

# OX App Suite Engineering Services Plugins Technical Documentation for 1.7.1

2022-03-04

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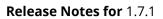


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# 1 General Information

## 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.



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:

Plugins 1.7.1 Feature Delivery for Core 7.10.6

# 1.3 Install Package Repository

This delivery is part of a restricted software repository:

```
https://software.open-xchange.com/components/plugins/stable/1.7.1/DebianStretch
https://software.open-xchange.com/components/plugins/stable/1.7.1/DebianBuster
https://software.open-xchange.com/components/plugins/stable/1.7.1/RHEL7
```

#### 1.4 **Build Dependencies**

This delivery was build and tested with following dependencies:

AppSuite:node-10,frontend-7.10.6-rev6,backend-7.10.6-rev9



#### 1.5 Notice



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

#### 1.6 Release Announcements

We created a dedicated mailing list for on-prem customers using the OX App Suite Engineering Services Plugins. You should subscribe to this mailing list here (https://lists.open-xchange.com/mailman/listinfo/plugins-announce) if you are using one of those plugins in your installation and want to get relevant updates.

# 2 Alternative Login Screen

Package(s)	open-xchange-appsuite-alternative-login-screen,
	open-xchange-appsuite-alternative-login-screen-static
Available since	1.6.1-rev3

# 2.1 Description

The current core implementation of an alternative login screen implemented in 7.10.4 still contain some missing features/customizations. This plugin implements these missing features:

- · Background image.
- Button "Learn More".
- · Rename "User name" field to "Email".

In the future, the background image should be hosted somewhere without installing it via a package. The other features should be fixed in the core implementation.

From 1.6.5-rev2, a new feature has been added to this plugin to enrich to "Forgot your password?" link with the current value of the User name field in the login form. It should only be active it the parameter enhancedPasswordLink in configured to true in as-config.yml (A sample configuration for this feature below)

# 2.2 Configuration

Most of the login screen is configured via as-config.yml as described in Login Page Customization. This plugin only adds a single setting loginPage/emailLabel to add translations for the "Email" label. Translations for de\_DE, en\_US, en\_GB, es\_ES, es\_MX, fr\_CA, fr\_FR and it\_IT are already included in the plugin and don't need to be provided (except to change them).

A full configuration example is provided below. The only potentially necessary change is adding more translations, depending on the installed/supported languages. The informationMessage translations differ only in the text inside the p> tags, the text before the a closing tag, and the URLs. The only special character inside the translations is the apostrophe ('), which needs to be doubled. Line breaks and any following indentation get converted to single spaces, so too long texts can be split into multiple lines.

```
1 ---
2 default:
```



```
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
         host: all
         loginPage:
             loginBox: right
             logo: "apps/io.ox.alt-login/logo.png"
             topVignette: {
                  transparency: "0"
             backgroundColor: "#fff"
             backgroundImage: '
                 url(apps/io.ox.alt-login/ox3.png) 25% 40%/35% no-repeat, #fff !important'
                textColor: "#284b73"
                linkColor: "#35567c"
                  button:
                      bgColor: "#23a0e1"
19
20
21
22
23
24
25
26
27
28
29
30
31
                  header: "#f5f5f5"
             emailLabel:
                  de_AT: E-Mail
                  de CH: E-Mail
             informationMessage:
                  de_DE: '
                      Haben Sie Fragen zu OX App Suite?
                      <a rel="noopener" target="_blank"</pre>
                           class="btn btn-primary form-control"
                           href="https://oxappsuite.io/de">Mehr erfahren...</a>'
                  en_US: '
                      O you have questions about OX App Suite?
                      <a rel="noopener" target="_blank"</pre>
32
33
34
35
36
37
                           class="btn btn-primary form-control"
                           href="https://oxappsuite.io/en">Learn More...</a>'
                  es_ES: '
                      ¿Tienes alguna pregunta sobre OX App Suite?
<a rel="noopener" target="_blank"</pre>
                           class="btn btn-primary form-control"
38
                           href="https://oxappsuite.io/es">Más información...</a>'
39
40
                  es_MX: '
                      ¿Tienes alguna pregunta sobre OX App Suite?
                      <a rel="noopener" target="_blank"
    class="btn btn-primary form-control"</pre>
41
42
43
                           href="https://oxappsuite.io/es">Más información...</a>'
44
                  fr CA: '
45
                       Avez-vous des questions sur OX App Suite?
46
                       <a rel="noopener" target="_blank"</pre>
47
                           class="btn btn-primary form-control"
48
                           href="https://oxappsuite.io/fr">Plus d''informations ... </a>'
49
                  fr_FR: '
50
51
52
53
54
55
56
57
58
59
                      Avez-vous des questions sur OX App Suite?
                      href="https://oxappsuite.io/fr">Plus d''informations \cdots </a>'
                  it_IT: '
                      Hai domande su OX App Suite?
                      <a rel="noopener" target="_blank"</pre>
                           class="btn btn-primary form-control"
                           href="https://oxappsuite.io/it">Per saperne di più ··· </a>'
             customCss: '#io-ox-information-message {
60
                      align-items: center;
61
62
                      flex-direction: column;
                      position: relative;
63
64
65
                      top: 20px;
                  #io-ox-login-toolbar {
66
                      padding: 0 10%;
67
68
69
70
71
72
73
                  #io-ox-login-toolbar img.login-logo {
                      margin-right: 8px;
                      height: 24px;
                  #io-ox-login-header {
                      background: #fff;
```



```
75
76
77
78
79
80
                  #io-ox-languages > a {
                      color: #284b73;
                      font-weight: 700 !important;
                  }
                  #box-form-body form>div {
                      padding-top: 10px;
 81
 82
                  #box-form {
83
84
85
86
87
                      border-radius: 20px;
                      box-shadow: 0 5px 10px 0 rgb(0 0 0 / 50%);
                  #box-form-header {
                      border-radius: 20px 20px 0 0;
 88
 89
                  #box-form-body {
 90
                      border-radius: 0 0 20px 20px;
91
92
93
                  #io-ox-information-message p {
                       color: #284b73;
94
95
96
                  #io-ox-information-message a.btn-primary {
                      color: #000;
 97
                      background-color: #fff;
98
                      border-color: #23a0e1;
 99
                      max-width: 180px;
100
                      height: 29px;
101
                      margin: 10px 0;
102
103
                  #io-ox-login-footer {
104
                      margin-top: 60px;
105
                      background-color: #fff;
106
107
                  #io-ox-login-footer * {
108
                      color: #284b73;
109
110
                  #io-ox-login-footer a {
111
                       color: #436184;
112
113
                  #io-ox-login-footer::before {
                      content: "";
114
115
                      background-color: #ccc;
116
                      height: 1px;
117
                      width: 100%;
                      margin: 0 10% 10px 10%;
119
120
                  #io-ox-login-username, #io-ox-login-password {
121
                      background-color: #e8f0fe;
122
                  7
123
                  #login-title-mobile { color:#333 !important;
124
                  }'
125
              footer:
126
                  bgColor: "#ffffff"
                  linkColor: "#284873"
127
128
                  sorting: "$spacer,$copyright, Version: $version,$spacer"
                  textColor: "#284873"
```

## 2.3 Configuration for enriched "Forgot your password?" link feature

This feature is enabled when a settings enhancedPasswordLink is set to true in as-config.yml file. It checks if there's a placeholder %email% in configured forgotPassword url in as-config file:

- if placeholder exists, it will be replaced with value from email field whenever it changed
- if no placeholder found, it will append a parameter user={value from email field} at the end of forgotPassword url, whenever the email field value changes

On start (when email field is empty), if a placeholder exists, it will be replaced with empty string:

#### 2.3.1 Example as-config.yml entry



```
default:
    enhancedPasswordLink: true
    forgotPassword: "http://www.example.com/forgot-password?user=%email%"
```

# 3 Anti Phishing Framework

Bundle Identifier	com.openexchange.plugins.antiphishing,
	com.openexchange.plugins.antiphishing.json,
	com.openexchange.plugins.antiphishing.connector.vadesecure
Package(s)	open-xchange-plugins-antiphishing,
	open-xchange-plugins-antiphishing-vadesecure
Required capabilities	none
Available since	1.6.4-rev2

The anti-phishing implementations supports a "connector" framework. Using this model, any number of custom anti-phishing connector implementations can register with the connector framework. The decision on which implementation to use is determined at runtime via a connector identifier and config-cascade. As such, the connector implementation can be configured on the Global, Brand, Context or User level. However, brand will be the most likely scenario.

The base package open-xchange-plugins-antiphishing provides the **AntiPhishingInterface** service which acts as a container for all registered **AntiPhishingConnector** services and as an adapter between the **PluginsAntiPhishingActionfactory** servlet and each individual AntiPhishingConnector instance. During bundle activation a ServiceTracker is registered to track, collect and map all registered AntiPhishingConnector service instances by brand. When invoked, the **AntiPhishingInterface** looks up an appropriate **AntiPhishingConnector**, if one exists, the request is forwarded to the specific connector.

#### 3.1 Framework Configuration

The configuration needs to be done within plugins-antiphishing.properties.

```
# Setting to control the used connector for a specific user
   # This setting is config-cascade aware to support different implementations for each user.
   # Default is <none> which means that the feature is disabled for a user
   # To enable vade secure com.openexchange.plugins.antiphishing.connector=
       plugins_antiphishing_vadesecure
    com.openexchange.plugins.antiphishing.connector=
    # Setting to enable/disable the antiphishing capability
    # This setting is config-cascade aware to support different implementations for each user.
    # Default is false which means that the feature is disabled for a user
    com.openexchange.plugins.antiphishing.enabled=false
11
12
    # Setting to enable/disable the antiphishing mta_capability
    # If true, the user has the ability to choose antiphishing at the MTA level
   # This setting is config-cascade aware to support different implementations for each user.
    # Default is false which means that the feature is disabled for a user
    com.openexchange.plugins.antiphishing.mta_capability=false
18
   # Setting to enable/disable the antiphishing at the mta level
19
   # If true, an antiphishing check will take place at the MTA level
20
   # This setting is config-cascade aware to support different implementations for each user.
   # Additionally, this property can be set by the user in the UI
   \# Default is false which means that the feature is disabled for a user
    \verb|com.openexchange.plugins.antiphishing.mta_antiphishing=false|\\
```



# 3.2 Anti Phishing API

The Anti-phishing servlet is registered at http://localhost/api/plugins/antiphishing and supports following actions:

Action	Description
config	Returns a boolean result telling whether MTA level anti-phishing is supported or not. If it is supported, the UI makes a followup request to determine the
	configured status of the MTA level anti-phishing.
get	Returns true if MTA level anti-phishing is enabled for a given user, false if not.
update	Enables/disables the MTA level anti-phishing, returns the new status.
linkcheck	Calls the connector framework to make the anti-phishing call on a list of one or more URIs and/or mailto addresses. Returns SUCESS or ERROR with an appropriate
	message.

# 3.2.1 Example Config Request

curl 'http://localhost/appsuite/api/plugins/antiphishing?action=config&session= df33d98d72914f1c96b26d6827deee3e'

### **Example Config Response**

```
{"data":{"STATUS":"OK","mta_capability":true}}
```

#### 3.2.2 Example Get Request

curl 'http://localhost/appsuite/api/plugins/antiphishing?action=get&session=df33d98d72914f1c96b26d6827deee3e'

## **Example Get Response**

```
{"data":{"STATUS":"OK","mta":false}}
```

### 3.2.3 Example Update Request

curl 'http://localhost/appsuite/api/plugins/antiphishing?action=update&session= df33d98d72914f1c96b26d6827deee3e' -X 'PUT' --data-binary '{"mta":true}'

#### **Example Update Response**

```
{"data":{"STATUS":"OK","mta":true}}
```

#### 3.2.4 Example Linkcheck Request

curl 'http://localhost/appsuite/api/plugins/antiphishing?action=linkcheck&session=df33d98d72914f1c96b26d6827deee3e' -X 'PUT' --data-binary '{"mta":true}'

#### **Example Linkcheck Response**

```
1 {"data":{"STATUS":"PHISHING"}}
```



## 3.3 The Anti Phishing Connectors

The anti-phishing framework requires an anti-phishing connector implementation.

#### 3.3.1 The VadeSecure Connector

The package open-xchange-plugins-antiphishing-vadesecure provides the concrete implementation of a **VadeSecureAntiPhishingConnector** and registers it as a **AntiPhishingConnector** service and comes with a plugins-antiphishing-vadesecure.properties

```
# The customer name as provided by VadeSecure; required to access Phishing API
      # Default: NONE
 3
      # Config-cascade aware: true
      # Lean: false
      com.openexchange.plugins.antiphishing.vadesecure.name.passcrypt=<Customer name provided by
      # The customer license provided by VadeSecure; required to access Phishing API
      # Default: NONE
      # Config-cascade aware: true
      # Lean: false
      \verb|com.openexchange.plugins.antiphishing.vadesecure.license.passcrypt=<Customer license | Customer license 
              provided by VadeSecure>
12
13
      # Setting to change the VadeSecure IsItPhishing API URL
       # Default: https://iip.eu.vadesecure.com/api/v2/url
15
      # Config-cascade aware: true
16
      # Lean: true
      \verb|com.openexchange.plugins.antiphishing.vadesecure.phishing\_url=https://iip.eu.vadesecure.|
              com/api/v2/url
18
      # Setting to change the VadeSecure connector identifier referenced in plugins-antiphishing
              .properties / com.openexchange.plugins.antiphishing.connector
20
       # Default: "plugins_antiphishing_vadesecure"
      # Config-cascade aware: true
22
      # Lean: true
      com.openexchange.plugins.antiphishing.vadesecure.identifier=
              plugins_antiphishing_vadesecure
      # If set to true, the URL will always be crawled and analyzed, even if it can trigger
              collateral damages (such as unsubscribing a user, canceling an order, etc.).
26
       # If set to false, the service checks whether the URL may cause collateral damage to the
              end user (unsubscribe, order confirmation, etc.). If so, the URL is not crawled and
              {\tt NOT\_EXPLORED} is returned in the response.
      # Default: false
      # Config-cascade aware: true
      com.openexchange.plugins.antiphishing.vadesecure.force=false
31
      # Vade Secure IsItPhishing Smart mode enables URL anonymization. Typically, this is meant
             to
33
       # replace any unique-ID like tokens in a URL by random characters, to prevent side effects
               when crawling certain URLs, which if visited, could trigger unwanted actions:
              unsubscription, cancelation, etc.
34
       # Set to true to enable the smart mode. If set to false, URLs will be crawled in the way
              they were originally provided. If argument randomization fails, the URL is not crawled
                and NOT_EXPLORED is returned.# Default: "plugins_antiphishing_vadesecure"
       # NOTE: Vade Secure strongly recommends enabling the smart parameter to true, so that the
              API can trigger token anonymization, to try and prevent any collateral damages.
      # Default: false
       # Config-cascade aware: true
       # Lean: true
      com.openexchange.plugins.antiphishing.vadesecure.smart=true
      # Timeout in milliseconds, with a minimum value of 1000. Once timeout is reached, TIMEOUT
             response is returned.
42
      # Default: 3000
43
      # Config-cascade aware: true
       # Lean: true
       com.openexchange.plugins.antiphishing.vadesecure.timeout=3000
```



**3.3.1.1 Custom OXaaS LDAP Extension** The cloud-plugins component provides a open-xchange-cloudplugins-antiphishing-vadesecure-ldap package to extent the VadeSecure connector with customized OXaaS LDAP support. Please check the external documentation for further details.

# 4 Anti Phishing UI

	open-xchange-appsuite-antiphishing
Available since	1.6.4-rev2

## 4.1 Prerequisites

• Requires provider service to validate URLs for phishing attempts (e.g. Vade's isitphishing.ai).

# 4.2 Description

Phishing attempts are common in email as an attempt to deceive users. Services exist to validate URLs as a means of determining if a URL is "safe" to visit for a user. This plugin utilizes such a service upon link clicking in an email to protect users from following mal-intended links, and warning them if a URL is considered suspicious. If an anti-phishing service is configured at the incoming MTA level, this plugin is not needed as its functionality would be redundant. This is an appsuite-only solution which can be installed and used when no other option is available.

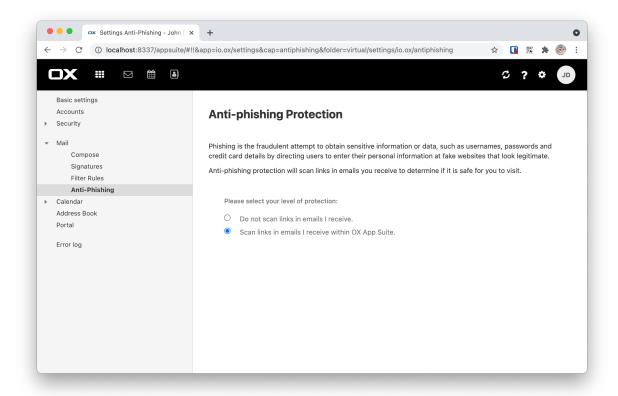


Figure 1: anti phishing settings



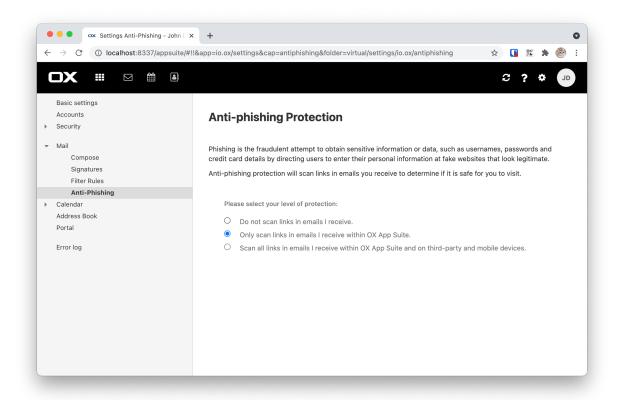


Figure 2: anti phishing settings with mobile

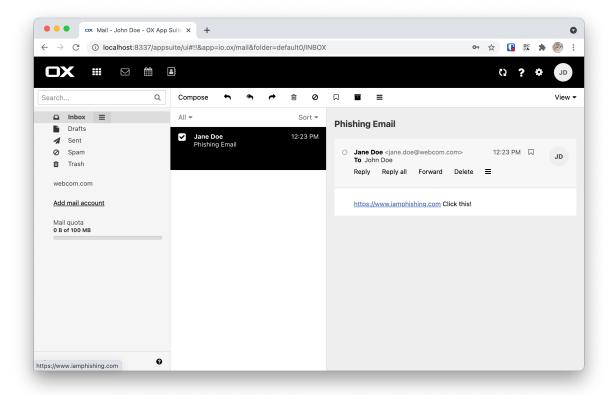


Figure 3: phishing example email



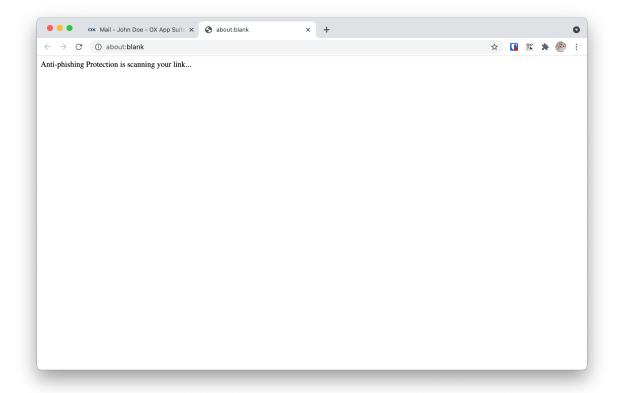


Figure 4: opening phishing link

If checked link is found to be insecure then dialog below is presented to user

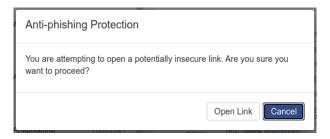


Figure 5: insecure link found

If url to be checked is syntactically incorrect (browser is not able to follow it) then dialog below is presented to user



Figure 6: bad link found

# 4.3 Anti Phishing Providers

The only current implementation supports Vade's isitphishing.ai API. However, the Middleware service is constructed so that another adapter could be used instead.. The open-xchange-plugins-



antiphishing-vadesecure package contains all vendor-specific code for the adapter and serves as a reference implementation for another adapter.

# 4.4 Configuration

#### antiphishing.properties

```
# Middleware endpoint API location for use by the UI
io.ox/antiphishing//apiModule = plugins/antiphishing
io.ox/antiphishing//mode =
```

#### antiphishing.yml

```
1 io.ox/antiphishing//mode:
2 protected: false
```

## 4.5 Internationalization Support

Supported languages: cs\_CZ, de\_DE, es\_MX, fr\_FR, ja\_JP, ro\_RO, sv\_SE, zh\_TW, da\_DK, en\_GB, fi\_FI, hu\_HU, lv\_LV, pl\_PL, ru\_RU, tr\_TR, de\_DE, es\_ES, fr\_CA, it\_IT, nl\_NL, pt\_BR, sk\_SK, zh\_CN

# 5 Appcontrol Dropdown Links

Package(s)	open-xchange-appsuite-appcontrol-dropdown-links
Required capabilities	com.openexchange.capability.io-ox-appcontrol-dropdown-
	links=true
Available since	1.4.3-rev1

The package allows to add new links in appcontrol dropdown of App Suite. The settings dropdown has changed from 7.10.4 to 7.10.5. This dropdown was splitted to three dropdowns: account, settings and help. To identify to which dropdown the link should be added, a new configuration should be provided for each link with the name **ext\_point**. Possible values for this settings are:

- io.ox/core/appcontrol/right/account for account drodown
- io.ox/core/appcontrol/right/settings for settings dropdown
- io.ox/core/appcontrol/right/help for help dropdown



The dropdown will stay working as for 7.10.4, If no **ext\_point** configuration is provided, the configuration will be considered for 7.10.4, and thus, the link will be added to dropdown settings.

## 5.1 Trusted Identity Enrichment

In conjunction with Trusted Identity Link plugin, external links configured with trustedidentity will be enriched with a token generated using Trusted Identity plugin. The token is appended at the end of the URL in format &token=token value. If an error occurred in token creation, a notification error is shown to the user.

