



OX App Suite Nextcloud Integration Technical Documentation
for
7.10.6-rev3

2022-07-14

Copyright notice

©2022 by OX Software GmbH. All rights reserved. Open-Xchange and the Open-Xchange logo are trademarks or registered trademarks of OX Software GmbH. All other company and/or product names may be trademarks or registered trademarks of their owners. Information contained in this document is subject to change without notice.

Contents

1	General Information	2
1.1	Warnings	2
1.2	Delivery Comment	2
1.3	Install Package Repository	2
1.4	Build Dependencies	2
1.5	Notice	3
2	Feature overview of the OX App Suite integration with Nextcloud	3
2.1	Motivation	3
2.2	Supported Use Cases	3
3	File Picker UI Plugin for Nextcloud	3
3.1	Overview	3
3.1.1	Nextcloud Apps	4
3.2	Installation	4
3.3	Configuration	4
4	File Picker Middleware Plugin for Nextcloud	5
4.1	HTTP API to Create Nextcloud Share Links	5
4.1.1	Parameter	5
4.1.2	Error Codes	6
4.2	HTTP API to Get AccessToken and User specific webdav Url	6
4.2.1	Parameter	6
4.2.2	Error Codes	7
5	Session based Nextcloud File Storage	7
5.1	Configuration	7
6	Shipped Version	8
6.1	Package open-xchange-appsuite-nextcloud-filepicker	8
6.1.1	Installation	8
6.1.2	Configuration	8
6.2	Package open-xchange-nextcloud-filepicker	8
6.2.1	Installation	8
6.3	Package open-xchange-nextcloud-oauth-session	8
6.3.1	Installation	9
6.3.2	Configuration	9
A	Configuration Files	9

1 General Information

1.1 Warnings

Warning

Images included in following pages have been attached as a generic visual reference for the theme and should not be considered as the final aspect when installed on production environment. Actual aspect will change based on components/plugins enabled and their configuration.

Warning

It is mandatory to restart the **open-xchange** service on all middleware nodes after performing the update.

Warning

When updating only custom packages, it may be necessary to invalidate the browser cache to make the changes visible. An invalidation of the cache will be done automatically when updating OX core UI packages at the same time, but not if you are updating only custom UI plug-ins. In the latter case, please call the following command on all Apache nodes with the same value for <timestamp>.

```
/opt/open-xchange/sbin/touch-appsuite --timestamp=<timestamp>
```

Warning

UI packages with themes need to generate CSS after installation. This will be done automatically when the service is restarted but if you wish to not perform a service restart, you must call the following command on each node:

```
/opt/open-xchange/appsuite/share/update-themes.sh
```

Warning

Custom configuration or template files are potentially not updated automatically. After the update, please always check for files with a **.dpkg-new** or **.rpmnew** suffix and merge the changes manually. Configuration file changes are listed in their own respective section below but don't include changes to template files. For details about all the configuration files and templates shipped as part of this delivery, please read the relevant section of each package.

1.2 Delivery Comment

This delivery was requested with following comment:

```
Nextcloud 7.10.6 Feature Delivery
```

1.3 Install Package Repository

This delivery is part of a restricted software repository:

<https://software.open-xchange.com/components/nextcloud-integration/stable/7.10.6/DebianBuster>
<https://software.open-xchange.com/components/nextcloud-integration/stable/7.10.6/DebianStretch>
<https://software.open-xchange.com/components/nextcloud-integration/stable/7.10.6/DebianBullseye>
<https://software.open-xchange.com/components/nextcloud-integration/stable/7.10.6/RHEL7>

1.4 Build Dependencies

This delivery was build and tested with following dependencies:

```
AppSuite:node-10,frontend-7.10.6-rev12,backend-7.10.6-rev16
```

1.5 Notice

Info

Some configurations can be changed without restarting the service, please call following command for getting a list of supported settings.

```
/opt/open-xchange/sbin/listreloadables
```

Please use following command to enable capable and changed configurations on a running system.

```
/opt/open-xchange/sbin/reloadconfiguration
```

2 Feature overview of the OX App Suite integration with Nextcloud

2.1 Motivation

Nextcloud customers who need a powerful groupware solution can now share files even more easily with OX App Suite. OX App Suite customers who do not want to miss out on the familiar features in Nextcloud now have the option to work with both products.

