance, followed by `/remote.php/dav/files/USERNAME/`.

For example:

```
https://example.com/nextcloud/remote.php/dav/files/USERNAME/
```

Note

For SSL-protected servers, check **Reconnect at sign-in** to ensure that the mapping is persistent upon subsequent reboots. If you want to connect to the Nextcloud server as a different user, check **Connect using different credentials**.



Map Network Drive

What network folder would you like to map?

Specify the drive letter for the connection and the folder that you want to connect to:

Drive: 

Folder: 

Example: `\\server\share`

☒ Reconnect at sign-in

☒ Connect using different credentials

[Connect to a Web site that you can use to store your documents and pictures.](#)

- Click the `Finish` button.

Windows Explorer maps the network drive, making your Nextcloud instance available.

3.2.8 Accessing files using Cyberduck

[Cyberduck](#) is an open source FTP, SFTP, WebDAV, OpenStack Swift, and Amazon S3 browser designed for file transfers on macOS and Windows.

Note

This example uses Cyberduck version 4.2.1.

To use Cyberduck:

1. Specify a server without any leading protocol information.

For example: `example.com`

2. Specify the appropriate port.

The port you choose depends on whether or not your Nextcloud server supports SSL. Cyberduck requires that you select a different connection type if you plan to use SSL.

For example:

- 80 for unencrypted WebDAV
- 443 for secure WebDAV (HTTPS/SSL)

3. Use the 'More Options' drop-down menu to add the rest of your WebDAV URL into the 'Path' field.

For example: `remote.php/dav/files/USERNAME/`

Now Cyberduck enables file access to the Nextcloud server.

3.2.9 Accessing public shares over WebDAV

Nextcloud provides the possibility to access public shares anonymously over WebDAV.

To access the public share, open:

```
https://example.com/nextcloud/public.php/dav/files/USERNAME
```

in a WebDAV client, use the share token as username and the (optional) share password as the password. For example, with a share link <https://example.com/s/kFy9Lek5sm928xP>, `kFy9Lek5sm928xP` will be the username.

Note

Settings → Administration → Sharing → Allow users on this server to send shares to other servers. This option also allows WebDAV access to public shares and needs to be enabled to make this feature work, except if cURL is being used (see below).

3.2.10 Known problems

Problem

Windows does not connect using HTTPS.

Solution 1

The Windows WebDAV Client might not support Server Name Indication (SNI) on encrypted connections. If you encounter an error mounting an SSL-encrypted Nextcloud instance, contact your provider about assigning a dedicated IP address for your SSL-based server.

Solution 2

The Windows WebDAV Client might not support TLSv1.1 and TLSv1.2 connections. If you have restricted your server config to only provide TLSv1.1 and above the connection to your server might fail. Please refer to the [WinHTTP](#) documentation for further information.

Problem

You receive the following error message: **Error 0x800700DF: The file size exceeds the limit allowed and cannot be saved.**

Solution

Windows limits the maximum size a file transferred from or to a WebDAV share may have. You can increase the value `FileSizeLimitInBytes` in `HKEY_LOCAL_MACHINE\\SYSTEM\\CurrentControlSet\\Services\\WebClient\\Parameters` by clicking on **Modify**.

To increase the limit to the maximum value of 4GB, select **Decimal**, enter a value of 4294967295, and reboot Windows or restart the **WebClient** service.

Problem

Adding a WebDAV drive on Windows with the steps above does not display the correct available Nextcloud space and instead shows the size and free space of the C: drive.

Answer

Unfortunately, this is a limitation of WebDAV itself, because it does not provide a way for the client to retrieve available free space from the server. Windows automatically falls back to the size and free space of the C: drive. There is no direct solution for this limitation.

Problem

Accessing your files from Microsoft Office via WebDAV fails.

Solution

Known problems and their solutions are documented in the [KB2123563](#) article.

Problem

Cannot map Nextcloud as a WebDAV drive in Windows using a self-signed certificate.

Solution

1. Access your Nextcloud instance in your preferred Web browser.
2. Click through until you get to the certificate error in the browser status line.
3. View the certificate, then from the Details tab, select 'Copy to File'.
4. Save the file to your desktop with an arbitrary name, for example `myNextcloud.pem`.
5. Go to Start menu > Run, type MMC, and click 'OK' to open Microsoft Management Console.
6. Go to File > Add/Remove Snap-In.
7. Select Certificates, Click 'Add', choose 'My User Account', then 'Finish', and finally 'OK'.
8. Dig down to Trust Root Certification Authorities, Certificates.

9. Right-Click Certificate, Select All Tasks, and Import.
10. Select the saved certificate from the Desktop.
11. Select Place all Certificates in the following Store, and click Browse.
12. Check the Box that says Show Physical Stores, expand out Trusted Root Certification Authorities, select Local Computer there, click 'OK', and Complete the Import.
13. Check the list to make sure the certificate shows up. You will probably need to Refresh before you see it.
14. Exit MMC.

For Firefox users:

1. Launch your browser, go to Application menu > History > Clear recent history...
2. Select 'Everything' in the 'Time range to clear' dropdown menu
3. Select the 'Active Logins' check box
4. Click the 'Clear now' button
5. Close the browser, then re-open and test.

For Chrome-based browsers (Chrome, Chromium, Microsoft Edge) users:

1. Open Windows Control Panel, navigate down to Internet Options
2. In the Content tab, click the Clear SSL State button.
3. Close the browser, then re-open and test.

3.2.11 Accessing files using cURL

Since WebDAV is an extension of HTTP, cURL can be used to script file operations.

Note

Settings → Administration → Sharing → Allow users on this server to send shares to other servers. If this option is disabled, the option `--header "X-Requested-With: XMLHttpRequest"` needs to be passed to cURL.

To create a folder with the current date as name:

```
$ curl -u user:pass -X MKCOL "https://example.com/nextcloud/remote.php/dav/files/
↳ USERNAME/$(date '+%d-%b-%Y')"
```

To upload a file `error.log` into that directory:

```
$ curl -u user:pass -T error.log "https://example.com/nextcloud/remote.php/dav/files/
↳ USERNAME/$(date '+%d-%b-%Y')/error.log"
```

To move a file:

```
$ curl -u user:pass -X MOVE --header 'Destination: https://example.com/nextcloud/
↳ remote.php/dav/files/USERNAME/target.jpg' https://example.com/nextcloud/remote.php/
↳ dav/files/USERNAME/source.jpg
```

To get the properties of files in the root folder:

```
$ curl -X PROPFIND -H "Depth: 1" -u user:pass https://example.com/nextcloud/remote.php/dav/files/USERNAME/ | xml_pp
<?xml version="1.0" encoding="utf-8"?>
<d:multistatus xmlns:d="DAV:" xmlns:oc="http://nextcloud.org/ns" xmlns:s="http://sabredav.org/ns">
  <d:response>
    <d:href>/nextcloud/remote.php/dav/files/USERNAME/</d:href>
    <d:propstat>
      <d:prop>
        <d:getlastmodified>Tue, 13 Oct 2015 17:07:45 GMT</d:getlastmodified>
        <d:resourcetype>
          <d:collection/>
        </d:resourcetype>
        <d:quota-used-bytes>163</d:quota-used-bytes>
        <d:quota-available-bytes>11802275840</d:quota-available-bytes>
        <d:getetag>"561d3a6139d05"</d:getetag>
      </d:prop>
      <d:status>HTTP/1.1 200 OK</d:status>
    </d:propstat>
  </d:response>
  <d:response>
    <d:href>/nextcloud/remote.php/dav/files/USERNAME/welcome.txt</d:href>
    <d:propstat>
      <d:prop>
        <d:getlastmodified>Tue, 13 Oct 2015 17:07:35 GMT</d:getlastmodified>
        <d:getcontentlength>163</d:getcontentlength>
        <d:resourcetype/>
        <d:getetag>"47465fae667b2d0fee154f5e17d1f0f1"</d:getetag>
        <d:getcontenttype>text/plain</d:getcontenttype>
      </d:prop>
      <d:status>HTTP/1.1 200 OK</d:status>
    </d:propstat>
  </d:response>
</d:multistatus>
```

3.2.12 Accessing files using WinSCP

WinSCP is a free, open-source SFTP, FTP, WebDAV, S3, and SCP client for Windows. Its main function is file transfer between a local and a remote computer. WinSCP also offers scripting and basic file management functionality.

You can [download](#) the portable version of WinSCP and run it on Linux through [Wine](#).

To run WinSCP on Linux, install Wine through your distribution's package manager, then run: `wine WinSCP.exe`.

To connect to Nextcloud:

- Start WinSCP
- Press 'Session' in the menu
- Press the 'New Session' menu option
- Set the 'File protocol' dropdown to WebDAV
- Set the 'Encryption' dropdown to TLS/SSL Implicit encryption
- Fill in the hostname field: `example.com`

- Fill in the username field: `NEXTCLOUDUSERNAME`
- Fill in the password field: `NEXTCLOUDPASSWORD`
- Press the ‘Advanced...’ button
- Navigate to ‘Environment’, ‘Directories’ on the left side
- Fill in the ‘Remote directory’ field with the following: `/nextcloud/remote.php/dav/files/NEXTCLOUDUSERNAME/`
- Press the ‘OK’ button
- Press the ‘Save’ button
- Select the desired options and press the ‘OK’ button
- Press the ‘Login’ button to connect to Nextcloud

Note

If you use TOTP, use an app password. At the time of writing (2022-11-07), WinSCP does not support TOTP with Nextcloud.

3.3 Managing deleted files

When you delete a file in Nextcloud, it is not immediately deleted permanently, only moved into the trash bin. It is not permanently deleted until you manually delete it, or when the Deleted Files app deletes it to make room for new files.

Find your deleted files by clicking on the **Deleted files** button on the Files page of the Nextcloud Web interface. You’ll have options to either restore or permanently delete files.

3.3.1 Quotas

Deleted files are not counted against your storage quota. Only your personal files count against your quota, not files which were shared with you. (See [Storage quota](#) to learn more about quotas.)

3.3.2 What happens when shared files are deleted

Deleting files gets a little complicated when they are shared files, as this scenario illustrates:

1. User1 shares a folder “test” with User2 and User3
2. User2 (the recipient) deletes a file/folder “sub” inside of “test”
3. The folder “sub” will be moved to the trash bin of both User1 (owner) and User2 (recipient)
4. But User3 will not have a copy of “sub” in their trash bin

When User1 deletes “sub” then it is moved to User1’s trash bin. It is deleted from User2 and User3, but not placed in their trash bins.

When you share files, other users may copy, rename, move, and share them with other people, just as they can for any computer files; Nextcloud does not have magic powers to prevent this.

3.3.3 How the deleted files app manages storage space

To ensure that users do not run over their storage quotas, the Deleted Files app allocates a maximum of 50% of their currently available free space to deleted files. If your deleted files exceed this limit, Nextcloud deletes the oldest files (files with the oldest timestamps from when they were deleted) until it meets the memory usage limit again.

Nextcloud checks the age of deleted files every time new files are added to the deleted files. By default, deleted files stay in the trash bin for 30 days. The Nextcloud server administrator can adjust this value in the `config.php` file by setting the `trashbin_retention_obligation` value. Files older than the `trashbin_retention_obligation` value will be deleted permanently. Additionally, Nextcloud calculates the maximum available space every time a new file is added. If the deleted files exceed the new maximum allowed space Nextcloud will permanently delete those trashed files with the soonest expiration until the space limit is met again.

Note

Your administrator may have configured the trash bin retention period to override the storage space management. See [admin documentation](#) for more details.

3.4 Desktop and mobile synchronization

For synchronizing files with your desktop computer, we recommend using the [Nextcloud Sync Client](#) for Windows, macOS and Linux.

The Nextcloud Desktop Sync Client enables you to connect to your Nextcloud Server. You can create folders in your home directory, and keep the contents of those folders synced with your Nextcloud server. Simply copy a file into the directory and the Nextcloud desktop client does the rest. Make a change to the files on one computer, it will flow across the others using these desktop sync clients. You will always have your latest files with you wherever you are.

Its usage is documented separately in the [Nextcloud Desktop Client Manual](#).

3.4.1 Mobile clients

Visit your Personal page in your Nextcloud Web interface to find download links for Android and iOS mobile sync clients. Or, visit the [Nextcloud download page](#).

Unfortunately, 2-way-sync, a.k.a bidirectional sync, isn't fully implemented in the Android client yet. See [this issue on GitHub](#) for the current feature's status.

3.5 Encrypting your Nextcloud files on the server

Nextcloud includes a server side Encryption app, and when it is enabled by your Nextcloud administrator all of your Nextcloud data files are automatically encrypted on the server. Encryption is server-wide, so when it is enabled you cannot choose to keep your files unencrypted. You don't have to do anything special, as it uses your Nextcloud login as the password for your unique private encryption key. Just log out and in and manage and share your files as you normally do, and you can still change your password whenever you want.

Its main purpose is to encrypt files on remote storage services that are connected to your Nextcloud server. This is an easy and seamless way to protect your files on remote storage. You can share your remote files through Nextcloud in the usual way, however you cannot share your encrypted files directly from the remote service you are using, because the encryption keys are stored on your Nextcloud server, and are never exposed to outside service providers.

If your Nextcloud server is not connected to any remote storage services, then it is better to use some other form of encryption such as file-level or whole disk encryption. Because the keys are kept on your Nextcloud server, it is possible for your Nextcloud administrator to snoop in your files, and if the server is compromised the intruder may get access to your files. (Read [Encryption in Nextcloud](#) to learn more.)

3.5.1 Encryption FAQ

How can encryption be disabled?

The only way to disable encryption is to run the “[decrypt all](#)” script, which decrypts all files and disables encryption.

Is it possible to disable encryption with the recovery key?

Yes, *if* every user uses the [file recovery key](#), “[decrypt all](#)” will use it to decrypt all files.

Can encryption be disabled without the user’s password?

If you don’t have the users password or [file recovery key](#), then there is no way to decrypt all files. What’s more, running it on login would be dangerous, because you would most likely run into timeouts.

Is it planned to move this to the next user login or a background job?

If we did that, then we would need to store your login password in the database. This could be seen as a security issue, so nothing like that is planned.

Is group Sharing possible with the recovery key?

If you mean adding users to groups and make it magically work? No. This only works with the master key.

3.5.2 Using encryption

Nextcloud encryption is pretty much set it and forget it, but you have a few options you can use.

When your Nextcloud administrator enables encryption for the first time, you must log out and then log back in to create your encryption keys and encrypt your files. When encryption has been enabled on your Nextcloud server you will see a yellow banner on your Files page warning you to log out and then log back in:

Encryption App is enabled but your keys are not initialized, please log-out and log-in again

When you log back in it takes a few minutes to work, depending on how many files you have, and then you are returned to your default Nextcloud page.

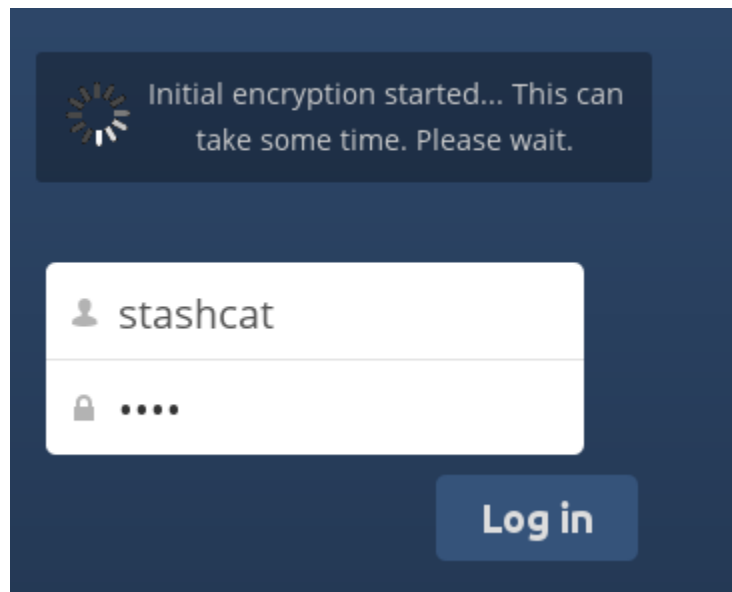
Note

You must never lose your Nextcloud password, because you will lose access to your files. Though there is an optional recovery option that your Nextcloud administrator may enable; see the Recovery Key Password section (below) to learn about this.

3.5.3 Sharing encrypted files

Only users who have private encryption keys have access to shared encrypted files and folders. Users who have not yet created their private encryption keys will not have access to encrypted shared files; they will see folders and filenames, but will not be able to open or download the files. They will see a yellow warning banner that says “Encryption App is enabled but your keys are not initialized, please log-out and log-in again.”

Share owners may need to re-share files after encryption is enabled; users trying to access the share will see a message advising them to ask the share owner to re-share the file with them. For individual shares, un-share and re-share the file. For group shares, share with any individuals who can’t access the share. This updates the encryption, and then the share owner can remove the individual shares.



Recovery key password

If your Nextcloud administrator has enabled the recovery key feature, you can choose to use this feature for your account. If you enable “Password recovery” the administrator can read your data with a special password. This feature enables the administrator to recover your files in the event you lose your Nextcloud password. If the recovery key is not enabled, then there is no way to restore your files if you lose your login password.

Encryption

Enable recovery key (allow to recover users files in case of password loss):

	Recovery key password
	Repeat Recovery key password
☒ Enabled	
☐ Disabled	

3.5.4 Files not encrypted

Only the data in your files is encrypted, and not the filenames or folder structures. These files are never encrypted:

- Old files in the trash bin.
- Image thumbnails from the Gallery app.
- Previews from the Files app.
- The search index from the full text search app.
- Third-party app data

Change private key password

This option is only available if the encryption password has not been changed by the administrator, but only the log-in password. This can occur if your Nextcloud provider uses an external user back-end (for example, LDAP) and changed your login password using that back-end configuration. In this case, you can set your encryption password to your new login password by providing your old and new login password. The Encryption app works only if your login password and your encryption password are identical.

3.6 File Sharing

Nextcloud users can share files and folders. Possible targets are:

- public links
- users
- groups
- circles
- talk conversations
- users or groups on federated Nextcloud servers

Note

Some options may not be available due to administrative configuration. See [administrator documentation](#) for details.

3.6.1 Public link shares

You can share files and folders via public links.

A random 15-digit token will be created. The link will look like `https://cloud.example.com/s/yxcFKRWBjqYYzp4`.

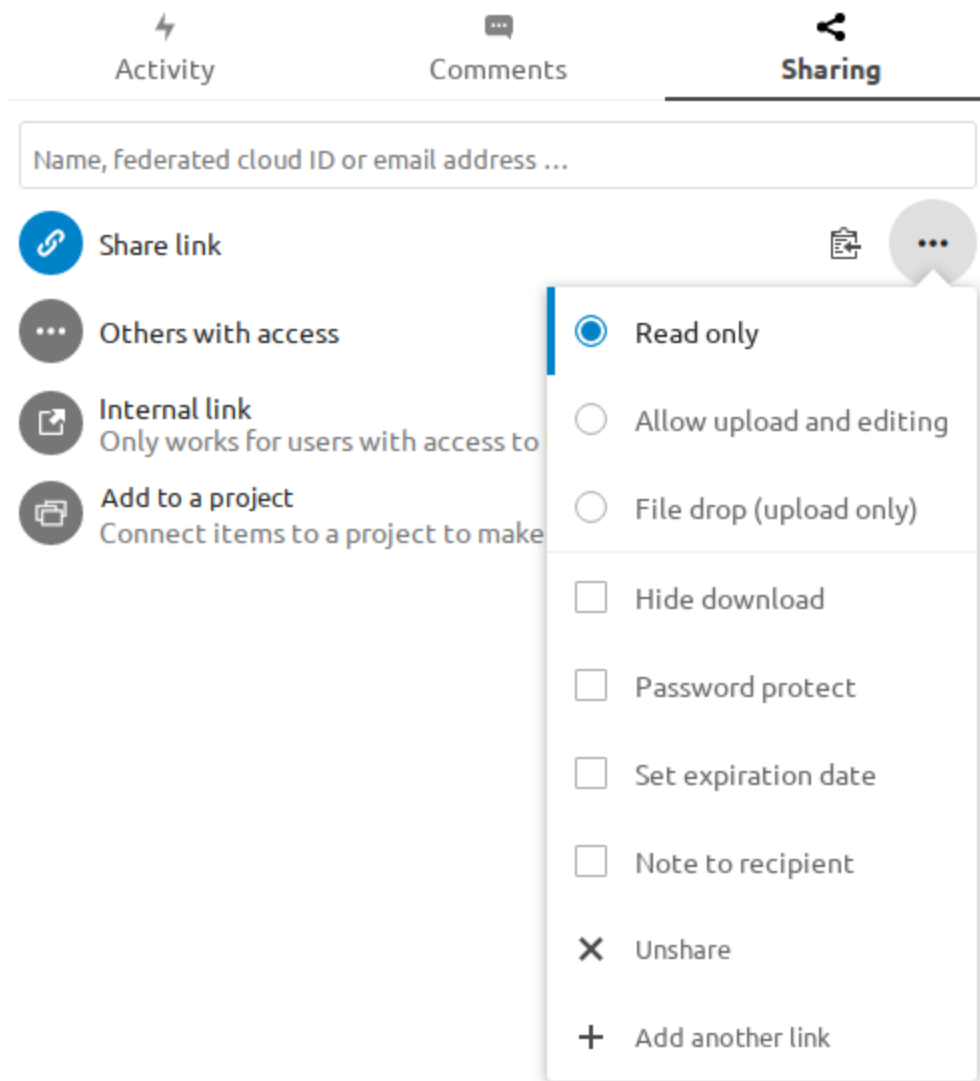
A number of options are available for public *folder* shares:

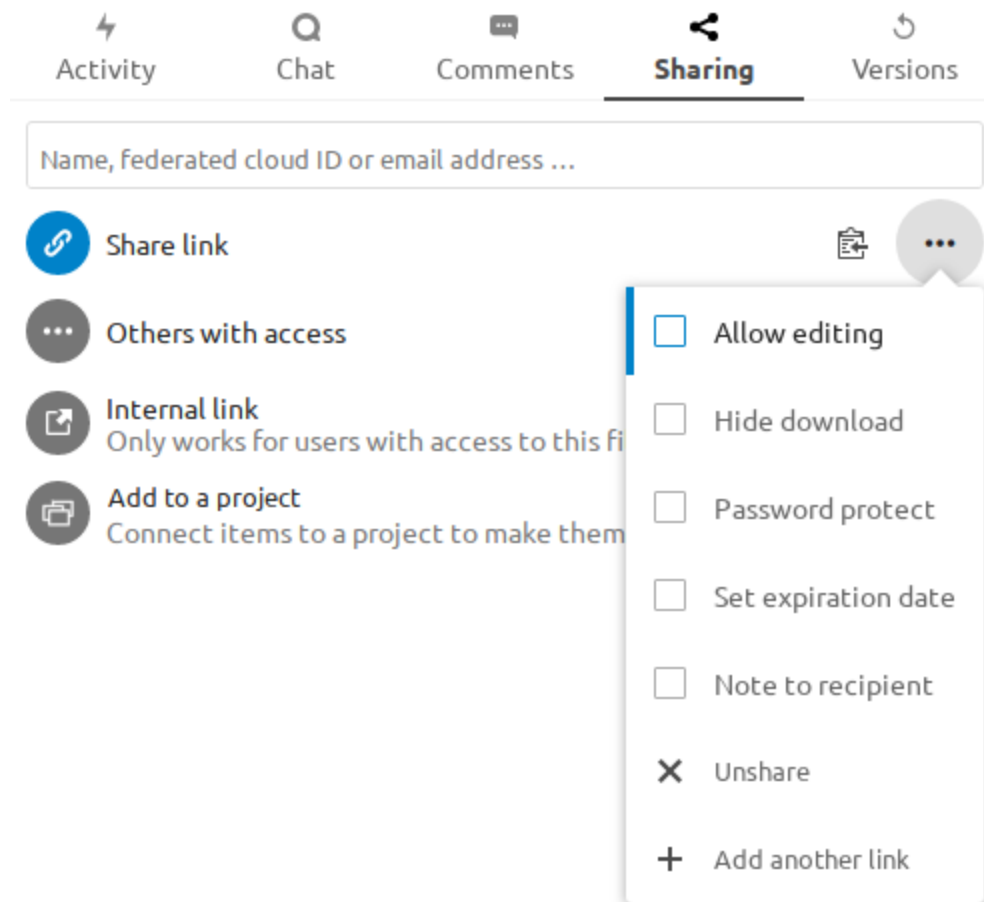
- **Read only** to allow viewing and downloading
- **Allow upload and editing**
- With **File drop**, the sharee can only upload files to a folder without seeing the files that are already in that folder.
- **Hide download** hides the download buttons and the default browser right-click options in order to make downloading for the sharee harder
- **Password protect**
- **Set expiration date** will automatically disable the share
- **Note to recipient**
- **Unshare** to revert the share
- **Add another link** to create multiple public links with different rights

For public *file* shares, you may allow editing the file with one of Nextcloud's collaborative editing solutions:

Note

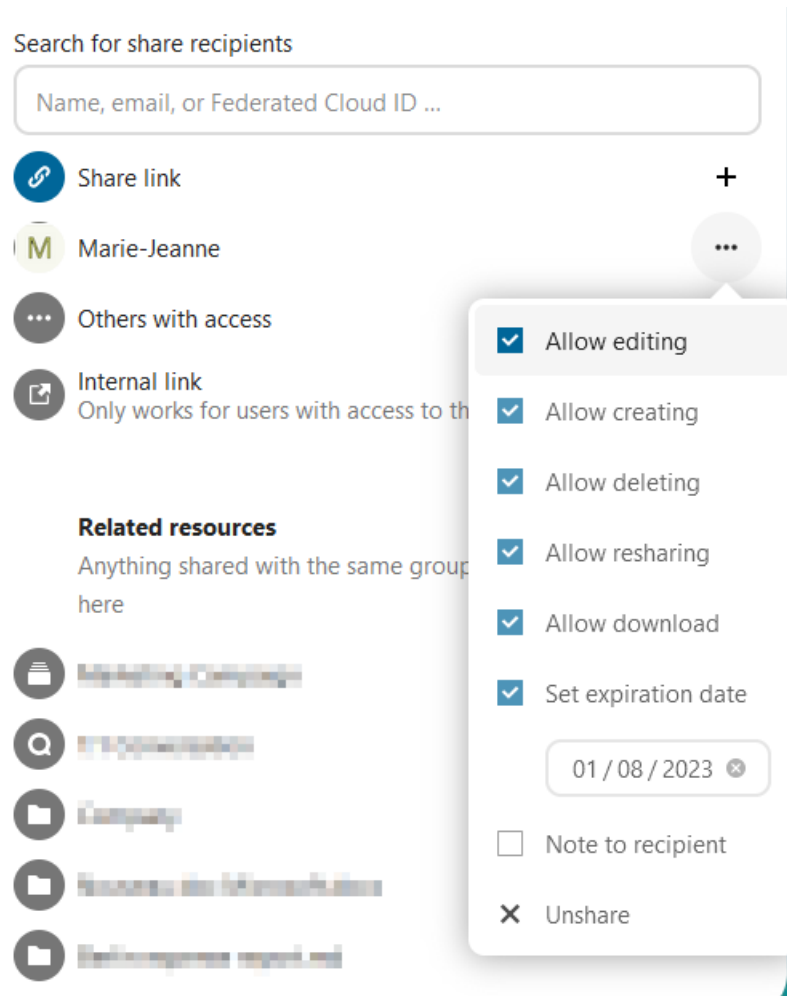
Password protection as well as file expiration are also propagated using Federated File Sharing since Nextcloud 22.





3.6.2 Internal shares with users and groups

When sharing with users, groups, circles or members of a Talk conversation, rights for the files or folder contents are adjustable:



As a sharee, you can configure if you automatically want to accept all incoming shares and have them added to your root folder, or if you want to be asked each time if you want to accept or decline the share.

For adjusting the acceptance setting, go to **Settings > Personal > Sharing**:

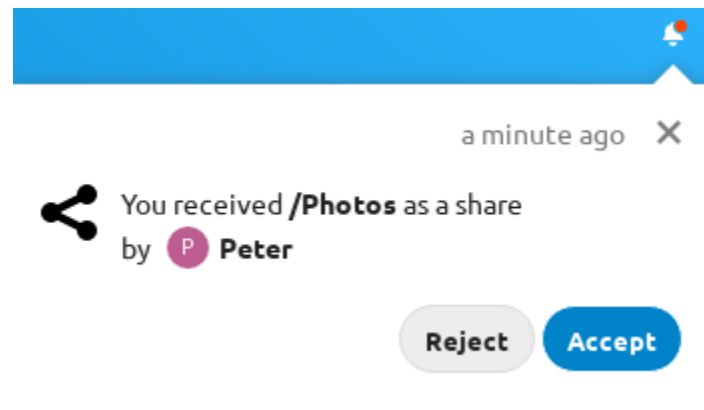
Warning

If the owner renames a shared file or folder, the new name will not be reflected on the recipient's side. This is needed to prevent overwriting existing files or folders on the recipient's end.

3.6.3 Others with access

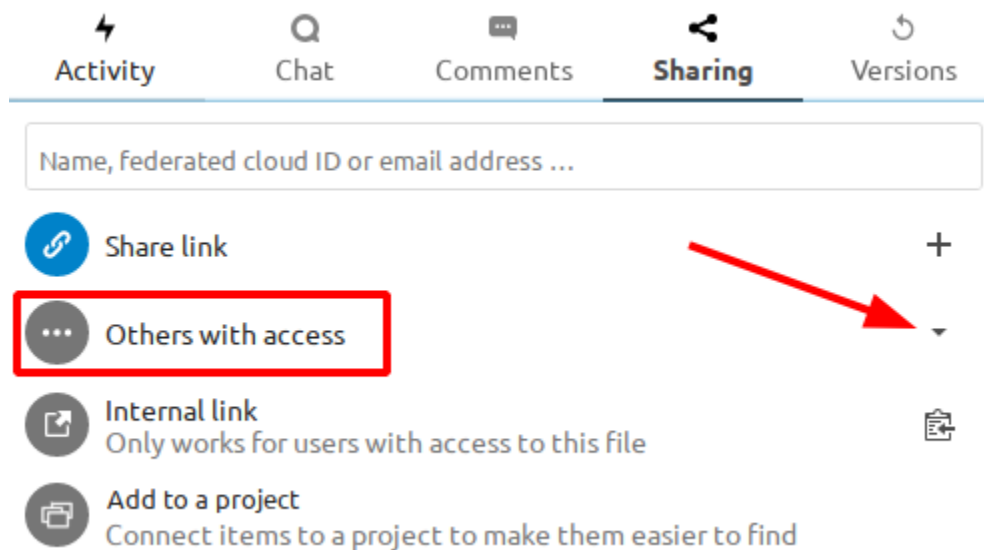
In order to find out if a file or folder is accessible to others through sharing of a superior folder hierarchy level, click on **Others with access** in the sharing tab:

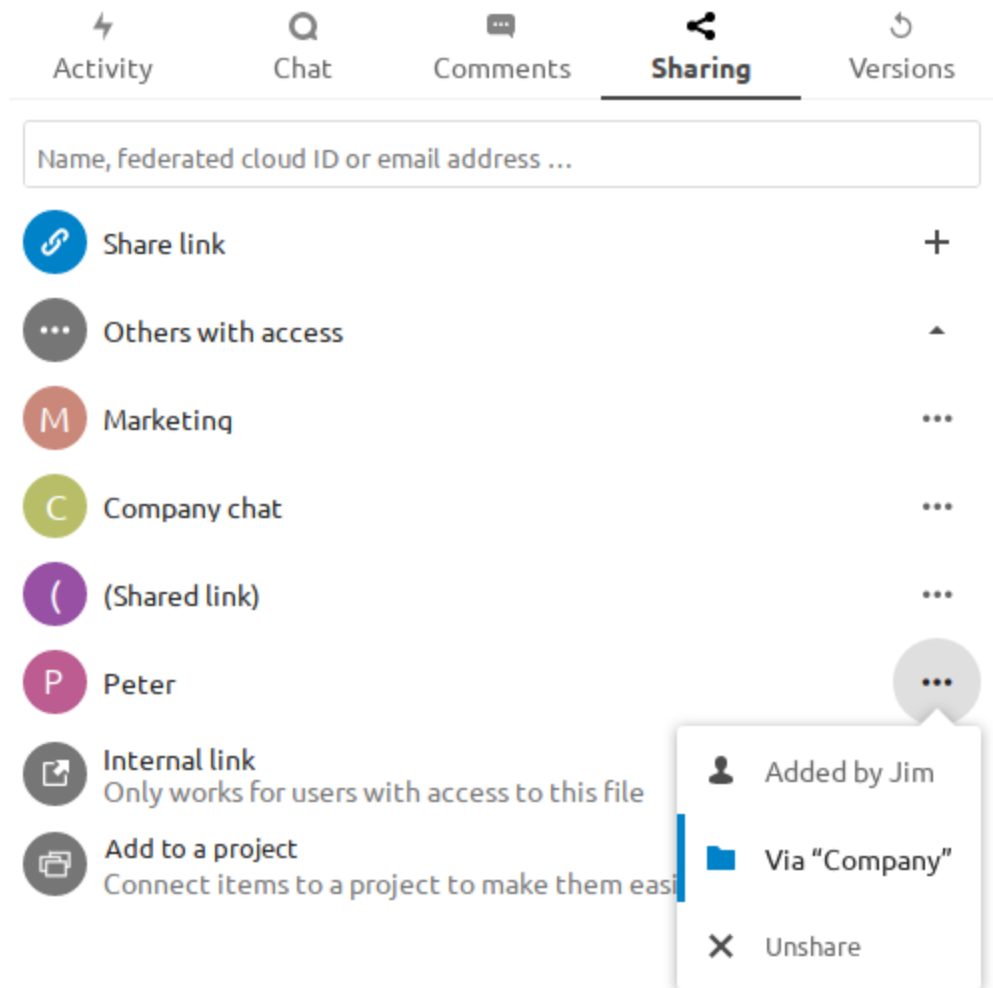
The list shows all users, groups, chats etc. that the current object has been given access to through sharing of a superior folder in the hierarchy:



Sharing

☒ Accept user and group shares by default





Click on the three dots to:

- see who initiated the share
- see where the share was initiated (click to navigate to the folder, as far as you have access there)
- unshare the initial share (only accessible for the share owner)

Note

This information is only visible to the owner of a file/folder or sharees with resharing rights.

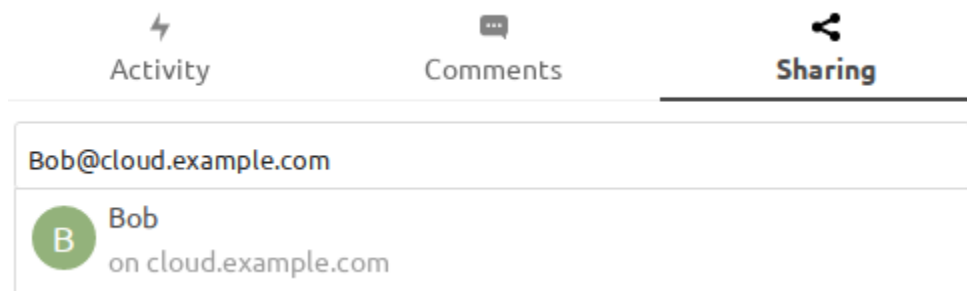
3.7 Federated Shares

Federation Sharing allows you to mount file shares from remote Nextcloud servers, in effect creating your own cloud of Nextclouds. You can create direct share links with users on other Nextcloud servers.

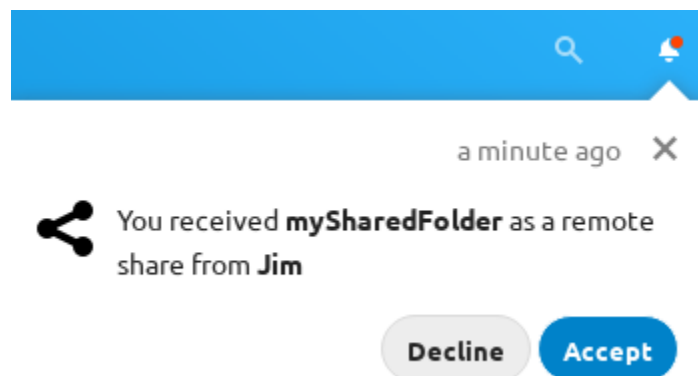
3.7.1 Creating a new Federation Share

Federation sharing is enabled by default. Follow these steps to create a new share with other Nextcloud or ownCloud servers:

Go to your **Files** page and click the **Share** icon on the file or directory you want to share. In the sidebar enter the username and URL of the remote user in this form: `<username>@<nc-server-url>`. In this example, that is `bob@cloud.example.com`:

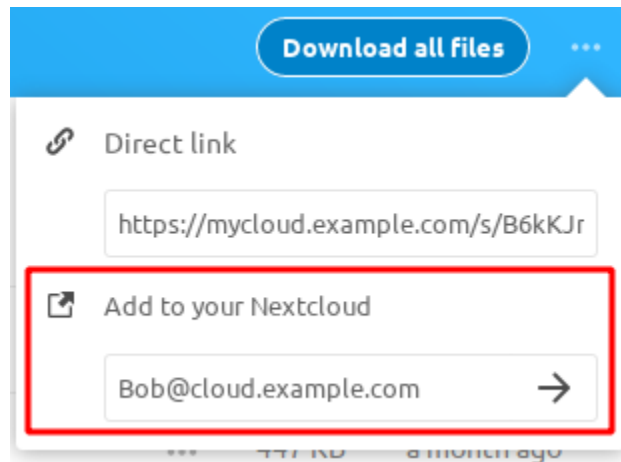


The sharee is receiving a notification in their Nextcloud, allowing them to either accept or decline the incoming share:



3.7.2 Adding a public share to your Nextcloud

Nextcloud public link share pages offer an option to add that file or folder as a federated share into your own Nextcloud instance. Just enter your `<username>@<nc-server-url>` just like shown for outbound shares above:

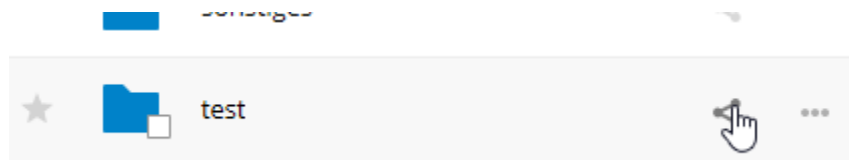


3.8 Making anonymous uploads

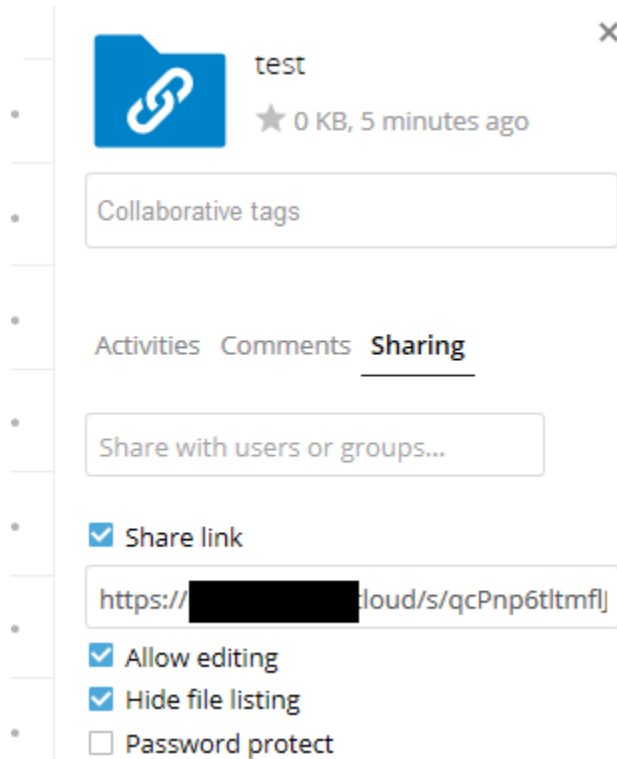
You may create your own special upload directories so that other people can upload files to you without having to log in to the server, and without being a Nextcloud user. They will not be allowed to see the contents of this directory, or to make any changes. This is an excellent alternative to sending large attachments via email, using an FTP server, or using commercial file-sharing services.

3.8.1 Setting up your own file drop

Go to Files and create or choose the folder, the anonymous upload should be made to:



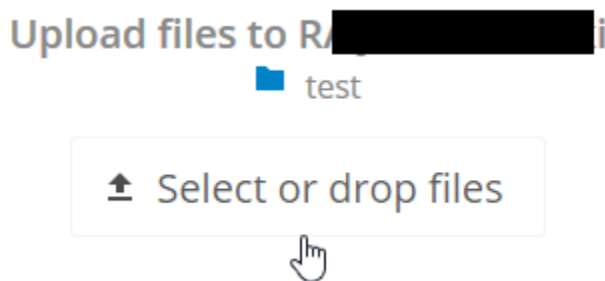
Check Share Link, Allow editing, Hide file listing:



Now you can send the link to the upload folder manually or by using the Nextcloud send function, if your administrator has enabled it.

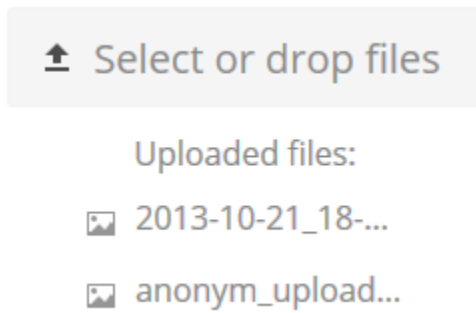
3.8.2 Uploading files

Using the anonymous upload function is simple. You receive a link to the upload folder, click the link, and then you'll see a Nextcloud page with a **“Click to upload”** button:



This opens a file picker, and you select the file or directory you want to upload. You're also able to just drop files into the window.

When your upload is completed, the filenames are listed:



3.9 Large file uploads

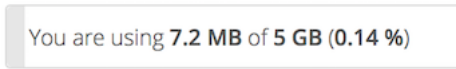
When uploading files through the web client, Nextcloud is limited by PHP and Apache configurations. By default, PHP is configured for only 2 megabyte uploads. As this default upload limit is not entirely useful, we recommend that your Nextcloud administrator increase the Nextcloud variables to sizes appropriate for users.

Modifying certain Nextcloud variables requires administrative access. If you require larger upload limits than have been provided by the default (or already set by your administrator):

- Contact your administrator to request an increase in these variables
- Refer to the section in the [Administration Documentation](#) that describes how to manage file upload size limits.

3.10 Storage quota

Your Nextcloud administrator has the option to set a storage quota on users. Look at your the Personal page to see what your quota is, and how much you have used.



You are using 7.2 MB of 5 GB (0.14 %)

It may be helpful to understand how your quota is calculated.

Metadata (thumbnails, temporary files, cache, and encryption keys) takes up about 10% of disk space, but is not counted against user quotas. Some apps store information in the database, such as the Calendar and Contacts apps. This data is excluded from your quota.

When other users share files with you, the shared files count against the original share owner's quota. When you share a folder and allow other users or groups to upload files to it, all uploaded and edited files count against your quota. When you re-share files shared with you, the re-share still counts against the quota of the original share owner.

Encrypted files are a little larger than unencrypted files; the unencrypted size is calculated against your quota.

Deleted files that are still in the trash bin do not count against quotas. The trash bin is set at 50% of quota. Deleted file aging is set at 30 days. When deleted files exceed 50% of quota then the oldest files are removed until the total is below 50%.

Note

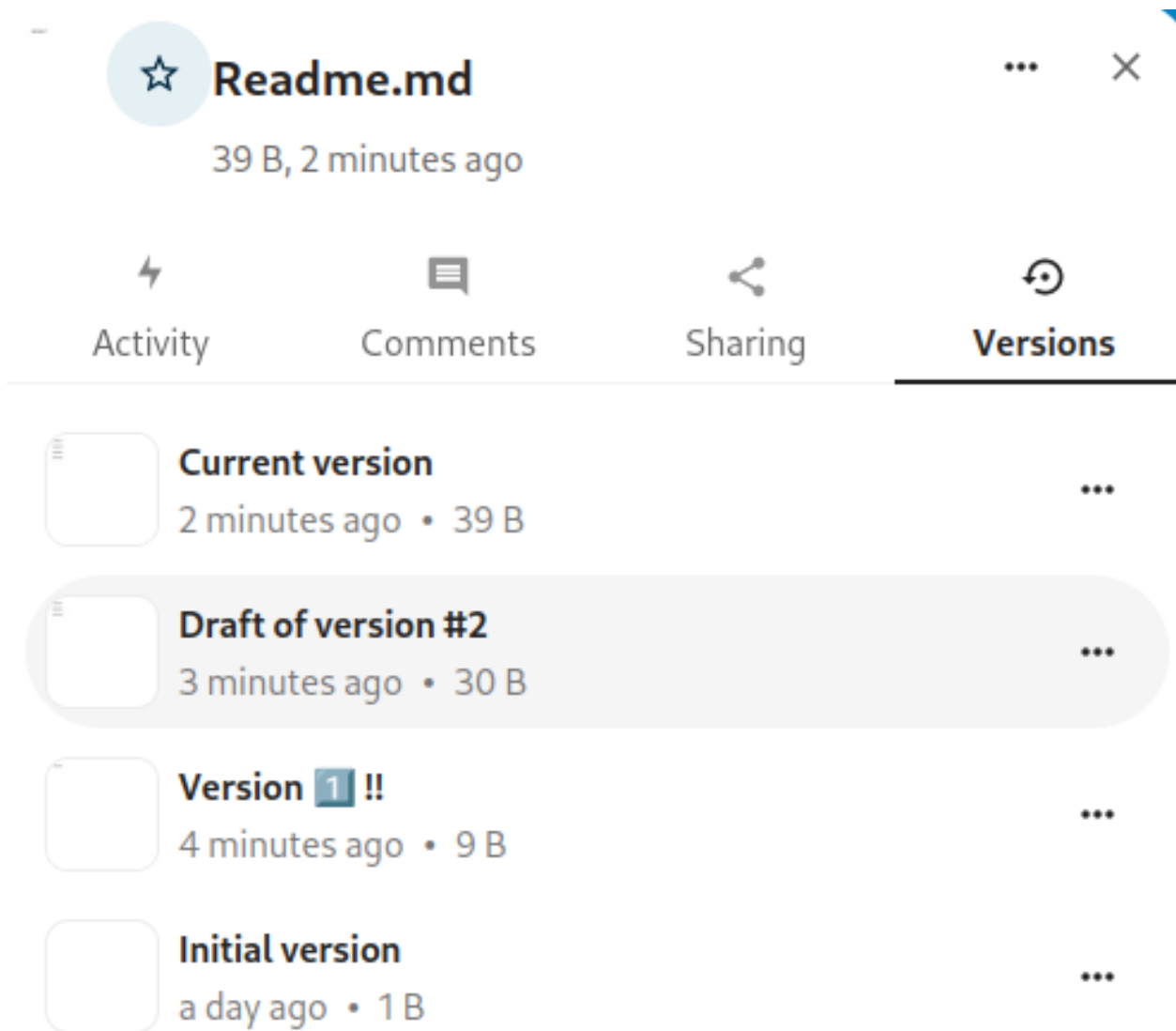
Your administrator may have configured the trash bin retention period to override the storage space management. See [administrator documentation](#) for more details.

When version control is enabled, the older file versions are not counted against quotas.

If you create a public share via URL and allow uploads, any uploaded files count against your quota.

3.11 Version control

Nextcloud supports simple version control system for files. Versioning creates backups of files which are accessible via the Versions tab on the Details sidebar. This tab contains the history of the file where you can roll back a file to any previous version. Changes made at intervals greater than two minutes are saved in `data/[user]/files_versions`.



To restore a specific version of a file, click the circular arrow to the right. Click on the timestamp to download it.

The versioning app expires old versions automatically to make sure that the user doesn't run out of space. This pattern is used to delete old versions:

- For the first second we keep one version
- For the first 10 seconds Nextcloud keeps one version every 2 seconds

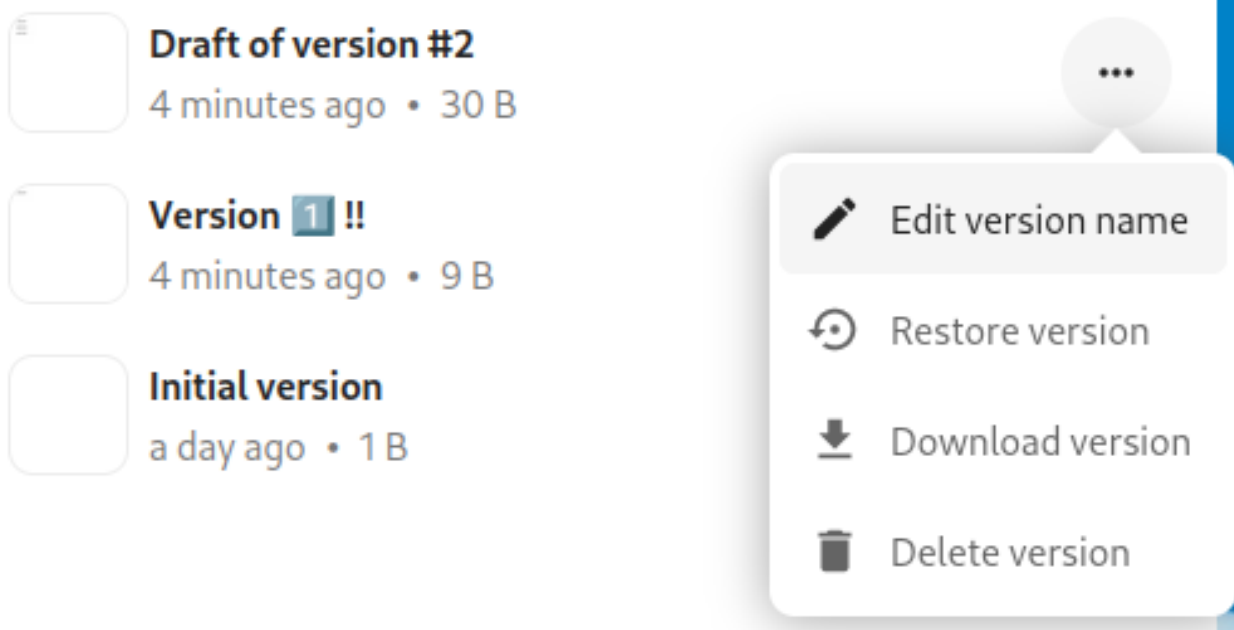
- For the first minute Nextcloud keeps one version every 10 seconds
- For the first hour Nextcloud keeps one version every minute
- For the first 24 hours Nextcloud keeps one version every hour
- For the first 30 days Nextcloud keeps one version every day
- After the first 30 days Nextcloud keeps one version every week

The versions are adjusted along this pattern every time a new version gets created.

The version app never uses more than 50% of the user's currently available free space. If the stored versions exceed this limit, Nextcloud deletes the oldest versions until it meets the disk space limit again.

3.11.1 Naming a version

You can give a name to a version.



When a version has a name, it will be excluded from the automatic expiration process.

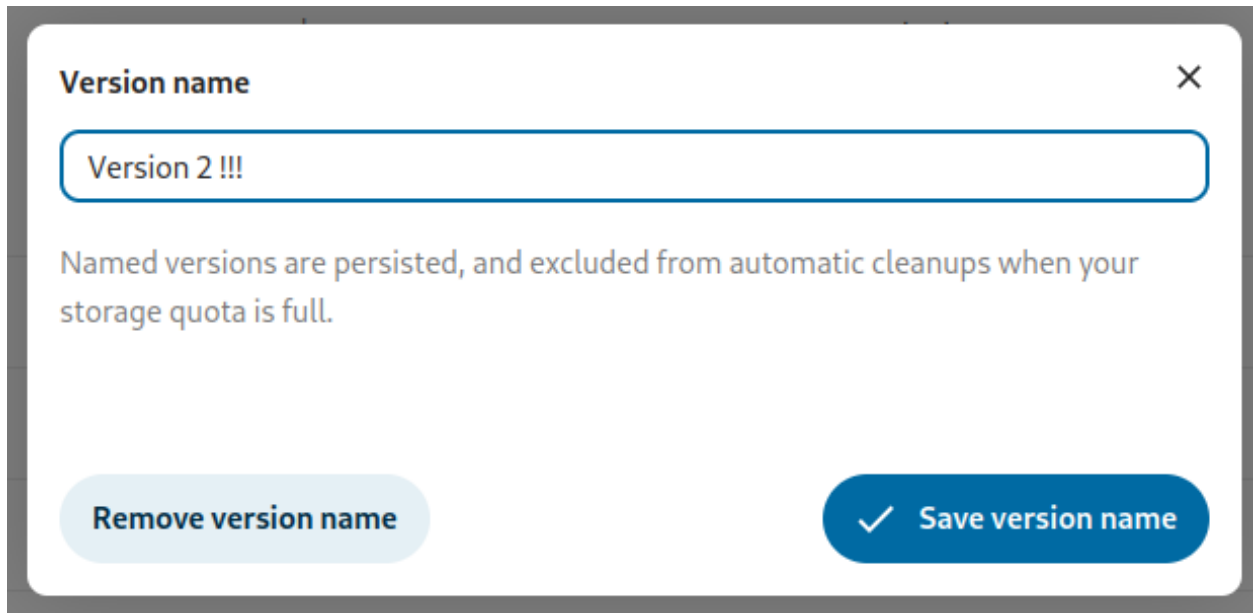
3.11.2 Deleting a version

You can also manually delete a version without waiting for the automatic expiration process.

3.12 Projects

Deprecated since version 25: This feature was replaced by the shipped related resources app.

Users can associate files, chats and other items with each other in projects. The various apps will present these items in a list, allowing users to immediately jump to them. Projects are Nextcloud wide. When a user shares a file that is part of a project, the share recipient can see that project, too. A click on any of the items in a project leads right to it, be it a chat, a file or a task.



Version name ✕

Version 2 !!!

Named versions are persisted, and excluded from automatic cleanups when your storage quota is full.

Remove version name ✓ Save version name

3.12.1 Create a new project

A new project can be created by linking two items together. Start off by opening a file or folders sharing sidebar.

Click *Add to a project* and select the type of item you want to link with the current file/folder. A selector will open that allows you selecting a Talk conversation for example.

Once the item has been selected a new project is being created and listed in the sharing tab of the sidebar. The same project will also appear in the sharing sidebar of the linked items.

The list entry shows quick links to a limited number of items. By opening the context menu, the project can be renamed and the full list of items can be expanded.

3.12.2 Adding more entries to a project

If another item should be added to an already existing project this can be done by searching for the project name in the *Add to a project* picker.

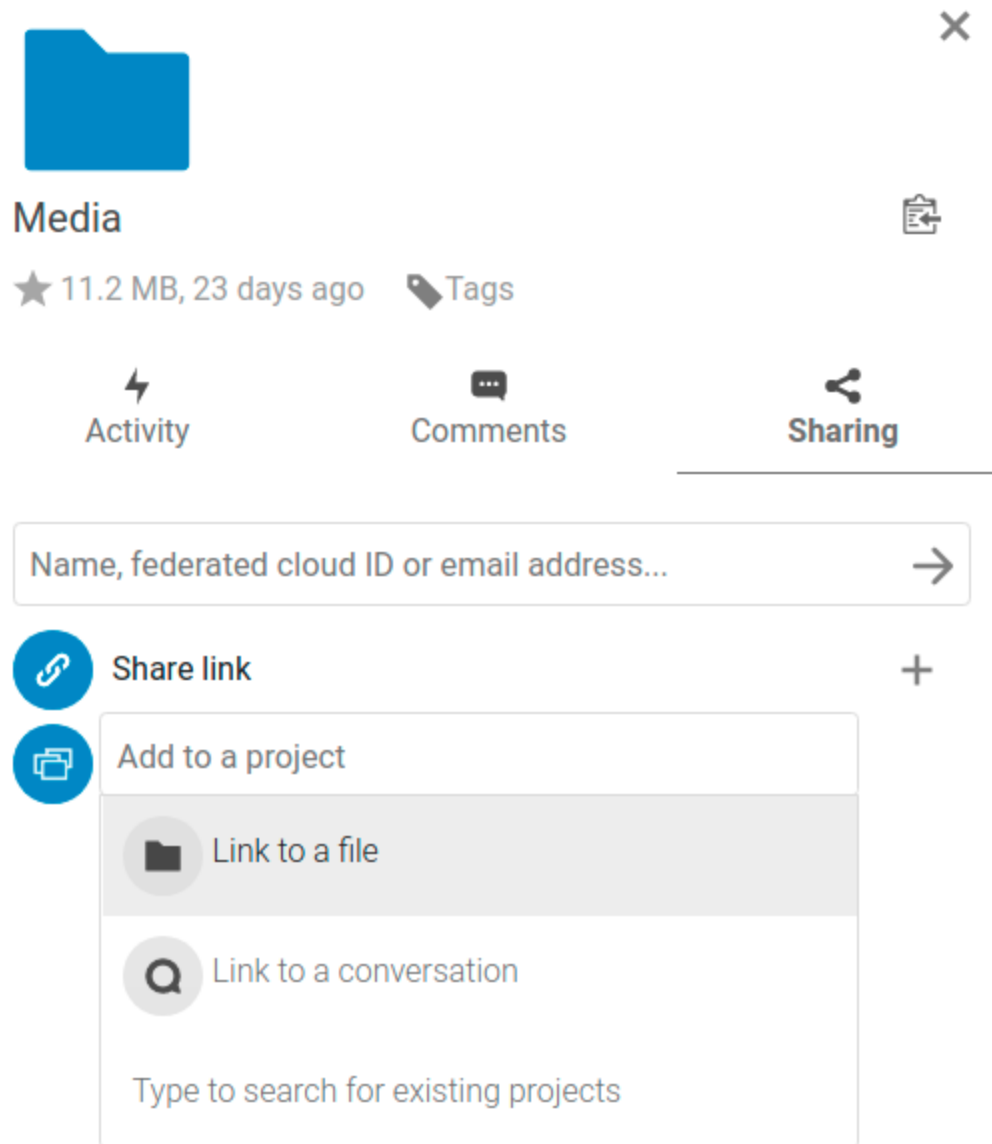
3.12.3 Visibility of projects

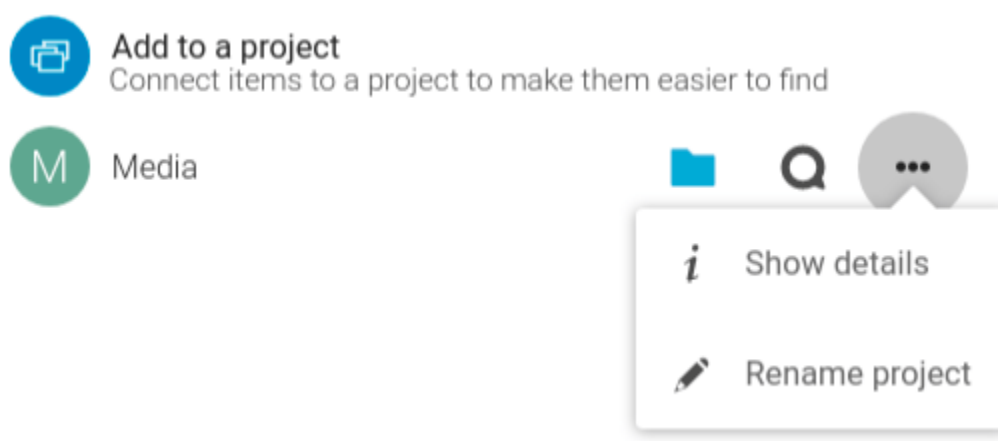
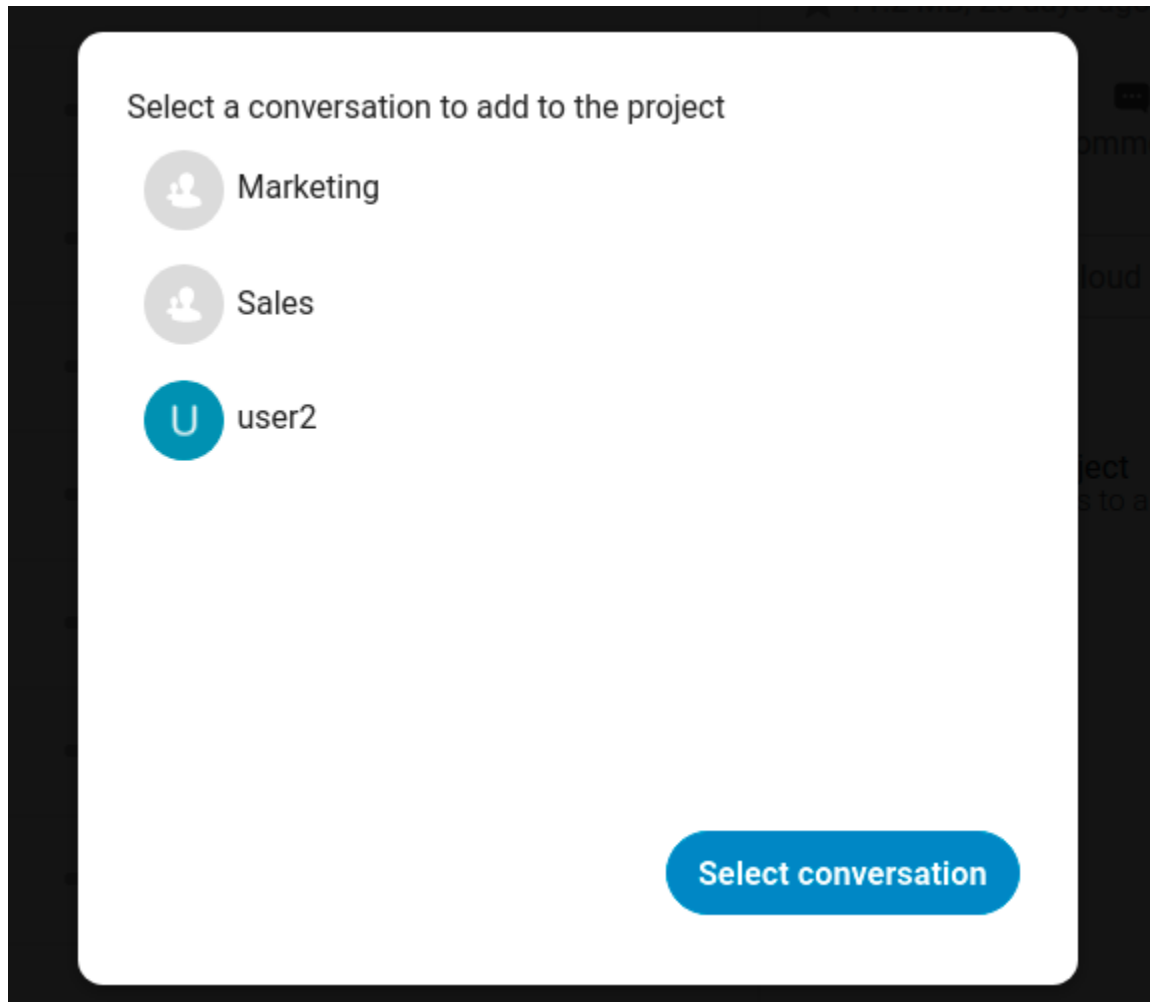
Projects do not influence the access and visibility of the different items. Users will only see projects of other users if they have access to all contained items.

3.13 Transfer Ownership

Users can transfer the ownership of files and folders to other users. Sharing ownerships of those transferred files/folders will also be transferred.

1. Navigate to *Settings* (top-right menu) > *Sharing*.
2. In the *Files* section, click on *Choose file or folder to transfer*. A file picker opens, showing all files and folders in the user's account.
3. Pick a file or folder and click on *Choose*. The chosen file or folder name gets displayed.
4. Click on *Change* to change the choice if necessary.





Nextcloud_Server_Administration_Manual.pdf



★ 8.4 MB, 23 days ago Tags



Chat



Activity



Comments



Sharing



Versions

Name, federated cloud ID or email address...



Share link



Add to a project



Link to a file



Link to a conversation



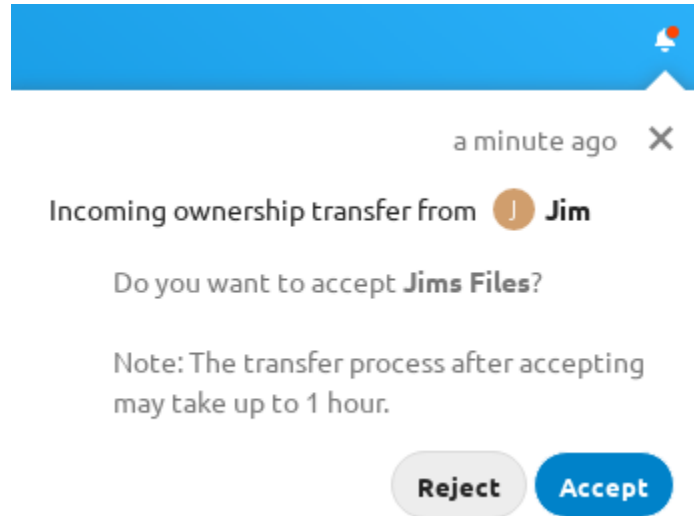
Media

5. Pick a new owner by typing their name into the search field next to *New owner*.
6. Click on *Transfer*.

Note

The username autocompletion or listing may be limited due to administrative visibility configuration. See [administrator documentation](#) for details.

7. The target user receives a notification where they are being asked whether to accept or reject the incoming transfer.



8. If accepted, the target user finds the transferred files and folders in their root under a folder *Transferred from [user] on [timestamp]*.
9. The source user gets informed about the acceptance or rejection by a notification.

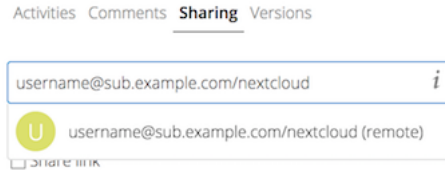
3.14 Using Federation Shares

Federation Sharing allows you to mount file shares from remote Nextcloud servers, in effect creating your own cloud of Nextclouds. You can create direct share links with users on other Nextcloud servers.

3.14.1 Creating a new Federation Share

Federation sharing is enabled on new or upgraded Nextcloud installations by default. Follow these steps to create a new share with other Nextcloud or ownCloud 9+ servers:

1. Go to your **Files** page and click the **Share** icon on the file or directory you want to share. In the sidebar enter the username and URL of the remote user in this form: `<username>@<oc-server-url>`. The form automatically confirms the address that you type and labels it as "remote". Click on the label.
2. When your local Nextcloud server makes a successful connection with the remote Nextcloud server you'll see a confirmation. Your only share option is **Can edit**.



Click the Share button anytime to see who you have shared your file with. Remove your linked share anytime by clicking the trash can icon. This only unlinks the share, and does not delete any files.

3.14.2 Creating a new Federated Cloud Share via email

Use this method when you are sharing with users on ownCloud 8.x and older.

What if you do not know the username or URL? Then you can have Nextcloud create the link for you and email it to your recipient.

When your recipient receives your email they will have to take a number of steps to complete the share link. First they must open the link you sent them in a Web browser, and then click the **Add to your Nextcloud** button.

The **Add to your Nextcloud** button changes to a form field, and your recipient needs to enter the URL of their Nextcloud or ownCloud server in this field and press the return key, or click the arrow.

Next, they will see a dialog asking to confirm. All they have to do is click the **Add remote share** button and they're finished.

Remove your linked share anytime by clicking the trash can icon. This only unlinks the share, and does not delete any files.

 Nextcloud

Add to your Nextcloud

Download



Download background.jpg (93 KB)

Direct link

Nextcloud – a safe home for all your data

→ Download



	Size	Modified ▾
...	2.6 MB	2 months ago
...	3 MB	2 months ago

GROUPWARE

Nextcloud Groupware is a bundle of apps which is consisting of an **Mail**-client (IMAP/POP3) and a **Calendar** and **Contacts** server (CalDAV/CardDAV) with the respective web interfaces.

We complete those productivity tools with **Deck**, a project management tool which allows you to create Kanban-style task boards and share them with your team.

You can find out more about Nextcloud Groupware [on our website](#).

4.1 Using the Contacts app

The Contacts app is not enabled by default in Nextcloud 32 and needs to be installed separately from our App Store.