## 5.2 Configuration

The links to add are defined by configuration in the io-ox-appcontrol-dropdown-links.properties file.



```
#### Sample with External Link
   ## Enabled link
   # io.ox.appcontrol.dropdown//links/link1/enabled = false
    # io.ox.appcontrol.dropdown//links/link1/ext_point = io.ox/core/appcontrol/right/help
   ## Required capability (defaults to none)
   # io.ox.appcontrol.dropdown//links/link1/capability =
   ## Default text
   # io.ox.appcontrol.dropdown//links/link1/text/default = Privacy policy
   ## Text for en EN
   # io.ox.appcontrol.dropdown//links/link1/text/en_EN = Privacy policy
   ## Text for de_DE
    # io.ox.appcontrol.dropdown//links/link1/text/de_DE = Datenschutzerklärung
   ## Link action : external_link, ox_application
   # io.ox.appcontrol.dropdown//links/link1/action_type = external_link
   ## Default link for external link
   # io.ox.appcontrol.dropdown//links/link1/href/default = blank.html
17
   ## en_EN link for external link
   # io.ox.appcontrol.dropdown//links/link1/href/en_EN = blank.html?LANG=en
   ## de_DE link for external link
    # io.ox.appcontrol.dropdown//links/link1/href/de_DE = blank.html?LANG=de
   ## Extension point index of the link (default to last)
22
   # io.ox.appcontrol.dropdown//links/link1/index = 500
23
   ## Show a divider before
    # io.ox.appcontrol.dropdown//links/link1/divider_before = true
    ## Show a divider after
    # io.ox.appcontrol.dropdown//links/link1/divider_after = false
28
   #### Sample with OX application
   # io.ox.appcontrol.dropdown//links/link2/enabled = false
   # io.ox.appcontrol.dropdown//links/link2/ext_point = io.ox/core/appcontrol/right/settings
   # io.ox.appcontrol.dropdown//links/link2/capability =
   # io.ox.appcontrol.dropdown//links/link2/text/default = Settings
33
   # io.ox.appcontrol.dropdown//links/link2/text/en_EN = Settings
   # io.ox.appcontrol.dropdown//links/link2/text/de_DE = Einstellungen
   # io.ox.appcontrol.dropdown//links/link2/action_type = ox_application
   # io.ox.appcontrol.dropdown//links/link2/href = io.ox/settings/main
   # io.ox.appcontrol.dropdown//links/link2/index = 200
   # io.ox.appcontrol.dropdown//links/link2/divider_before = true
    # io.ox.appcontrol.dropdown//links/link2/divider_after = false
   ## Sample trusted identity link
    #io.ox.appcontrol.dropdown//links/link4/enabled = true
   #io.ox.appcontrol.dropdown//links/link4/trustedidentity= true
    #io.ox.appcontrol.dropdown//links/link4/text/default = My Profile
   #io.ox.appcontrol.dropdown//links/link4/ext_point = io.ox/core/appcontrol/right/settings
    #io.ox.appcontrol.dropdown//links/link4/action_type = external_link
    #io.ox.appcontrol.dropdown//links/link4/href/default = blank.html?token=
```

#### 6 Block Allow List Middleware

Bundle Identifier	com.openexchange.plugins.blackwhitelist,
	com.openexchange.plugins.blackwhitelist.connector.sieve,
	com.openexchange.plugins.blackwhitelist.clt,
	com.openexchange.plugins.blackwhitelist.json
Package(s)	open-xchange-plugins-blackwhitelist,
	open-xchange-plugins-blackwhitelist-sieve
Required capabilities	none
Available since	1.2.1-rev2

The middleware component consists of a registry and possible available plugins that are registered and can be assigned to a user. The registry can be installed with the package <code>open-xchange-plugins-blackwhitelist</code>. This package holds the JSON layer and also computes the available capabilities for the user.



#### 6.1 Connectors

#### 6.1.1 Sieve Connector

The package open-xchange-plugins-blackwhitelist-sieve povides a middleware component that is responsible for the blackwhitelist handling on a sieve level. The configuration can be set on a config-cascade aware level for better control. Even though the name is blackwhitelist, the package only supports the blacklist part of the interface. This connector can be configured via the plugins-blacklist-sieve.properties file.

```
# Identifier of this blackwhitelist connector: plugins_blackwhitelist_sieve
   # Setting to control the rulename to be set and checked as a antispam value inside the
       sieve rules
3
   # Default: Blacklist
   # Config-cascade aware: true
   # Lean: true
   \verb|com.openexchange.plugins.blackwhitelist.connector.sieve.rulename=Blacklist| \\
8
   # Setting to control wether the blacklisted mails should be moved to SPAM or deleted
   # If set to true, mails are moved to SPAM
   # If set to false, mails are deleted
   # Default: true
   # Config-cascade aware: true
13
   # Lean: true
   # Setting to check if memory backed test System should be started
17
   # This connector is identified by plugins_blwl_test
   # Default: false
   com.openexchange.plugins.blackwhitelist.connector.sieve.test=false
```

#### 6.1.2 LDAP Connector

This connector is part of the **cloud-plugins** component and shipped via the package open-xchange-cloudplugins-blackwhitelist-ldap.

#### 6.2 Commandline Tools

The following commandline tools are available:

Tools	Description
listblackwhitelist	List black and whitelist entries of a user
searchblackwhitelist	Search for black and whitelist entries of a user
deleteblackwhitelist	Delete entries for black and whitelist of user
addblackwhitelist	Add entries for black and whitelist of user

Please use the --help parameter to see further details like e.g.:

```
./addblackwhitelist --help
   usage: addblackwhitelist
    -A,--adminuser <arg>
                                 Admin username
    -c,--context <arg>
                                A valid context identifier
    -e,--entry <arg>
                                 The entry to be added to the list.
    -h,--help
                                 Prints a help text
    -i,--userid <arg>
                                A valid user identifier
    -P,--adminpass <arg>
                                 Admin password
    -p,--port <arg>
                                 The optional RMI port (default:1099)
       --response timeout <arg> The optional response timeout in seconds
11
                                 when reading data from server (default: 0s;
12
                                 infinite)
13
    -s,--server <arg>
                                 The optional RMI server (default: localhost)
    -t,--type <arg>
                                 The type, can either be blacklist or
```



Whitelist.

# 6.3 Configuration

 $Possible \ connectors \ to \ be \ used \ in \ com. \ open exchange. \\ plugins. \ black white \ list. \ connector \ are:$ 

Identifier	Description
plugins_blackwhitelist_sieve	The sieve connector is shipped by the <b>plugins</b> package
	open-xchange-plugins-blackwhitelist-sieve.
cloudplugins_blackwhitelist_ldap	The customized OXaaS LDAP connected shipped by the
	cloud-plugins package
	open-xchange-cloudplugins-blackwhitelist-ldap.

This plugin needs to be configured via the plugins-blackwhitelist.properties file:

```
# Setting to control the used connector for a specific user
# This setting is config-cascade aware to support different implementations for each user.
# Default is <none> which means that the feature is disabled for a user
com.openexchange.plugins.blackwhitelist.connector=

# Setting to check if memory backed test System should be started
# This connector is identified by plugins_blwl_test
# Default: false
com.openexchange.plugins.blackwhitelist.test=false
```

## 7 Block Allow List UI

Package(s)	open-xchange-appsuite-blackwhitelist
Required capabilities	com.openexchange.capability.blacklist=true
	com.openexchange.capability.whitelist=true
Additionally capabiliies for	com.openexchange.capability.blacklist-domain=true
domain support	com.openexchange.capability.whitelist-domain=true
Available since	1.2.1-rev2

The UI plugin will provide the user with additional links the context menu, in the mail toolbar and in mail details to put mail addresses or domains on their **Blocklist** or **Allowlist**. These links will have a low priority and will be displayed in the context menu, in the burger menus of the mail toolbar and mail details. Once the user clicks on one of the links, a dialog will open where the user has to confirm that the addresses or the domain(s) of the selected mails are supposed to be put on the according list.



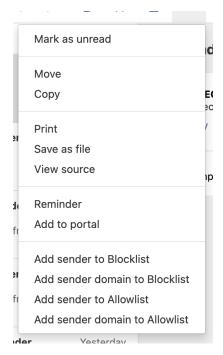


Figure 7: menu additions

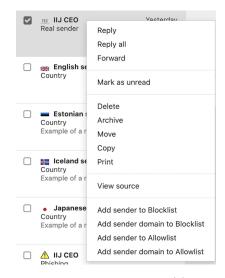


Figure 8: context-menu additions

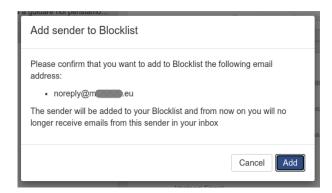


Figure 9: menu confirmation



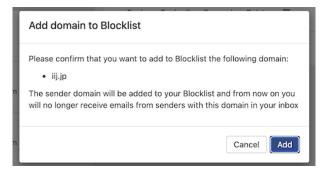


Figure 10: menu confirmation

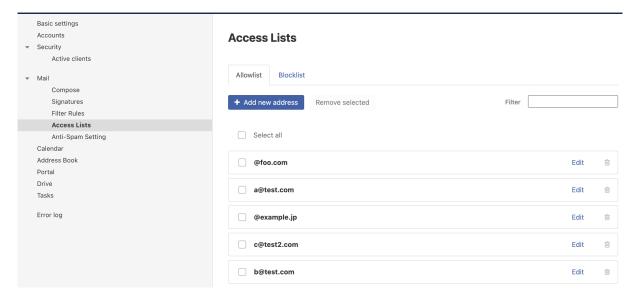


Figure 11: access lists settings

The user's own address cannot be put on either list and an error will be thrown if the user tries to add it. Other errors might occur if the user tries to add a duplicate to the given list (if configured to not allow duplicates), if the maximum number of addresses is reached or of any of the addresses is already on the other list if black- and whitelist are enabled. A domain to block or to allow should be provided **@domain.tld** format.



Figure 12: add new





Figure 13: example error

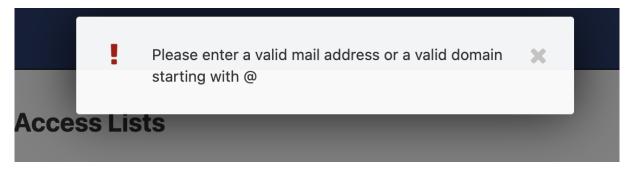


Figure 14: example error

# 7.1 Configuration

Following settings are available in the /opt/open-xchange/etc/settings/blackwhitelist.properties

```
##
2 # Blackwhitelist settings
3 #
4 # Max number of addressed on the list
io.ox/mail//blackwhitelist/maxAddresses = 250
6 # Allow users to add duplicates
io.ox/mail//blackwhitelist/allowDuplicates = false
# Validate if only valid mail addresses are on the list
io.ox/mail//blackwhitelist/validateAddresses = false
# Show search box for blacklist
io.ox/mail//blackwhitelist/searchable = true
# Show delete selected button and checkboxes
io.ox/mail//blackwhitelist/showDeleteButton = true
```

Following settings are available in the /opt/open-xchange/etc/meta/blackwhitelist.yml file:

```
1 io.ox/mail//blackwhitelist/maxAddresses:
2    protected: false
3 io.ox/mail//blackwhitelist/allowDuplicates:
4    protected: false
5 io.ox/mail//blackwhitelist/validateAddresses:
6    protected: false
6 io.ox/mail//blackwhitelist/searchable:
7    protected: false
9 io.ox/mail//blackwhitelist/showDeleteButton:
9    protected: false
```

# **8 Contact Whitelist Sync**

Bundle Identifier	com.openexchange.plugins.contacts.whitelist,
	com.openexchange.plugins.contacts.whitelist.migration,
	com.openexchange.plugins.contacts.whitelist.migration.clt,
	com.openexchange.plugins.contacts.whitelist.rdb



Package(s)	open-xchange-plugins-contact-whitelist-sync
Required capabilities	none
Available since	1.4.5-rev1

The plugin provides a pluggable solution to sync contacts into an external database. This is done by hooking into contact **create/update/delete** events and forwarding those into a registry of:

```
\verb|com.openexchange.plugins.contacts.whitelist.service.PluginsContactWhitelistConnector| \\
```

Those Connectors are monitored and provide an identifier which can be configured on a configcascade level to enable the plugin. The plugin is also able to ignore the contact-collect folder if that is configured to only sync contacts that are in any user folder, but not the contact-collect folder. In the current version a SQL connector is provided.

# 8.1 Configuration

To enable the plugin, an admin has to set the following property to a currently supported value:

```
com.openexchange.plugins.contacts.whitelist.connector
```

As of now, this is only rdb. In later versions, ldap or something else might be supported. All of the following /opt/open-xchange/etc/plugins-contacts-whitelist.properties properties are config-cascade aware:

```
# This setting enables or disables special handling for the ContactCollectionFolder
# If set to true, the contactCollectFolder is ignored and contacts in this folder
# are not added to the whitelist. Contacts moved to this folder are also removed from the whitelist
# If set to false, the contactCollectFolder is handled like any other folder.
# config-cascade aware
# Default: true
# com.openexchange.plugins.contacts.whitelist.ignoreContactCollectFolder=true
# This setting is used to set the connector for the contact sync.
# Currently available options are:
# <not-set> (this will disable the sync for the user)
# rdb
# Default: <not-set>
# com.openexchange.plugins.contacts.whitelist.connector=
```

The rdb component can also be configured on a **config-cascade** level. First, a pool has to be enabled. This is done by using the SQL Client Library which is also part of the plugins repository. In addition, the rdb layer supports two strategies, one beeing **normal** and **tombstone**.

Mode	Create contact event	Update contact event	Delete contact event
normal	New contact mails are written into the database table.	Contacts in the database are read, missing ones are removed, new mails are added.	All mails of that contactId are removed.
tombstone	New contact mails are written into the database table where the current timestamp is added to the updatedAtColumnName.	Contacts in the database are read. Missing ones are not removed but updated with the current timestamp in the deletedAtColumnName. All current mails are updated with the current timestamp in the updatedAtColumnName.	All mails of that contactId are read. All mails are updated with the current timestamp in the deletedAtColumnName.



Furthermore, an admin can define the different table and column names used by the plugin via /opt/open-xchange/etc/plugins-contacts-whitelist-rdb.properties:

```
# Pool to be used
      2
3
4
5
6
7
8
9
                              # normal or tombstone
                              com.openexchange.plugins.contacts.whitelist.rdb.strategy=normal
                              # table name
                              com.openexchange.plugins.contacts.whitelist.rdb.tableName=senderwl
                              # Name of the column used for the primary mail
                              \verb|com.openexchange.plugins.contacts.whitelist.rdb.primaryAddressColumnName=rcpt| \\
  12
13
14
15
16
17
                              # Name of the column used for the contact mails
                              \verb|com.openexchange.plugins.contacts.whitelist.rdb.contactMailColumnName=sender| \\
                              # Name of the column used for the individual contactIds
                              \verb|com.openexchange.plugins.contacts.whitelist.rdb.contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColum
 19
                              # Name of the deleted_at column if tombstone is enabled
 20
                              \verb|com.openexchange.plugins.contacts.whitelist.rdb.tombstone.deletedAtColumnName=deleted\_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atc
  21
                              # Name of the updated_at column if tombstone is enabled
                              \verb|com.openexchange.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated\_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated\_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.plugins.contacts.whitelist.rdb.tombstone.updatedAtColumnName=updated_atallorer.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.plugins.p
```

It is further possible to define a migration strategy at login time which will be executed by a Login-Handler via /opt/open-xchange/etc/plugins-contacts-whitelist-migration.properties:

```
\mbox{\tt\#} Defines the strategy of the automatic migration
23456789
    # Can be either
         <not-set> which disables the automatic migration
         once
         time:<timeinmillis>
    # Default: <not-set>
    # If sync should happen once a day:
    {\tt\# com.openexchange.plugins.contacts.whitelist.migration.strategy=time:} 86400000
    # If sync should happen once a week
    \texttt{\# com.openex} change.plugins.contacts.white list.migration.strategy \texttt{=} time: 604800000
    com.openexchange.plugins.contacts.whitelist.migration.strategy=
15
    # Setting, if a warning should appear in the logs, if a user has more than configured
        contacts in one folder.
16
    # Default: 10000
    com.openexchange.plugins.contacts.whitelist.migration.warningSize=10000
```

# 9 Dumpster Trash Recovery

Package(s)	open-xchange-appsuite-dumpster	
Required capabilities	com.openexchange.capability.dumpster=true	
Available since	1.4.2-rev1	

Dumpster is a UI component which utilizes the Lazy Expunge feature of Dovecot to allow a user to recover deleted and removed email items prior to their final disposal. As the behavior of the Lazy Expunge feature is not generally counted against a user's quota and is automatically flushed periodically, it is seen as a "last resort" for email recovery after a user has already moved an item to the "Trash" folder and then cleared the "Trash". Through this self-service approach, providers value the potential for fewer support calls after users have unintentionally deleted emails and wish to recover them.



## 9.1 Prerequisites

Requires an installed and fully-configured Lazy Expunge plugin for the Dovecot backend prior to installation and configuration.

## 9.2 Usage

Users can select **Recover Deleted Items** from the context menu of their **Trash** folder. A dialog will appear which contains recently-deleted emails (if any) which have been emptied from trash. From there, the user can select any mail or mails in the dialog and move them to the folder of their choice. Once moved, emails are no longer scheduled from deletion and appear in the folder chosen by the user.

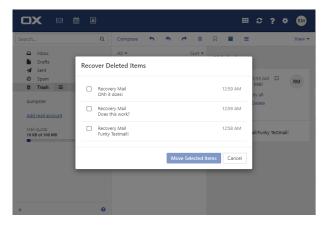


Figure 15: dumpster recover

# 9.3 Configuration

Following settings are available in the /opt/open-xchange/etc/settings/dumpster.properties file:

```
1 ##
2 # Dumpster Settings
3 #
4
5 # Folder in Dovecot desinated as the "Lazy Expunge" folder
6 io.ox/mail//dumpster/folder = defaultO/DUMPSTER
```

# 9.4 Changes to Core Functionality

In order to prevent the display of the hidden **DUMPSTER** folder, the folder tree display logic was forked from core to include a filter based on the folder names:

• drawMyFolders in io.ox/core/folder/extensions

#### 9.5 Internationalization Support

Supported languages: cs\_CZ, da\_DK, de\_DE, en\_GB, es\_ES, es\_MX, fi\_FI, fr\_CA, fr\_FR, hu\_HU, it\_IT, ja\_JP, lv\_LV, nl\_NL, pl\_PL, pt\_BR, ro\_RO, ru\_RU, sk\_SK, sv\_SE, tr\_TR, zh\_CN, zh\_TW

# 10 External Content Popup

Package(s)	open-xchange-appsuite-external-content-popup
Required capabilities	com.openexchange.capability.externalcontentpopup=true
Available since	1.3.8-rev1



The plugin provides an easy way to integrate external content into a popup displaying an iframe when the user logs in. Additionally, the customer has the option to define a introductory step (firstStep) that can display HTML configured on the server. The plugin uses a generation attempt to enable the customer to display new versions of the popup, with new content e.g., to the user and is configurable by user language.

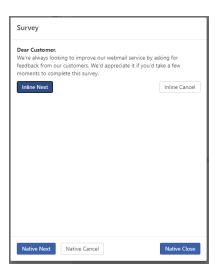


Figure 16: external content popup

# 10.1 First Step

The first step of the plugin can be defined if the customer wants to use some introductory text before displaying the iframe and it's context. The first step can use either native controls, which can be enabled / disabled via configuration, or can render it's own controls in the property:

```
io.ox/externalcontentpopup//popup/<OX_LANGUAGE>/firstStep/content
```

This property may contain any HTML construct and thus can be used to define custom controls. If this is done, please make sure that the provided controls have the data-action attributes defined as "next", "cancel" and "close-dialog" for the necessary action to be triggered.

## 10.2 Configuration

Following settings are available in the /opt/open-xchange/etc/meta/externalcontentpopup.yml file:

```
1 io.ox/externalcontentpopup//popup/en_US/hasSeen:
2 protected: false
```

Following settings are in the /opt/open-xchange/etc/settings/externalcontentpopup.properties file:

```
# Show popup to the user on every login, might be useful for urgent announcements, etc.
# Please be aware that this is a global setting that affects all users in all languages
io.ox/externalcontentpopup//popup/showOnEveryLogin = false

# Show the popup even on mobile devices. Disabled by default.
# This is a global setting that affects all users in all languages.
io.ox/externalcontentpopup//popup/showOnMobile = false

# Generation of the popup.

# Should start at 1 and increment when the user should see a new version again.
io.ox/externalcontentpopup//popup/en_US/generation = 1

# Content of the first step before iframe. Accepts HTML. If no first step is used, set to
```



```
false
    io.ox/externalcontentpopup//popup/en_US/firstStep/content = false
    # Toggle if native dialog buttons should be used in the first step
    # io.ox/externalcontentpopup//popup/en_US/firstStep/showNativeButtons = true
19
    # Label for the (native) next button in the first step
20
    # io.ox/externalcontentpopup//popup/en_US/firstStep/nextButtonLabel =
21
22
    # Toggle if the user is allowed to skip the popup for the session. Popup will then be
        shown again upon next login.
23
    # io.ox/externalcontentpopup//popup/en_US/firstStep/canCancel =
24
25
    # Label for the (native) cancel button in the first step
    \hbox{\tt\#~io.ox/external} content popup//popup/en\_US/firstStep/cancelButtonLabel = "Take survey later"}
27
    # Label for the (native) close button in the first step
29
    # io.ox/externalcontentpopup//popup/en_US/firstStep/closeButtonLabel =
30
31
    # Title of the popup
    io.ox/externalcontentpopup//popup/en_US/title = Information
33
34
35
    # Toggle whether or not to show the title
    io.ox/externalcontentpopup//popup/en_US/showTitle = true
36
37
    # Label for the close button below the iframe
    io.ox/externalcontentpopup//popup/en_US/closeButtonLabel = Close
    # Source of the iframe
    io.ox/externalcontentpopup//popup/en_US/frame/source = index.html
    \# Optional width and height for the popup
    #io.ox/externalcontentpopup//popup/en_US/popupWidth =
    #io.ox/externalcontentpopup//popup/en_US/popupHeight =
```

# 11 GDPR Compliance

Package(s)	open-xchange-appsuite-gdpr
Required capabilities	none
Available since	1.3.5-rev3

On the 25th of May 2018 the new European privacy law call GDPR came into effect. This law makes it necessary to offer the user information about cookies used and offer an opt-in / opt-out mechanism for any cookie processing user data. The plugin consist of a settings panel as well as a little banner overlay that is shown at the bottom of App Suite's UI upon login until the user either visits the settings panel or presses a button on the overlay.

# 12 Group Contact Storage

Bundle Identifier	com.openexchange.plugins.contact.storage.group
Package(s)	open-xchange-plugins-contact-storage-group
Required capabilities	none
Available since	1.5.3-rev5

The Group Contact Storage enables virtual contact folders for members of internal user groups. Once installed and activated, the folders will be created dynamically for each group in a context. Via a permission entry for the represented group, these folders will be visible to those users who are themselves member of the corresponding group. Doing so, it is possible to categorize internal user contacts in structured views based on the group membership, especially in contexts with many users where the global addressbook would become too large, hence would better be hid-



den in clients. Possible use cases could be departments, offices or teams in large organizations or authorities, that can be represented as different user groups in the groupware.