2.2 Supported Use Cases

OX App Suite now integrates with Nextcloud and allows the following use cases:

- Nextcloud “Files” and “Talk” can be launched in a new browser tab from the OX App Suite app launcher. The user is automatically logged in to Nextcloud.
- Email attachments can be easily selected and attached from Nextcloud via a file picker.
- Files from Nextcloud can also be inserted into an email as sharing link. The user can optionally specify a password, write permissions and expiration date for the links at the bottom of the file picker. Afterwards, the link settings can be managed in Nextcloud.
- The file picker allows to navigate the Nextcloud folder tree. Clicking a folder shows the folder content. The breadcrumb allows to navigate back in the folder tree.
- Multiple selection is supported to insert more than one link or attachment at once.
- Files attached to an email in OX App Suite can be saved in Nextcloud. The file picker allows to select the folder in the Nextcloud folder tree where the uploaded attachments are stored.

3 File Picker UI Plugin for Nextcloud

Package(s)	open-xchange-appsuite-nextcloud-filepicker, open-xchange-appsuite-nextcloud-filepicker-static
Required capabilities	com.openexchange.capability.filestorage_nextcloud_oauth
Available since	7.10.5

3.1 Overview

This is the UI part of the integration of the [Nextcloud file picker](#) into OX App Suite.

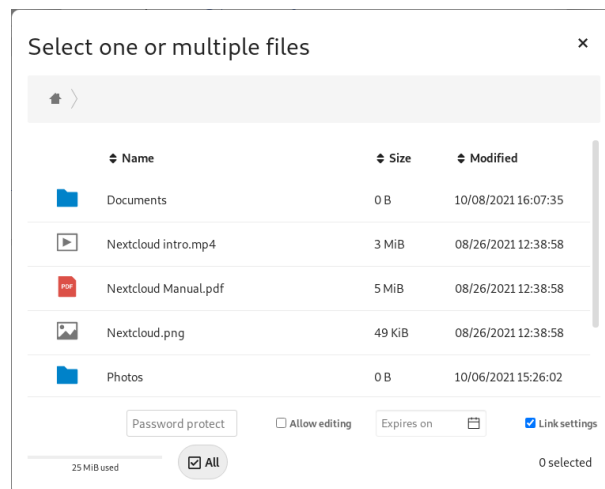


Figure 1: File Picker Dialog

3.1.1 Nextcloud Apps

To use the Nextcloud Files app instead of the native Drive app in OX App Suite, users should be provisioned without the `infostore` permission. The integration will add the Files app to the app launcher menu.

Similarly, the Nextcloud Talk app is also added to the launcher.

When clicked, the both Nextcloud apps open in a separate tab. If either app already opened a tab, this tab will be reused.

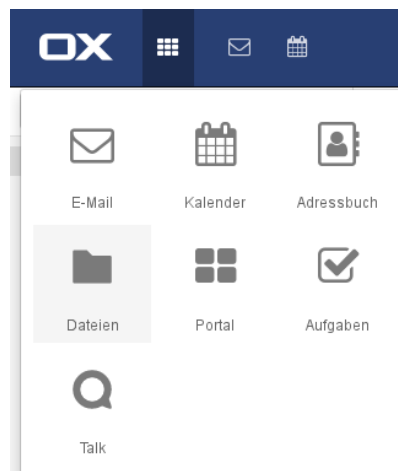


Figure 2: Nextcloud Apps

3.2 Installation

The UI plugin is available in the packages `open-xchange-appsuite-nextcloud-filepicker` and `open-xchange-appsuite-nextcloud-filepicker-static`. As usual with UI packages, in case of dedicated web servers, the latter package is installed on the web servers, and the former on middleware nodes.

3.3 Configuration

For a single-node installation where Nextcloud and OX App Suite run on the same domain, the integration should work out of the box. By default, the integration assumes that Nextcloud is available

unter `/nextcloud/` on the same domain. If that is not the case, the exact URL of Nextcloud can be configured in

`/opt/open-xchange/etc/settings/nextcloud-filepicker.properties:`

```

1 # Custom URL for the Nextcloud server.
2 # Defaults to /nextcloud/ on the same domain as OX App Suite.
3 #
4 # io.ox.nextcloud//server=https://server.tld/nextcloud/
5
6 # Custom URL for the Nextcloud Files app.
7 # Defaults to apps/files/ relative to the value of io.ox.nextcloud//server.
8 #
9 # io.ox.nextcloud//appUrl=https://server.tld/nextcloud/apps/files/
    
```

The first option is mainly used to find the WebDAV API endpoint. In addition, the location of the Nextcloud Files app is automatically derived from it by appending `apps/files/`. If this does not work, the exact location can be specified explicitly using the second option.