The Nextcloud Contacts app is similar to other mobile contact applications, but with more functionality. This section covers the basic features that will help you maintain your address book in the application.

Below, you will learn how to add contacts, edit or remove contacts, upload a contact picture and manage your address books.

4.1.1 Adding Contacts

When you first access the Contacts app, the system address book containing all users on the instance you are allowed to see, plus an empty default address book becomes available:

To add contacts into your address book, you can use one of the following methods:

- Import contacts using a Virtual Contact File (VCF/vCard) file
- Add contacts manually

The fastest way to add a contact is to use a Virtual Contact File (VCF/vCard) file.

Importing Virtual Contacts

To Import Contacts Using a VCF/vCard File:

1. On top left of the screen you have “Import contacts” button that is shown only when you don’t have any contacts yet.
2. Find “Settings” at the bottom of the left sidebar, next to the gear button:
3. Click the gear button. The Contacts app “Import” button will appear:

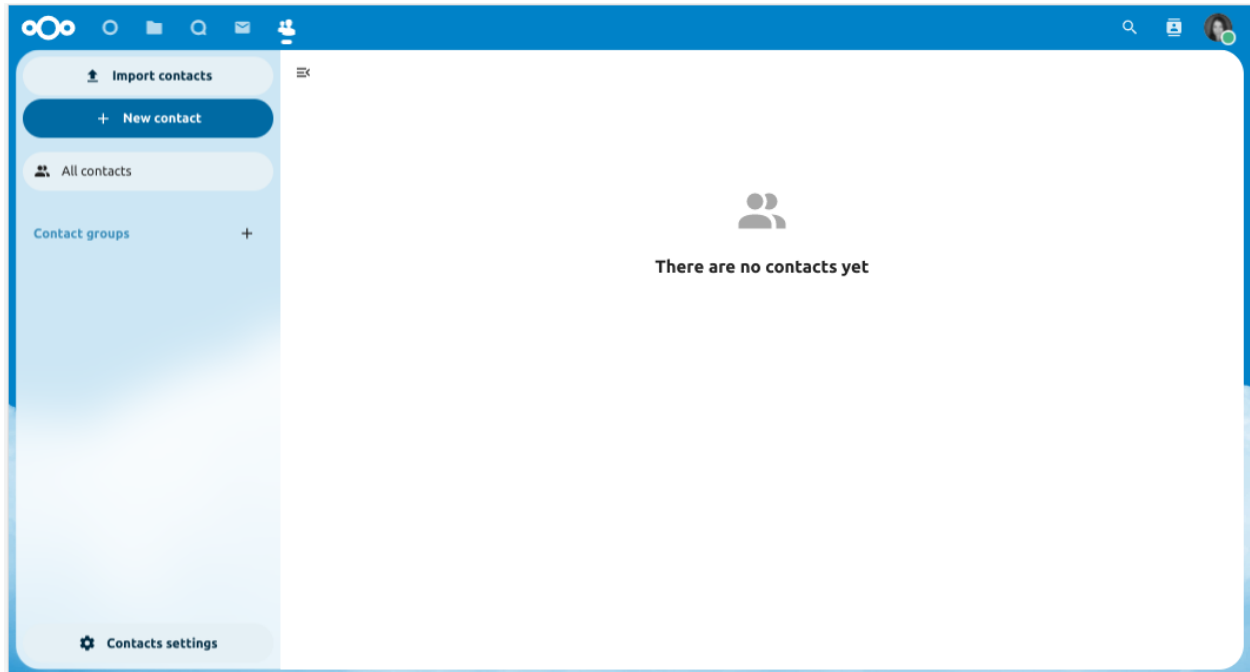
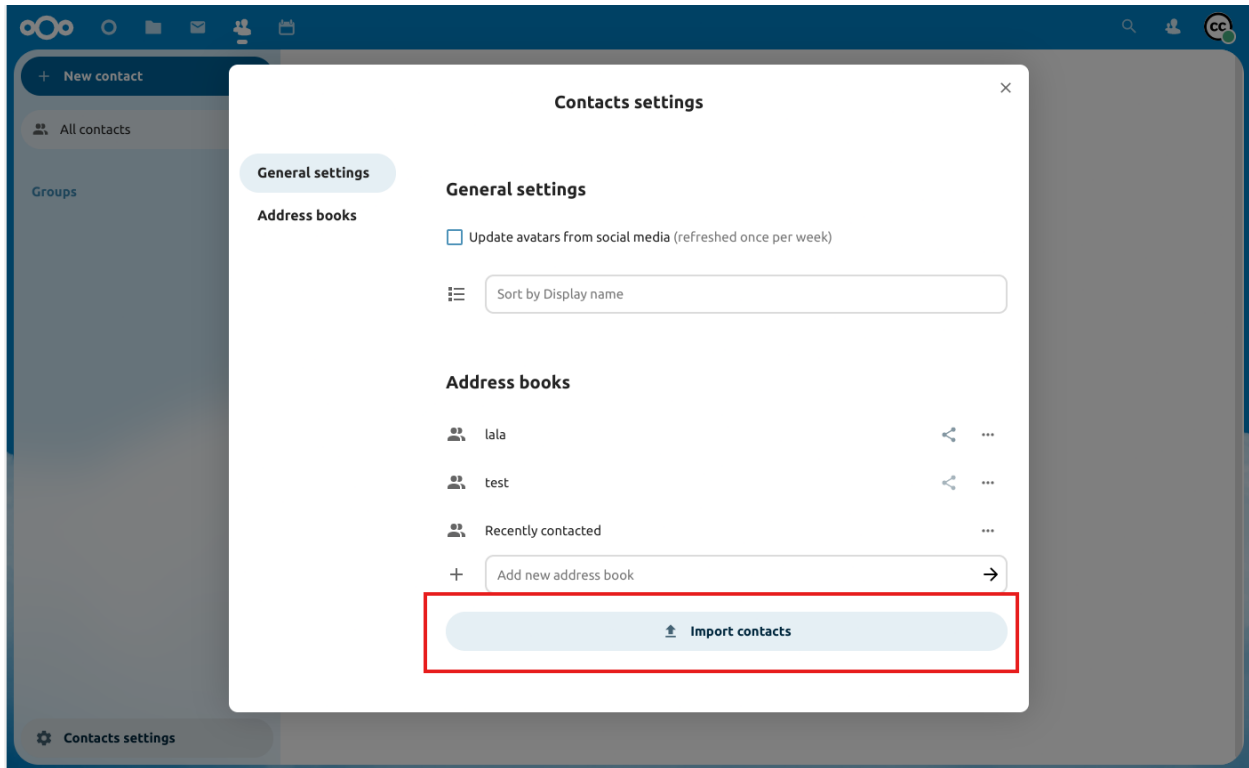


Fig. 1: *Default Address Book (empty)*





Note

The Contacts app only supports import of vCards version 3.0 and 4.0.

4. Click the “Import” button and upload your VCF/vCard file.

After the import is complete, you will see your new contact in your address book.

Adding Contacts Manually

If you can’t import virtual contacts, the Contacts app enables you to **add contacts** manually.

To Create a New Contact:

1. Click the + New contact button.

The Edit View configuration opens in the Application View field:

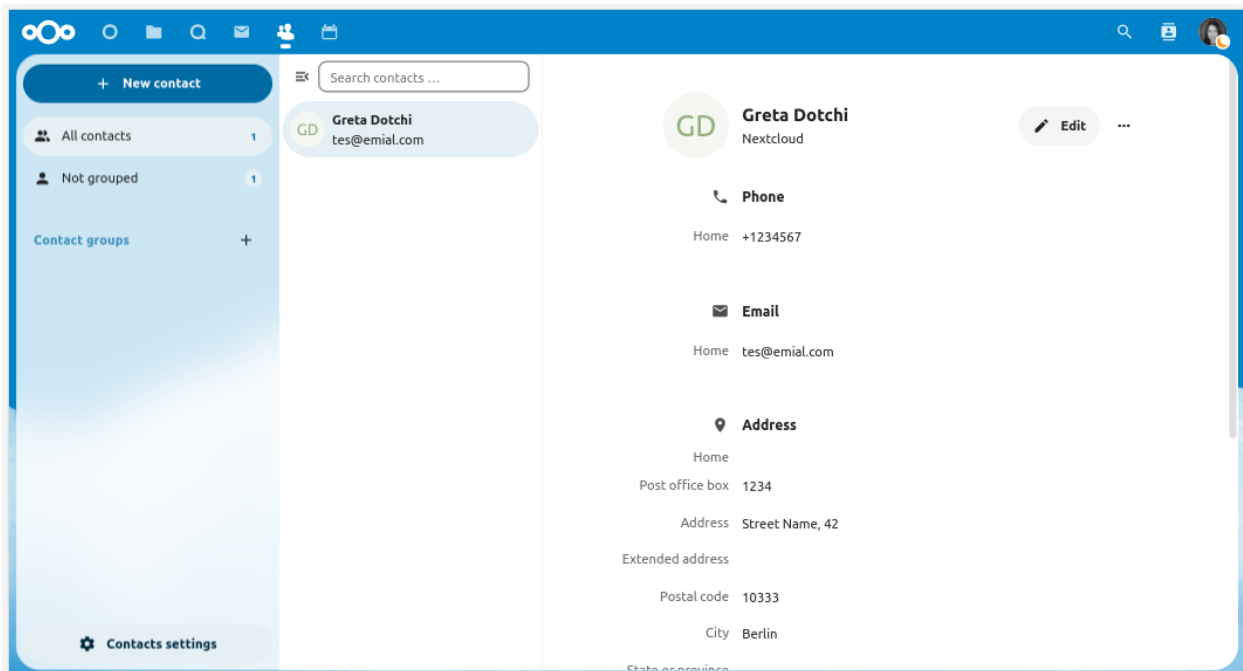
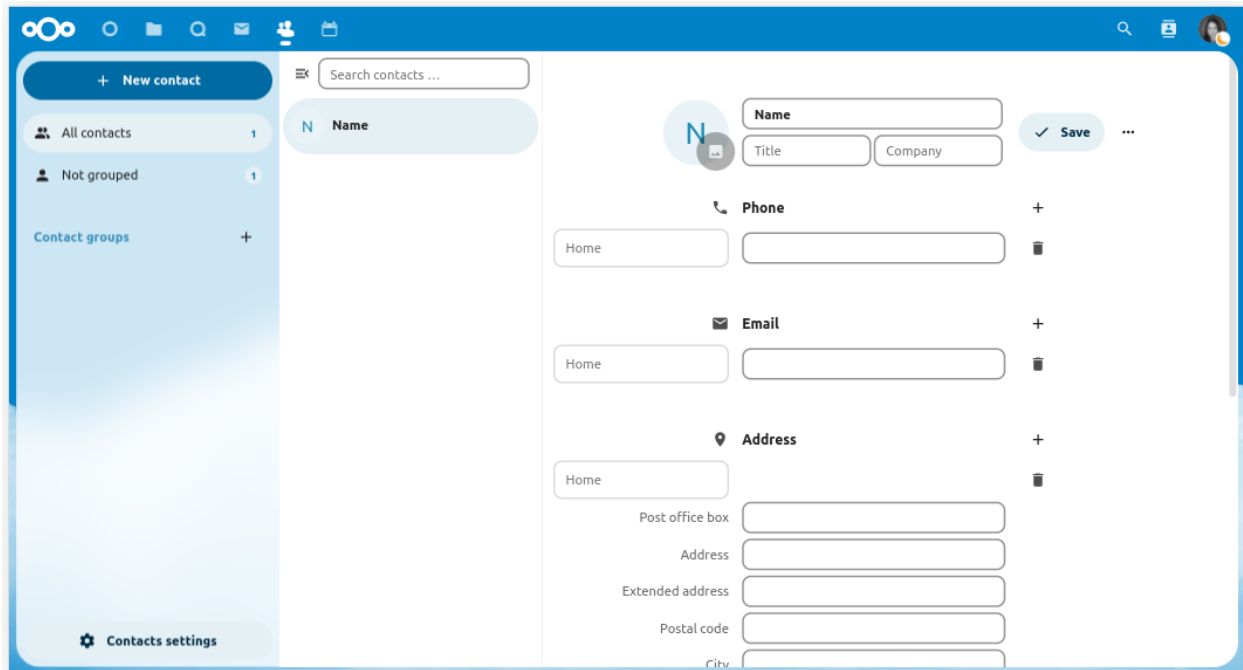
2. Specify the new contact information then click Save.
3. The View mode will be shown with the data you added

Edit or Remove Contact Information

The Contacts app enables you to edit or remove contact information.

To edit or remove contact information:

1. Navigate to the specific contact that you want to modify.



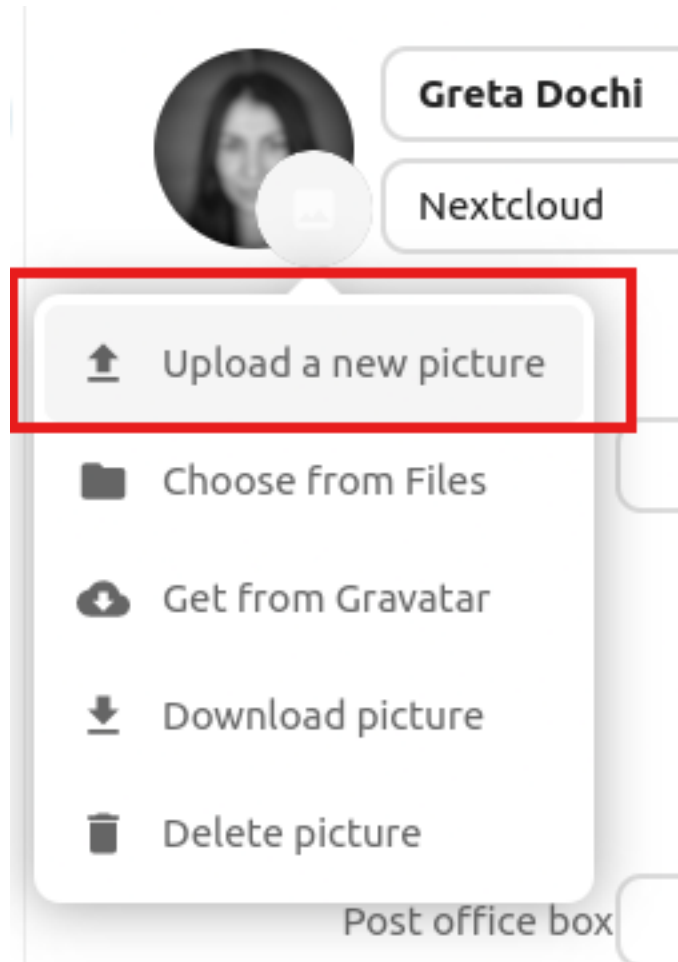
2. Select the information in the field that you want to edit or remove.
3. Make your modifications or click on the trash bin.

Changes or removals that you made to any contact information are implemented immediately.

Not all contacts will be editable for you. The system address book does not allow you to modify someone else's data, only your own. Your own data can also be modified in the [user settings](#).

Contact Picture

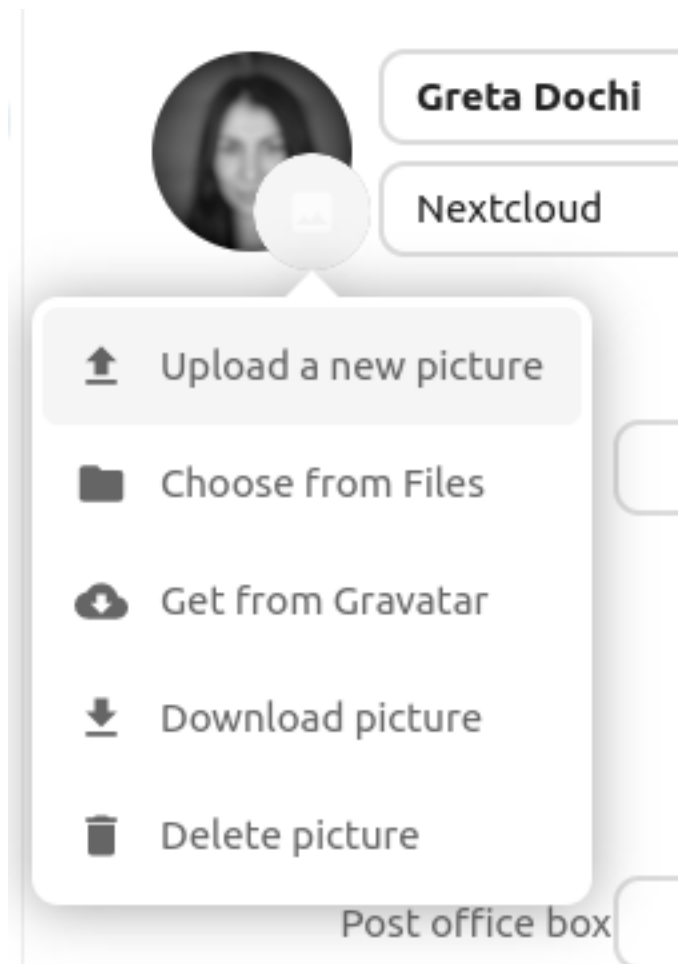
To add a picture for your new contacts, click on the upload button:



After you have set a contact picture, it will look like this:



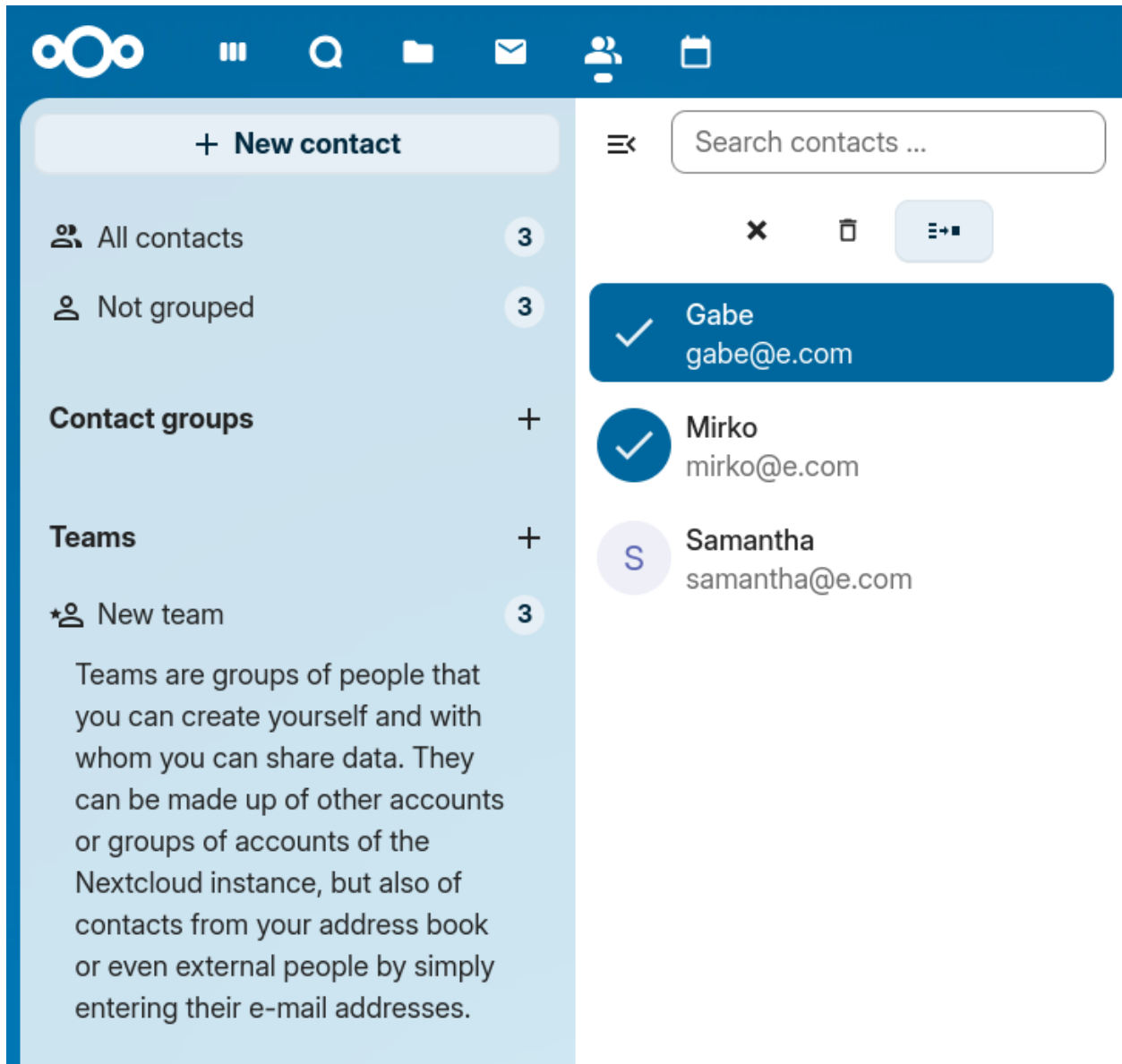
If you want to upload a new one, remove it, view it in full size or download it, click on the contact's picture for the following options to appear:



4.1.2 Managing multiple Contacts at a time

The Contacts app enables you to select multiple contacts and to perform batch actions on them. To select multiple contacts, either click on each contacts profile picture individually, or click on the profile picture on the first contact then while holding the shift key click on another contact in the list to select all contacts in between the first and second one.

This will bring up a menu at the top of the contacts list with various actions you can perform on the selected contacts:



In batch mode, the cross icon button will unselect all selected contacts, while the trash bin icon button will delete all selected contacts.

Note

You might not be able to modify or delete certain contacts, for example if they are in a read-only address book. In that case, relevant actions will be disabled.

Merging duplicate Contacts

To merge contacts, select two contacts then click the “Merge contacts” icon button at the top of the contacts list, this will open a dialog that helps you merge duplicate contacts. The merging dialog will show the details of both contacts side by side, and you can choose which details to keep in the merged contact.

Any properties with a Radio (circular) button can only have one value, so one of the two values must be selected (like the name of the contact, which can only have one value), meanwhile checkboxes (square buttons) allow you to keep both values if desired (like phone numbers or email addresses, which can have multiple values).

If either of the contacts are part of a group(s), by default the merged contact will be part of all groups that the two contacts were part of. You can uncheck any groups while merging if you don’t want the merged contact to be part of them.

Note

Currently you are only able to merge two contacts at a time, and you are naturally only able to merge contacts that can be modified by you. If the merging action is disabled, check that you selected contacts that match those conditions.

4.1.3 Organize your Contacts with Contact Groups

Contact Groups help you to organize your contacts into groups.

To create a new contact group, click on the plus sign next to “Contact groups” in the left sidebar.

Note

Contact groups need to have at least one member to be saved. Please note that you can only add contacts from writable address books to contact groups. Contacts from read-only address books, such as the system address book, cannot be added.

4.1.4 Adding and Managing Address Books

Clicking on the “Settings” (gear) button at the bottom of the left sidebar provides access to Contacts app settings. This field shows all available address books, certain options for each address book, and enables you to create new address books, simply by specifying an address books name:

The Contacts settings is also where you can share, export and delete addressbooks. You will find the CardDAV URLs there.

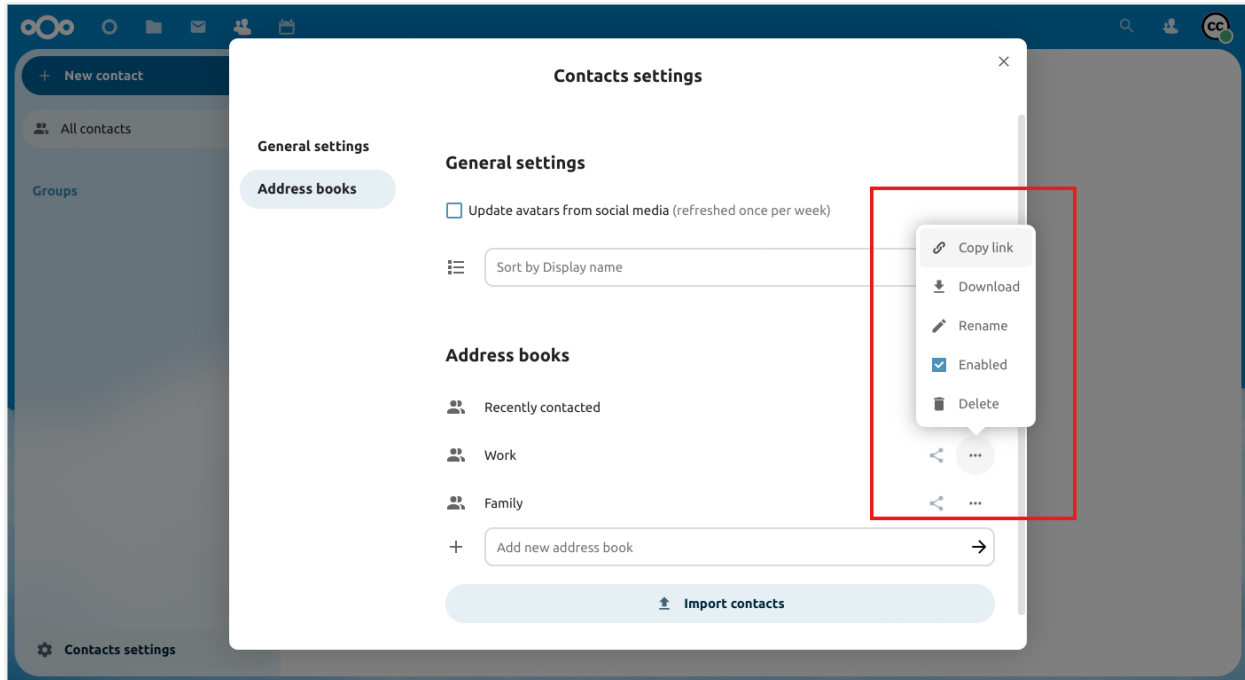
Note

Contacts in disabled address books are not shown in the Contacts app and the Contact menu.

See [Groupware](#) for more details about syncing your address books with iOS, macOS, Thunderbird and other CardDAV clients.

4.1.5 Teams

Informal collaboration takes place within organizations: an event to organize for a few weeks, a short ideation session between members from different entities, workshops, a place to joke around and support team building, or simply in very organic organizations where formal structure is kept to a minimum.



For all these reasons, Nextcloud supports Teams, a feature embedded in the Contacts app, where every user is able to create its own team, a user-defined aggregate of accounts. Teams can be used later on to share files and folders, added to Talk conversations, like a regular group.

Create a team

In the left menu, click on the + next to Teams. Set a team name. Landing on the team configuration screen, you can:

- add members to your team
- clicking on the three dot menu next to a user allow you to modify its role within the team.

Team roles

Teams support 4 types of roles:

- Member
- Moderator
- Admin can configure team options (+moderator permissions)
- Owner

Member

Member is the role with the lowest permissions. A member can only access the resources shared with the team, and view the members of the team.

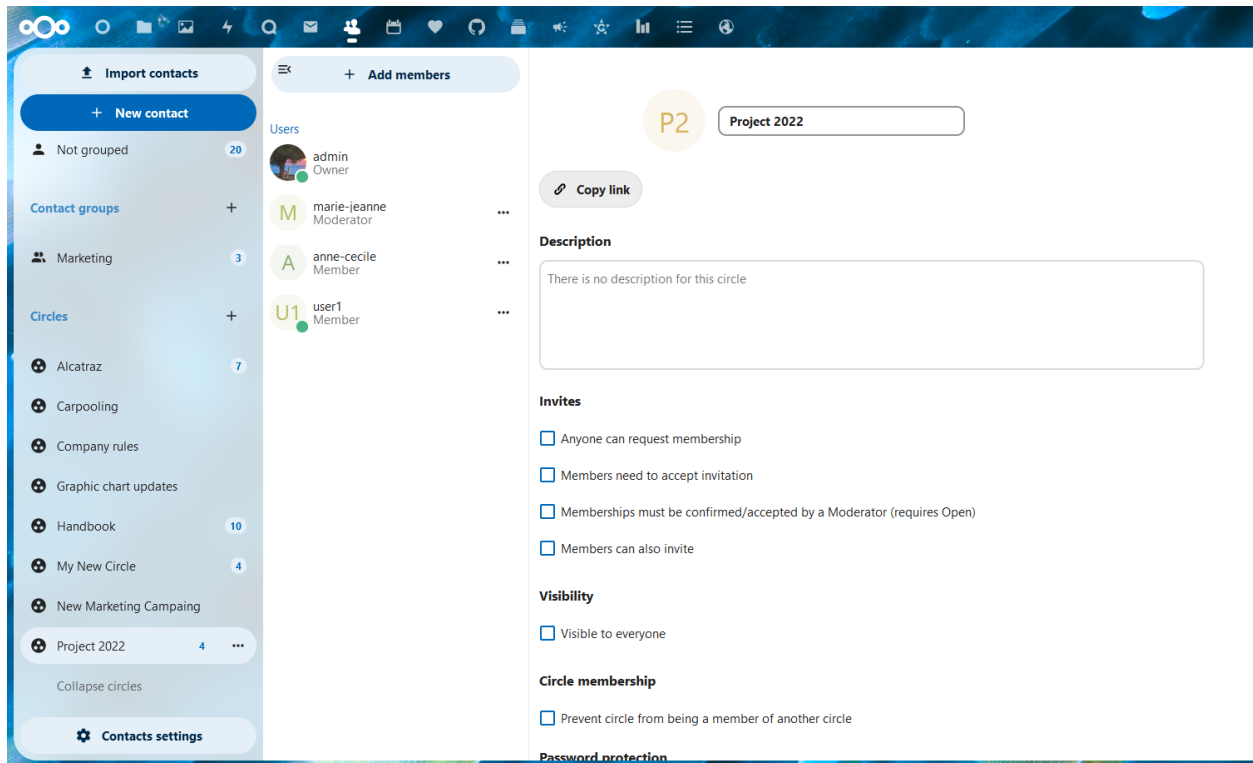
Moderator

In addition to member permissions, a moderator can invite, confirm invitations and manage members of the team.

Admin

In addition to moderator permissions, an admin can configure team options.

Owner



In addition to admin permissions, an owner can transfer the team ownership to another member of the team. There can be only one single owner per team.

Add members to a team

Local accounts, groups, email addresses or other teams can be added as members to a team. For a group or a team, the role applies to all members of the group or team.

Team options

Various self-explanatory options are available to configure a team, to manage invites and membership, visibility of the team, allowance of other team membership and password protection.

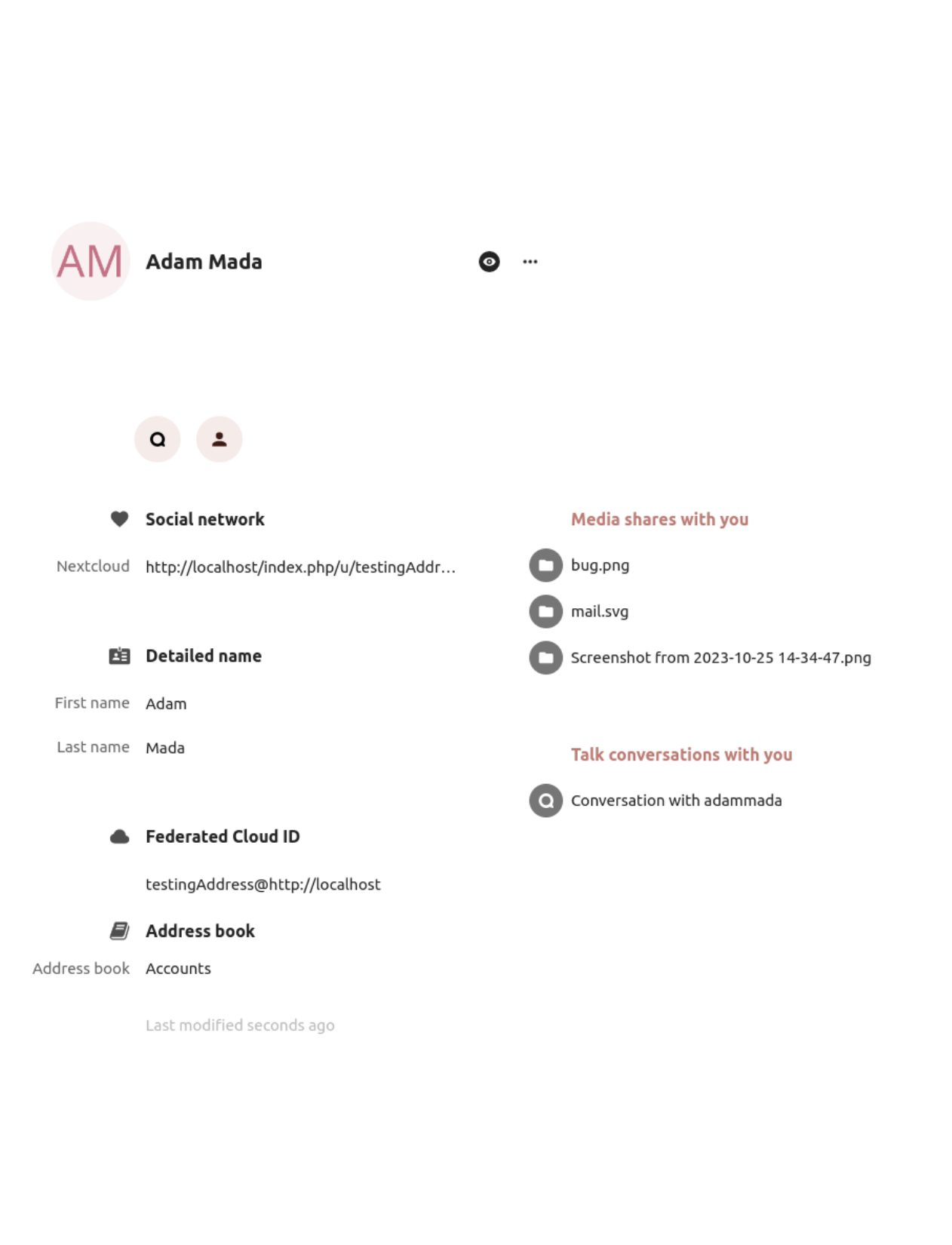
Prevent teams from being a member of another team

When this option is enabled, the team can no longer be directly added as a member of another team. However, this restriction only applies to new direct additions. Existing memberships are kept, and inherited memberships are still possible if this team belongs to a parent team that gets added elsewhere.

Shared items

Added in version 5.5.

Items that are shared between two contacts will be displayed in the contact app. This includes media, calendar events, chat rooms, and shared deck cards, all of which will be visible in the contact details. This functionality is limited to contacts listed in the system address book. Currently, our system only supports shared items between two contacts.



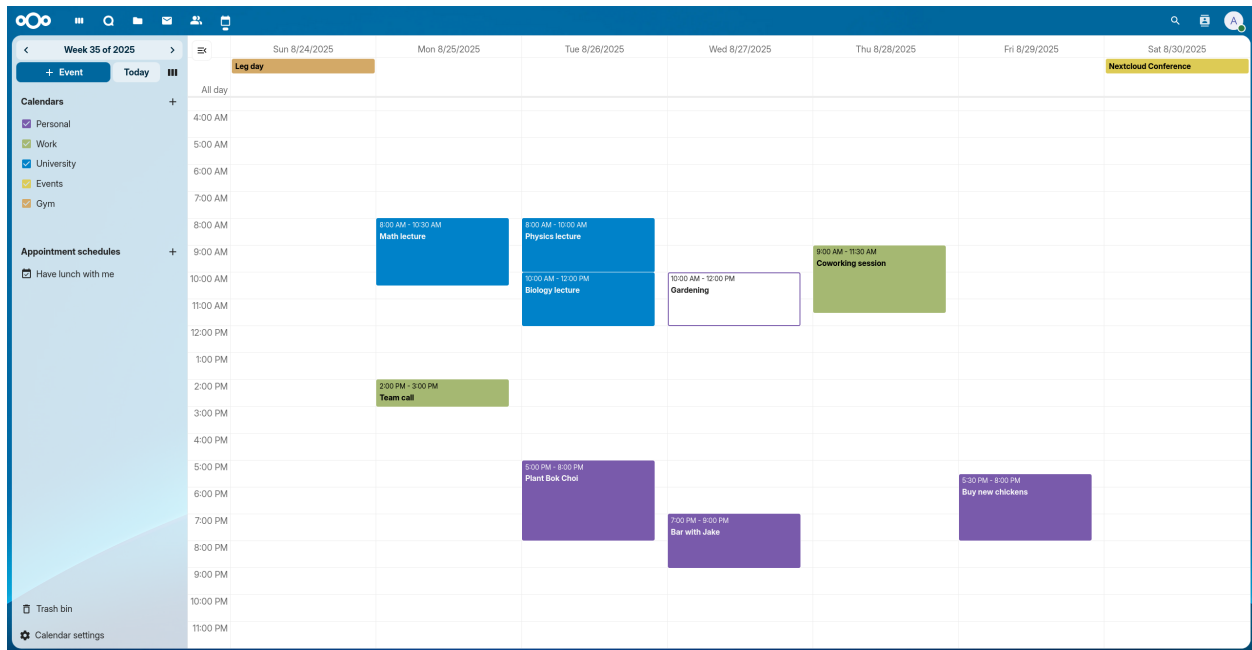
4.2 Using the Calendar app

Note

The Calendar app comes installed with Nextcloud Hub by default, but can be disabled. Please ask your Administrator for it.

The Nextcloud Calendar app works similar to other calendar applications you can sync your Nextcloud calendars and events with.

When you first access the Calendar app, a default first calendar will be created for you.



4.2.1 Managing your calendars

Create a new Calendar

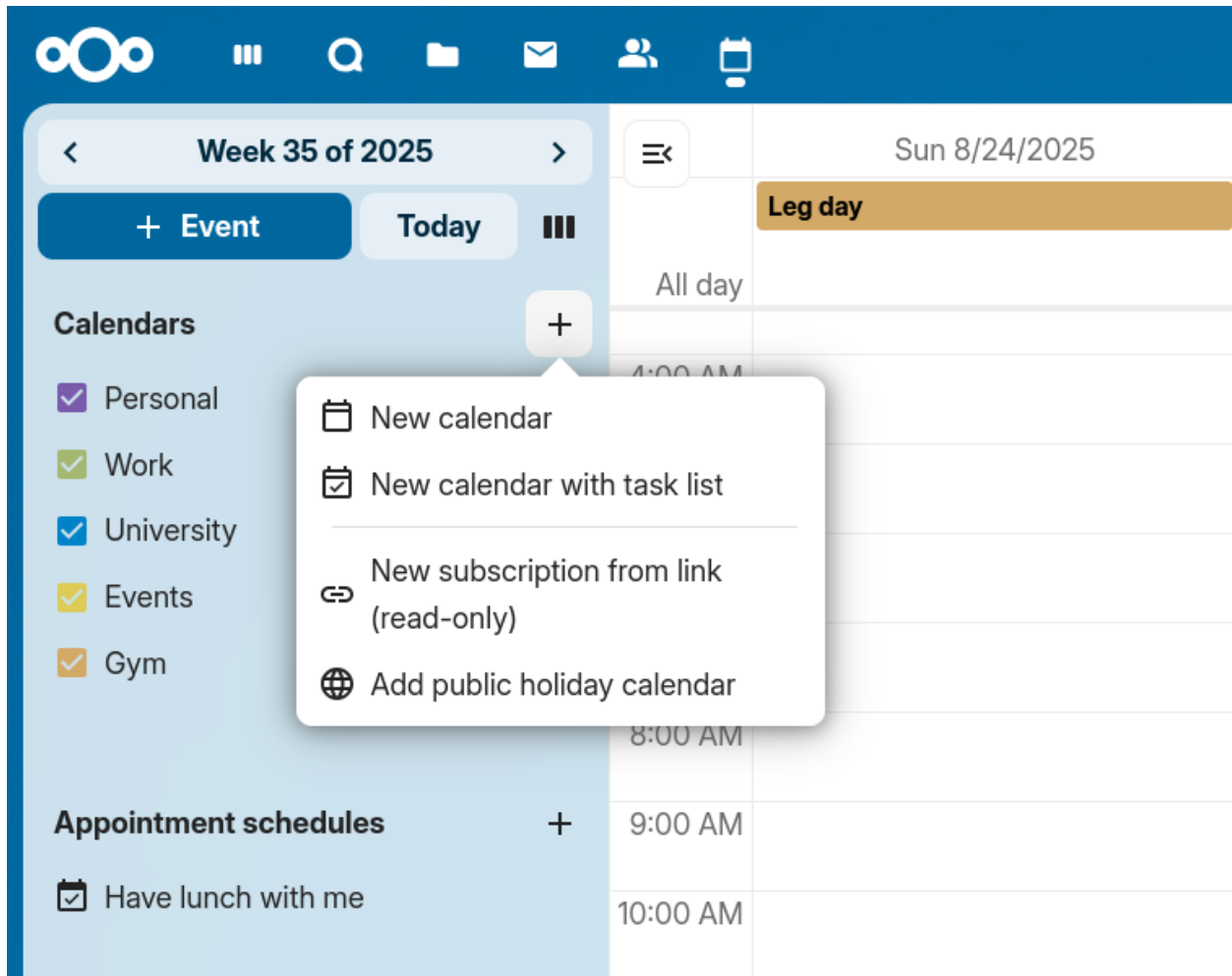
If you plan on setting up a new calendar without transferring any old data from your previous calendar, creating a new calendar is the way you should go.

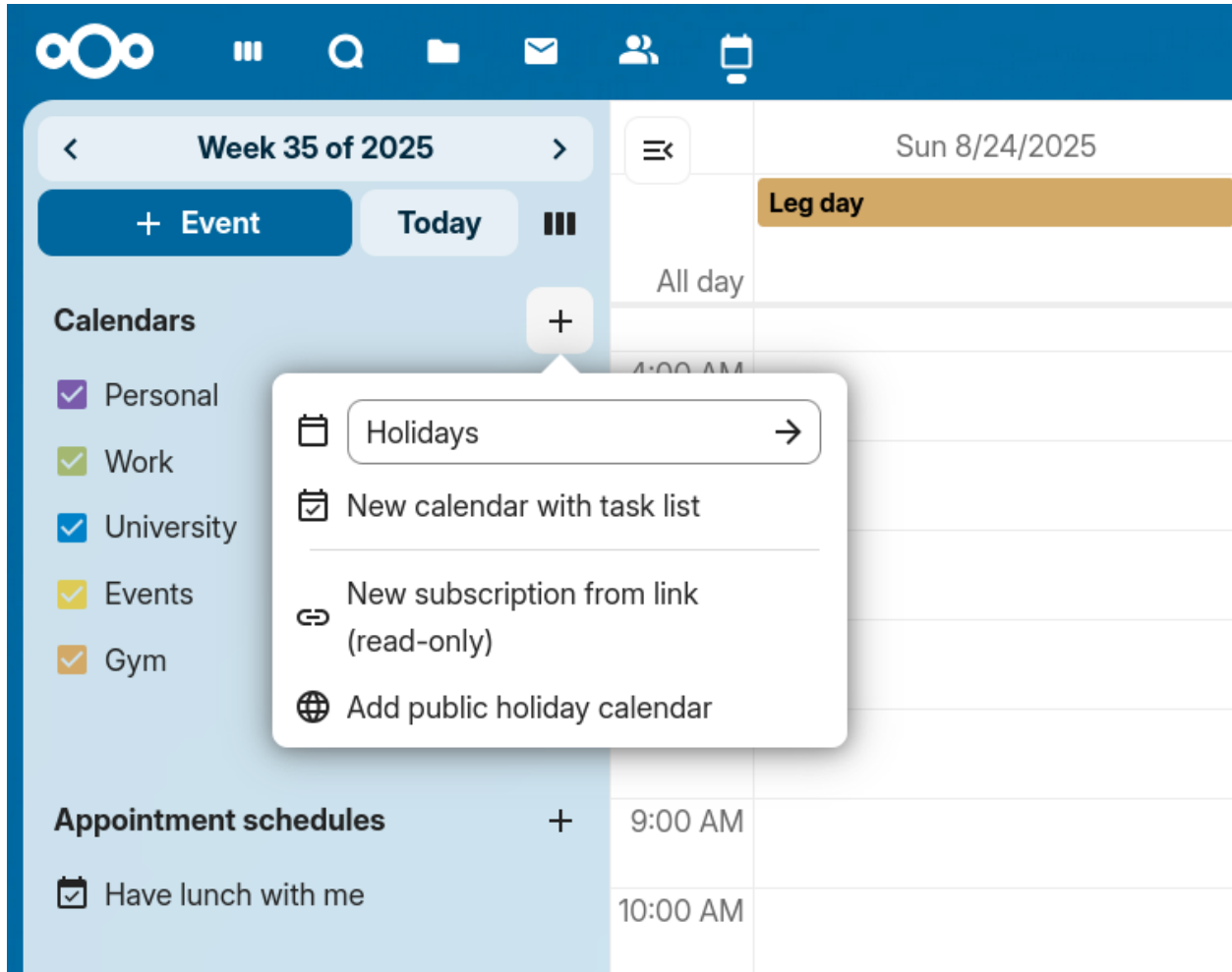
1. Click on **+ New Calendar** in the left sidebar.
2. Type in a name for your new calendar, e.g. “Work”, “Home” or “Marketing planning”.
3. After clicking on the checkmark, your new calendar is created and can be synced across your devices, filled with new events and shared with your friends and colleagues.

Import a Calendar

If you want to transfer your calendar and their respective events to your Nextcloud instance, importing is the best way to do so.

1. Click on the settings-icon labeled with **Calendar settings** at the bottom-left.
2. After clicking on **Import Calendar** you can select one or more calendar files from your local device to upload.





 Trash bin	2:00 PM	
	3:00 PM	
	4:00 PM	
	5:00 PM	
	6:00 PM	
	7:00 PM	
	8:00 PM	
 Calendar settings	9:00 PM	
 Import calendar	10:00 PM	
☐ Enable birthday calendar	11:00 PM	
☒ Show tasks in calendar		
☒ Enable simplified editor		
☒ Limit the number of events displayed in the monthly view		
☒ Show weekends		
☐ Show week numbers		
Time increments		

3. Select a `Calendar` to import into.
4. The upload can take some time and depends on how big the calendar you import is. A blue progress bar will appear below “Calendar Settings”.

Note

The Nextcloud Calendar application only supports iCalendar-compatible `.ics`-files, defined in RFC 5545.

Import an Event/Add `.ics` Event

Individual events are often distributed as `.ics` files (sometimes via a button labelled “iCal”, “Apple Calendar” or “Outlook”). You can import them into Nextcloud Calendar using the same import flow as a full calendar.

1. Click on the settings-icon labeled with `Calendar settings` at the bottom-left.
2. After clicking on `Import calendar` you can select one or more `.ics` files from your local device to upload. Single-event files are added to the calendar you select.
3. Select a `Calendar` to import into.
4. The upload can take some time and depends on how big the calendar/event you import is. A blue progress bar will appear below “Calendar Settings”.

Note

The Nextcloud Calendar application only supports iCalendar-compatible `.ics`-files, defined in RFC 5545.

Edit, Export or Delete a Calendar

Sometimes you may want to change the color or the entire name of a previous imported or created calendar. You may also want to export it to your local hard drive or delete it forever.

Note

Please keep in mind that deleting a calendar is an irreversible action. After deletion, there is no way of restoring the calendar unless you have a local backup.

Click on the “pen” icon of the respective calendar. You will see a new popup that will allow you to change the calendar name and color, and buttons to delete or export the calendar.

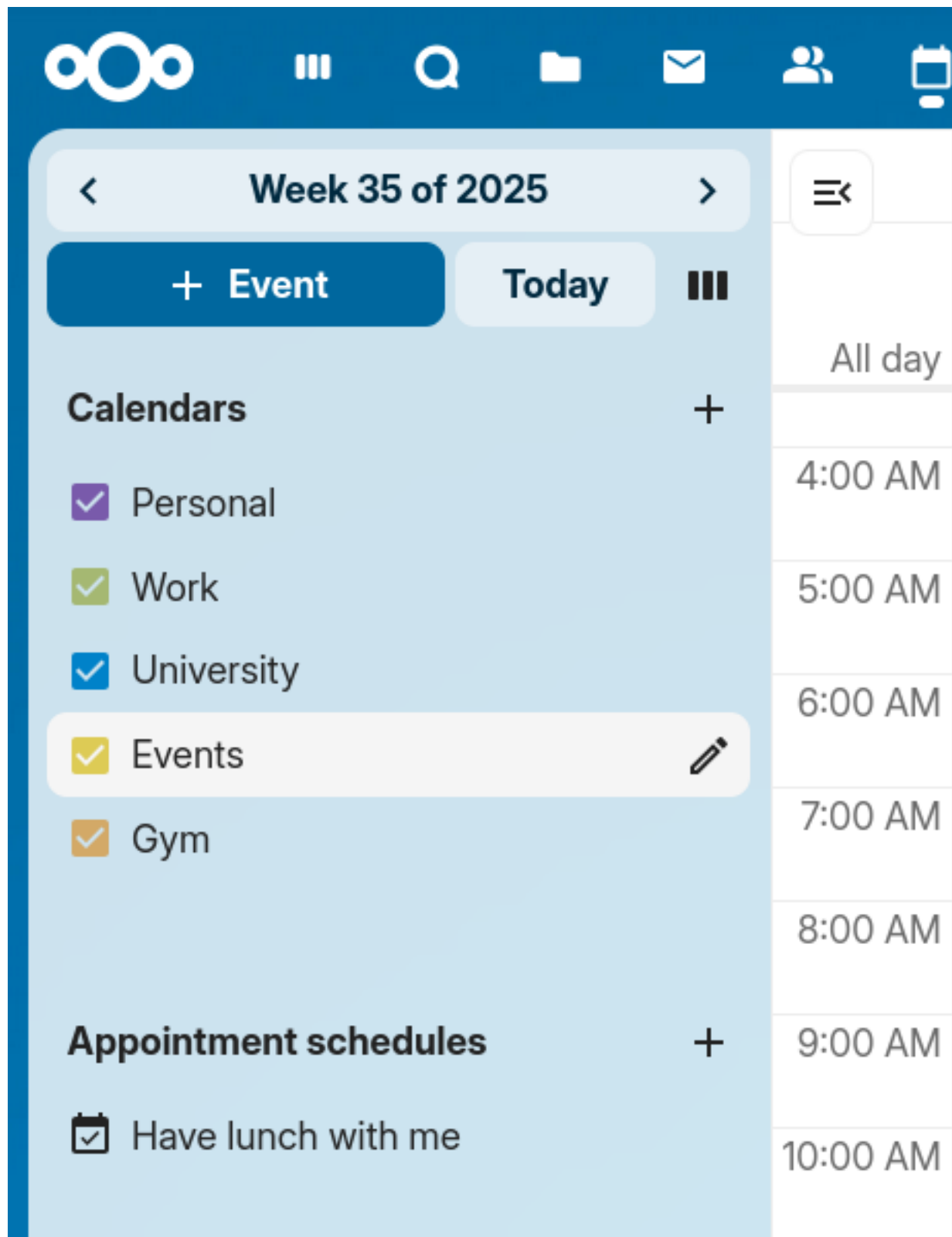
Calendar Transparency

You can toggle the checkbox “Never show me as busy (set calendar to transparent)” to influence if this calendars’ events are taken into account in Free/Busy calculations. If checked, no events in this calendar will be taken into account, your schedule will always be free, regardless of an events’ settings.

Sharing calendars

You may share your calendar with local users, groups or read-only with remote users on federated servers.

Calendars may be shared with write access or read-only. When sharing a calendar with write access, users with whom the calendar is shared will be able to create new events into the calendar as well as edit and delete existing ones.



×

Edit calendar

Events

☐ Never show me as busy (set this calendar to transparent)

Share calendar

Share with users or groups

▼

Share link

+

Internal link

A private link that can be used with external clients

Delete

Export

✓

Save

Events

☒ Never show me as busy (set this calendar to transparent)

Edit calendar

Events

☒ Never show me as busy (set this calendar to transparent)

Share calendar

Aisha

A

Aisha
aisha@e.com

Guests

Delete

Export

Save

Edit calendar

Events

☒ Never show me as busy (set this calendar to transparent)

Share calendar

Share with users or groups

Share link

+

Internal link

A private link that can be used with external clients

A

Aisha

aisha@e.com

☒ can edit

Delete Export

✓ Save

5:00 PM - 8:00 PM

Note

Calendar shares currently cannot be accepted or rejected. If you want to stop having a calendar that someone shared with you, you can click on the 3-dot menu next to the calendar in the calendar list and click on “Unshare from me”. To restore a share, the calendar can be reshared again, either for the whole group, resetting all unshares, or for a single user.

Publishing a calendar

Calendars can be published through a public link to make them viewable (read-only) to external users. You may create a public link by opening the share menu for a calendar and clicking on « + » next to « Share link ». Once created you can copy the public link to your clipboard or send it through email.

There’s also an « embedding code » that provides an HTML iframe to embed your calendar into public pages.

Multiple calendars can be shared together by adding their unique tokens to the end of an embed link. Individual tokens can be found at the end of each calendar’s public link. The full address will look like `https://cloud.example.com/index.php/apps/calendar/embed/<token1>-<token2>-<token3>`

To change the default view or date of an embedded calendar, you need to provide a URL that looks like `https://cloud.example.com/index.php/apps/calendar/embed/<token>/<view>/<date>`. In this URL you need to replace the following variables:

- `<token>` with the calendar’s token,
- `<view>` with one of `dayGridMonth`, `timeGridWeek`, `timeGridDay`, `listMonth`, `listWeek`, `listDay`. The default view is `dayGridMonth` and the normally used list is `listMonth`,
- `<date>` with `now` or any date with the following format `<year>-<month>-<day>` (e.g. `2019-12-28`).

On the public page, users are able to get the subscription link for the calendar and export the whole calendar directly.

Calendar Widget

You can embed your calendars into supported apps like `Talk`, `Notes`, etc... by either sharing the public link to make the embed viewable (read-only) to all users or by using the internal link to make it private.

Subscribe to a Calendar

You can subscribe to iCal calendars directly inside of your Nextcloud. By supporting this interoperable standard (RFC 5545) we made Nextcloud calendar compatible to Google Calendar, Apple iCloud and many other calendar-servers you can exchange your calendars with, including subscription links from calendar published on other Nextcloud instances, as described above.

1. Click on `+ New calendar` in the left sidebar
2. Click on `+ New subscription from link (read-only)`
3. Type in or paste the link of the shared calendar you want to subscribe to.

Finished. Your calendar subscriptions will be updated regularly.

Note

Subscriptions are refreshed every week by default. Your administrator may have changed this setting.

Subscribe to a Holiday Calendar

Added in version 4.4.

You can subscribe to a read-only holiday calendar provided by [Thunderbird](#).

1. Click on `+ New calendar` in the left sidebar
2. Click on `+ Add holiday calendar`
3. Find your country or region and click `Subscribe`

4.2.2 Managing Events

Create a new event

Events can be created by clicking in the area when the event is scheduled. In the day- and week-view of the calendar you just click, pull and release your cursor over the area when the event is taking place.

Clicking on the globe button brings up the timezone selector. You are able to choose different timezones for the start and end of your event. This is useful when travelling.

The month-view only requires a single click into the area of the target day.

After that, you can type in the event's name (e.g. **Meeting with Linus**), choose the calendar in which you want to save the event to (e.g. **Personal, Community Events**), check and concretize the time span or set the event as an all-day event. Optionally you can specify a location and a description.

If you want to edit advanced details such as the **Attendees** or **Reminders**, or if you want to set the event as a repeating event, click on the `More` button to open the advanced editor.

Add Talk conversation

You can include an existing Talk conversation in your event by clicking “Add Talk conversation”. To view the list of existing Talk conversations, ensure the Talk app is enabled. If you'd like to create a new Talk conversation, you can do so directly from the same modal.

Note

If you always want to open the advanced editor instead of the simple event editor popup, you uncheck the option `Enable simplified editor` in the `Settings` section of the app.

Clicking on the blue `Create` button will finally create the event.

Edit, duplicate or delete an event

If you want to edit, duplicate or delete a specific event, you first need to click on the event.

After that you will be able to re-set all event details and open the advanced editor by clicking on `More`.

Clicking on the `Update` button will update the event. To cancel your changes, click on the close icon on top right of the popup or advanced editor.

If you open the advanced view and click the three dot menu next to the event name, you have an option to export the event as an `.ics` file or remove the event from your calendar.

Tip

If you delete events they will go into your [trash bin](#). You can restore accidentally deleted events there.

Work

...

×

Team call

From

08 / 25 / 2025

02 : 00 PM

To

08 / 25 / 2025

03 : 00 PM

☐ All day

Add a location

Add a description

- What is this meeting about
- Agenda items
- Anything participants need to prepare

Attendees

Search for emails, users, contacts, contact groups

Europe - Rome

^

Abidjan

Accra

Addis Ababa

Algiers

Asmara

Asmera

Bamako

Bangui

Banjul

More details

✓ Update

Personal ✕

Meeting about tent improvements

From 08 / 19 / 2025

To 08 / 19 / 2025

☒ All day

Add a location

Add a description

- What is this meeting about
- Agenda items
- Anything participants need to prepare

Attendees

Search for emails, users, contacts, contact groups or teams

[More details](#) [✓ Save](#)

Add Talk conversation ✕

Let's get started!

[+ Create a new public conversation](#) [Select conversation](#)

Big event

✓ Update ...

↓ Export

↪ Duplicate

🗑 Delete

🌐 Europe/Rome

From 08/12/2025 07:30 AM

To 08/12/2025 09:00 AM

☐ All day

🔄 Does not repeat

● Personal

You can also export, duplicate or delete an event from the basic editor.

● University

Math lecture

📅 Aug 25, 2025 8:00 AM 🌐

Aug 25, 2025 10:30 AM 🌐

📍 Leonardo Da Vinci Square

⋮

↓ Export

↪ Duplicate

🗑 Delete

More details

✎ Edit

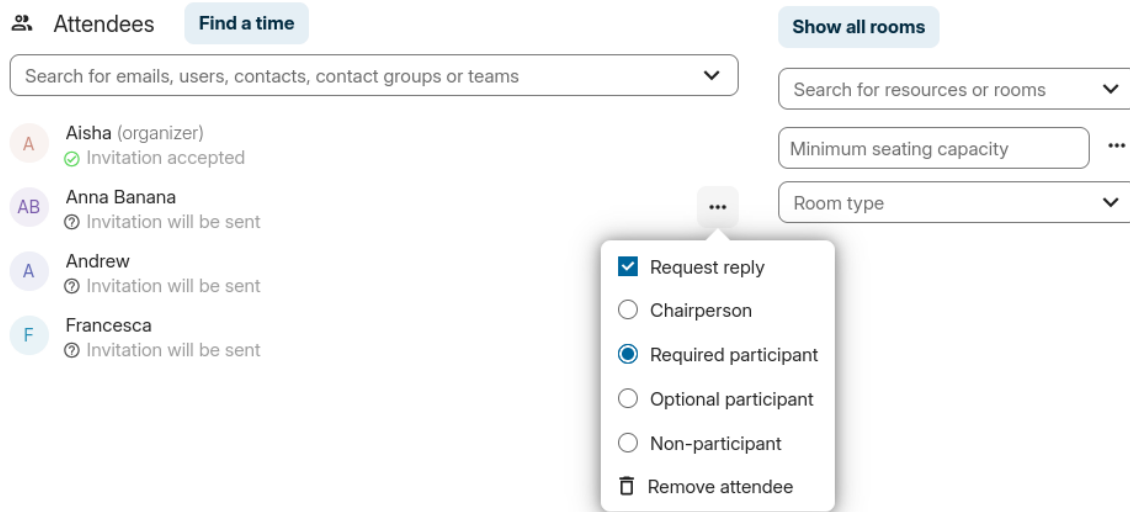
Invite attendees to an event

You may add attendees to an event to let them know they're invited. They will receive an email invitation and will be able to confirm or cancel their participation to the event. Attendees may be other users on your Nextcloud instances, contacts in your address books and direct email addresses. You may also change the level of participation per attendees, or disable the email information for a specific attendee.

Changed in version 25: Attendee email response links no longer offer inputs to add a comment or invite additional guests to the event.

💡 Tip

When adding other Nextcloud users as attendees to an event, you may access their free-busy information if available, helping you determine when the best time slot for your event is. Set your *working hours* to let others know when you are available. Free-busy information is only available for other users on the same Nextcloud instance.



⚠ Attention

The server administration needs to setup the e-mail server in the `Basic settings` tab, as this mail will be used to send invitations.

Invitation status legend (as an attendee):

- **Filled in event:** You accepted
- **Strikethrough:** You declined
- **Stripes:** Tentative
- **Empty event:** You haven't responded yet

If you are the organizer and all your attendees declined, the event will be empty with a warning symbol.

Checking attendees' busy times

After adding attendees to an event you can click on `Find a time` to bring up the "Free / Busy" modal. It allows you to see when each attendee has other events, and can help you decide on a time when everyone is free.

Your own busy blocks will be shown in the same color as your personal calendar, your out of office times will be shown in gray, and other attendees' busy times will have the same color as their avatar shown in the advanced editor.

You can select a time slot for the event directly on the calendar.

Assign rooms and resources to an event

Similar to attendees you can add rooms and resources to your events. The system will make sure that each room and resource is booked without conflict. The first time a user adds the room or resource to an event, it will show as accepted. Any further events at overlapping times will show the room or resource as rejected.

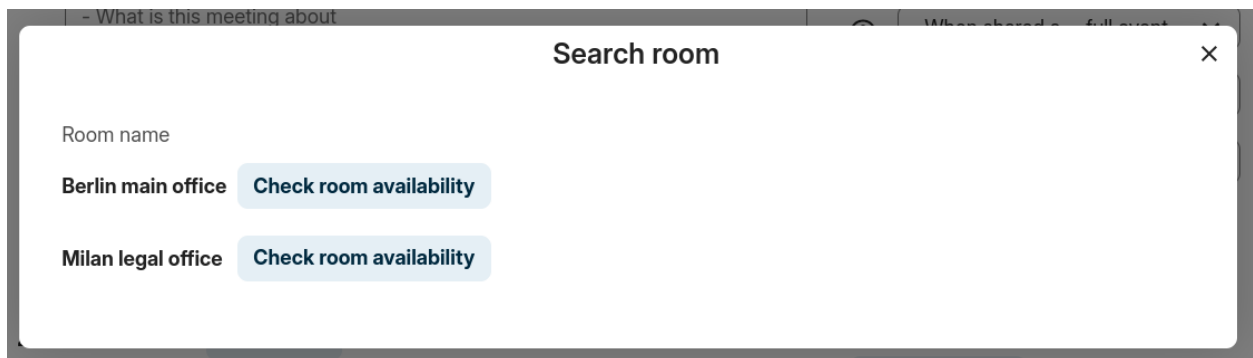
i Note

Rooms and resources are not managed by Nextcloud itself and the Calendar app will not allow you to add or change a resource. Your Administrator has to install and possibly configure resource back ends before you can use them as a user.

Room availability

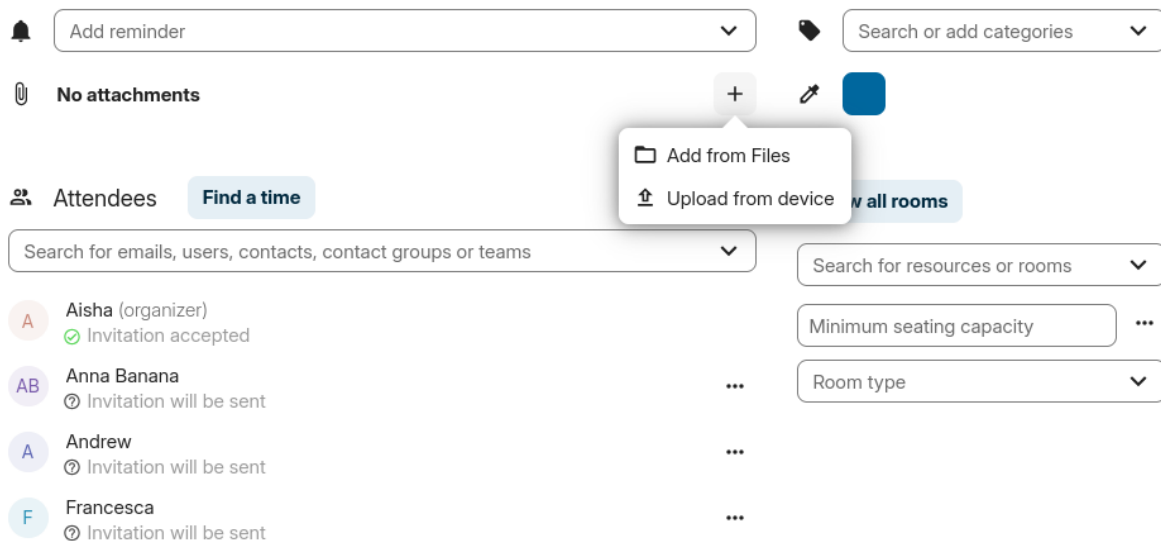
Added in version 5.0.

If the “Calendar Rooms and Resources” app is installed on your instance, you can now find `Room availability` the `Resources` section. It lists all the existing rooms. You can check the availability of each room in a manner similar to checking the free/busy status of event attendees.



Add attachments to events

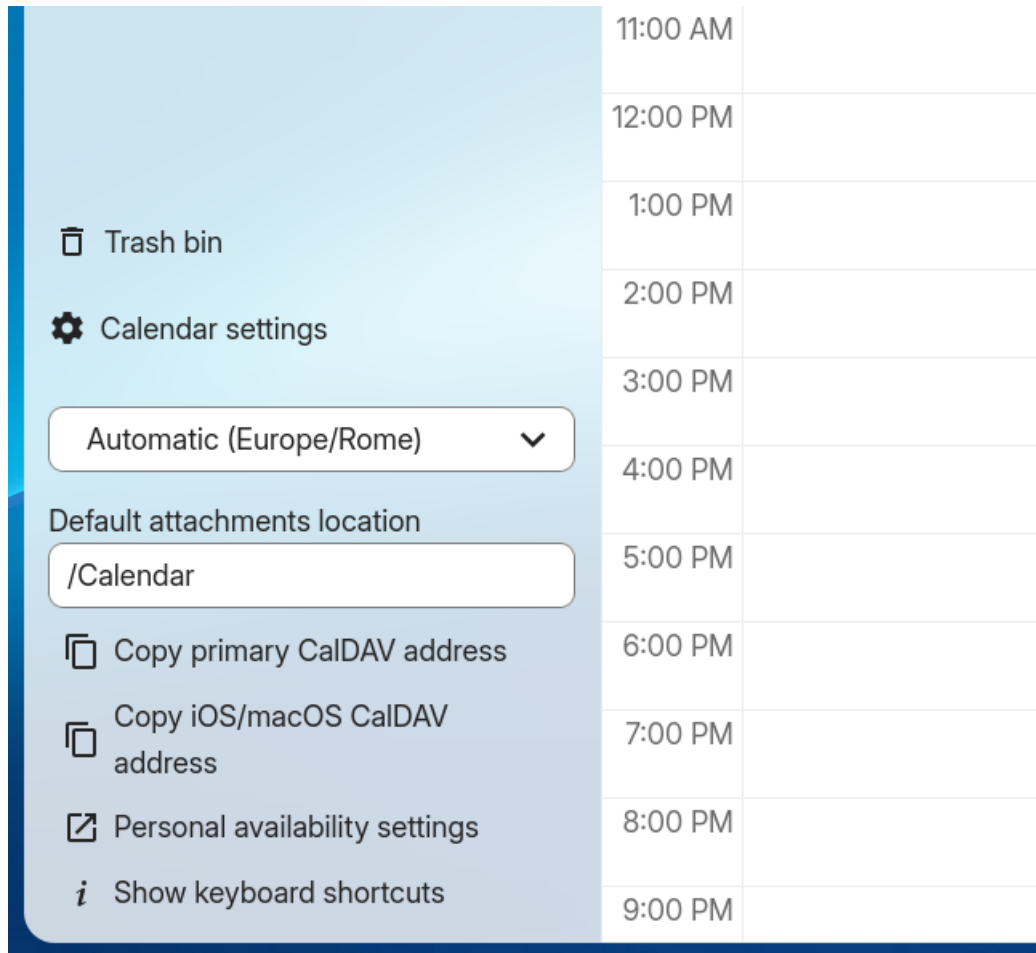
You can import attachments to your events either by uploading them or adding them from files



Note

Attachments can be added while creating new events or editing existent ones. Newly uploaded files will be saved in files by default in the calendar folder in the root directory.