# 12.1 Installation and Configuration

The group contact storage plugin is available through the package open-xchange-plugins-contact-storage-group. After installation, the storage still needs to be enabled explicitly for those contexts it should be used in by following setting the property to true via the config-cascade:

```
1 com.openexchange.plugins.contact.storage.group.enabled
```

Upon the next reload of the configuration, when the contact storage is first accessed in an enabled context, the group contact folders are dynamically created as needed for each group found in the context. For the system groups "All Users", "All Guests" and the "Standard Group", no folders are created of course. Additionally, it is possible to exclude further groups where no contact folder should be created for using the property:

```
1 com.openexchange.plugins.contact.storage.group.excludedGroups
```

It takes a comma-separated list of group identifiers and can also be defined through the configcascade. Please see the /opt/open-xchange/etc/plugins-contact-storage-group.properties file which define those settings:

```
# Configures whether the group contact storage is enabled for a context or not.
2
3
4
5
   # Default: false
   com.openexchange.plugins.contact.storage.group.enabled=false
  # Defines an optional list of those groups for which no group contact folder should
  \# be used, as a comma-separated string of the identifiers of those groups that should
   # be excluded. The groups "All Users", "All Guests" and the "Standard Group" are
  # always excluded.
   # Default: <empty>
   com.openexchange.plugins.contact.storage.group.excludedGroups=
  # Defines if the display name of the groups should be used to create the folder
  # names in the folder tree.
  \mbox{\tt\#} If set to \mbox{\tt\'etrue}\mbox{\tt\gt}, the displayname is used
  # If set to <false>, the group name is used
  # The Group Names are limited by the property CHECK_GROUP_UID_REGEXP
   com.openexchange.plugins.contact.storage.group.useDisplayName=true
```

# 12.2 Group Folders

The group contact folders will be created below the system public folder (folder identifier 2), using the display names of the groups as folder name.



If an equally named folder already exists at that location, it will be re-used implicitly, making its previous contents inaccessible as long as the plugin is enabled.

Groups with duplicate display names are skipped. The group contact folders will get two permission entries assigned: one administrative permission for the context admin, and one for the corresponding group entity, so that each member of the group will see the folder and all contained contacts, and is able to edit his "own" contact details. Fine-tuning of these inserted standard permissions can still be performed by the context administrator, however it is required that the group folder permission is not removed, otherwise it'll get re-inserted again automatically during the next initialization.

Any changes of groups within a context that has group contact folders enabled leads to a reinitialization of the mapped contact folders, so that the changes are reflected automatically. This includes new contact folders for newly created groups, updated folder names for updated group display



names, and deletions of folders when the corresponding group gets deleted. Changes of the group members will also directly lead to changes in the visibility of the corresponding group contact folder through the assigned group permission entry.

#### 12.3 Global Address Book

Basically, it is still possible to use the default global addressbook folder in parallel. However, espacially in scenarios with many users within a single context a huge global address book folder is not really useful, both from the end user's experience as well as performance-wise. Here, the group contact storage delivers an alternative solution where users rather see their peers in one or more group contact folders, e.g. representing the members of their department in a company or office location. Here, access to the global addressbook can be switched off by setting the corresponding module permission globaladdressbookdisabled.



In order to disable the global address book for non-PIM users, a rather historic permission check needs to be disabled by setting com.openexchange.admin.bypassAccessCombinationChecks to true.

With the global address book disabled, users can still collaborate with other users in the context, even if a user contact does not appear within a visible group contact folder. E.g. it is still possible to share folders, check free/busy times or create meetings with all other users, independently of their group membership. Although not all user contacts will appear in addressbooks or during autocomplete operations, they can still be addressed directly by their mail address. The middleware will then take care and recognize that there's an internal user entity behind the mail address implicitly.

# 13 Imap Util Library

Bundle Identifier	com.openexchange.util.imap
Package(s)	open-xchange-util-imap
Required capabilities	none
Available since	1.3.0-rev3

This package provides a library for common IMAP operations that are not available or usable in the AppSuite middleware core. It currently only includes an IMAP authentication feature. As it is a library and can be used for many different projects, the names of the configuration properties are configurable, at least their prefix is.

## **13.1** Usage

A project that wants to use the library needs to register an instance of the service JavaMailImapAuthenticator with an optional OSGi property to inform the IMAP library of which property name prefix to use to look up its configuration, e.g. like this when using util-custom's ActivatorTemplate:



The OSGi property name to define is ImapAuthenticator.CONFIG\_PREFIX\_PROPERTY, or config.prefix, and defaults to com.openexchange.imap.auth. if not specified.

# 13.2 Configuration

The following configuration properties are supported:

Property	Description
<pre><prefix>host</prefix></pre>	Hostname or IP address to connect to.
<pre><prefix>port</prefix></pre>	Port to connect to, defaults to 143 (imap) or 993
	(imaps), depending on the value of
	com.openexchange. <customer>.imap.secure being</customer>
	false or true, respectively.
<pre><prefix>secure</prefix></pre>	Whether to use SSL/TLS (true) or not (false),
	defaults to false.
<pre><prefix>starttls</prefix></pre>	Whether to use STARTTLS (when true, requires
	com.openexchange. <customer>.imap.secure to be</customer>
	set to false), defaults to false.
<pre><prefix>secure.protocols</prefix></pre>	Which SSL/TLS protocols to use for the handshake,
	defaults to the protocols that supported by the
	JDK.
<pre><prefix>secure.ciphersuites</prefix></pre>	Which SSL/TLS cipher suites to use for the
	handshake, defaults to the ones that are
	supported by the JDK.
<pre><pre><pre>fix&gt;connection.timeout.millis</pre></pre></pre>	The timeout for connections to the IMAP server, in
	milliseconds, defaults to 4000 (4 seconds).
<pre><pre><pre>fix&gt;login.timeout.millis</pre></pre></pre>	The timeout for logins to the IMAP server, in
	milliseconds, defaults to 4000 (4 seconds).

# 14 Ldap Client Library

Bundle Identifier	com.openexchange.ldap.client
Package(s)	open-xchange-ldap-client
Required capabilities	none
Available since	1.3.0-rev3

This package contains a library for easy, flexible and high-performance LDAP client operations. It contains and provides the open source UnboundID LDAP SDK and adds a YAML based configuration scheme on top, as well as managing pools of LDAP connections centrally for the AppSuite middleware. Bundles that need to perform LDAP operations can access the LdapClientService to retrieve a pool of LDAP connections by an identifier which is typically defined through a configuration property or hard-coded in the source.

The goals are:

- To have a central configuration in /opt/open-xchange/etc/ldap-client.d/\*.yaml of all LDAP client connection pools
- To minimize the amount of code to implement in order to perform LDAP operations in custom bundles: LdapClientService.getPoolFor("xyz").getReadPool().search(...)
- To provide flexible configuration capabilities to accommodate most if not all scenarios (pools, read/write pools, round-robin, failover, ...)

It does not provide any API besides an internal one for other bundles and, as such, is to be understood as a service for other custom bundles. It can also be used standalone instead of in an OSGi container, for example for integration tests or for command-line tools, by using LdapClientConfig-



Parser with a YAML configuration that can come from a file, or be constructed into a string, and then invoke .materialize() on the resulting configuration object.

The included UnboundID LDAP SDK also contains a very useful in-memory LDAP server that can and is being used for integration tests.

# 14.1 Configuration

LDAP connection pools are defined in YAML files that have a filename ending in ".yml" or ".yaml" and are located under the directory /opt/open-xchange/etc/ldap-client.d/ like e.g. /opt/open-xchange/etc/ldap-client.d/customer-xyz.yaml

The bundle will read all the files that are located under that directory on startup and will register for discovering changes and new files upon reload, automatically reconfiguring and replacing pools that are affected by the changes, which is why bundles that use this service should always use LdapClientService.getPoolFor(...) to perform LDAP operations, and not retrieve and hold an LdapClientPool indefinitely (at least not beyond the scope of a "transaction").

Note that configuration files may include placeholders, using the syntax \${placeholder}, for example \${com.openexchange.customerxyz.brand}, and those will be replaced with their corresponding property value using the ConfigurationService. This may be useful for usernames and passwords in the case of authenticated connection pools.

When using LDAP to authenticate using the "search-and-bind" approach (e.g. if the username is an email address that first needs to be resolved to a uid attribute to then perform a bind operation to verify the password), the best approach should be to use two connection pools: one with authenticated connections for the search (first operation), and then one with unauthenticated connections for the bind operations. The UnboundID library does provide an operation that binds and then guarantees the "un-bind" though (which is an operation that doesn't exist in LDAP and actually means performing another bind on a different user, or doing an anonymous bind (= bind on username==""" and password=="""), so using a single pool for both operations is an option too.

/opt/open-xchange/etc/ldap-client.d/ldap-client-pools.yaml.example

```
# The top-level key is the identifier of the pool, which can be
    # any string of text and is being used by the bundles and applications
    # to access that pool configuration.
    # Typically, those are fixed or need to be configured in the bundles
    # that use this library.
 6
7
    # When Java Security Manager support is enabled, files that are referenced
    # in these configuration files must be in a directory that is already
    # whitelisted, or in a subdirectory thereof, such as
10
    # /opt/open-xchange/etc/
11
12
    # A good candidate would be something along the lines of
13
    # /opt/open-xchange/etc/ldap-files/
15
    \mbox{\tt\#} Otherwise, the filename or its directory must be put into a new .list
16
    # file in the folder
    # /opt/open-xchange/etc/security/
18
    # with e.g. the following content:
19
20
    # file:/etc/trust.iks
21
22
    pool1:
23
      trust-store:
24
        # SSL: path to the JKS trust store file that contains the anchors
25
        file: /etc/trust.jks
26
27
        # SSL: indicates whether to reject certificates if the current time
        # is outside the validity window for the certificate
28
        validity: true
29
      key-store:
        # SSL: path to the JKS client key store file that contains the key
31
        file: /etc/private.jks
32
        # SSL: password to access the keystore and the key
```



```
33
34
35
36
37
38
39
40
41
         password: foobar
         # SSL: alias of the key to use
       # Configure a read/write pool with different settings for read operations
       # and for write operations (i.e. different pools of LDAP servers).
       # Here comes the part for the read operations:
         # Use a failover cluster of two nodes:
         failover:
           - ldap1.example.com
           - ldap2.example.com
44
45
         # Pool connection management
46
         # When creating a connection pool, you may specify an initial number of
         # connections (pool-min) and a maximum number of connections (pool-max).
48
         # The initial number of connections is the number of connections that should
         # be immediately established and available for use when the pool is created.
50
51
52
53
54
55
56
57
58
59
         # The maximum number of connections is the largest number of unused connections
         # that may be available in the pool at any time.
         # Whenever a connection is needed, whether by an attempt to check out a
         # connection or to use one of the pool's methods to process an operation,
         # the pool will first check to see if there is a connection that has already
         # been established but is not currently in use, and if so then that connection
         # will be used.
         # If there aren't any unused connections that are already established, then
         \mbox{\tt\#} the pool will determine if it has yet created the maximum number of
         # connections, and if not then it will immediately create a new connection
60
61
         # and use it.
         # If the pool has already created the maximum number of connections, then the
         # pool may wait for a period of time (as configured using 'maxWaitTimeMillis' below,
62
63
64
65
66
67
         # which has a default value of zero to indicate that it should not wait at all)
         # for an in-use connection to be released back to the pool.
         # If no connection is available after the specified wait time (or there should
         # not be any wait time), then the pool may automatically create a new connection
         # to use if 'createIfNecessary' is true (which is the default).
         # If it is able to successfully create a connection, then it will be used.
69
70
71
72
73
74
75
76
77
78
79
80
         \mbox{\tt\#} If it cannot create a connection, or if 'createIfNecessary' is set to false,
         # then an error will be thrown.
         # Note that the maximum number of connections specified when creating a pool
         # refers to the maximum number of connections that should be available for use
         # at any given time.
         \mbox{\tt\#} If 'createIfNecessary' is set to true, then there may temporarily be more
         # active connections than the configured maximum number of connections.
         # This can be useful during periods of heavy activity, because the pool will
         \# keep those connections established until the number of unused connections
         # exceeds the configured maximum.
         # If you wish to enforce a hard limit on the maximum number of connections so
         # that there cannot be more than the configured maximum in use at any time,
81
         # then set 'createIfNecessary' to false to indicate that the pool should not
         # automatically create connections when one is needed but none are available,
83
         # and you may also want to set 'maxWaitTimeMillis' to a maximum wait time to allow
84
         # the pool to wait for a connection to become available rather than throwing
85
86
         # an exception if no connections are immediately available.
         pool-min: 10
         pool-max: 50
88
         {\tt maxConnectionAgeMillis: 30000}
89
         maxWaitTimeMillis: 500
90
         createIfNecessarv: true
91
92
         # Specifies whether certain operations that should be retried on a newly-created
         # connection if the initial attempt fails in a manner that indicates that the
93
94
95
         \mbox{\tt\#} connection used to process the request may no longer be valid.
         # Only a single retry will be attempted for any operation.
         retryFailedOperations: true
96
       # Here comes the part for the write operations:
97
98
        host: ldap0.example.com
99
         pool-min: 1
100
         pool-max: 10
101
        maxConnectionAgeMillis: 60000
102
         maxWaitTimeMillis: 1000
103
         createIfNecessary: false
104
         retryFailedOperations: false
```



```
105
       # Specifies whether the pool should attempt to abandon any request for which
106
       # no response is received in the maximum response timeout period:
107
       abandonOnTimeout: true
108
       # Specifies the maximum length of time in milliseconds that a connection attempt
109
       # should be allowed to continue before giving up.
110
       # A value of zero (default) indicates that there should be no connect timeout.
111
       connectionTimeoutMillis: 3000
112
       # Specifies the maximum length of time in milliseconds that an operation should
113
       # be allowed to block while waiting for a response from the server.
114
       # A value of zero indicates that there should be no timeout.
115
       responseTimeoutMillis: 5000
116
       # Specifies whether to use the SO_KEEPALIVE option for the underlying sockets
117
       # used by associated connections.
118
       keepAlive: true
119
       # Specifies whether to use the TCP_NODELAY option for the underlying sockets.
120
       tcpNoDelay: true
121
       # Specifies whether to operate in synchronous mode, in which at most one
122
       # operation may be in progress at any time on a given connection.
123
       # When using asynchronous mode, a background thread takes care of multiplexing
124
       # and dispatching all the operations on connections that are shared for
125
       # multiple operations.
126
       synchronousMode: true
       # Specifies the length of time in milliseconds between periodic background
127
128
       # health checks against the available connections in this pool.
129
       healthCheckIntervalMillis: 120000
130
       # Specifies whether associated connections should attempt to follow any
131
       # referrals that they encounter.
132
       followReferrals: true
133
       # Specifies the maximum number of hops that a connection should take when
134
       # trying to follow a referral, must be greater than zero when 'followReferrals'
135
       # is true.
136
       referralHopLimit: 1
137
       # Specifies the maximum size in bytes for an LDAP message that a connection
138
       # will attempt to read from the directory server.
139
       # If it encounters an LDAP message that is larger than this size, then the
140
       # connection will be terminated.
141
       \mbox{\tt\#} Disabled when not specified or set to 0.
142
       maxMessageSize: 1024
143
144
     pool2:
145
       # A failover pool that uses the same set of servers for read and for
146
       # write operations.
147
       failover:
148
         - ldap0.example.com
         - ldap1.example.com
149
150
       pool-min: 5
151
       pool-max: 20
152
       trust-store:
153
         file: /etc/trust.jks
154
       kev-store:
155
         file: /etc/private.jks
156
157
     pool3:
158
       # A simple single-host setup
159
       host: ldap.example.com
160
       pool-min: 5
161
       pool-max: 20
162
163
       # A load-balancing setup that will use a round-robin algorithm to
164
165
       \# select the server to which the connection should be established.
166
       # Any number of servers may be included, and each request will
167
       # attempt to retrieve a connection to the next server in the list,
168
       # circling back to the beginning of the list as necessary.
169
       # If a server is unavailable when an attempt is made to establish
170
       # a connection to it, then the connection will be established to
171
       # the next available server in the set.
172
       round-robin:
173
         - host: ldap1.example.com
174
           port: 10389
175
           responseTimeoutMillis: 5000
         - host: ldap2.example.com
176
```



```
port: 10389
178
           responseTimeoutMillis: 12000
179
       pool-min: 10
180
       pool-max: 50
181
182
    pool5:
183
       \mbox{\tt\#} A DNS RR setup handles the case in which a given hostname may
184
       # resolve to multiplee IP addresses.
185
       # Note that while a setup like this is typically referred to as
186
       \mbox{\tt\#} "round-robin DNS", this option does not strictly require DNS (as names
187
       # may be resolved through alternate mechanisms like a hosts file or an
       # alternate name service), and it does not strictly require round-robin
188
189
       # use of those addresses (as alternate ordering mechanisms like
190
       # 'random' or 'failover' may be used).
191
       dns-round-robin:
192
         host: ldap.example.com
193
         # The selection mode that should be used if the hostname resolves
194
         # to multiple addresses.
195
         # Possible values:
196
         # - random: the order of addresses will be randomized for each attempt
197
         # - failover: addresses will be consistently attempted in the order
198
                 they are retrieved from the name service.
199
         # - round-robin: connection attempts will be made in a round-robin order
200
         selection-mode: random
201
         # Only use DNS if set to 'true'.
202
         # If set to 'false' then the operating system's hostname resolution
203
         # service will be used, which may include a hosts file.
204
         only-dns: false
205
         \# The maximum length of time in milliseconds to cache addresses resolved
206
         # from the provided hostname.
207
        # Caching resolved addresses can result in better performance and can
208
         \mbox{\tt\#} reduce the number of requests to the name service.
209
         # A value that is less than or equal to zero indicates that no caching
210
         # should be used.
211
         cache-timeout: 1440000
212
       pool-min: 5
213
       pool-max: 20
214
215
    pool6:
216
       # A failover pool that uses the same set of servers for read and for
217
       # write operations, as well as StartTLS
218
      failover:
219
         - ldap0.example.com
         - ldap1.example.com
221
       pool-min: 5
222
       pool-max: 20
223
       starttls: true
224
       trust-store:
225
         file: /etc/trust.jks
226
       kev-store:
         file: /etc/private.jks
```

# 15 Login Page Footer Links

Package(s)	open-xchange-appsuite-login-links
Required capabilities	com.openexchange.capability.io-ox-login-custom-links=true
Available since	1.4.3-rev1

The package allows to add new links in login page footer between languages switcher and copyright.



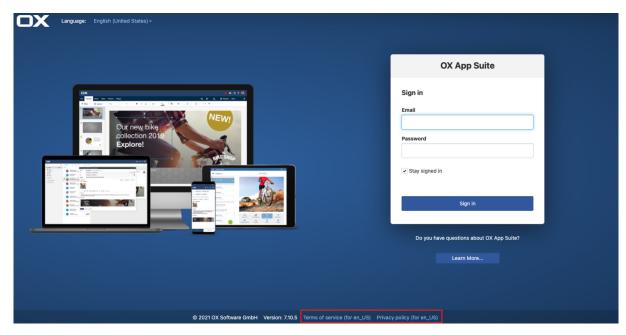


Figure 17: login links en\_Us

# 15.1 Configuration

The links to add are defined by configuration in server configuration via  $\protect\p$ 

```
loginLinks:
 2
         # if 'linkColor' is not defined serverConfig 'footer.linkColor' will be used in
             loginPage.
 3
         # if 'footer.linkColor' is not defined, the default '#94c1ec' will be used for '
             linkColor'.
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
         linkColor: '#cc2121'
         link1:
             text:
                  default: Terms of service
                  en_US: Terms of service {\tt EN}
                  de_DE: Terms of service DE
                  default: http://www.open-xchange.com
                  en_US: http://www.open-xchange.com?LANG=en
                  de_DE: http://wwww.open-xchange.com?LANG=de
         link2:
             text:
                  default: Privacy policy
                  en_US: Privacy policy EN de_DE: Privacy policy DE
20
21
22
                  default: http://www.open-xchange2.com
                  en_US: http://www.open-xchange2.com?LANG=en
                  de_DE: http://www.open-xchange2.com?LANG=de
```

# 16 Main Authentication Password

Bundle Identifier	com.openexchange.authentication.masterpassword	
Package(s)	open-xchange-authentication-masterpassword	
Required capabilities	none	
Available since	1.3.0-rev3	





#### DO NOT USE THIS IN PRODUCTION!

This package provides an authentication implementation that verifies user passwords against a globally configured password. This implementation is only meant for migration scenarios.

## 16.1 Configuration

/opt/open-xchange/etc/masterpassword-authentication.properties

```
123456789
    # Configuration file for the master password authentication plugin
    # DO NOT USE IN PRODUCTION !
    # The clear text password to authenticate all users.
    # Mandatory.
    # com.openexchange.authentication.masterpassword.password=supersecret
    com.openexchange.authentication.masterpassword.password=
12
13
    # The default value for the context when it is not specified.
    # Optional and defaults to using the "defaultcontext" mapping.
    #com.openexchange.authentication.masterpassword.default.context=
    # Whether the username portion of the login should be lowercased
17
    # before being looked up in the user database.
18
    # Optional and defaults to false
    #com.openexchange.authentication.masterpassword.lowercase=false
20
21
    # Whether the context name portion of the login should be lowercased
22
    # before being looked up in the context database.
23
24
25
    # Optional and defaults to false
    \# com.open exchange.authentication.master password.lower case.context=false
26
    # Whether to use the complete login string as the username,
    # e.g. login "foo@bar.com" -> user name "foo@bar.com" and
    # context name "bar.com"
    # Optional and defaults to false
    #com.openexchange.authentication.masterpassword.use.full.login.info=false
    # Whether to use the complete login string for the context name,
    # e.g. login "foo@bar.com" -> context name "foo@bar.com"
    # Optional and defaults to false
    #com.openexchange.authentication.masterpassword.use.full.login.info.for.context=false
```

# 17 Mandatory Wizard

Package(s)	open-xchange-appsuite-mandatory-wizard,	
	open-xchange-appsuite-mandatory-wizard-static	
Required capabilities	com.openexchange.capability.mandatory_wizard=true	
Available since	1.5.1-rev3	

The plugin offers a new mandatory wizard with 6 visual steps that give a quick introduction into App Suite, include a video and offer some tutorial links. All this content is configurable for each step and language. The new wizard does not offer steps for the user's first and last name and timezone. The implementation is based on the extension point based mandatory wizard core offers since App Suite 7.10.3. Thus a customer could still use the well-known extension point framework to reenable the name and timezone step, disable the new steps and add more steps to the wizard. When enabled, this plugin will replace the mandatory wizard implemented in the core packages.



The wizard does not ask for the user's first and last name anymore, so please only enable it, if these



fields are set during provisioning.



The top bar images can be only aligned to a specific core UI version. Since plugins supports multiple core versions we aligned those images only for the most recent version and introduced lower dependency limits to avoid unintended changes in the field. Please check the documentation of older versions to identify the supported release for this package.