4 File Picker Middleware Plugin for Nextcloud

Bundle Identifier	<code>com.openexchange.nextcloud.access.token.provider,</code> <code>com.openexchange.nextcloud.filepicker</code>
Package(s)	<code>open-xchange-nextcloud-filepicker</code>
Required capabilities	<code>com.openexchange.capability.filestorage_nextcloud_oauth=true</code>
Available since	7.10.5-rev1

The session based Nextcloud file storage allows to use `access_tokens` bound to the session to use attachments from an internal Nextcloud account that is connected via the `open-xchange-nextcloud-oauth-session` storage.

4.1 HTTP API to Create Nextcloud Share Links

4.1.1 Parameter

Parameter	Description
<code>server</code>	Hostname or IP of the server.
<code>sessionId</code>	The session id of the user.

Please use the URL prefix below for following actions:

```

1 PUT http://{server}/appsuite/api/nextcloud/filepicker?session={sessionId}&action=
    
```

Action URL Suffix	Example Body	Description
<code>sharelink</code>	<code>{"path": "/example.png"}</code>	The share link path of e.g. <code>/example.png</code> .

Parameters of the `sharelink` Request body, reflects the documentation at [ocs-share-api, create a share](#).

Parameter	Optional	Description
<code>path</code>	false	The share link path of e.g. <code>/example.png</code> .

Parameter	Optional	Description
shareType	true	The share type, defaults to 3 if not set.
shareWith	true	Target of the share e.g. test@example.com.
publicUpload	true	If public upload should be allowed true or false.
password	true	Password for the share e.g. 16%!%374123, must be secure if set, otherwise share creation fails.
permissions	true	The share permissions e.g. 3 for read and update.
expireDate	true	The share expire Date e.g. 2021-09-22.

Example sharelink Response

```

1  {
2    "data": {
3      "url": "https://sps-nc.duckdns.org/index.php/s/5Q4Sq3ZDrZYTHqZ"
4    }
5  }
    
```

4.1.2 Error Codes

Error Code	Description
NC_FILE-0001	An error occurred: {details}
NC_FILE-0002	Access token is missing: {details}
NC_FILE-0003	The host is not configured.
NC_FILE-0004	Failed to authenticate against the nextcloud system: {details}
NC_FILE-0005	The created share did not return an url: {details}
NC_FILE-0006	Failed to create a share, error: {details}
NC_FILE-0007	Failed to create a share, error: {details}

NC_FILE-0007 is special as it is logged as USER_INPUT.

4.2 HTTP API to Get AccessToken and User specific webdav Url

4.2.1 Parameter

Parameter	Description
server	Hostname or IP of the server.
sessionId	The session id of the user.

Please use the URL prefix below for following actions:

```

1  GET http://{server}/appsuite/api/nextcloud/accesstoken?session={sessionId}&action=
    
```

Action URL Suffix	Description
GET	Returns the accessToken and url of the User if present.

Example GET Response

```

1 {
2   "data": {
3     "accessToken": "eyJhbGciOiJSUzI1NiIsImtpZCI6Imtvbm51L...oX38QhflJnLQotZs2Wo",
4     "login": "test"
5   }
6 }

```

Note that the accessToken key/value can be omitted in setting com.openexchange.nextcloud.filepicker.includeAccessToken

4.2.2 Error Codes

No special error codes

5 Session based Nextcloud File Storage

Bundle Identifier	com.openexchange.file.storage.nextcloud.oauth
Package(s)	open-xchange-nextcloud-oauth-session
Required capabilities	com.openexchange.capability.filestorage_nextcloud_oauth=true
Available since	7.10.5-rev1

The Nextcloud file picker allows to use access_tokens bound to the session to create Nextcloud accounts on the fly.

5.1 Configuration

/opt/open-xchange/etc/nextcloud_oauth.properties

```

1 # The Nextcloud endpoint for automatic account creation
2 # Should be in the format https://host/nextcloud that reflects the base url of the
3 # Nextcloud System
4 # Default: <empty>
5 com.openexchange.file.storage.nextcloud.oauth.url=
6
7 # Strategy to get the username of the /remote.php/dav/files/USERNAME/
8 # Possible options:
9 # * username - use the provisioned username of the user in ox
10 # * user_status - fetches the userID from the nextcloud system
11 # Default: username
12 com.openexchange.file.storage.nextcloud.oauth.webdav.username.strategy=username
13
14 # The folder name shown in the OX Infostore
15 # Default: Nextcloud
16 com.openexchange.file.storage.nextcloud.oauth.displayName=Nextcloud
17
18 # The capability to enable the automatic handling of Nextcloud session based accounts
19 # Default: not_set
20 com.openexchange.capability.filestorage_nextcloud_oauth=
21
22 # The capability filestorage_nextcloud must also be enabled
23 # Default: not_set
24 com.openexchange.capability.filestorage_nextcloud=
25
26 # Should the /api/nextcloud/accesstoken JSON response contain the accessToken key and
27 # value?
28 # ConfigCascade aware.
29 #
30 # Default: true
31 com.openexchange.nextcloud.filepicker.includeAccessToken=true

```

6 Shipped Version

6.1 Package open-xchange-appsuite-nextcloud-filepicker

Integration of the Nextcloud file-picker dialogs into OX App Suite.