You can change the attachment folder by going to `Calendar settings` in the bottom left corner and changing default attachments location.



Set up reminders

You can set up reminders to be notified before an event occurs. Currently supported notification methods are:

- Email notifications
- Nextcloud notifications

You may set reminders at a time relative to the event or at a specific date.

Note

Only the calendar owner and people or groups with whom the calendar is shared with write access will get notifications. If you don't get any notifications but think you should, your Administrator could also have disabled this for your server.

Note

If you synchronize your calendar with mobile devices or other 3rd-party clients, notifications may also show up there.





Add a description

- What is this meeting about
- Agenda items
- Anything participants need to prepare

on Monday, August 11, 2025 9:55 AM 

1 day before the event at 10:00 PM 

 **No attachments** 

Add recurring options

An event may be set as “recurring”, so that it can happen every day, week, month or year. Specific rules can be added to set which day of the week the event happens or more complex rules, such as every fourth Wednesday of each month.

You can also tell when the recurrence ends.

Trash bin

If you delete events, tasks or a calendar in Calendar, your data is not gone yet. Instead, those items will be collected in a *trash bin*. This offers you to undo a deletion. After a period which defaults to 30 days (your administration may have changed this setting), those items will be deleted permanently. You can also permanently delete items earlier if you wish.

The `Empty trash bin` buttons will wipe all trash bin contents in one step.

Tip

The trash bin is only accessible from the Calendar app. Any connected application or app won't be able to display its contents. However, events, tasks and calendars deleted in connected applications or app will also end up in the trash bin.

Automated User Status

When you have a calendar event scheduled that has a “BUSY” status, your user status will be automatically set to “In a meeting” unless you have set yourself to “Do Not Disturb” or “Invisible”. You can overwrite the status with a custom message any time, or set your calendar events to “FREE”. Calendars that are transparent will be ignored.

×

Repeat event

Repeat every

▼

☒ By day of the month

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

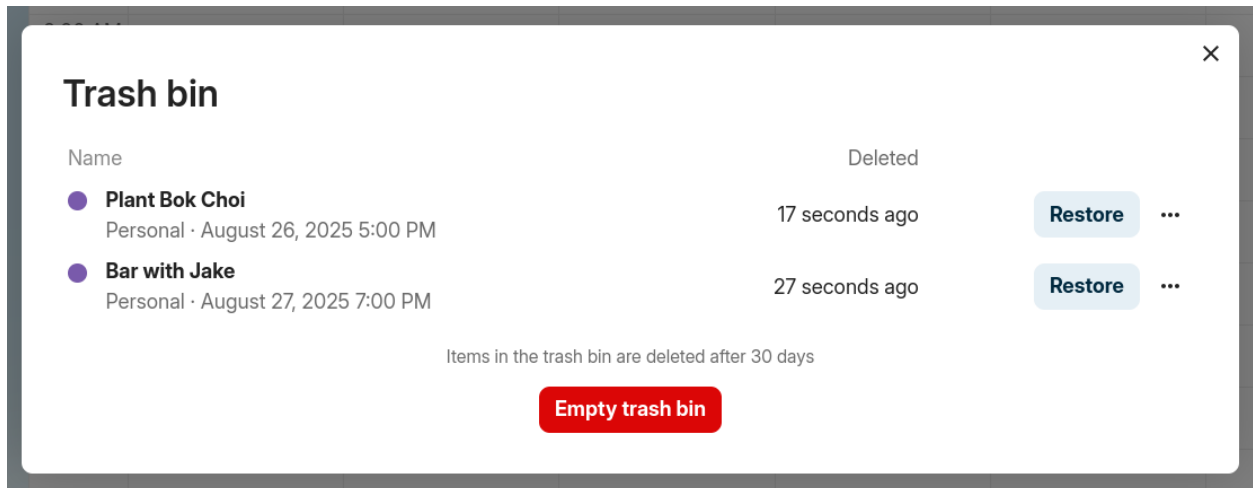
☐ On the

▼

▼

End repeat

▼



4.2.3 Responding to invitations

You can directly respond to invitations inside the app. Click on the event and select your participation status. You can respond to an invitation by accepting, declining or accepting tentatively.

You can respond to an invitation from the advanced editor too.

4.2.4 Availability (Working Hours)

The general availability independent of scheduled events can be set in the groupware settings of Nextcloud. These settings will be reflected in the free-busy view when you *schedule a meeting with other people* in Calendar. Some connected clients like Thunderbird will show this data as well.

You can configure one-time absences on top of your regular availability in the *Absence settings section*.

4.2.5 Birthday calendar

The birthday calendar is a auto-generated calendar which will automatically fetch the birthdays from your contacts. The only way to edit this calendar is by filing your contacts with birthday dates. You can not directly edit this calendar from the calendar-app.

Note

If you do not see the birthday calendar, your Administrator may have disabled this for your server.

4.2.6 Appointments

As of Calendar v3 the app can generate appointment slots which other Nextcloud users but also people without an account on the instance can book. Appointments offer fine-granular control over when you are possibly free to meet up. This can eliminate the need to send emails back and forth to settle on a date and time.

In this section we'll use the term *organizer* for the person who owns the calendar and sets up appointment slots. The *attendee* is the person who books one of the slots.

The screenshot shows a modal window for a calendar event titled "Gardening". The modal has a title bar with a purple circle icon, the word "Personal", and standard window controls (help, close, and a menu icon). The event details include a calendar icon, the date and time "Aug 27, 2025 10:00 AM", and a globe icon. Below this, the time "Aug 27, 2025 12:00 PM" is shown with another globe icon. The attendees section shows "Attendees 1 invited, 0 confirmed". Two attendees are listed: "Aisha (organizer)" with a green checkmark and the text "Invitation accepted", and "Andrew" with a question mark icon and the text "Has not responded to Aisha's invitation yet". At the bottom of the modal are three buttons: "Accept" (blue), "Decline" (red), and "Tentative" (light blue). Below these buttons are links for "More details" and "Edit" (with a pencil icon). To the right of the modal, a small calendar snippet shows the event "Gardening" from 10:00 AM to 12:00 PM.

Personal

Gardening

Aug 27, 2025 10:00 AM

Aug 27, 2025 12:00 PM

Attendees 1 invited, 0 confirmed

Aisha (organizer)
✓ Invitation accepted

Andrew
ⓘ Has not responded to Aisha's invitation yet

Accept Decline Tentative

More details Edit

10:00 AM - 12:00 PM
Gardening

The screenshot shows a calendar event card for a "Very important event". The card has a title bar with the text "Very important event" and two buttons: "Update this and all future" (light blue) and "Update this occurrence" (blue), followed by a menu icon. The event details include a calendar icon, the date "Aug 11, 2025", and the frequency "Monthly on day 11". At the bottom of the card are two buttons: "Accept" (blue) and "Decline" (red), followed by a calendar icon. To the right of the card, there is a blue circle icon, the word "Personal", and a question mark icon.

Very important event

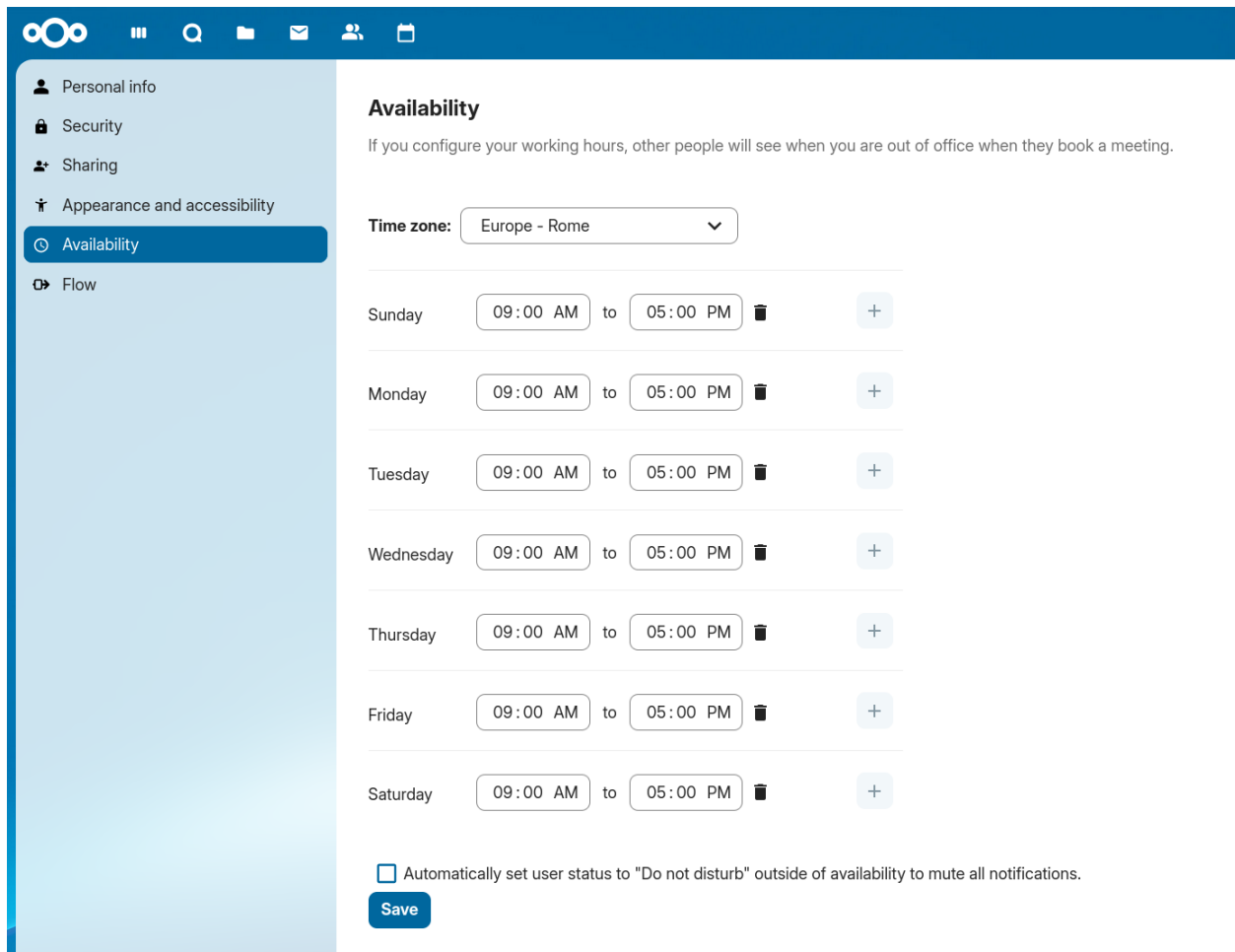
Update this and all future Update this occurrence

Aug 11, 2025

Monthly on day 11

Accept Decline

Personal ⓘ



The screenshot shows the Nextcloud user interface with the 'Availability' settings page. The left sidebar contains navigation links: Personal info, Security, Sharing, Appearance and accessibility, Availability (selected), and Flow. The main content area is titled 'Availability' and includes a descriptive text: 'If you configure your working hours, other people will see when you are out of office when they book a meeting.' Below this, there is a 'Time zone' dropdown menu set to 'Europe - Rome'. A table lists the days of the week with their respective working hours (09:00 AM to 05:00 PM) and a trash icon. At the bottom, there is a checkbox for 'Automatically set user status to "Do not disturb" outside of availability to mute all notifications.' and a 'Save' button.

Availability

If you configure your working hours, other people will see when you are out of office when they book a meeting.

Time zone: Europe - Rome

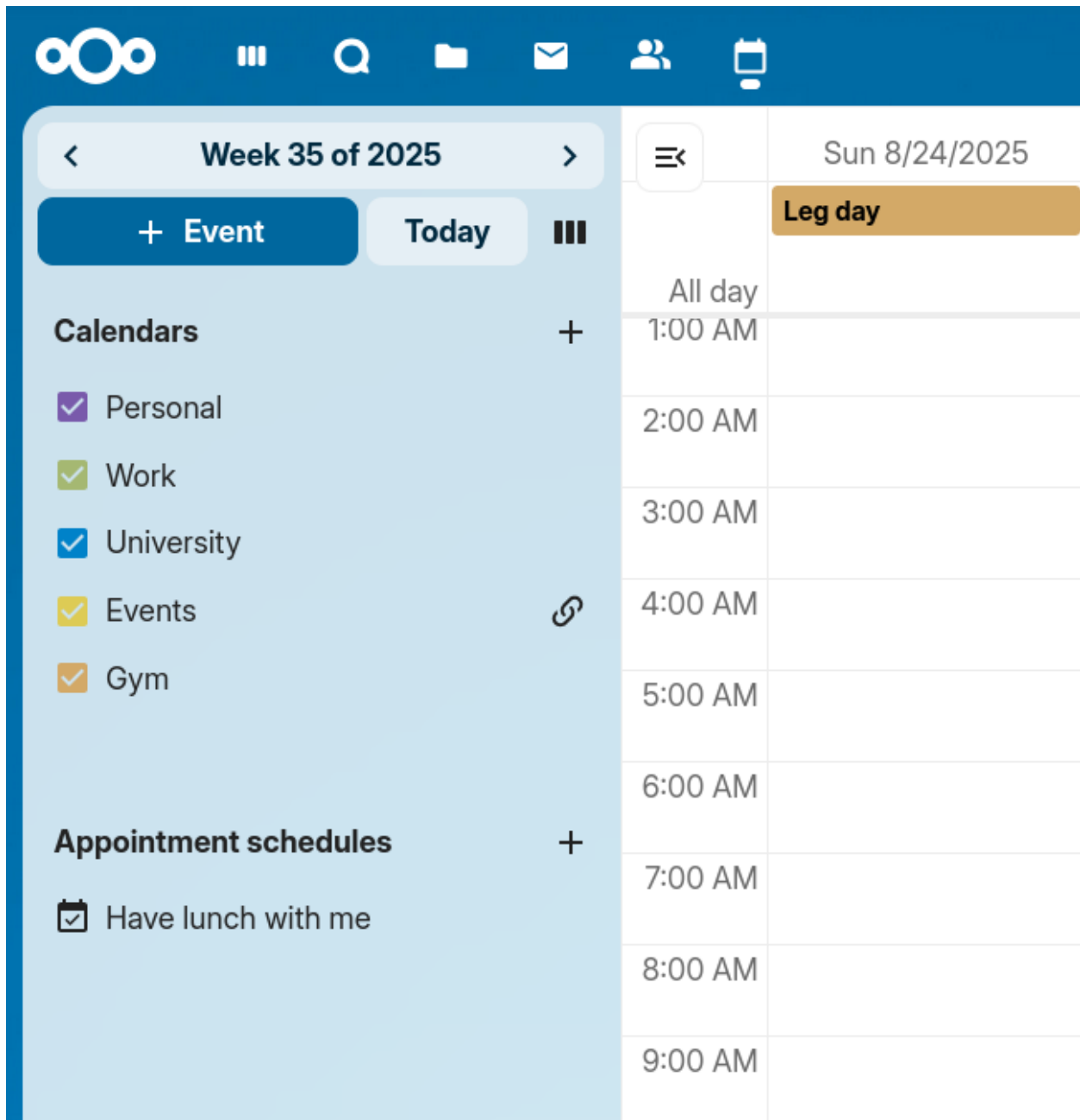
Sunday	09:00 AM	to	05:00 PM		+
Monday	09:00 AM	to	05:00 PM		+
Tuesday	09:00 AM	to	05:00 PM		+
Wednesday	09:00 AM	to	05:00 PM		+
Thursday	09:00 AM	to	05:00 PM		+
Friday	09:00 AM	to	05:00 PM		+
Saturday	09:00 AM	to	05:00 PM		+

☐ Automatically set user status to "Do not disturb" outside of availability to mute all notifications.

Save

Creating an appointment configuration

As an organizer of appointments you open the main Calendar web UI. In the left sidebar you'll find a section for appointments, where you can open the dialogue to create a new one.



One of the basic infos of every appointment is a title describing what the appointment is about (e.g. “One-on-one” when an organizer wants to offer colleagues a personal call), where an appointment will take place and a more detailed description of what this appointment is about.

The duration of the appointment can be picked from a predefined list. Next, you can set the desired increment. The increment is the rate at which possible slots are available. For example, you could have one hour long slots, but you give them away at 30 minute increments so an attendee can book at 9:00AM but also at 9:30AM. Optional infos about location and a description give the attendees some more context. Every booked appointment will be written into one of

✕

Appointment name

Have lunch with me

Location

Vittorio bar

☐ Create a Talk room

A unique link will be generated for every booked appointment and sent via the confirmation email

Description

We're going to have lunch together and talk about what concerns you.

your calendars, so you can chose which one that should be. Appointments can be *public* or *private*. Public appointments can be discovered through the profile page of a Nextcloud user. Private appointments are only accessible to the people who receive the secret URL.

Calendar

Personal✕ ▼

Visibility

Private – only accessible via secret link▼

Duration

60 minutes▼

Increments

15 minutes▼

Additional calendars to check for conflicts

Work ✕

University ✕

▼

i Note

Only slots that do not conflict with existing events in your calendars will be shown to attendees.

The organizer of an appointment can specify at which times of the week it's generally possible to book a slot. This could be the working hours but also any other customized schedule.

Some appointments require time to prepare, e.g. when you meet at a venue and you have to drive there. The organizer can chose to select a time duration that must be free. Only slots that do not conflict with other events during the preparation time will be available. Moreover there is the option to specify a time after each appointment that has to be free. To prevent an attendee from booking too short notice it's possible to configure how soon the next possible appointment might take place. Setting a maximum number of slots per day can limit how many appointments are possibly booked by attendees.

The configured appointment will then be listed in the left sidebar. Via the three dot menu, you can preview the appointment. You can copy the link to the appointment and share it with your target attendees, or let them discover your public appointment via the profile page. You can also edit or delete the appointment configuration.

Pick time ranges where appointments are allowed

Sunday	12:00 PM	to	05:00 PM		+
Monday	12:00 PM	to	03:00 PM		+
Tuesday	12:00 PM	to	03:00 PM		+
Wednesday	12:00 PM	to	03:00 PM		+
Thursday	12:00 PM	to	03:00 PM		+
Friday	12:00 PM	to	03:00 PM		+
Saturday	No times set				+

Add time before and after the event

☒ Before the event

15 minutes

☐ After the event

0 minutes

Planning restrictions

Minimum time before next available slot

5 minutes

Max slots per day

2

☒ Limit how far in the future appointments can be booked

2 months

Update

Appointment schedules

Have lunch with me

- Preview
- Copy link
- Edit
- Delete

6:00 AM
 7:00 AM
 8:00 AM
 9:00 AM
 10:00 AM
 11:00 AM
 12:00 PM

Booking an appointment

The booking page shows an attendee the title, location, description and length of an appointment. For a selected day there will be a list with all the possible time slots. On days with no available slots, too many conflicts or a reached daily maximum limit of already booked appointments, the list might be empty.

Andrew
Have lunch with me

Select a date

« < **August 2025** > »

Su	Mo	Tu	We	Th	Fr	Sa
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Europe - Rome ▼

Select slot

- 9:00 AM - 9:05 AM
- 9:15 AM - 9:20 AM
- 9:30 AM - 9:35 AM
- 9:45 AM - 9:50 AM
- 10:00 AM - 10:05 AM
- 10:15 AM - 10:20 AM
- 10:30 AM - 10:35 AM
- 10:45 AM - 10:50 AM
- 11:00 AM - 11:05 AM
- 11:15 AM - 11:20 AM

For the booking, attendees have to enter a name and an email address. Optionally they can also add a comment.

When the booking was successful, a confirmation dialogue will be shown to the attendee.

To verify that the attendee email address is valid, a confirmation email will be sent to them.

Only after the attendee clicks the confirmation link from the email the appointment booking will be accepted and forwarded to the organizer.

The attendee will receive another email confirming the details of their appointment.

Note

If a slot has not been confirmed, it will still show up as bookable. Until then the time slot might also be booked by another user who confirms their booking earlier. The system will detect the conflict and offer to pick a new time slot.

Working with the booked appointment

Once the booking is done, the organizer will find an event in their calendar with the appointment details and the *attendee*.

If the appointment has the setting “Add time before event” or “Add time after the event” enabled, they will show up as separate events in the calendar for the organizer.

As with any other event that has attendees, changes and cancellations will trigger a notification to the attendee's email.



Andrew

Have lunch with me

📅 August 28, 2025

🕒 11:00 AM - 11:05 AM

🌐 Europe/Rome

Your name

Your email address

Please share anything that will help prepare for our meeting

I have some blackberry jam I'd love to share!

← Back

✔ Book appointment



Please confirm your reservation

We sent you an email with details. Please confirm your appointment using the link in the email. You can close this page now.

Your appointment "Have Lunch With Me" with Abigail needs confirmation

Penny

 Abigail

14:01      



Dear Penny, please confirm your booking

- *Appointment with:*
Abigail
- *Appointment for:*
Penny
- *Date:*
14. November 2022 um 13:00
- *Your Comment:*
Hi Abigail,

I was wondering if we could discuss Vincent and Jas' school experience over lunch?

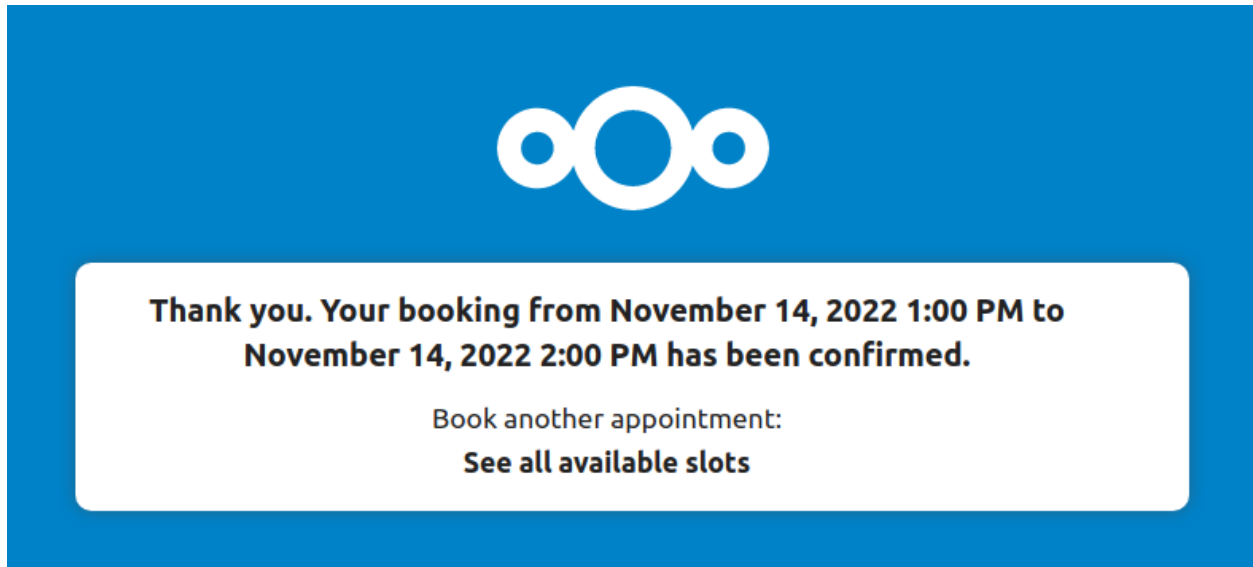
I would like to add some lessons about Amethysts to the schedule. Since it's your favourite thing, I thought you might have some input?

Confirm

This confirmation link expires in 24 hours.

If you wish to cancel the appointment after all, please contact your organizer by replying to this email or by visiting their profile page.

Nextcloud - a safe home for all your data
This is an automatically sent email, please do not reply.



If attendees wish to cancel the appointment they have to get in contact with the organizer, so that the organizer can cancel or even delete the event.

Create Talk room for booked appointments

You can create a Talk room directly from the calendar app for a booked appointment. The option can be found on the 'Create appointment' modal. A unique link will be generated for every booked appointment and sent via the confirmation email when you check this option.

4.2.7 Proposals

Added in version 6.0.0.

Finding a meeting time for a group of participants can be challenging. As of Calendar v6, a new feature was introduced that allows users to create proposals for meeting times. This means that instead of just booking a time, or searching for a available time in the free busy view, participants can vote on a set of proposed times for a meeting. The organizer can then review the participants' preferences and choose the most suitable time for the meeting.

Managing proposals

The proposal list in the left sidebar shows all the proposals that the user has created. The list shows the title of the proposal, the number of responded participants and a status of whether all participants have responded.

The user can click on the three dot menu next to a proposal item to edit, delete or view an existing proposal.

Creating a proposal

To create a new proposal a user can click on the plus icon next to the "Meeting Proposals" header at the top of the proposal list. This will open a modal where the user can enter all the relevant details for the proposed meeting.

The proposal editor has some basic fields that are similar to the event editor, such as title, description, location, duration and participants selection, that the user can fill out. These details are then used to inform the participants about the proposed meeting and times.

The key difference is the "Proposed times" selection, where the user can select multiple time slots for a meeting. The user can add as many time slots as they want, and each time slot can be edited or removed as needed.

Your appointment "Have Lunch With Me" with Abigail has been accepted

Penny

A Abigail

14:11



Dear Penny, your booking has been accepted.

- *Appointment with:*
admin
- *Appointment for:*
Penny
- *Date:*
14. November 2022 um 13:00
- *Your Comment:*
Hi Abigail,

I was wondering if we could discuss Vincent and Jas' school experience over lunch?

I would like to add some lessons about Amethysts to the schedule. Since it's your favourite thing, I thought you might have some input?

If you wish to cancel the appointment after all, please contact your organizer by replying to this email or by visiting their profile page.

Nextcloud - a safe home for all your data
This is an automatically sent email, please do not reply.

 appointment.ics
985 B

...

Personal

...

×

Aisha - Have lunch with me

🌐

Europe/Rome

From

09 / 01 / 2025

📅

12 : 30 PM

To

09 / 01 / 2025

📅

01 : 30 PM

☐ All day

📍

Vittorio Bar

📋

Add a description

- What is this meeting about
- Agenda items
- Anything participants need to prepare

👤

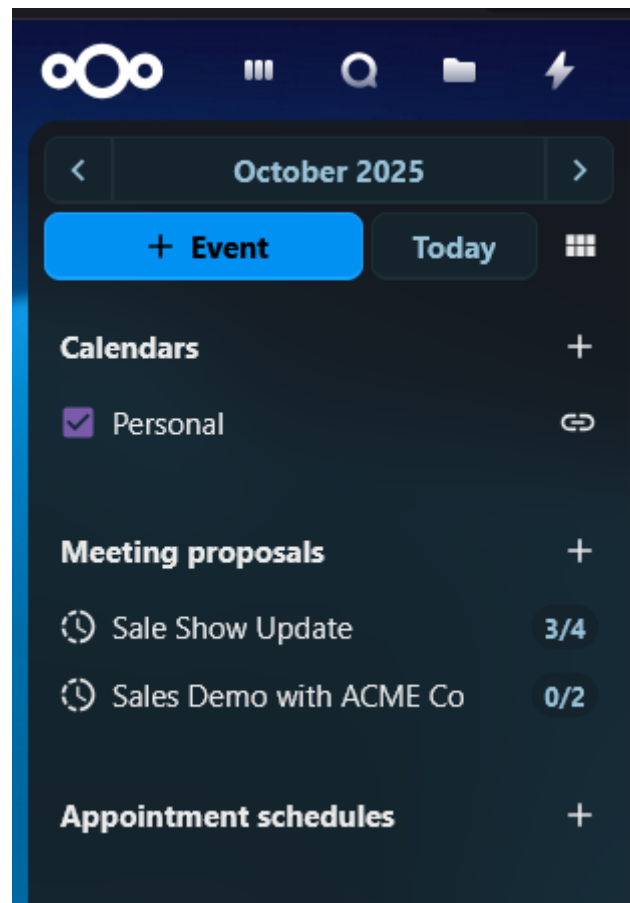
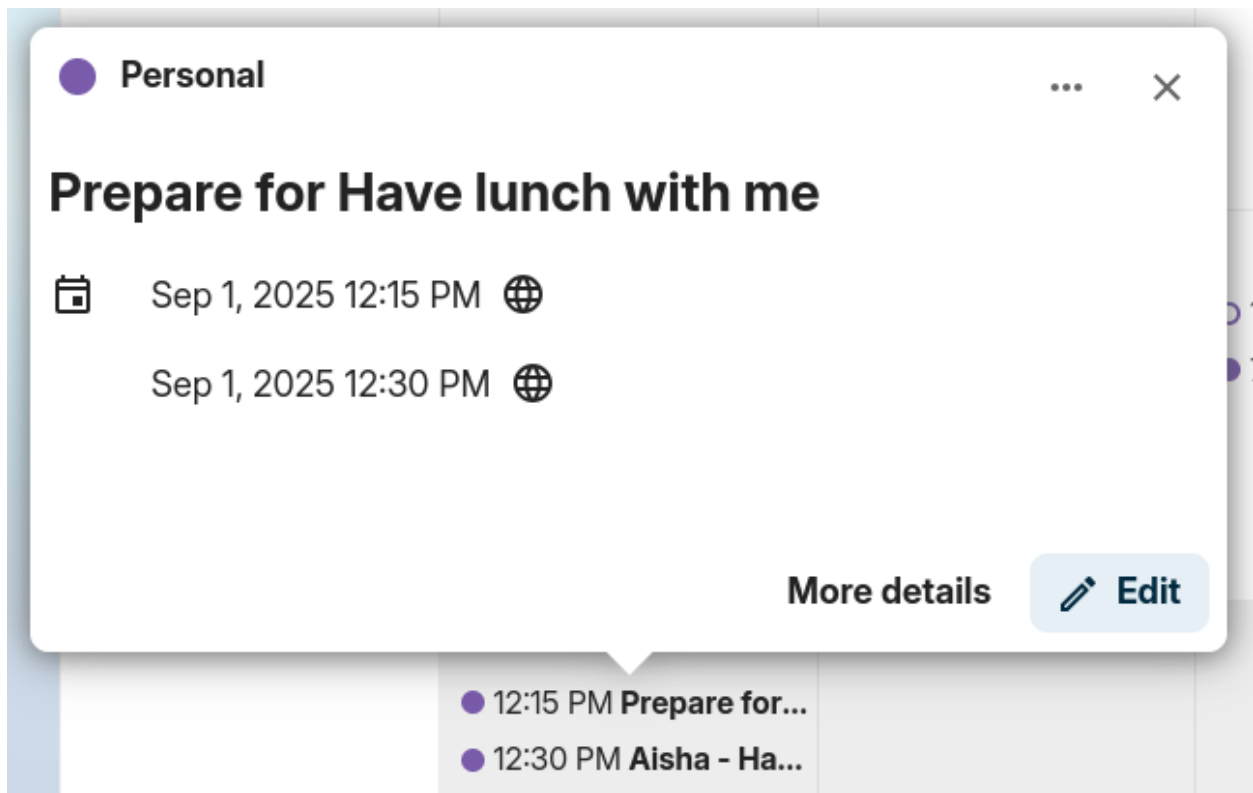
Attendees

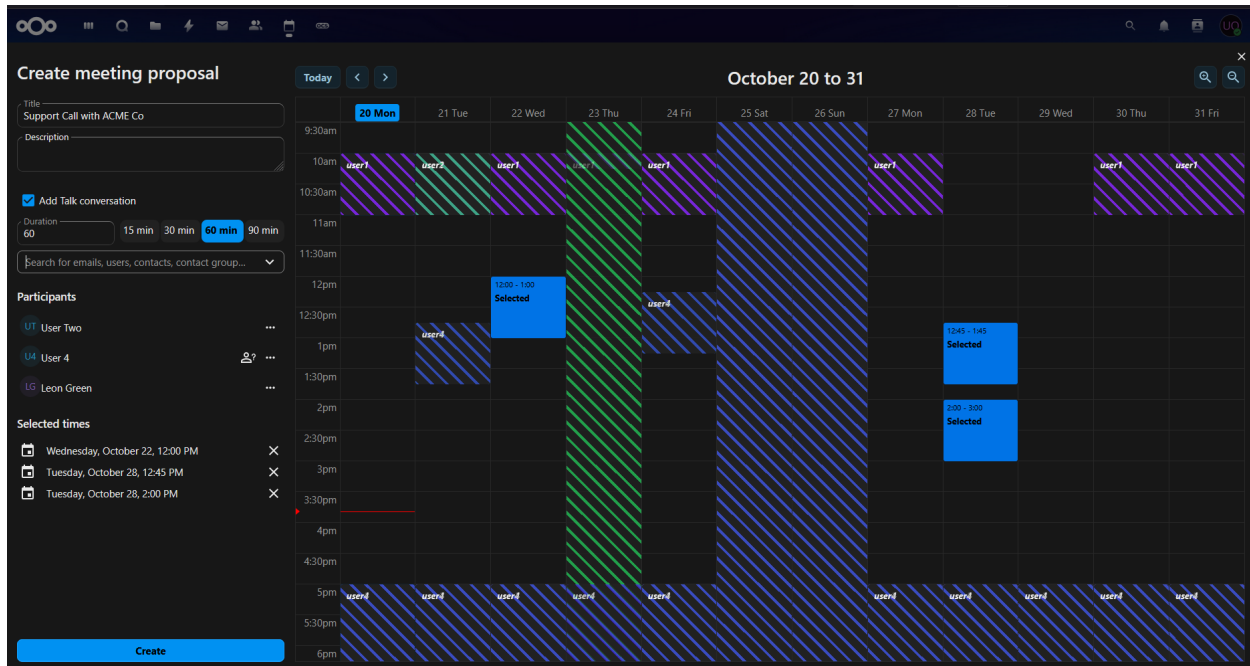
Search for emails, users, contacts, contact groups or teams

▼

More details

✓ Update





Once the user has filled out all the required details, title, duration, participants and selected the proposed times, they can click the “Create” button to create the proposal. This will save the proposal and send notifications to all the selected participants.

Editing a proposal

A user can edit an existing proposal by clicking on the three dot menu next to a proposal item in the proposal list and selecting “Edit”. This will open the same modal as when creating a new proposal, but with all the existing details filled out.

After making any necessary changes, the user can click the “Update” button to save the changes. This will also send notifications to all the participants about the updated proposal.

Viewing a proposal progress

Users can view the progress of a proposal by clicking on the proposal item in the proposal list or clicking “View” in the three dot menu. This will open a detailed view of the proposal, with all details and a times and participants matrix, showing all the proposed times and participants’ responses.

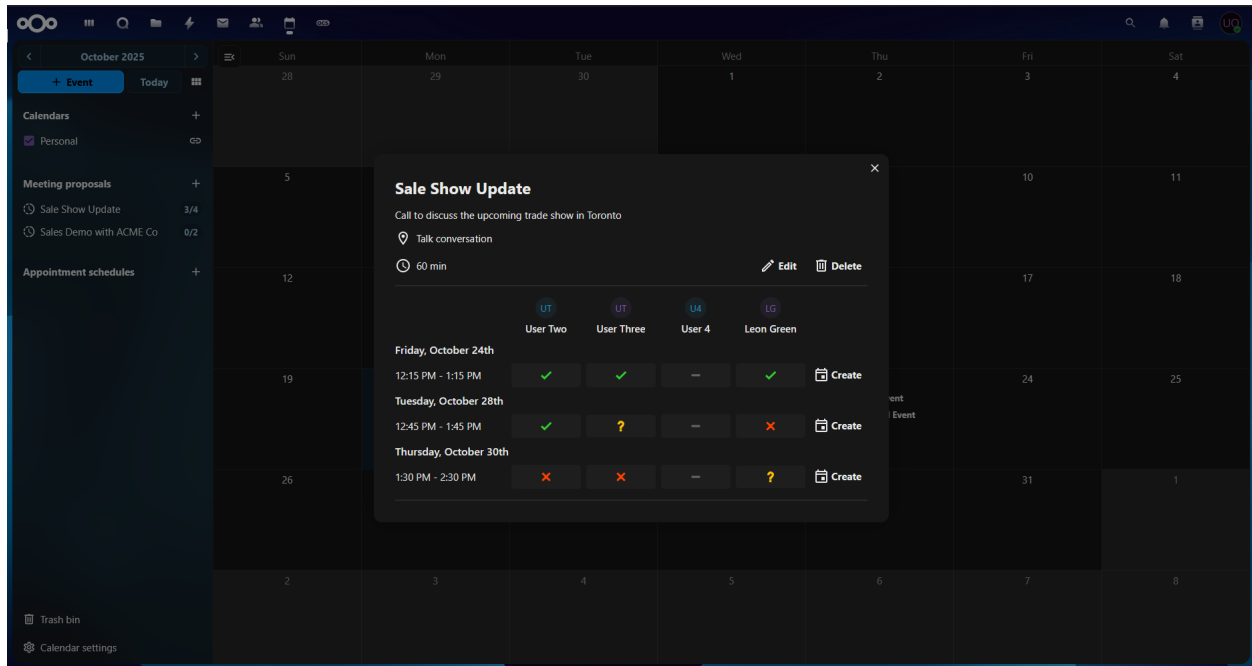
In this view, the user can see which participants have responded to the proposal and their preferences for each proposed time. The user can also see the total number of votes for each proposed time, which can help them decide on the best time for the meeting.

Once the user has reviewed the participants’ responses, they can select the most popular time for the meeting by clicking on the “Create” button at the end of the date/participant matrix. This will create a new event in the user’s calendar and send notifications to all participants about the confirmed meeting time.

Notifications for a proposed meeting

Users will receive email notifications for various events related to a proposed meeting, including:

- When a new proposal is created
- When a proposal is updated



- When a proposal is deleted
- When the final meeting time is confirmed

These notifications help all participants stay informed and engaged throughout the proposal process.

The notification emails contain the basic details for the proposed meeting, like title, description, location, duration, and proposed times. They also include a link to the response page, where participants can see all the details and respond to the proposed times.

Responding to a proposed meeting

Participants can respond to a proposed meeting by clicking on the link in the notification email. This will open the detailed view of the proposed meeting, where they can see all the proposed times, other participants' and their responses, and select their availability/preferences for each proposed time.

Participants can select their availability for each proposed time by selecting their preference on the corresponding line in the times and participants matrix. They can choose from three options: “Yes”, “No”, or “Maybe”. Once they have made their selections, they can click the “Submit” button to save their responses.

4.3 Using the Mail app

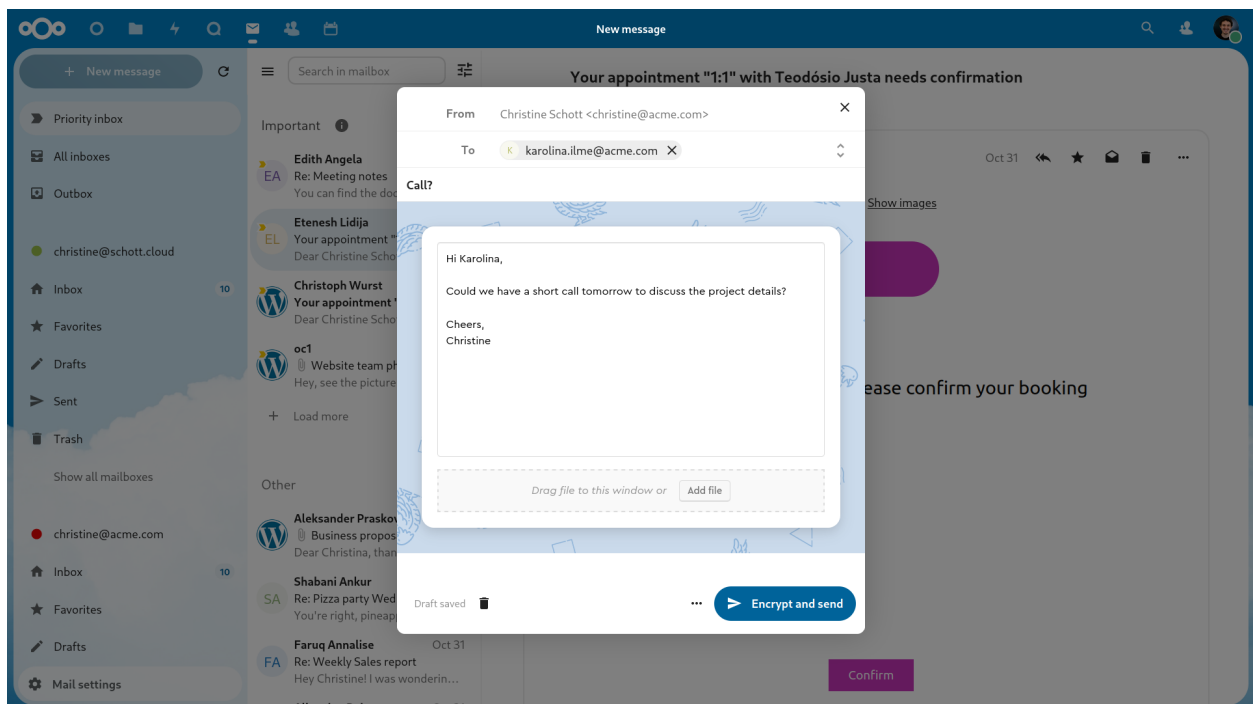
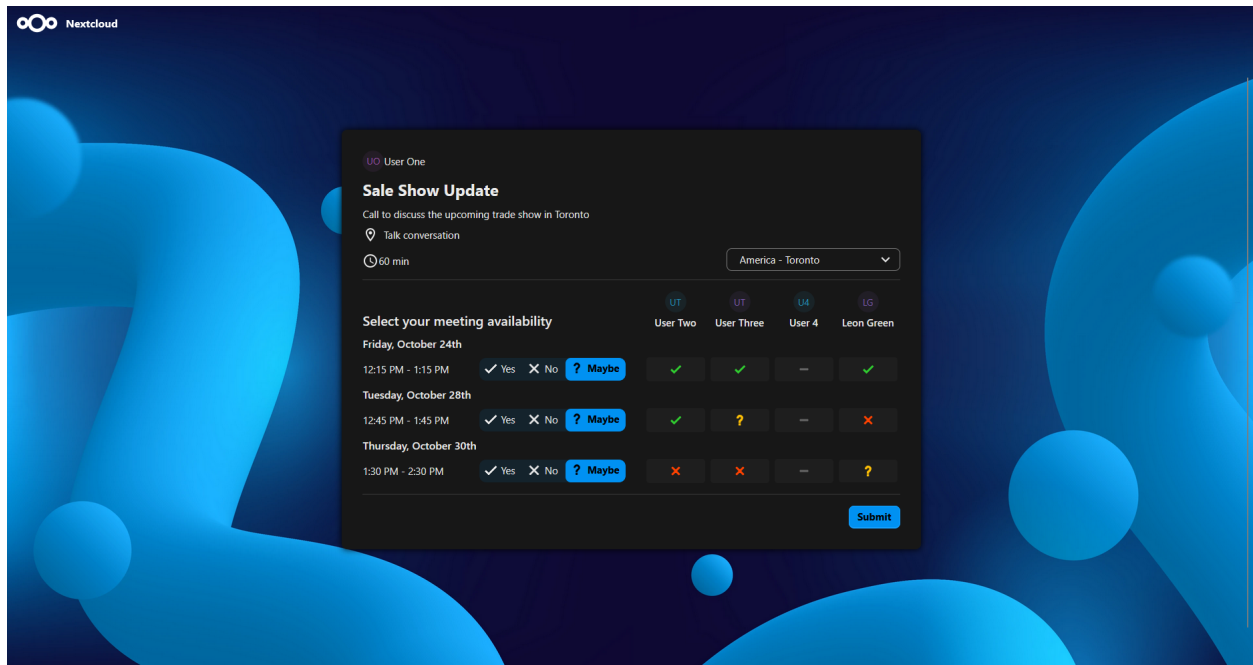
Note

The Mail app comes installed with Nextcloud Hub by default, but can be disabled. Please ask your Administrator for it.

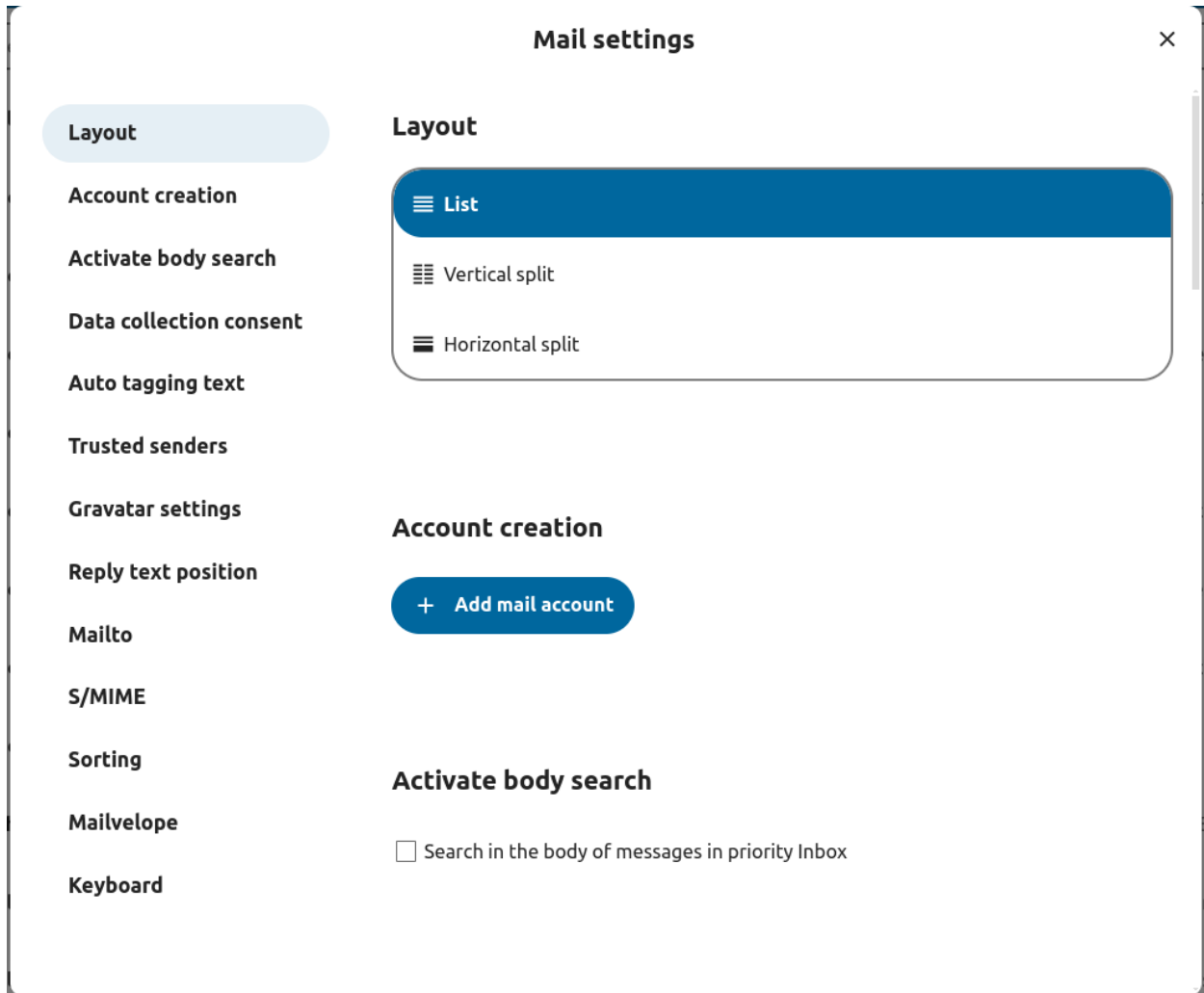
4.3.1 Managing your mail account

Switch layout

Added in version 3.6.



1. Visit mail settings
2. Choose between *List*, *Vertical split* and *Horizontal split*



Message Display / Operation Mode

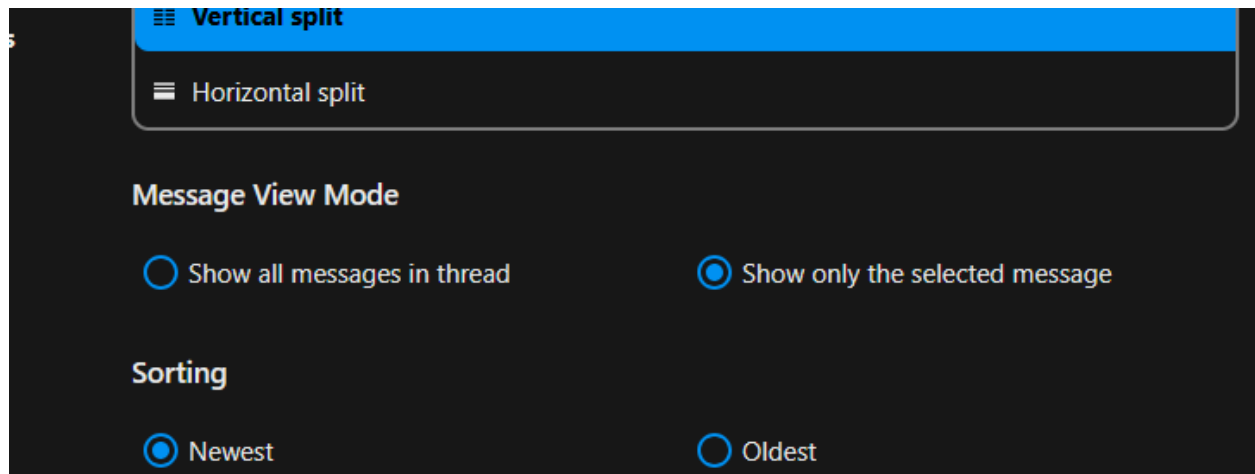
Added in version 5.2.

Mail has the ability to switch between two different message view and operation modes: *Threaded* and *Singleton*.

In *Threaded* mode, messages are grouped by conversation. In the mailbox message list, related messages are stacked so only the most recent message is shown, and all related messages are shown in message display panel after the stacked message is selected. This is useful for following discussions and understanding the context of replies. In this mode, message operation like move and delete apply to the entire thread, meaning that when you move or delete a thread, all messages within that thread are affected.

In *Singleton* mode, messages are displayed individually, in both the mailbox message list and message display panel and operation like move and delete apply to only the selected message. This mode is useful when you want to manage messages separately without affecting the entire conversation.

1. Visit mail settings
2. Choose between *Threaded*, *Singleton*



Add a new mail account

1. Enable mail app from the apps
2. Click the mail icon on the header
3. Fill up the login form (auto or manual)

Change sort order

Added in version 3.5.

1. Visit mail settings
2. Go to *Sorting*
3. You can choose *Oldest* or *Newest* mail first

Note

This change will apply across all your accounts and mailboxes

Scheduled messages

1. Click new message button on top left of your screen
2. Click the (...) action menu on the modal composer
3. Click *send later*

Priority inbox

Priority inbox has 2 section *Important* and *Others*. Messages will automatically be marked as important based on which messages you interacted with or marked as important. In the beginning you might have to manually change the importance to teach the system, but it will improve over time.



Connect your mail account

Auto

Manual

Name

User

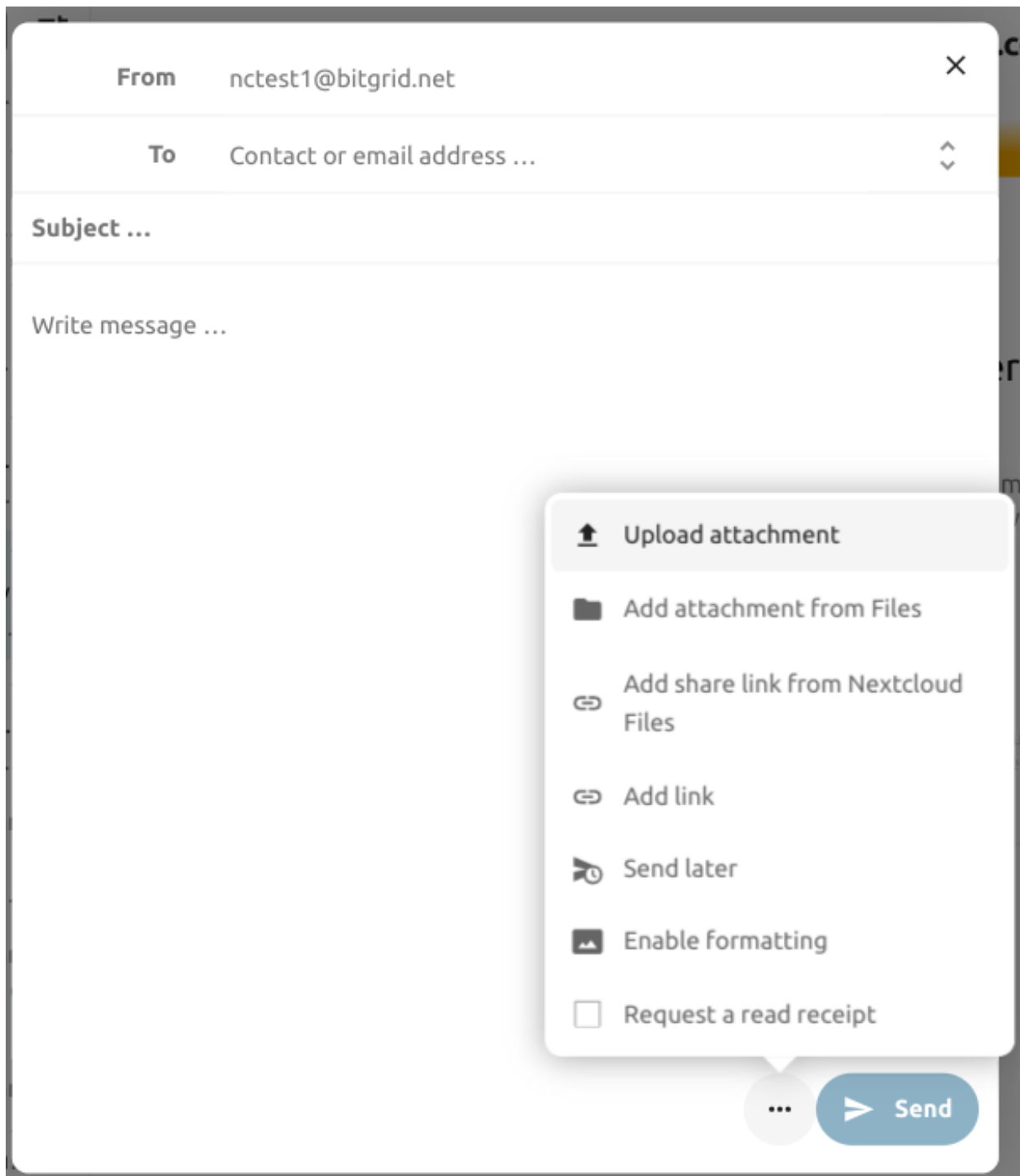
Mail address *

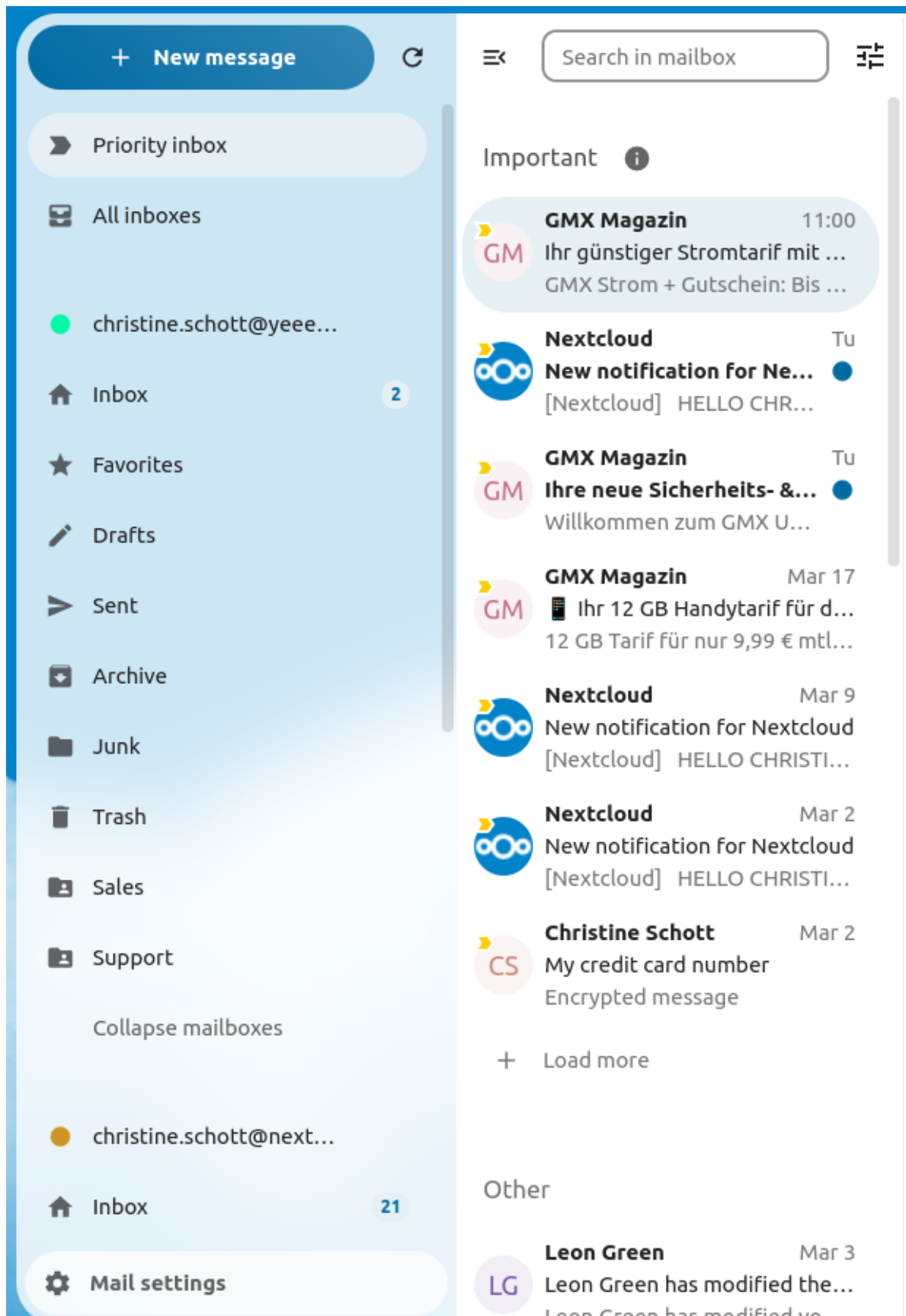
user@mail.com

Password *

.....

✓ Connect





All inboxes

All messages from all the accounts you have logged in, will be shown here chronologically.

Account settings

Your account settings such as:

1. Aliases
2. Signature
3. Default Folders
4. Autoresponder
5. Trusted senders
6. ..and more

Can be found in the action menu of a mail account. There you can edit, add or remove settings depending on your need.

Move messages to Junk folder

Added in version 3.4.

Mail can move a message to a different folder when it is marked as junk.

- 1) Visit Account settings
- 2) Go to Default folders
- 3) Check that a folder is selected for the junk messages
- 4) Go to Junk settings
- 5) Click Move messages to Junk folder

Junk settings



Search in mailbox

Added in version 2.1.

At the top of the envelope list in any mail layout, there is a search field shortcut for searching email subjects. Starting from version 3.7, this shortcut allows you to search by subject, recipient (to), or sender (from) by default.

Advanced search in mailbox

Added in version 3.4.

You can access our advanced search feature through a modal located at the end of the search shortcut.

Enable mail body search

Added in version 3.5.

Mail bodies can now be searched, this feature is opt-in because of potential performance issues.

To enable it:

- 1) Visit Account settings
- 2) Go to Mailbox search
- 3) Enable mail body search

Warning

If you want to also enable it for unified mailboxes you have to do so in Mail settings

By enabling it the main search box will now search in both subjects and mail bodies, and a separate *Body* option will appear in advanced search.

Account delegation

The app allows account delegation so that one user can send emails from the address of another.

- 1) The delegation has to be configured on the mail server by an admin
- 2) Add the other email address as an alias for your own email account
- 3) When sending an email, select the alias as sender

Warning

The sent email might not be visible to the original account if it's stored in your personal *Sent* mailbox.

Automatic trash deletion

Added in version 3.4.

The Mail app can automatically delete messages in the trash folder after a certain number of days.

- 1) Visit Account settings
- 2) Go to Automatic trash deletion
- 3) Enter the number of days after which messages should be deleted

Disable trash retention by leaving the field empty or setting it to 0.

Note

Only mails deleted after enabling trash retention will be processed.

Automatic trash deletion

Days after which messages in Trash will automatically be deleted:

Disable trash retention by leaving the field empty or setting it to 0. Only mails deleted after enabling trash retention will be processed.

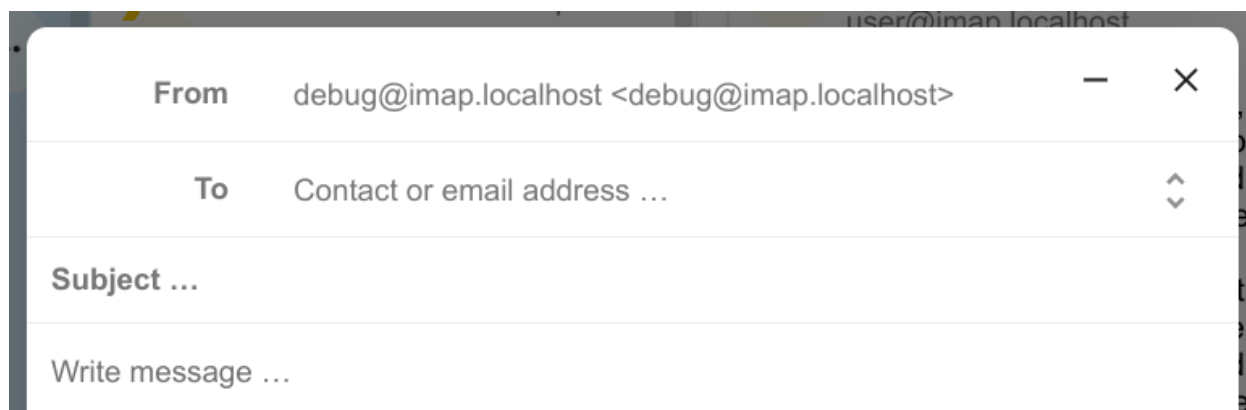
4.3.2 Compose messages

1. Click new message on the top left of your screen
2. Start writing your message

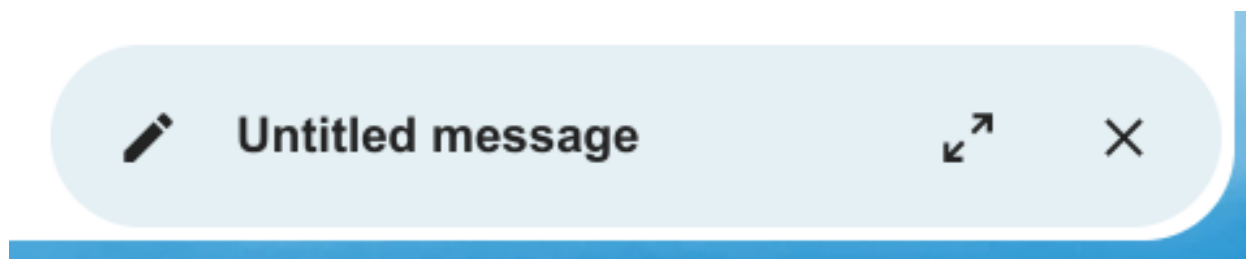
Minimize the composer modal

Added in version 3.2.

The composer modal can be minimized while writing a new message, editing an existing draft or a message from the outbox. Simply click the minimize button on the top right of the modal or click anywhere outside the modal.



You can resume your minimized message by clicking anywhere on the indicator on the bottom right of your screen.



Press close button on the modal or the indicator in the bottom right corner to stop editing a message. A draft will be saved automatically into your draft mailbox.

4.3.3 Recipient info on composer

Added in version 4.2.

When you add your first recipient or contact in the “To” field, a right pane will appear displaying the saved profile details of that contact. Adding a second contact will collapse the list, allowing you to select and expand any contact you added

to view their details. If you prefer to focus solely on writing in the composer, you can hide the right pane by clicking the expand icon in the top-right corner. To show the right pane again, simply click the minimize icon in the same location.

4.3.4 Mention contacts

Added in version 4.2.

You can mention contacts in your message by typing @ and then selecting the contact from the list. By doing so the contact will be automatically added as a recipient.

Note

Only contacts with a valid email address will be suggested.

4.3.5 Text blocks

Added in version 5.2.

Text blocks are predefined snippets of text that can be inserted into your email. They can be created and managed in the mail settings. They can be inserted into the composer by typing ! and then selecting the block from the list or from the composer actions. Text blocks can be shared with users and user groups.

4.3.6 Outbox

When a message has been composed and the “Send” button was clicked, the message is added to the outbox which can be found in the bottom left corner of the left sidebar.

You can also set the date and time for the send operation to a point in the future (see *Scheduled messages*)- the message will be kept in the outbox until your chosen date and time arrives, then it will be sent automatically.

The outbox is only visible when there is a message waiting to be handled by the outbox.

You can re- open the composer for a message in the outbox any time before the “send”- operation is triggered.

Note

When an error occurs during sending, three error messages are possible:

Could not copy to “Sent” mailbox

The mail was sent but couldn’t be copied to the “Sent” mailbox. This error will be handled by the outbox and the copy operation will be tried again.

Mail server error

Sending was unsuccessful with a state than can be retried (ex: the SMTP server couldn’t be reached). The outbox will retry sending the message.

Message could not be sent

Sending might or might not have failed. The mail server can’t tell us the state of the message. Since the Mail app has no way to determine the state of the message (sent or unsent) the message will stay in the outbox and the account user has to decide how to proceed.

4.3.7 Mailbox actions

Add a mailbox

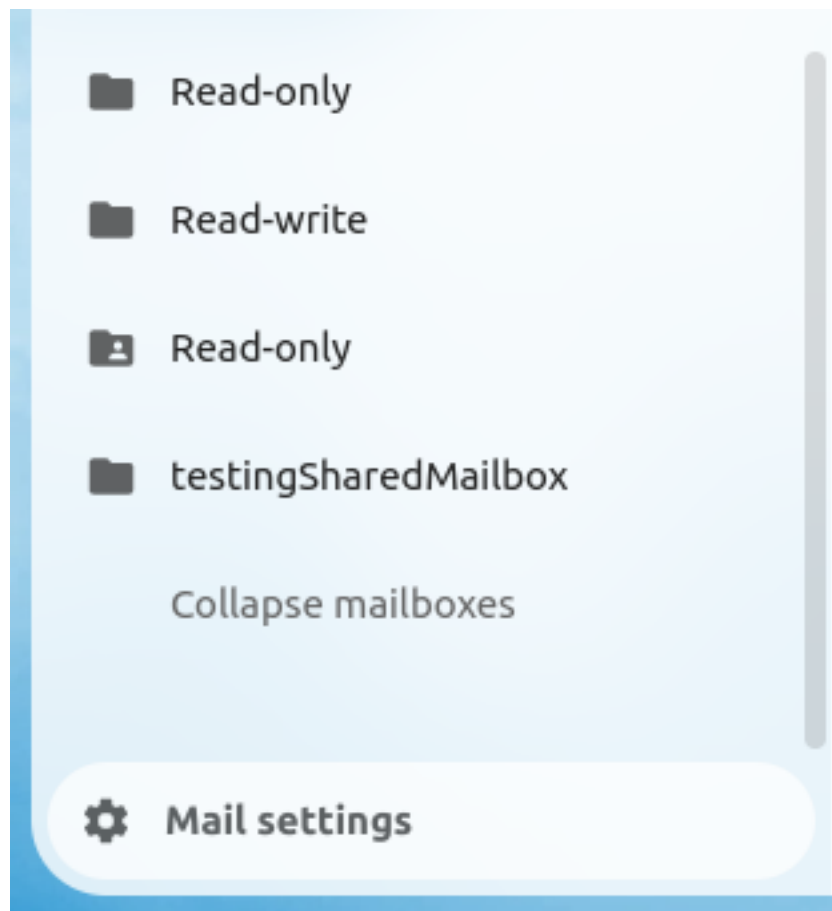
1. Open the action menu of an account
2. Click add mailbox

Add a submailbox

1. Open the action menu of a mailbox
2. Click add submailbox

Shared mailbox

If a mailbox was shared with you with some specific rights, that mailbox will show as a new mailbox with a shared icon as below:



4.3.8 Envelope actions

Create an event

Create an event for a certain message/thread directly via mail app

1. Open action menu of an envelope
2. Click *More actions*

3. Click *Create event*

Note

Event title and an agenda is created for you if the administrator has enabled it.