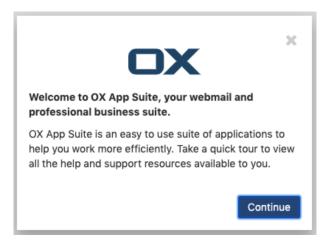


Figure 18: step 1



Figure 19: step 2



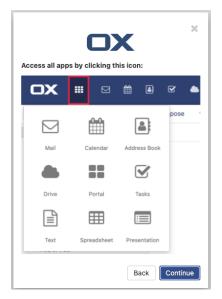


Figure 20: step 3

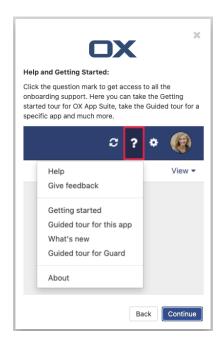


Figure 21: step 4



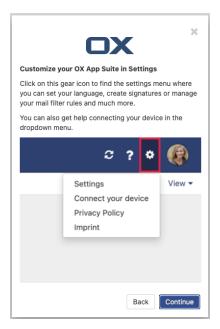


Figure 22: step 5

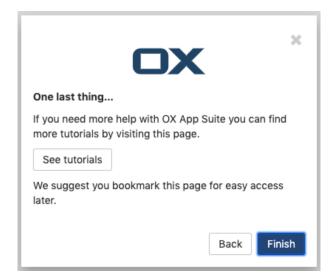


Figure 23: step 6

# 17.1 Configuration

/opt/open-xchange/etc/settings/mandatorywizard.properties



```
# NOTE: This is ONLY a sample config for local environments.
   # Please adjust according to your needs
   io.ox/mandatorywizard//logo = "apps/themes/io.ox.mandatorywizard/static/ox_logo_blue.svg"
   io.ox/mandatorywizard//wizardVideo/en_US = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-english.mp4"
   io.ox/mandatorywizard//wizardVideo/de_DE = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-German.mp4"
6
   io.ox/mandatorywizard//wizardVideo/it_IT = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-italian.mp4"
    io.ox/mandatorywizard//wizardVideo/fr_FR = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-french.mp4"
    io.ox/mandatorywizard//wizardVideo/es_ES = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-spanish.mp4"
9
    io.ox/mandatorywizard//step3Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome tour screen 1 EN.png"
10
   io.ox/mandatorywizard//step3Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_1_GER.png
   io.ox/mandatorywizard//step3Image/it_IT = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_1_IT.png"
12
   io.ox/mandatorywizard//step3Image/fr_FR = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_1_FR.png"
13
    {\tt io.ox/mandatorywizard//step3Image/es\_ES} \ = \ {\tt "apps/themes/io.ox.mandatorywizard/static/linearization}.
        welcome_tour_screen_1_ES.png"
14
    io.ox/mandatorywizard//step4Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_EN.png"
15
   io.ox/mandatorywizard//step4Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_GER.png"
   io.ox/mandatorywizard//step4Image/it_IT = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_IT.png"
17
    io.ox/mandatorywizard//step4Image/fr_FR = "apps/themes/io.ox.mandatorywizard/static/
        welcome tour screen 2 FR.png"
18
   io.ox/mandatorywizard//step4Image/es_ES = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_ES.png"
    io.ox/mandatorywizard//step5Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_EN.png"
    io.ox/mandatorywizard//step5Image/it_IT = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_IT.png"
21
    io.ox/mandatorywizard//step5Image/fr_FR = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_FR.png"
   {\tt io.ox/mandatorywizard//step5Image/es\_ES = "apps/themes/io.ox.mandatorywizard/static/linearization."}
22
        welcome_tour_screen_3_ES.png"
   io.ox/mandatorywizard//step5Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_GER.png"
    io.ox/mandatorywizard//step6TutorialLink/en_US = "https://oxappsuite.io/en/tutorials"
    {\tt io.ox/mandatorywizard//step6TutorialLink/de\_DE = "https://oxappsuite.io/de/tutorials"}
    io.ox/mandatorywizard//step6TutorialLink/fr_FR = "https://oxappsuite.io/fr/tutorials"
    io.ox/mandatorywizard//step6TutorialLink/it_IT = "https://oxappsuite.io/it/tutorials"
    io.ox/mandatorywizard//step6TutorialLink/es_ES = "https://oxappsuite.io/es/tutorials"
```

# 17.2 Internationalization Support

Supported languages: de\_DE, es\_ES, fr\_FR, it\_IT

#### 18 Minimal API for user data

#### 18.1 Minimal API Framework

,	
Bundle Identifier	com.openexchange.plugins.minimal.api,
	openexchange.plugins.minimal.api.consent.rdb,
	com.openexchange.plugins.minimal.api.consent.clt,
	com.openexchange.plugins.minimal.api.json,
	com.openexchange.plugins.minimal.api.ws.security,
	com.openexchange.plugins.minimal.api.auth.jwt,
	com.openexchange.plugins.minimal.api.ws.mail,
	com.openexchange.plugins.minimal.api.ws.calendar



Package(s)	<pre>open-xchange-minimal-api, open-xchange-minimal-api-jwt, open-xchange-minimal-api-mail, open-xchange-minimal-api-calendar</pre>
Required capabilities	none
Available since	1.3.7-rev2

The so called minimal API is meant for a temporary access to a limited dataset of the user. Temporary, because the token is only active as long as the user session is not removed from the cluster. The API is not open by default and always needs user consent to be accessed, which is tracked by date and client name. Furthermore, the API is meant to only provide readable data. The main focus is to provide data to external clients that show this data to the user while limiting the fetched fields. A widget on a second tab/iframe could be a use-case. Using a full session for this type of access would give the external client to much control over the user data which we can't track and are not able to control afterwards. By giving the user and the admin the control over the consent status, we can always restrict access again.

#### **18.1.1 Concept**

- The access is be token based.
- The API is designed for external clients.
- These tokens are only allowed to access a specific set of data via scopes/claims.
- These tokens are bound to existing OX Sessions and are invalidated as soon as the session is not in use / is removed.
- Endpoints are Restfull whenever possible.
- Either the user or the admin are able to set consent on the token handling.

Therefore so called **claims** are introduced, which represents a defined number of endpoints:

Claim	Description
readMail	Enables the client to read basic mail data
readCalendar	Enables the client to read basic calendar data

#### **18.1.2** Security Layer

The package open-xchange-minimal-api-jwt contains the security layer based on signed **JWT (JSON Web Token)**. The security handling is based on a key which is saved inside the session and put into the SessionStorage. Upon security validation, the Session is fetched from the SessionStorage and the key is validated. This package also contains a Rate limiter which limits the access to the API.

#### 18.1.3 Authentication

For authentication tokens are required which need to be fetched by the Get Token JSON endpoint like e.g:

```
GET http://{server}/appsuite/api/minimal?session={sessionId}&client={clientName}&action=token
```

The example JSON **GET token** response for sessionId **03a6bd595320422288e1767222603bce** and clientName **example** looks like:

```
1 {"data":{"token":"eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiIwM2E2Y...LCJyZWFkTWFpbCI6dHJ1ZXO.9
xQ6_YXDxZIZsZWAZzxLFRqgTptYERT1_-Qma8OUsWY"}}
```

This example **tokenResponse** translates into the following **JWT (JSON Web Token)**:



```
HEADER: ALGORITHM & TOKEN TYPE
1
2
3
4
5
6
7
8
9
    {
      "alg": "HS256"
    PAYLOAD: DATA
      "sub": "03a6bd595320422288e1767222603bce",
      "client": "example",
      "readMail": true
11
13
    VERIFY SIGNATURE
14
    HMACSHA256(
      base64UrlEncode(header) + "." +
16
      base64UrlEncode(payload),
17
    ) secret base64 encoded
```

Please see in the example JSON Web Token PAYLOAD:

- The sub key contains the initial sessionId.
- The client key contains the used clientName.
- The claim is shown as readMail provided as key.

#### 18.1.4 User Consent

As the API enables external clients(widgets) to fetch data, access to user data without consent is forbidden by default. The consent should be done for an individual claim and a client combination. It must be possible to decline this combination again. It is possible to track such changes individually.

#### 18.1.5 Database

The user consent state is saved in 2 Database tables, which are automatically created on the user db.

#### 18.1.6 JSON API for Client, Consent and Token Handling

Parameter	Description
server	Hostname or IP of the server.
sessionId	The session id of the user.
clientName	The client name configured for the user.
claims	Comma separated list of claims to be set. A provided claim will be written to the database as true. A not set claim will be written to the database as false. If not set at all, the default claims of the client are used and saved as true. If send as "" (empty string) all claims are written to the database as false.

#### **18.1.6.1 Parameter** Please use the URL prefix below for following actions:

GET http://{server}/appsuite/api/minimal?session={sessionId}&action=

Action URL Suffix	Descripton
token&client={clientName}	Request a token for a configured client.
set&client={clientName}&claims={claims}	Set consent for a configured client.
<pre>getDefaultConsent&amp;client={clientName}</pre>	Get default consent for a configured client.



Action URL Suffix	Descripton
get	Get all clients.
<pre>getByName&amp;client={clientName}</pre>	Get a specific client.
reset&client={clientName}	Reset a specific client.

Please note, resetting a specific client requires following config file setting, otherwise the request will return just a 403 error:

```
/opt/open-xchange/etc/minimal-api.properties

com.openexchange.plugins.minimal.api.{clientName}.resetallowed=true
```

#### 18.1.6.1.1 Example Default Consent Response

```
1 {
2    "data": {
3        "client": "example",
4        "defaultConsent": true // or false
5    }
6 }
```

### 18.1.6.1.2 Example Client Response

```
"data": [
"data": [
"client": "example",
"name": "Special Example Client",
"configuredClaims": [
"readMail"
"],
"configuredClaimsButNotInStorage": [
],
"configuredAndActiveClaims": [
"readMail"
],
"configuredAndDisabledClaims": [
]
"configuredAndDisabledClaims": [
]
]
```

Error Code	Description	
MIN_API-0003	A SQL error occurred.	
MIN_API-0004	The client is not configured.	
MIN_API-0005	The client is not allowed because the user has not yet decided to	
	allow access.	
MIN_API-0006	The client is not allowed due to not allowed claims.	
MIN_API-0007	No session found for sessionid / No key found for sessionid.	
MIN_API-0008	The token is missing.	

#### 18.1.6.2 JSON Error Codes

#### 18.1.7 Accessing User Data via REST API

With the base path /minimal/ with the token of the user as an authorization header. This header needs to be send with every request:



```
1 Authorization: Bearer {token}
```

Parameter	Description
amount	The amount from 1 to 100.
folder	The folder name as string.

#### 18.1.7.1 Parameter

**18.1.7.2 General Handling** When the underlying session is removed from the session storage, the token will not be able to access any data and also be considered invalid and an MIN\_API-0007 exception will be thrown.

# **18.1.7.3 Claim** readMail This claim is part of the open-xchange-minimal-api-mail package and provides following GET functionality:

Path	Description
/mail/v1/quota	Info about the current mail quota.
/mail/v1/info	Info about the current mail of the user which
	internally is handled.
/mail/v1/stats	Status of total and unread count in inbox.
/mail/v1/stats/{folder}	Status of total and unread count in folder.
/mail/v1/inbox	Details about the last 5 by date emails in INBOX.
/mail/v1/inbox/{amount}	Details about the amount of mails by date emails in
	INBOX.
/mail/v1/mails/{folder}	Details about the last 5 by date emails in folder.
/mail/v1/mails/{folder}/{amount}	Details about the last amount of emails in the
	folder by date.

### 18.1.7.3.1 Example Quota Info Response

## 18.1.7.3.2 Example Current Mail Info Response

```
1 {
2 "mail": "string",
3 "displayName": "string"
4 }
```

## 18.1.7.3.3 Example Status of Mail Folder Response

```
1 {
2  "total" : 10,
3  "unread" : 5
4 }
```



#### 18.1.7.3.4 Example E-Mail Details Response

# **18.1.7.4 Claim** readCalendar This claim is part of the open-xchange-minimal-api-calendar package and provides following GET functionality:

Path	Description
/calendar/v1/events	Details about the next 10 calendar events.
/calendar/v1/events/{amount}	Details about the next amount of calendar events.

## 18.1.7.4.1 Example Calendar Events Response

```
Γ
         {
             "location": "The Doctor Office",
             "created": 1581457892837,
             "description": "Need to get my ears checked.",
             "attendees": [
                  {
                      "uri": "mailto:john.doe@ox.com", "cn": "Doe, John",
                      "email": "john.doe@ox.com",
                      "entity": 3,
                      "cuType": "INDIVIDUAL",
                      "partStat": "ACCEPTED",
                      "folder": "31"
                 }
             ],
              "modifiedBy": {
                  "uri": "mailto:john.doe@ox.com",
                  "cn": "Doe, John",
                  "email": "john.doe@ox.com",
                  "entity": 3
             },
             "attendeePrivileges": "DEFAULT",
             "transp": "OPAQUE",
             "createdBy": {
                 "uri": "mailto:john.doe@ox.com",
                  "cn": "Doe, John",
                  "email": "john.doe@ox.com",
                  "entity": 3
             },
             "folder": "cal://0/31",
"summary": "Doctor",
             "startDate": {
                  "tzid": "Europe/Berlin",
"value": "20200213T210000"
             },
             "organizer": {
                  "uri": "mailto:john.doe@ox.com",
                  "cn": "Doe, John",
                  "email": "john.doe@ox.com",
41
                  "entity": 3
42
43
             "class": "PUBLIC",
             "lastModified": 1581542567786,
```



```
"uid": "88f822e7-2f98-4c8c-8ff0-96c2f6aaf265",
46
47
              "timestamp": 1581542567786,
              "endDate": {
                   "tzid": "Europe/Berlin",
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
                   "value": "20200213T213000"
              "calendarUser": {
                   "uri": "mailto:john.doe@ox.com",
                   "cn": "Doe, John",
                   "email": "john.doe@ox.com",
                   "entity": 3
              },
"id": "3",
              "sequence": 1,
              "flags": [
                   "organizer",
                   "accepted"
              1
         }
    ]
```

Response	Description
200	The request was successful.
400	The amount is not in range from 1 to 100.
403	The token is not alllowed to access the mail component.

### 18.1.7.5 HTTP Response Codes

## 18.1.8 Command Line Tool for Fetching the History

The package open-xchange-minimal-api provides the listminimalconsenthistory command line tool:

```
usage: listminimalconsenthistory
2
3
4
5
6
7
8
9
10
     -A,--adminuser <arg>
                                  Admin username
     -c,--context <arg>
                                   A valid context identifier
     -e,--end-time <arg>
                                  End time in seconds since 1970-01-01
                                   00:00:00 UTC. Only consent given before this
                                   time is shown. If not set, all feedback
                                   since -s is shown.
     -h,--help
                                   Prints a help text
     -i,--userid <arg>
                                   A valid user identifier
     -n,--client-name <arg>
                                  A valid (and used) client identifier. If not
                                   set, all clients are returned
12
13
     -p,--port <arg>
                                   The optional RMI port (default:1099)
     -P,--adminpass <arg>
                                   Admin password
        --responsetimeout <arg>
                                   The optional response timeout in seconds
15
                                   when reading data from server (default: Os;
16
                                   infinite)
17
                                   The optional RMI server (default: localhost)
     -s,--server <arg>
    The command-line tool to list given consent of a user for the minimal api
```

With this tool, the admininstrator is able to fetch the given consent for a user like e.g.:

```
/opt/open-xchange/sbin/listminimalconsenthistory -c 1 -i 4
user has the following entries:
-Claim [client=example, claim=readMail, consent=false, time=1551883129884]
-Claim [client=example, claim=readMail, consent=true, time=1551883134048]
```

#### 18.1.9 Configuration

/opt/open-xchange/etc/minimal-api.properties



```
# The capability to control whether or not the user is allowed to access the API
 2
3
4
5
6
7
8
9
    # at all
    #
    # Optional, default value: false
    # Example:
    # com.openexchange.capability.minimalapi=true
    \verb|com.openexchange.capability.minimalapi=false|\\
    # The clients names enabled for a user
11
    # Must be provided as a comma separated list
13
    # Optional, default value: ""
14
15
    \mbox{\tt\#} Must be provided as a comma separated list
16
17
    # Example:
    # com.openexchange.plugins.minimal.api.clients=exampleClient,exampleClient2
19
    com.openexchange.plugins.minimal.api.clients=
20
21
    # The user-friendly name of a client
22
23
    # Optional, default value: ""
24
25
26
    # If not set, the client identifier is returned.
27
28
    # Example:
    # com.openexchange.plugins.minimal.api.exampleClient.name=Example Preview
29
    com.openexchange.plugins.minimal.api.[client].name=
30
31
32
    # The claims assigned to a client
33
    # Optional, default value: ""
34
35
    # Must be provided as a comma separated list
36
37
    # Example:
38
    # com.openexchange.plugins.minimal.api.exampleClient.claims=readMail
39
    com.openexchange.plugins.minimal.api.[client].claims=
41
    # Default consent if user has not yet decided on first access
    # WARNING: It might be required by law to enforce user consent
43
44
    # Optional, default value: false
45
46
    # Example:
47
    # com.openexchange.plugins.minimal.api.exampleClient.defaultconsent=true
48
    com.openexchange.plugins.minimal.api.[client].defaultconsent=false
49
    # Maximum amount of requests per second per source IP address if the token could not be
        validated from cache
51
    # May be a decimal number.
52
53
    # Optional, default value: 1.0
54
55
    # Optional, default for client: 5.0
56
    # Example:
57
    # com.openexchange.plugins.minimal.api.ratelimit.requestsPerSecond=10.0
58
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.maxRequestsPerSecond=10.0
    \verb|com.openexchange.plugins.minimal.api.ratelimit.requestsPerSecond=1.0|
60
61
    # Maximal time window, in milliseconds: after a given source IP address has not accessed
62
    # the minimal API, its number of requests per second rate is reset.
63
64
    # Optional, default value: 300000
65
    # Optional, default for client: 300000
66
    # Example:
67
    # com.openexchange.plugins.minimal.api.ratelimit.maxRateTimeWindow=60000
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.maxRateTimeWindow=60000
    com.openexchange.plugins.minimal.api.ratelimit.maxRateTimeWindow=300000
```



```
# Strategy to use for reacting to the inability to access the API for a given source
    # IP address due to surpassing the maxRequestsPerSecond rate.
74
75
76
77
78
    # Format: it must be one of:
     # * fail-fast
    # * block
    # * timeout:...
 79
80
    # fail-fast
81
        if the rate limit is exceeded, the API will respond with a 401 Unauthorized
82
    # block
83
         if the rate limit is exceeded, the API will block infinitely until the rate limit
84
         allows for another request to be performed
    # timeout:...
86
        block until the specified timeout is reached, after which the API responds with a
         401 Unauthorized
        if the timeout does not allow to get a new token in time, a 401 Unauthorized is
89
90
        The value after "timeout:" consists of a number followed by a time unit, examples:
91
         - timeout:400s ---> 400 seconds
        - timeout:1m ---->
                               1 minute
         - timeout:2000ms -> 2000 milliseconds
94
    # If the token could be validated and is correct, the API will not return a
    # 401 Unauthorized but a 429 Too Many Requests instead.
97
    # Optional, default value: timeout:250ms
99
    # Optional, default for client: timeout:500ms
100
    # Example:
101
102
    # com.openexchange.plugins.minimal.api.ratelimit.strategy=timeout:1s
103
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.strategy=timeout:5s
104
    com.openexchange.plugins.minimal.api.ratelimit.strategy=timeout:250ms
```

# 18.2 Minimal API App

Package(s)	open-xchange-appsuite-minimal-api-app
Required capabilities	com.openexchange.capability.minimalapi=true
Available since	1.3.7-rev2

This plugin allow to define one or more 'generic' applications which appear in app launcher and provide an iframe in which a configured url is loaded. It is possible to customize url, title and if consent is required. Please see for more details the comments within the config file.

#### 18.2.1 Configuration

/opt/open-xchange/etc/settings/minimalapiapp.properties

```
1 2 3 4 5 6 7
   # minimal-api-app Settings
   # generic format is following
        io.ox/minimalapiapp//iframes=[{<config app 1>},{<config app 2>},{<config app3 >}, ]
   # each configuration object must have some attributes: "id", "icon", "source", "title", "
        needsToken" explained below
   # "id"
10
   #
        used to create unique name and avoid confusion. If more apps are defined their ids
        must be different
11
12
   # "icon"
13
   #
        used to specify the fontawesome icon to use for application (https://fontawesome.com/
        v4.7.0/icons/)
```



```
14
15
                      if not specified "bullseye" is used
16
          # "source"
17
                       contains url to use as source and which will be loaded inside iframe created by app.
          #
18
                       It is possible to use predefined placeholders surrounded by {{ }} which will be
19
                       replaced at app execution time with current values.
20
21
                       defined placeholders are the following:
22
                      {{LANGUAGE}} -> expanded to current language in lowercase as got from locale (es: 'en
                        or 'de' or 'it')
23
          #
                       {{USERMAIL}} -> expanded to emailaddress NOT urlencoded (es: myaddress@myprovider.my)
24
                       {{USERMAIL:ENC}} -> as above but urlencoded (es: myaddress%40myprovider.my)
25
                       {{FIRSTNAME}} -> expanded to first name of current user
26
                       {{FIRSTNAME:ENC}} -> as above but urlencoded
27
                       {{LASTNAME}} -> expanded to last name of current user
28
                       {{LASTNAME:ENC}} -> as above but urlencoded
29
30
31
          # "title"
32
                     is name to use when displaying application in launcher. Can be either a simple string
          #
33
                       or an object
34
35
          #
                       - if 'title' is a simple string, then application will use that name for each
                     language, so
36
                      changing language does not change name of application
37
38
                       - 'title' may be configured as an object and in that case it may contain translations
                       for different
39
                       languages, using language code as key (see examples below)
40
                       If there is no defined translation for current language, en_US will be used or if not
                       present
41
          #
                       hardcoded value 'Application'
42
43
          #
44
          # "needsToken"
45
                     can be either true or false and specify if before calling url, user has to gather a
                     token calling
46
                      appropriate api and allow consent via ui dialog. Token will then be appended to url
47
48
49
          # some examples: only one can be active at any time
50
51
          # example config for placeholders:
           \verb| # io.ox/minimalapiapp//iframes=[\{id: "test1", source: "https://mywebserver.org/\{\{LANGUAGE = (id: "test1", source: "https://mywebserver.org/", source: "https://mywebserv
53
                     }}/?email={{USERMAIL:ENC}}", title: "Minimal API App", "needsToken": false}]
54
55
56
          # example config for simple title:
57
          # io.ox/minimalapiapp//iframes=[{id: "test2", source: "https://mywebserver.org/", title: "
                     Minimal API App", "needsToken": false}]
59
60
          # example config for complex title:
61
62
          # io.ox/minimalapiapp//iframes=[{id: "test3", source: "https://mywebserver.org/", title:{
                     en_US: "My US app", de_DE: "My DE app", it_IT: "My IT app"}, "needsToken": false}]
63
64
          # example config for multiple apps:
65
          # io.ox/minimalapiapp//iframes=[{id: "test4", icon:"external-link", source: "https://
                    mywebserver.org/{{LANGUAGE}}/?email={{USERMAIL:ENC}}", title:{ en_US:"My US app",
de_DE:"My DE app", it_IT:"My IT app"}, "needsToken": false}, {id: "test5", source: "
                    \verb| https://mysecondwebserver.org/?userlast={\{LASTNAME:ENC\}\}", title:{ en_US:"My second US | Management | Ma
                       app", de_DE: "My second DE app", it_IT: "My second IT app"}, "needsToken": false}]
```

## 18.3 Minimal API Consent UI

Package(s)	open-xchange-appsuite-minimal-api-consent
Required capabilities	com.openexchange.capability.minimalapi=true



|--|

This module implements the UI consent part for the minimal API middleware component. Asking users for consent when using their data through the minimal API is a legal requirement. The module implements a popup that the user is presented with when he enters an app for the first time requesting consent for the minimal API as well as a settings panel where the user can reassess the given consent and set or withdraw it on App Suite app level. For this version we only support one client which has to be configured via io.ox/minimalapiconsent//client=example

### 18.3.1 Configuration

```
/opt/open-xchange/etc/meta/minimalapi.yml

1    io.ox/minimalapiconsent//client:
2        protected: false

/opt/open-xchange/etc/settings/minimalapi.properties

1    io.ox/minimalapiconsent//client=example
```

# 19 MX SPF Record Checker

#### 19.1 MX SPF Record Checker Framework

Bundle Identifier	com.openexchange.plugins.mx.checker,
	com.openexchange.plugins.mx.checker.json
Package(s)	open-xchange-plugins-mx-checker
Required capabilities	none
Available since	1.6.3-rev4

This package contains an adapter framework designed to support multiple MX Checker connector implementations. Once the package is installed and configured, and app node is started, the plugins will be registered with the platform. It provides a json HTTP interface for MX Checker, and is registered at plugins/mx-checker and supports the action get.