Version: 7.10.6-3

Type: OX Frontend Plugin with Themes

Depends on:

```
open-xchange-appsuite
open-xchange-appsuite-manifest (<<7.10.7)
open-xchange-appsuite-manifest (>=7.10.6)
```

6.1.1 Installation

Install on OX middleware nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-appsuite-nextcloud-filepicker
```

Install on Apache nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-appsuite-nextcloud-filepicker-static
```

6.1.2 Configuration

For details, please see appendix [A](#)

/opt/open-xchange/etc/settings/nextcloud-filepicker.properties (page [9](#))

6.2 Package open-xchange-nextcloud-filepicker

Module to interact with nextcloud filepickers This package provides an endpoints to interact and nextcloud filepicker methods

Version: 7.10.6-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-nextcloud-oauth-session (<<7.10.7)
open-xchange-nextcloud-oauth-session (>=7.10.6)
```

Conflicts with:

```
open-xchange-nextcloud-filepicker
```

6.2.1 Installation

Install on OX middleware nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-nextcloud-filepicker
```

6.3 Package open-xchange-nextcloud-oauth-session

This package provides a session based file storage for Nextcloud

Version: 7.10.6-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-file-storage-webdav (<<7.10.7)
```

```
open-xchange-file-storage-webdav (>=7.10.6)
```

Conflicts with:

```
open-xchange-plugins-nextcloud-oauth-session
```

6.3.1 Installation

Install on OX middleware nodes with package installer **apt-get** or **yum**:

```
<package installer> install open-xchange-nextcloud-oauth-session
```

6.3.2 Configuration

For details, please see appendix [A](#)

/opt/open-xchange/etc/nextcloud_oauth.properties (page [10](#))

A Configuration Files

File 1 /opt/open-xchange/etc/settings/nextcloud-filepicker.properties

```

1  # Custom URL for the Nextcloud server.
2  # Defaults to /nextcloud/ on the same domain as OX App Suite.
3  #
4  # io.ox.nextcloud//server=https://server.tld/nextcloud/
5
6  # Custom URL for the Nextcloud Files app.
7  # Defaults to apps/files/ relative to the value of io.ox.nextcloud//server.
8  #
9  # io.ox.nextcloud//appUrl=https://server.tld/nextcloud/apps/files/
10
11 # Custom URL for the Nextcloud Talk app.
12 # Defaults to apps/spread/ relative to the value of io.ox.nextcloud//server.
13 #
14 # io.ox.nextcloud//talkUrl=https://server.tld/nextcloud/apps/spread/

```

File 2 /opt/open-xchange/etc/nextcloud_oauth.properties

```

1  # The Nextcloud endpoint for automatic account creation
2  # Should be in the format https://host/nextcloud that reflects the base url of the
3  # Nextcloud System
4  # ConfigCascade aware.
5  #
6  # Default: <empty>
7  com.openexchange.file.storage.nextcloud.oauth.url=
8
9  # Strategy to get the username of the /remote.php/dav/files/USERNAME/
10 # Possible options:
11 # * username - use the provisioned username of the user in ox
12 # * user_status - fetches the userID from the nextcloud system
13 # ConfigCascade aware.
14 #
15 # Default: username
16 com.openexchange.file.storage.nextcloud.oauth.webdav.username.strategy=username
17
18 # The folder name shown in the OX Infostore
19 # ConfigCascade aware.
20 #
21 # Default: Nextcloud
22 com.openexchange.file.storage.nextcloud.oauth.displayName=Nextcloud

```

```
23 # The capability to enable the automatic handling of Nextcloud session based accounts
24 #
25 # Default: not_set
26 com.openexchange.capability.filestorage_nextcloud_oauth=
27
28 # The capability filestorage_nextcloud must also be enabled
29 #
30 # Default: not_set
31 com.openexchange.capability.filestorage_nextcloud=
32
33 # Should the /api/nextcloud/accesstoken JSON response contain the accessToken key and
34 #   value?
35 # ConfigCascade aware.
36 #
37 # Default: true
38 com.openexchange.nextcloud.filepicker.includeAccessToken=true
```