Create a task

Added in version 3.2.

Create an task for a certain message/thread directly via mail app

1. Open action menu of an envelope
2. Click *more actions*
3. Click *create task*

Note

Tasks are stored in supported calendars. If there is no compatible calendar you can create a new one with the *calendar app*.

Edit tags

1. Open action menu of an envelope
2. Click *Edit tags*
3. On the tags modal, set/unset tags

Change color for tags

Added in version 3.5.

Upon creating a tag, a randomly assigned color is automatically chosen. Once the tag is saved, you have the flexibility to customize its color according to your preferences. This feature can be found on the Tag modal action menu.

Delete tags

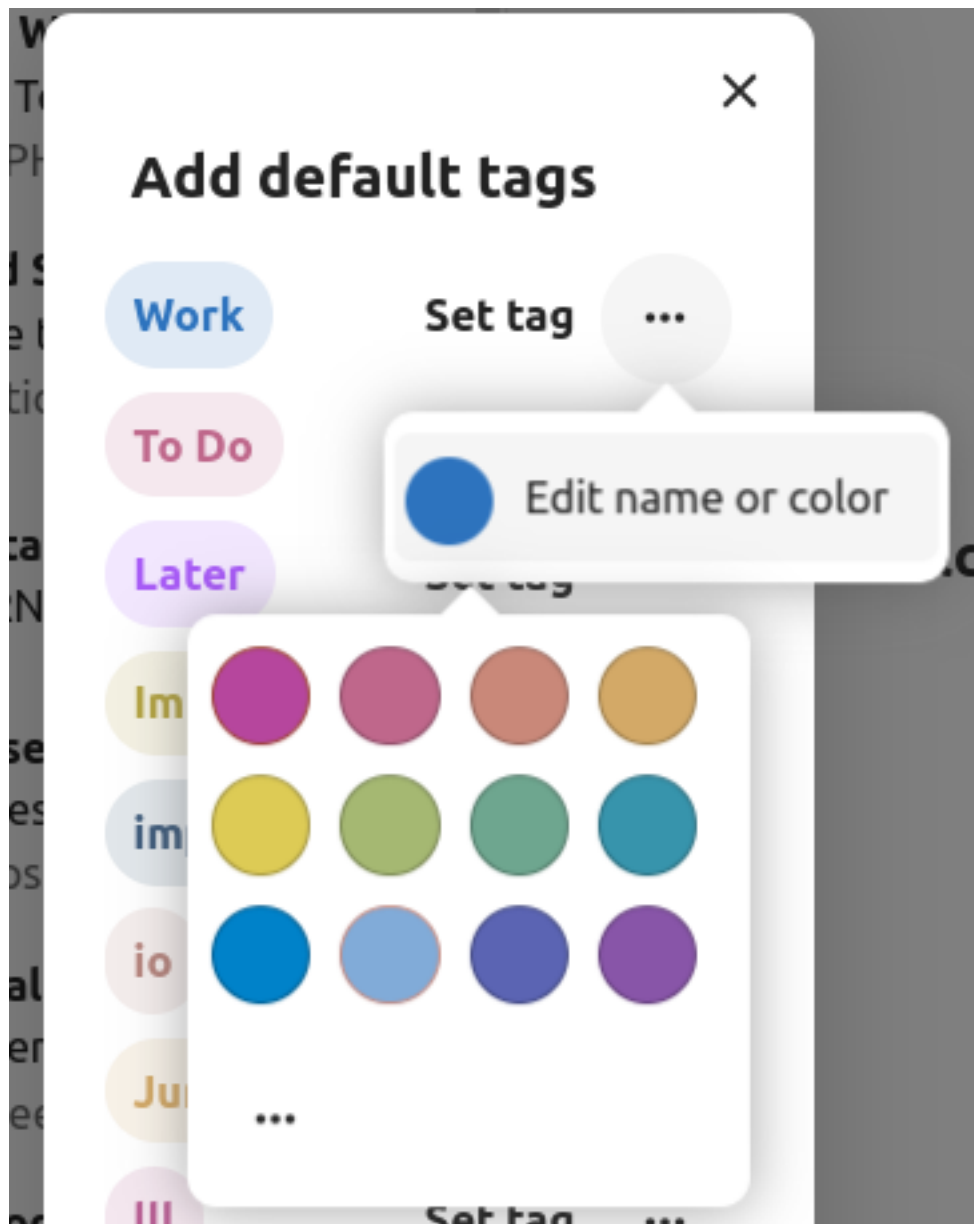
Added in version 3.5.

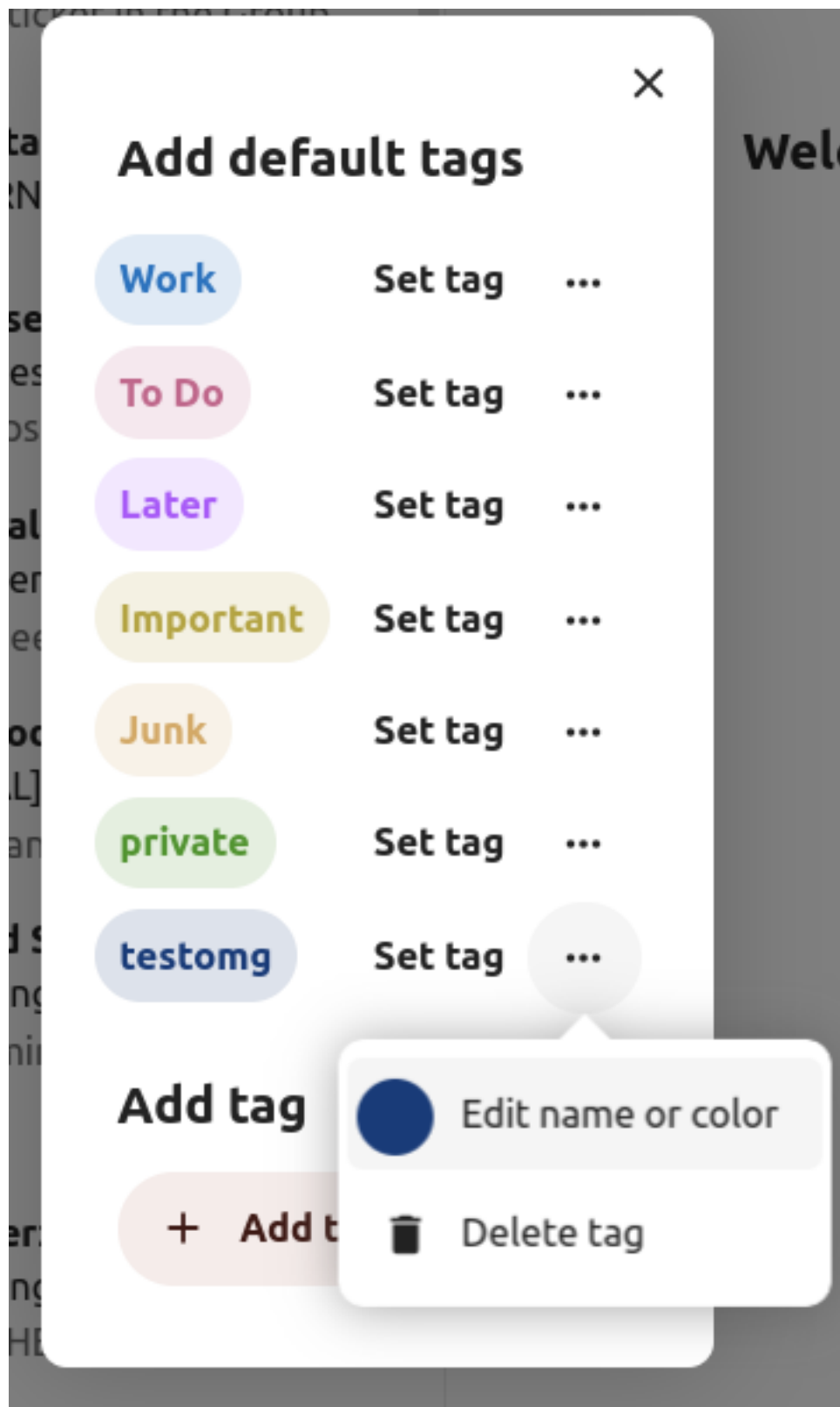
You now have the ability to delete tags that you have previously created. To access this feature:

1. Open the action menu of an envelope/thread.
2. Select Edit tags.
3. Within the tags modal, open the action menu for the specific tag you wish to delete.

Note

Please note that default tags such as Work, To do, Personal, and Later cannot be deleted, they can only be renamed.





AI summary

Added in version 4.2.

When looking through your mailbox you will see a short AI generated summary of your emails as a preview.

Note

Please note that the feature has to be enabled by the administrator

4.3.9 Quick actions

Added in version 5.5: (Nextcloud 30)

Allows you to group action steps that you would normally perform on envelopes such as tagging, moving, marking as read ... into quick actions that can be executed with a single click. Quick actions are scoped to one mail account and can be created and managed in the mail settings under “Quick actions” or directly from the envelope action menu.

Note

Some action steps such as *Mark as spam*, *Move thread* and *Delete thread* are mutually exclusive and cannot be part of the same quick action, they also can't be re-ordered and will always be executed last.

Note

Please note that quick actions will be performed on all messages in a thread when executed on one.

4.3.10 Message actions

Unsubscribe from a mailing list

Added in version 3.1.

Some mailing lists and newsletters allow to be unsubscribed easily. If the Mail app detects messages from such a sender, it will show an *Unsubscribe* button next to the sender information. Click and confirm to unsubscribe from the list.

Snooze

Added in version 3.4.

Snoozing a message or thread moves it into a dedicated mailbox until the selected snooze date is reached and the message or thread is moved back to the original mailbox.

1. Open action menu of an envelope or thread
2. Click *Snooze*
3. Select how long the message or thread should be snoozed

Smart replies

Added in version 3.6.

When you open a message in the Mail app, it proposes AI-generated replies. By simply clicking on a suggested reply, the composer opens with the response pre-filled.

Note

Please note that the feature has to be enabled by the administrator

Note

Supported languages depend on the used large language model

Mail translation

Added in version 4.2.

You are able to translate messages to your configured languages similarly to Talk.

Note

Please note that translation features have to be enabled on the server

Note

Since version 5.3, if LLM is enabled by admin, translations will be suggested

4.3.11 Thread summary

The mail app supports summarizing message threads that contain 3 or more messages.

Added in version 3.4.

Note

Please note that the feature has to be enabled by the administrator

Note

Please note that this feature only works well with `integration_openai`. Local LLMs take too long to respond and the summary request is likely to time out and still create significant system load.

4.3.12 Filtering and autoresponder

The Mail app has a editor for Sieve scripts, an interface to configure autoresponders and an interface to configure filters. Sieve has to be enabled in the *account settings*.

Autoresponders

Added in version 3.5: Autoresponder can follow system settings.

The autoresponder is off by default. It can be set manually, or follow the system settings. Following system settings means that the long absence message entered on the *Absence settings section* is applied automatically.

Filter

Added in version 4.1.

Mail 4.1 includes a simple editor to configure filter rules.

Note

Importing existing filters is not supported. However, all existing filters will remain active and unchanged. We recommend backing up your current script through the Sieve script editor as a precaution.

How to Add a New Filter

1. Open your account settings.
2. Verify that Sieve is enabled for your account (see Sieve server settings).
3. Click on Filters.
4. Select New Filter to create a new rule.

How to Delete a Filter

1. Open your account settings.
2. Ensure that Sieve is enabled for your account (see Sieve server settings).
3. Click on Filters.
4. Hover over the filter you wish to delete, then click the trash icon.

Conditions

Conditions are applied to incoming emails on your mail server, targeting fields such as Subject, Sender, and Recipient. You can use the following operators to define conditions for these fields:

- **is exactly**: An exact match. The field must be identical to the provided value.
- **contains**: A substring match. The field matches if the provided value is contained within it. For example, “report” would match “port”.
- **matches**: A pattern match using wildcards. The “*” symbol represents any number of characters (including none), while “?” represents exactly one character. For example, “*report*” would match “Business report 2024”.

Actions

Actions are triggered when the specified tests are true. The following actions are available:

- **fileinto**: Moves the message into a specified folder.
- **addflag**: Adds a flag to the message.
- **stop**: Halts the execution of the filter script. No further filters will be processed after this action.

Create a filter from a message

Added in version 5.2.

To create a filter from a given message, open the message and then open the menu by clicking on the three dots. Next, click on “More actions” followed by “Create mail filter.”

In the dialog, please select the conditions to match incoming messages and continue by clicking on “Create mail filter.”

✕

Create a new mail filter

Choose the headers you want to use to create your filter. In the next step, you will be able to refine the filter conditions and specify the actions to be taken on messages that match your criteria.

☒ Subject: Marketing Report

☒ Sender: alice@example.org

☒ Recipient: jane@example.org

☒ Recipient: bob@example.org

✓ **Create mail filter**

4.3.13 Follow-up reminders

Added in version 4.0.

The Mail app will automatically remind you when an outgoing email did not receive a response. Each sent email will be analyzed by an AI to check whether a reply is expected. After four days all relevant emails will be shown in your priority inbox.

When clicking on such an email a button will be shown to quickly follow up with all recipients. It is also possible to disable follow-up reminders for a sent email.

Note

Please note that the feature has to be enabled by the administrator.

4.3.14 Security

Phishing detection

Added in version 4.0.

The Mail app will check for potential phishing attempts and will display a warning to the user.

The checks are the following:

- The sender address saved in the addressbook is not the same as the one in the mail account
- The sender is using a custom email address that doesn't match the from address

- The sent date is set in the future
- Links in the message body are not pointing to the displayed text
- The reply-to address is not the same as the sender address

Note

Please note that the warning does not mean that the message is a phishing attempt. It only means that the Mail app detected a potential phishing attempt.

Internal addresses

Added in version 4.0.

The Mail app allows adding internal addresses and domains, and will warn the user if the address is not in the list, when sending and upon receiving a message.

To add an internal address:

1. Open the mail settings
2. Navigate to Privacy and security section
3. Enable the internal addresses by clicking on the checkbox
4. Click the Add internal address button
5. Enter the address or domain and click Add

4.3.15 Dashboard integration

Added in version 1.8.

The mail app offers two widgets designed for integration with Nextcloud's dashboard:

- **Unread mails:** This widget displays unread emails.
- **Important mails:** This widget shows emails that have been flagged as important.

These widgets utilize the emails from the email accounts that are set up for your account.

4.3.16 Calendar integration

The Mail app integrates with the Calendar app to help you manage meeting invitations and keep your calendar up to date.

Meeting invitations

When you receive a message containing a meeting invitation, the Mail app automatically detects the attached calendar file and displays a formatted action section to help you respond.

You can:

- **Accept** the invitation
- **Decline** the invitation
- **Tentatively accept** the invitation

Your response is sent directly from the Mail app, and the event is added to your primary calendar accordingly.

You can also manually add a meeting invitation to a specific calendar:

1. Open the message with the meeting invitation
2. Scroll to the bottom of the message to the attachments section
3. Select the calendar file (usually with a .ics extension), then click the three dots menu.
4. Click “Import in to calendar” and choose the desired calendar.

Meeting invitation automation

When a meeting organizer sends updates to an existing event (such as time changes or location updates), the Mail app processes these automatically and updates the corresponding event in your calendar.

Added in version 5.7: (Nextcloud 32 or newer)

You can also configure Mail to automatically add all new meeting invitations to your calendar without requiring manual acceptance. The invitations will be added to the calendar as tentative.

To enable this feature:

1. Visit account settings of a specific mail account
2. Navigate to Calendar settings section
3. Enable *Automatically create tentative appointments in calendar*

Note

With this setting enabled, invitations will still appear in your mail list, but they will be automatically added to your calendar.

4.3.17 Keyboard shortcuts

The Mail app implements several keyboard shortcuts to speed up your experience.

For a full list of the supported shortcuts, check out the Mail settings in your instance.

4.4 Setting out-of-office messages

If you are absent for vacation, sick leave or similar, you can add an out-of-office message in the **Absence** section of the **Availability** settings.

The interface asks for the time of absence, a short and a long message and an optional replacement user. This data is used for the following purposes:

- 1) Your user status will change to the short message when your absence starts and reset when it ends.
- 2) An event with status *busy* will be created in your personal calendar. This allows others to see that you are not available when they use the free/busy feature.
- 3) If enabled, the Mail app will apply an autoresponder using the long message.
- 4) The Talk app will show the long out-of-office message to others when they try to reach you in a 1:1 chat during your absence as well as the replacement user if set.

4.5 Synchronizing with Android

4.5.1 Files and notifications

1. Install the Nextcloud Android client from [Google Play Store](#) or from [F-Droid](#).
2. Start the app. There are two ways of setting it up:

Either: enter your server URL, continue, enter your user name and password and confirm to grant access.

Or: In Nextcloud's web GUI, go to the [user preferences](#), go to **Security**. Generate an App password, click "Generate QR code" and tap the QR scanner icon in the Nextcloud app, point your phone's camera towards the screen.

4.5.2 Contacts and Calendar

With the Nextcloud mobile app

1. Install DAVx⁵ (formerly known as DAVDroid) on your Android device, from [Google Play Store](#) or from [F-Droid](#).
2. In the Nextcloud mobile, go to **Settings/More**, tap on "**Sync calendars & contacts**".
3. Now, DAVx⁵ will open Nextcloud's Webflow login window, where you will have to enter your credentials and grant access.
4. DAVx⁵ will open and ask you to create an account. Set the account name to one of your choosing, and set **Contact Group Method** to **Groups are per-contact categories**.
5. After this, DAVx⁵ will close and the Nextcloud app reappears. In order to finish setup, you have to manually launch DAVx⁵ again.
6. Tap on the icon for the account DAVx⁵ has just created, when requested grant DAVx⁵ access to your calendars and contacts.
7. When you tap the icon for the account DAVx⁵ has set up, it will discover the available address books and calendars. Choose which ones you want to synchronize and finish.

Without the Nextcloud mobile app

If you do not want to install the Nextcloud mobile app, the following steps are required:

1. Install DAVx⁵ (formerly known as DAVDroid) on your Android device, from [Google Play Store](#) or from [F-Droid](#).
2. Optionally install OpenTasks ([Google Play Store](#) or [F-Droid](#)).
3. Create a new account ("+" button).
4. Select **Connection with URL and username**. **Base URL:** URL of your Nextcloud instance (e.g. `https://sub.example.com/remote.php/dav`) and your credentials.
5. For the **Contact Group Method:** choose the option `Groups are per-contact categories`.
6. Click **Connect**.
7. Select the data you want to sync.
8. When requested, grant access permissions to DAVx⁵ for your contacts, calendars and optionally tasks.

Note

Enter your email address as DAVx⁵ account name (mandatory if you want to be able to send calendar invitation). If your email address is registered in your Nextcloud preferences and you have set up your account using the Nextcloud mobile app, this all should be already the case.

Note

Using user name and password will not work if 2-Factor-Authentication is enabled and will throw a generic “Unknown resource” error. Use a *dedicated App password* instead. If you enabled 2FA after already configuring DAVx⁵, update your DAVx⁵ account to replace your login password with an app password.

Tip

DAVx⁵ lists the calendar subscriptions made through the Nextcloud Calendar app, but you need to install the ICSx⁵ (formerly known as ICSDroid) app on your Android device, [from the Google Play Store](#) or [from F-Droid](#) to sync them.

4.6 Synchronizing with iOS

4.6.1 Calendar

1. Open the settings application.
2. Select Apps.
3. Select Calendar.
4. Select Calendar Accounts.
5. Select Add Account.
6. Select Other as account type.
7. Select Add CalDAV account.
8. For server, type the domain name of your server i.e. `example.com`.
9. Enter your user name and password.
10. Select Next.
11. Open Advanced Settings
12. For server, type the domain name of your server and username, i.e., `example.com/remote.php/dav/principals/users/username/`.
13. Close Advanced Settings

Your calendar will now be visible in the Calendar application.

Note

If you get an error message related to SSL, you can try the following: Make sure that you either specify both the protocol (`https://`) and the port (usually 443) in the Server field, i.e., `https://example.com:443/remote.php/dav/principals/users/username/`, or none, like in the step-by-step guide above. Either way, the application automatically tries to use SSL, which you can confirm in “Advanced Settings” of the account after saving.

Note

Beginning with iOS 12 an SSL encryption is necessary. Therefore do **not** disable **SSL** (For this reason a certificate is required at your domain, <https://letsencrypt.org/> will do).

4.6.2 Contacts

1. Open the settings application.
2. Select Apps.
3. Select Contacts.
4. Select Contacts Accounts.
5. Select Add Account.
6. Select Other as account type.
7. Select Add CardDAV account.
8. For server, type the domain name of your server i.e. `example.com`.
9. Enter your user name and password.
10. Select Next.

You should now find your contacts in the address book of your iPhone.

Note

Beginning with iOS 12 an SSL encryption is necessary. Therefore do **not** disable **SSL** (For this reason a certificate is required at your domain, <https://letsencrypt.org/> will do).

If it's still not working, have a look at [Troubleshooting Contacts & Calendar](#) or [Troubleshooting Service Discovery](#).

4.7 Synchronizing with macOS

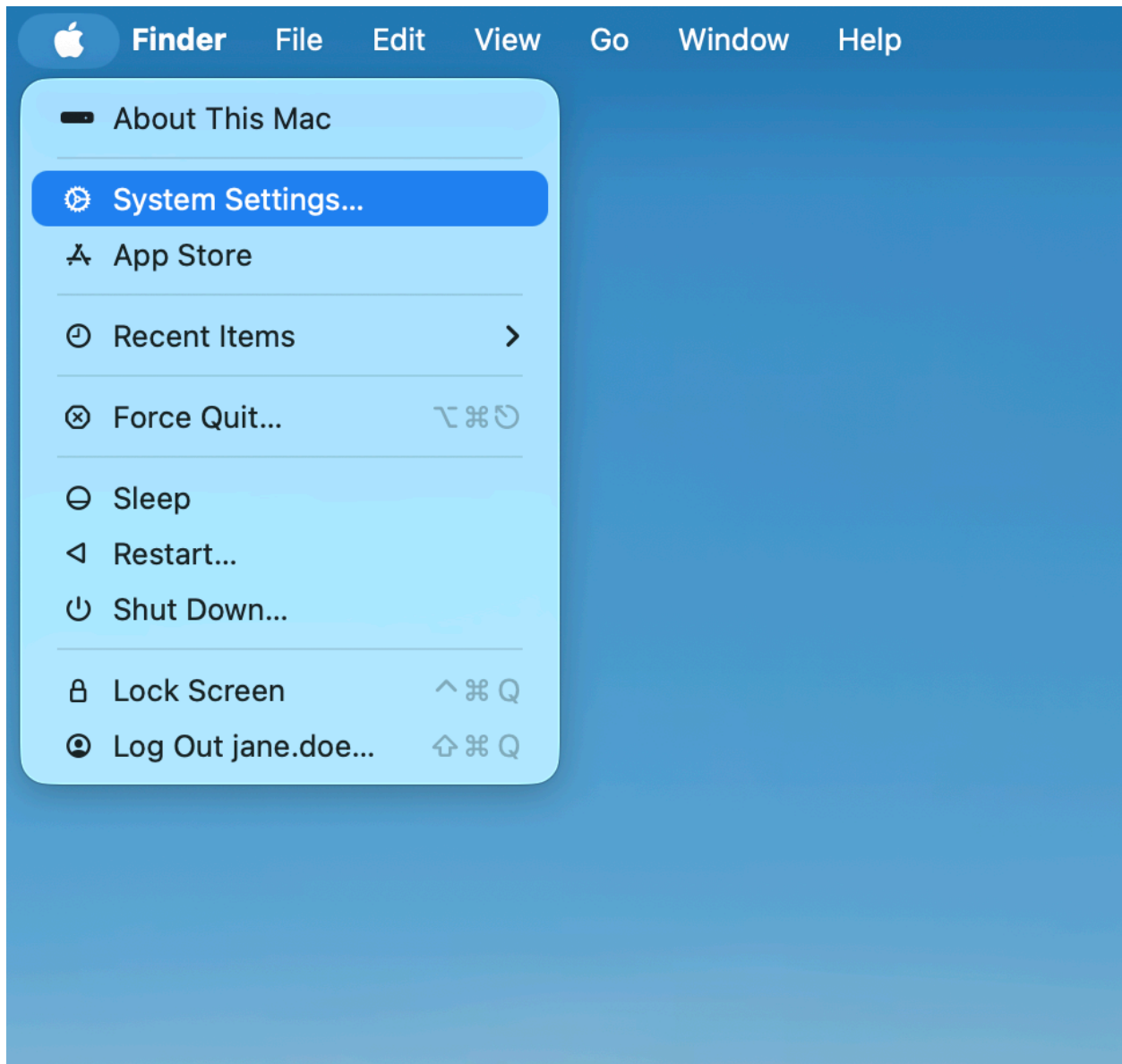
4.7.1 Setup your Accounts

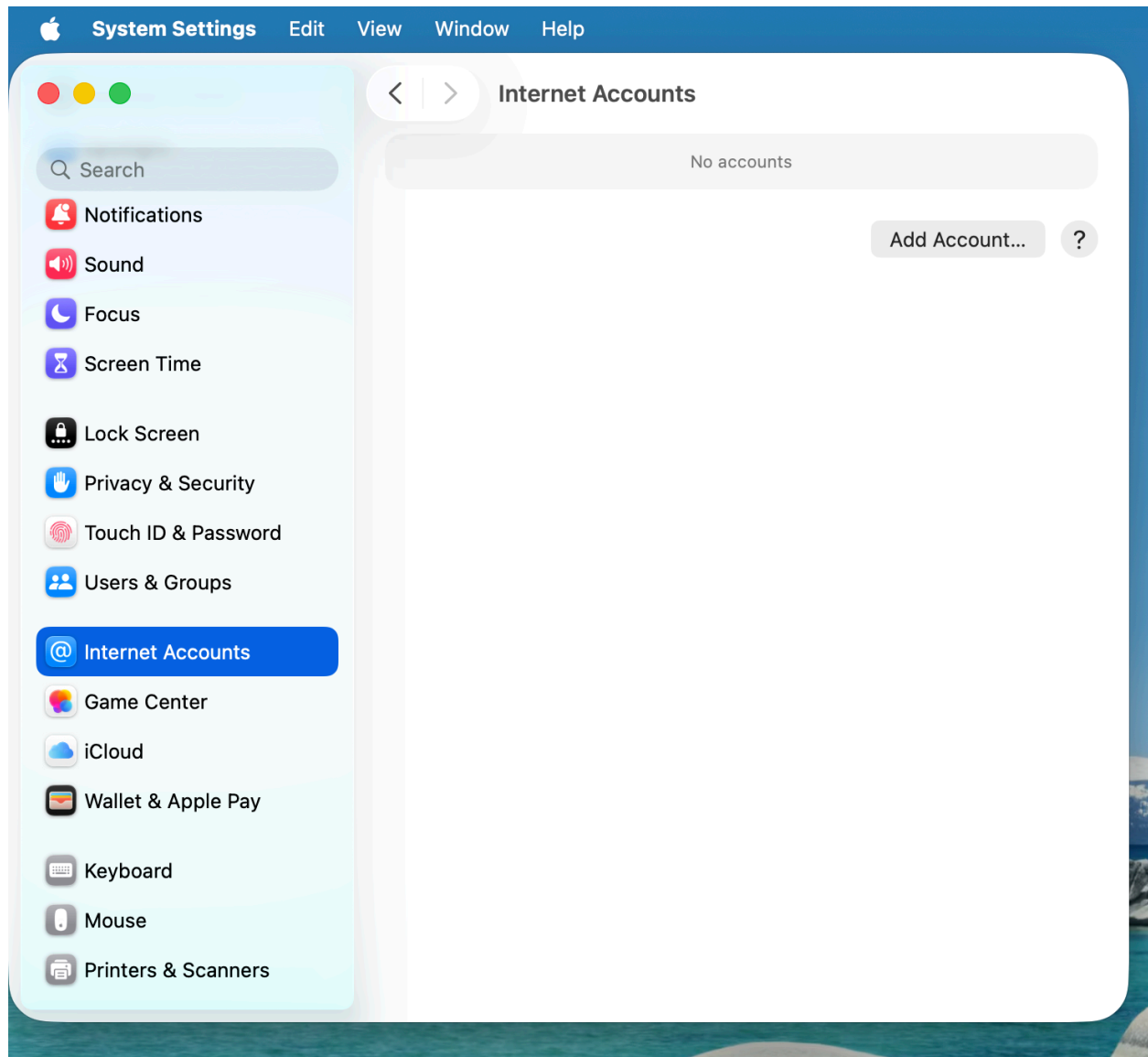
In the following steps you will add **CalDAV** (Calendar) and **CardDAV** (Contacts) to your macOS integrated Calendar and Contacts applications. At the time of writing this guide, macOS is at version 26.3.1.

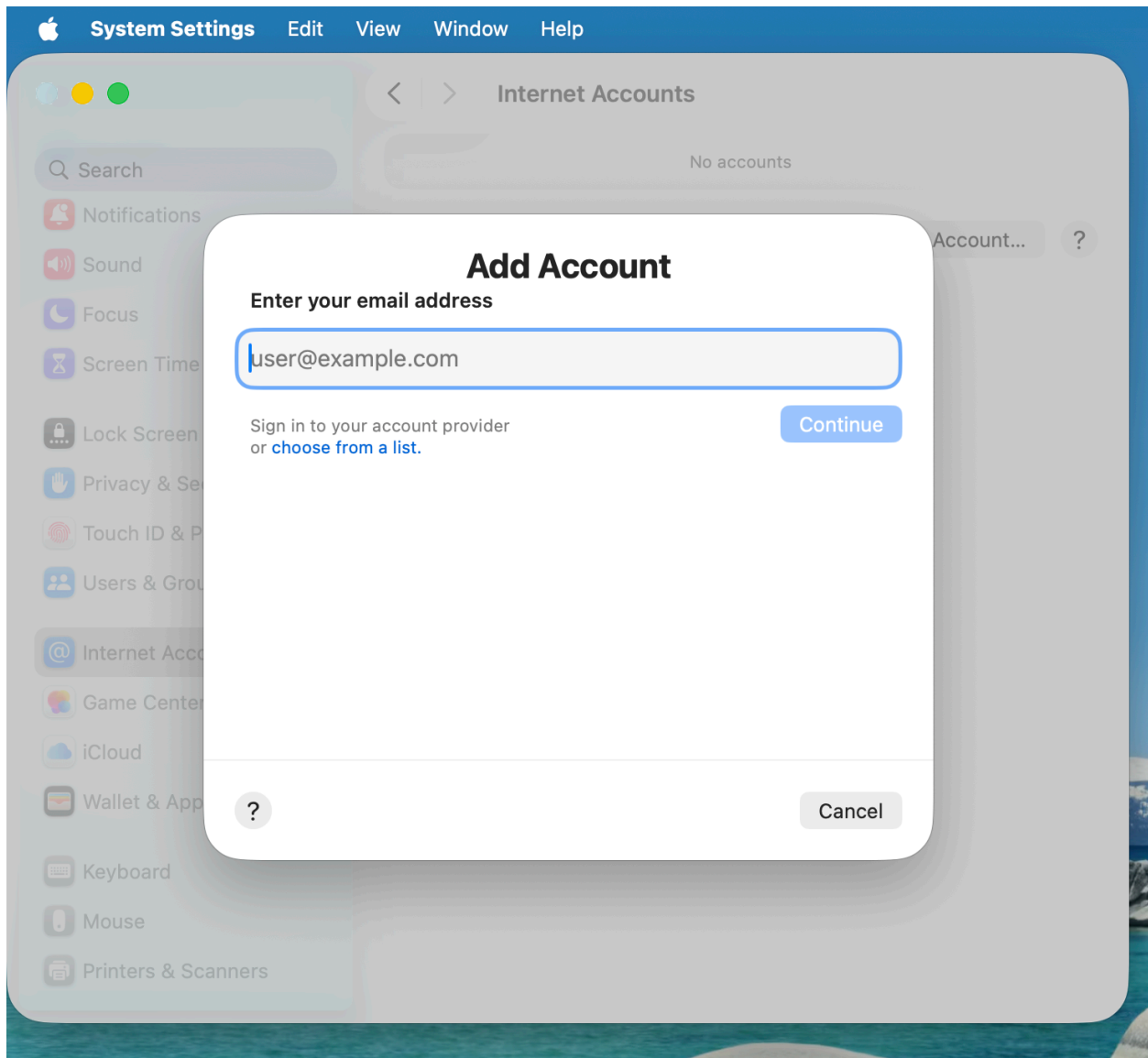
1. Click on the Apple logo in the top left corner of your screen and select **System Settings...** from the dropdown menu.
2. Navigate to **Internet Accounts**:
3. Click on the small blue **choose from a list**.
4. Click on **add Other Account...**
5. Select **CalDAV Account** for calendar and **CardDAV Account** for contacts.

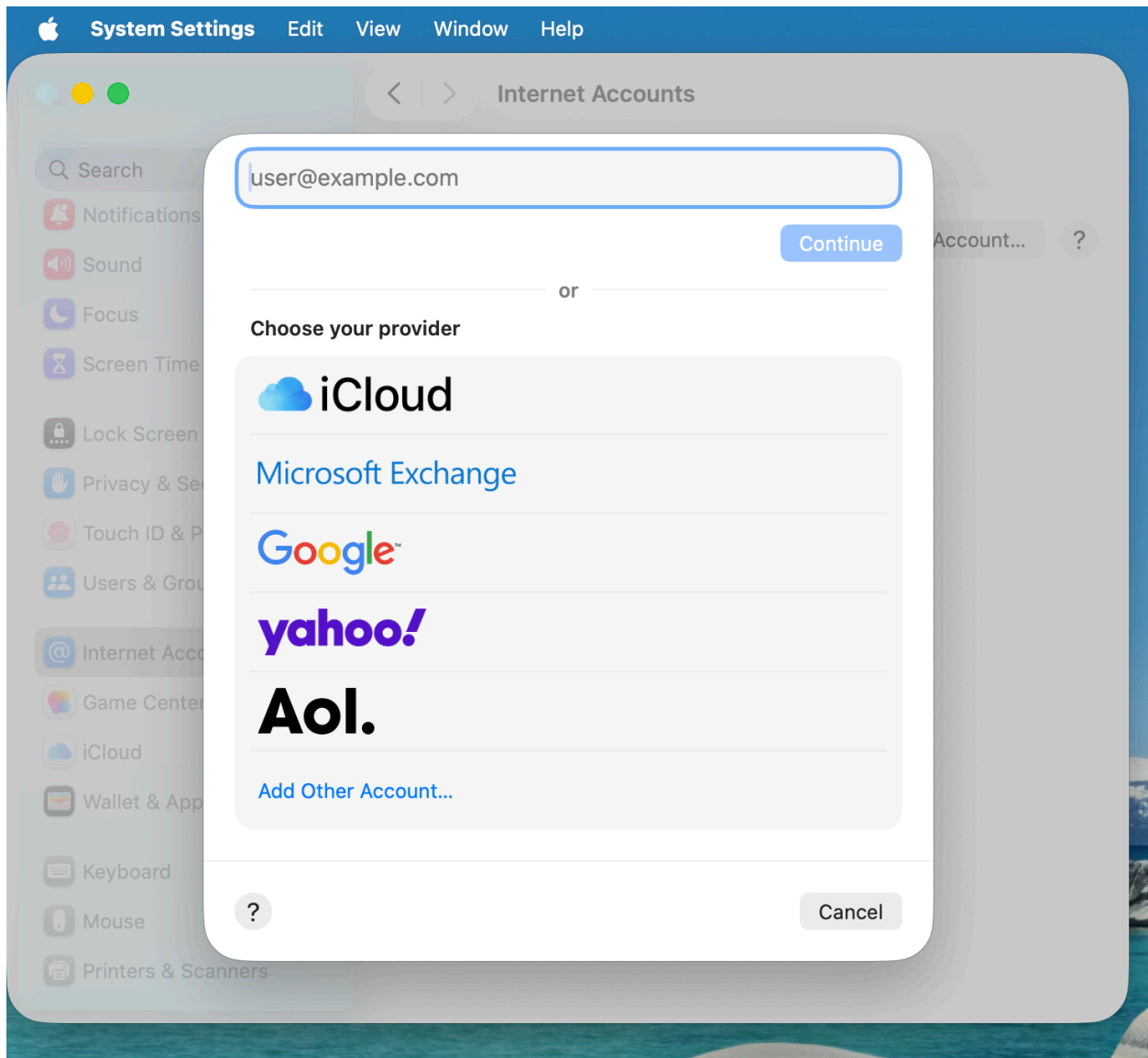
Note

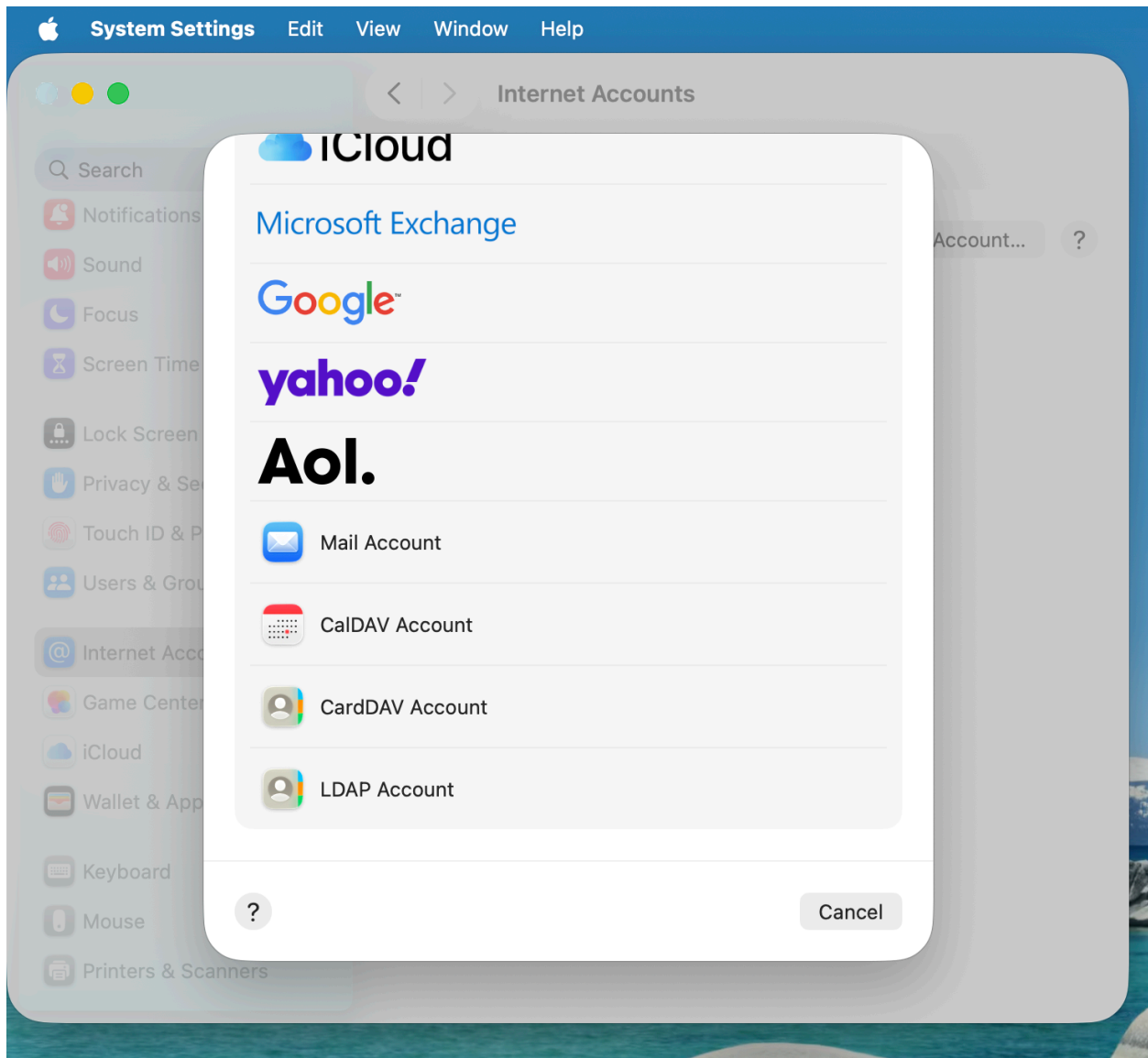
You can not setup Calendar/Contacts together. You need to setup them **separately**.









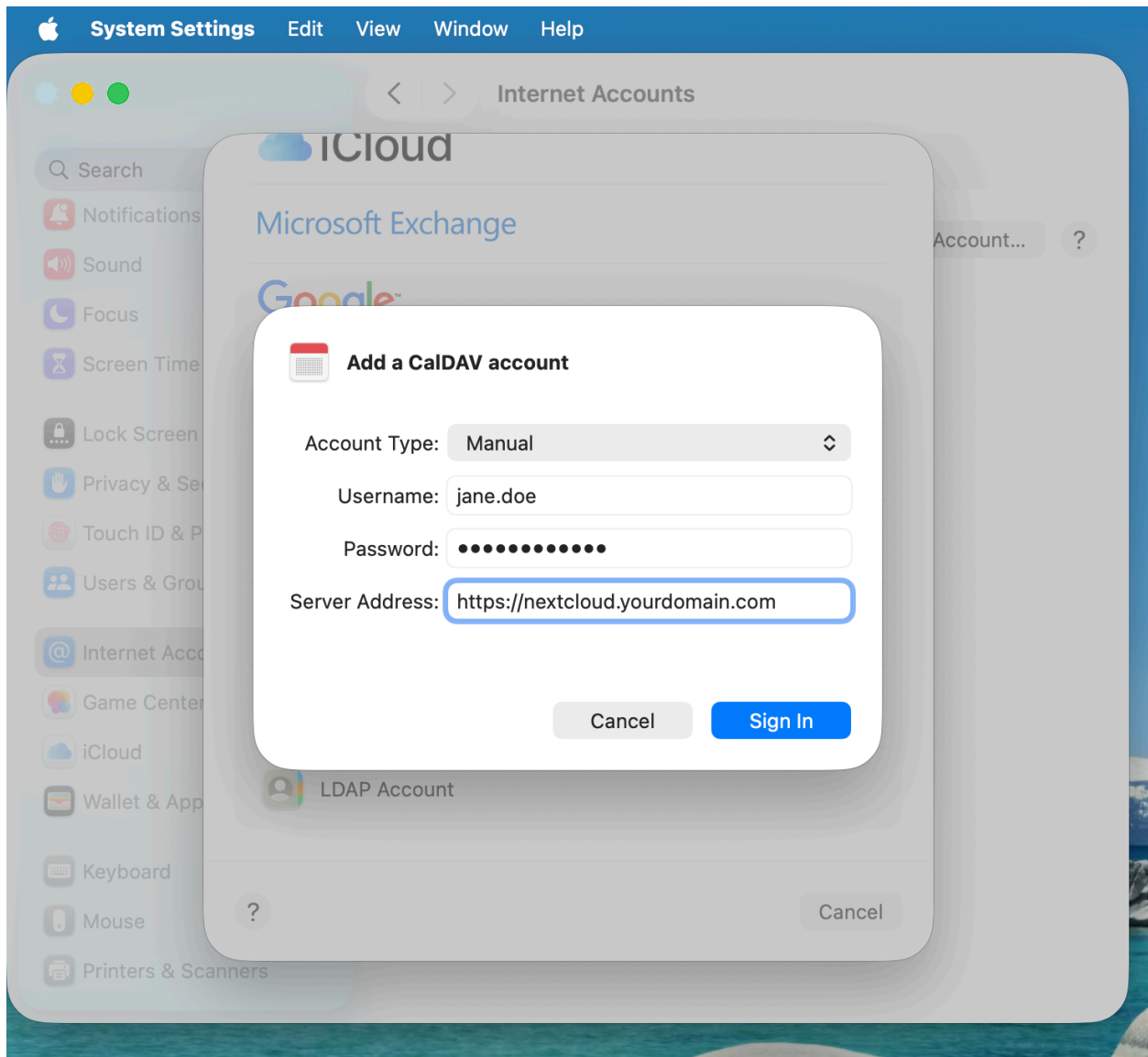


6. Select **Manual** as Account Type and type in your respective credentials:

Username: Your Nextcloud username or email

Password: Either your password or if you use 2FA your generated app-password/token ([Learn more](#)).

Server Address: URL of your Nextcloud server (e.g. `https://nextcloud.yourdomain.com`)



7. Click on **Sign In**.

4.7.2 Troubleshooting

- macOS does **not** support syncing CalDAV/CardDAV over non-encrypted `http://` connections. Make sure you have `https://` enabled and configured on server- and client-side.
- **Self-signed certificates** need to be properly set up in the macOS keychain.

4.8 Synchronizing with Thunderbird

Thunderbird is a feature-rich and mature mail client that can be turned into a full-fledged Personal Information Manager (PIM). Since version 102, it supports address book synchronization via CardDAV and automatic discovery of calendars and address books available on the server.

4.8.1 Recommended method

Since Thunderbird 102, the CardDAV & CalDAV protocols are natively supported.

Contacts

1. On the address book view, click the down arrow near **New Address Book** and choose **Add CardDAV Address Book**.
2. In the next window, type your **Username** and **Location** (Server URL).
3. The next window will ask for your username and password for this account.
4. The previous window will be refreshed and ask you which address books you wish to sync.
5. Choose and then click **Continue**.

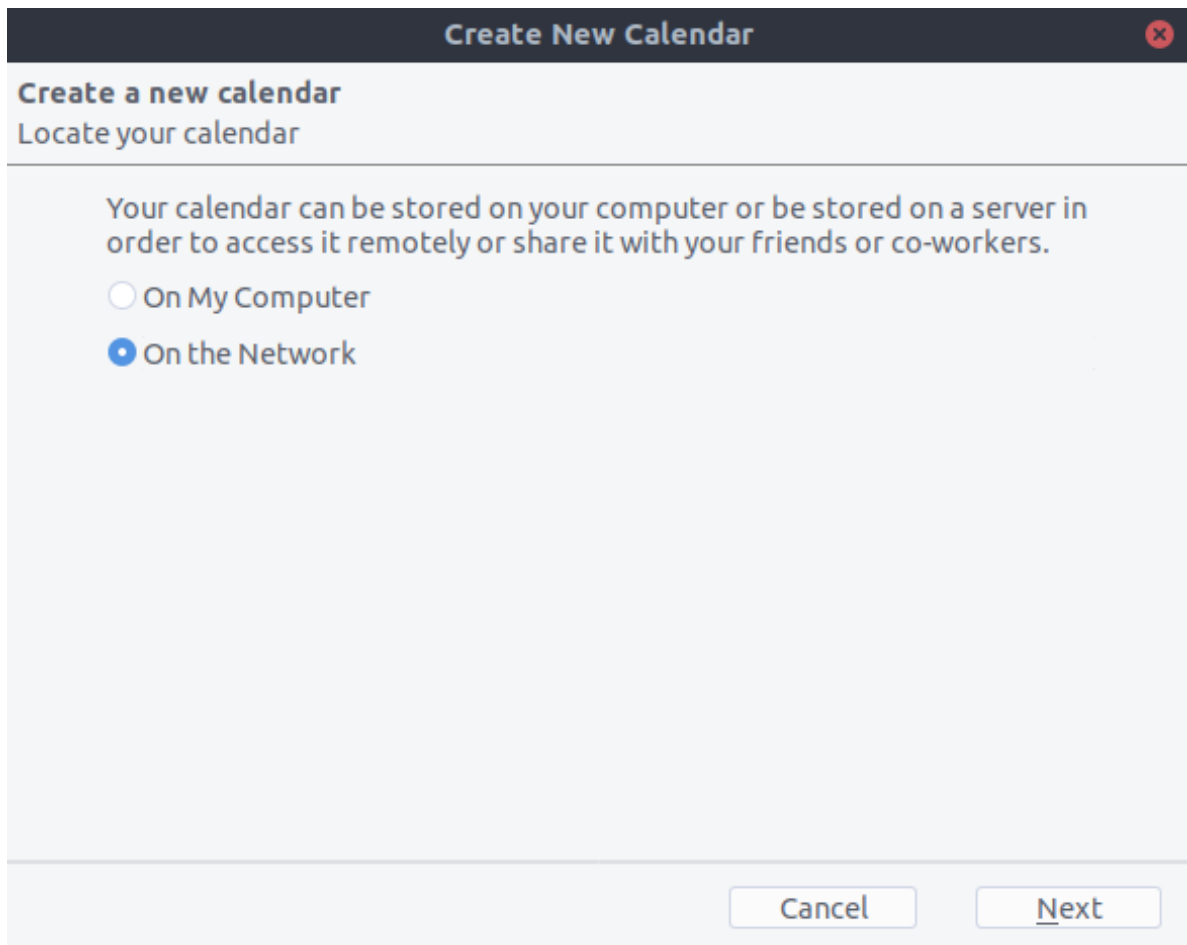
If you later want to add a new address book, you can redo all of those steps and only the books not already synchronized will be suggested.

Note

If your account uses two-factor authentication, you need a *dedicated app password* for login rather than your regular password.

Calendars

1. Go to the calendar view in Thunderbird and select the **New Calendar...** button at the bottom of the left side panel.
2. Choose **On the network**:



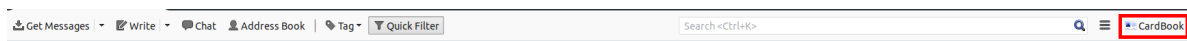
3. Type your **Username** and **Location** (Server URL), then click on **Find Calendars**.
4. Choose which calendars you want to add and click **Subscribe**

Same thing here, if you later want to add more calendars, just redo the procedure.

4.8.2 Alternative: Using the CardBook add-on (Contacts only)

CardBook is an advanced alternative to Thunderbird's address book, which supports CardDAV.

1. Click the CardBook icon in the upper right corner of Thunderbird:



2. In CardBook:

- Go to Address book > New Address book **Remote** > Next
- Select **CardDAV**, fill in the address of your Nextcloud server, your user name and password

Add a new address book

Type and location of the new remote address book.

Type
What is the type of your remote address book?: (Caution: Google does NOT conform to vCard standards)

☒ CardDAV
☐ Google
☐ Apple

Connection
For a CardDAV type, enter the URL of your remote address book. You may try to use a partial URL (example: http(s)://carddav.example.org). For a Google address book, don't specify this field.

URL

Enter the credentials for accessing your address book. For a Google address book, the username should be your Google email.

Username
 Password ☐ Show

Validate

Cancel Back Next

- Click on “Validate”, click Next, then choose the name of the address book and click Next again:

Add a new address book

Address book properties

Name

Color

vCard

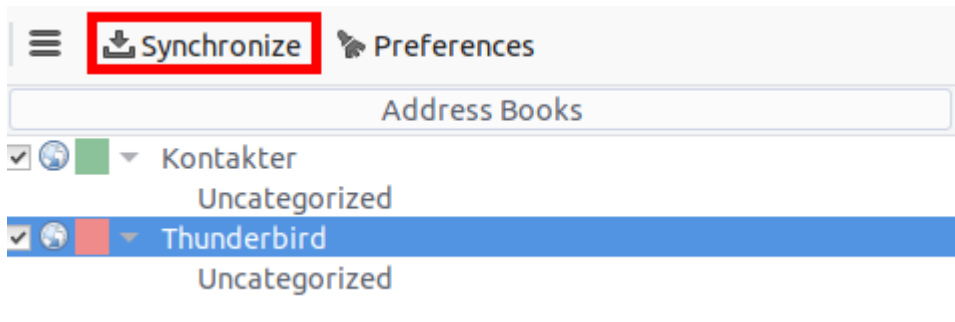
Expected date format

Read-only mode ☐

Use urn:uuid ☐

Cancel Back Next

- When you are finished, CardBook synchronizes your address books. You can always trigger a synchronization manually by clicking “Synchronize” in the top left corner of CardBook:



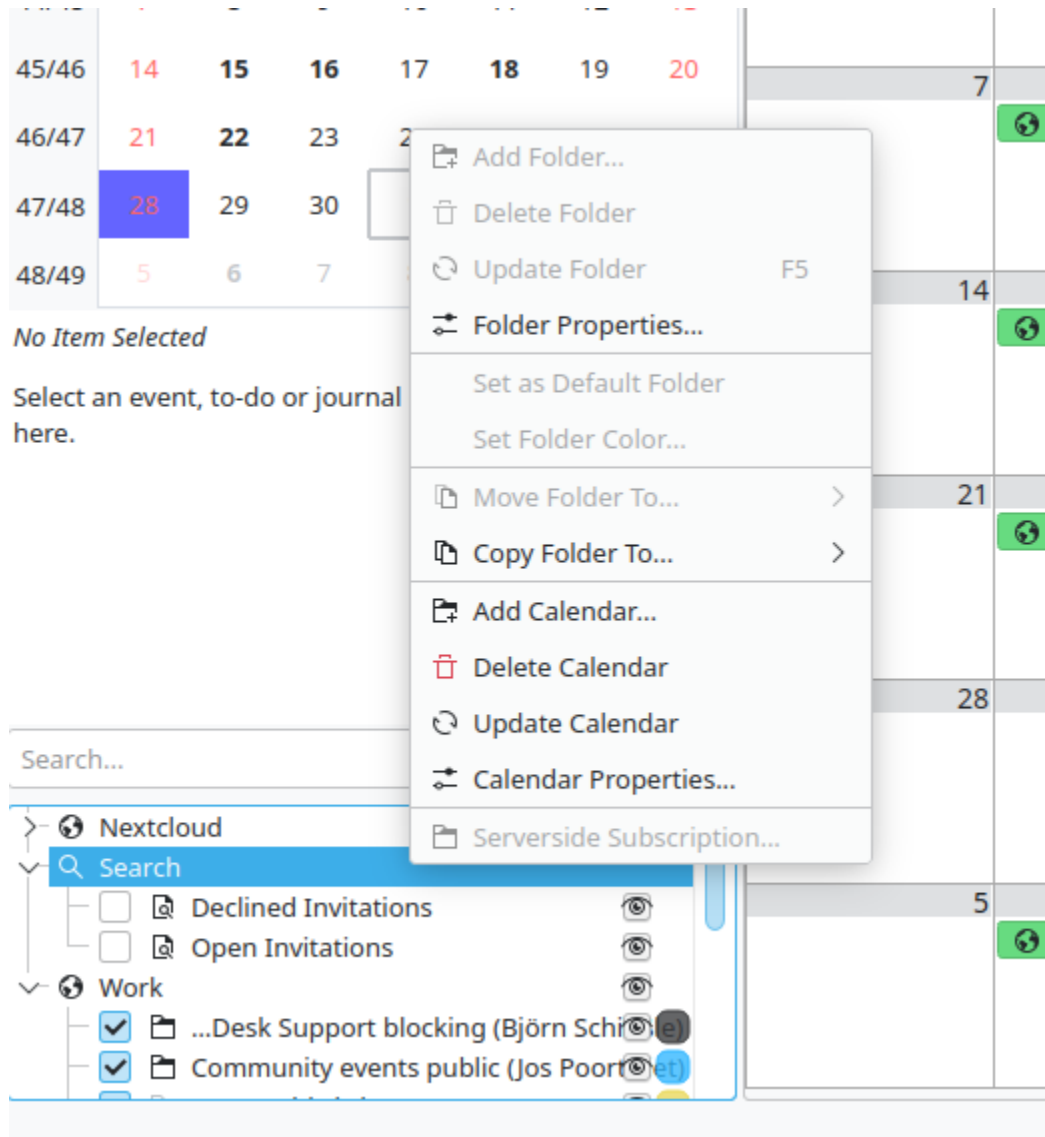
4.9 Synchronizing with KDE Kontact

KOrganizer, Kalendar and KAddressBook can synchronize your calendar, contacts and tasks with a Nextcloud server.

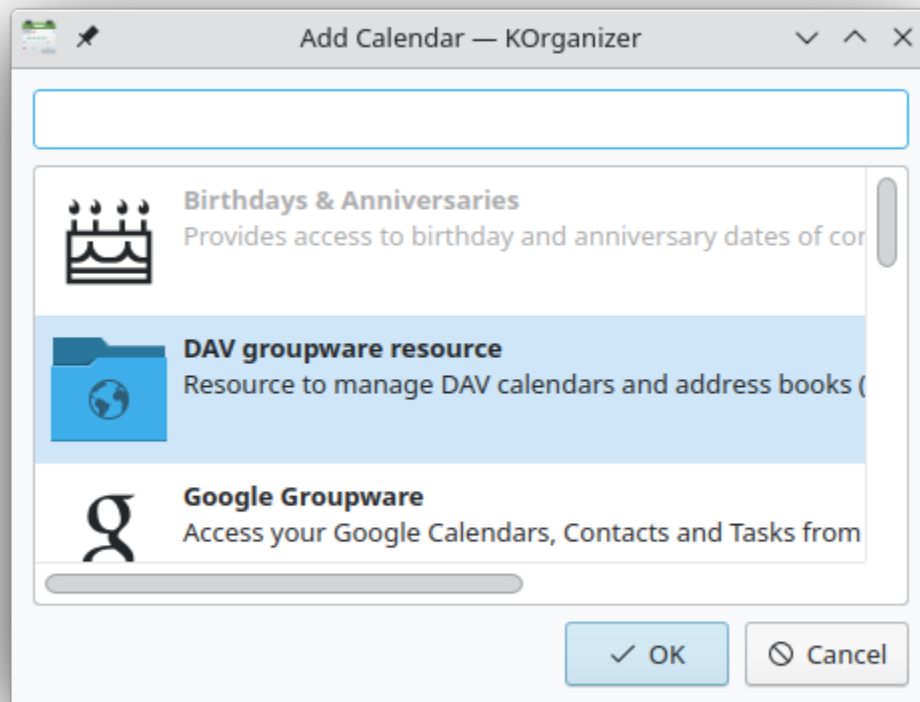
This can be done by following these steps depending on if you use KOrganizer or Kalendar:

In KOrganizer:

1. Open KOrganizer and in the calendar list (bottom left) right-click and choose Add Calendar:

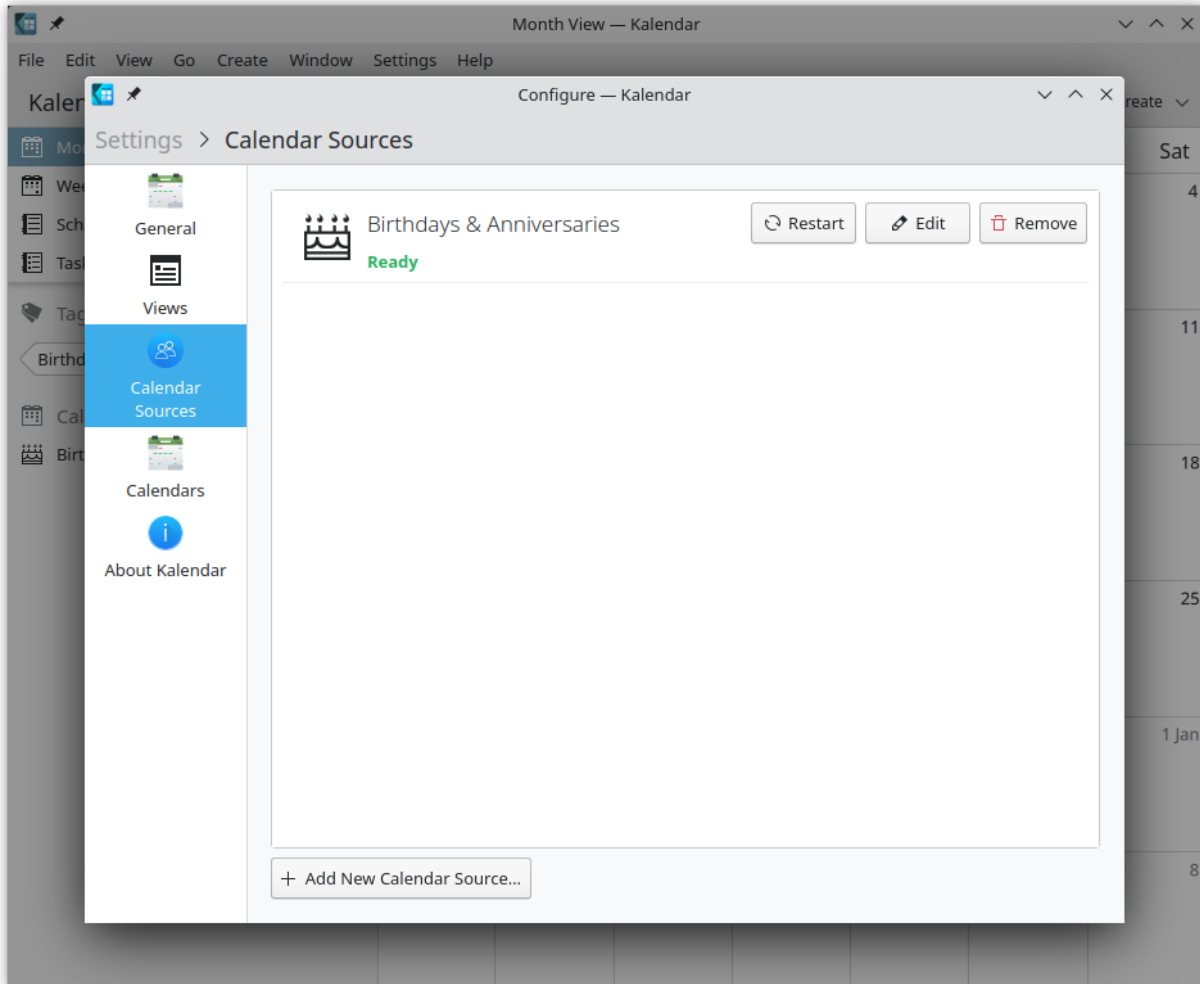


2. In the resulting list of resources, pick DAV groupware resource:

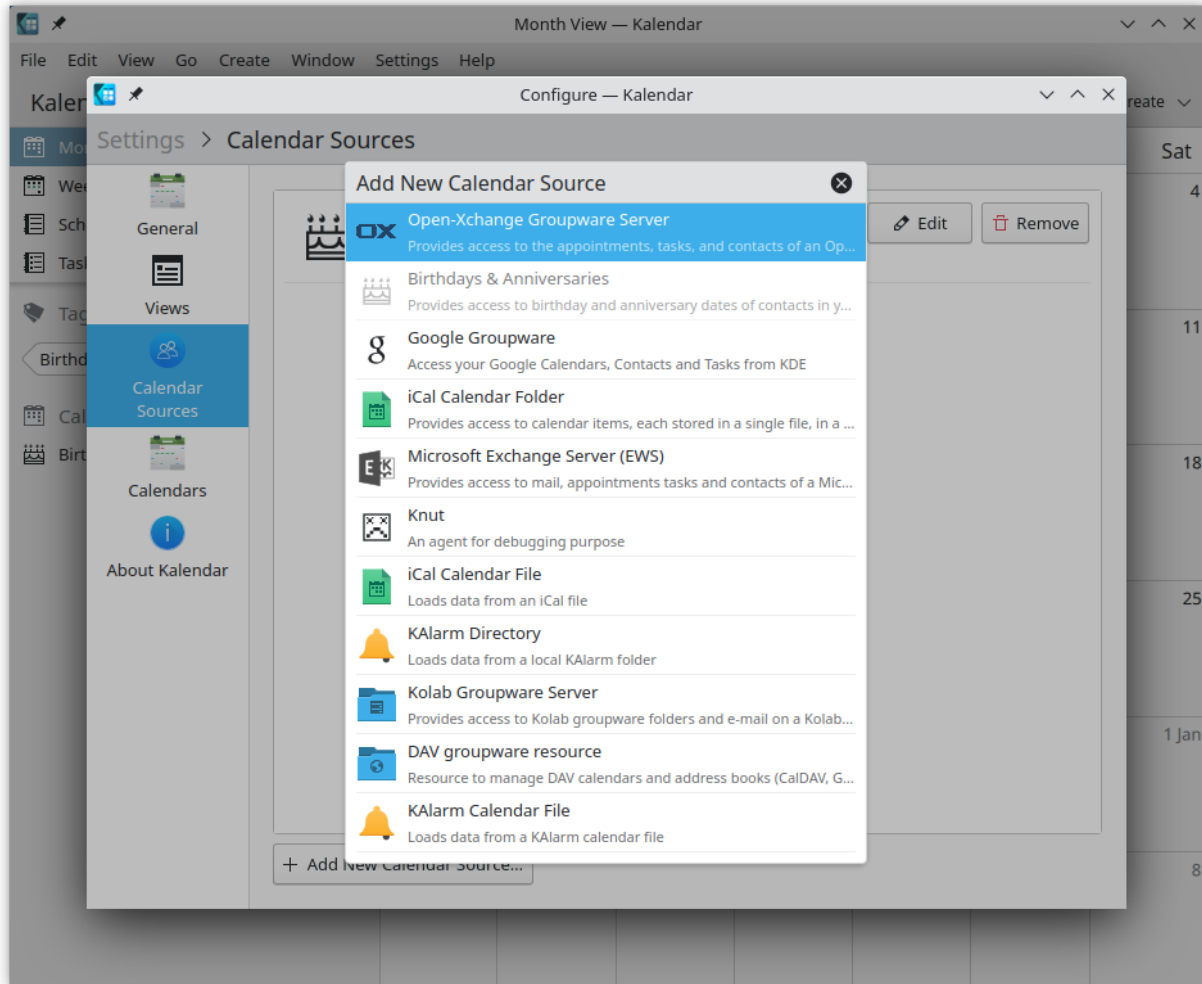


In Kalendar:

1. Open Kalendar and in the menu bar open the setting and then choose `Calendar Sources -> Add Calendar`:

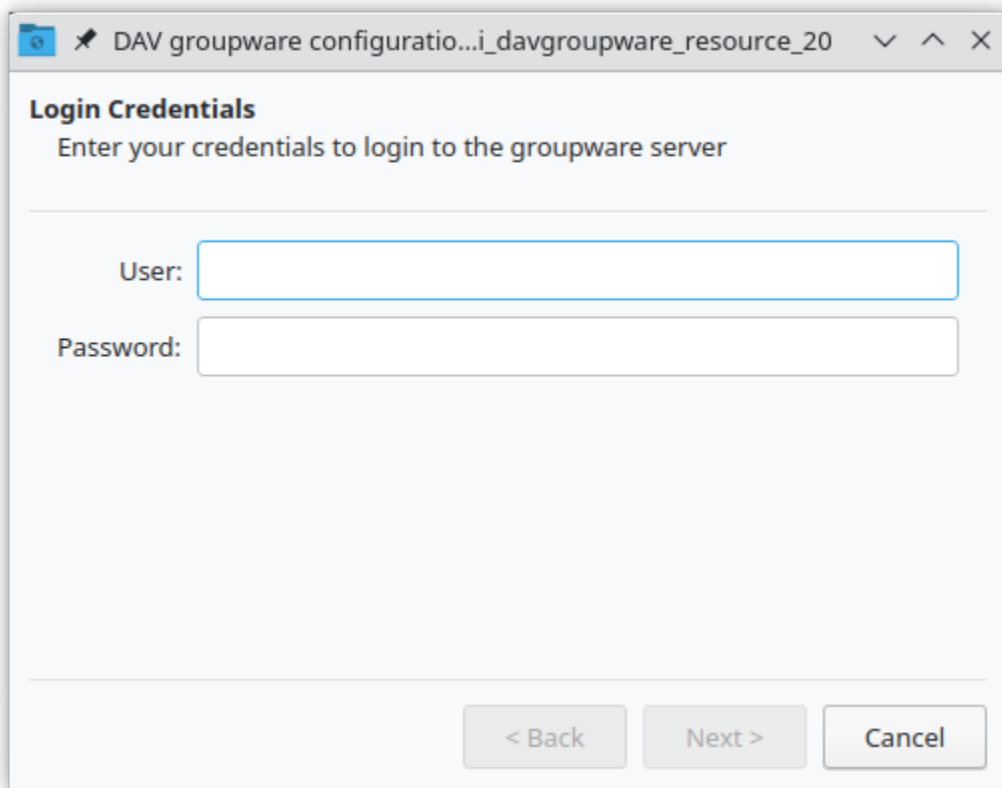


2. In the resulting list of resources, pick DAV groupware resource:



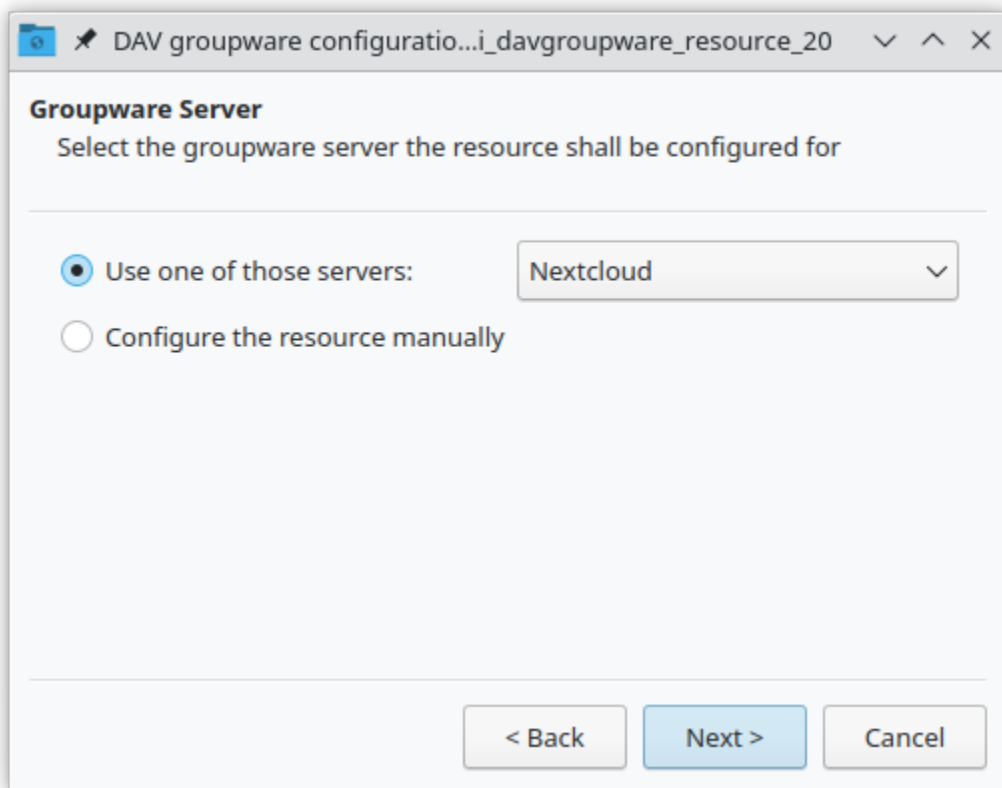
In KOrganizer and Kalendar:

3. Enter your username. As password, you need to generate an app-password/token ([Learn more](#)):

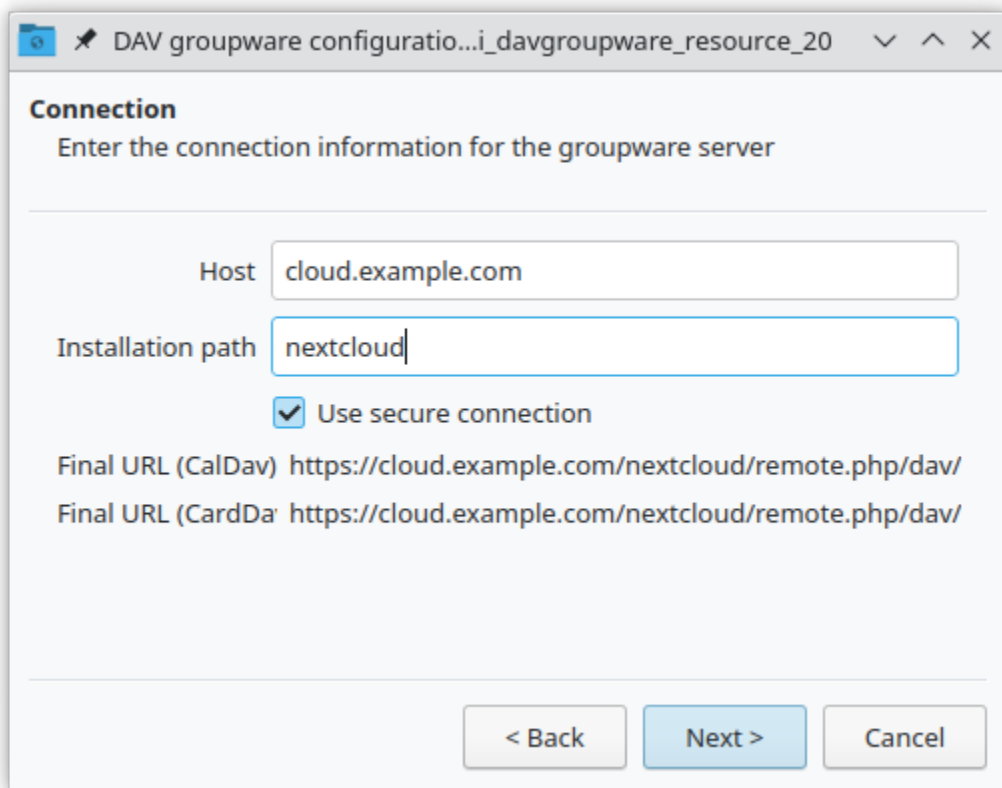


The image shows a dialog box titled "DAV groupware configuratio...i_davgroupware_resource_20". Inside the dialog, the section "Login Credentials" is active, with the instruction "Enter your credentials to login to the groupware server". There are two input fields: "User:" and "Password:". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

4. Choose Nextcloud as Groupware server option:



5. Enter your Nextcloud server URL and, if needed, installation path (anything that comes after the first /, for example mynextcloud in `https://example.com/mynextcloud`). Then click next:



Connection
Enter the connection information for the groupware server

Host

Installation path

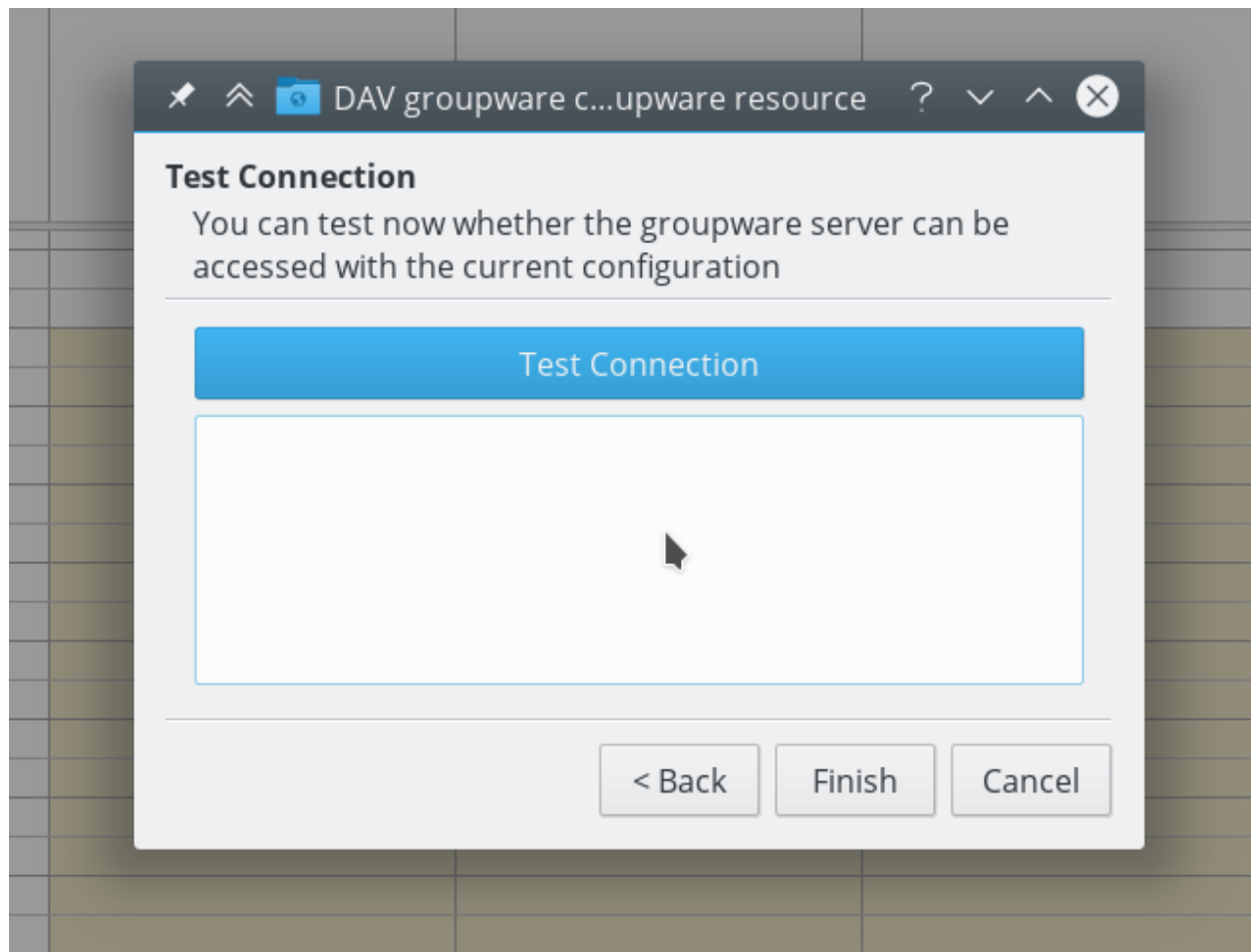
☒ Use secure connection

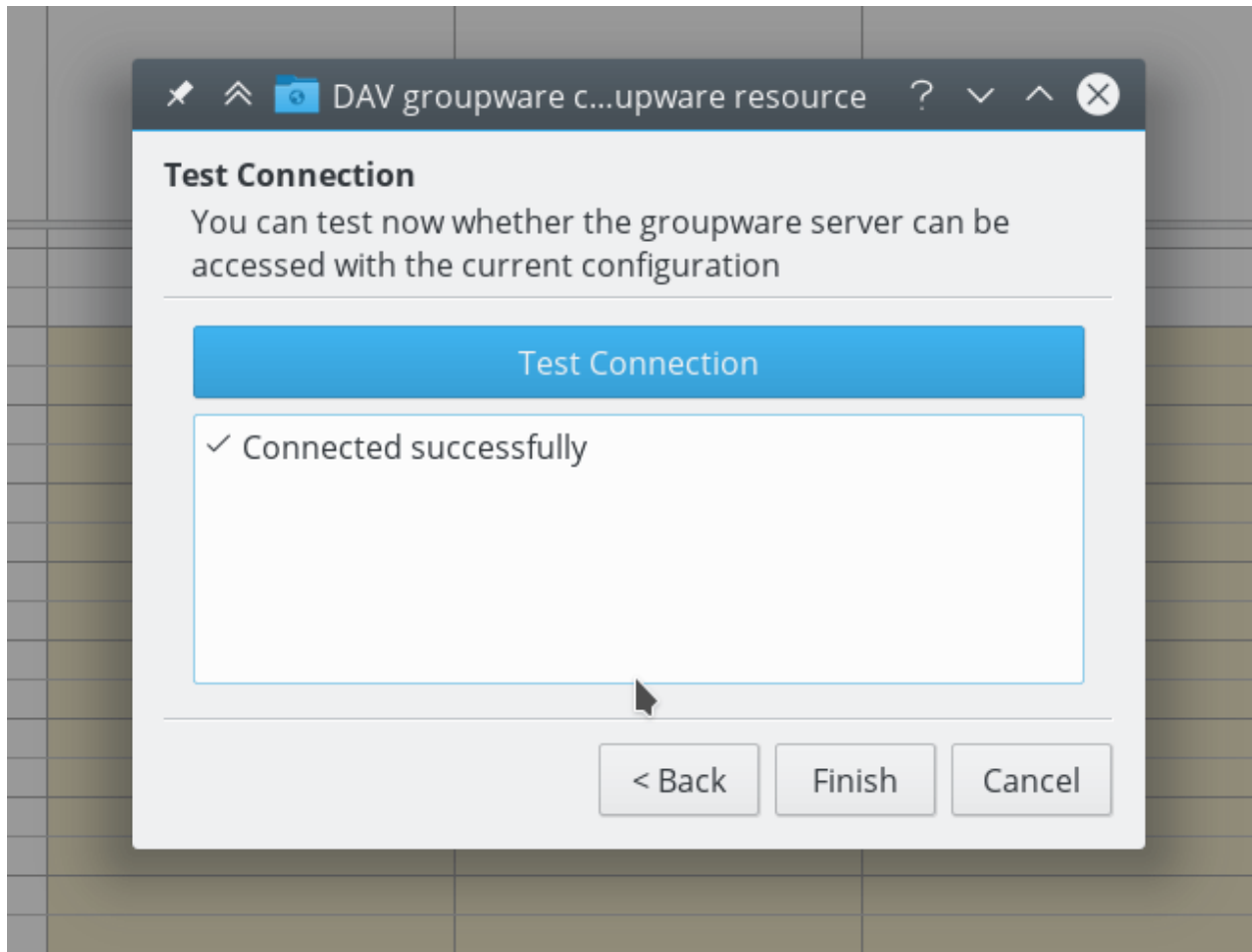
Final URL (CalDav) <https://cloud.example.com/nextcloud/remote.php/dav/>

Final URL (CardDav) <https://cloud.example.com/nextcloud/remote.php/dav/>

< Back Next > Cancel

6. You can now test the connection, which can take some time for the initial connection. If it does not work, you can go back and try to fix it with other settings:





7. Pick a name for this resource, for example `Work` or `Home`. By default, both CalDAV (Calendar) and CardDAV (Contacts) are synced:

DAV Resource Configuration ...di_davgroupware_resource_20

Display name:

Refresh every: minutes

Username:

Password:

☒ Limit CalDav retrieval time range

Only sync events more recent than

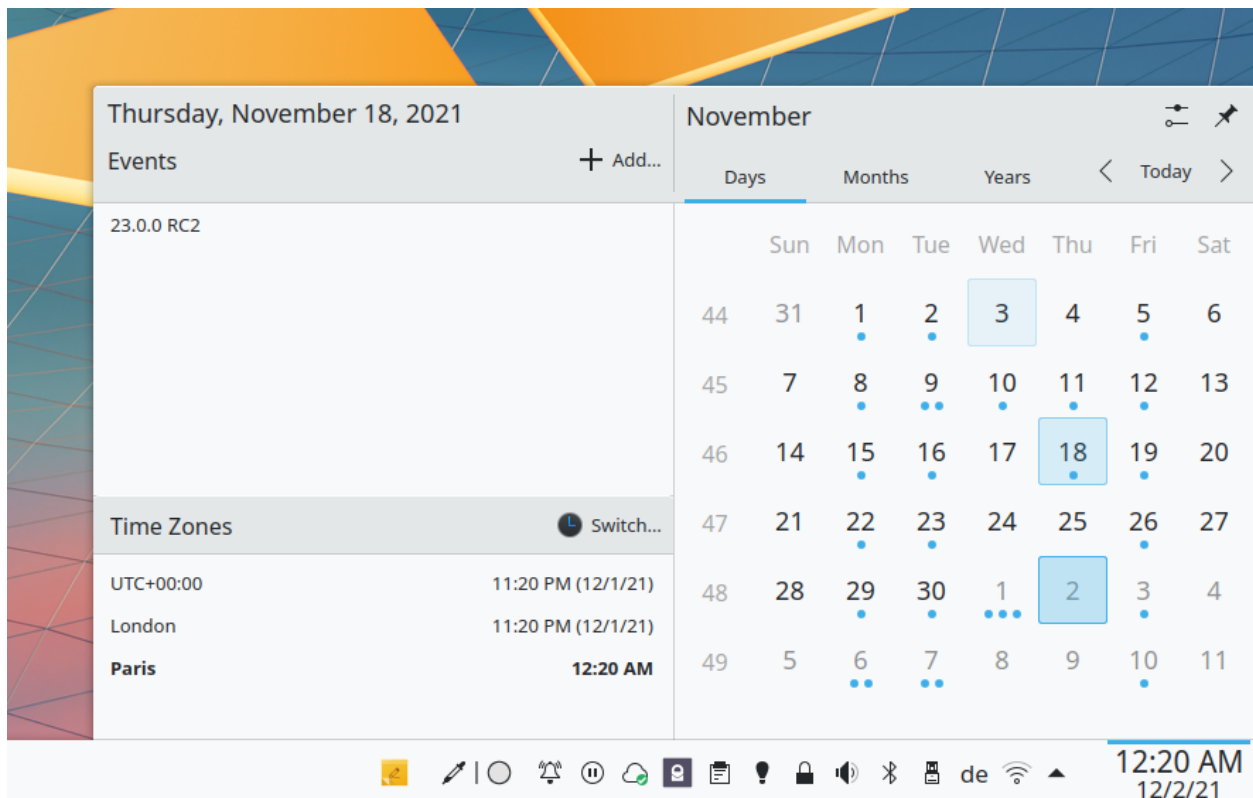
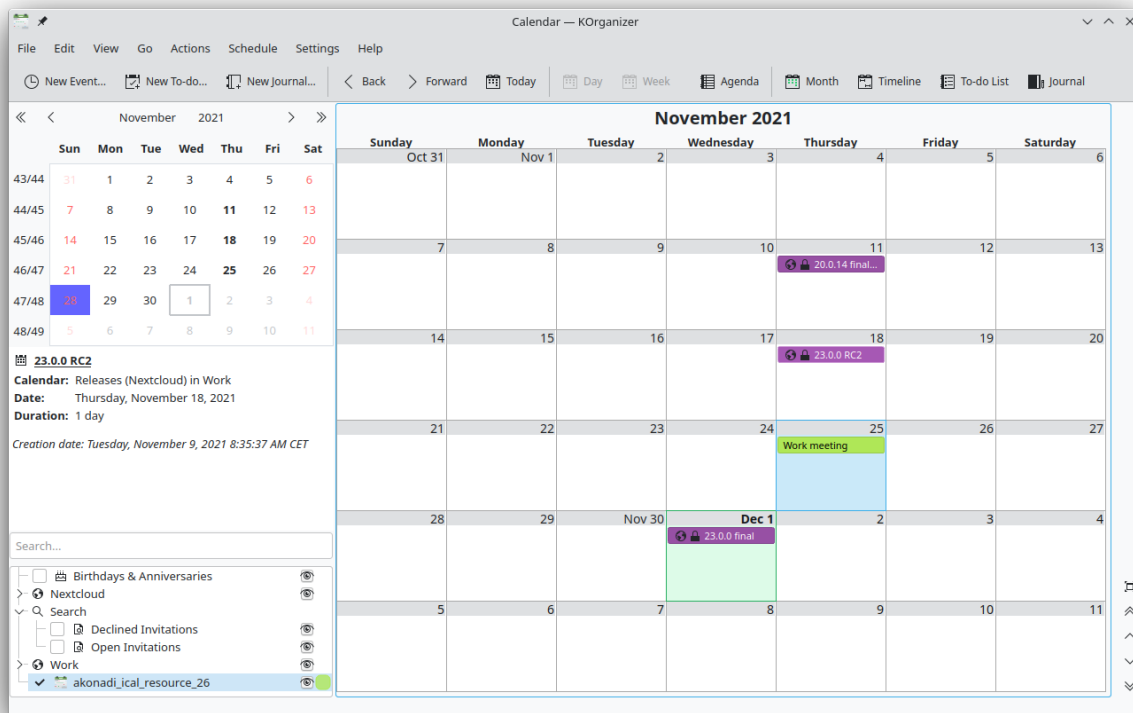
Server Configuration:

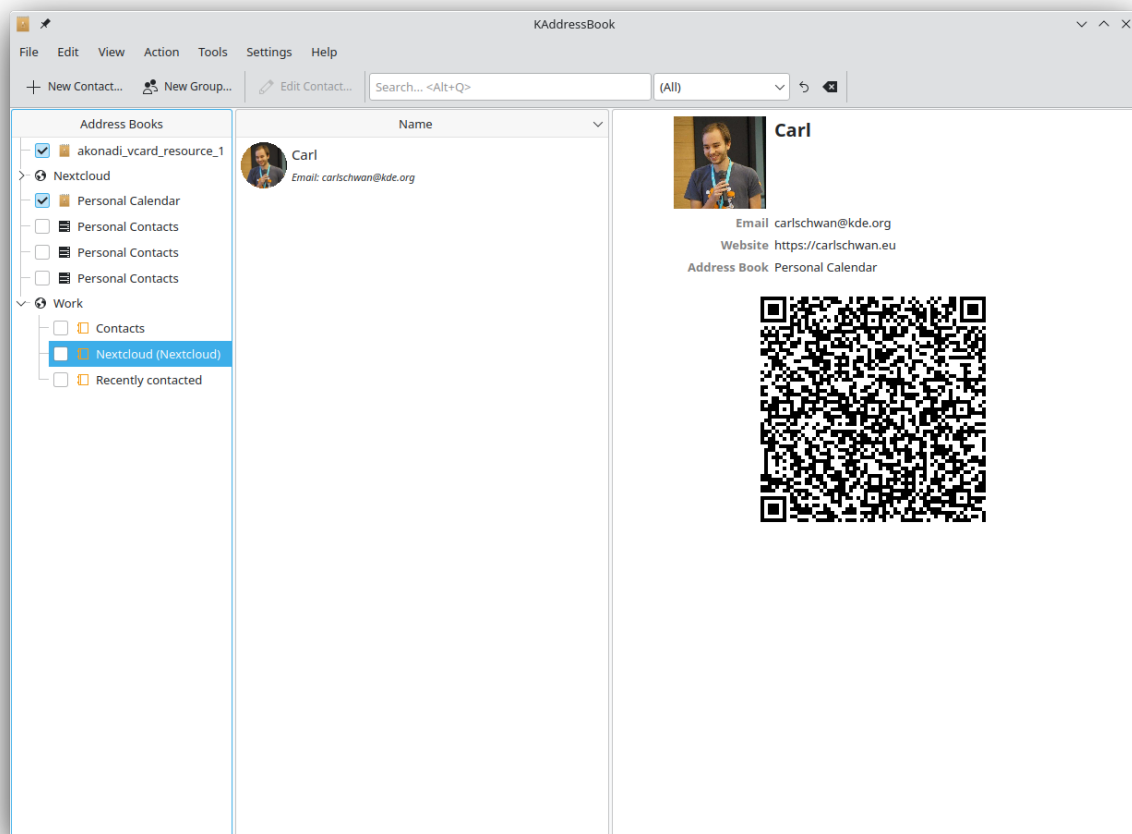
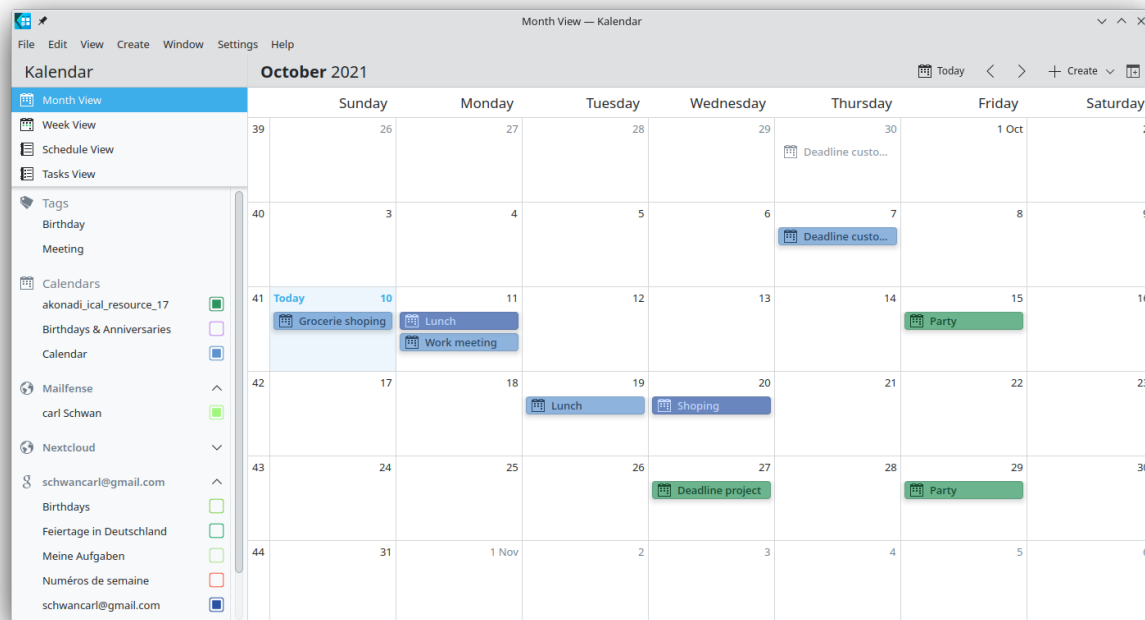
Protocol	URL
CalDav	https://cloud.nextcloud.com/remote.php/dav/
CardDav	https://cloud.nextcloud.com/remote.php/dav/

Note

You can set a manual refresh rate for your calendar and contacts resources. By default this setting is set to 5 minutes and should be fine for the most use cases. When you create a new appointment it is synced to Nextcloud right away. You may want to change this for saving your power or cellular data plan, so that you can update with a right-click on the item in the calendar list.

- After a few seconds to minutes depending on your internet connection, you will find your calendars and contacts inside the KDE Kontact applications KOrganizer, Kalendar and KAddressBook as well as Plasma calendar applet:



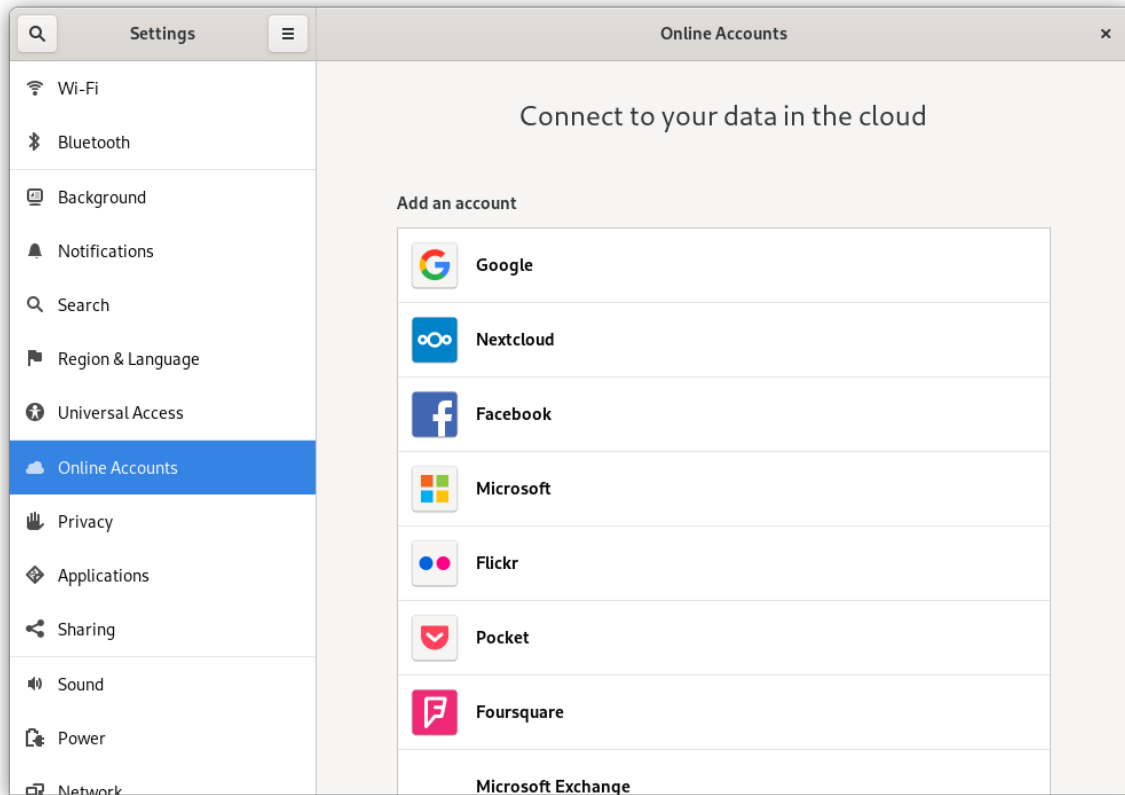


4.10 Synchronizing with the GNOME desktop

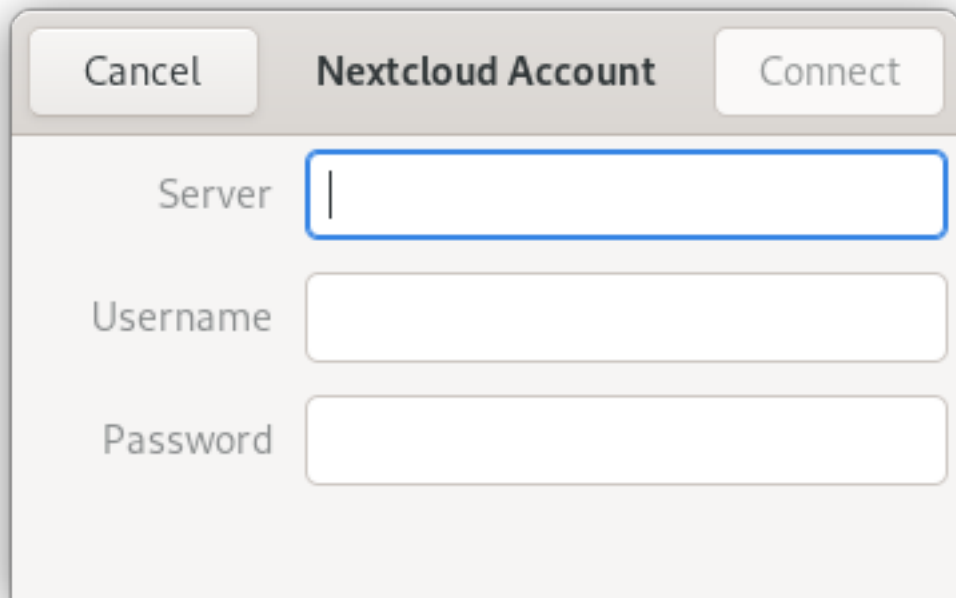
The **GNOME desktop** has built-in support for Nextcloud's calendar, contacts, and tasks which will be displayed by the Evolution Personal Information Manager (PIM), or the Calendar, Tasks, and Contacts apps. Similarly, Files integrates into the Nautilus file manager via WebDAV. The latter works only while the computer is connected.

This can be done by following these steps:

1. In the GNOME settings, open Online Accounts.
2. Under “Add an account” pick `Nextcloud`:

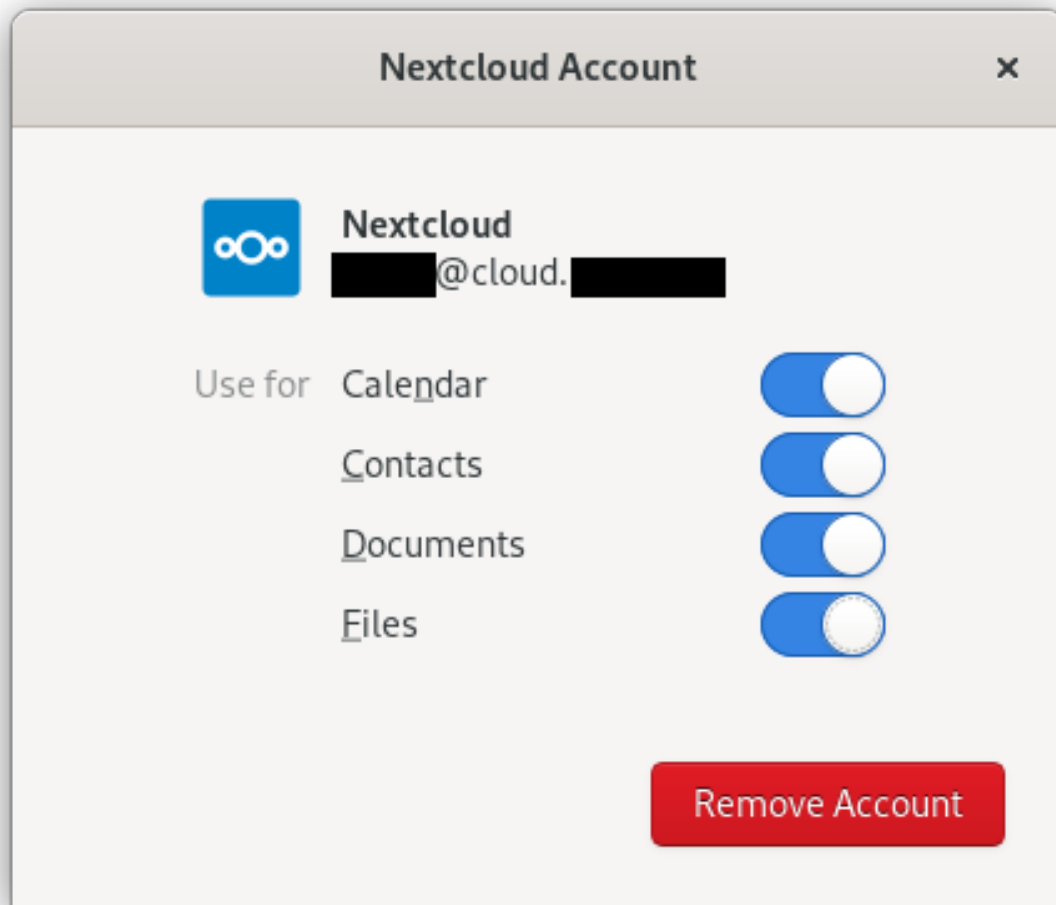


3. Enter your server URL, username, and password. If you have enabled two-factor authentication (2FA), you need to generate an application password/token, because GNOME Online Accounts [doesn't support Nextcloud's WebFlow login yet](#) ([Learn more](#)):



A dialog box titled "Nextcloud Account" with a "Cancel" button on the left and a "Connect" button on the right. The dialog contains three input fields: "Server" (with a blue border and a cursor), "Username", and "Password".

4. In the next window, select which resources GNOME should access and press the cross in the top right to close:



Nextcloud tasks, calendars, and contacts should now be visible in the Evolution PIM, as well as the Task, Contacts, and Calendars apps.

Files will be shown as a WebDAV resource in the Nautilus file manager, and also be available in the GNOME file open/save dialogues. Documents should be integrated into the GNOME Documents app.

All resources should also be searchable from anywhere by pressing the Windows key and entering a search term.

4.11 Synchronizing with Windows 10

4.11.1 Calendar

1. In your browser, navigate to the Nextcloud Calendar app. Under “Calendar settings”, copy the address using “Copy iOS/macOS CalDAV address” into your clipboard.
2. Launch the Windows 10 Calendar app. Then, click the settings icon (gear icon) and select “Manage accounts”.
3. Click “Add account” and choose “iCloud”.
4. Enter an email, username and password. None of this information has to be valid-it will all be changed in the upcoming steps.
5. Click “Done”. A message should appear indicating the settings were saved successfully.

6. In the “Manage Accounts” menu, click on the iCloud account created in previous steps, and select “Change settings”. Then, click on “Change mailbox sync settings”.
7. Scroll to the bottom of the dialog box, select “Advanced mailbox settings”. Scroll once more to the bottom of the dialog box and paste your CalDAV URL in the field labelled “Calendar server (CalDAV)”.
8. Click “Done”. Enter your Nextcloud username and password in the appropriate fields, and change the account name to whatever you prefer (e. g. “Nextcloud Calendar”). Click “Save”.

4.11.2 Contacts

1. Repeat steps 1–7 from the *Calendar instructions*. If you already have set up the Calendar synchronization, you can use the same account for this.
2. From the “Advanced mailbox settings” screen, scroll to the bottom of the dialog box and paste your CardDAV URL in the field labelled “Contacts server (CardDAV)”.
3. Replace the path “principals” within the URL with “addressbooks”.
4. Click “Done”. Enter your Nextcloud username and password in the appropriate fields, and change the account name to whatever you prefer (e. g. “Nextcloud”). Click “Save”.

4.11.3 Troubleshooting: 2FA

NOTE: You will not be able to synchronize your calendar if you have two-factor authentication enabled. Follow the steps below to get an app password that can be used with the Calendar client app:

1. Log into Nextcloud. Click on your user icon, then click on “Settings”.
2. Click on “Security”, then locate a button labeled “Create new app password”. Next to this button, enter “Windows 10 Calendar app”. Then, click the button, copy and paste the password. Use this password instead of your Nextcloud password when prompted for credentials during setup, for example in Calendar step 8 or Contacts step 4.

4.11.4 Troubleshooting: TLSv1.2

- For Windows 10 your Nextcloud https server **must support TLSv1.2**. This is apparent if no connection attempts are seen on the server, and the Windows client Event Viewer will display Schannel TLS errors under “Windows Logs -> System”.

4.11.5 Credits

Special thanks to this Reddit user for their post: https://www.reddit.com/r/Nextcloud/comments/5rcypb/using_the_windows_10_calendar_application_with/

4.12 Migrate data between instances

The *User Migration App* lets you move your Nextcloud Groupware data between instances.

The following data can be migrated:

- Contacts and groups
- Calendars including events, details and attendees
- Calendar app settings including appointment and proposal schedule configurations
- Mail account parameters, aliases and preferences

Important

The User Migration App must be installed on both instances, along with the latest version of the respective Nextcloud Groupware app.

Once the User Migration App is installed, you can start the migration process by going to your **Personal settings** and clicking on **Data migration** on the left side. You can choose which data you want to migrate and start the export process. Once the export is finished, download the generated file and import it onto the new instance by going to the same section.

TALK

Nextcloud Talk offers audio/video and text chat integrated in Nextcloud. It offers a web interface as well as mobile apps. You can find out more about Nextcloud Talk [on our website](#).



5.1 Basics of Nextcloud Talk

Nextcloud Talk lets you chat and have video calls on your own server.

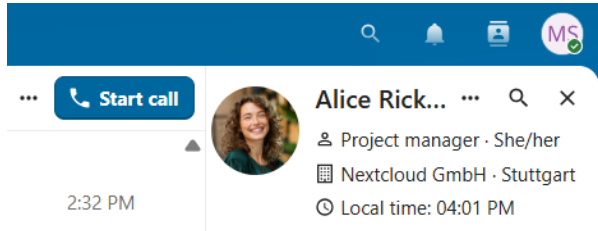
5.1.1 Getting started

Chats and calls take place in conversations. You can create any number of conversations. There are different types of conversations:

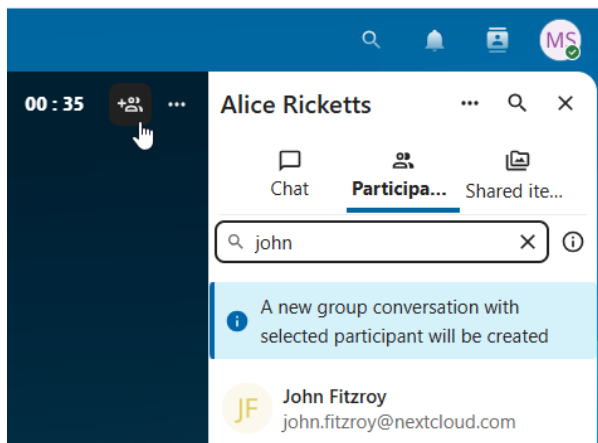
1. Private (one-to-one) conversations

This is where you have a private chat or call with another Talk user.

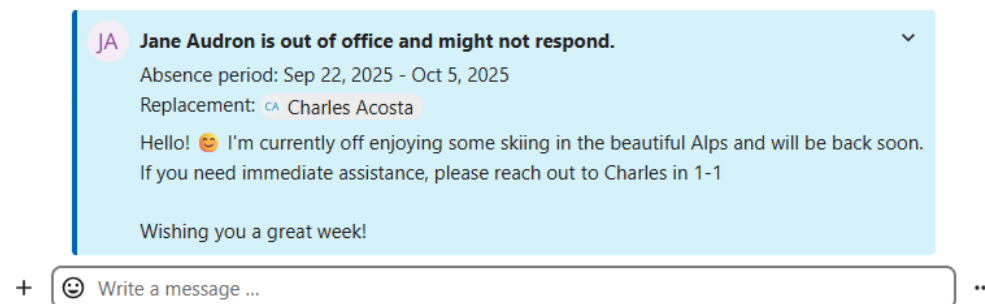
In content sidebar, you can find additional information about the person you are chatting with, such as their email address, phone number, or other details they have shared in their profile.



Nobody except you and the other person can see this conversation or join a call in it. You can extend an ongoing call to a new group conversation by adding more people. Call will be continued there without interruption.



If a user becomes unavailable and set an **out-of-office** status in `Personal settings > Availability`, you will find additional information in this conversation, such as provided description, absence date, or their replacement person.



2. Group conversations

A group conversation can have any number of people in it. You can add internal users, email guests, groups or teams to a group conversation upon creation, or when it already exists, via the `Participants` tab.

A group conversation can be shared with a public link, so guests can join a chat and a call. It can also be opened to registered users (or users from 'Guests' app), so they can discover and join this conversation.

Moderation

- ☒ Open conversation to registered users, showing it in search results
- ☐ Also open to users created with the Guests app
- ☒ Allow participants to mention @all

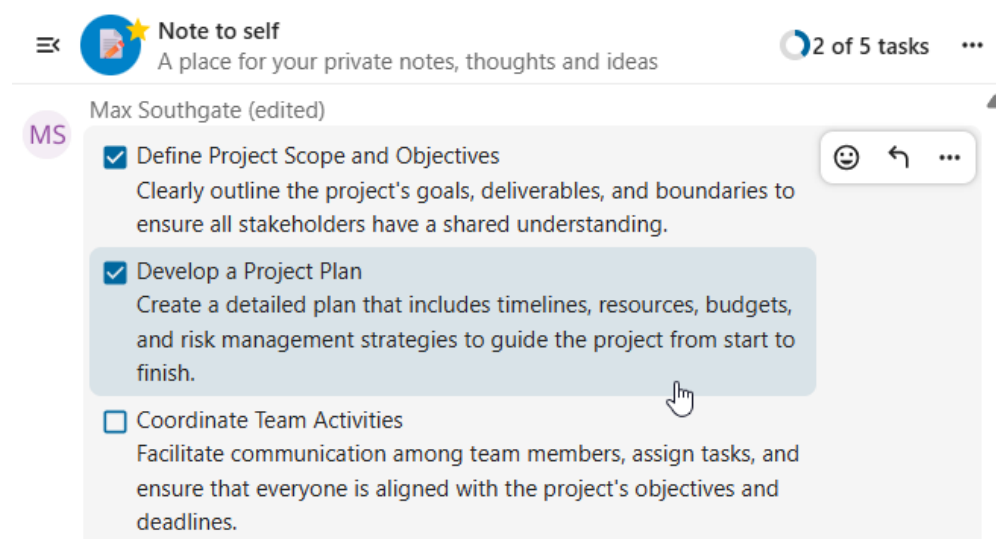
Guest access

- ☒ Allow guests to join this conversation via link
- ☐ Password protection

3. Note to self

This is a special conversation with yourself. Messages here do not have a limit for editing or deletion. You can use it to:

- **Take notes:** write down ideas, reminders, or important information you want to keep handy.
- **Create to-do lists:** use Markdown syntax to create checklists for tasks you need to complete.
- **Forward messages from other chat:** use the message menu to forward important messages from other conversations to your Note to self.



4. Disposable conversations

These conversations cover some special cases and exist for a limited period of time. Retention period can be configured by an instance administration:

- **Instant meetings:** these conversations can be created for quick, ad-hoc meetings. They can be started instantly from the Talk Dashboard.
- **Event conversations:** these are created when set as an event location by Calendar app.
- **Phone conversations:** these are dedicated for SIP dial-in & dial-out phone calls (requires a SIP gateway).
- **Video verification:** these are created, when someone tries to access a public link, protected by password with video verification (deleted instantly after call ends).

 **Max Southgate** ended the call with 3 guests (Duration 40:14)

This conversation will be automatically deleted for everyone in 1 day of no activity.

 **Delete now**  **Keep**

5.1.2 Talk Dashboard

The Talk Dashboard is your central hub for managing and accessing your conversations. It provides an overview of your:

- Unread mentions and messages in private chats;
- Message reminders, scheduled to be tackled on later;
- Scheduled meetings, with event details and shortcut buttons to join them;
- Shortcut actions to create new conversations, join open ones, or quickly check your media devices.

☰ **Hello, Christine**

 **Start meeting now**
 **Create a new conversation**
 **Join open conversations**
 **Call a phone number**
 **Check devices**

Upcoming meetings

 [Webinar]: Nextcloud Talk for your... Today 6:00 – 7:00 pm  In Annual Virtual Conference Join Nextcloud to discover how Nextcloud Talk's latest Hub 25 Autumn...	 Project follow-up Friday, 4:00 – 5:00 pm  With Ros Christy	 Creative Review Monday, 4:00 – 5:00 pm  In Review call Routes & asset approvals - Concept routes recap (10m) - Route A walkthrou...	 Series status weekly Tuesday, 3:00 – 4:00 pm  In Marketing
--	---	---	---

Unread mentions

 **Nicol Evreux**
You: Can you send me back the invoice for that trip? **3**

 **Event planning review**
You: I'll add that. So, Karl Zero , did you receive the final sc... **9**

 **Jos**
You: hi! **1**

Upcoming reminders

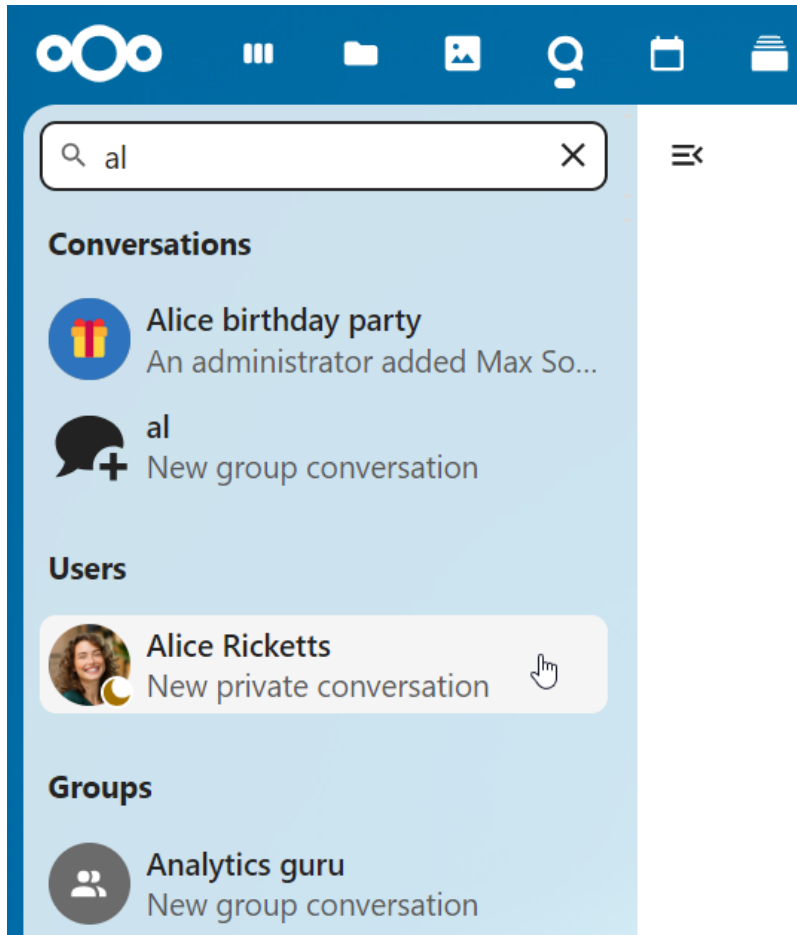
 **Christine in Annual Virtual Conference**
- Design and test virtual booths for exhibitors Ros Christy in 15h

 **Christine in Volunteer coordination**
Hey there! Here is the Global Free Speech Report 2024. htt... in 5d

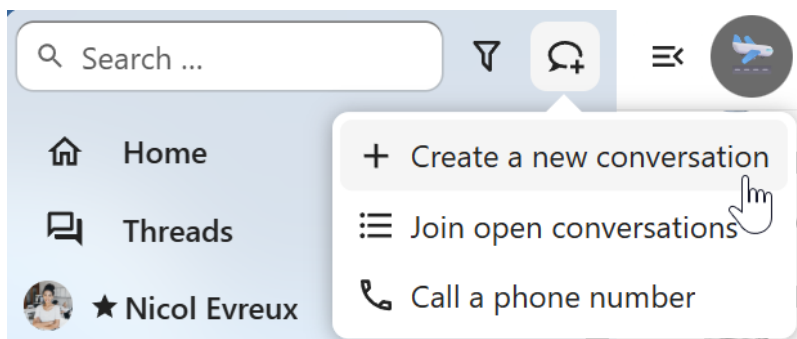
 **Jos in Marketing**
Exactly. How about we schedule a short brainstorming ses... in 5d

5.1.3 Creating a chat

You can create a private (one-to-one) chat by searching for the name of a user, a group or a team and clicking it. For a single user, a conversation is immediately created and you can start your chat. For a group or circle you get to pick a name and settings before you create the conversation and add the participants.



If you want to create a custom group conversation, click the button next to the search field and filters button and then on `Create a new conversation`.



You can then pick a name for the conversation, put a description, and set up an avatar for it (with uploaded photo or emoji), and select if the conversation should be open to external users and if other users on the server can see and join the conversation.

Create a new group conversation ×

Name

Company

Description

Enter a description for this conversation

Picture





The file must be a PNG or JPG

Cancel

Conversation visibility

☐

 Allow guests to join via link

☐

 Password protect

☒

 Open conversation to registered users, showing it in search results

Create conversation

Add participants

In the second step, you get to add participants and finalize the creation of the conversation.

Create a new group conversation

Search participants

al

Alice Ricketts

Add users

Alice Ricketts

alice.ricketts@nextcloud.com

Add groups

Analytics guru

Talk fans

talk

Search for more users

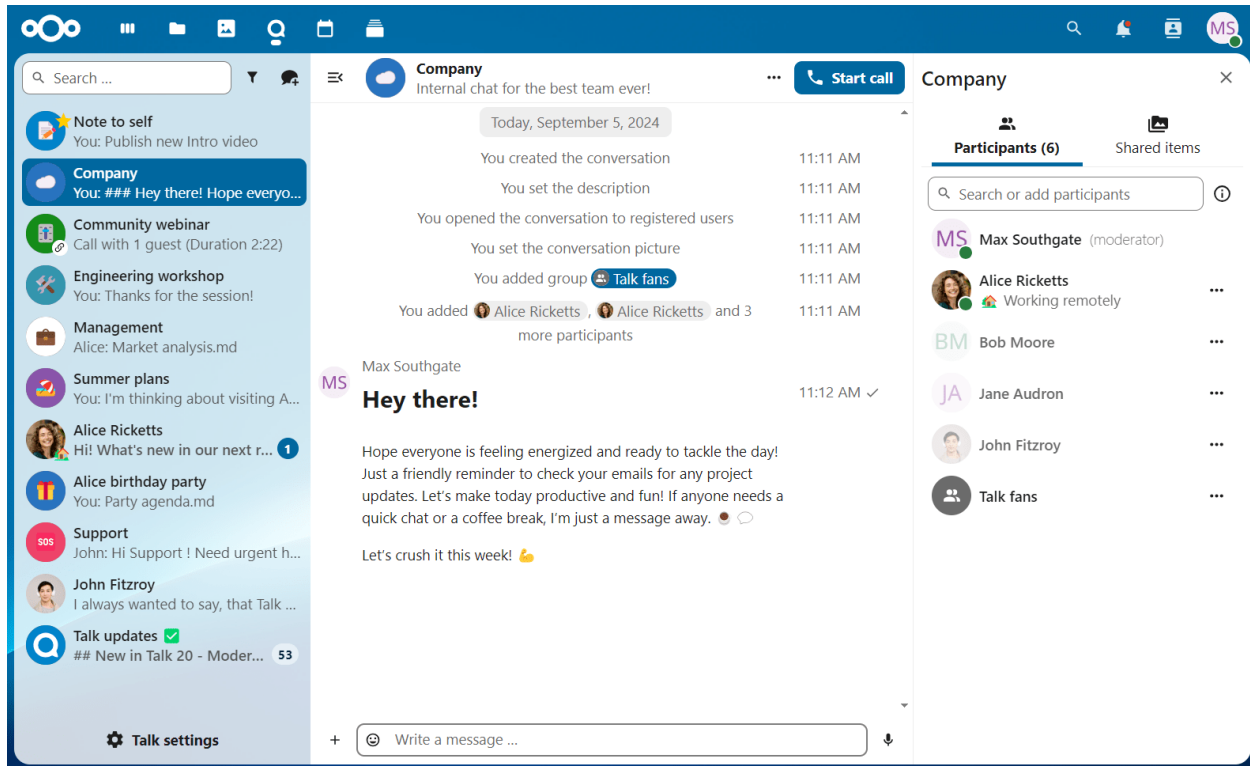
Back

Create conversation

After confirmation you will be redirected to the new conversation and can start communicating right away.

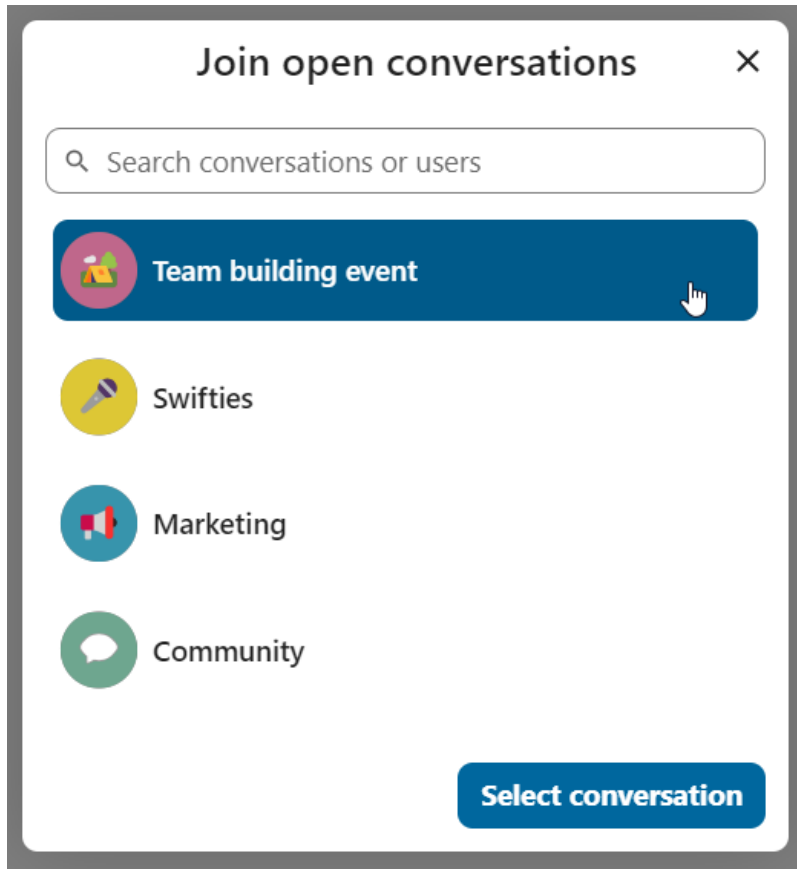
5.1. Basics of Nextcloud Talk

153



5.1.4 View all open conversations

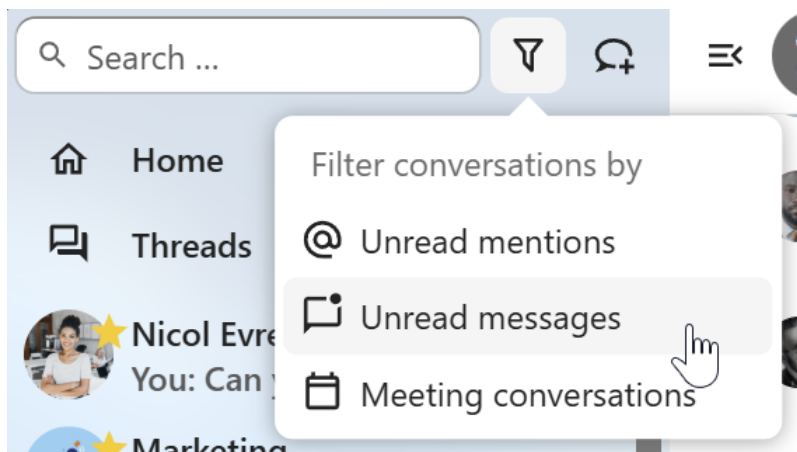
You can view all the conversations that you can join by clicking the button next to the search field, then clicking **Join open conversations**.



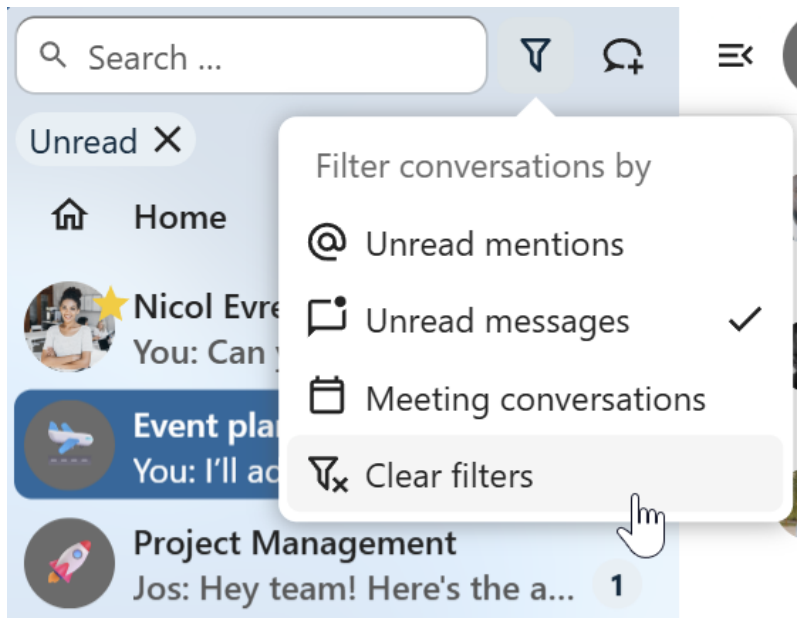
5.1.5 Filter your conversations

You can filter your conversations using the filter button next to the search field. There are several options for filtering:

1. **Unread mentions:** view unread private conversations, or group conversations, where you have been mentioned.
2. **Unread messages:** view unread messages in all conversations you are a part of.
2. **Event conversations:** view all conversations, created for upcoming or past events.

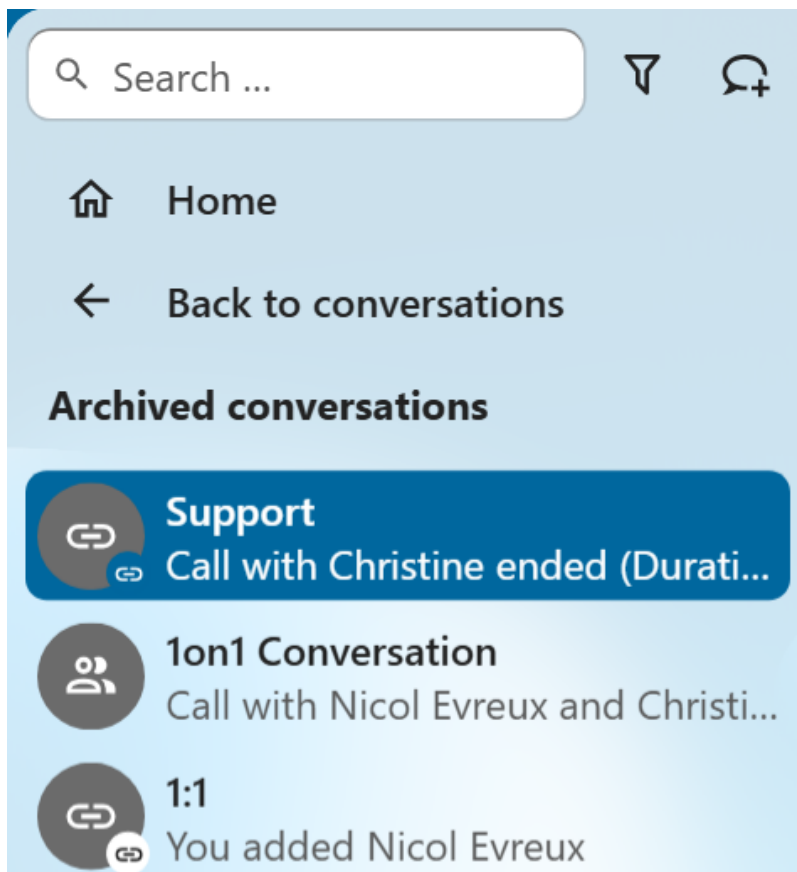


You can then clear the filter from the filters menu.

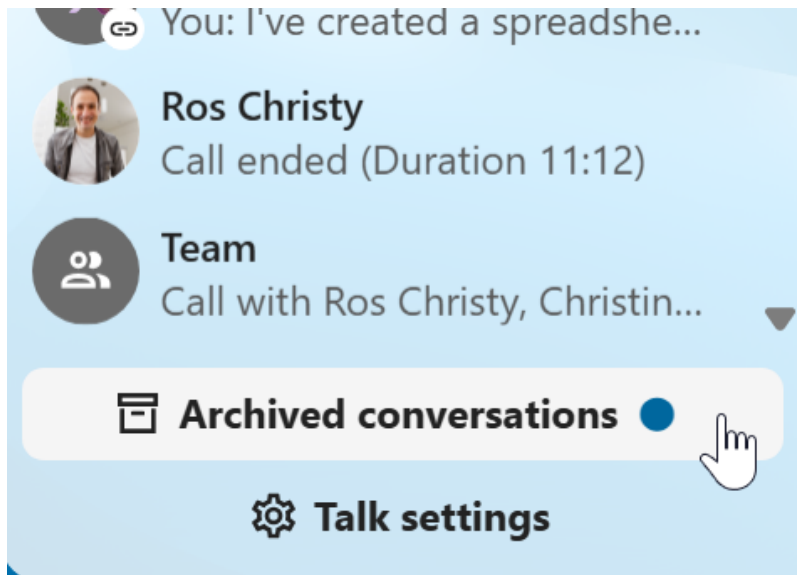


5.1.6 Archive conversations

You can archive conversations that you no longer need to see in your main conversation list. When a conversation is archived, it will be moved to the **Archived conversations** section. An archived conversation will not appear in your main conversation list, but it will still align with notification level set in its settings.



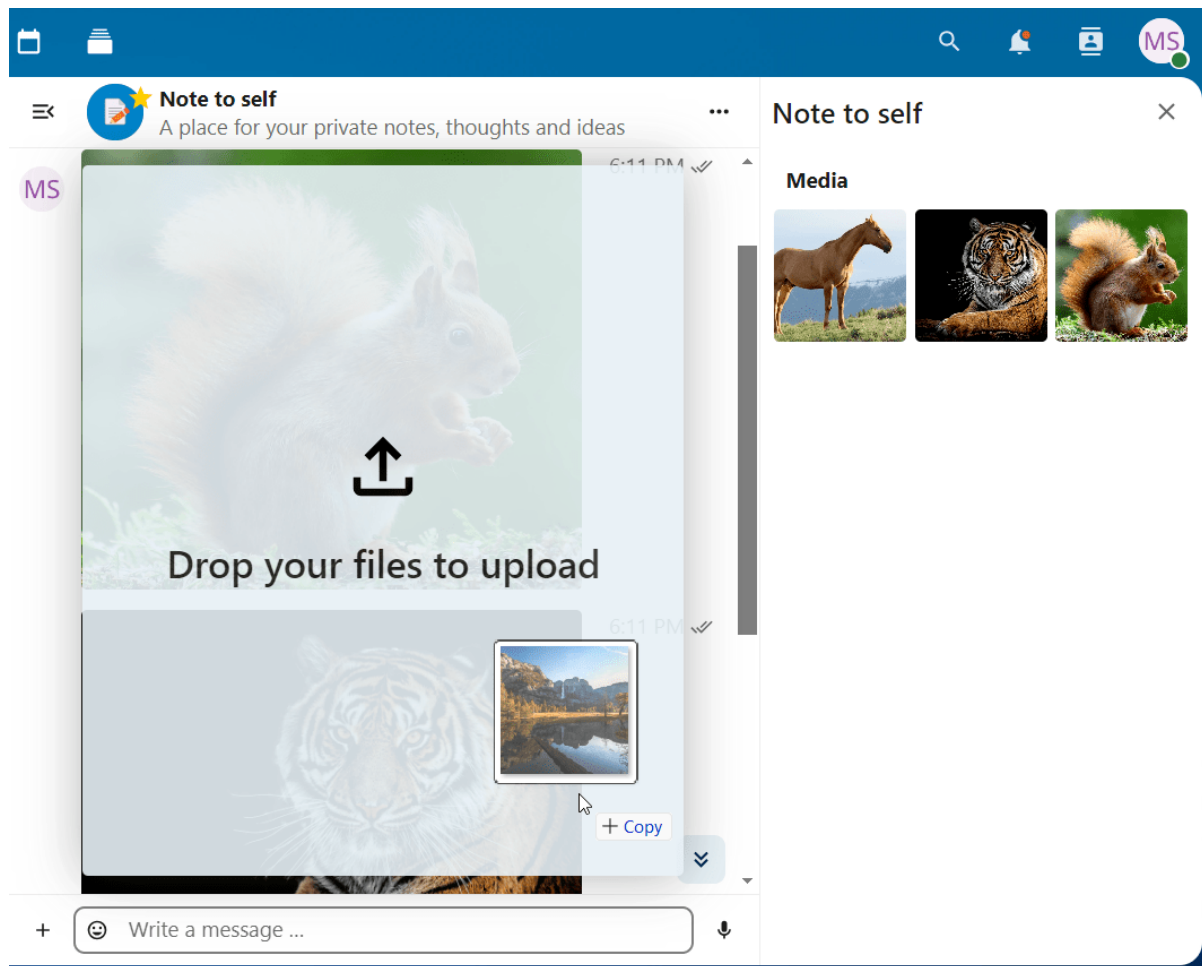
The list is accessible from the button at the bottom of the navigation bar.