- A connector is selected based on com.openexchange.plugins.mx.checker.connector configcascade property.
- If a connector is found, mx checker logic is executed based on the incoming JSON request data. An appropriate HTTP response code, provided by the connector, will be returned to the web-browser.
- If a connector can't be found, a 501 HTTP response will be returned.

The package also provides a MXCheckerConnector service tracker which acts as the abstraction layer between the json API and each concrete connector service implementation.

#### 19.1.1 Configuration

/opt/open-xchange/etc/plugins-mx-checker.properties

```
# Determines which connector will be used for a user
# This setting is config-cascade aware to support different implementations for each user.
# Default is <none> which means that the feature is disabled for a user
com.openexchange.plugins.mx.checker.connector=
```



#### 19.2 MX SPF Record Checker Validation Banner

Bundle Identifier	com.openexchange.plugins.mx.checker,
	com.openexchange.plugins.mx.checker.json
Package(s)	open-xchange-appsuite-mx-checker
Required capabilities	com.openexchange.capability.mx-checker=true
Available since	1.6.3-rev4

A strategy to combat users contacting support due to no mail showing in their webmail experience is to validate the customer's MX records are set to the expected values to ensure inbound mail will be successful and to validate that the customer has a valid SPF record to ensure outbound has the highest likelihood of successful delivery.

Inform customers of their DNS state within App Suite with a banner above their mail display when things are incorrect, and provide a static link (configurable) to assist the user in correcting this.

This banner support 5 states:

- 1. **Bad MX & Bad SPF**: Display a message stating the customer may see issues with Sending and Receiving mail with an optional link to remediate.
- 2. **Bad MX & Good SPF**: Display a message stating the customer may see issues with Receiving mail with an optional link to remediate.
- 3. **Good MX & Bad SPF**: Display a message stating the customer may see issues with Sending mail with an optional link to remediate.
- 4. **Settings Propagating**: New accounts and accounts on certain TLDs sometimes take additional time to ensure DNS is consistent across the globe, display a message stating the customer settings are still taking effect and all mail functionality is expected within TBD hours.
- 5. All settings correct: no banner should be shown if none of the previous conditions.

By default, if the action link that takes user to a page showing how to fix his configuration issues, is not returned by the API, the banner from cases 1,2 and 3 above is not shown to the user. This behavior can be changed via setting **ignoreEmptyActionUrl** to true, in this case the banner will be shown to the user without the fix link.

To support customers from different domains, we've created a connector pattern to apply the "MX Check" based on the connector.

This package does not actually validate MX/SPF records, but relies on custom connectors.

The user has the option to hide the warning message displayed in the UI. If they click the "X" in the upper-right corner of the warning box, they will be prompted with a choice to ignore for ever, or "remind me later" (default). Choosing to ignore forever results in the error never being shown to the user again. Consequently the mx-checker script will never contact the API if the user has disabled the warning, to save bandwidth and API load. If the user chooses to "remind me later", the same behavior as above applies, except on a temporary basis. This temporary basis is defined in the configuration as the number of days to suppress the activity and message, defined by the suppressDays config parameter.



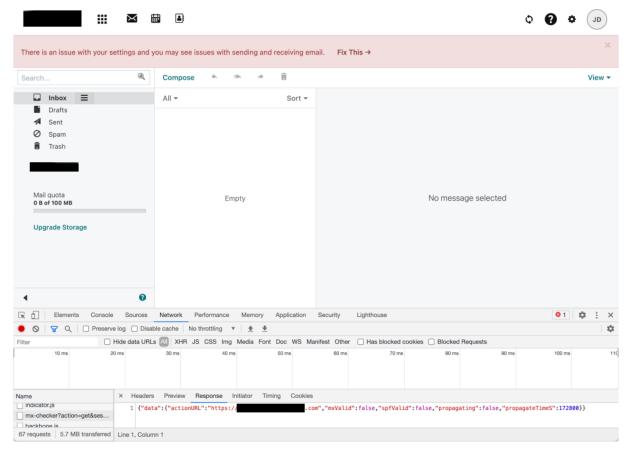


Figure 24: issue with email settings



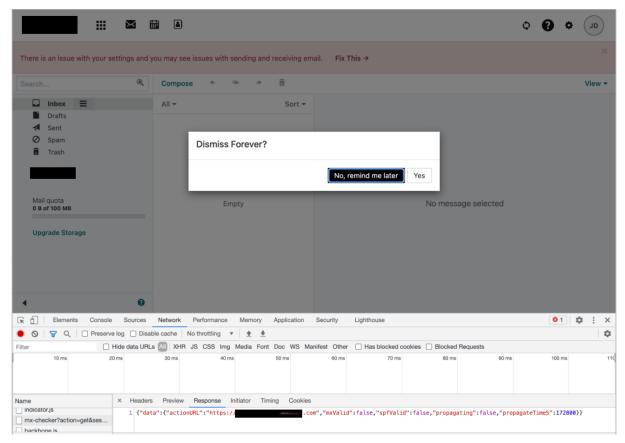


Figure 25: dialog

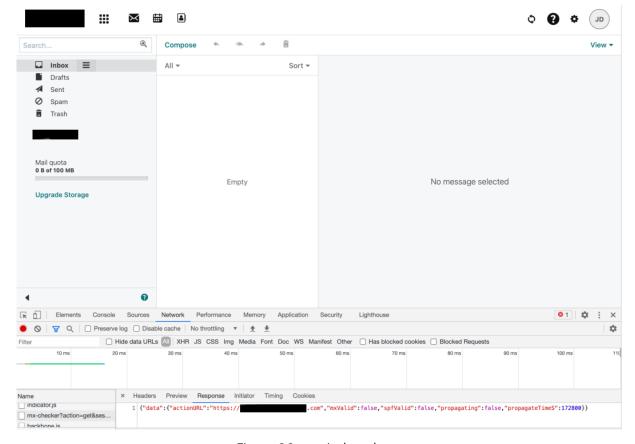


Figure 26: remind me later



#### 19.2.1 Configuration

/opt/open-xchange/etc/meta/mx-checker.yml

```
1 io.ox/mx-checker//suppress:
2 protected: false
```

```
/opt/open-xchange/etc/settings/mx-checker.properties
```

```
# Module name endpoint in the middleware
io.ox/mx-checker//apiModule = plugins/mx-checker

# When the user actively closes and temporarily suppresses the notification, number of days before showing it again.
io.ox/mx-checker//suppressDays = 1

# Whether or not to suppress the notification to the user. `false` to show the notification, `true` to hide it permanently, or a timestamp indicating when it was temporarily hidden. User-configurable.
io.ox/mx-checker//suppress = false

# Ignore empty Action Url and show banner message without fix link.
io.ox/mx-checker//ignoreEmptyActionUrl = false
```

# 19.3 Internationalization Support

Supported languages: ar\_AE, da\_DK, de\_DE, el\_GR, en\_US, es\_ES, es\_MX, fi\_FI, fr\_CA, fr\_FR, hi\_IN, id\_ID, it\_IT, ja\_JP, ko\_KR, nb\_NO, nl\_NL, pl\_PL, pt\_BR, pt\_PT, ru\_RU, sv\_SE, th\_TH, tr\_TR, uk\_UA, vi\_VN, zh\_CN, zh\_TW

# 20 Onboarding Wizard Change Login Details

Bundle Identifier	com.openexchange.plugins.onboarding.maillogin
Package(s)	open-xchange-plugins-onboarding-maillogin
Required capabilities	none
Available since	1.3.3-rev2

This package enables the App Suite core onboarding wizard to show a different login name. The onboarding wizard displays information for users in order to configure their applications and/or devices. It essentially displays the login and protocol specific URI to use to connect. In some cases, there is a need to override the **Username** that is used by default by the wizard. For instance, if the "<user id>@<context id>" format is used as login attribute, the wizard will show this incorrectly as login name which is not what users can use in order to actually login.



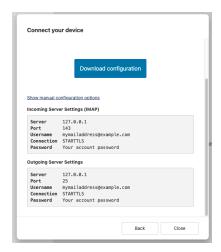


Figure 27: example wizard

This package can be configured to use various other attributes as the string of text to display as the login. Most prominently, and what is probably used in most if not all such setups, the so-called *defaultSenderAddress* (the default email address of the user).

#### 20.0.1 Configuration (Middleware)

The configuration settings are config cascade aware and can hence be set on a per-brand, per-context or even per-user level (the latter probably not making much sense though). The plugin covers the four different onboarding protocols that are supported by core:

- CalDAV
- CardDAV
- IMAP
- SMTP

/opt/open-xchange/etc/client-onboarding-maillogin.properties # Default value for overriding the login information displayed 2 3 4 5 6 7 8 # in the client onboarding. # Possible values: # email uses the user's defaultSenderAddress # attr:<name> uses the user's attribute <name> 9 uses the user's login, which is the same as if the 11 onboarding login was not overridden by this plugin 12 13 uses the loginName attribute when possible, which is only the case 14 15 for session based logins (IMAP, SMTP) and for protocols that do not create a session (CalDAV, CardDAV, EAS), it falls back on the login instead 17 # This property is config cascade aware and must be set globally 19 # (in this file), and can then be overridden by context and/or by 20 21 22  $\mbox{\tt\#}$  Note that for this feature to be enabled, one is also required # to set one or more the following properties, depending on the # client onboarding dialogs that need the login information to # be overridden by this plugin: # com.openexchange.client.onboarding.caldav.login.customsource=true # com.openexchange.client.onboarding.carddav.login.customsource=true  $\verb|# com.openexchange.client.onboarding.mail.imap.login.customsource=true|$ # com.openexchange.client.onboarding.mail.smtp.login.customsource=true



com.openexchange.plugins.onboarding.login=login

## 21 Send SMS via Twilio

Bundle Identifier	com.openexchange.sms.twilio
Package(s)	open-xchange-sms-twilio
Required capabilities	none
Available since	1.2.0-rev4

This package is needed to send SMS messages via twilio.



## **Warning**

The open-xchange-sms-sipgate package must **not** be installed.

# 21.1 Requirements

- An active Twilio account (https://www.twilio.com/).
- A suitable number of pre-provisioned Twilio long-codes and/or short-codes.

# 21.2 Configuration

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

```
# Twilio accountSID
com.openexchange.plugins.sms.twilio.accountSID.secret=ACCOUNT_SID
# Twilio auth token
com.openexchange.plugins.sms.twilio.authtoken.secret=AUTH_TOKEN
# Twilio Message Service SID
# Max message length. 1600 characters is Twilio's maximum
com.openexchange.plugins.sms.twilio.maxlength=1600
```

#### 22 **Server Metrics**

### 22.1 Metrics for HTTP

Bundle Identifier	com.openexchange.metrics.http
Package(s)	open-xchange-metrics-http
Required capabilities	none
Available since	1.3.6-rev1

This package contains metrics for any HTTP requests that are sent to the middleware. It is highly configurable and uses the core framework com.openexchange.metrics.

It supports the following features:

- · Configure which information is used to construct metrics (request headers, request parameters, sessions, logins, request paths, context identifier, ...).
- Blacklist or whitelist of URL paths for which to collect metrics.
- Optional aggregation of metrics.
- Optional additional metrics for specific users.
- · Never collects metrics for the Jolokia servlet (reads out the Jolokia servlet URI and keeps it from collecting metrics).



Metrics are made available through JMX and Jolokia (when enabled) to be collected by various monitoring systems. They are available under the object name:

```
com.openexchange.metrics;type=http
```

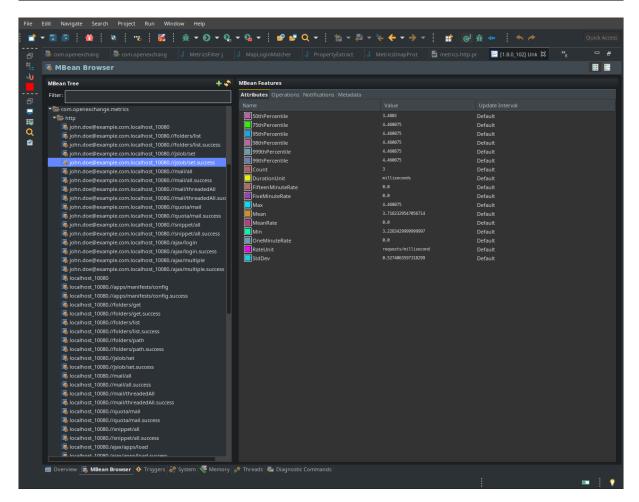


Figure 28: metrics for http

It is disabled by default for performance reasons, and must be enabled explicitly by modifying the configuration file. All configuration changes can be applied through configuration reloading, there is no need to restart.

# 22.1.1 Configuration

/opt/open-xchange/etc/metrics-http.properties

# The following property defines the various elements to use to compose the names of # the metrics, to determine how to group them and what to see.

# # The elements are separated by dots (".") and parsed individually, then replaced by # their respective value for each inbound HTTP request to determine the name of # the metric to update.

# # Note that not all elements necessarily always result in a value as some are only # present for specific types of HTTP requests, and others are optional (for example # all the user information related ones that are only available when the HTTP request # is authenticated or used in the context of an established Open-Xchange session).

# Values that are not available are skipped in the resulting name of the metric.



```
15
    # For each component, here are the possible values to specify in this property:
    # status
17
    # Will be replaced by "success" or "error" depending on the result, for example:
18
19
    # /api/rest/x/y/z -> success
20
21
    # path
22
23
    # If the HTTP is an AJAX API call, it will be replaced by "//module/action", and if not
24
    # (e.g. accessing a servlet instead), it will be replaced with the servlet path.
25
26
    # Examples:
27
    # /ajax/folders?action=get&id=1,2,4 -> //folders/get
    # /rest/api/x/y/z -----> /rest/api/x/y/z
29
    # info
30
31
    # ====
32
    # Will be replaced with the servlet path info, i.e. the part of the URL that is behind
33
    # the servlet path.
34
35
    # Examples:
36
    # /rest/api/users/john.doe@example.com -> john.doe@example.com
37
39
    # ======
40
    # The value "session", "session_id" or "sessionid" will be replaced by the Open-Xchange
       session
41
    # identifier, if applicable.
42
    # For HTTP operations that are not authenticated, it will be left out.
43
44
    # context_id
45
    # The value "context_id" or "cid" will be replaced by the numeric context identifier of
        the
47
    # user, if applicable.
48
    \mbox{\tt\#} For HTTP operations that are not authenticated, it will be left out.
49
50
    # user_id
51
    # ======
    # The value "user_id" or "cid" will be replaced by the numeric user identifier of the
    \mbox{\tt\#} user within the context, if applicable.
    # For HTTP operations that are not authenticated, it will be left out.
55
56
    # login
57
    # The value "login" will be replaced by the login the user entered to authenticate or the
59
    # user identifier provided by an SSO mechanism, if applicable.
60
    # For HTTP operations that are not authenticated, it will be left out.
61
62
    # property(module)
63
64
    # Will be replaced by the AJAX API module, if applicable.
65
66
    # property(action)
67
    # Will be replaced by the AJAX API module action, if applicable.
69
70
71
    # header(...)
72
73
    # Will be replaced by the value of an HTTP request header, the name of the header
    # being specified between the parentheses.
74
    # Note that header names are case sensitive.
75
76
77
    # Example:
    # header(Host).path -> appsuite01.example.com.//folders/list
78
79
    # parameter(...)
80
81
    # Will be replaced by the value of an HTTP request parameter, the name of the
    # parameter being specified between the parentheses.
83
```



```
# Example:
85
    # header(Host).parameter(app).path -> appsuiteO1.example.com.io.ox/mail.//folders/list
86
87
    # cookie(...)
88
    # ========
89
     # Will be replaced by the value of a cookie present in the HTTP request, the name of the
90
    # cookie being specified between the parentheses.
91
92
    # session(...)
93
    # ========
94
    # Will be replaced by the value of a parameter present in the user's Open-Xchange session,
 95
    # the name of the session parameter being specified between the parentheses.
96
97
98
    # =======
99
    # Specifies text that will be used as-is.
100
101
    com.openexchange.metrics.http.elements=path.status
102
103
    # When aggregation is enabled (by setting this value to true), each element as configured
104
    # by the property com.openexchange.metrics.http.elements will be a metric in its own right
105
    # and aggregated accordingly to its path.
106
    # Without aggregation, each metric is "flat".
107
108
    # For example, with the following configuration
109
    #
         com.openexchange.metrics.http.elements=header(Host).path.status
110
        com.openexchange.metrics.http.aggregation=true
111
    # each element will be a metric, namely:
112
    # 1. header(Host)
113
    # 2. header(Host).path
114
    # 3. header(Host).path.status
115
116
    # Specifically, results will look along the lines of the following, each being a metric:
117
    # - appsuite01.example.com
    # - appsuite01.example.com.//folders/list
118
119
    # - appsuite01.example.com.//folders/list.success
120
121
    # Each of those metrics except for the last one will be aggregating the measurements
122
    # of their parent metrics.
123
124
    com.openexchange.metrics.http.aggregation=false
125
126
    # List of logins for which to create specific metrics.
127
    # In order to be able to track and aggregate the metrics of specific users, the
128
    # following property can be set to a (full) login name as entered by the user when
    # authenticating or as provided by an SSO system if applicable.
129
130
131
    # For each of the logins specified through this property, an additional set
    # of metrics will be created, prefixing the elements that are defined in
132
133
    # com.openexchange.metrics.http.elements
134
     # with the login value.
135
136
    # For example, the following configuration
137
    #
        com.openexchange.metrics.http.elements=header(host).path.status
138
        com.openexchange.metrics.http.aggregation=true
139
         com.openexchange.metrics.http.logins=jdoe@example.com
140
    # will result in the following list of metrics:
141
    # 1. header(Host)
142
    # 2. header(Host).path
143
    # 3. header(Host).path.status
144
    # 4. login
145
    # 5. login.header(Host)
146
    # 6. login.header(Host).path
147
    # 7. login.header(Host).path.status
148
149
    # Specifically, results will look along the lines of the following, each being a metric:
150
    # - appsuite01.example.com
    # - appsuite01.example.com.//folders/list
151
152
    # - appsuite01.example.com.//folders/list.success
153
    # - jdoe@example.com
    # - jdoe@example.com.appsuite01.example.com
154
```



```
# - jdoe@example.com.appsuite01.example.com.//folders/list
156
       # - jdoe@example.com.appsuite01.example.com.//folders/list.success
157
158
       # Without aggregation, the following configuration
159
       #
              com.openexchange.metrics.http.elements=header(host).path.status
160
              com.openexchange.metrics.http.aggregation=false
161
       #
              com.openexchange.metrics.http.logins=jdoe@example.com
162
       # will result in this list of metrics instead:
163
       # 1. header(Host).path.status
164
       # 2. login.header(Host).path.status
165
166
       # Note that if this property is commented out (not set) or left empty,
167
       # no such additional per-login metrics will be created, which is the default
168
       # behavior.
169
170
       # Multiple logins may be specified, either by separating them with whitespaces
171
       # and/or commas, e.g.:
172
       # com.openexchange.metrics.http.logins=john.doe@example.com, jane.doe@example.com
173
       # or by specifying multiple properties as follows:
174
       # com.openexchange.metrics.http.logins.1=john.doe@example.com
175
       # com.openexchange.metrics.http.logins.2=jane.doe@example.com
176
       # (both may also be combined).
177
178
       # Furthermore, it is possible to use regular expressions and wildcards:
179
       \# - if a login contains * or ?, it is understood to be a wildcard
180
       \mbox{\tt\#} - if a login is enclosed in /.../ or /.../i (case insensitive), it is understood
181
       #
              to be a regular expression
182
       # Examples:
183
        \verb| # com.openexchange.metrics.http.logins=*@example.com, /^j(ohn|ane)\\ \verb| .doe@example | .cm$/ | .doe@example | .cm$/ | .doe@example | .doe@example | .cm$/ | .doe@example | .doe@examp
184
185
       # Being a wildcard, the following value would match all logins:
186
       # com.openexchange.metrics.http.logins=*
187
188
       com.openexchange.metrics.http.logins=
189
190
       # List of paths and path patterns for which to maintain metrics.
191
192
       # The following property specifies discrete paths, path wildcard patterns, or
193
       \# regular expressions that will be matched against the HTTP request paths, and
194
       # only those that match will have metrics.
195
196
       \# If the property value contains * or ?, it will be understood as a wildcard pattern.
197
       # If it starts with / and ends with / or /i (cae insensitive), it will be understood
198
        # as a regular expression.
199
       # If it is neither of those, it will be interpreted as an exact (string comparison) value.
200
201
       # To enable metric collection for all URLs, use the following value:
202
       # com.openexchange.metrics.http.path=*
203
204
       # If the value is not defined or empty, no metrics will be collected:
205
       # com.openexchange.metrics.http.path=
206
207
       # Example:
208
       # com.openexchange.metrics.http.path.1=/^/appsuite/.+/(boot|precore)\.js$/
209
       # com.openexchange.metrics.http.path.2=/appsuite/api/apps/manifests
210
       # com.openexchange.metrics.http.path.3=/appsuite/api/mail
211
212
       com.openexchange.metrics.http.path=
213
214
       # The behavior of the path matching above can be configured with the following property.
215
       # Possible values:
216
       # - whitelist: any URL path that matches one of the URL patterns configured
217
             using com.openexchange.metrics.http.path will be measured with metrics;
218
              any URL path that does not, will not be measured with metrics
219
        # - blacklist: any URL path that does not matches one of the URL patterns configured
220
              using com.openexchange.metrics.http.path will be measured with metrics
221
222
       \# When omitted, left empty or invalid, the default mode is whitelist
223
224
       # Example:
225
       # com.openexchange.metrics.http.path.mode=blacklist
226
```



227 com.openexchange.metrics.http.path.mode=whitelist

#### 22.2 Metrics for IMAP

Bundle Identifier	com.openexchange.metrics.imap
Package(s)	open-xchange-metrics-imap
Required capabilities	none
Available since	1.3.6-rev1

This package contains metrics for all IMAP operations that are performed by the middleware. It uses the core framework com.openexchange.metrics.

