OX App Suite Nextcloud Integration Technical Documentation for
7.10.6-rev6

2022-09-23

Copyright notice

Contents

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:

Maintenance 7.10.6-6

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/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-rev17,backend-7.10.6-rev24
```

1.5 Notice

ℹ 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:

- 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.
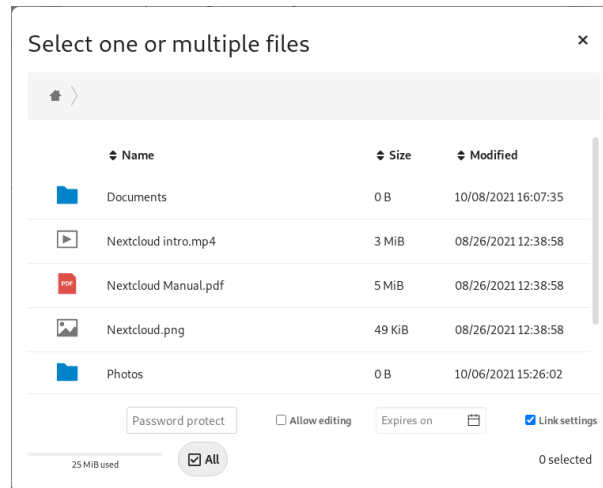
Figure 1: File Picker Dialog

3.2 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	`com.openexchange.nextcloud.access.token.provider,`
	`com.openexchange.nextcloud.filepicker`
Package(s)	`open-xchange-nextcloud-filepicker`
Required capabilities	`com.openexchange.capability.filestorage_nextcloud_oauth=true`
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
`server`	Hostname or IP of the server.
`sessionId`	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
`sharelink`	`{"path":"/example.png"}`	The share link path of e.g. `/example.png`.

Parameters of the sharelink Request body, reflects the documentation at ocs-share-api, create a share.

Parameter	Optional	Description
`path`	`false`	The share link path of e.g. `/example.png`.
`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": "eyJhbGciOiJSUzI1NiIsImtpZCI6Imtvbm5l....oX38QhflJnLQotZs2Wo",
4      "login": "test"
5    }
6  }
```

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

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
        Nextcloud System
3   # Default: <empty>
4   com.openexchange.file.storage.nextcloud.oauth.url=
5
6   # Strategy to get the username of the /remote.php/dav/files/USERNAME/
7   #   Possible options:
8   #     * username - use the provisioned username of the user in ox
9   #     * user_status - fetches the userID from the nextcloud system
10  #                     using /ocs/v2.php/apps/user_status/api/v1/user_status
11  #                     (DEPRECATED! -- see NCLD-36)
12  #     * user - fetches the userID from the Nextcloud system,
13  #           using /ocs/v1.php/cloud/user
14  # ConfigCascade aware.
15  #
16  # Default: username
17  com.openexchange.file.storage.nextcloud.oauth.webdav.username.strategy=username
18
19  # The folder name shown in the OX Infostore
20  # Default: Nextcloud
21  com.openexchange.file.storage.nextcloud.oauth.displayName=Nextcloud
22
23  # The capability to enable the automatic handling of Nextcloud session based accounts
24  # Default: not_set
25  com.openexchange.capability.filestorage_nextcloud_oauth=
26
27  # The capability filestorage_nextcloud must also be enabled
28  # Default: not_set
29  com.openexchange.capability.filestorage_nextcloud=
30
31  # Should the /api/nextcloud/accesstoken JSON response contain the accessToken key and
        value?
32  # ConfigCascade aware.
33  #
34  # Default: true
35  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: 7.10.6-6
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: 7.10.6-6
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: 7.10.6-6
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 9)

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/spreed/ relative to the value of io.ox.nextcloud//server.
13  #
14  # io.ox.nextcloud//talkUrl=https://server.tld/nextcloud/apps/spreed/
```

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
        Nextcloud System
 3  # ConfigCascade aware.
 4  #
 5  # Default: <empty>
 6  com.openexchange.file.storage.nextcloud.oauth.url=
 7
 8  # Strategy to get the username of the /remote.php/dav/files/USERNAME/
 9  #   Possible options:
10  #     * username - use the provisioned username of the user in ox
11  #     * user_status - fetches the userID from the nextcloud system
12  #                     using /ocs/v2.php/apps/user_status/api/v1/user_status
13  #                     (DEPRECATED! -- see NCLD-36)
14  #     * user - fetches the userID from the Nextcloud system,
15  #              using /ocs/v1.php/cloud/user
16  # ConfigCascade aware.
17  #
18  # Default: username
19  com.openexchange.file.storage.nextcloud.oauth.webdav.username.strategy=username
20
21  # The folder name shown in the OX Infostore
22  # ConfigCascade aware.
23  #
24  # Default: Nextcloud
25  com.openexchange.file.storage.nextcloud.oauth.displayName=Nextcloud
26
27  # The capability to enable the automatic handling of Nextcloud session based accounts
28  #
29  # Default: not_set
30  com.openexchange.capability.filestorage_nextcloud_oauth=
31
32  # The capability filestorage_nextcloud must also be enabled
33  #
34  # Default: not_set
35  com.openexchange.capability.filestorage_nextcloud=
36
37  # Should the /api/nextcloud/accesstoken JSON response contain the accessToken key and
        value?
38  # ConfigCascade aware.
39  #
40  # Default: true
41  com.openexchange.nextcloud.filepicker.includeAccessToken=true
```