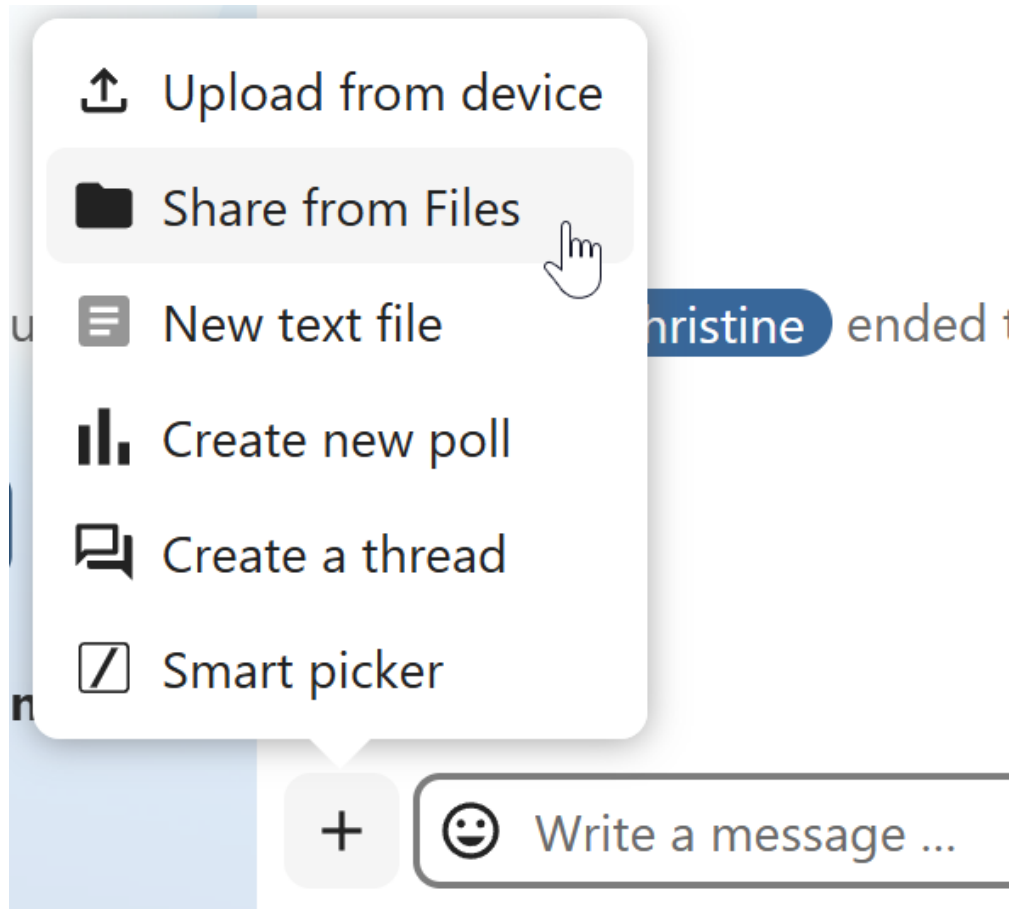
5.1.7 Sharing files in a chat

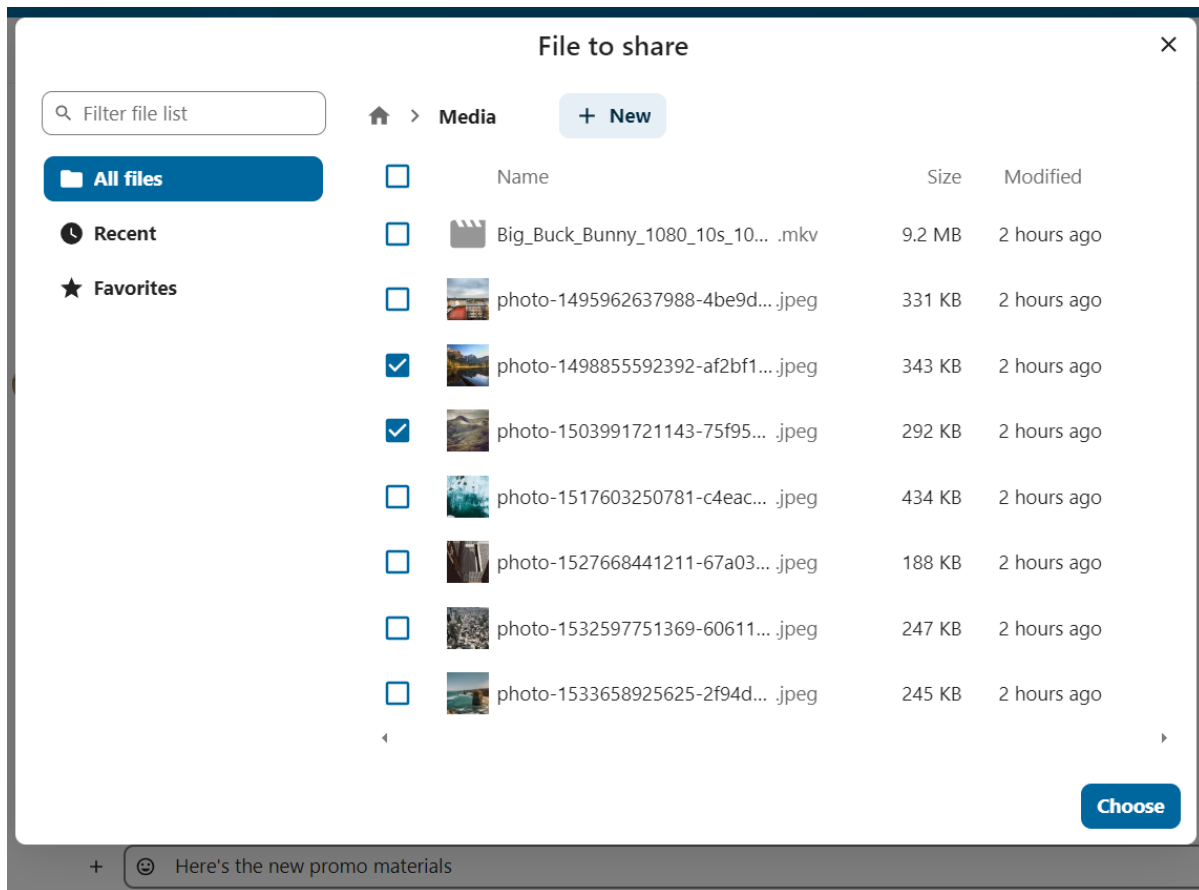
You can share files in a chat in 3 ways.

First, you can simply drag'n'drop them on the chat.

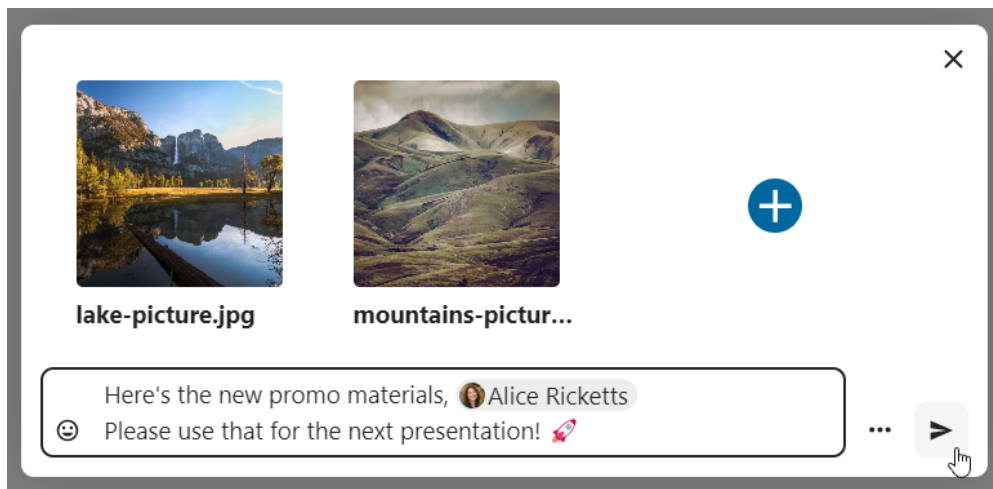


Second, you can select a file from your Nextcloud Files or a file manager by choosing the little paperclip and selecting where you'd like to pick the file from.





You can add more files until you are done and decide to share the files. You can also add a text caption to your shared files, providing a brief description or context.



All users will be able to click the files to view, edit or download them, irrespective of them having a user account. Users with an account will have the file automatically shared with them while external guest users will get them shared as a public link.

The screenshot displays a Nextcloud Talk meeting interface. The main window shows a document titled "Meeting notes.md" with the following content:

Meeting notes

- 01 September 2024, via Nextcloud Talk <https://nextcloud.local/call/pyk7b7dk>
- Max Southgate, Alice Ricketts, John Fitzroy ...

Agenda

- Marketing strategies and Tactics
- Budget Allocation and Timeline
- Action Items and Next Steps

Recap from the last meeting

- Target audience and Market Analysis - Alice Ricketts to present

Discussion

- Bob Moore - estimate costs and expected return
- Alice Ricketts - select the most suitable strategies
- Arrange next meeting

On the right, a "Management" sidebar shows the list of participants (5):

- Max Southgate (moderator)
- Alice Ricketts (Away)
- Bob Moore
- Jane Audron
- John Fitzroy

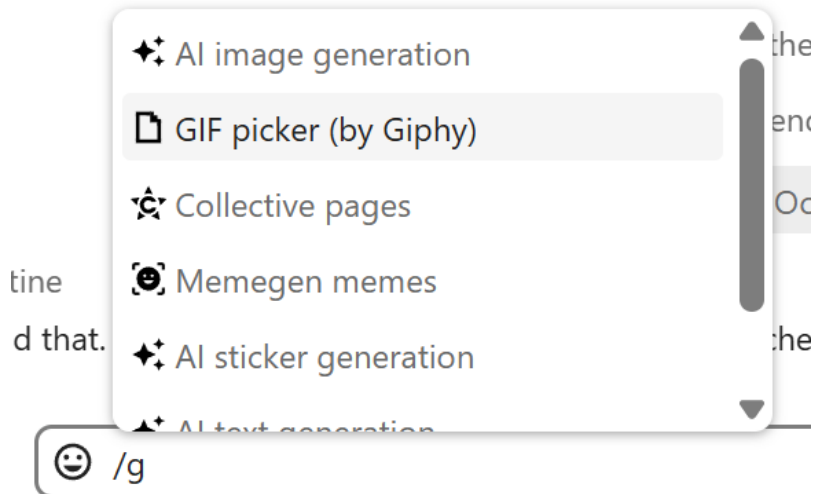
5.1.8 Inserting emoji

You can add emoji using the picker on the left of the text input field.

The screenshot shows the emoji picker interface. At the top, there are icons for various categories: clock, smiley, person, animal, food, travel, objects, nature, and flags. Below these is a search bar with the text "pin". The search results display a grid of various emojis, including a pineapple which is highlighted by a mouse cursor. To the right of the picker, a text input field contains the text "I'm thinking about visiting Açores". Above the input field, the text "You added" is visible, and below it, the text "er? I'm so excited! 🍌" is partially visible. At the bottom, the text "you believe it's almos" is partially visible.

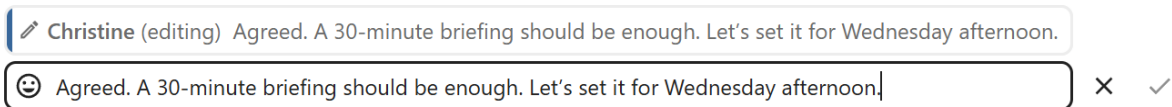
5.1.9 Smart Picker

Smart picker shortcut makes it easier to insert links, files, or other content into your conversations. Just choose the type of content you want to insert (files, Talk conversations, Deck cards, GIFs, etc.) You can also type / in the chat input to open the selector.



5.1.10 Editing messages

You can edit messages and captions to file shares up to 6 hours after sending.



5.1.11 Using Markdown

You can enhance your messages with a markdown syntax support. See list for usage:

Headings and dividers

```
# Heading 1
## Heading 2
### Heading 3
#### Heading 4
##### Heading 5
##### Heading 6

Heading
===
Normal text
***
Normal text
```

Inline decorations

```
**bold text** __bold text__
*italicized text* _italicized text_
```

(continues on next page)

(continued from previous page)

```
`inline code` ``inline code``
...
.code-block {
  display: pre;
}
...
```

Lists

```
1. Ordered list
2. Ordered list

* Unordered list
- Unordered list
+ Unordered list
```

Quotes

```
> blockquote
second line of blockquote
```

Task lists

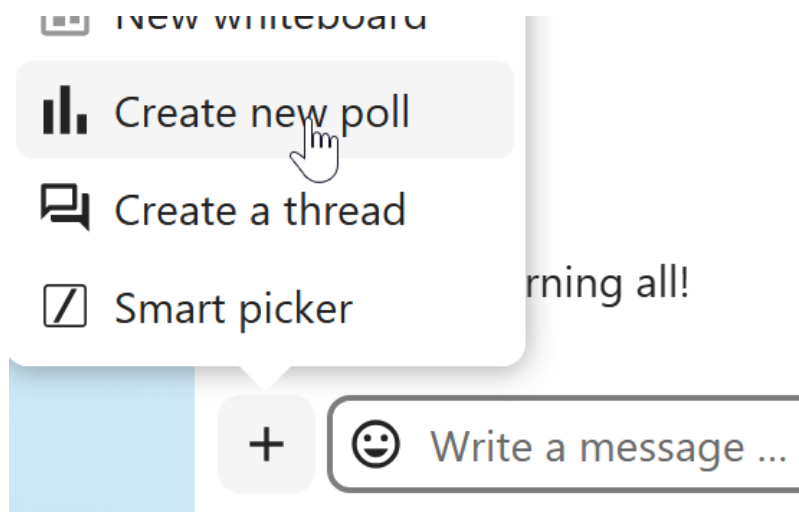
```
- [ ] task to be done
- [x] completed task
```

Tables

```
Column A | Column B
-- | --
Data A | Data B
```

5.1.12 Polls in chat

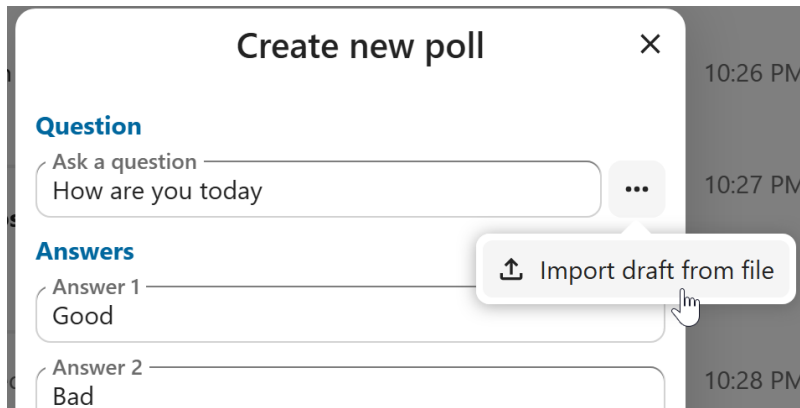
You can create a poll in groups chats from the new message additional actions.



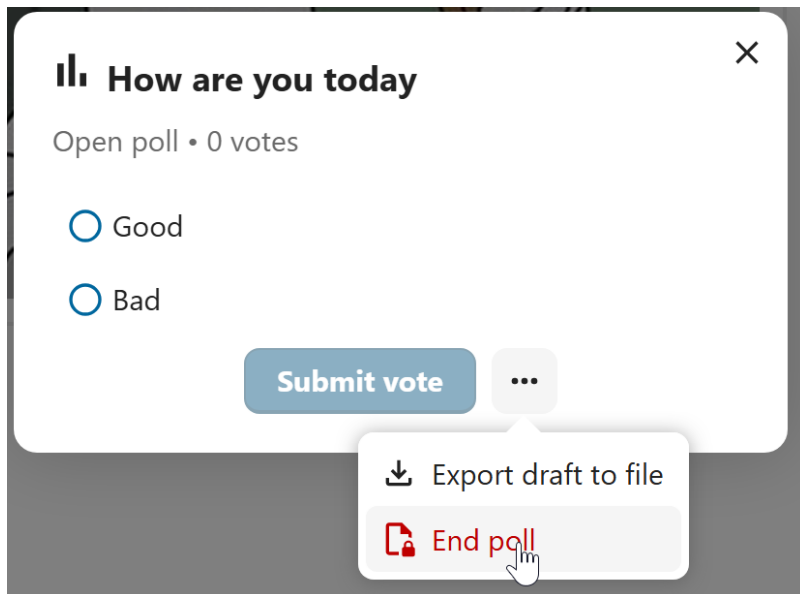
A poll has two settings:

- **Anonymous polls:** Participants cannot see who voted for which option.
- **Allow multiple choices:** Participants can select more than one option.

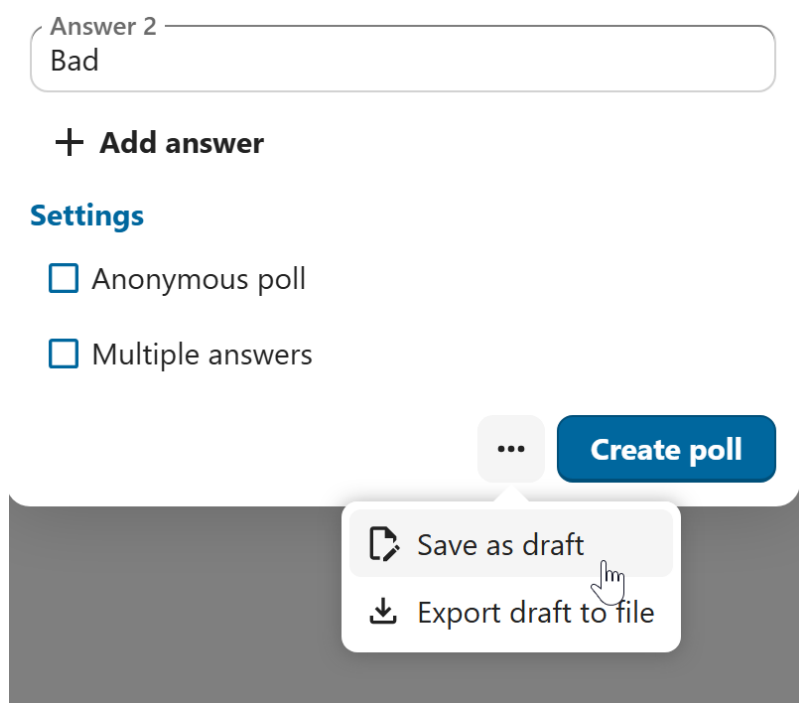
You can also import polls for auto-fill and export polls as JSON files to save it locally.



Closing poll is possible from the poll dialog.



As a moderator, you can create the poll directly or you can save it as a draft to edit it later.



Answer 2
Bad

+ Add answer

Settings

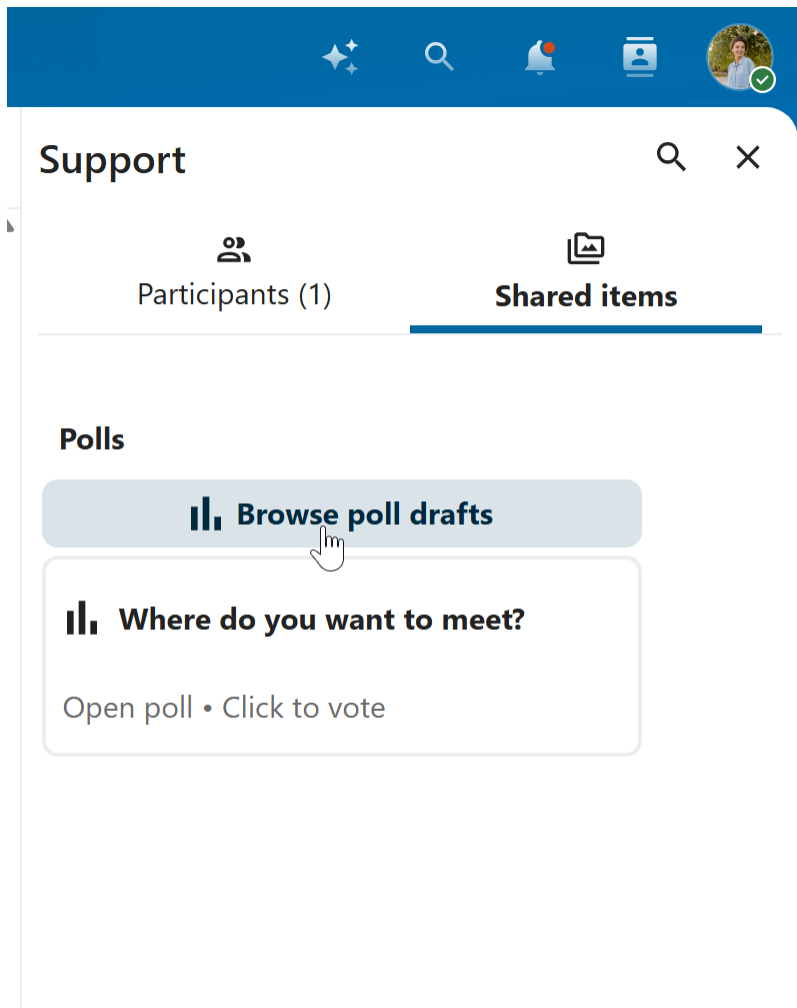
☐ Anonymous poll

☐ Multiple answers

... **Create poll**

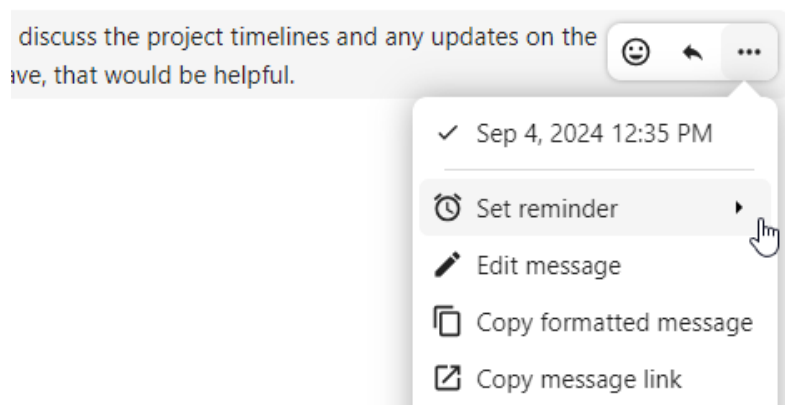
- Save as draft
- Export draft to file

You can find poll drafts in `Shared items` tab or next to the poll title input field.



5.1.13 Setting reminder on messages

You can set reminders on specific messages. If there's an important message you want to be notified about later, simply hover over it and click on the reminder icon.



In the submenu, you can select an appropriate time to receive a notification later.

discuss the project timelines and any updates on the
ive, that would be helpful.

←

Back

Later today – 6:00 PM

Tomorrow – Thu 8:00 AM

This weekend – Sat 8:00 AM

Next week – Mon 8:00 AM

Please choose a date

📅

04/09/2024 14:00

📅

✓

Set custom reminder

5.1.14 Replying to messages and more

You can reply to a message using the arrow that appears when you hover a message.



Alice Ricketts

Good morning, team! Just a reminder that the deadline for the project is approaching. Let's make sure we're on track!

😊

↩

⋮

12:42 P

Reply

Market analysis.md

In the ... menu you can also choose to reply privately. This will open a one-to-one chat.

5.1. Basics of Nextcloud Talk

167



Alice Ricketts

Good morning, team! Just a reminder that the deadline for the project is approaching.
Let's make sure we're on track!

12:41 PM

The screenshot shows a chat window with a message from Alice Ricketts. The message content is a document titled "Market analysis.md" which contains text about a program history and a list of participants. A context menu is open over the message, showing options: "Sep 4, 2024 12:42 PM", "Set reminder", "Reply privately" (highlighted with a hand cursor), "Edit message", "Copy message link", and "Mark as unread".

Here you can also create a direct link to the message or mark it unread so you will scroll back there next time you enter the chat. When it is a file, you can view the file in Files.

5.1.15 Silent messages

If you don't want to disturb anyone in the middle of the night, there is a silent mode for chatting. While it is enabled, other participants will not receive notifications from your messages.



Max Southgate (edited)

Alice Ricketts
Hey there! Can you believe it's almost summer? I'm so excited! 🍉 Have you st...
I'm thinking about visiting Açores 🍌 Shall we book a trip together? 📅

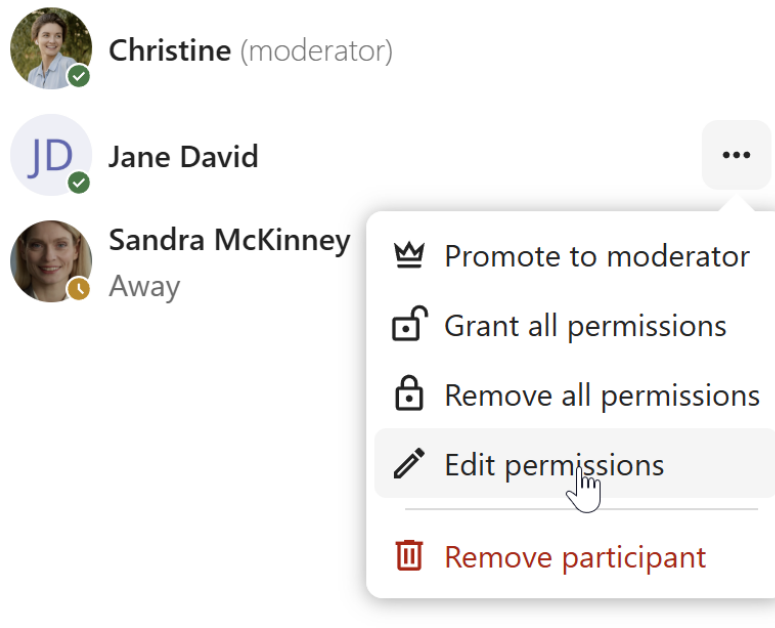
12:29 PM ✓

The screenshot shows a chat window with a message from Max Southgate. The message content is a text message about summer and a trip to Açores. A context menu is open over the message, showing options: "Send without notification", "Participants will not be notified about new messages" (checked with a checkmark and a hand cursor), and a "Send" button.

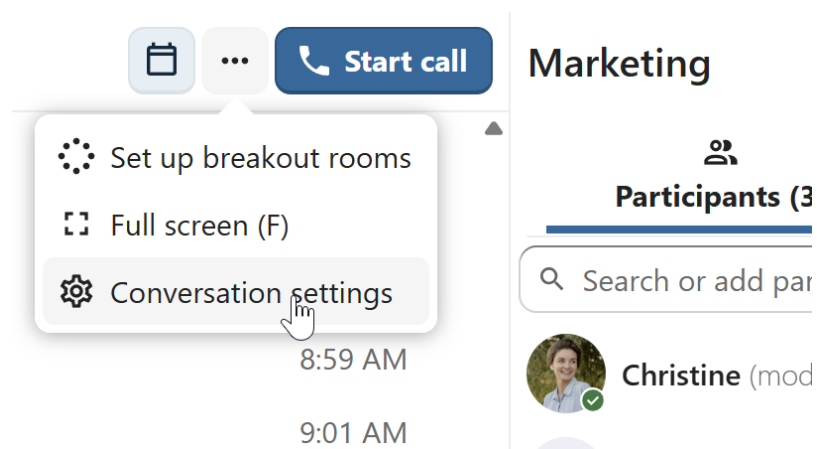
5.1.16 Managing a conversation

You are always moderator in your new conversation. In the participant list you can promote other participants to moderators using the `...` menu to the right of their user name, assign them custom permissions or remove them from the conversation.

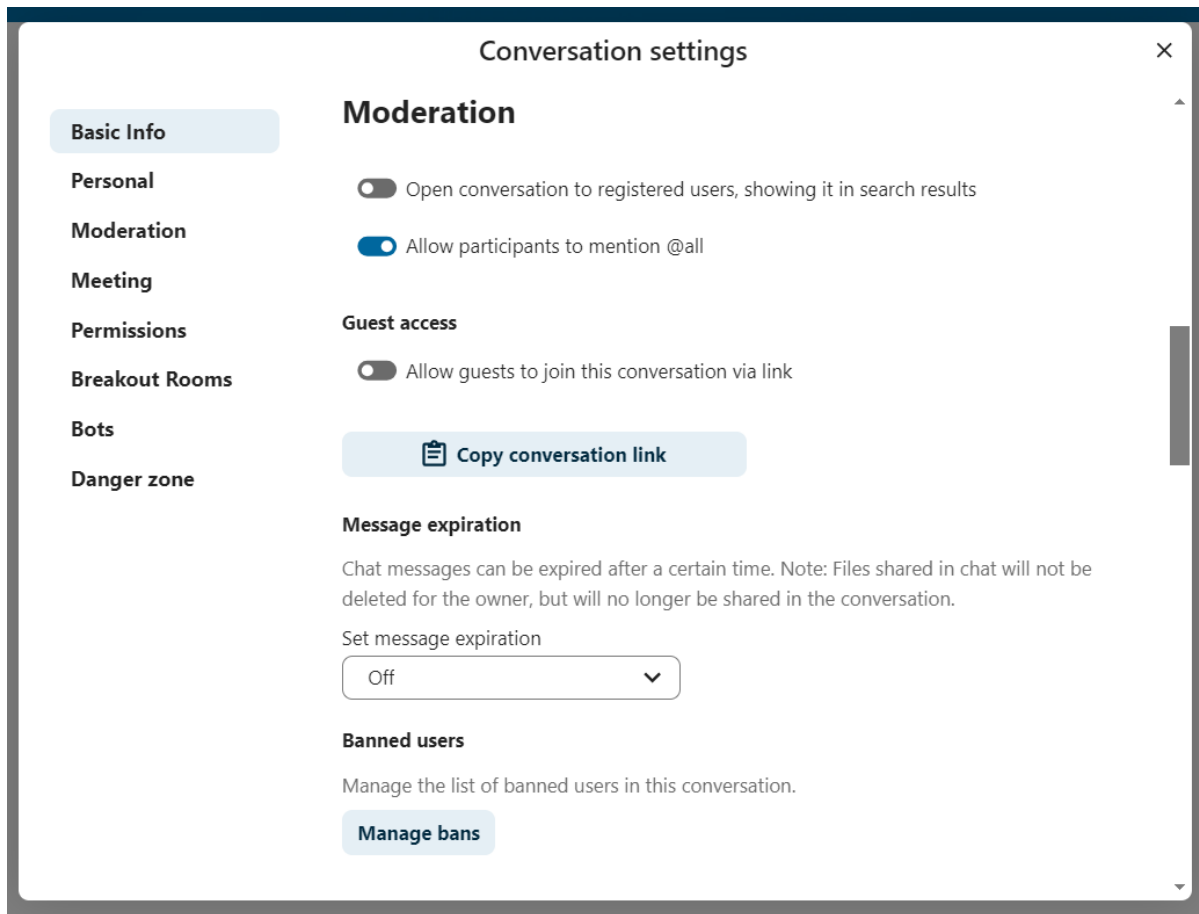
Changing permissions of a user that joined a public conversation will also permanently add them to the conversation.



Moderators can configure the conversation. Select `Conversation settings` from the `...` menu of the conversation on the top to access the settings.



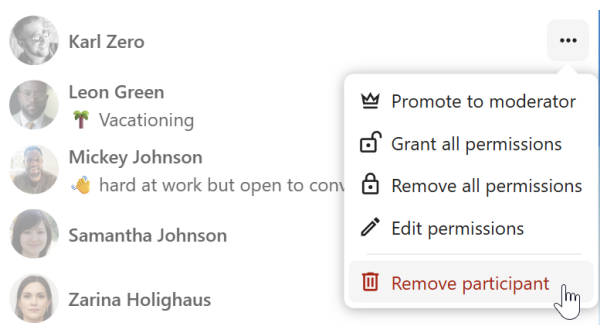
Here you can configure the description, guest access, if the conversation is visible to others on the server and more.



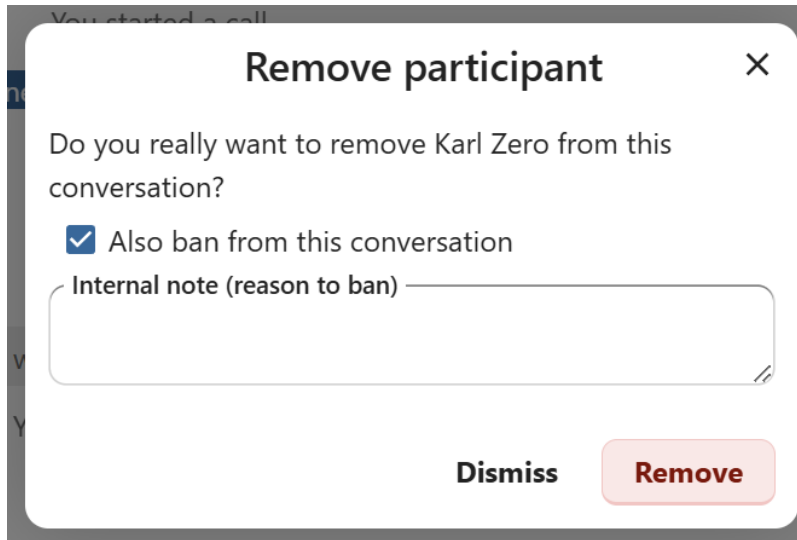
5.1.17 Ban participants

To help keep discussions safe and under control, moderators can ban participants from conversations. It could be internal users or guests (in this case their IP-addresses will additionally be banned).

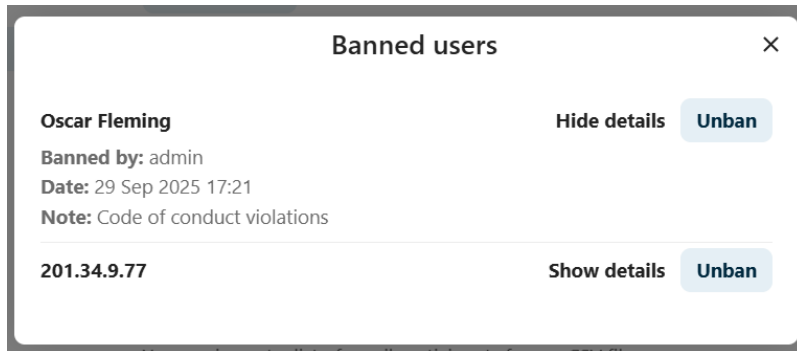
In the participants list, select the user or guest you, and click `Remove participant`.



There, toggle checkbox `Also ban from this conversation` and provide a reason for the ban. The banned user will be removed and prevented from rejoining.



You can later find the list of banned users in the `Moderation` section of conversation settings. Here, you can see the reason for the ban and revert it if needed.



5.1.18 Messages expiration

A moderator can configure message expiration under the `Conversation settings` within the `Moderation` section. Once a message reaches its expiration time, it is automatically removed from the conversation. The available expiration durations are 1 hour, 8 hours, 1 day, 1 week, 4 weeks, or never (which is the default setting).

Message expiration

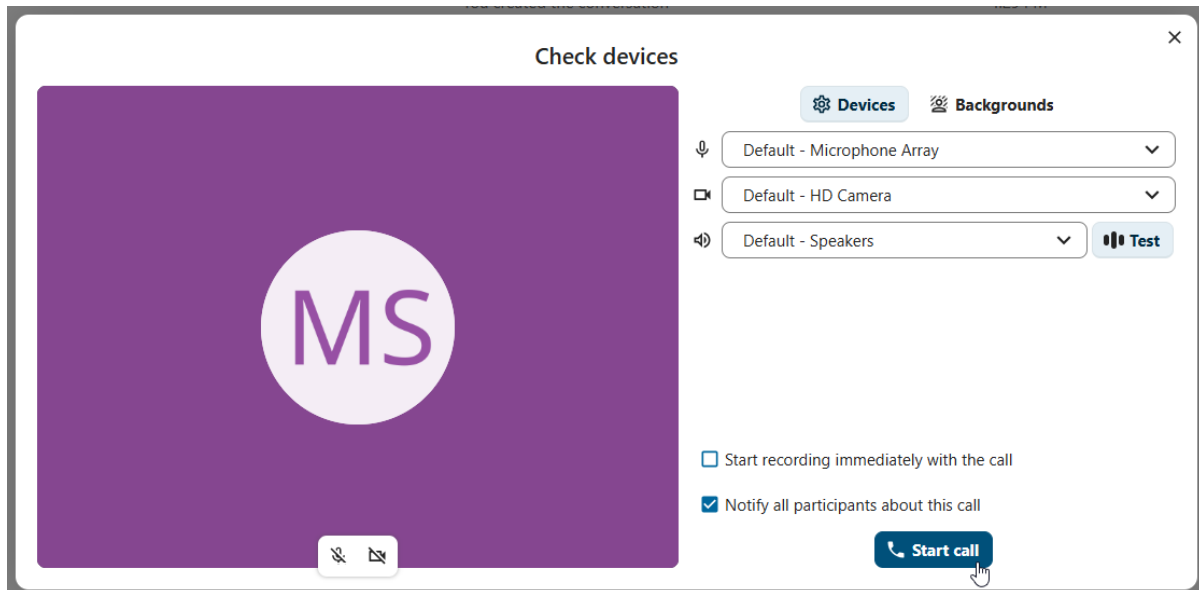
Chat messages can be expired after a certain time. Note: Files shared in chat will not be deleted for the owner, but will no longer be shared in the conversation.

Set message expiration

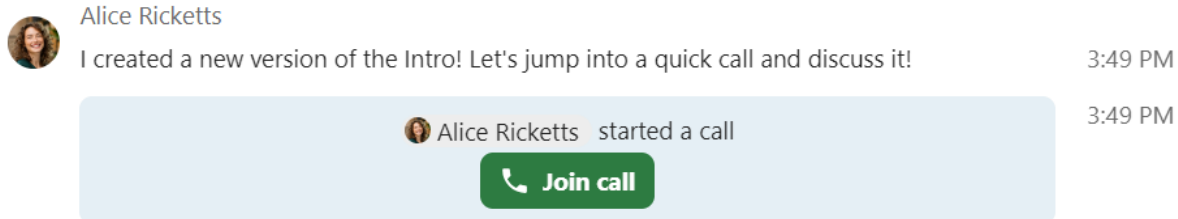
8 hours ▼

5.1.19 Starting a call

When you're in a conversation, you can start a call any time with the `Start call` button. Other participants will get notified and can join the call.



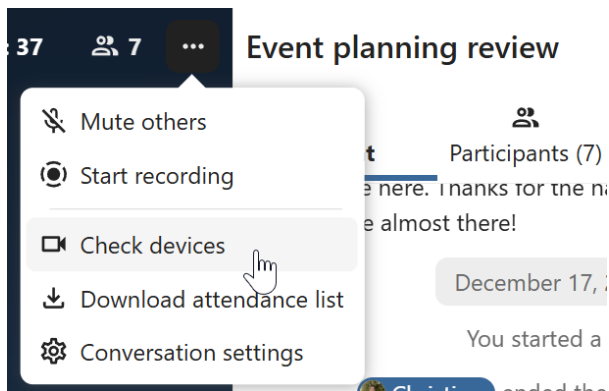
If somebody else has started a call already, the button will change in a green **Join call** button.



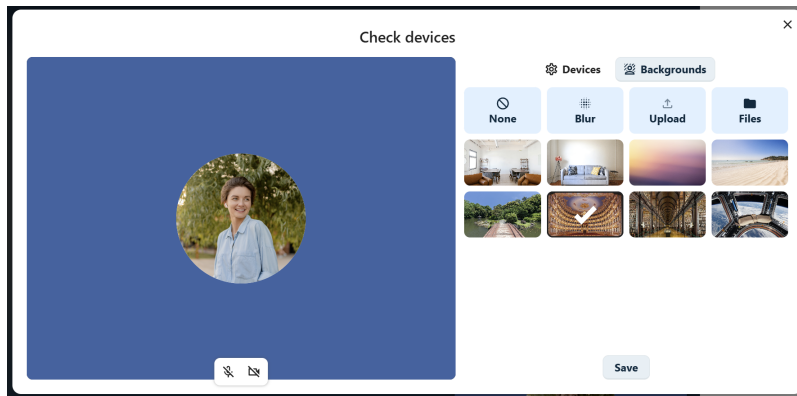
During a call, you can mute your microphone and disable your video with the buttons on the right side of the top bar, or using the shortcuts **M** to mute audio and **V** to disable video. You can also use the space bar to toggle mute. When you are muted, pressing space will unmute you so you can speak until you let go of the space bar. If you are unmuted, pressing space will mute you until you let go.

You can hide your video (useful during a screen share) with the little arrow just above the video stream. Bring it back with the little arrow again.

You can access your settings and choose a different webcam, microphone and other settings in the **...** menu in the top bar.



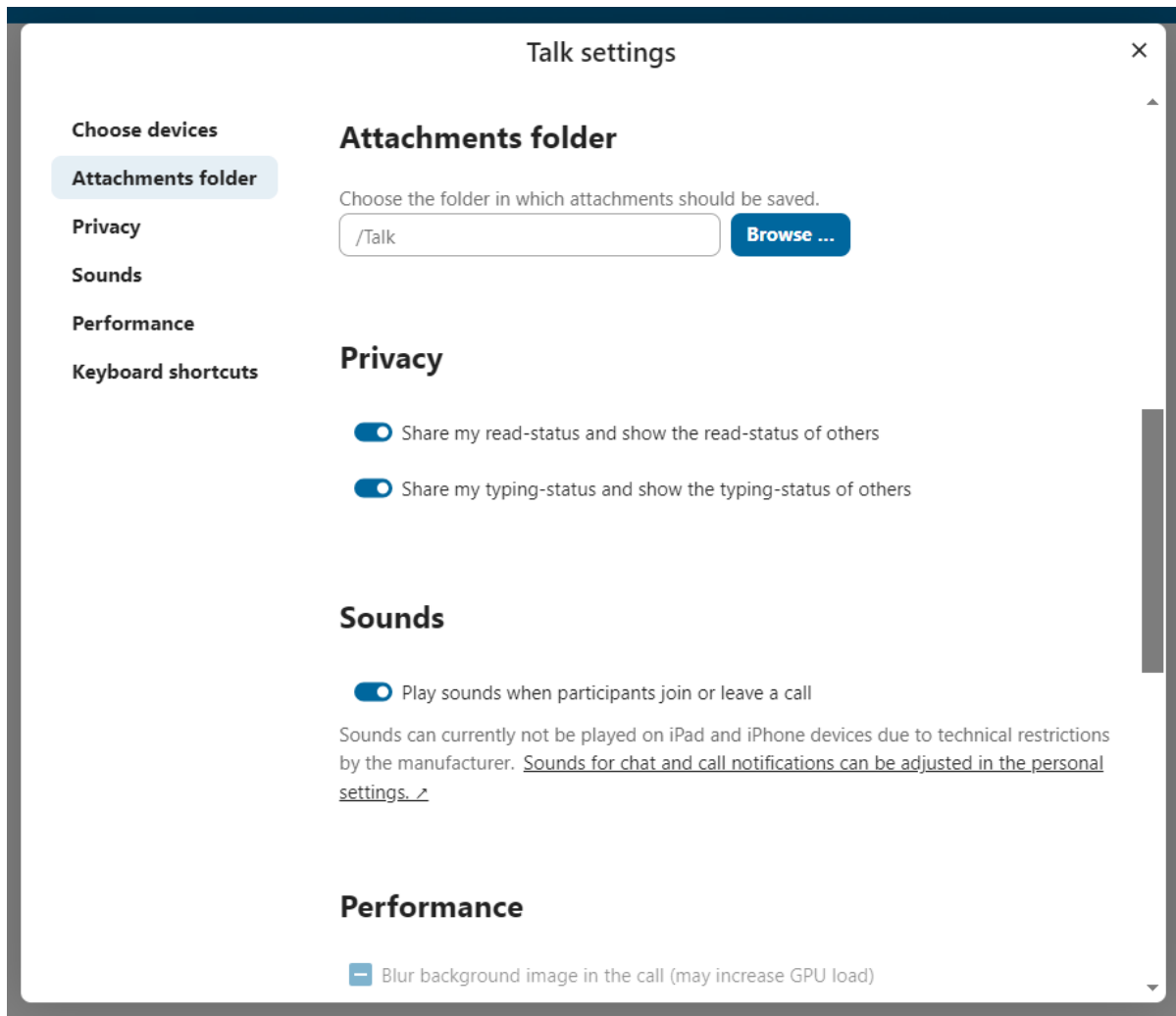
From media settings dialog, you can also change the background of your video.



All these settings are also available as direct actions in the bottom bar.



You can change other settings in the `Talk settings` dialog.



5.1.20 Starting a screen share

You can click the monitor icon on your video stream to share your screen. Depending on your browser, you will get the option to share a monitor, an application window or a single browser tab. If video from your camera is also available, other participants will see it in a small presenter view next to the screen share.



You can zoom in and out of the shared screen with mouse wheel, double click or touchpad gestures.

5.1.21 Changing view in a call

You can switch the view in a call in the bottom bar between promoted view and grid view.



The grid view will show as many people as the screen can fit, allowing navigation with buttons on the left and right.

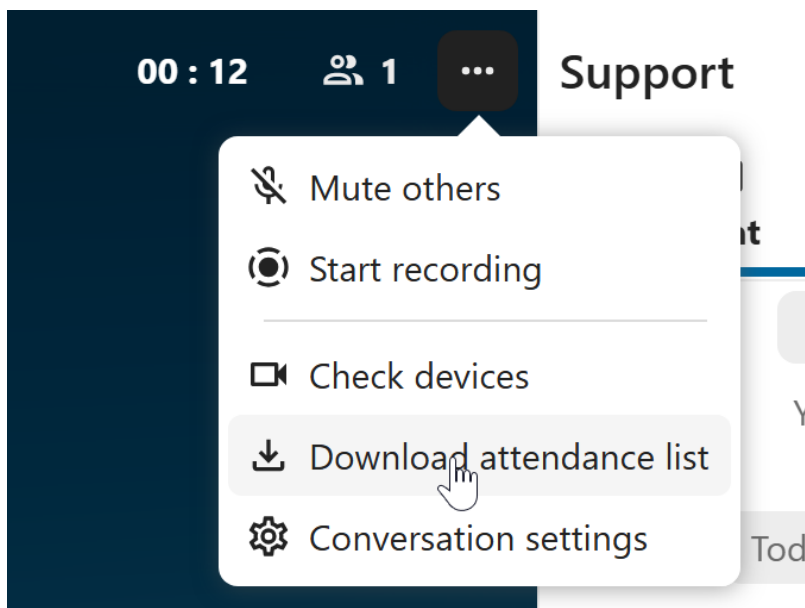


The promoted view shows the speaker large and others in a row below. If the people do not fit on the screen, buttons will appear on the left and right that let you navigate.



5.1.22 Download call participants list

You can download the list of participants in a call from the ... menu in the top bar. This will download a CSV file with the names and email addresses of all participants in the call.

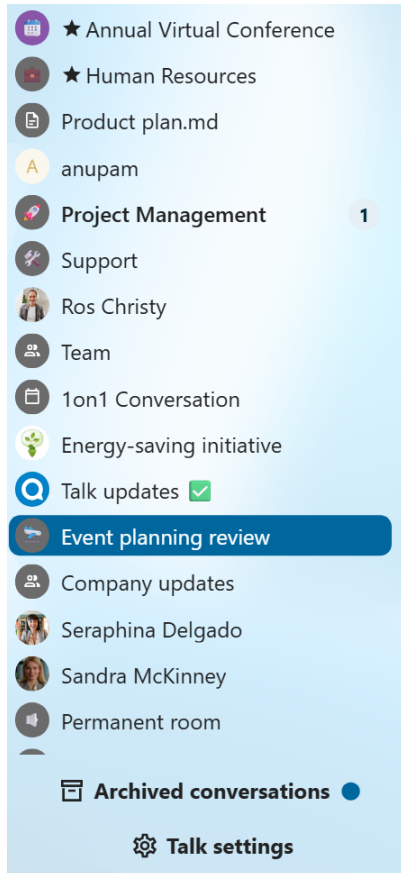


The table in the CSV file contains the following columns:

- **Name:** The name of the participant.
- **Email:** The email address of the participant.
- **Type:** Indicates whether the participant is a registered user or a guest.
- **Identifier:** Unique identifier for the participant.

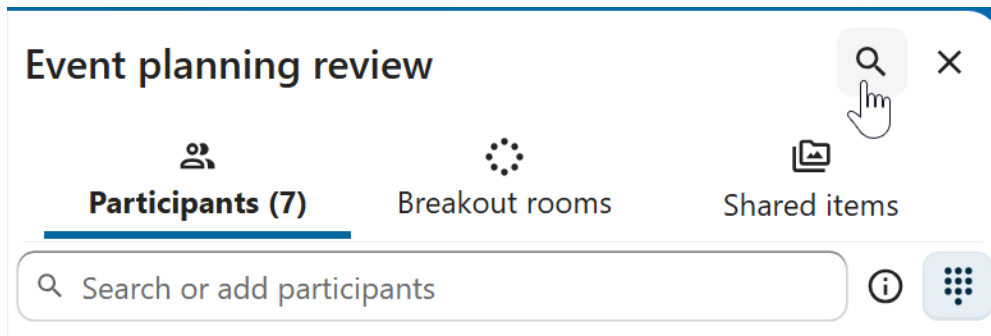
5.1.23 Compact view of conversations list

Compact view allows to hide last message preview in the conversation list, providing a more focused interface. You can enable it from the `Talk settings` dialog in `Appearance` section.

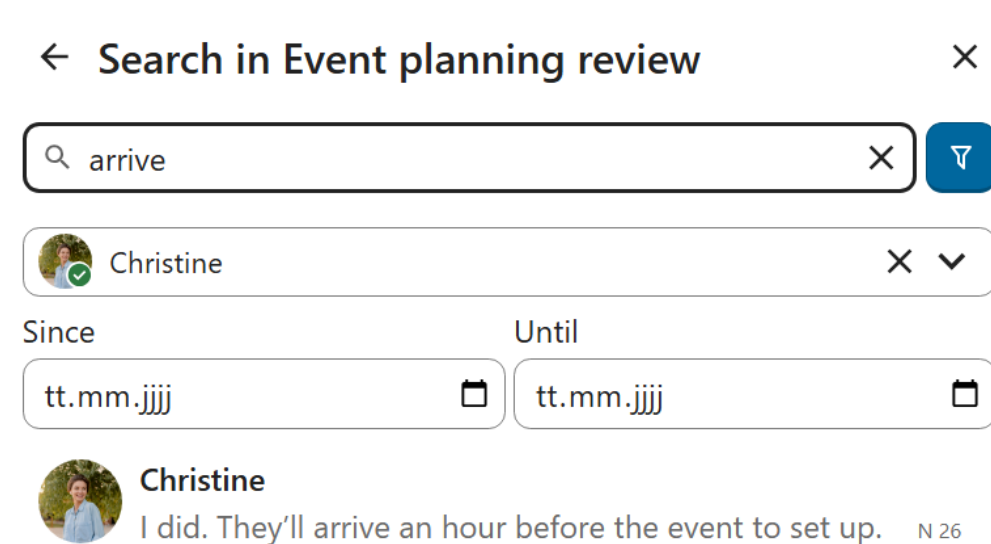


5.1.24 Messages search in a conversation

In addition to global unified search, you can search for messages within a specific conversation. In the content sidebar of a conversation, click the search icon to open the search tab.

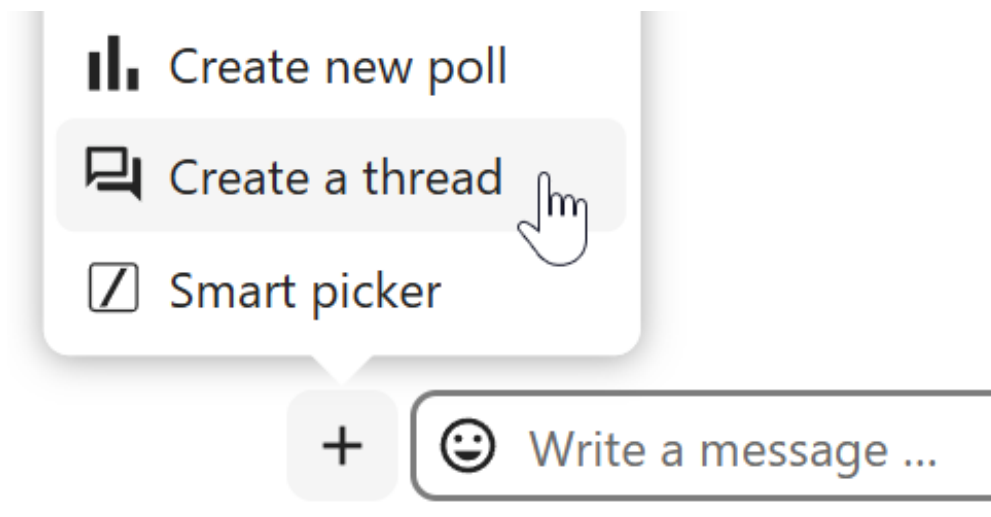


You can narrow down your search by using filters such as date range, and sender.

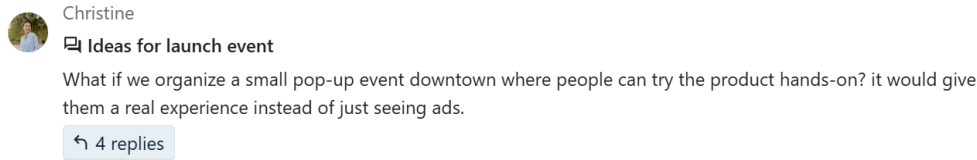


5.1.25 Threaded messages

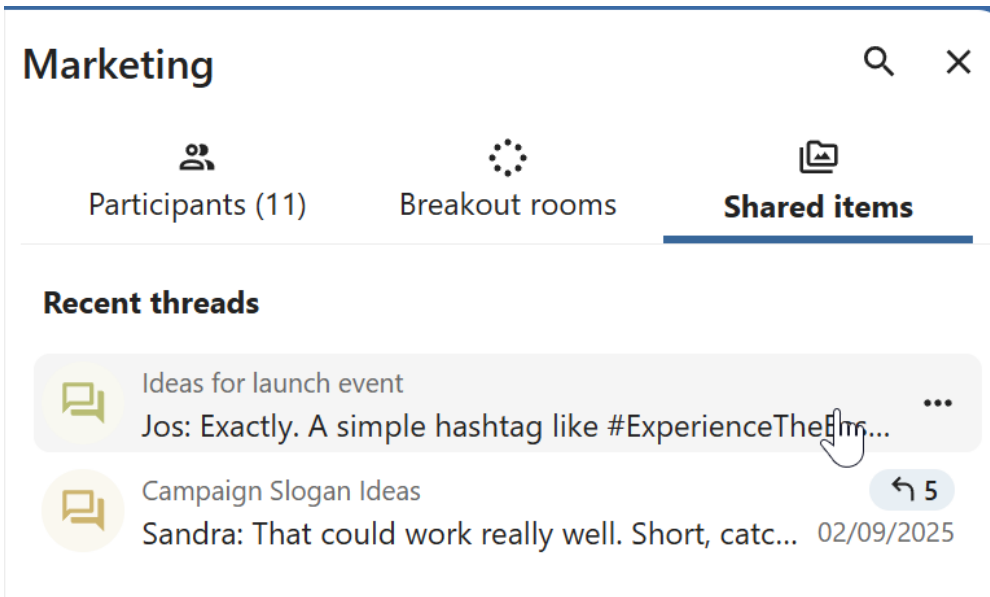
You can create threads in conversations to keep discussions organized. The thread creation option is available in the new message additional actions.



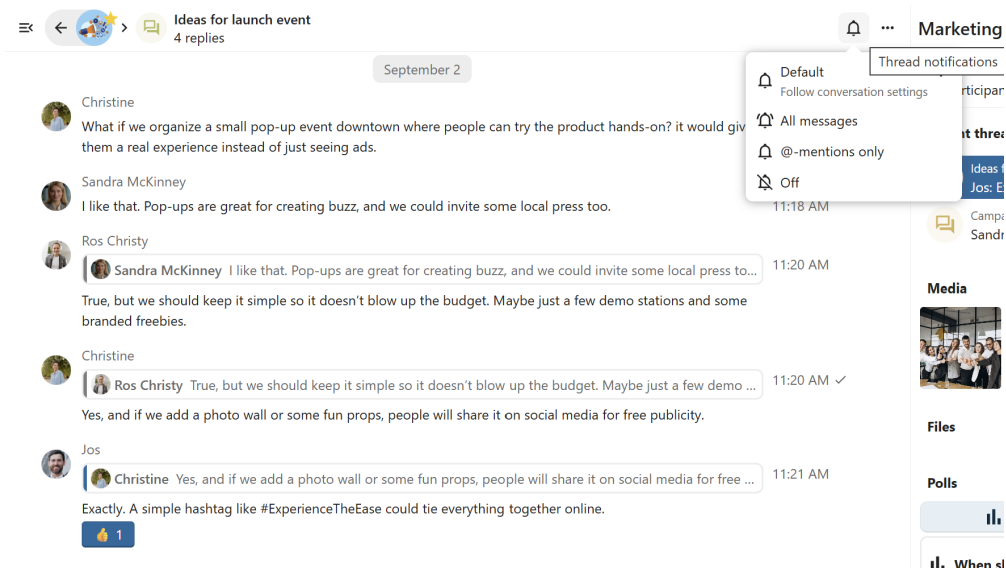
Then, you can add a title and description for the thread and start the discussion.



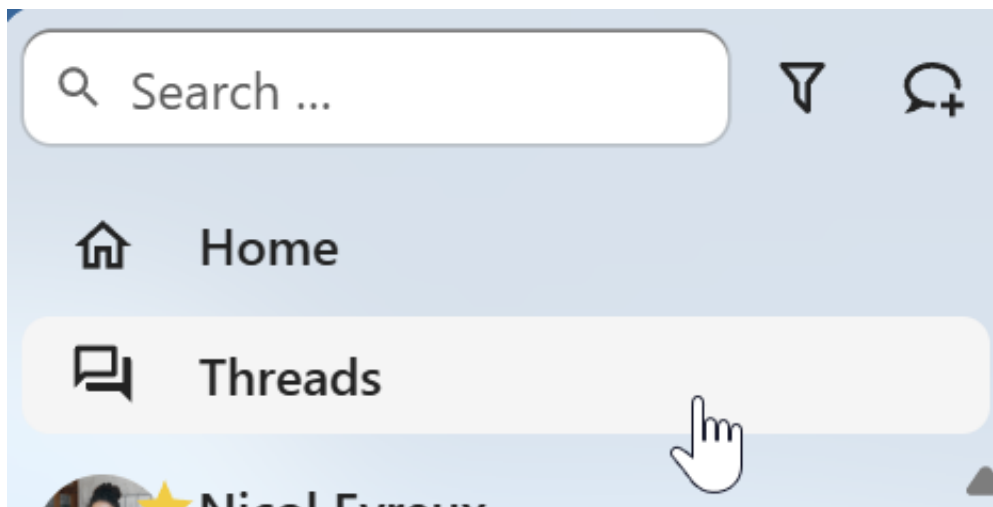
You can view all replies in a thread either from the replies button on the message or from `Shared items` tab in the content sidebar.



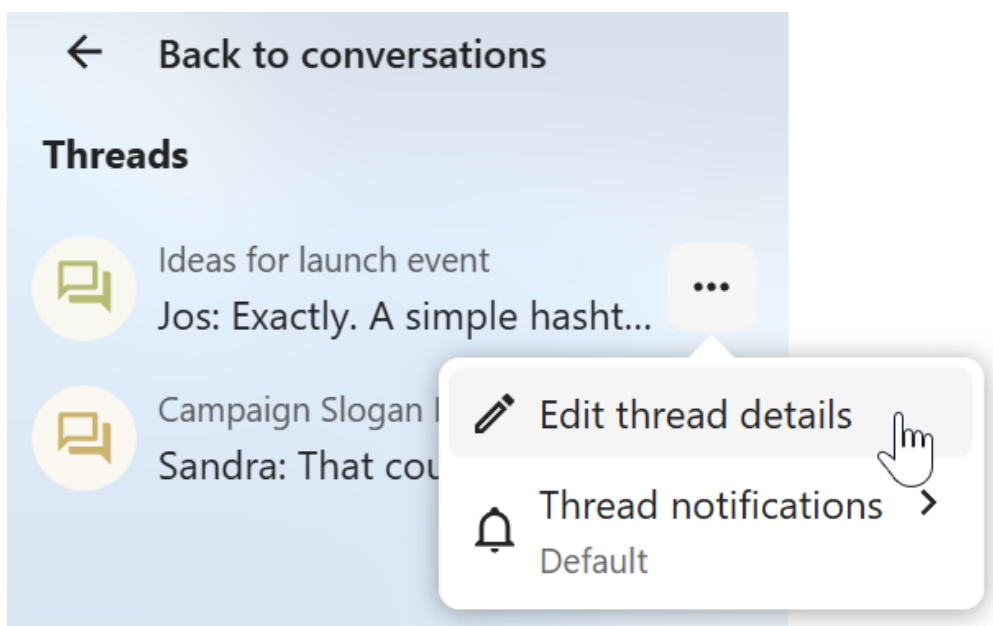
You can subscribe to a thread to receive notifications about new replies. It is possible to subscribe from the thread itself or from the sidebar.



Subscribed threads are easily accessible from the navigation bar in `Threads` navigation.



Editing thread title is possible from the thread itself or from the sidebars.



5.2 Advanced Talk features

Nextcloud Talk has a number of advanced features users might find useful.

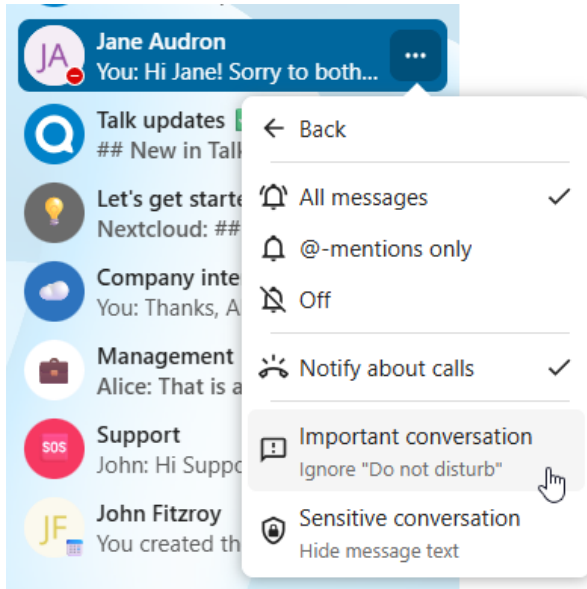
5.2.1 Notifications and privacy

By default, Nextcloud Talk will notify you about:

- New messages in private conversations;
- Replies to messages you sent;
- Messages mentioning you or group/team you are member of;
- Started calls in conversations you are part of.

You can change this behavior in the conversation settings. Additionally, you can configure:

- **Important conversations:** you will be always notified about new messages, even if you are in “Do Not Disturb” mode;
- **Sensitive conversations:** content of messages will not be shown in the conversation list and obscured from notifications.



To have more control over your privacy, you can also configure the visibility of your typing and read indicators in Talk settings:

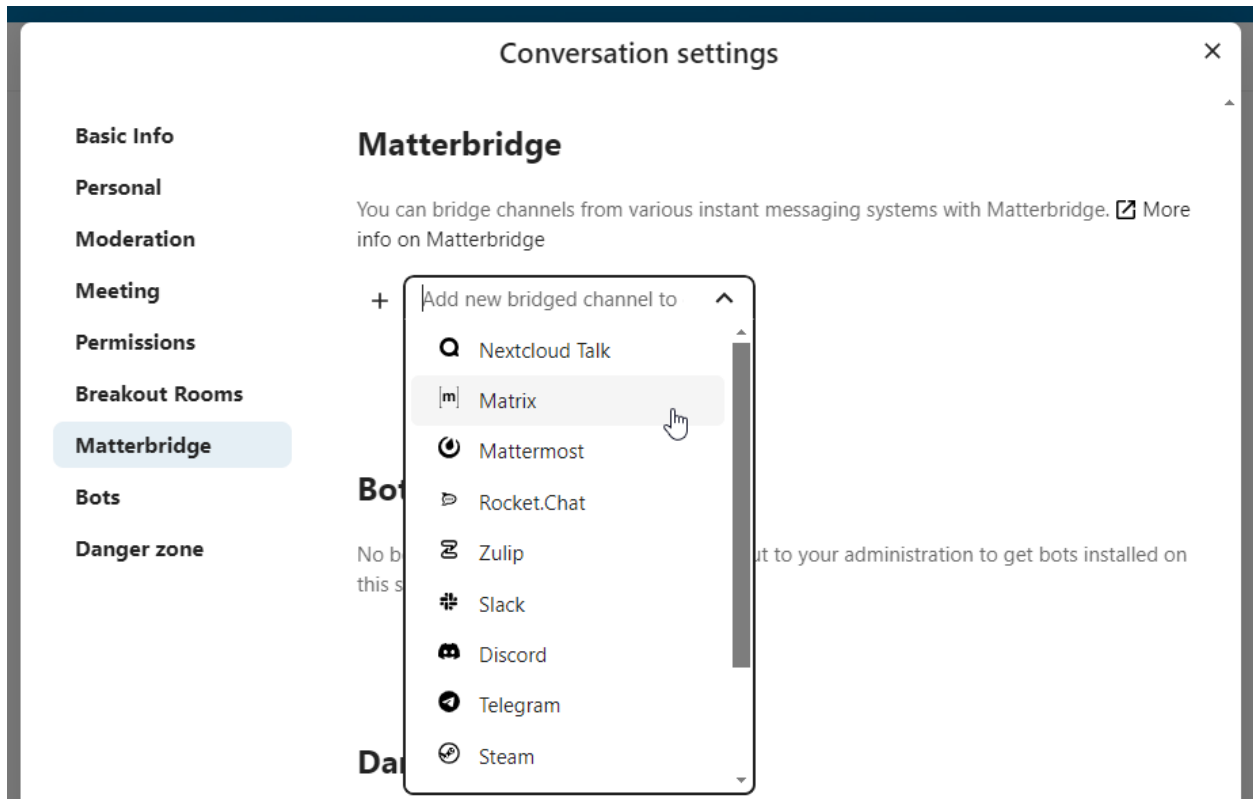
Privacy

- ☐ Share my read-status and show the read-status of others
- ☒ Share my typing-status and show the typing-status of others

5.2.2 Matterbridge

Matterbridge integration in Nextcloud Talk makes it possible to create ‘bridges’ between Talk conversations and conversations on other chat services like MS Teams, Discord, Matrix and others. You can find a list of supported protocols [on the Matterbridge github page](#).

A moderator can add a Matterbridge connection in the chat conversation settings.



Each of the bridges has its own need in terms of configuration. Information for most is available on the Matterbridge wiki and can be accessed behind more information menu in the ... menu. You can also [access the wiki directly](#).

5.2.3 Lobby

The lobby feature allows you to show guests a waiting screen until the call starts. This is ideal for webinars with external participants, for example.



Product launch webinar

You are currently waiting in the lobby

🌟 Welcome to the exclusive product launch webinar! 🌟

Be the first to discover our latest innovation! In this exciting live session, we'll unveil a brand-new product designed to take your [industry/task] to the next level. Get an inside look at the features, see it in action, and hear directly from the team behind the launch.

What to Expect:

- ⚡ Live product demo
- ⚡ Key insights from our product team
- ⚡ Real-world use cases
- ⚡ Q&A session with the experts

Whether you're a long-time customer or just curious about what's next, this is your chance to stay ahead of the curve. Be part of the launch!

You can choose to let the participants join the call at a specific time, or when you dismiss the lobby manually.

5.2.4 Commands

Nextcloud allows users to execute actions using commands. A command typically looks like:

```
/wiki airplanes
```

Administrators can configure, enable and disable commands. Users can use the `help` command to find out what commands are available.

```
/help
```

-  talk-bot 3:35 PM
/wiki - A simple command to find wikipedia articles for a term
/hackernews - A simple command to list the Top 5 top, new or best stories
An error occurred while running the command. Please ask an administrator to check the logs.
-  Wikipedia-bot 3:35 PM
Wikipedia search results for "airplain":
* Airplane! - 1980 American satirical comedy film - <https://en.wikipedia.org/wiki/Airplane!> 
* Airplane - Powered, flying vehicle with wings - <https://en.wikipedia.org/wiki/Airplane> 
* Airplane II: The Sequel - 1982 American parody film by Ken Finkleman - https://en.wikipedia.org/wiki/Airplane_II:_The_Sequel 
* Airline seat - Seat of an airliner for passengers - https://en.wikipedia.org/wiki/Airline_seat 
* Airline ticket - Entrance ticket used for air travel - https://en.wikipedia.org/wiki/Airline_ticket 
* and 5 more articles found

Find more information in the [administrative documentation](#) for Talk.

5.2.5 Talk from Files

In the Files app, you can chat about files in the sidebar, and even have a call while editing it. You first have to join the chat.

The screenshot displays the Nextcloud user interface. On the left, a file list is shown with columns for 'Size' and 'Modified'. The list includes several files, some of which are shared. On the right, a chat window for the file 'Meeting notes.md' is open, showing a 'Chat' tab and a 'Discuss this file' section with a 'Join conversation' button.

	Size	Modified
...	0 KB	yesterday
...	696 KB	5 hours ago
...	< 1 KB	8 hours ago
Shared ...	< 1 KB	yesterday
Shared ...	< 1 KB	yesterday
Shared ...	84 KB	yesterday
Shared ...	112 KB	yesterday
Shared ...	94 KB	yesterday
	988 KB	

Meeting notes.md
731 B yesterday

Chat Comments Sharing Versions

Discuss this file

[Join conversation](#)

The screenshot displays the Nextcloud user interface. On the left, a file list shows various documents, including several 'Shared' files. The main area on the right is titled 'Meeting notes.md' and shows a chat window. The chat window has tabs for 'Chat', 'Comments', 'Sharing', and 'Versions'. A 'Start call' button is visible at the top of the chat. The chat history shows a conversation between Alice Ricketts and Max Southgate. Alice Ricketts asks, 'Hi, Max Southgate! Shall we quickly go over these topics for the next meeting?' and Max Southgate responds, 'Sure, let's jump in a call'.