Metrics are published through JMX and Jolokia (when enabled) with a metric object for each operation, as it makes little sense to compare LIST with FETCH, for example. They are available under the object name:

```
1 com.openexchange.metrics; type=imap
```

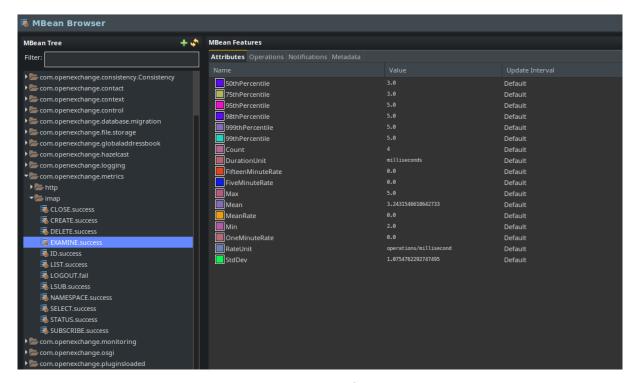


Figure 29: metrics for imap

It is disabled by default for performance reasons, and must be enabled explicitly by modifying the configuration file. To avoid slowing down all IMAP operations performed by the middleware, metrics are computed and updated asynchronously. The number of worker threads in charge of doing so is configurable. All configuration changes can be applied through configuration reloading, there is no need to restart.

### 22.2.1 Configuration

```
/opt/open-xchange/etc/metrics-imap.properties

1  # Configure whether to enable metrics for IMAP operations.
2  # When this property is omitted (commented out) or set to false, or empty,
```



```
# IMAP metrics will not be collected.

com.openexchange.metrics.imap.enable=false

# The number of threads to use to process IMAP operation results,

# updating metrics.

com.openexchange.metrics.imap.threads=2
```

# 23 Sql Client Library

Bundle Identifier	com.openexchange.sql.client
Package(s)	open-xchange-sql-client
Required capabilities	none
Available since	plugins-1.4.5-rev3

This package provides SQL pools to any component using them in the middleware. It is not configcascade aware, but it doesn't need to be. By default, all \*.yaml or \*.yml files are read and interpreted within /opt/open-xchange/etc/sql-client.d. Internally, the HikariCP is used to manage those pools.

## 23.1 Configuration

```
# Comma seperated list of drivers to read into the system
# As the sql-client is very early, it may happen that the excpected driver is not yet
    registered.
# To work around this issue, the following list of drivers will be read before any
    connection is
# created.
# created.
# Default: com.mysql.jdbc.Driver
com.openexchange.sql.client.drivers=com.mysql.jdbc.Driver
# The sql-client.d folder can be changed via
# openexchange.sql.client.dir=
```

# 23.2 Sample Configuration

```
/opt/open-xchange/etc/sql-client.d/sql-client-pools.yaml.example
```

```
# The top-level key is the identifier of the pool, which can be
   # any string of text and is being used by the bundles and applications
    # to access that pool configuration.
   # Typically, those are fixed or need to be configured in the bundles
    # that use this library.
   # When Java Security Manager support is enabled, files that are referenced
    # in these configuration files must be in a directory that is already
   # whitelisted, or in a subdirectory thereof, such as
   # /opt/open-xchange/etc/
12
   \mbox{\tt\#} A good candidate would be something along the lines of
13
    # /opt/open-xchange/etc/sql-files/
15
   \# Otherwise, the filename or its directory must be put into a new .list
   # file in the folder
    # /opt/open-xchange/etc/security/
    # with e.g. the following content:
   # file:/etc/trust.jks
22
    # For a complete list of property values, read https://github.com/brettwooldridge/HikariCP
    pool1:
```



```
# This is the name of the DataSource class provided by the JDBC driver.
      # Consult the documentation for your specific JDBC driver to get this class name, or see
           the table below.
26
      # Note XA data sources are not supported. XA requires a real transaction manager like
          bitronix.
27
      # Note that you do not need this property if you are using jdbcUrl for "old-school"
          DriverManager-based JDBC driver configuration.
28
      # Default: none
29
      dataSourceClassName: com.mysql.jdbc.jdbc2.optional.MysqlDataSource
30
      \mbox{\tt\#} This property directs HikariCP to use "DriverManager-based" configuration.
31
      # We feel that DataSource-based configuration (above) is superior for a variety of
          reasons (see below), but for many deployments there is little significant difference
32
      # When using this property with "old" drivers, you may also need to set the
          driverClassName property, but try it first without.
33
      # Note that if this property is used, you may still use DataSource properties to
          configure your driver and is in fact recommended over driver parameters specified in
           the URL itself.
34
      # Default: none
35
      jdbcUrl: jdbc:mysql://mysql.example.com
      # This property sets the default authentication username used when obtaining Connections
           from the underlying driver.
37
      # Note that for DataSources this works in a very deterministic fashion by calling
          DataSource.getConnection(*username*, password) on the underlying DataSource.
      # However, for Driver-based configurations, every driver is different.
      # In the case of Driver-based, HikariCP will use this username property to set a user
          property in the Properties passed to the driver's DriverManager.getConnection(
          jdbcUrl, props) call.
40
      # If this is not what you need, skip this method entirely and call addDataSourceProperty
          ("username", ...), for example.
      # Default: none
42
      username: user
43
      # sets the password of the connection
      password: secret
45
    pool2:
47
      jdbcUrl: jdbc:mysql://mysql.example.com
48
      # This property controls the maximum number of milliseconds that a client (that's you)
          will wait for a connection from the pool.
49
      # If this time is exceeded without a connection becoming available, a SQLException will
          be thrown.
50
      # Lowest acceptable connection timeout is 250 ms.
51
      # Default: 30000 (30 seconds)
      connectionTimeout: 30000
53
      # This property controls the maximum amount of time that a connection is allowed to sit
          idle in the pool.
      # This setting only applies when minimumIdle is defined to be less than maximumPoolSize.
           Idle connections will not be retired once the pool reaches minimumIdle connections.
      # Whether a connection is retired as idle or not is subject to a maximum variation of
          +30 seconds, and average variation of +15 seconds.
      \mbox{\tt\#} A connection will never be retired as idle before this timeout.
57
      # A value of 0 means that idle connections are never removed from the pool.
58
      # The minimum allowed value is 10000ms (10 seconds).
59
      # Default: 600000 (10 minutes)
60
      idleTimeout: 600000
      # This property controls the maximum lifetime of a connection in the pool. An in-use
          connection will never be retired, only when it is closed will it then be removed.
62
      # On a connection-by-connection basis, minor negative attenuation is applied to avoid
          mass-extinction in the pool.
      # We strongly recommend setting this value, and it should be several seconds shorter
          than any database or infrastructure imposed connection time limit.
64
      # A value of 0 indicates no maximum lifetime (infinite lifetime), subject of course to
          the idleTimeout setting.
65
      # Default: 1800000 (30 minutes)
      maxLifetime: 1800000
      # This property controls the minimum number of idle connections that HikariCP tries to
          maintain in the pool.
68
      # If the idle connections dip below this value and total connections in the pool are
          less than {\tt maximumPoolSize}, {\tt HikariCP} will make a best effort to add additional
          connections quickly and efficiently.
69
      # However, for maximum performance and responsiveness to spike demands, we recommend not
           setting this value and instead allowing HikariCP to act as a fixed size connection
```



```
pool.
70
      # Default: same as maximumPoolSize
71
      minimumIdle: 0
     # This property controls the maximum size that the pool is allowed to reach, including
          both idle and in-use connections.
      # Basically this value will determine the maximum number of actual connections to the
          database backend. A reasonable value for this is best determined by your execution
          environment.
      # When the pool reaches this size, and no idle connections are available, calls to
          getConnection() will block for up to connectionTimeout milliseconds before timing
      # Default: 10
76
77
     maximumPoolSize: 10
    # The following example shows how to provide additional dataSource properties to the pool
        by using the dataSourceProperties key.
    # The DataSource will be started with all key-value pairs added.
80
81
     jdbcUrl: jdbc:mysql://mysql.example.com
82
     username: user
83
      password: secret
84
     dataSourceProperties:
85
        useUnicode: true
86
        characterEncoding: UTF-8
        autoReconnect: false
88
        useServerPrepStmts: false
89
        useTimezone: true
        serverTimezone: UTC
91
        connectTimeout: 15000
        socketTimeout: 15000
        useSSL: false
        requireSSL: false
        verifyServerCertificate: false
        enabledTLSProtocols: TLSv1,TLSv1.1,TLSv1.2
```

# 24 Survey Dialog

Package(s)	open-xchange-appsuite-survey,
	open-xchange-appsuite-survey-static
Required capabilities	com.openexchange.capability.survey=true
Available since	1.6.5-rev2

This plugin allows to show a dialog to the user for taking a survey. The dialog it self doesn't show the survey, but a link to the survey page.

The dialog contains:

- A configurable logo.
- An introduction, configurable per language.
- A button to the survey page. Both button label and link to survey page are configurable per language. When clicked the version seen by the user is set to current version (generation).
- A button to show the dialog later (in next Appsuite reload). This will close current dialog. The button label is configurable per language.
- An action link to dismiss the survey dialog. The dialog is closed and not shown again for the current version (the version seen by the user is set to current survey version). the label of the link is configurable per language.
- A a privacy description, configurable per language.

Any missing setting for a language will fallback to use en US defined one.



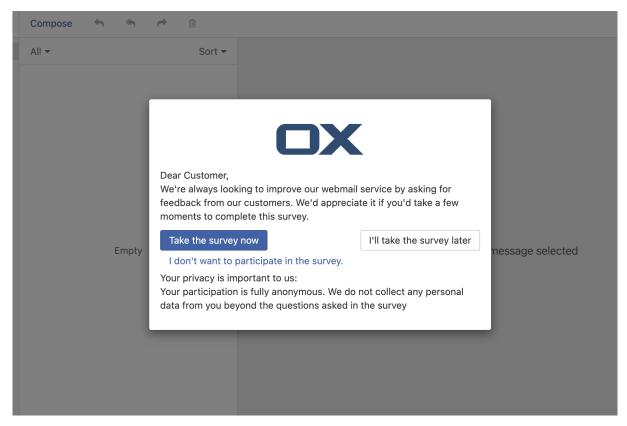


Figure 30: survey dialog

## 24.1 Configuration

#### 24.1.1 Versioning

Survey dialogs are versioned using a setting named **generation**. The survey dialog is shown only when the stored version seen by the user (**hasSeen**) is either undefined or less than current configured version. The survey version can be either a single value shared for all languages or language specific:

- If the survey has the same version for all languages, the configuration of the version could be done using only en\_US as language. In this case any language will use the **generation** defined for en\_US and **hasSeen** version is set also for en\_US. **hasSeen** doesn't need to be specified in configuration and will be set by default to 0.
- If the survey dialogs will have different versions for some languages, then for each of those languages, the settings should define both **generation** and **hasSeen** values. Additionally, the **hasSeen** property should be added to meta configuration as not protected (see example below). All other languages that don't have specific version settings will fallback to en\_US one.

#### **24.1.2 Samples**



```
9 io.ox.survey//survey/en_US/intro = "<span class=\'salutation\'>Dear Customer,</span><br/>be\'re always looking to improve our webmail service by asking for feedback from our customers. We\'d appreciate it if you\'d take a few moments to complete this survey."
10 io.ox.survey//survey/en_US/privacy = "<span>Your privacy is important to us:</span><br/>Your participation is fully anonymous. We do not collect any personal data from you beyond the questions asked in the survey"
11 io.ox.survey//survey/en_US/link = blank.html?take-survey=true
12 io.ox.survey//survey/en_US/takeSurveyNow = "Take the survey now",
13 io.ox.survey//survey/en_US/takeSurveyLater = "I\'ll take the survey later",
14 io.ox.survey//survey/en_US/dontTakeSurvey = "I don\'t want to participate in the survey."
```

```
/opt/open-xchange/etc/meta/survey.yml
```

```
# Needed only if specific versioning required for a language
# io.ox.survey//survey/en_US/hasSeen:
# protected: false
# io.ox.survey//survey/de_DE/hasSeen:
# protected: false
```

# 25 Trusted Identity for external systems

# **25.1 Trusted Identity Provider**

Bundle Identifier	com.openexchange.plugins.trustedidentity
Package(s)	open-xchange-plugins-trusted-identity
Required capabilities	none
Available since	1.6.4-rev2

This package extends the OX HTTP API for the creation of encrypted or signed JSON Web Tokens (JWT) containing authenticated user details. With those tokens the browser can link out to a external system while providing authenticated user details in a secure manner. For the cryptography we choose ECDSA keys because it is currently the most fitting standard. The external system must be able to validate the request by using standard protocols.



Note that there is an additional package in Cloud-Plugins that provides support for storing signature keys in LDAP instead of on the filesystem.

#### 25.1.1 JSON Web Token

Signed JSON Web Tokens contain a number of key-value pairs in their header part, as defined by RFC 7517. We include the following headers:

Attribute	Meaning	Description
kid	Key ID	References the public key to use to verify the signature of the JWS, in a textual form that has no particular convention, but is supposed to help the peer implementation to pick the correct public key to verify the signature.
typ	JWS Type	Always "JWT", mandatory as of the specification.
alg	Algorithm	As specified in JSON Web Signature and Encryption Algorithms. We currently support ES256, ES384 and ES512.
x5t#S256	SHA-256 thumbprint	Thumbprint of the public key: base64url-encoded SHA-256 thumbprint (a.k.a. digest) of the DER encoding of an X.509 certificate RFC5280.

```
1 {
```



```
2    "x5t#S256": "BzyJzP0eUJcJH2Csu1fy7ZrLDvS0IbCukwmhgMtIKws",
3    "kid": "key01",
4    "typ": "JWT",
5    "alg": "ES256"
6 }
```

The payload inside the JWT is JSON and contains "claims" (keys and values) that are either well-defined (in bold) or custom (not in bold):

Attribute	Meaning	Description	
sub	subject	The login the user used to authenticate the session.	
iss	issuer	A configured string of text, e.g. Open-Xchange (configurable, see	
		below: com.openexchange.plugins.trustedidentity.issuer).	
contextId		The numeric context identifier of the user.	
userId		The numeric user identifier of the user.	
ехр	expiry	Instant in time after which the token should be discarded	
	timestamp	(configurable, see below:	
		com.openexchange.plugins.trustedidentity.expiration).	
iat	issued at	Instant in time at which the token was generated by the	
	timestamp	middleware.	

When the token is signed and encrypted (using the EC-256 algorithm which performs a ECDH to derive a symmetric key that is then used to encrypt with AES key wrap (A256GCM: AES in Galois/Counter Mode (NIST-800-38D)), hence using a 256-bit key) like e.g.:

```
eyJlcGsiOnsia3R5IjoiRUMiLCJjcnYiOiJQLTI1NiIsIngiOiJpSWF1NU5xRlo3V3JyN1ZnT1JYelZFUH [...]
[...] TkJl-2TygzF81XMafSqaqy64Cq6n52X_ePZgt3UfZ9WS1nmFx0009sbsyb2J.tKZ_5b5LP2YnUr_h2gi6Cw
```

When the tocken is just signed (without encryption) using the EC-256 algorithm which performs a SHA-256 hash like e.g.:

```
eyJ0eXAiOiJKV1QiLCJhbGciOiJFUzI1NiJ9 [...]
2 [...] n9Sed-CAawcs-t4qTxL8UKZS5hnKFEjb8Fiet27nJwvTfEQdaxAm6SvSiNc3oUBd1PCORpAEE1_ZTVF8A
```

### 25.1.2 HTTP API

Parameter	Description
server	Hostname or IP of the server.
sessionId	The session id of the user.
data	A JSON Object with key-value pairs that are included as-is in the token
	response.

Please use the URL prefix below for following actions:

```
PUT http://{server}/appsuite/api/trust?session={sessionId}&
```



Action URL Suffix	Descripton
action=sign&data={data}	Create base64url encoded signed JWT.
action=encrypt&data={data}	Create base64url encoded signed and encrypted JWT.

#### 25.1.2.1 Example Sign UI Usage for Upsell

```
require(['io.ox/core/http']).then(function (http) { http.PUT({module: 'trust', params: {
    action: 'sign'}, data: {upsell:['guard'], source: 'test'}}).then(function (resp) {
    console.log(resp.token) }) });
```

## 25.1.2.2 Example Encryt UI Usage for Upsell

```
require(['io.ox/core/http']).then(function (http) { http.PUT({module: 'trust', params: {
    action: 'encrypt'}, data: {upsell:['guard'], source: 'test'}}).then(function (resp) {
    console.log(resp.token) }) });
```

#### 25.1.3 Configuration

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

```
# URI to the private and public key resource to use to sign JWTs.
2
3
4
5
6
7
   # The format of the URi epends on the scheme and driver.
    # The "file" scheme is always supported.
   # Format: file:<algorithm>:<path>[#<keyid>]
8
   # Algorithm may either be "auto" in which case the signing algorithm will be inferred
   # from the EC curve OID within the encoded private key part in the file, or be explicitly
   # one of the supported values:
   # - ES256: ECDSA using P-256 curve and SHA-256 hash algorithm
   # - ES384: ECDSA using P-384 curve and SHA-384 hash algorithm
12
13
    # - ES512: ECDSA using P-521 curve and SHA-512 hash algorithm
14
15
    # Note that for the time being, only ECDSA keys are supported.
16
17
    # The key id may be set as the fragment part of the URI: if set, will be stored as a kid (
        kev id)
18
    # claim in the JWT header, which identifies the key in some form that is understandable
       for consumers
19
    # of the JWT token.
20
    # Optional, does not set the kid claim when absent.
21
   # The path is a fully qualified filesystem path to the private key PEM file to use for
    # It should also contain the certificate (public key part) in order to include the
24
    \# x5t\#S256 (X.509 certificate SHA-256 thumbprint) in the signed token.
25
   #
26
   # Content of the file:
27
    # ----BEGIN EC PRIVATE KEY----
    # MIGHAgEAMBMGByqGSM49AgEGCCqGSM49AwEHBGOwawIBAQQgyGdEuJcaHlaOCDtX
30
     \verb| # Jvb9wIBomk0sFr++dEnvM97Sm3G+c8wkqL0+WFBRwTw79sQioT3V0MVV| \\
31
    # ----END EC PRIVATE KEY----
    # ----BEGIN EC PUBLIC KEY----
32
33
    # MFkwEwYHKoZIzjOCAQYIKoZIzjODAQcDQgAEqxHR/v8D3NktT/EfE5Mq2dv11Z6H
    # QCb2/cCAaJpDrBa/vnRJ7zPe0ptxvnPMJKi9PlhQUcE80/bEIqE91TjFVQ==
35
    # ----END EC PUBLIC KEY----
    # The type (specified after BEGIN and END) in the PEM headers must be one of:
    # - for the mandatory private key: PRIVATE KEY, EC PRIVATE KEY
39
    # - for the optional public key: CERTIFICATE, PUBLIC KEY, EC PUBLIC KEY
40
    # Examples:
41
    # com.openexchange.plugins.trustedidentity.key=file:auto:/opt/open-xchange/etc/
        trustedidentity.pem#ox-trust-key-2021-1
```



```
# com.openexchange.plugins.trustedidentity.key=file:ES256:/opt/open-xchange/etc/
         trustedidentity.pem
44
     #
45
     # Mandatory, there is no default value.
46
     com.openexchange.plugins.trustedidentity.key=
47
48
     # The issuer (iss) string to include in the signed JWT.
49
     # Describes this App Suite instance in its role as an authority.
 50
51
    # Mandatory, has no default value.
52
53
54
     # Example:
     # com.openexchange.plugins.trustedidentity.issuer=Open-Xchange
55
     com.openexchange.plugins.trustedidentity.issuer=
57
     # Expiration duration: the signed JWT contains a standard claim field
    # "exp" that defines when the validity of the JWT should expire.
# The following configuration property configures how long that expiration
60
     # time frame should be, always in addition to the current timestamp as
61
     # of the system clock.
     \mbox{\tt\#} e.g. \mbox{\tt\#}^{\rm o} will produce an expiration timestamp that is 5m in the future
62
63
64
    # Format: <duration>[h|m|s|ms]
65
66
     # Example:
67
     # com.openexchange.plugins.trustedidentity.expiration=30m
68
69
     # Optional, the default value is "5m" (5 minutes)
70
71
72
     com.openexchange.plugins.trustedidentity.expiration=5m
73
     # Public key file (PEM) location on disk.
74
75
     # This is the public key to use for encrypting JWTs. That public key must be
76
77
     # provided to us by the peer or customer that will receive the encrypted
     # JWT, as they will be able to decrypt it using their private key part.
 78
79
     # Note tha this property is config-cascade aware.
80
81
     # Example:
82
     # com.openexchange.plugins.trustedidentity.peer.publicKeyFile=/opt/open-xchange/keys/
         customer1-pubkey1.pem
83
     # This configuration setting is mandatory and has no default value.
85
     # When left empty, it disables encryption.
86
     com.openexchange.plugins.trustedidentity.peer.publicKeyFile=
88
     # Algorithm to use to encrypt the JWT.
89
90
     # The supported algorithms depend on the type of the public key.
91
92
     # For an EC key:
93
94
     # - ECDH-ES: Elliptic Curve Diffie-Hellman Ephemeral Static (RFC 6090) key agreement using
95
                  Concat KDF, as defined in section 5.8.1 of NIST.800-56A, with the agreed-upon
          kev
96
     #
                  being used directly as the Content Encryption Key (CEK) (rather than being
         used to
97
                   wrap the CEK).
98
99
         ECDH-ES+A128KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
     # -
         -ES",
100
     #
                  but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
101
                  the "A128KW" function (rather than being used directly as the CEK).
     #
102
103
       - ECDH-ES+A192KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
     #
         -ES".
104
     #
                  but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
105
                  the "A192KW" function (rather than being used directly as the CEK).
```



```
106
107
       - ECDH-ES+A256KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
108
                 but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
109
                 the "A256KW" function (rather than being used directly as the CEK).
110
    #
111
    # For an RSA key:
112
113
    # - RSA-OAEP-256: RSAES using Optimal Asymmetric Encryption Padding (OAEP) (RFC 3447),
114
                 {\tt SHA-256} hash function and the MGF1 with {\tt SHA-256} mask generation function.
115
    #
116
    # Note tha this property is config-cascade aware.
117
    # Example:
118
119
    # com.openexchange.plugins.trustedidentity.peer.algorithm=ECDH-ES+A256KW
120
121
     # The property is optional and defaults to either ECDH-ES for EC keys, or
122
    # to RSA-OAEP-256 for RSA keys.
123
    com.openexchange.plugins.trustedidentity.peer.algorithm=
124
125
    # Encryption Method to use to encrypt the JWT.
126
127
     # The supported methods are as follows:
128
    #
    # - A128GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 128 bit key
129
130
    # - A192GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 192 bit key
131
    # - A256GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 256 bit key
132
133
    # Note tha this property is config-cascade aware.
134
    #
135
     # Example:
136
    # com.openexchange.plugins.trustedidentity.peer.encryptionMethod=A256GCM
137
138
     # The property is optional and defaults to A256GCM
139
    140
141
    # Peer public key time-to-live in cache.
142
143
    # Public keys are loaded from PEM files on-demand and are then cached for a configurable
144
    # amount of time before being loaded again.
145
146
    # Format: <duration>[w|d|h|m|s|ms]
147
148
    # Example:
149
    # com.openexchange.plugins.trustedidentity.peer.publicKeyCacheTtl=5d
150
151
     # The property is optional and defaults to 1d (1 day)
    com.openexchange.plugins.trustedidentity.peer.publicKeyCacheTtl=
```

# **25.1.3.1 Example Key Configuration** For a configuration that retrieves the signing key from disk:

- Filename: /opt/open-xchange/etc/trust.pem
- Public Key ID: ox-trust-example-2021

The file contains both the public key and the private key in PEM (PKCS#8) format, for example this EC key for ES256 like e.g.:

```
trust.pem

1 ----BEGIN PRIVATE KEY----
2 MIGHAGEAMBMGBYQGSM49AgEGCCQGSM49AwEHBGOwawIBAQQgyGdEuJcaHlaOCDtX
3 XN3PQq7EN9lxhgUm2D8MlAjiOrWhRANCAASrEdH+/wPc2S1P8R8TkyrZ2+UhnodA
4 Jvb9wIBomkOsFr++dEnvM97Sm3G+c8wkqL0+WFBRwTw79sQioT3VOMVV
5 ----END PRIVATE KEY-----
6 ----BEGIN PUBLIC KEY-----
7 MFkwEwYHKoZIzjOCAQYIKoZIzjODAQcDQgAEqxHR/v8D3NktT/EfE5Mq2dvlIZ6H
```



```
8 QCb2/cCAaJpDrBa/vnRJ7zPe0ptxvnPMJKi9PlhQUcE80/bEIqE91TjFVQ==
9 ----END PUBLIC KEY----
```

The peer public key for encryption is stored on disk, in /opt/open-xchange/etc/peer-pub.pem e.g.:

```
peer-pub.pem

1 ----BEGIN PUBLIC KEY----
2 MFkwEwYHKoZIzjOCAQYIKoZIzjODAQcDQgAEh8VpMpNkE15pYX3KONPsDX2r5MQJ
3 Ejuj11ALv4WJswjf8t2A4xb7slnPPxG0kC03Le8wnuR05Mi3vRKDH3WqQA==
4 ----END PUBLIC KEY----
```

The corresponding settings in /opt/open-xchange/etc/trustedidentity.properties should look like e.g.:

### **25.1.4 Caching**

The key information that is in the private key file on disk is kept in memory once it has been read on startup (as referenced by com.openexchange.plugins.trustedidentity.key). The same applies to the public keys for encrypting. To apply changes, either reference a different file or, change the content of the same file, but in either case a reloadconfiguration is necessary.

## 25.2 Trusted Identity Link

Package(s)	open-xchange-appsuite-trustedidentity-link
Required capabilities	com.openexchange.capability.trustedidentity-link=true
Available since	1.6.4-rev2

The "Trusted Identiy Link" plugin checks external links in Appcontrol dropdowns (help, settings and account) having CSS class "io-ox-trustedidentity" and enrich the urls opened by those links with an identity token provided by open-xchange-plugins-trustedidentity package. The token is appended at the end of the URL in format &token=token value. If an error occurred in token creation, a notification error is shown to the user.

This plugin doesn't create links by it self. This could be done either via a custom plugin or using Appcontrol dropdown links plugin with trusted identify configuration like e.g.:

opt/open-xchange/etc/settings/io-ox-appcontrol-dropdown-links.properties

```
## Sample trusted identity link
io.ox.appcontrol.dropdown//links/link4/enabled = true
io.ox.appcontrol.dropdown//links/link4/trustedidentity= true
io.ox.appcontrol.dropdown//links/link4/text/default = My Profile
io.ox.appcontrol.dropdown//links/link4/ext_point = io.ox/core/appcontrol/right/settings
io.ox.appcontrol.dropdown//links/link4/action_type = external_link
io.ox.appcontrol.dropdown//links/link4/href/default = blank.html?token=
```

# 25.3 Trusted Identity Upsell

Package(s) open-xchange-appsuite-trustedidentity-upsell
---



Required capabilities	com.openexchange.capability.upsell=true,
	com.openexchange.capability.trustedidentity-upsell=true
Available since	1.6.4-rev2

This package allows to replace in upsell URLs, user data (email, userId, contextId, missing capabilities and upsell source) with a token created using API provided by the <code>open-xchange-plugins-trustedidentity</code> package. The token is appended at the end of the URL in format <code>&token=token</code> value. If an error occurred in token creation, a notification error is shown to the user.

## 25.3.1 Configuration

/opt/open-xchange/etc/settings/trustedidentity-upsell.properties

```
1 ##
2 # Trusted Identity Upsell Settings
3 #
4
5 # URL to use on upsell links click when simple-wizard not enabled
6 # io.ox/trustedidentity-upsell//upsell_url=blank.html?token=
```

Please note, upsell links can be configured either as iframe in Appsuite upsell wizard or as a new browser tab.

### 25.3.1.1 Sample configuration for upsell url in wizard iframe

Please note, the capability com.openexchange.capability.simple-wizard=true is required in addition:

### 25.3.1.2 Sample configuration for upsell url opening in a new browser tab

# **26 Unsubscribe Mailing Lists**

### 26.1 Unsubscribe Mailing Lists Framework

Bundle Identifier	com.openexchange.plugins.unsubscribe,
	com.openexchange.plugins.unsubscribe.json,
	com.openexchange.plugins.unsubscribe.connector.vadesecure
Package(s)	open-xchange-plugins-unsubscribe,
	open-xchange-plugins-unsubscribe-vadesecure
Required capabilities	none
Available since	1.5.2-rev7



Frequently, users subscribe (or are added) to a mailing list and do not wish to receive messages from that mailing list anymore. Many users often report the messages as "spam" in their mail client, training anti-spam services that a legitimately-received email is spam when it is not. The more responsible and effective course of action is instead for the user to unsubscribe from the list. Currently, only Vade Safe-Unsubscribe exists as a supported provider. However, the Middleware service is constructed so that another adapter could be used instead.

### 26.1.1 Prerequisites

A MTA service must be configured to receive unsubscribe requests (via API or direct email) in order to process unsubscribe requests. The MTA must also insert an unsubscribe URL or mailto:email address in a header of the mail message.

#### **26.1.2** Safe mode

If an unsubscribe service provider is properly configured, the plugin enters "safe" mode. This enables the safe-unsubscribe capability in the config-cascade and exposes a middleware endpoint at /plugins/unsubscribe which will relay unsubscribe requests to the provider API.

#### 26.1.3 Unsafe mode

Without a provider configured, the plugin is considered running in "unsafe" mode. The user experience is the same, but instead of relaying unsubscribe requests through the middleware API, a mail is crafted and sent to any mailto: address in the List-Unsubscribe header. Non-mail unsubscribe URLs are ignored in this mode.

### 26.1.4 Configuration

#### 26.1.5 Vade Connector

The open-xchange-plugins-unsubscribe-vadesecure package contains all vendor-specific code for the adapter and serves as a reference implementation for another adapter. Once the package is installed and configured, and app node is started, the plugin will be registered with the platform and discovered by the unsubscribe connector framework. The VadeSecure UnsubscribeConnector service needs to be registered with the connector identifier within framework and also to enable the safe\_unsubscribe UI capability:

```
/opt/open-xchange/etc/plugins-unsubscribe.properties

1 com.openexchange.plugins.unsubscribe.connector=plugins_unsubscribe_vadesecure
2 com.openexchange.plugins.unsubscribe.safemode=true
```

The request payload should be in one of the following JSON Formats, where "mail" is optional and the unsubscribeUrl may contain either a single unsubscribe url/ mailto link, or a JSONArray containing multiple unsubscribe locations:



#### 26.1.5.1 Example 1

```
[{"mail":["First Last","first.last@example.com"],"unsubscribeUrl":"http://www.example.com
"}]
```

### 26.1.5.2 Example 2

```
1 [{"mail":["First Last","first.last@example.com"],"unsubscribeUrl":["http://www.example.com
", "mailto:yourlist@example.com?subject=remove"]}]
```

This connector performs following steps:

- The user's aliases are looked up based on the uid/cid contained in the ServerSession.
- If the optional "mail" key is included in the JSON data, the email address is compared against existing user aliases, if found the unsubscribe request is sent to the VadeSecure unsubscribe API. If the mail is not found, a 400 error is returned to the client.
- If the optional "mail" key is not included in the JSON data, all aliases are sent to the VadeSecure unsubscribe API. If the VadeSecure API responds with a failure for any alias, a 400 response is returned to the client.
- When multiple unsubscribe urls and/or mailto links are included in the middleware request, it is possible for one or more unsubscribe scenarios succeed and one or more to fail. Additionally, mailto links are never processed immediately, and always return a PENDING result initially. In the case where a single unsubscribe scenario succeeds with either SUCCESS or PENDING, the request is considered successful.

```
/opt/open-xchange/etc/plugins-unsubscribe-vadesecure.properties
```

```
# The customer license provided by VadeSecure; required to access unsubscribe API
    # Default: The OX customer license
    # Config-cascade aware: true
    # Lean: true
    com.openexchange.plugins.unsubscribe.vadesecure.license.passcrypt=<Customer license
        provided by VadeSecure>
    # Setting to change the VadeSecure unsubscribe API URL
    # Default: https://ws.vaderetro-unsubscribe.com/
    # Config-cascade aware: true
10
    # Lean: true
    com.openexchange.plugins.unsubscribe.vadesecure.unsubscribe_url=https://ws.vaderetro-
        safeunsubscribe.com/
12
13
    # Setting to change the VadeSecure connector identifier referenced in plugins-unsubscribe.
        properties / com.openexchange.plugins.unsubscribe.connector
    # Default: "plugins_unsubscribe_vadesecure"
    # Config-cascade aware: true
    # Lean: true
16
    \verb|com.openexchange.plugins.unsubscribe.vadesecure.identifier=plugins\_unsubscribe\_vadesecure|
```

## **26.2 Unsubscribe Mailing Lists UI**

Package(s)	open-xchange-appsuite-unsubscribe
Required capabilities	com.openexchange.capability.unsubscribe=true,
	com.openexchange.capability.spam=true
Available since	1.5.2-rev7

This plugin will warn the user if a message they mark as "spam" came from a mailing list, and offer to unsubscribe them from the list instead of marking it as spam. It then sends the unsubscribe information to the provider of the subscription service (if configured), or sends an email to an unsubscribe address (if present) to process the unsubscribe request.

Several scenarios are possible when clicking on Mark as spam based on number of newsletters in



selection



Figure 31: mark as spam

The only selected mail is a newsletter: ask if report as spam or unsubscribe

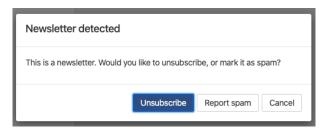


Figure 32: newsletter detected

Multiple mails selected is a mix of newsletters and not: allow to report as spam only those which are not newsletters



Figure 33: newsletter detected in selection

Multiple mails selected, all of them are newsletters: we do not let mark as spam



Figure 34: all newsletter detected in selection

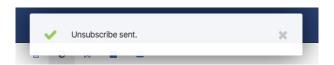


Figure 35: unsubscribe sent



### 26.2.1 Configuration

/opt/open-xchange/etc/settings/unsubscribe.properties

# 27 Shipped Packages and Version

## 27.1 Package open-xchange-appsuite-alternative-login-screen

Login screen tweaks for OX Cloud

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

### 27.1.1 Installation

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

```
\verb|\package installer> install open-xchange-appsuite-alternative-login-screen| \\
```

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

```
<package installer> install open-xchange-appsuite-alternative-login-screen-static
```

## 27.2 Package open-xchange-appsuite-antiphishing

UI module for phishing checks in App Suite.

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

### 27.2.1 Installation

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

```
<package installer> install open-xchange-appsuite-antiphishing
```



### 27.2.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/antiphishing.yml (page 87) /opt/open-xchange/etc/settings/antiphishing.properties (page 87)

## 27.3 Package open-xchange-appsuite-appcontrol-dropdown-links

UI plugin to add links to appcontrol dropdown by configuration

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

#### 27.3.1 Installation

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

```
<package installer> install open-xchange-appsuite-appcontrol-dropdown-links
```

### 27.3.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/io-ox-appcontrol-dropdown-links.properties (page 88)

## 27.4 Package open-xchange-appsuite-blackwhitelist

Black/Whitelist plugin for App Suite

Version: 1.7.1-3

Type: OX Frontend Plugin with Themes

Depends on:

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

#### 27.4.1 Installation

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

```
<package installer> install open-xchange-appsuite-blackwhitelist
```

### 27.4.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/blackwhitelist.yml (page 88) /opt/open-xchange/etc/settings/blackwhitelist.properties (page 88)

## 27.5 Package open-xchange-appsuite-dumpster

Dumpster OX App Suite Plugin

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:



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

### 27.5.1 Installation

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

<package installer> install open-xchange-appsuite-dumpster

### 27.5.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/dumpster.properties (page 88)

## 27.6 Package open-xchange-appsuite-external-content-popup

This package offers a popup to display external content to the users

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

#### 27.6.1 Installation

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

```
<package installer> install open-xchange-appsuite-external-content-popup
```

### 27.6.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/externalcontentpopup.yml (page 89) /opt/open-xchange/etc/settings/externalcontentpopup.properties (page 89)

## 27.7 Package open-xchange-appsuite-gdpr

GDPR-compliant opt-in for metrics and advertisement

Version: 1.7.1-3

Type: OX Frontend Plugin with Themes

Depends on:

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

#### 27.7.1 Installation

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

```
<package installer> install open-xchange-appsuite-gdpr
```

# 27.8 Package open-xchange-appsuite-login-links

UI plugin to add custom links to login page footer Version: 1.7.1-3



Type: OX Frontend Plugin

Depends on:

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

#### 27.8.1 Installation

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

```
<package installer> install open-xchange-appsuite-login-links
```

## 27.9 Package open-xchange-appsuite-mandatory-wizard

Enhanced first start wizard

Version: 1.7.1-3

Type: OX Frontend Plugin with Themes

Depends on:

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

### 27.9.1 Installation

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

```
<package installer> install open-xchange-appsuite-mandatory-wizard
```

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

```
<package installer> install open-xchange-appsuite-mandatory-wizard-static
```

### 27.9.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/mandatorywizard.yml (page 90) /opt/open-xchange/etc/settings/mandatorywizard.properties (page 90)

### 27.10 Package open-xchange-appsuite-minimal-api-app

Provides an easy way to add iframe apps via configuration. With and without access to the minimal API

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

```
open-xchange-appsuite-manifest (<<7.10.7)
open-xchange-appsuite-manifest (>=7.10.6)
open-xchange-appsuite-minimal-api-consent (<<1.7.2)
open-xchange-appsuite-minimal-api-consent (>=1.7.1)
```

#### 27.10.1 Installation

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

```
<package installer> install open-xchange-appsuite-minimal-api-app
```



### 27.10.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/minimalapiapp.properties (page 92)

### 27.11 Package open-xchange-appsuite-minimal-api-consent

Consent UI plugin for App Suite minimal API

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

#### 27.11.1 Installation

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

```
<package installer> install open-xchange-appsuite-minimal-api-consent
```

## 27.11.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/minimalapi.yml (page 92) /opt/open-xchange/etc/settings/minimalapi.properties (page 92)

## 27.12 Package open-xchange-appsuite-mx-checker

UI module for phishing checks in App Suite.

Version: 1.7.1-3

Type: OX Frontend Plugin with Themes

Depends on:

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

#### 27.12.1 Installation

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

```
<package installer> install open-xchange-appsuite-mx-checker
```

### 27.12.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/meta/mx-checker.yml (page 92) /opt/open-xchange/etc/settings/mx-checker.properties (page 92)

### 27.13 Package open-xchange-appsuite-survey

UI module for survey dialog

Version: 1.7.1-3

Type: OX Frontend Plugin with Themes

Depends on:



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

#### 27.13.1 Installation

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

```
<package installer> install open-xchange-appsuite-survey
```

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

```
<package installer> install open-xchange-appsuite-survey-static
```

### 27.13.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/survey.properties (page 93)

## 27.14 Package open-xchange-appsuite-trustedidentity-link

UI plugin to add a trusted identity token to appcontrol dropdown links requiring trusted indentity

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

### 27.14.1 Installation

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

```
<package installer> install open-xchange-appsuite-trustedidentity-link
```

## 27.15 Package open-xchange-appsuite-trustedidentity-upsell

UI plugin to add a token to upsell links that replaces user data

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

#### 27.15.1 Installation

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

```
<package installer> install open-xchange-appsuite-trustedidentity-upsell
```

### 27.15.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/trustedidentity-upsell.properties (page 93)



## 27.16 Package open-xchange-appsuite-unsubscribe

UI module for safe unsubscribe in App Suite.

Version: 1.7.1-3

Type: OX Frontend Plugin

Depends on:

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

#### Conflicts with:

open-xchange-appsuite-safeunsubscribe

#### 27.16.1 Installation

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

```
<package installer> install open-xchange-appsuite-unsubscribe
```

### 27.16.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/settings/unsubscribe.properties (page 93)

## 27.17 Package open-xchange-authentication-masterpassword

Authentication implementation that uses a global password for all users – DO NOT USE IN PRODUCTION This package provides an authentication implementation that verifies user passwords against a globally configured password. DO NOT USE THIS IN PRODUCTION! This implementation is only meant for testing and migration scenarios.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

### Conflicts with:

```
open-xchange-authentication-database
open-xchange-authentication-ldap
```

### 27.17.1 Installation

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

```
<package installer> install open-xchange-authentication-masterpassword
```

## 27.17.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/masterpassword-authentication.properties (page 94)

## 27.18 Package open-xchange-ldap-client

This package provides an advanced LDAP client library that is used by other Open-Xchange bundles.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:



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

### 27.18.1 Installation

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

```
<package installer> install open-xchange-ldap-client
```

## 27.18.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/ldap-client.d/ldap-client-pools.yaml.example (page 97)

## 27.19 Package open-xchange-ldap-client-test

REST API to test open-xchange-ldap-client (NOT FOR PRODUCTION) Exposes a REST API to test whether the open-xchange-ldap-client feature functions properly. This package is only meant for testing - DO NOT INSTALL IN PRODUCTION.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.5)
open-xchange-ldap-client
```

#### 27.19.1 Installation

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

```
\verb|<package installer>| install open-xchange-ldap-client-test|\\
```

## 27.20 Package open-xchange-metrics-http

Metrics for HTTP requests This package provides a highly configurable set of metrics around HTTP requests.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

### 27.20.1 Installation

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

```
<package installer> install open-xchange-metrics-http
```

### 27.20.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/metrics-http.properties (page 100)



## 27.21 Package open-xchange-metrics-imap

Metrics for IMAP operations This package provides a set of metrics around IMAP operations.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.21.1 Installation

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

```
<package installer> install open-xchange-metrics-imap
```

### 27.21.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/metrics-imap.properties (page 100)

## 27.22 Package open-xchange-minimal-api

This package provides the base Minimal API

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-rest (<<7.10.7)
open-xchange-rest (>=7.10.6)
```

#### 27.22.1 Installation

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

```
<package installer> install open-xchange-minimal-api
```

### 27.22.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/minimal-api.properties (page 102)

## 27.23 Package open-xchange-minimal-api-calendar

This package provides the calendar endpoints for the Minimal API

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-minimal-api (<<1.7.2)
open-xchange-minimal-api (>=1.7.1)
open-xchange-minimal-api-security
```



#### 27.23.1 Installation

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

```
<package installer> install open-xchange-minimal-api-calendar
```

## 27.24 Package open-xchange-minimal-api-jwt

This package provides the security handling for the Minimal API

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-minimal-api (<<1.7.2)
open-xchange-minimal-api (>=1.7.1)
open-xchange-sessionstorage-hazelcast (<<7.10.7)
open-xchange-sessionstorage-hazelcast (>=7.10.6)
```

#### 27.24.1 Installation

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

```
<package installer> install open-xchange-minimal-api-jwt
```

## 27.25 Package open-xchange-minimal-api-mail

This package provides the mail endpoints for the Minimal API

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-minimal-api (<<1.7.2)
open-xchange-minimal-api (>=1.7.1)
open-xchange-minimal-api-security
```

### 27.25.1 Installation

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

```
<package installer> install open-xchange-minimal-api-mail
```

## 27.26 Package open-xchange-plugins-antiphishing

Plugins abstraction layer for AntiPhishing API connectors

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

### 27.26.1 Installation

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

```
<package installer> install open-xchange-plugins-antiphishing
```



#### 27.26.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-antiphishing.properties (page 102)

### 27.27 Package open-xchange-plugins-antiphishing-vadesecure

This package installs the OSGi bundles needed to access the VadeSecure antiphishing plugin

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-plugins-antiphishing (<<1.7.2)
open-xchange-plugins-antiphishing (>=1.7.1)
```

#### 27.27.1 Installation

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

<package installer> install open-xchange-plugins-antiphishing-vadesecure

### 27.27.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-antiphishing-vadesecure.properties (page 103)

### 27.28 Package open-xchange-plugins-blackwhitelist

Plugins abstraction layer for blacklist/whitelist connectors

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.28.1 Installation

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

```
<package installer> install open-xchange-plugins-blackwhitelist
```

### 27.28.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-blackwhitelist.properties (page 104)

### 27.29 Package open-xchange-plugins-blackwhitelist-sieve

This package installs the OSGi bundles needed to access the blacklist for plugins within Sieve Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:



```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-mailfilter (<<7.10.7)
open-xchange-mailfilter (>=7.10.6)
open-xchange-plugins-blackwhitelist (<<1.7.2)
open-xchange-plugins-blackwhitelist (>=1.7.1)
```