	Size	Modified
...	0 KB	yesterday
...	696 KB	5 hours ago
...	< 1 KB	8 hours ago
Shared ...	< 1 KB	yesterday
Shared ...	< 1 KB	yesterday
Shared ...	84 KB	yesterday
Shared ...	112 KB	yesterday
Shared ...	94 KB	yesterday
	988 KB	

Meeting notes.md
731 B yesterday

Chat | Comments | Sharing | Versions

Start call

Today, September 4, 2024

You created the conversation 8:57 PM

You joined the conversation 8:59 PM

Alice Ricketts

Hi, **Max Southgate**: Shall we quickly go over these topics for the next meeting? 9:01 PM

Alice Ricketts

Hi, Max Southgate! Shall we quickly go o...

+ Sure, let's jump in a call

You can then chat or have a call with other participants, even when you start editing the file.

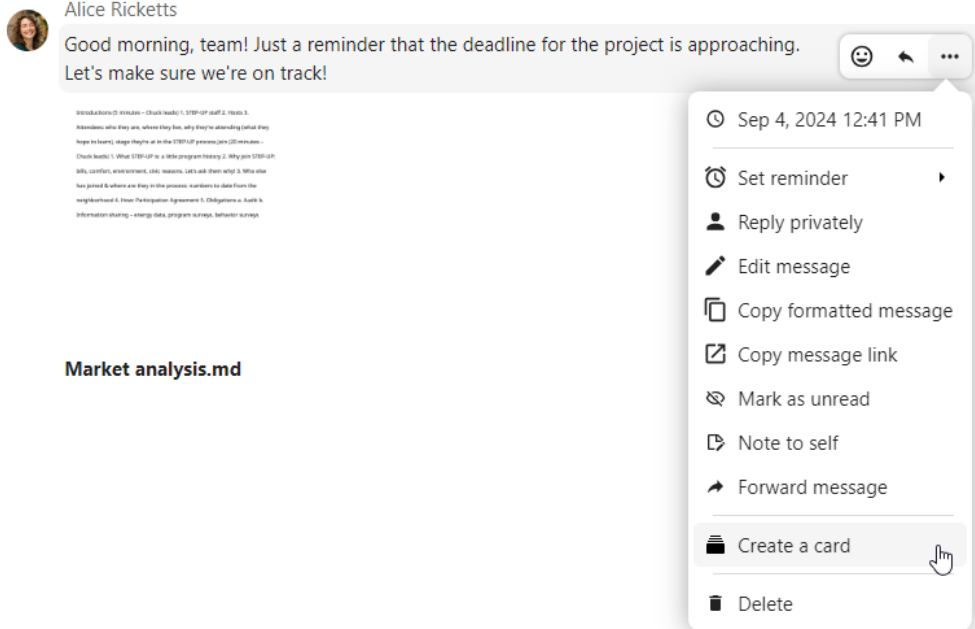
The screenshot displays the Nextcloud web interface. On the left, a file named 'Meeting notes.md' is open in a text editor. The content includes a title 'Meeting notes', a list of participants (Max Southgate, Alice Ricketts, John Fitzroy), an agenda with three items (Marketing strategies and Tactics, Budget Allocation and Timeline, Action Items and Next Steps), a recap from the last meeting, and a discussion section with three items (Bob Moore, Alice Ricketts, Arrange next meeting). On the right, a chat window is open, showing a video call in progress with two participants. The chat history shows messages from Alice Ricketts and Max Southgate, including a message about starting a call.

In Talk, a conversation will be created for the file. You can chat from there, or go back to the file using the `...` menu in the top-right.

The screenshot displays the Nextcloud web interface. On the left, a file named 'Meeting notes.md' is open in a text editor. The content includes a title 'Meeting notes', a list of participants (Max Southgate, Alice Ricketts, John Fitzroy), an agenda with three items (Marketing strategies and Tactics, Budget Allocation and Timeline, Action Items and Next Steps), a recap from the last meeting, and a discussion section with three items (Bob Moore, Alice Ricketts, Arrange next meeting). On the right, a chat window is open, showing a video call in progress with two participants. The chat history shows messages from Alice Ricketts and Max Southgate, including a message about starting a call.

5.2.6 Create tasks from chat or share tasks in chat

If Deck is installed, you can use the `...` menu of a chat message and turn the message into a Deck task.



he

Create a new card

Publish new Intro video

Personal To do

Action needed

Select a user to assign to this card...

05/09/2024 08:00 Mark as done

Description

Good morning, team! Just a reminder that the deadline for the project is approaching. Let's make sure we're on track!

[Message from Alice Ricketts in Management](#)

Cancel Create card

From within Deck, you can share tasks into chat conversations.

Publish new Intro video

Modified: 8 minutes ago · Created: 8 minutes ago

Details Attachments

Action needed

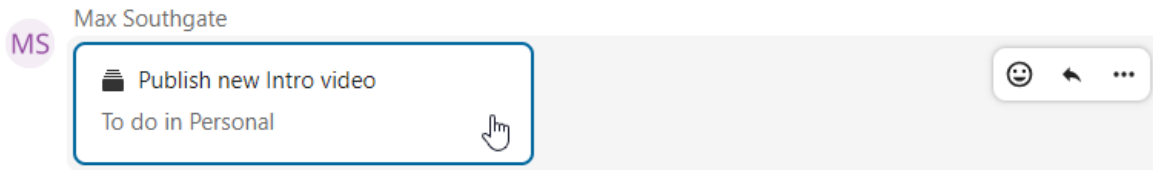
MS Max Southgate

05/09/2024 08:00

Description

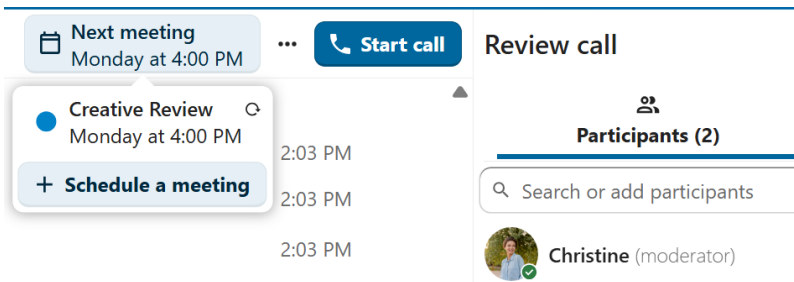
Add notes, lists or links ...

- Open in bigger view
- Unassign myself
- Mark as done
- Move card
- Post to a conversation
- Archive card
- Delete card

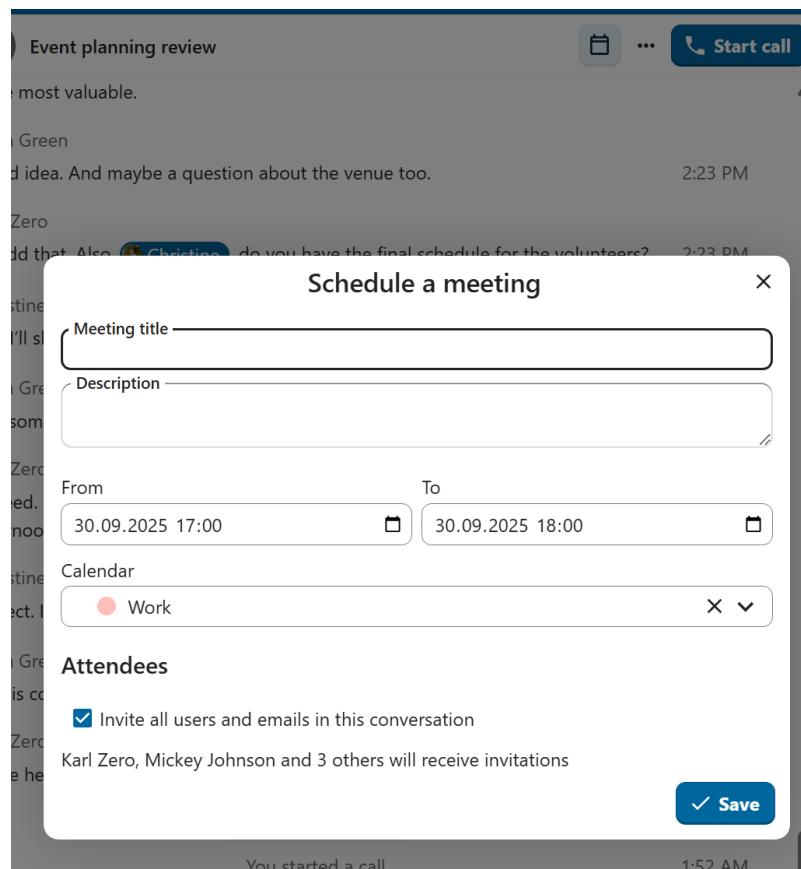


5.2.7 Meetings and events

If calendar events have a Talk conversation set as event location, you will see an information about upcoming events inside of this conversation. That way you can stay informed about scheduled meetings or activities directly within your chat. If Calendar app is enabled, you can click on an event to view details.



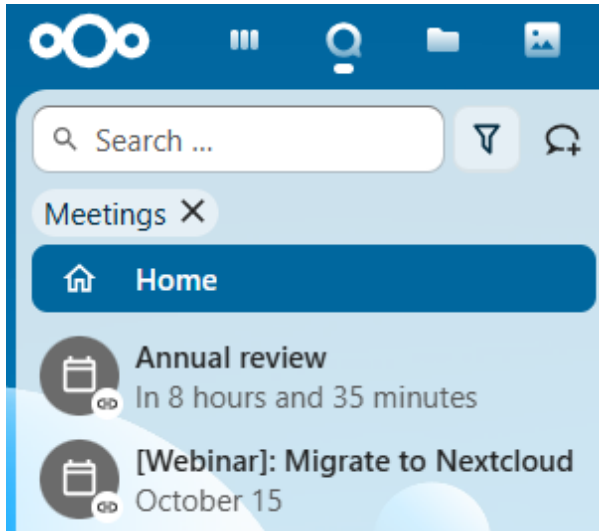
It is possible to schedule a meeting directly from a conversation. In the dialog, you can set meeting details such as title, date, time and description. You can also choose to invite all participants including email guests, or select specific ones.



Schedule from Calendar

When creating a new event in Calendar, you can set a Talk conversation as event location. This will create a new conversation if one does not exist yet.

When the event is created, you will see a link to the conversation in the event details. Conversation will also show up in the list of conversations (discoverable by `Events` filter).



Like instant meetings, event conversations will be automatically deleted after configured period of inactivity (by default 28 days).

5.2.8 Breakout rooms

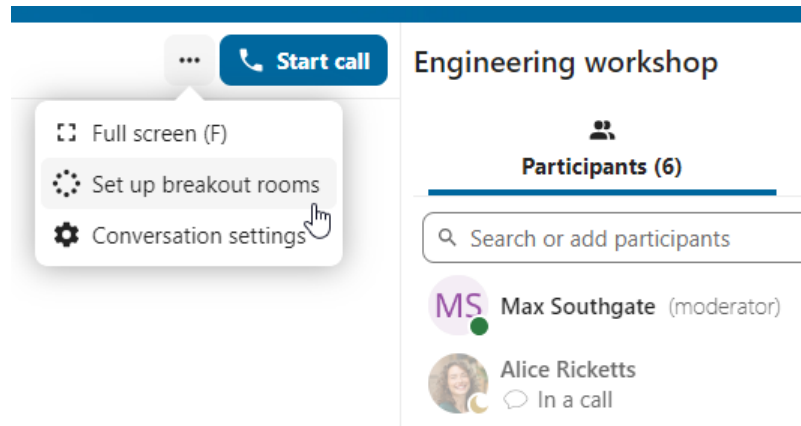
Breakout rooms allow you to divide a Nextcloud Talk call into smaller groups for more focused discussions. The moderator of the call can create multiple breakout rooms and assign participants to each room.

Note

Breakout rooms are currently not available in conversations that are joinable by guests (public conversations).

Configure breakout rooms

To create breakout rooms, you need to be a moderator in a group conversation. Click on the top-bar menu and click on “Setup breakout rooms”.



A dialog will open where you can specify the number of rooms you want to create and the participants assignment method. Here you'll be presented with 3 options:

- **Automatically assign participants:** Talk will automatically assign participants to the rooms.
- **Manually assign participants:** You'll go through a participants editor where you can assign participants to rooms.
- **Allow participants to choose:** Participants will be able to join breakout rooms themselves.

×

Configure breakout rooms

Number of breakout rooms

2

Assignment method

☒ Automatically assign participants

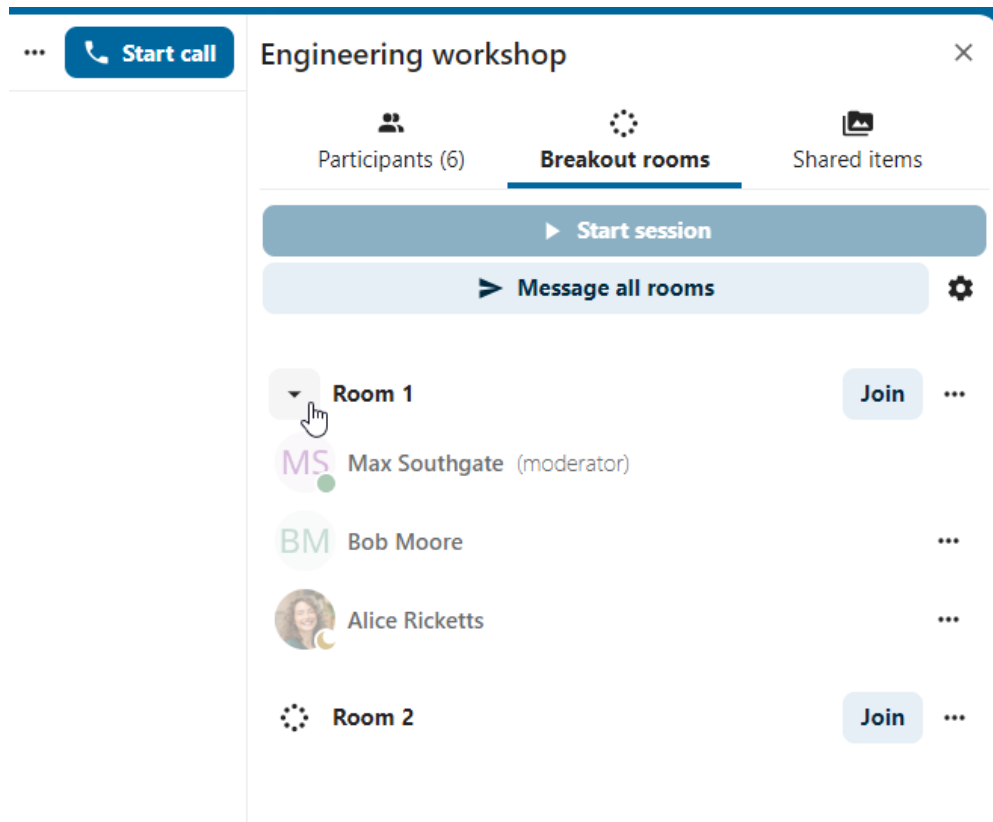
☐ Manually assign participants

☐ Allow participants to choose

Create rooms

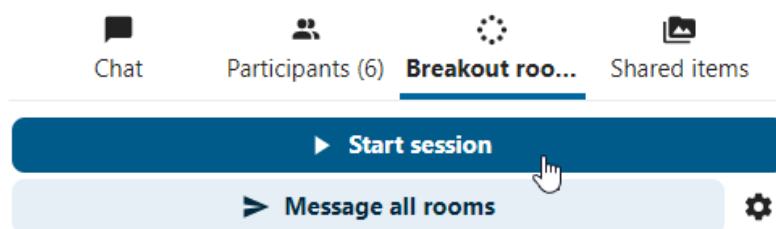
Manage breakout rooms

Once the breakout rooms are created, you will be able to see them in the sidebar.

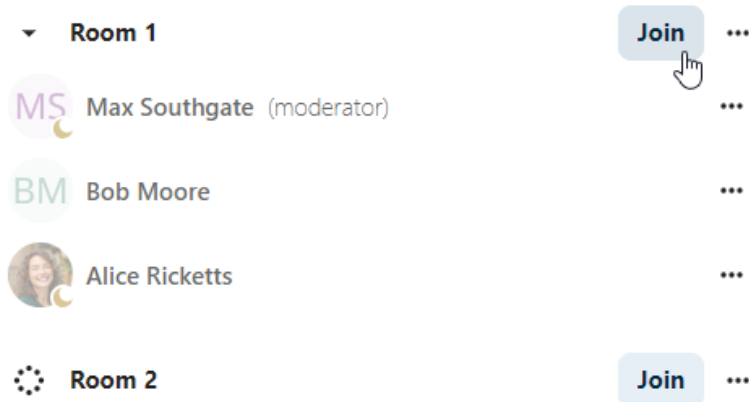


From the sidebar header

- **Start and stop the breakout rooms:** this will move all the users in the parent conversation to their respective breakout rooms.
- **Broadcast a message to all the rooms:** this will send a message to all the rooms at the same time.
- **Make changes to the assigned participants:** this will open the participants editor where you can change which participants are assigned to which breakout room. From this dialog it's also possible to delete the breakout rooms.



From the breakout room element in the sidebar, you can also join a particular breakout room or send a message to a specific room.



5.2.9 Call recording

The recording feature provides users with an opportunity to:

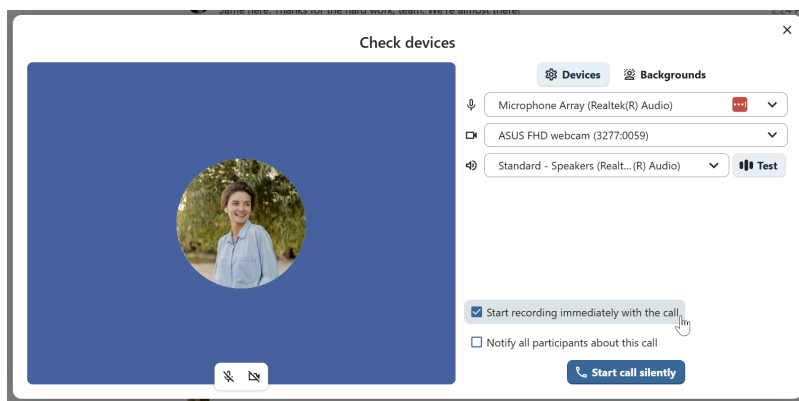
- Start and stop recordings during a call.
- Record the video and audio stream of the speaker, as well as screen share.
- Access, share and download recorded files for future reference or distribution.

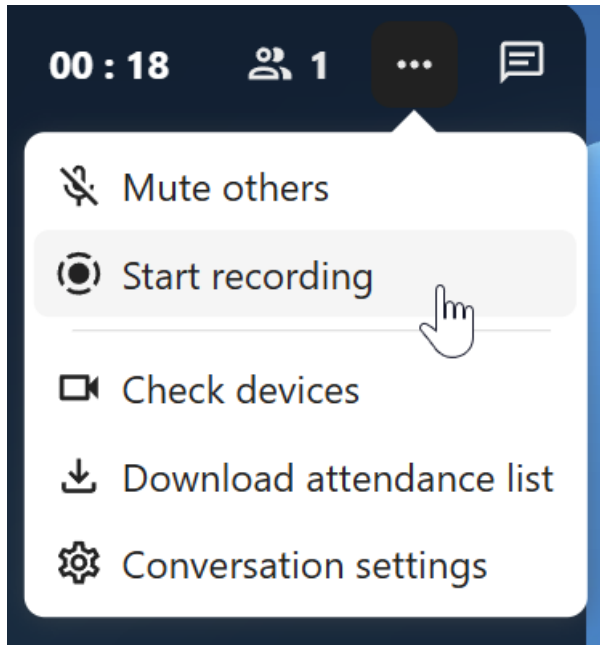
Enabling this feature requires the recording server to be set up by the system administration.

Manage a recording

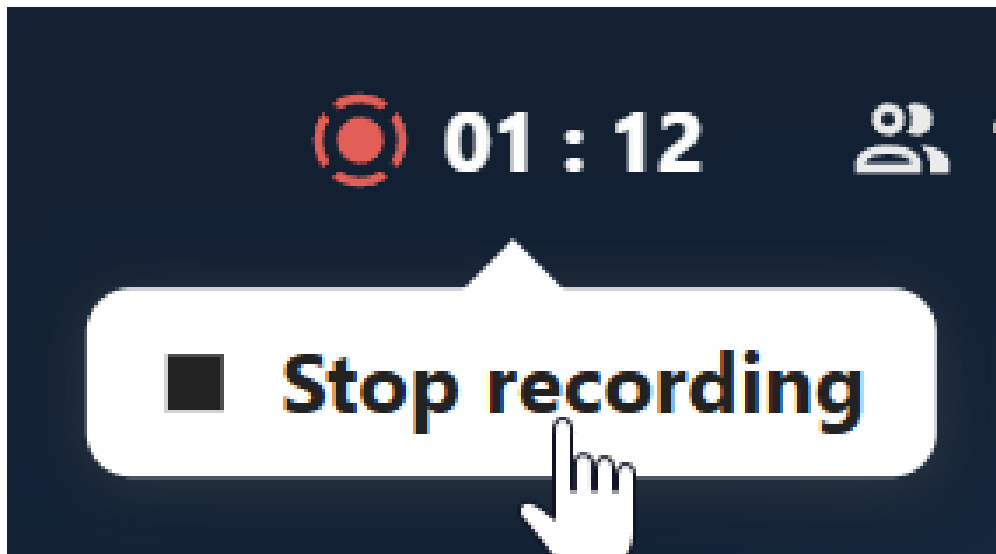
The moderator of the conversation can start a recording together with a call start or anytime during a call:

- **Before the call:** tick the checkbox “Start recording immediately with the call” in “Media settings”, then click on “Start call”.
- **During the call:** click on the top-bar menu, then click “Start recording”.

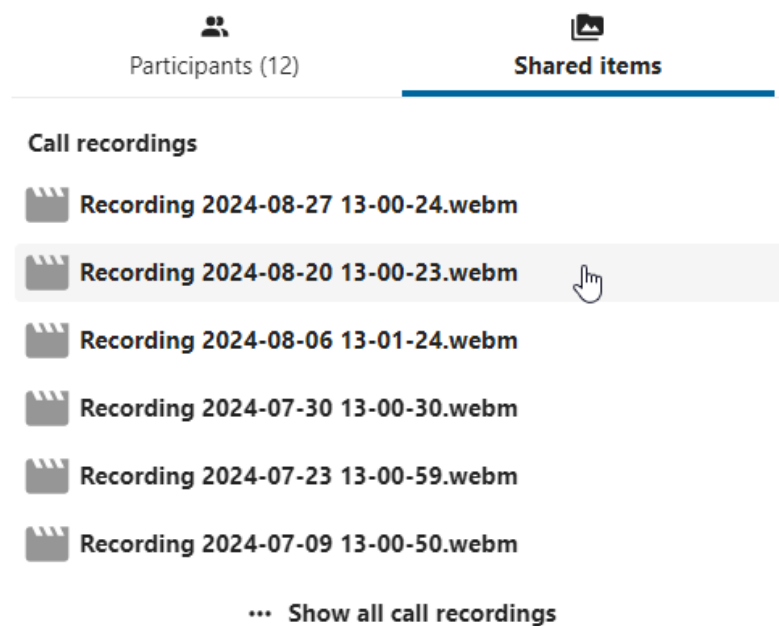
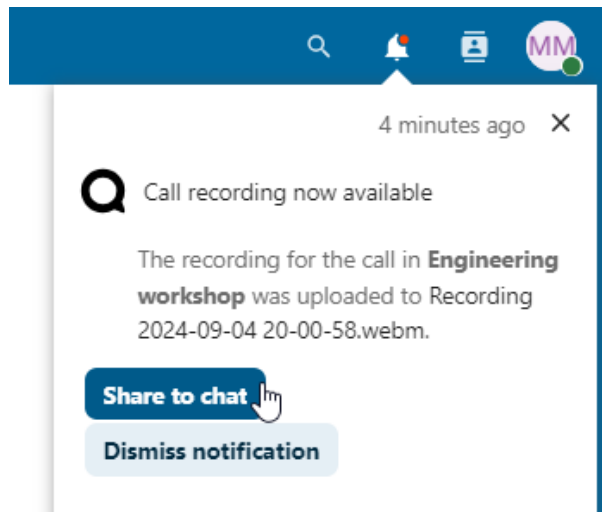




The recording will start shortly, and you will see a red indicator next to the call time. You can stop the recording at any time while the call is still ongoing by clicking on that indicator and selecting “Stop recording”, or by using the same action in the top-bar menu. If you do not manually stop the recording, it will end automatically when the call ends.



After stopping a recording, the server will take some time to prepare and save the recorded file. The moderator, who started the recording, receives a notification when the file is uploaded. From there, it can be shared in the chat.



Recording consent

For compliance reasons with various privacy rights, it is possible to ask participants for consent to be recorded before joining the call. The system administration has the flexibility to utilize this feature in several ways:

- Disable consent completely.
- Enable mandatory consent system-wide, requiring consent for all conversations.
- Allow moderators to configure this option on a conversation level. In such cases, moderators can access the conversation settings to configure this option accordingly:

Guest access

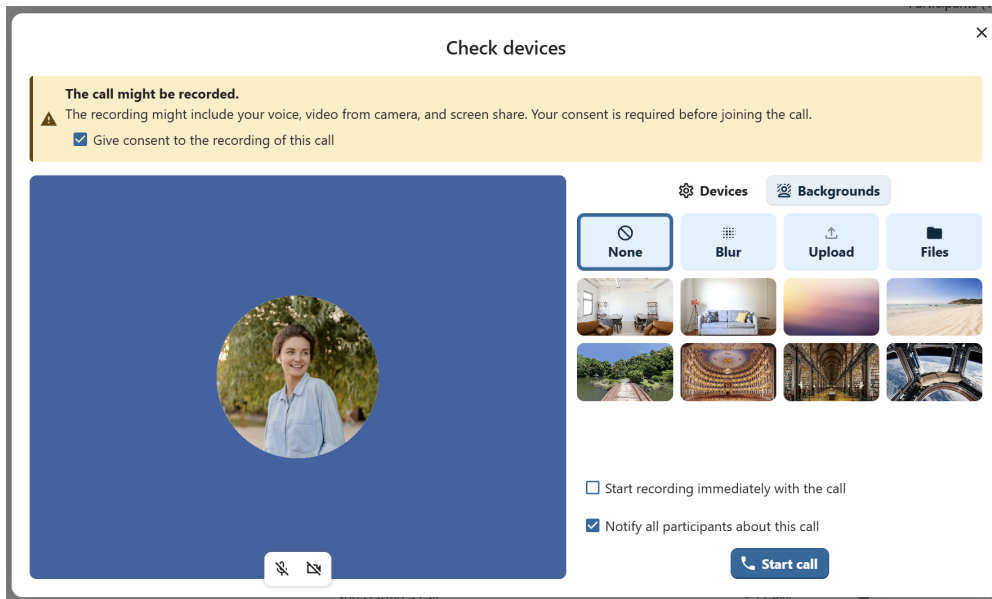
☐ Allow guests to join this conversation via link

 **Copy conversation link**

Recording Consent

☒ Require recording consent before joining call in this conversation

If recording consent is enabled, every participant, including moderators, will see a highlighted section in the “Media settings” before joining a call. This section informs participants that the call may be recorded. To give explicit consent for recording, participants must check the box. If they do not give consent, they will not be allowed to join the call.



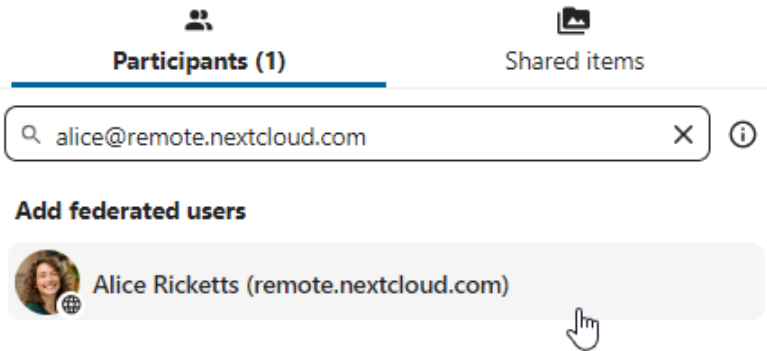
5.2.10 Federated conversation

With Federation feature, users can create conversations across different federated Talk instances and use Talk features as if they were on a same server.

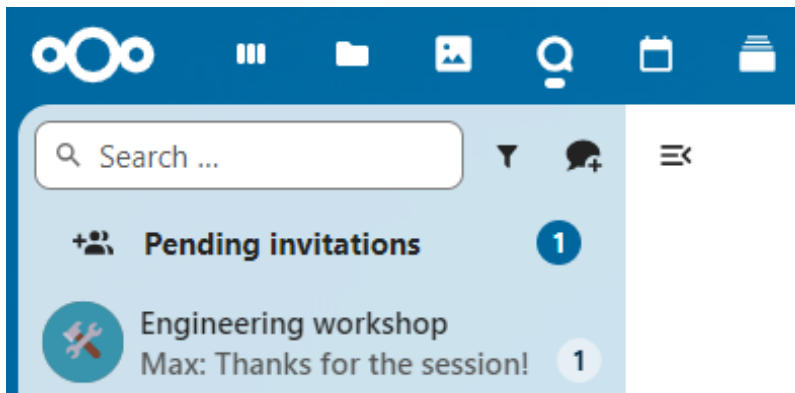
Feature is required to be set up by the system administration.

Send and accept invites

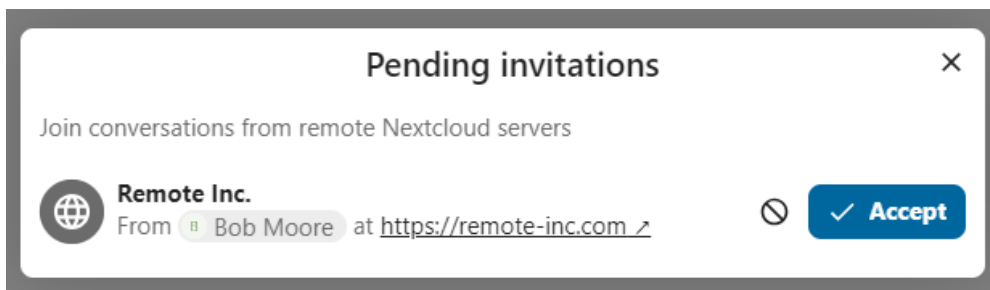
The moderator of the conversation can send an invite to participant on a different server:



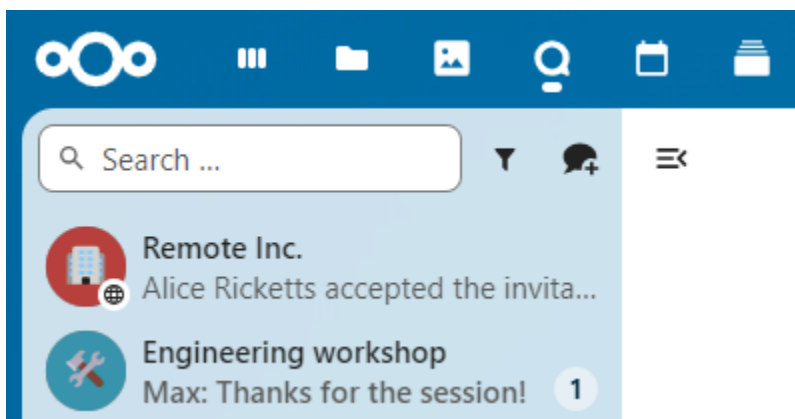
When receiving a notification, user will see a counter of pending invites above the conversations list.



Upon clicking it, more information will be provided about inviting party, and user can either accept or decline the invitation.



By accepting the invite, conversation will appear in the list as any other one.



You can use it further to chat with participants from other federated servers, join calls and use other available Talk features.

5.2.11 Chat summary

When AI assistant is enabled, a summary can be generated if there are more than 100 unread messages. You can generate it by pressing the button that is visible in chat above the first unread messages.

The screenshot shows the Nextcloud Talk interface for a chat titled "Event planning review". The left sidebar contains a list of conversations, with "Event planning review" selected and showing 124 unread messages. The main chat area displays a list of messages from Christine, Karl Zero, and Mickey Johnson. A "Generate summary" button is visible above the first unread message. Below the chat messages, a summary box is displayed, stating: "Summary is AI generated and might contain mistakes". The summary text reads: "The text discusses the planning and coordination of an upcoming event, including tasks related to attendees, catering, venue logistics, promotional materials, speaker lineup, event agenda, keynote speakers, transportation, social media coverage, AV equipment, badges, press kits, and more. There is a focus on ensuring tasks are completed on time and addressing any remaining details to ensure a successful event." The chat input field at the bottom shows "Write a message ...".

Search ...

Home

Threads

Energy-saving initiative
You: <https://tech-preview.next...>

Talk updates
New in Talk 22 - Use threa...

Event planning review
You: Hello team! 124

Company updates
Jos: Team, We decided to intro...

Seraphina Delgado
You: <https://tech-preview.next...>

Sandra McKinney
You: 🍌

Permanent room
Call with Ros Christy and Chris...

mixed team chat
Jos added you

Company policies
You added Margot Portriss

Amara Winterbourne
Hi Christine! Thanks for check...

Archived conversations

Talk settings

Event planning review

You created the conversation 11:57 AM

You added group Management 11:57 AM

You set the conversation picture 11:57 AM

You added Karl Zero, Mickey Johnson and 2 more participants 11:57 AM

Unread messages Generate summary

Christine
Hi everyone, let's get started with our review of the upcoming event plans. 1:12 PM ✓

Karl Zero Can you share the latest attendee numbers? 1:12 PM ✓

Mickey Johnson Do we have an update on the catering options? 1:12 PM ✓

Christine (edited)

Samantha Johnson Have the venue logistics been finalized? 1:12 PM ✓

Christine
 Zarina Holighaus How's the promotional material coming along? 1:12 PM ✓

I will confirm the speaker lineup asap. 1:12 PM ✓

Just a reminder, the event date is fast approaching, and we need to make sure all tasks are on track. 1:12 PM ✓

Write a message ...

Unread messages

Christine
Hi everyone, let's get started with our review of the upcoming event plans. 1:12 PM ✓

Karl Zero Can you share the latest attendee numbers? 1:12 PM ✓

Mickey Johnson Do we have an update on the catering options? 1:12 PM ✓

Christine (edited)

Summary is AI generated and might contain mistakes Dismiss ✕

The text discusses the planning and coordination of an upcoming event, including tasks related to attendees, catering, venue logistics, promotional materials, speaker lineup, event agenda, keynote speakers, transportation, social media coverage, AV equipment, badges, press kits, and more. There is a focus on ensuring tasks are completed on time and addressing any remaining details to ensure a successful event.

Write a message ...

5.2.12 Call live transcription

Call live transcription allows to transcribe the speech in real-time during a call. It is set up by the system administration (High-performance backend and [Live Transcription App](#) are required). Moderators need to set the language of the transcription in the conversation settings. All participants then can enable or disable the transcription for themselves in the call bottom bar. When enabled, the transcription will appear in the bottom and will be updated in real-time.



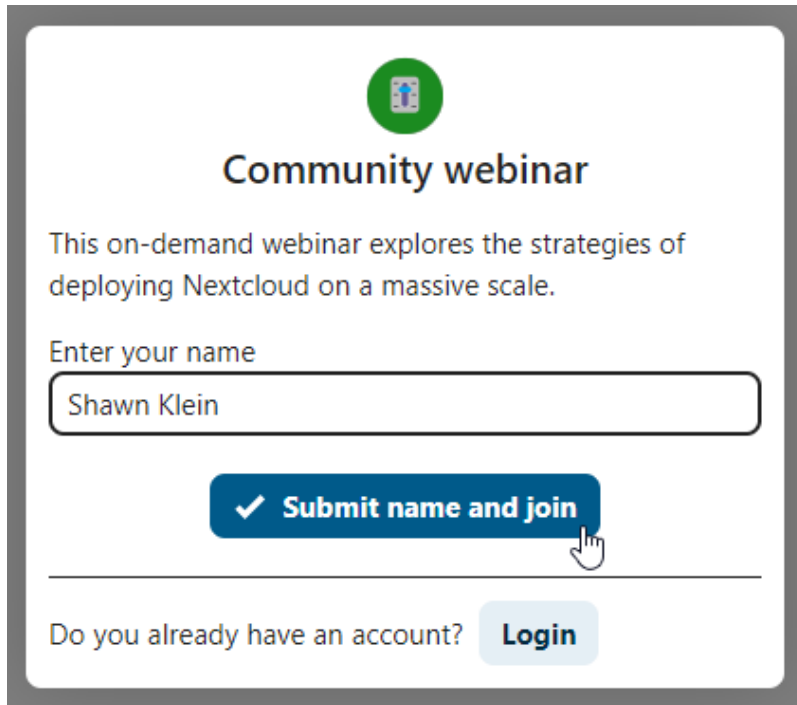
5.3 Join a call or chat as guest

Nextcloud Talk offers audio/video call and text chat integrated in Nextcloud. It offers a web interface as well as mobile apps.

You can find out more about Nextcloud Talk [on our website](#).

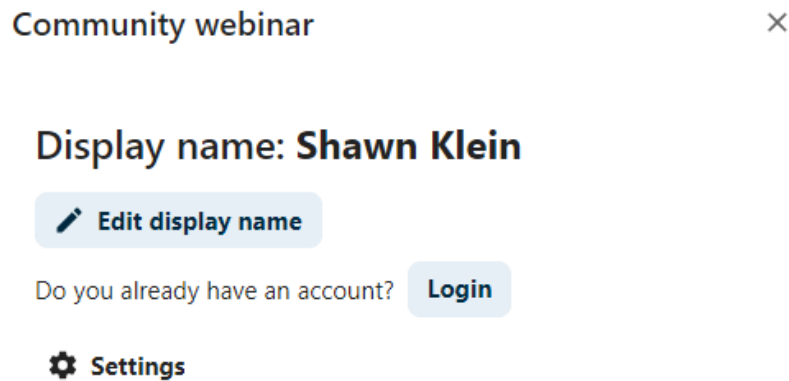
5.3.1 Joining a chat

If you received a link to a chat conversation, you can open it in your browser to join the chat. Here, you will be prompted to enter your name before joining.



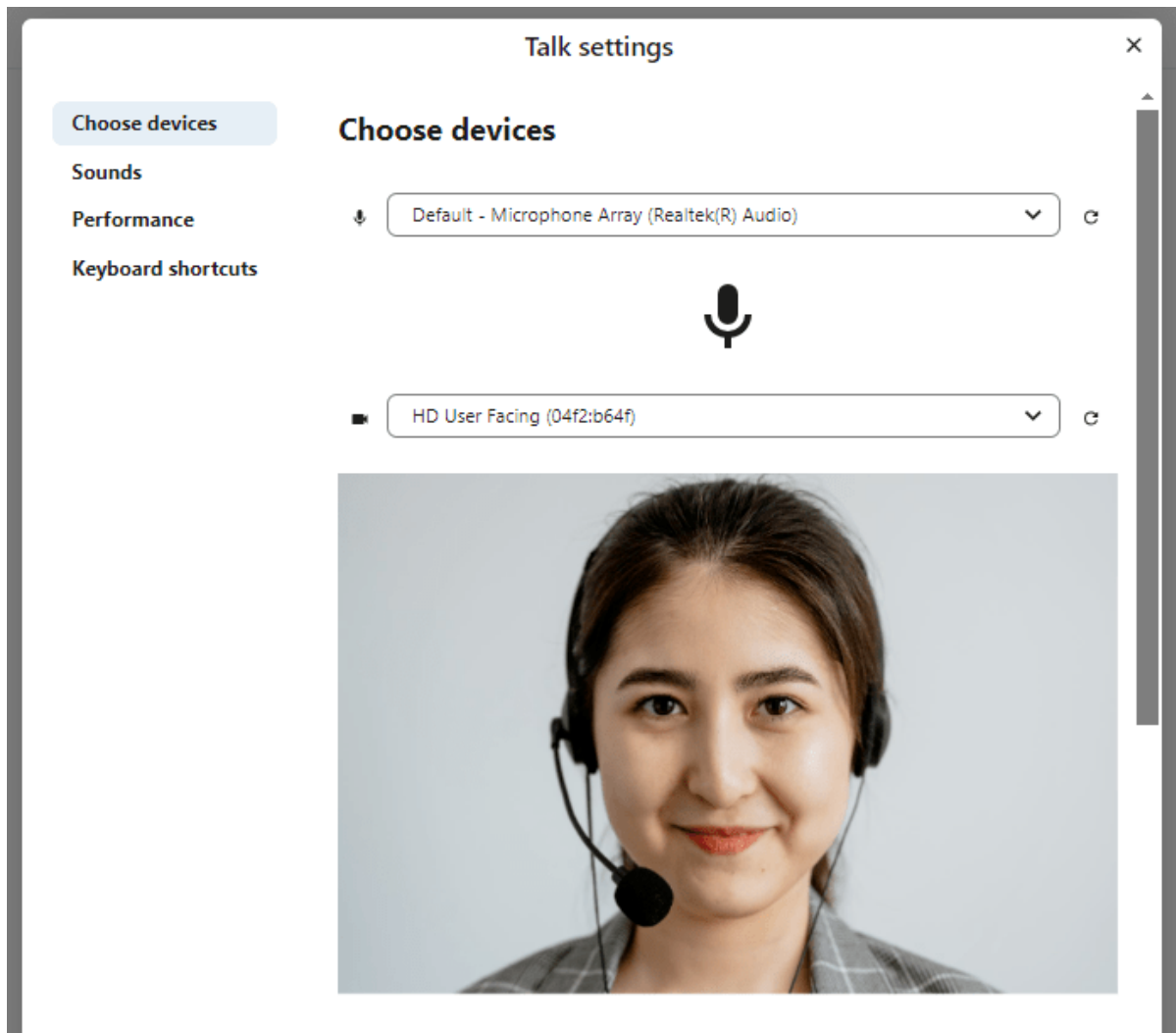
The image shows a registration form for a 'Community webinar'. At the top is a green circular icon with a white person symbol. Below it, the title 'Community webinar' is centered. A paragraph of text describes the webinar as an on-demand session about deploying Nextcloud at scale. There is a text input field labeled 'Enter your name' containing the text 'Shawn Klein'. Below the input field is a blue button with a white checkmark and the text 'Submit name and join'. A hand cursor icon is pointing at this button. At the bottom, there is a horizontal line, followed by the text 'Do you already have an account?' and a light blue button labeled 'Login'.

You can also change your name later by clicking the `Edit` button, located top-right.



The image shows the user interface after registration. At the top, the title 'Community webinar' is followed by a close button (an 'X' icon). Below this, the text 'Display name: Shawn Klein' is shown. Underneath is a light blue button with a pencil icon and the text 'Edit display name'. Below that is the text 'Do you already have an account?' followed by a light blue button labeled 'Login'. At the bottom, there is a gear icon followed by the text 'Settings'.

Your camera and microphone settings can be found in the `Settings` menu. There you can also find a list of shortcuts you can use.



5.3.2 Joining a call

You can start a call any time with the `Start call` button. Other participants will get notified and can join the call. If somebody else has started a call already, the button will change in a green `Join call` button.



Alice Ricketts

I created a new version of the Intro! Let's jump into a quick call and discuss it!

3:49 PM



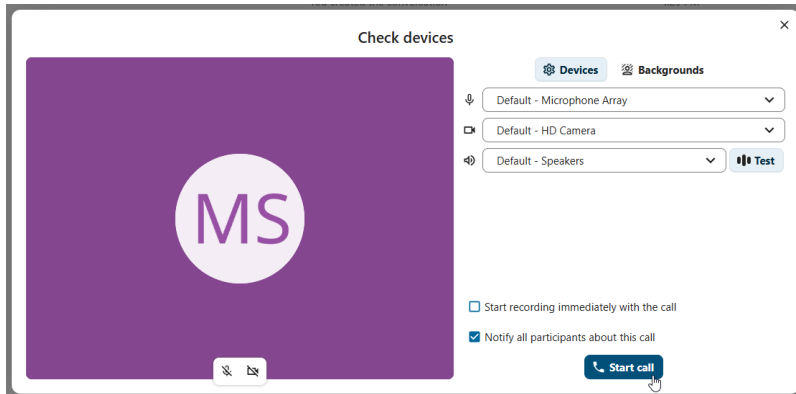
Alice Ricketts started a call

3:49 PM

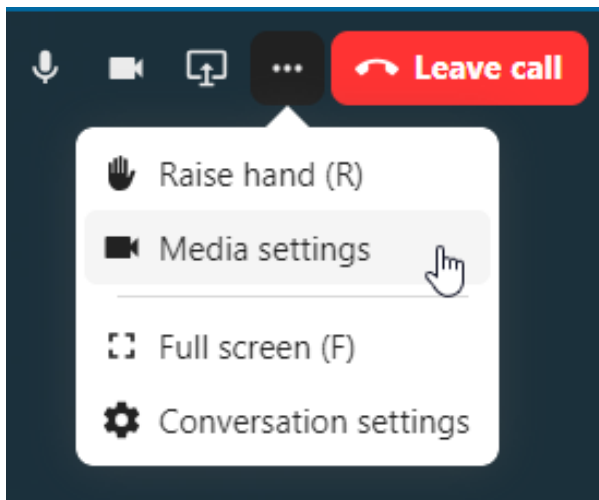


Join call

Before actually joining the call you will see a device check, where you can pick the right camera and microphone, enable background blur or even join with any devices.



During a call, you can find the Camera and Microphone settings in the `...` menu in the top bar.



During a call, you can mute your microphone and disable your video with the buttons in the top-right, or using the shortcuts `M` to mute audio and `V` to disable video. You can also use the `space` bar to toggle mute. When you are muted, pressing `space` will unmute you so you can speak until you let go of the `space` bar. If you are unmuted, pressing `space` will mute you until you let go.

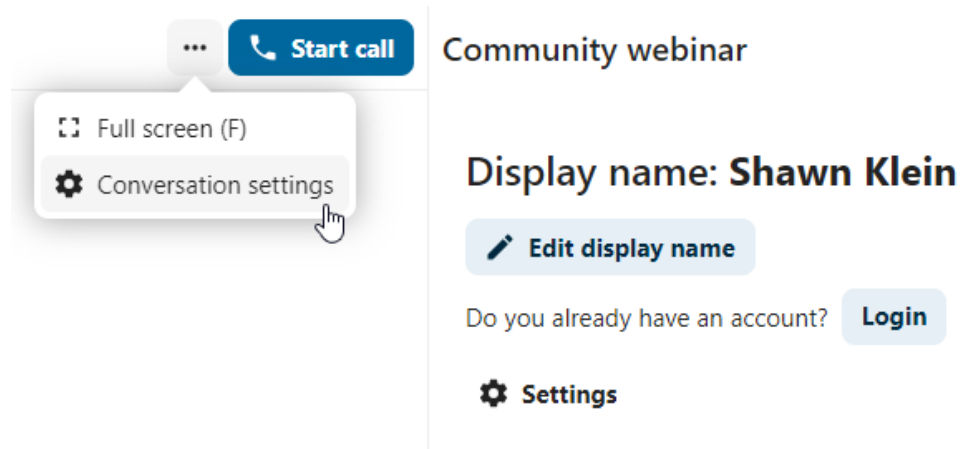
You can hide your video (useful during a screen share) with the little arrow just above the video stream. Bring it back with the little arrow again.

5.3.3 Starting a screen share

You can click the monitor icon on your video stream to share your screen. Depending on your browser, you will get the option to share a monitor, an application window or a single browser tab.

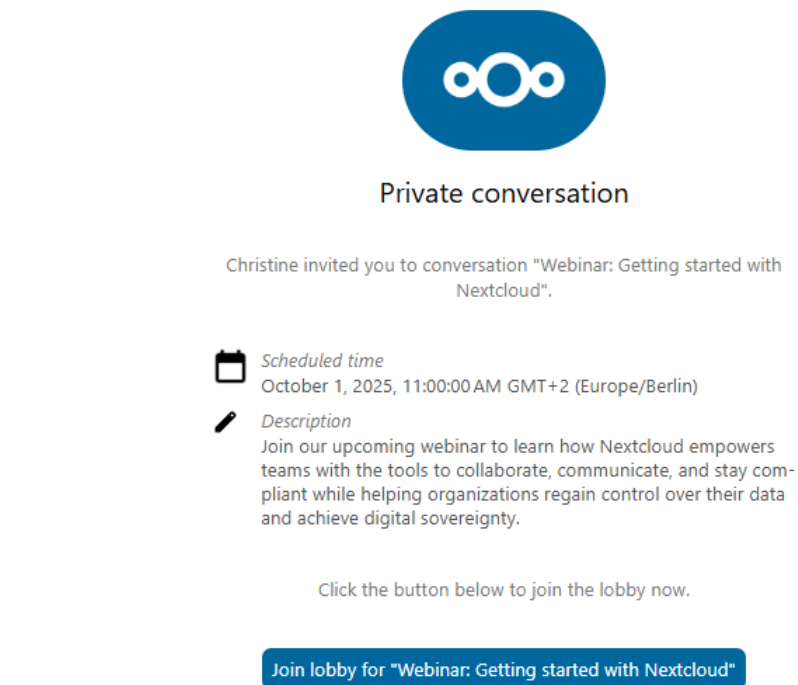
5.3.4 More settings

In the conversation menu you can choose to go full-screen. You can also do this by using the `F` key on your keyboard. In the conversation settings, you can find notification options and the full conversation description.



5.3.5 Joining as an email guest

A guest can be invited to a conversation via email. The email contains a link to join the conversation. If the guest clicks the link, they will be redirected to the conversation with an individual access token.



An invitation can be done via inserting the email address in `Participants` tab search field.

Support



Participants (2)



Shared items

🔍 john.doe@example.com



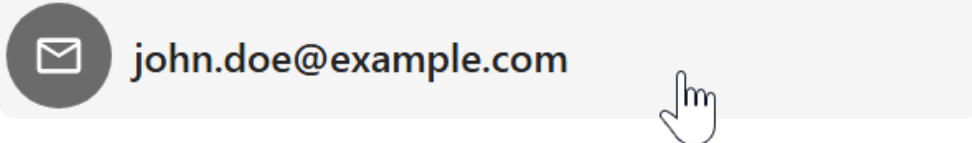
Phone numbers

Number is not valid

Participants

No search results

Add emails



You can bulk invite email participants by uploading a CSV file. The option is available in the conversation settings under Meeting section.

Conversation settings

Personal

Moderation

Meeting

Permissions

Live transcription

Matterbridge

Bots

Danger zone

Meeting

☐ Enable lobby, restricting the conversation to moderators

Import email participants
 You can import a list of email participants from a CSV file.

Import email participants

Poll drafts

Browse poll drafts

DESKTOP CLIENTS

Available for Windows, macOS, and various Linux distributions, the Nextcloud Desktop Sync client enables you to:

- Specify one or more directories on your computer that you want to synchronize to the Nextcloud server.
- Always have the latest files synchronized, wherever they are located.

Your files are always automatically synchronized between your Nextcloud server, computer and mobile device.

6.1 Installation

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

The currently supported server releases are the latest three stable versions at time of publication. It means that the 32 release series is supporting stable server major versions. See <https://github.com/nextcloud/server/wiki/Maintenance-and-Release-Schedule> for supported major versions.

Installation on macOS and Windows is the same as for any 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 sync client will automatically keep itself updated; see *The Automatic Updater* for more information.

Linux users must follow the instructions on the download page to add the appropriate repository for their Linux distribution, install the signing key, and then use their package managers to install the desktop sync client. Linux users will also update their sync clients via package manager, and the client will display a notification when an update is available.

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

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

6.1.1 System Requirements

- Windows 10+ (64-bits only)
- macOS 12.0+ (64-bits only)
- Linux (Ubuntu 22.04 or openSUSE 15.5 or Alma 8 or ...) (64-bits only)

i Note

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

6.1.2 Customizing the Windows Installation

If you just want to install Nextcloud Desktop Synchronization Client on your local system, you can simply launch the `.msi` file and configure it in the wizard that pops up.

Features

The MSI installer provides several features that can be installed or removed individually, which you can also control via command-line, if you are automating the installation, then run the following command:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi
```

The command will install the Nextcloud Desktop Synchronization Client into the default location with the default features enabled. If you want to disable, e.g., desktop shortcut icons you can simply change the above command to the following:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi REMOVE=DesktopShortcut
```

See the following table for a list of available features:

Feature	Enabled by default	Description	Property to disable
Client	Yes, required	The actual client	
DesktopShortcut	Yes	Adds a shortcut to the desktop	NO_DESKTOP_SHORTCUT
StartMenuShortcuts	Yes	Adds a shortcut to the start menu	NO_START_MENU_SHORTCUTS
ShellExtensions	Yes	Adds Explorer integration	NO_SHELL_EXTENSIONS

Installation

You can also choose to only install the client itself by using the following command:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi ADDDEFAULT=Client
```

If you for instance want to install everything but the `DesktopShortcut` and the `ShellExtensions` feature, you have two possibilities:

1. You explicitly name all the features you actually want to install (whitelist) where `Client` is always installed anyway:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi ADDDEFAULT=StartMenuShortcuts
```

2. You pass the `NO_DESKTOP_SHORTCUT` and `NO_SHELL_EXTENSIONS` properties:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi NO_DESKTOP_SHORTCUT="1" NO_SHELL_
↳EXTENSIONS="1"
```

Note

The Nextcloud `.msi` remembers these properties, so you don't need to specify them on upgrades.

Note

You cannot use these to change the installed features, if you want to do that, see the next section.

Changing Installed Features

You can change the installed features later by using `REMOVE` and `ADDDEFAULT` properties.

1. If you want to add the desktop shortcut later, run the following command:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi ADDDEFAULT="DesktopShortcut "
```

2. If you want to remove it, simply run the following command:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi REMOVE="DesktopShortcut "
```

Windows keeps track of the installed features and using `REMOVE` or `ADDDEFAULT` will only affect the mentioned features. Compare `REMOVE` and `ADDDEFAULT` on the Windows Installer Guide.

Note

You cannot specify `REMOVE` on initial installation as it will disable all features.

Installation Folder

You can adjust the installation folder by specifying the `INSTALLDIR` property like this:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi INSTALLDIR="C:\Program Files\Non Standard\
↳Nextcloud Client Folder"
```

Be careful when using PowerShell instead of `cmd.exe`, it can be tricky to get the whitespace escaping right there. Specifying the `INSTALLDIR` like this only works on first installation, you cannot simply re-invoke the `.msi` with a different path. If you still need to change it, uninstall it first and reinstall it with the new path.

Disabling Automatic Updates

To disable automatic updates, you can pass the `SKIPAUTOUPDATE` property.:

```
msiexec /passive /i Nextcloud-x.y.z-x64.msi SKIPAUTOUPDATE="1"
```

Launch After Installation

To launch the client automatically after installation, you can pass the `LAUNCH` property.:

```
msiexec /i Nextcloud-x.y.z-x64.msi LAUNCH="1"
```

This option also removes the checkbox to let users decide if they want to launch the client for non passive/quiet mode.

Note

This option does not have any effect without GUI.

No Reboot After Installation

The Nextcloud Client schedules a reboot after installation to make sure the Explorer extension is correctly (un)loaded. If you're taking care of the reboot yourself, you can set the `REBOOT` property:

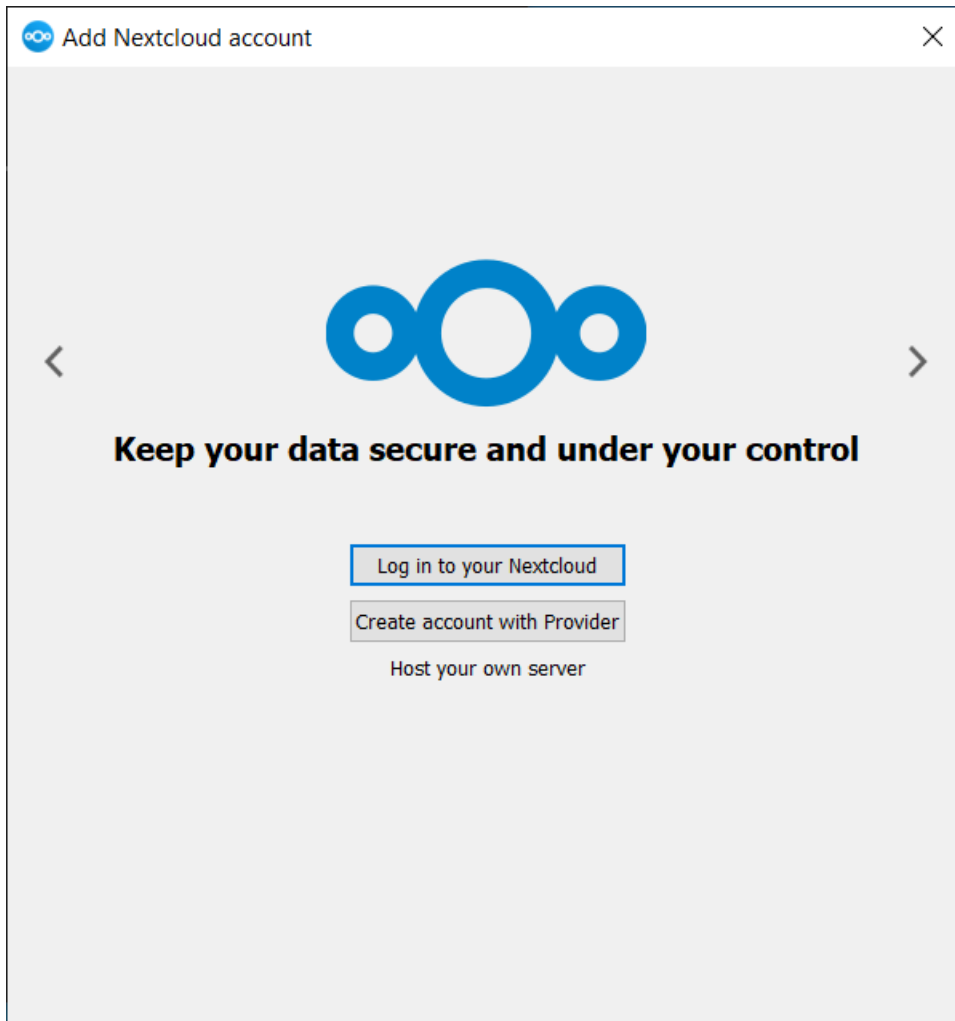
```
msiexec /i Nextcloud-x.y.z-x64.msi REBOOT=ReallySuppress
```

This will make `msiexec` exit with error `ERROR_SUCCESS_REBOOT_REQUIRED (3010)`. If your deployment tooling interprets this as an actual error and you want to avoid that, you may want to set the `DO_NOT_SCHEDULE_REBOOT` instead:

```
msiexec /i Nextcloud-x.y.z-x64.msi DO_NOT_SCHEDULE_REBOOT="1"
```

6.1.3 Installation Wizard

The installation wizard takes you step-by-step through configuration options and account setup. First, you need to enter the URL of your Nextcloud server.



If you already have an account on a Nextcloud instance, you want to press the button `Login to your Nextcloud`. If you don't have a Nextcloud instance and an account there, you might want to register an account with a provider. Press `Create account with Provider` in that case. Please keep in mind that the desktop client might have built without provider support. In that case, you won't see this page. Instead, you will be prompted with the next page.

 Add Nextcloud account ×

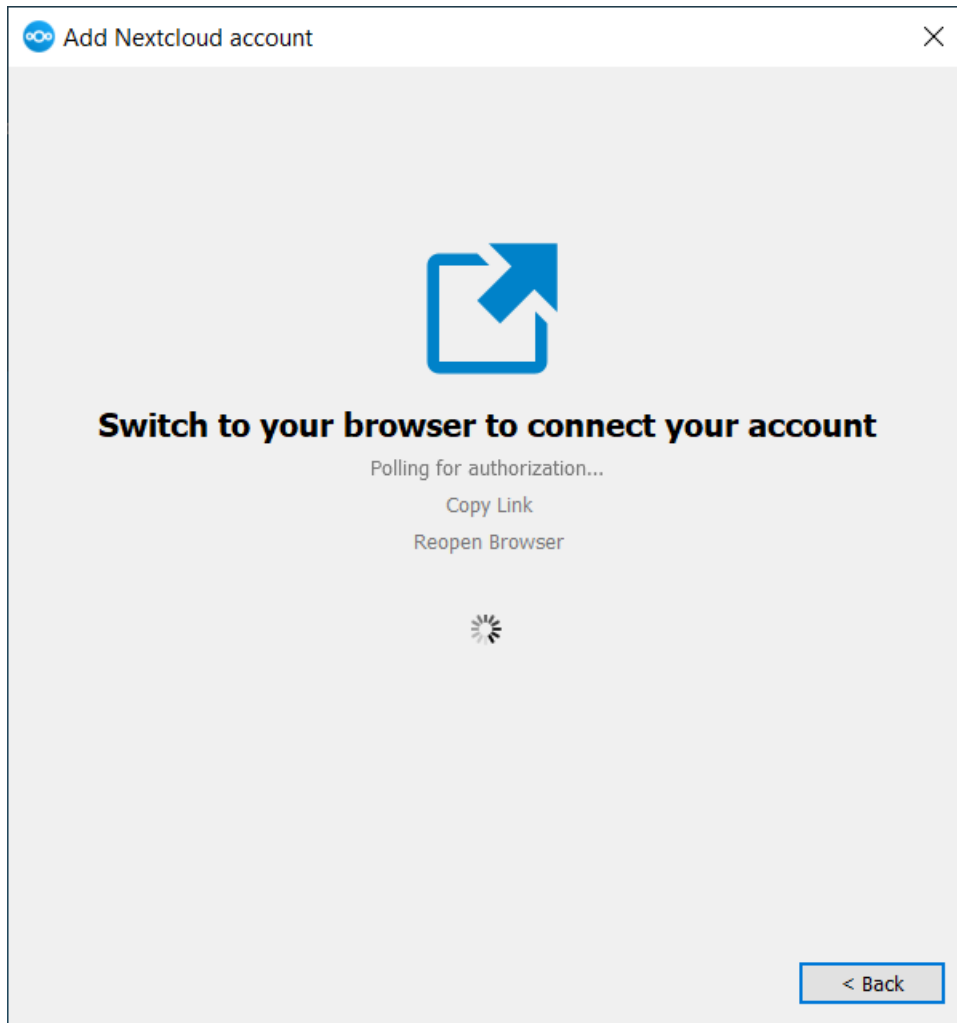


Server address

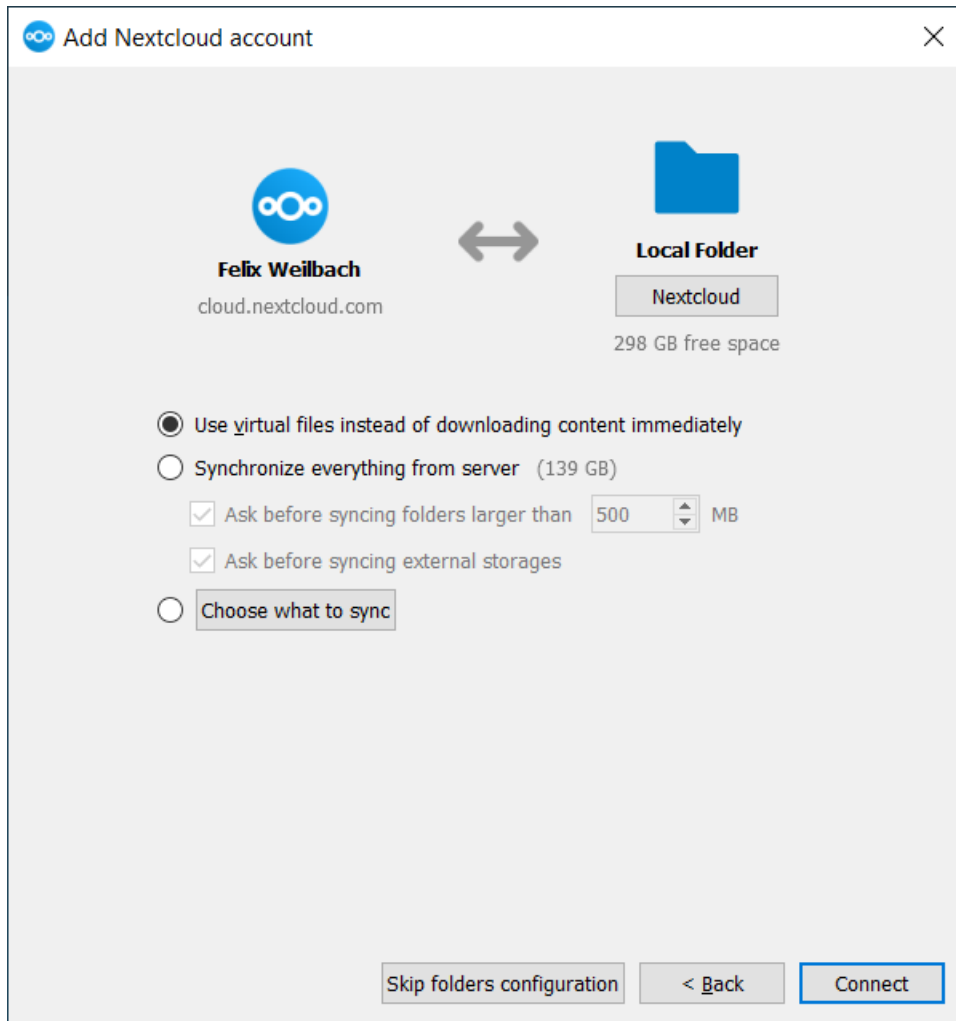
The link to your Nextcloud web interface
when you open it in the browser.

< 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 login into your Nextcloud instance. Enter your username and password in your web browser and grant access. After you did that, go back to the wizard. Please keep in mind that you might not need to enter your username and password if you are already logged in to your 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 at the bottom right. The client will attempt to connect to your Nextcloud server, and when it is successful, the wizard closes itself. You can now observe the sync activity if you open the main dialogue by clicking on the tray icon.

6.2 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.

6.2.1 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.

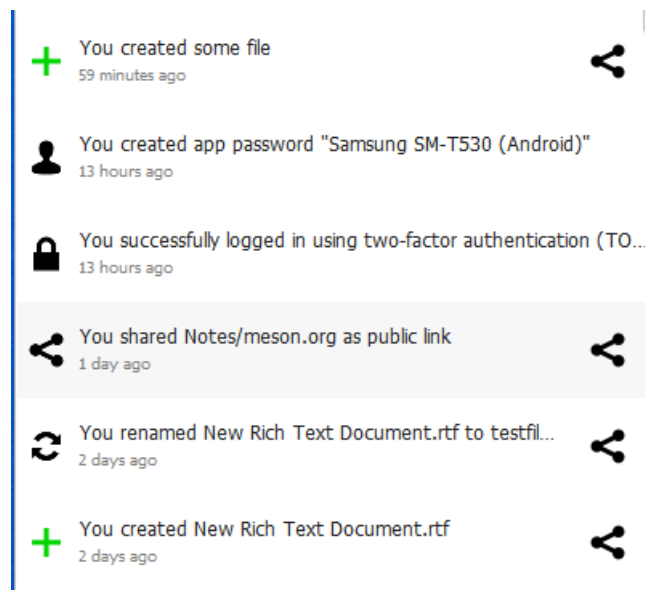
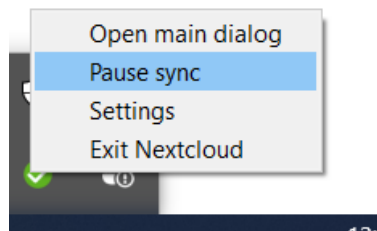
The main dialogs show recent activities, errors and server notifications.

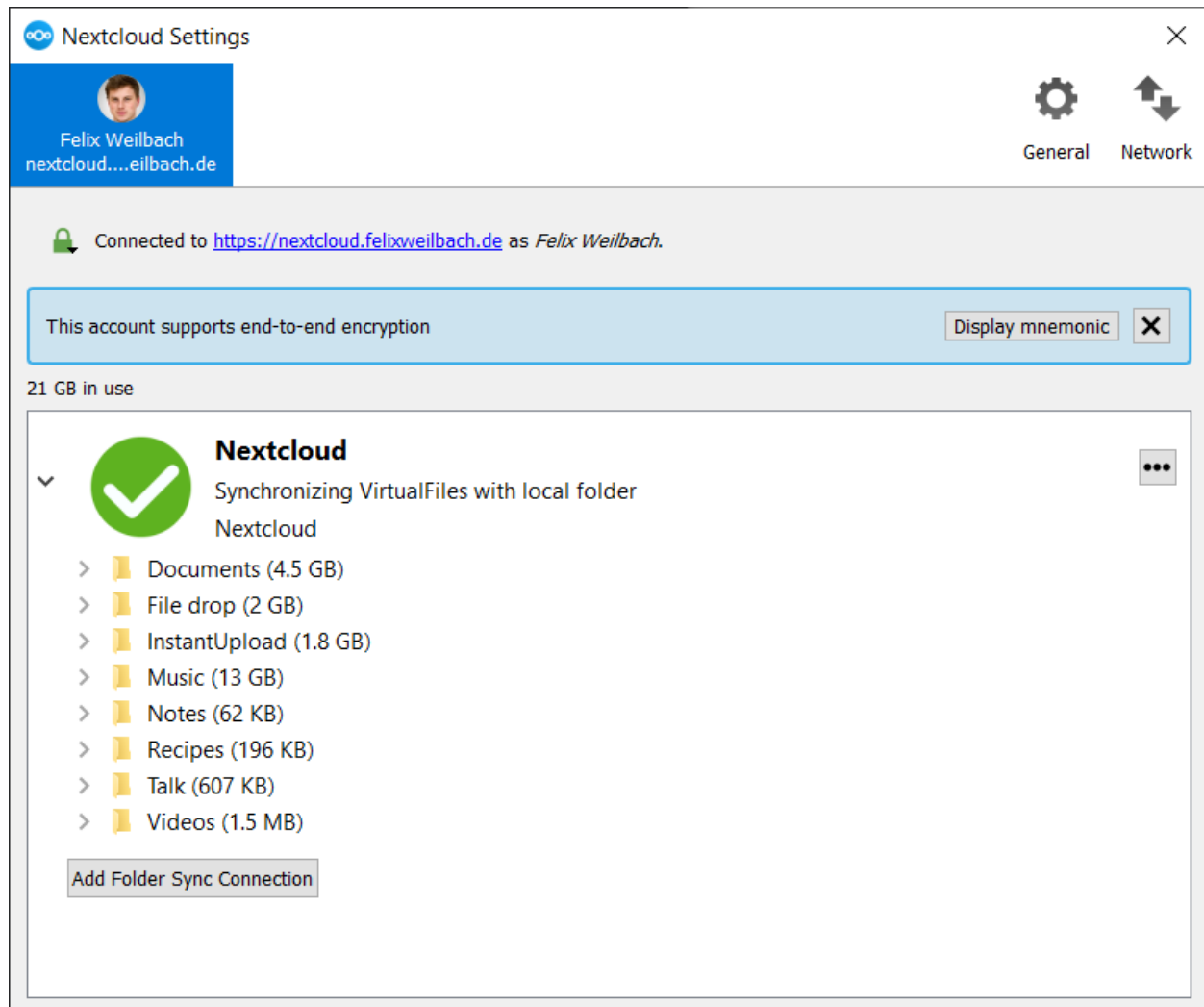
When clicking on the main dialog and then clicking on the avatar of the user, the Settings can be opened.

6.2.2 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.





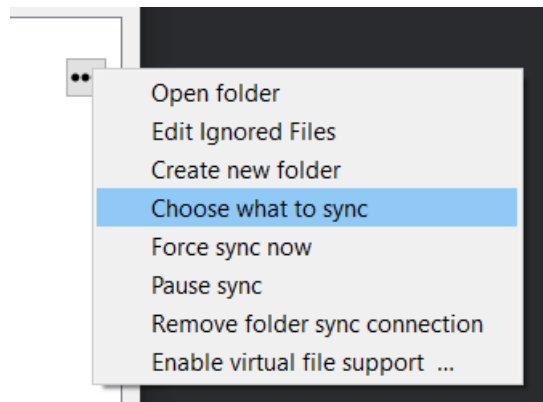
- **Add Folder Sync Connection** button.

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**.



Note

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.

6.2.3 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.

6.2.4 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.

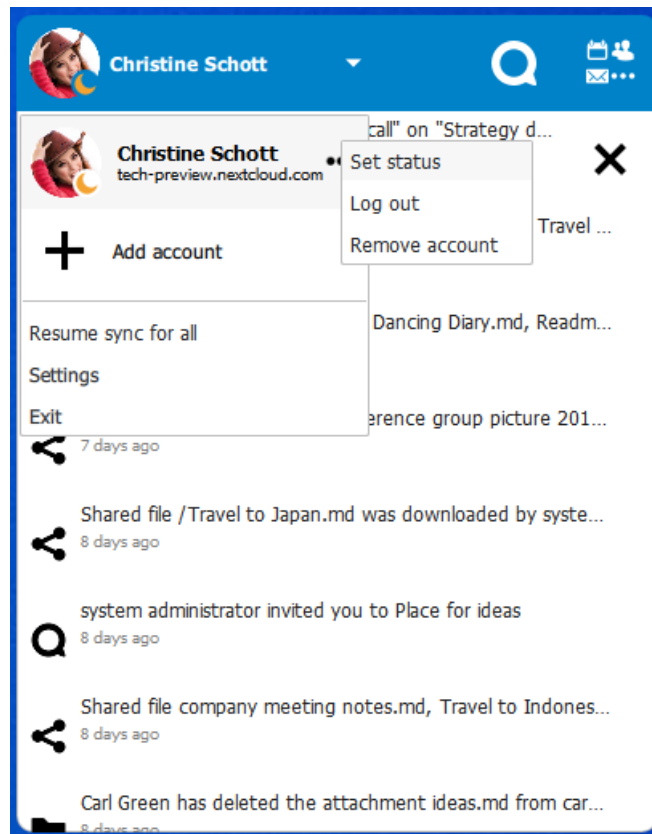
When the client is offline, no icons are shown to reflect that the folder is currently out of sync and no changes are synced to the server.

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.

6.2.5 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**.

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**.

 Set user status ✕

Online status

 Online

 Away

 Do not disturb

 Invisible

Status message



 **In a meeting** - 1 hour

 **Commuting** - 30 minutes

 **Working remotely** - Today

 **Out sick** - Today

 **Vacationing** - Don't clear

Clear status message after

Today 

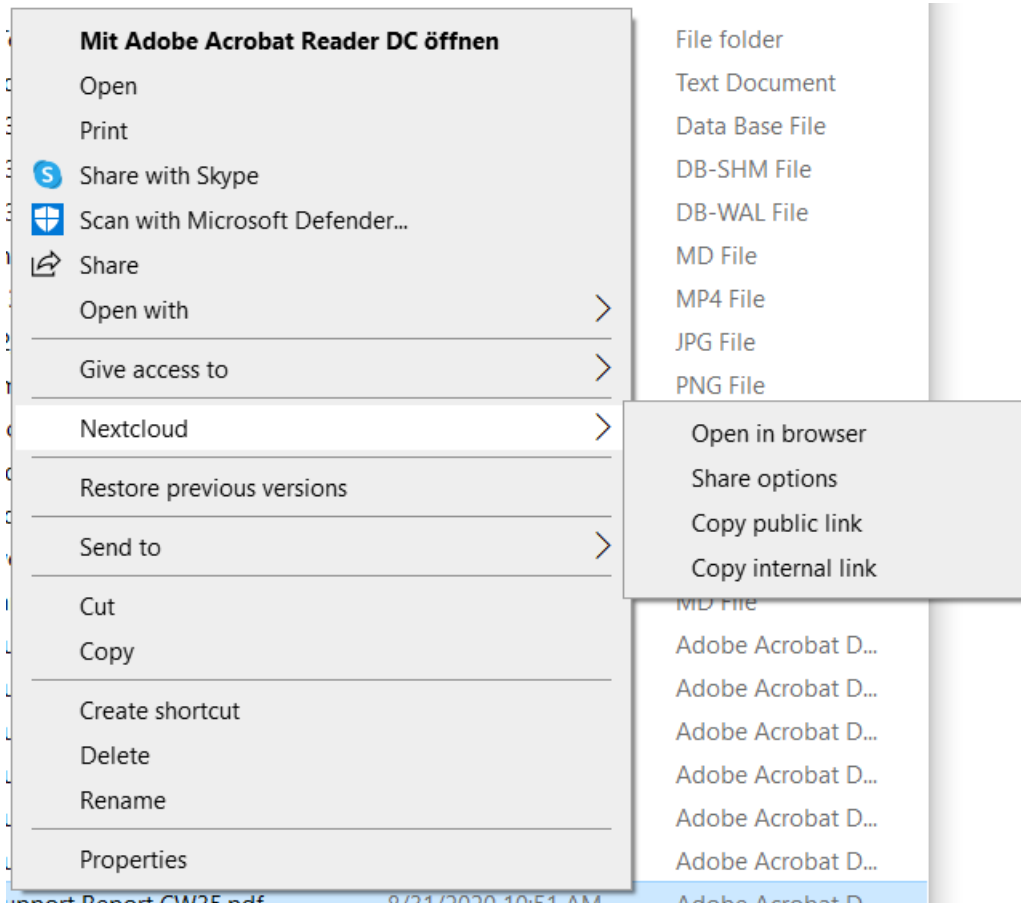
Clear status message

Set status message

6.2.6 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.



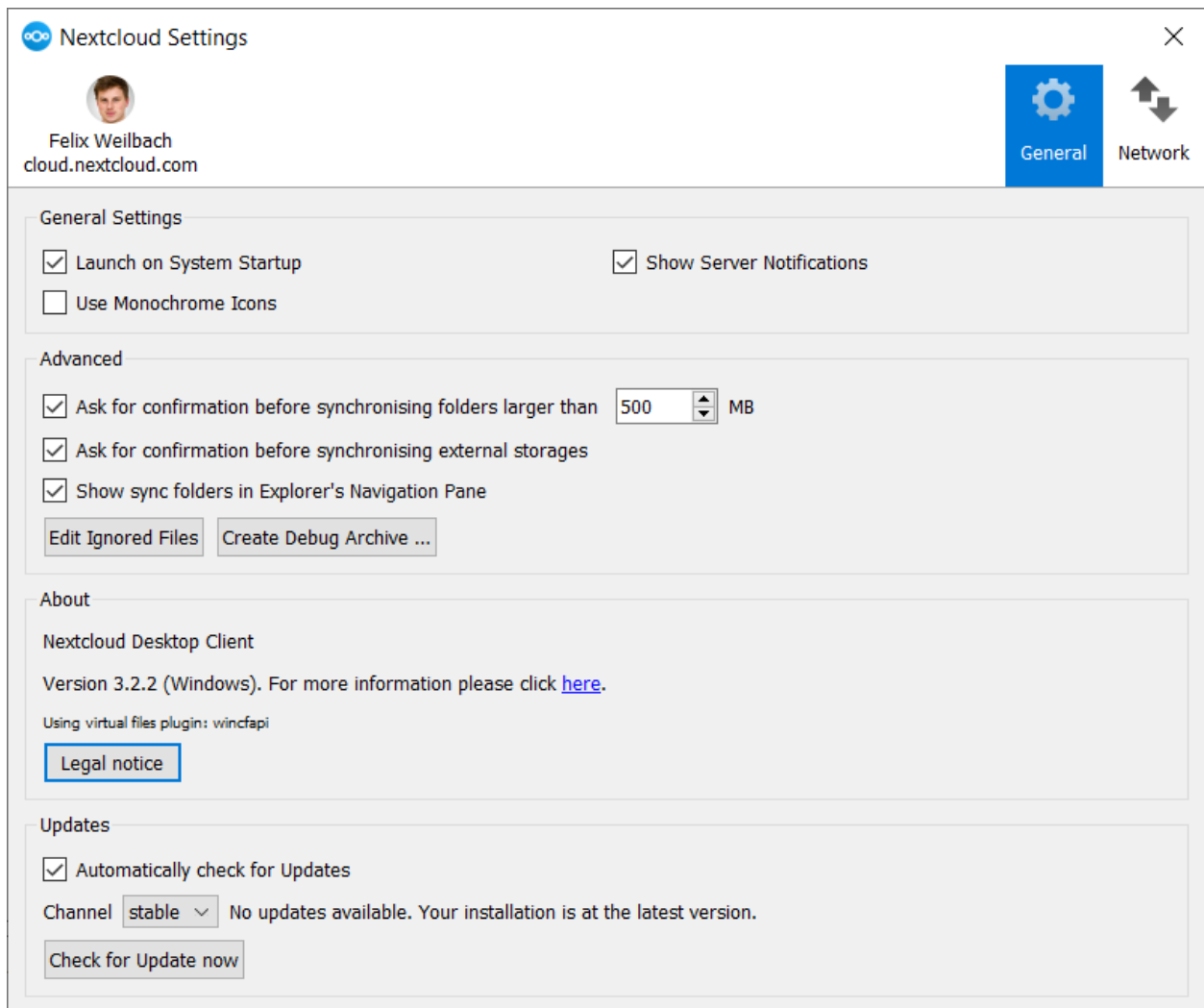
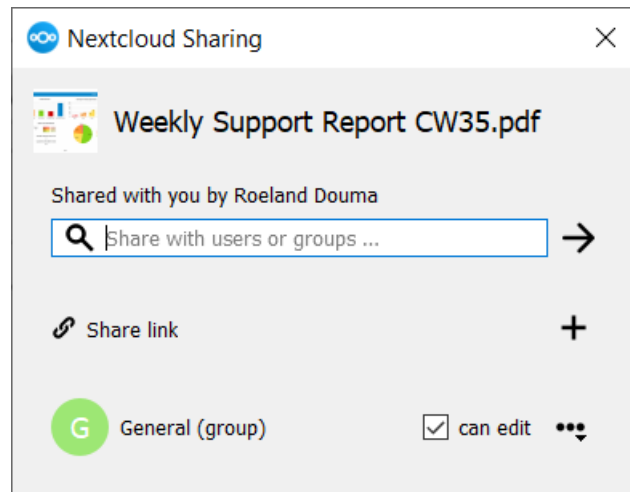
From this dialog you can share a file.

6.2.7 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]**.

6.2.8 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

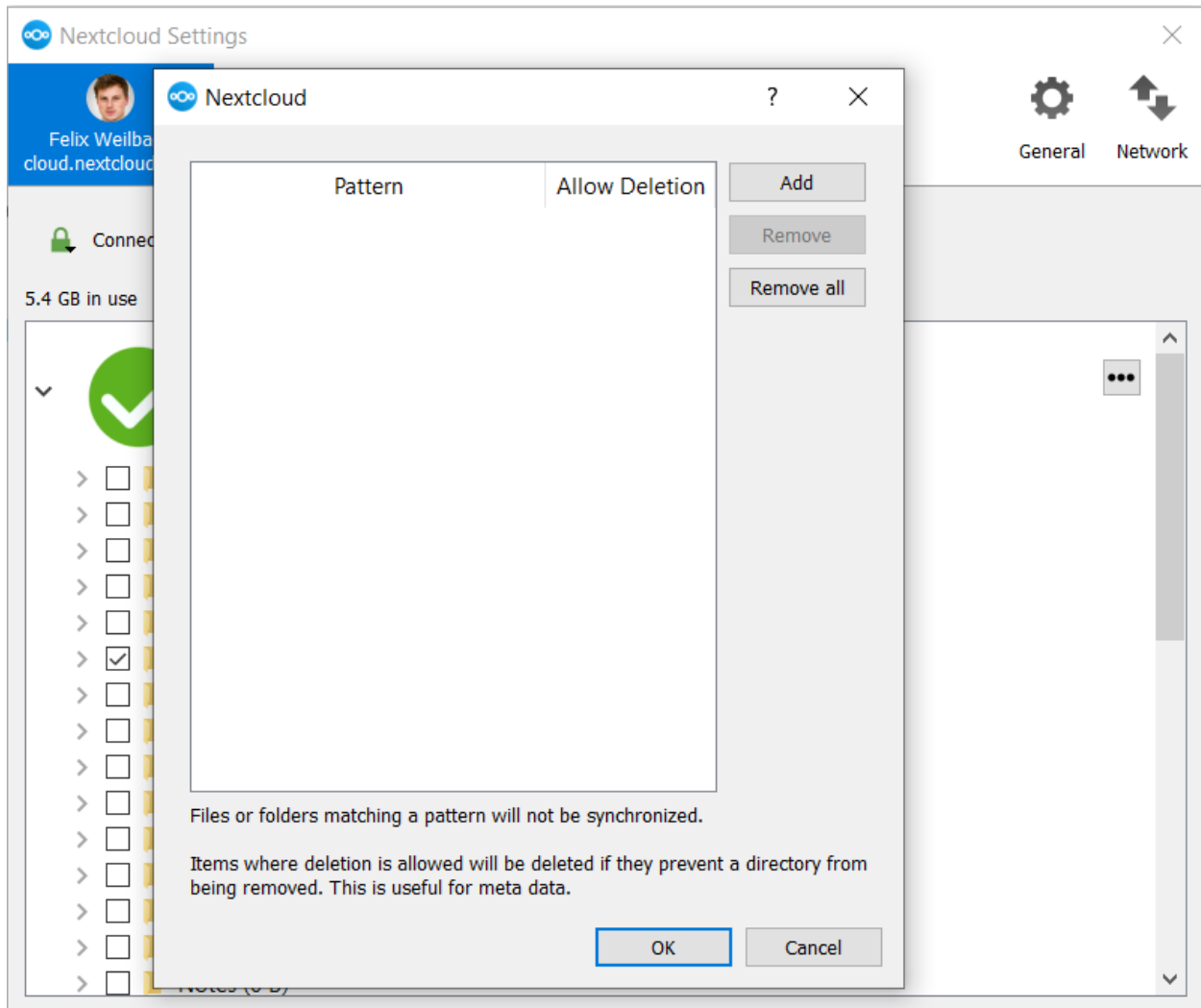
☐ Limit to

10

 KBytes/s

6.2.9 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.

Note

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.

Note

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.

6.3 macOS Virtual Files client

Virtual file-based synchronisation for Nextcloud desktop users is now available on macOS.

Unlike on Windows, virtual files support on macOS is provided by a separate client version. This allows us to maintain the best possible experience for classically-synced files, including sync status integration and context menu actions, for users who want to keep using this sync method. Just like our classic sync client, the macOS virtual files client is released alongside the desktop client for Windows and Linux, and will benefit from regular bug-fix and feature updates that improve the user experience.

6.3.1 Supported features

- Per-file local retention and eviction
- Intelligent local copy eviction
- Integration with Spotlight
- File previews within Finder for virtual files
- Support for Apple-specific formats such as app bundles and iWork (Pages, Numbers, Keynote) bundles
- Remote file locking compatibility
- “Edit locally” support
- File sharing with other users
- Automatic synchronisation of remote changes
- More!

Note

To improve remote 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 the client to detect changes. This will also eliminate the need for the desktop client to continuously poll the server for changes.

6.3.2 Installation and initial setup

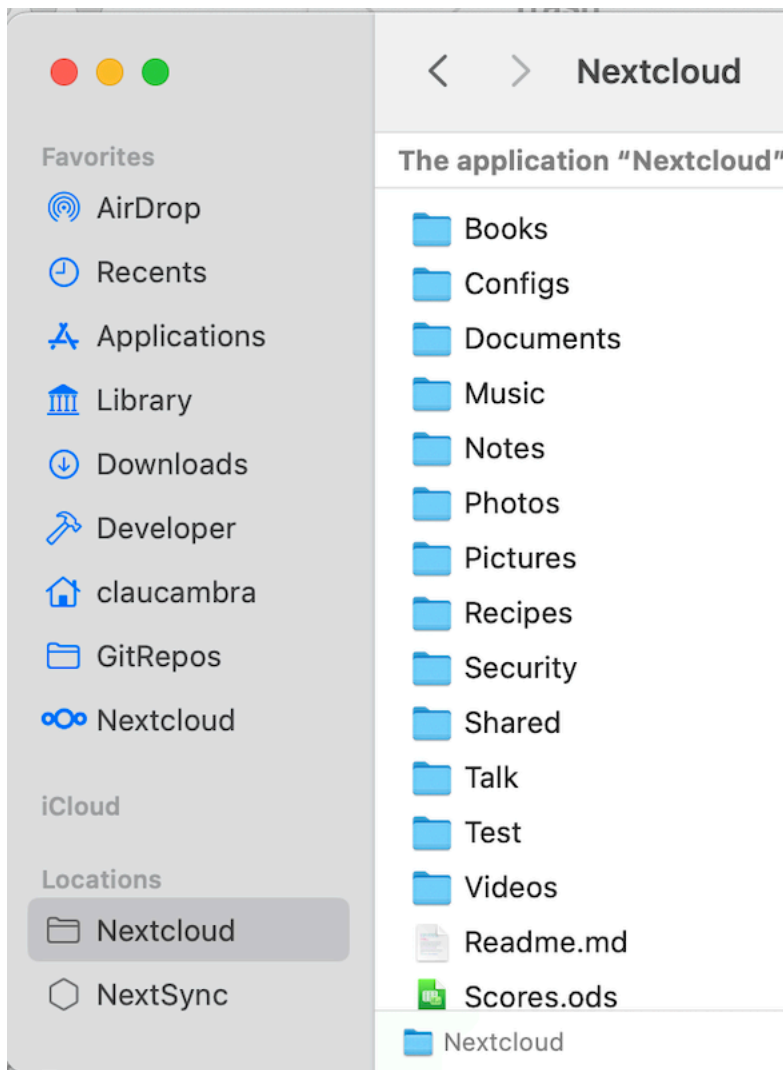
The virtual files client is distributed as an installer package that resembles the macOS classic sync client. The desktop client can be installed by following the steps presented by the installer.

The virtual files desktop client is interchangeable with the classic sync desktop client. This means your existing accounts and settings will carry over to this client and vice-versa, should you ever decide to go back to the classic sync client. This includes any pre-existing standard sync folders, as the virtual files client also supports classic sync.

Note

Due to technical limitations in macOS we are unable to provide integration in Finder for both classic sync folders and virtual file sync folders. Classic sync folders in the virtual files client will therefore not have Finder integrations such as sync state icons or context menu actions.

Any existing or newly-configured accounts will have virtual files automatically enabled. On macOS, each account's virtual files live under their own domain, separate from any pre-existing classic sync folders. These domains can be found listed under the "Locations" group in the Finder sidebar.



Upon first accessing one of these domains, the desktop client will be requested information on remote files from the

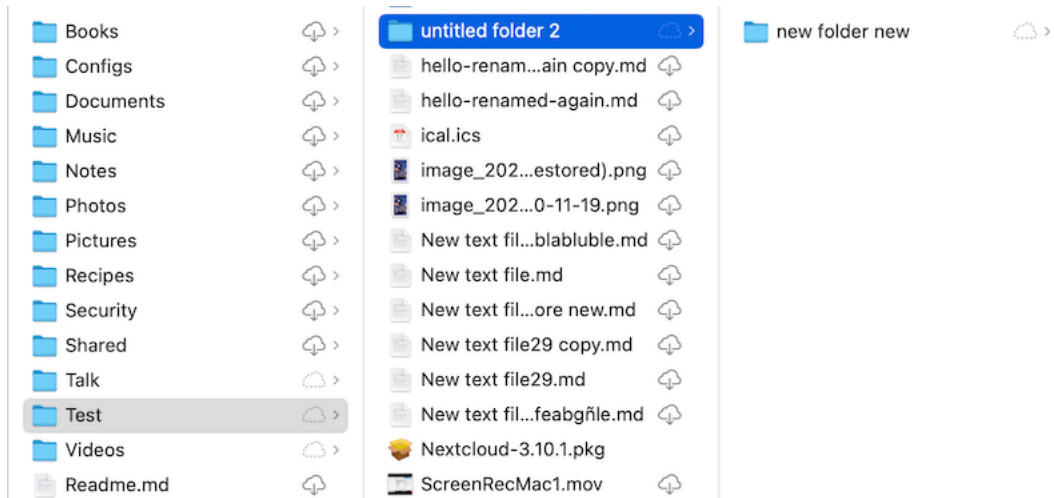
server. This first synchronisation may take some time depending on the quantity of files hosted on the server.

6.3.3 Finder integration

The virtual files client has distinct Finder integrations that allow it to more deeply and more natively integrate with the macOS file browser than the classic sync client.

6.3.4 Sync status indicators

Similarly to classic sync client, the virtual files client displays icons next to virtual files that indicate what their status is.

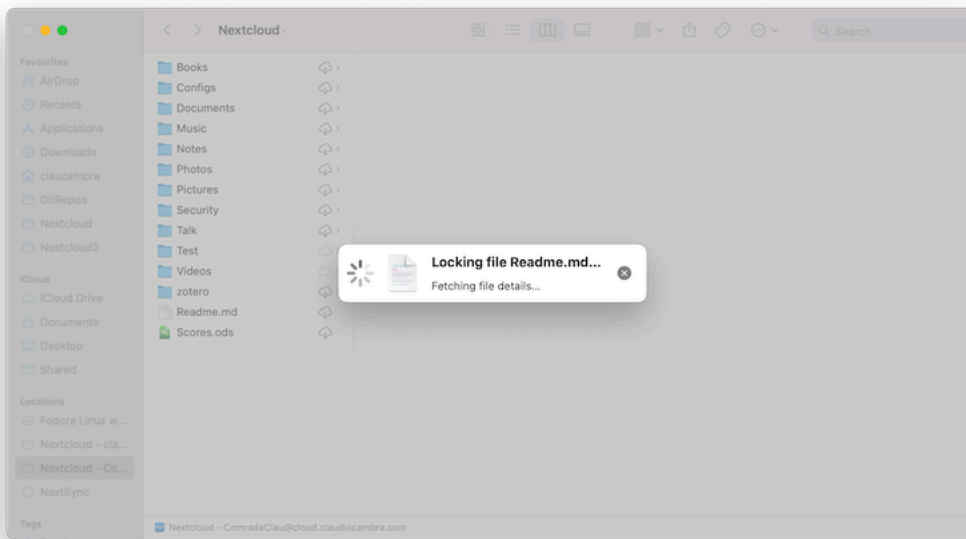


- *Cloud with arrow*: item or its children is virtual and is available for local keeping
- *Cloud outline*: item is partially available locally
- *No icon*: item is available offline

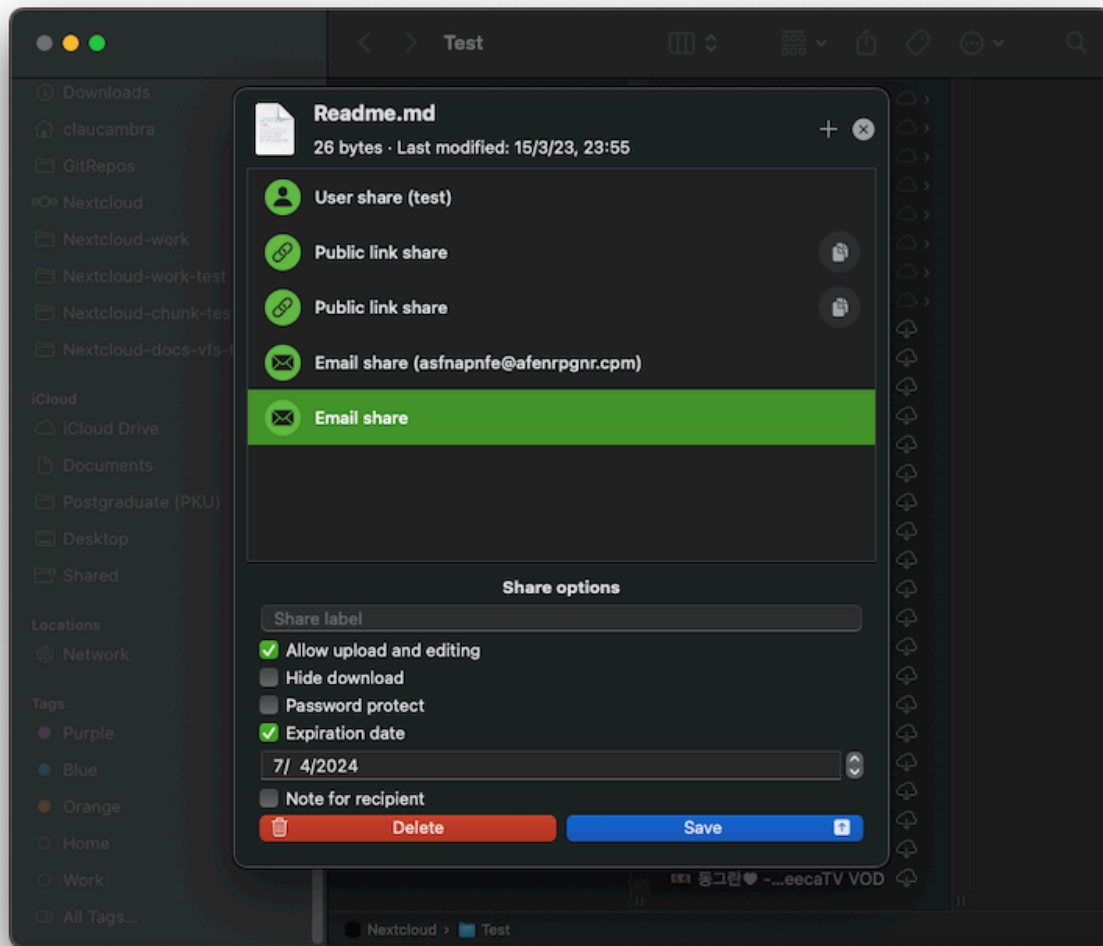
6.3.5 Context menu actions

Control-clicking, two-finger clicking, or right-clicking on a Finder item will provide the context menu, in which you may find several entries provided by the virtual files client that allow you to use some of the features supported by Nextcloud. These include:

- File locking (if supported by server)

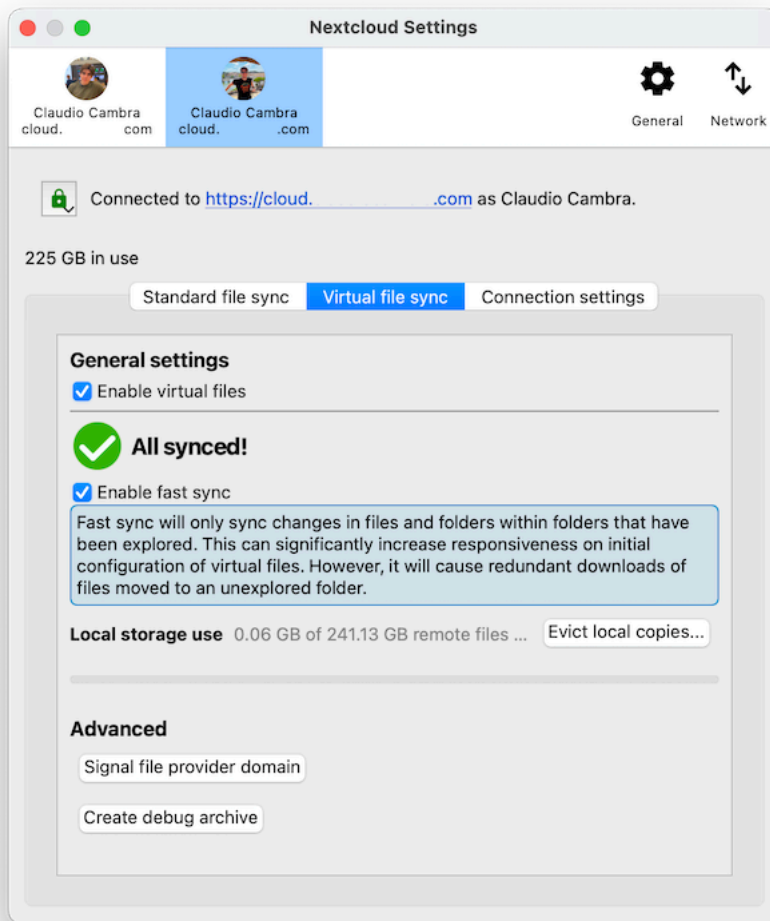


- File sharing (if supported by server)



6.3.6 Configuration

Virtual files-related settings can be adjusted on a per-account basis via the Nextcloud desktop client's settings window.



The virtual files section offers a number of options relevant to virtual files interaction:

- Enable/disable virtual files for the target account
- Enable/disable fast sync
- Manage local storage usage and evict local copies
- Force the virtual files domain to check for updates

6.4 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.

6.4.1 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.

Note

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.

6.4.2 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`).

- 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:

Note

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

- Edit this Registry key:

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

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

Note

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
```

6.5 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](#)

6.6 Conflicts

6.6.1 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.

6.6.2 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.

6.6.3 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`.

6.7 FAQ

6.7.1 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.

Note

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.

6.7.2 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.

6.7.3 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.

6.7.4 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:

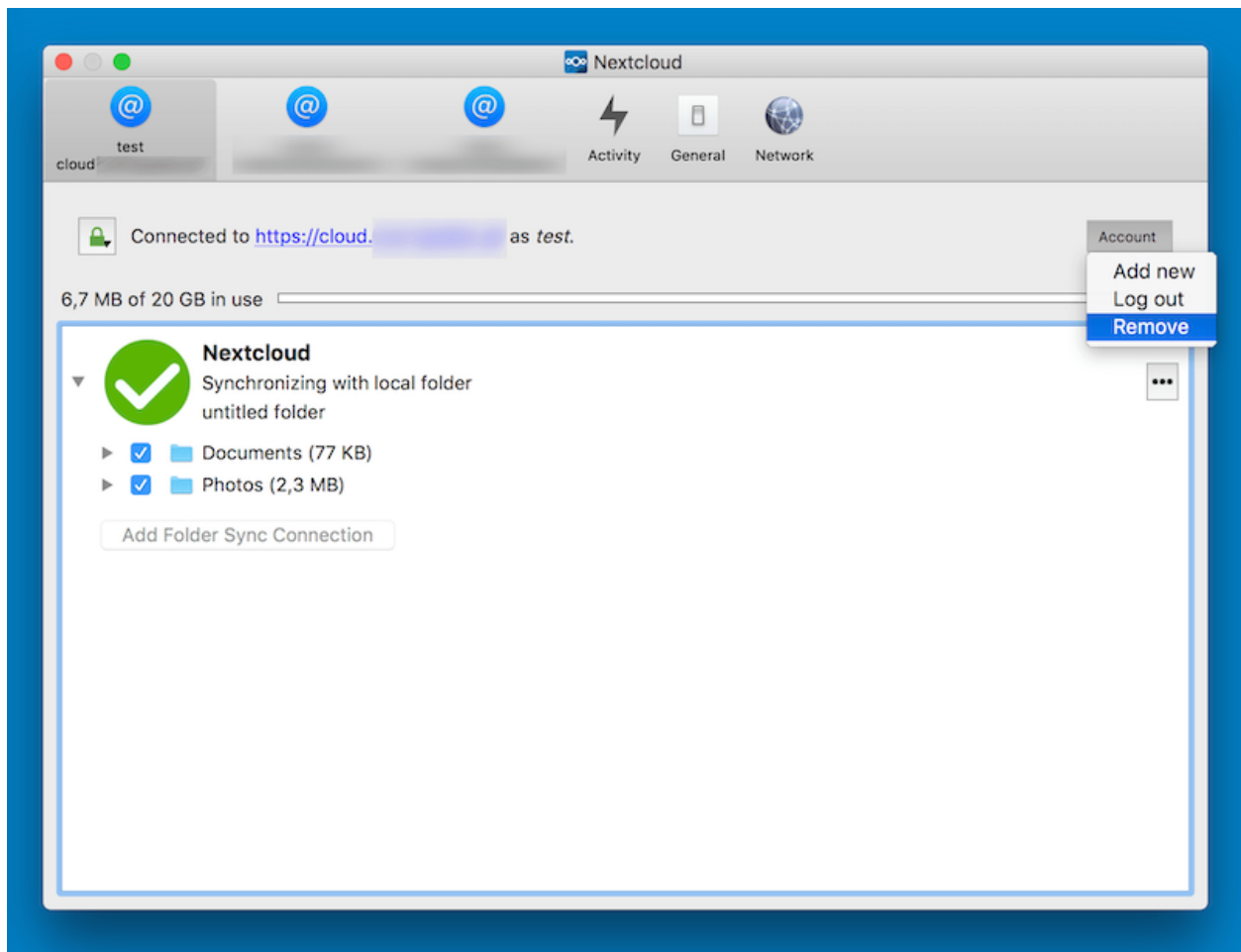
```
echo 524288 > /proc/sys/fs/inotify/max_user_watches
```

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

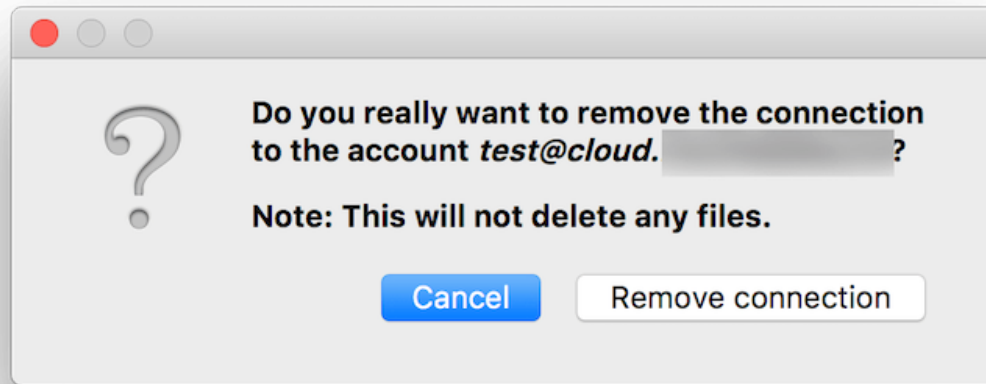
6.7.5 I Want To Move My Local Sync Folder

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, in the client UI, which you can see above, 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, which you can see above, *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).

Important

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.

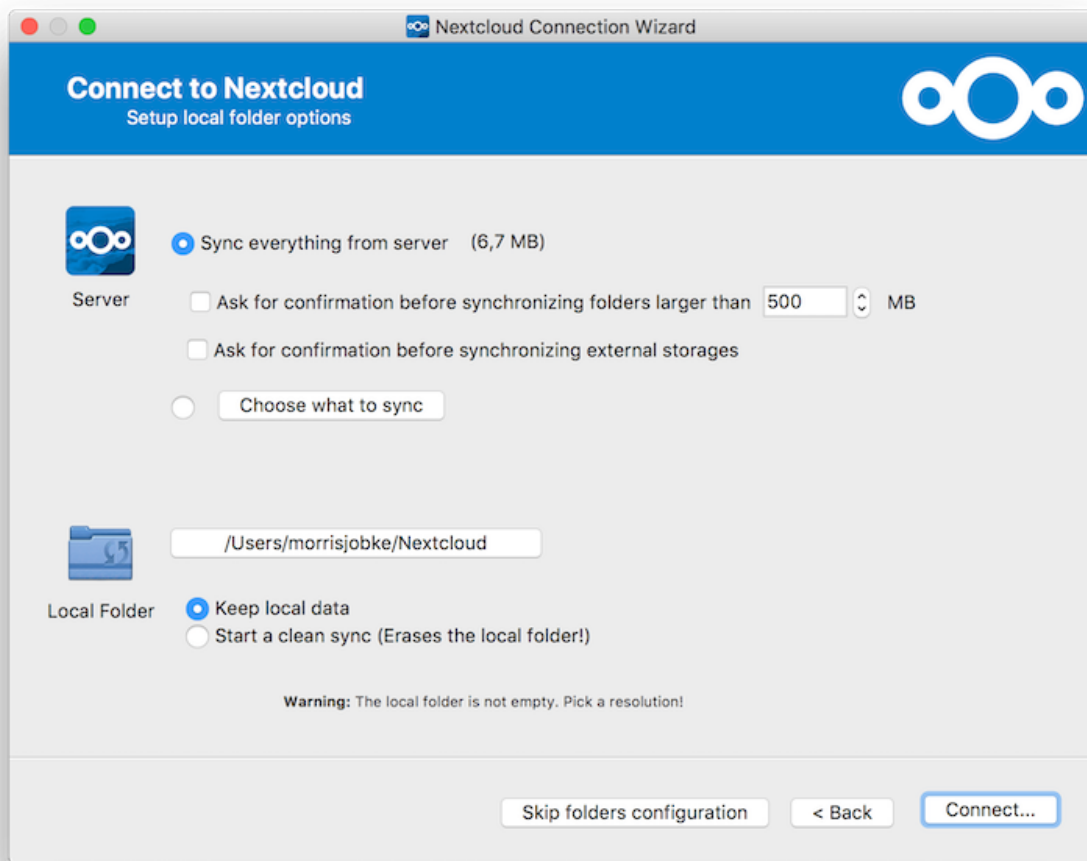
6.7.6 I would like to change the language of the user interface

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
```

You can find additional information here:

- [Admin manual](#)



- [Developer manual](#)

SETTING YOUR PREFERENCES

As a user, you can manage your personal settings.

To access your personal settings:

1. Click on your profile picture in the top right corner of your Nextcloud instance to open the menu



2. Clicking on *Settings* from the drop down menu opens the user preferences

You are using 7.2 MB of 5 GB (0.14 %)

Profile picture     png or jpg, max. 20 MB	Full name Tiberius Claudius Nero Phone number Your phone number Website Link https://...	Email Your email address For password reset Address Your postal address Twitter Twitter handle @..
--	---	--

Groups

You are member of the following groups:
admin

Password

Current password	New password	Change password
---	---	--

Note

If you are an administrator, you can also manage users and administer the server. These links do not appear to a non-administrator user.

The options listed in the Personal Settings Page depend on the applications that are enabled by the administrator. Some of the features you will see include the following:

- Usage and available quota
- Manage your profile picture
- Full name (You can make this anything you want, as it is separate from your Nextcloud login name, which is unique and cannot be changed)
- Email address
- List of your Group memberships
- Change your password
- *Using two-factor authentication*
- User preferences
- Choose the language for your Nextcloud interface
- Choose your preferred first day of the week
- Links to desktop and mobile apps
- Manage your Activity stream and notifications
- Default folder to save new documents to

- Your Federated sharing ID
- Social sharing links
- Nextcloud version

Note

Available options and settings depending on your administrator's configuration. If you are not able to change the password or the display name in your personal settings, please contact your administrator for help.

7.1 Sharing your data in the global address book

Some administrators decide to share their global address book with other Nextcloud instances (so called *Trusted Servers*) or even with the wider world. This is helpful when two instances want to work closely together, or when people want to use Nextcloud as a virtual telephone book for others to browse. It also allows searching for contacts, creating shares and much more.

You can change what personal data of yours is shared by setting the scope of your data. Clicking on the lock icon will open the following dropdown next to each entry:

If you set your data to **Private**, nobody but you will be able to see it.

If you set your data to **Local**, all logged in users within your Nextcloud instance will be able to see the information, but no one outside of it.

If you set your data to **Federated**, the trusted server(s) which are added by your administrator will be able to see this data, in addition to all logged in users.

If you set your data to **Published**, anyone can see your data. For some use cases this is wanted. Someone with a public facing role such as marketing or sales might want to share their contact with a wide variety of connections which might not be using Nextcloud.

7.2 Restrict who can see your profile data

If the profile is enabled by your administrator, then your profile data can be read by other users and guest. To control who can see which information you can adjust the scopes already mentioned:

- **Private** will only allow you and users you have added to your phone book to see the data
- **Local** and above will also allow guests to see your data

To restrict the visibility even more you can disable guest from seeing your profile data by changing the profile visibility to logged-in users. On the personal settings you can find the button for profile visibility:

Which allows to configure the visibility for each profile attribute:



Profile

☒ Enable profile



▼ Edit your Profile visibility

Details

Profile visibility

The more restrictive setting of either visibility or scope is respected on your Profile. For example, if visibility is set to "Show to everyone" and scope is set to "Private", "Private" is respected.

About	Show to everyone	▼
Address	Show to logged in accounts only	▼
Display name	Show to everyone	▼
Email	Show to logged in accounts only	▼
Headline	Show to everyone	▼
Organisation	Show to everyone	▼
Phone	Show to logged in accounts only	▼
Profile picture	Show to everyone	▼
Pronouns	Show to everyone	▼
Role	Show to everyone	▼
Twitter	Show to everyone	▼
Website	Show to everyone	▼

UNIVERSAL ACCESS

Universal access is very important to us. We follow web standards and check to make everything usable also with keyboard and assistive software such as screen readers. We aim to be compliant with the [Web Content Accessibility Guidelines 2.1](#) on AA level, with the high contrast theme even on AAA level. We also follow the German BITV 2.0 guidelines.

If you find any issues, don't hesitate to report them on [our issue tracker](#). And if you want to get involved, come [join our design team](#)!

8.1 Zoom and responsiveness

The Nextcloud interface is fully responsive and usable on any size of screen. You can zoom in and out to fit the text and element size to your liking. The navigation and sidebar can be expanded or collapsed.

8.2 Navigating via keyboard

You can navigate the web interface with keyboard only just like you can with the mouse:

- `Tab` and `Shift + Tab` to move between elements
- `Enter` or `Space` to activate or open the element (depending on the type of element)
- `Escape` to be used to close modals, popover menus, and file viewers
- `Left arrow` and `Right arrow` to navigate between photos in the viewer
- `Ctrl + F` to focus the search field
- `Ctrl + S` to save changes in editors like Nextcloud Text

For quicker navigation, we offer 2 “skip links” at the beginning of the document which allow you to:

- Skip to main content
- Skip to navigation of app

Nextcloud Talk has shortcuts which are also documented inside the settings of the app itself:

- `C` to focus the message input field
- `Escape` to unfocus the message input field to be able to use shortcuts
- `F` to fullscreen the chat or call
- **While in a call:**
 - `M` to toggle the microphone on and off
 - `V` to toggle video on and off

- Space for push to talk or push to mute
- R to raise or lower hand

Nextcloud Mail has shortcuts as well, also documented inside the settings of the app itself:

- C to compose a new message
- Left arrow to switch to a newer message
- Right arrow to switch to an older message
- S to toggle a message as favorite
- U to toggle a message unread
- Del to delete a message
- Ctrl + Enter to send
- R to refresh and load new mails

8.3 Included themes

We offer several themes you can activate to aid accessibility:

- **High contrast theme:** A high contrast mode to ease your navigation. Visual quality will be reduced but clarity will be increased.
- **Dark theme:** A dark theme to ease your eyes by reducing the overall luminosity and brightness. It is still under development, so please report any issues you may find.
- **Dyslexia font:** OpenDyslexic is a free typeface/font designed to mitigate some of the common reading errors caused by dyslexia.

To reach the accessibility settings:

1. Open the settings menu at the end of the header
2. Pick **Settings**
3. In the navigation, pick **Accessibility**

Note

Contrast of elements can vary based on custom theming. For example, the primary theming color is used as background color by the header, log in page, and primary buttons. If this causes contrast issues, please contact your administrator for help.

USING TWO-FACTOR AUTHENTICATION

Two-factor authentication (2FA) is a way to protect your Nextcloud account against unauthorized access. It works by requiring two different ‘proofs’ of your identity. For example, *something you know* (like a password) and *something you have* like a physical key. Typically, the first factor is a password like you already have and the second can be a text message you receive or a code you generate on your phone or another device (*something you have*). Nextcloud supports a variety of 2nd factors and more can be added.

Once a two-factor authentication app has been enabled by your administrator you can enable and configure it in [Setting your preferences](#). Below you can see how.

9.1 Configuring two-factor authentication

In your Personal Settings look up the Second-factor Auth setting. In this example this is TOTP, a Google Authenticator compatible time-based code:

The screenshot displays the 'Two-Factor Authentication' settings in a Nextcloud interface. On the left is a sidebar with navigation links: Personal (Personal info, Security, Accessibility, Sharing), Administration (Overview, Basic settings, Sharing, Security, Theming, Groupware, Workflow), and a top navigation bar with icons for Nextcloud, files, mail, and users. The main content area is titled 'Two-Factor Authentication' and contains three sections:

- Backup code:** A lock icon, text stating 'Backup codes have been generated. 0 of 10 codes have been used.', a 'Regenerate backup codes' button, and a note: 'If you regenerate backup codes, you automatically invalidate old codes.'
- TOTP (Authenticator app):** A key icon, an 'Enable TOTP' radio button (which is selected), the text 'Your new TOTP secret is: BDYEWMHZNSPDQD2I', and 'For quick setup, scan this QR code with your TOTP app:'. Below this is a large QR code. Further down, it says 'After you configured your app, enter a test code below to ensure everything works correctly:' with an 'Authentication code' input field and a 'Verify' button.
- U2F device:** A key icon, text stating 'No U2F devices configured. You are not using U2F as second factor at the moment.', and an 'Add U2F device' button.

You will see your secret and a QR code which can be scanned by the TOTP app on your phone (or another device). Depending on the app or tool, type in the code or scan the QR and your device will show a login code which changes every 30 seconds.

9.2 Recovery codes in case you lost your 2nd factor

You should always generate backup codes for 2FA. If your 2nd factor device gets stolen or is not working, you will be able to use one of these codes to unlock your account. It effectively functions as a backup 2nd factor. To get the backup codes, go to your Personal Settings and look under Second-factor Auth settings. Choose *Generate backup codes*:

Two-Factor Authentication

Backup code

[Generate backup codes](#)

TOTP (Authenticator app)

☒ Enable TOTP

U2F device

No U2F devices configured. You are not using U2F as second factor at the moment.

[Add U2F device](#)

You will then be presented with a list of one-time-use backup codes:

You should put these codes in a safe spot, somewhere you can find them. Don't put them together with your 2nd factor like your mobile phone but make sure that if you lose one, you still have the other. Keeping them at home is probably the best thing to do.

9.3 Logging in with two-factor authentication

After you have logged out and need to log in again, you will see a request to enter the TOTP code in your browser. If you enable not only the TOTP factor but another one, you will see a selection screen on which you can choose two-factor method for this login. Select TOTP:

Now, just enter your code:

If the code was correct you will be redirected to your Nextcloud account.

Note

Since the code is time-based, it's important that your server's and your smartphone's clock are almost in sync. A time drift of a few seconds won't be a problem.

Two-Factor Authentication

Backup code

These are your backup codes. Please save and/or print them as you will not be able to read the codes again later

YQTF3MKJTP6UTS71

1JF2NFPVHXVJ5934

G3DZ28HXC5YKS6MK

UC20TNSQ00SN35JE

NYU84I4X8JFA2TCZ

SJKVNULTU7733W2Y

TFBF7FDN3VWVD5ZH

20JV65T5EQAN7G12

6B02WNAVIN3KPYNW

R9TYF8NMNSZGLZ3E

Save backup codes

Print backup codes

Regenerate backup codes

If you regenerate backup codes, you automatically invalidate old codes.

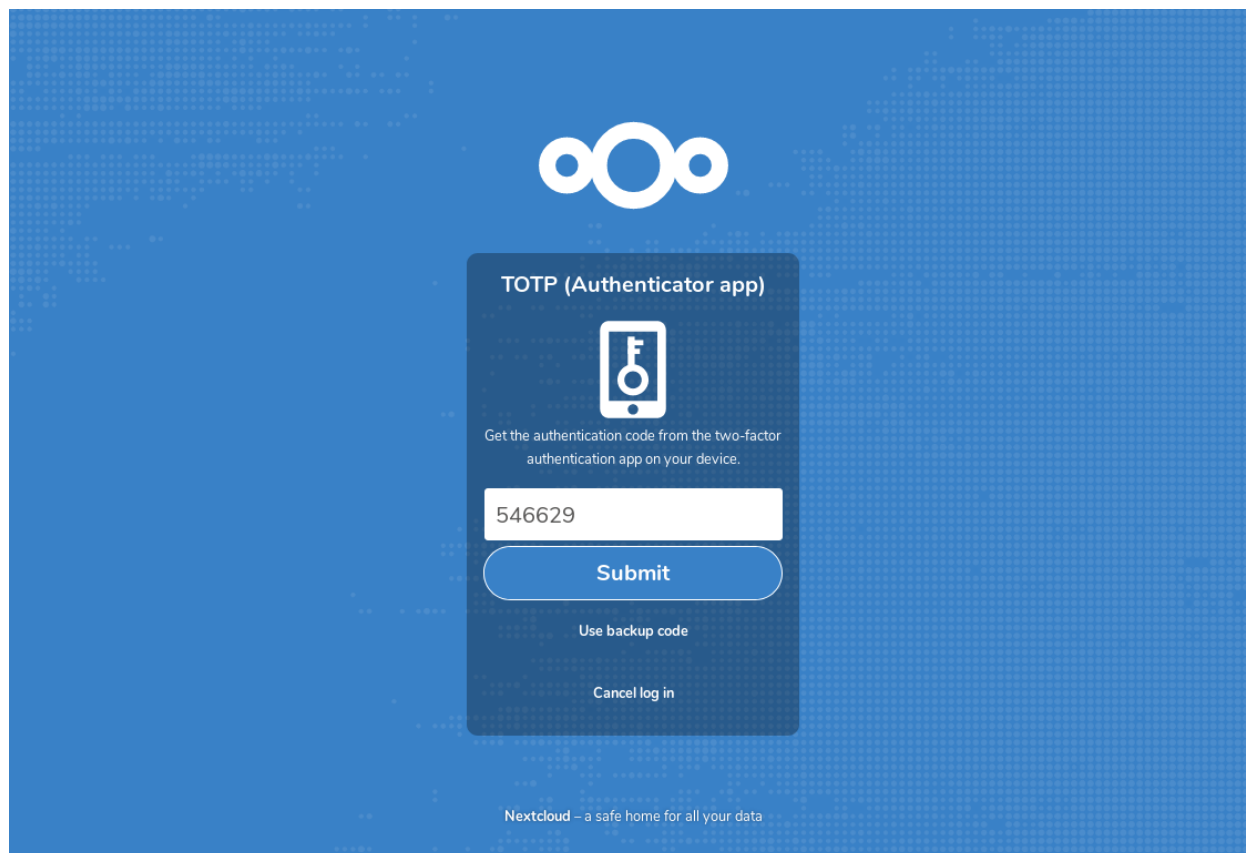
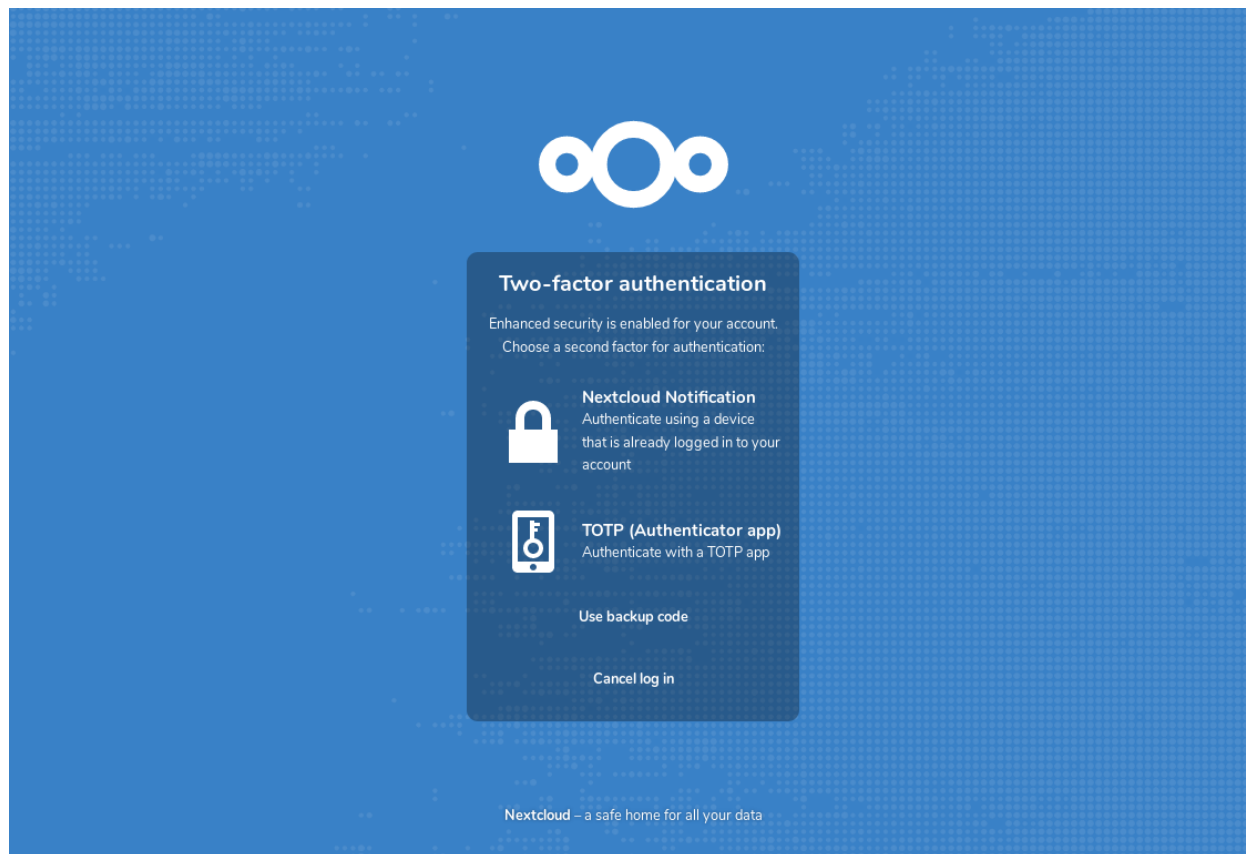
TOTP (Authenticator app)

☒ Enable TOTP

U2F device

No U2F devices configured. You are not using U2F as second factor at the moment.

Add U2F device



9.4 Using two-factor authentication with hardware tokens

You can use two-factor authentication based on hardware tokens. The following devices are known to work:

- TOTP based:
 - Nitrokey Pro
 - Nitrokey Storage
- FIDO2 based:
 - Nitrokey FIDO2
 - Nitrokey FIDO U2F

9.5 Using client applications with two-factor authentication

Once you have enabled 2FA, your clients will no longer be able to connect with just your password unless they also have support for two-factor authentication. To solve this, you should generate device specific passwords for them. See [Manage connected browsers and devices](#) for more information on how to do this.

9.6 Considerations

If you use WebAuthn to login to your Nextcloud be sure to not use the same token for 2FA. As this would mean you are again only using a single factor.

MANAGE CONNECTED BROWSERS AND DEVICES

The personal settings page allows you to have an overview on the connected browsers and devices.

10.1 Managing connected browsers

In the list of connected browsers you see which browsers connected to your account recently:

The screenshot shows the 'Personal - Nextcloud' settings page. The left sidebar contains links to 'Personal info', 'Sessions', 'Devices', 'Sync clients', 'TOTP Second-factor Auth', and 'Federated Cloud'. The main content area is titled 'Sessions' and includes the text 'These are the web, desktop and mobile clients currently logged in to your ownCloud.' Below this is a table with two columns: 'Browser' and 'Most recent activity'. The table lists four sessions, each with a trash icon for removal. Below the sessions table is a section titled 'Devices' with the text 'You've linked these devices.' and a table with two columns: 'Name' and 'Most recent activity'. The table lists one device, 'Android', with a trash icon for removal.

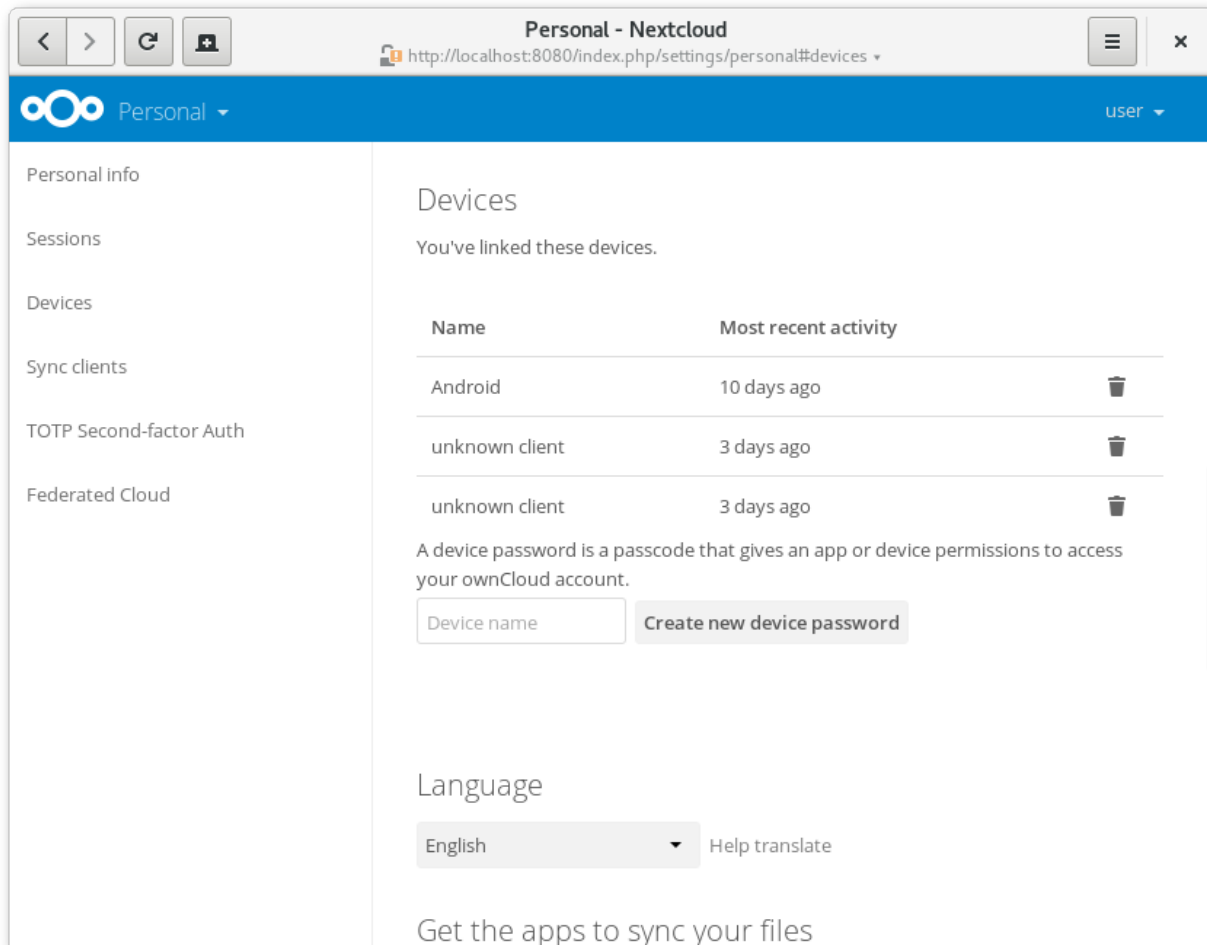
Browser	Most recent activity
Mozilla/5.0 (X11; Linux x86_64; rv:46.0) Gec...	a day ago
Mozilla/5.0 (X11; Linux x86_64; rv:46.0) Gec...	3 minutes ago
Mozilla/5.0 (X11; Linux x86_64) AppleWebK...	seconds ago
Mozilla/5.0 (X11; Linux x86_64) AppleWebK...	17 minutes ago

Name	Most recent activity
Android	10 days ago

You can use the trash icon to disconnect any of the browsers in the list.

10.2 Managing devices

In the list of connected devices you see all the devices and clients you generated a device password for and their last activity:



You can use the trash icon to disconnect any of the devices in the list.

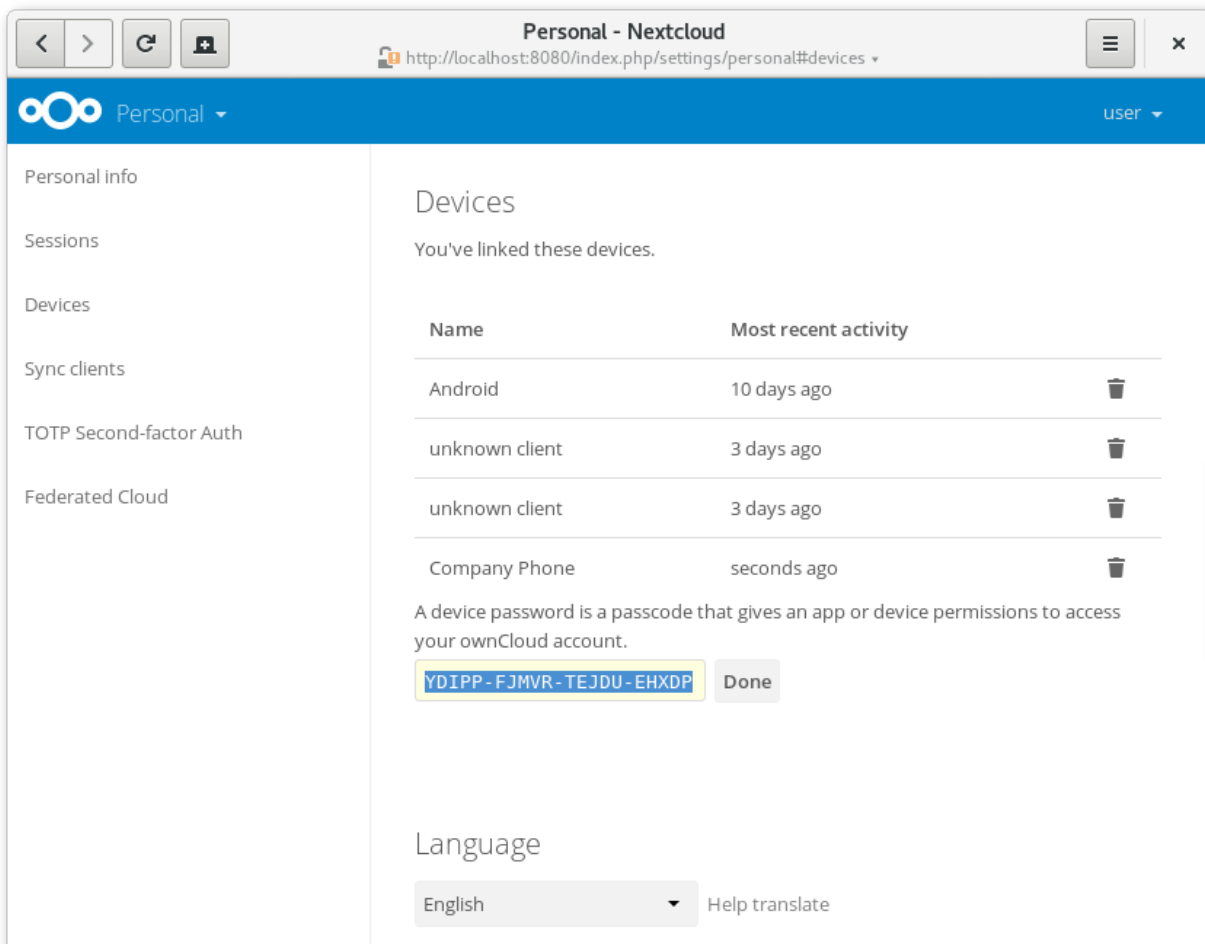
At the bottom of the list you find a button to create a new device-specific password. You can choose a name to identify the token later. The generated password is used for configuring the new client. Ideally, generate individual tokens for every device you connect to your account, so you can disconnect those individually if necessary:

Note

You have only access to the device password when creating it, Nextcloud will not save the plain password, hence it's recommended to enter the password on the new client immediately.

Note

If you use *Using two-factor authentication* for your account, device-specific passwords are the only way to configure clients. The server will deny connections of clients using your login password then.



Personal - Nextcloud

http://localhost:8080/index.php/settings/personal#devices

Personal user

Personal info

Sessions

Devices

Sync clients

TOTP Second-factor Auth

Federated Cloud

Devices

You've linked these devices.

Name	Most recent activity	
Android	10 days ago	
unknown client	3 days ago	
unknown client	3 days ago	
Company Phone	seconds ago	

A device password is a passcode that gives an app or device permissions to access your ownCloud account.

YDIPP-FJMR-TEJDU-EHXDP Done

Language

English  Help translate

10.3 Device-specific passwords and password changes

For password changes in external user backends the device-specific passwords are marked as invalid and once a login of the user account with the main password happens all device-specific passwords are updated and work again.

EXTERNAL STORAGE

11.1 Configuring External Storage

The External Storage application allows you to mount external storage services, such as Amazon S3, SMB/CIFS file servers and FTP servers... in Nextcloud. Your Nextcloud server administrator controls which of these are available to you. Please see [Configuring External Storage \(GUI\)](#) in the Nextcloud Administrator's manual for configuration how-tos and examples.

INDEX

B

bandwidth, [220](#)

E

exclude files, [223](#)

I

ignored files, [223](#)

L

limiting, [220](#)

P

pattern, [223](#)

proxy settings, [220](#)

S

SOCKS, [220](#)

T

throttling, [220](#)