#### 27.29.1 Installation

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

```
<package installer> install open-xchange-plugins-blackwhitelist-sieve
```

## 27.29.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-blacklist-sieve.properties (page 104)

## 27.30 Package open-xchange-plugins-contact-storage-group

Plugins contact storage that creates group folders

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-admin (<<7.10.7)
open-xchange-admin (>=7.10.6)
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
```

### 27.30.1 Installation

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

```
<package installer> install open-xchange-plugins-contact-storage-group
```

### 27.30.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-contact-storage-group.properties (page 104)

## 27.31 Package open-xchange-plugins-contact-whitelist-sync

Plugins abstraction layer for whitelist contact connectors

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-ldap-client (<<1.7.2)
open-xchange-ldap-client (>=1.7.1)
open-xchange-sql-client (<<1.7.2)
open-xchange-sql-client (>=1.7.1)
```



#### 27.31.1 Installation

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

```
<package installer> install open-xchange-plugins-contact-whitelist-sync
```

### 27.31.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-contacts-whitelist.properties (page 105) /opt/open-xchange/etc/plugins-contacts-whitelist-migration.properties (page 105) /opt/open-xchange/etc/plugins-contacts-whitelist-rdb.properties (page 105) /opt/open-xchange/etc/sql-client.d/sql-plugins-whitelist.yaml.example (page 106)

## 27.32 Package open-xchange-plugins-mx-checker

Plugins abstraction layer for MX Checker connectors

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.32.1 Installation

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

```
<package installer> install open-xchange-plugins-mx-checker
```

### 27.32.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-mx-checker.properties (page 106)

## 27.33 Package open-xchange-plugins-onboarding-maillogin

Plugin that enables the overriding of the login information that is shown to users during onboarding.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-client-onboarding (<<7.10.7)
open-xchange-client-onboarding (>=7.10.6)
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
```

### 27.33.1 Installation

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

```
<package installer> install open-xchange-plugins-onboarding-maillogin
```

### 27.33.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/client-onboarding-maillogin.properties (page 107)



## 27.34 Package open-xchange-plugins-trustedidentity

Enables Trusted Identity API Support.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.34.1 Installation

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

```
<package installer> install open-xchange-plugins-trustedidentity
```

### 27.34.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/trustedidentity.properties (page 109)

## 27.35 Package open-xchange-plugins-unsubscribe

Plugins abstraction layer for unsubscribe API connectors

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

### Conflicts with:

```
open-xchange-plugins-safeunsubscribe
```

#### 27.35.1 Installation

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

```
<package installer> install open-xchange-plugins-unsubscribe
```

### 27.35.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-unsubscribe.properties (page 110)

# 27.36 Package open-xchange-plugins-unsubscribe-vadesecure

This package installs the OSGi bundles needed to access the VadeSecure unsubscribe plugin

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

```
open-xchange-core (<<7.10.7)
open-xchange-core (>=7.10.6)
open-xchange-plugins-unsubscribe (<<1.7.2)
open-xchange-plugins-unsubscribe (>=1.7.1)
```

Conflicts with:



open-xchange-plugins-safeunsubscribe-vadesecure

#### 27.36.1 Installation

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

<package installer> install open-xchange-plugins-unsubscribe-vadesecure

### 27.36.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/plugins-unsubscribe-vadesecure.properties (page 110)

## 27.37 Package open-xchange-sms-twilio

This package installs the OSGi bundles needed to send SMS messages via twilio

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.37.1 Installation

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

```
<package installer> install open-xchange-sms-twilio
```

### 27.37.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/twilio.properties (page 110)

## 27.38 Package open-xchange-sql-client

This package provides an advanced SQL client library that is used by other Open-Xchange bundles.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

### 27.38.1 Installation

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

```
<package installer> install open-xchange-sql-client
```

## 27.38.2 Configuration

For details, please see appendix A /opt/open-xchange/etc/sql-client.d/sql-client-pools.yaml.example (page 112) /opt/open-xchange/etc/sql-client.properties (page 112)



## 27.39 Package open-xchange-util-imap

This package is a library that provides various utilities for IMAP.

Version: 1.7.1-3

Type: OX Middleware Plugin

Depends on:

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

#### 27.39.1 Installation

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

```
<package installer> install open-xchange-util-imap
```

# A Configuration Files

### File 1 /opt/open-xchange/etc/meta/antiphishing.yml

```
io.ox/antiphishing//mode:
protected: false
```

### File 2 /opt/open-xchange/etc/settings/antiphishing.properties

```
io.ox/antiphishing//apiModule = plugins/antiphishing
io.ox/antiphishing//mode =
```

### File 3 /opt/open-xchange/etc/settings/io-ox-appcontrol-dropdown-links.properties

```
#### Sample with External Link
   ## Enabled link
3
4
5
   # io.ox.appcontrol.dropdown//links/link1/enabled = false
   # io.ox.appcontrol.dropdown//links/link1/ext_point = io.ox/core/appcontrol/right/help
   ## Required capability (defaults to none)
   # io.ox.appcontrol.dropdown//links/link1/capability =
   ## Default text
   # io.ox.appcontrol.dropdown//links/link1/text/default = Privacy policy
   ## Text for en_EN
   # io.ox.appcontrol.dropdown//links/link1/text/en_EN = Privacy policy
   ## Text for de_DE
   # io.ox.appcontrol.dropdown//links/link1/text/de_DE = Datenschutzerklärung
   ## Link action : external_link, ox_application
   # io.ox.appcontrol.dropdown//links/link1/action_type = external_link
   ## Default link for external link
   # io.ox.appcontrol.dropdown//links/link1/href/default = blank.html
   ## en_EN link for external link
   # io.ox.appcontrol.dropdown//links/link1/href/en_EN = blank.html?LANG=en
   ## de_DE link for external link
   # io.ox.appcontrol.dropdown//links/link1/href/de_DE = blank.html?LANG=de
   ## Extension point index of the link (default to last)
   # io.ox.appcontrol.dropdown//links/link1/index = 500
   ## Show a divider before
   # io.ox.appcontrol.dropdown//links/link1/divider_before = true
   ## Show a divider after
   # io.ox.appcontrol.dropdown//links/link1/divider_after = false
27
   #### Sample with OX application
    # io.ox.appcontrol.dropdown//links/link2/enabled = false
```



```
# io.ox.appcontrol.dropdown//links/link2/ext_point = io.ox/core/appcontrol/right/settings
# io.ox.appcontrol.dropdown//links/link2/capability =
# io.ox.appcontrol.dropdown//links/link2/text/default = Settings
# io.ox.appcontrol.dropdown//links/link2/text/en_EN = Settings
# io.ox.appcontrol.dropdown//links/link2/text/de_DE = Einstellungen
# io.ox.appcontrol.dropdown//links/link2/action_type = ox_application
# io.ox.appcontrol.dropdown//links/link2/href = io.ox/settings/main
# io.ox.appcontrol.dropdown//links/link2/index = 200
# io.ox.appcontrol.dropdown//links/link2/divider_before = true
# io.ox.appcontrol.dropdown//links/link2/divider_after = false
## Sample trusted identity link
#io.ox.appcontrol.dropdown//links/link4/enabled = true
#io.ox.appcontrol.dropdown//links/link4/trustedidentity= true
#io.ox.appcontrol.dropdown//links/link4/text/default = My Profile
#io.ox.appcontrol.dropdown//links/link4/ext_point = io.ox/core/appcontrol/right/settings
#io.ox.appcontrol.dropdown//links/link4/action_type = external_link
#io.ox.appcontrol.dropdown//links/link4/href/default = blank.html?token=
```

### File 4 /opt/open-xchange/etc/meta/blackwhitelist.yml

```
1 io.ox/mail//blackwhitelist/maxAddresses:
2    protected: false
3 io.ox/mail//blackwhitelist/allowDuplicates:
4    protected: false
5 io.ox/mail//blackwhitelist/validateAddresses:
6    protected: false
6 io.ox/mail//blackwhitelist/searchable:
7    protected: false
8    io.ox/mail//blackwhitelist/showDeleteButton:
9    protected: false
1 io.ox/mail//blackwhitelist/supportDomains:
2    protected: false
```

## File 5 /opt/open-xchange/etc/settings/blackwhitelist.properties

```
##

##

##

# Blackwhitelist settings

# 
# Max number of addressed on the list
io.ox/mail//blackwhitelist/maxAddresses = 250

# Allow users to add duplicates
io.ox/mail//blackwhitelist/allowDuplicates = false

# Validate if only valid mail addresses are on the list
io.ox/mail//blackwhitelist/validateAddresses = false

# Show search box for blacklist
io.ox/mail//blackwhitelist/searchable = true

# Show delete selected button and checkboxes
io.ox/mail//blackwhitelist/showDeleteButton = true

io.ox/mail//blackwhitelist/supportDomains = true
```

#### File 6 /opt/open-xchange/etc/settings/dumpster.properties

```
1 ##
2 # Dumpster Settings
3 #
4
5 # Folder in Dovecot desinated as the "Lazy Expunge" folder
6 io.ox/mail//dumpster/folder = defaultO/DUMPSTER
```



#### File 7 /opt/open-xchange/etc/meta/externalcontentpopup.yml

```
io.ox/externalcontentpopup//popup/en_US/hasSeen:
   protected: false
```

### File 8 /opt/open-xchange/etc/settings/externalcontentpopup.properties

```
\mbox{\tt\#} Show popup to the user on every login, might be useful for urgent announcements, etc.
    # Please be aware that this is a global setting that affects all users in all languages
    io.ox/externalcontentpopup//popup/showOnEveryLogin = false
    # Show the popup even on mobile devices. Disabled by default.
    # This is a global setting that affects all users in all languages.
    io.ox/externalcontentpopup//popup/showOnMobile = false
    # Generation of the popup.
    # Should start at 1 and increment when the user should see a new version again.
    io.ox/externalcontentpopup//popup/en_US/generation = 1
13
    # Content of the first step before iframe. Accepts HTML. If no first step is used, set to
14
    io.ox/externalcontentpopup//popup/en_US/firstStep/content = false
15
16
    # Toggle if native dialog buttons should be used in the first step
    # io.ox/externalcontentpopup//popup/en_US/firstStep/showNativeButtons = true
18
19
    # Label for the (native) next button in the first step
20
    # io.ox/externalcontentpopup//popup/en_US/firstStep/nextButtonLabel =
21
    # Toggle if the user is allowed to skip the popup for the session. Popup will then be
        shown again upon next login.
    # io.ox/externalcontentpopup//popup/en_US/firstStep/canCancel =
24
25
    # Label for the (native) cancel button in the first step
    # io.ox/externalcontentpopup//popup/en_US/firstStep/cancelButtonLabel = "Take survey later
27
    # Label for the (native) close button in the first step
29
    # io.ox/externalcontentpopup//popup/en_US/firstStep/closeButtonLabel =
30
31
    # Title of the popup
32
    io.ox/externalcontentpopup//popup/en_US/title = Information
34
35
    # Toggle whether or not to show the title
    io.ox/externalcontentpopup//popup/en_US/showTitle = true
36
37
    # Label for the close button below the iframe
    io.ox/externalcontentpopup//popup/en_US/closeButtonLabel = Close
    # Source of the iframe
    io.ox/externalcontentpopup//popup/en_US/frame/source = index.html
    # Optional width and height for the popup
    #io.ox/externalcontentpopup//popup/en_US/popupWidth =
    #io.ox/externalcontentpopup//popup/en_US/popupHeight =
```

### File 9 /opt/open-xchange/etc/meta/mandatorywizard.yml

```
1  io.ox/mandatorywizard//wizardVideo:
2    protected: false
3  io.ox/mandatorywizard//step3Image:
4    protected: false
5  io.ox/mandatorywizard//step4Image:
6    protected: false
```



```
7 io.ox/mandatorywizard//step5Image:
8 protected: false
9 io.ox/mandatorywizard//step6TutorialLink:
10 protected: false
```

### File 10 /opt/open-xchange/etc/settings/mandatorywizard.properties

```
# NOTE: This is ONLY a sample config for local environments.
 2
   # Please adjust according to your needs
   io.ox/mandatorywizard//logo = "apps/themes/io.ox.mandatorywizard/static/ox_logo_blue.svg"
   io.ox/mandatorywizard//wizardVideo/en_US = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-english.mp4"
   io.ox/mandatorywizard//wizardVideo/de_DE = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-German.mp4"
   io.ox/mandatorywizard//wizardVideo/it_IT = "https://oxappsuite.io/_share/IN-Product-OX-App
        -Suite-Welcome-tour-italian.mp4'
   io.ox/mandatorywizard//wizardVideo/fr_FR = "https://oxappsuite.io/_share/IN-Product-OX-App
 7
        -Suite-Welcome-tour-french.mp4"
   8
        -Suite-Welcome-tour-spanish.mp4"
   io.ox/mandatorywizard//step3Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_1_EN.png"
    io.ox/mandatorywizard//step3Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
10
        welcome_tour_screen_1_GER.png"
    io.ox/mandatorywizard//step3Image/it_IT = "apps/themes/io.ox.mandatorywizard/static/
11
       welcome_tour_screen_1_IT.png"
12
   {\tt io.ox/mandatorywizard//step3Image/fr\_FR = "apps/themes/io.ox.mandatorywizard/static/linearization."}
        welcome_tour_screen_1_FR.png"
13
   io.ox/mandatorywizard//step3Image/es_ES = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_1_ES.png"
14
    io.ox/mandatorywizard//step4Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_EN.png"
15
   io.ox/mandatorywizard//step4Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_GER.png"
16
    io.ox/mandatorywizard//step4Image/it_IT = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_IT.png"
17
   io.ox/mandatorywizard//step4Image/fr_FR = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_2_FR.png"
    io.ox/mandatorywizard//step4Image/es_ES = "apps/themes/io.ox.mandatorywizard/static/
18
        welcome_tour_screen_2_ES.png"
19
    io.ox/mandatorywizard//step5Image/en_US = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_EN.png"
20
   {\tt io.ox/mandatorywizard//step5Image/it\_IT = "apps/themes/io.ox.mandatorywizard/static/linearization."}
        welcome_tour_screen_3_IT.png"
21
   io.ox/mandatorywizard//step5Image/fr_FR = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_FR.png"
22
    io.ox/mandatorywizard//step5Image/es_ES = "apps/themes/io.ox.mandatorywizard/static/
        welcome_tour_screen_3_ES.png"
   io.ox/mandatorywizard//step5Image/de_DE = "apps/themes/io.ox.mandatorywizard/static/
23
        welcome_tour_screen_3_GER.png"
   io.ox/mandatorywizard//step6TutorialLink/en_US = "https://oxappsuite.io/en/tutorials"
    io.ox/mandatorywizard//step6TutorialLink/de_DE = "https://oxappsuite.io/de/tutorials"
   io.ox/mandatorywizard//step6TutorialLink/fr_FR = "https://oxappsuite.io/fr/tutorials"
   io.ox/mandatorywizard//step6TutorialLink/it_IT = "https://oxappsuite.io/it/tutorials"
   io.ox/mandatorywizard//step6TutorialLink/es_ES = "https://oxappsuite.io/es/tutorials"
```

### File 11 /opt/open-xchange/etc/settings/minimalapiapp.properties

```
1 ##
2 # minimal-api-app Settings
3 #
4 # generic format is following
5 # io.ox/minimalapiapp//iframes=[{<config app 1>},{<config app 2>},{<config app3 >}, ]
```



```
6
7
    # each configuration object must have some attributes: "id", "icon", "source", "title", "
        needsToken" explained below
8
    #
9
    # "id"
10
        used to create unique name and avoid confusion. If more apps are defined their ids
    #
        must be different
11
    #
12
13
         used to specify the fontawesome icon to use for application (https://fontawesome.com/
        v4.7.0/icons/)
         if not specified "bullseye" is used
14
15
    #
16
    # "source"
17
        contains url to use as source and which will be loaded inside iframe created by app.
18
         It is possible to use predefined placeholders surrounded by \{\{\ \}\} which will be
19
         replaced at app execution time with current values.
20
21
         defined placeholders are the following:
22
    #
         {{LANGUAGE}} -> expanded to current language in lowercase as got from locale (es: 'en
          or 'de' or 'it')
23
          \{\{\tt USERMAIL\}\} \ \hbox{$-$} > \ \tt expanded \ to \ \tt emailaddress \ \tt NOT \ urlencoded \ (es: \ myaddress@myprovider.my) \} 
24
         {{USERMAIL:ENC}} -> as above but urlencoded (es: myaddress%40myprovider.my)
    #
25
         {{FIRSTNAME}} -> expanded to first name of current user
26
         {{FIRSTNAME:ENC}} -> as above but urlencoded
27
         {\{LASTNAME\}\}} -> expanded to last name of current user
28
         {{LASTNAME:ENC}} -> as above but urlencoded
29
30
    #
31
    # "title"
32
        is name to use when displaying application in launcher. Can be either a simple string
33
    #
         or an object
34
35
         - if 'title' is a simple string, then application will use that name for each
    #
        language, so
36
        changing language does not change name of application
37
38
         - 'title' may be configured as an object and in that case it may contain translations
         for different
39
         languages, using language code as key (see examples below)
40
         If there is no defined translation for current language, en_US will be used or if not
         present
41
    #
         hardcoded value 'Application'
42
43
44
    # "needsToken"
45
        can be either true or false and specify if before calling url, user has to gather a
        token calling
46
         appropriate api and allow consent via ui dialog. Token will then be appended to url
47
48
49
    # some examples: only one can be active at any time
50
51
    # example config for placeholders:
52
53
    # io.ox/minimalapiapp//iframes=[{id: "test1", source: "https://mywebserver.org/{{LANGUAGE
        }}/?email={{USERMAIL:ENC}}", title: "Minimal API App", "needsToken": false}]
54
55
56
    # example config for simple title:
57
58
    # io.ox/minimalapiapp//iframes=[{id: "test2", source: "https://mywebserver.org/", title: "
        Minimal API App", "needsToken": false}]
59
60
    # example config for complex title:
61
    # io.ox/minimalapiapp//iframes=[{id: "test3", source: "https://mywebserver.org/", title:{
62
        en_US:"My US app", de_DE:"My DE app", it_IT:"My IT app"}, "needsToken": false}]
63
64
    # example config for multiple apps:
65
66
    # io.ox/minimalapiapp//iframes=[{id: "test4", icon:"external-link", source: "https://
```



mywebserver.org/{{LANGUAGE}}/?email={{USERMAIL:ENC}}", title:{ en\_US:"My US app",
de\_DE:"My DE app", it\_IT:"My IT app"}, "needsToken": false}, {id: "test5", source: "
https://mysecondwebserver.org/?userlast={{LASTNAME:ENC}}", title:{ en\_US:"My second US
app", de\_DE:"My second DE app", it\_IT:"My second IT app"}, "needsToken": false}]

### File 12 /opt/open-xchange/etc/meta/minimalapi.yml

```
1 io.ox/minimalapiconsent//client:
2 protected: false
```

### File 13 /opt/open-xchange/etc/settings/minimalapi.properties

```
io.ox/minimalapiconsent//client=example
```

### File 14 /opt/open-xchange/etc/meta/mx-checker.yml

```
1 io.ox/mx-checker//suppress:
2 protected: false
```

### File 15 /opt/open-xchange/etc/settings/mx-checker.properties

```
# Module name endpoint in the middleware
io.ox/mx-checker//apiModule = plugins/mx-checker

# When the user actively closes and temporarily suppresses the notification, number of days before showing it again.
io.ox/mx-checker//suppressDays = 1

# Whether or not to suppress the notification to the user. `false` to show the notification, `true` to hide it permanentlly, or a timestamp indicating when it was temporarily hidden. User-configurable.
io.ox/mx-checker//suppress = false

# Ignore empty Action Url and show error banner without fix link.
io.ox/mx-checker//ignoreEmptyActionUrl = false
```

### File 16 /opt/open-xchange/etc/settings/survey.properties

```
# io.ox.survey//logo = apps/themes/io.ox.survey/static/ox_logo_blue.svg

# Only needed for en_US. If different languages contain different surveys,

# then "hasSeen" below needs to be explicitly configured too.

# io.ox.survey//survey/en_US/generation = 1

# "hasSeen" needs to be specified only if you have different versions (generation) of the survey per language

# In this case it should also be added to meta config as not protected

# io.ox.survey//survey/en_US/hasSeen = 0

# io.ox.survey//survey/en_US/intro = "<span class=\'salutation\'>Dear Customer,</span><br/>br
```



### File 17 /opt/open-xchange/etc/settings/trustedidentity-upsell.properties

### File 18 /opt/open-xchange/etc/settings/unsubscribe.properties

### File 19 /opt/open-xchange/etc/masterpassword-authentication.properties

```
# Configuration file for the master password authentication plugin
2
3
4
5
6
7
8
   # DO NOT USE IN PRODUCTION !
   # The clear text password to authenticate all users.
   # Mandatory.
   # Example:
   # com.openexchange.authentication.masterpassword.password=supersecret
    com.openexchange.authentication.masterpassword.password=
   # The default value for the context when it is not specified.
    # Optional and defaults to using the "defaultcontext" mapping.
   #com.openexchange.authentication.masterpassword.default.context=
15
   # Whether the username portion of the login should be lowercased
   # before being looked up in the user database.
    # Optional and defaults to false
   #com.openexchange.authentication.masterpassword.lowercase=false
```



```
# Whether the context name portion of the login should be lowercased
    # before being looked up in the context database.
    # Optional and defaults to false
   \verb|#com.openexchange.authentication.masterpassword.lowercase.context=false|
25
26
   # Whether to use the complete login string as the username,
27
   # e.g. login "foo@bar.com" -> user name "foo@bar.com" and
    # context name "bar.com"
29
    # Optional and defaults to false
30
    \verb|#com.openexchange.authentication.masterpassword.use.full.login.info=false|
31
   # Whether to use the complete login string for the context name,
33
    # e.g. login "foo@bar.com" -> context name "foo@bar.com"
   # Optional and defaults to false
   #com.openexchange.authentication.masterpassword.use.full.login.info.for.context=false
```

### File 20 /opt/open-xchange/etc/ldap-client.d/ldap-client-pools.yaml.example

```
\# The top-level key is the identifier of the pool, which can be
 2
3
4
5
6
7
    # any string of text and is being used by the bundles and applications
    # to access that pool configuration.
    # Typically, those are fixed or need to be configured in the bundles
    # that use this library.
    # When Java Security Manager support is enabled, files that are referenced
    \# in these configuration files must be in a directory that is already
    # whitelisted, or in a subdirectory thereof, such as
    # /opt/open-xchange/etc/
11
12
    # A good candidate would be something along the lines of
13
    # /opt/open-xchange/etc/ldap-files/
14
15
    # Otherwise, the filename or its directory must be put into a new .list
16
    # file in the folder
17
    # /opt/open-xchange/etc/security/
    # with e.g. the following content:
19
20
    # file:/etc/trust.jks
21
22
23
    pool1:
      trust-store:
24
25
26
27
28
        \# SSL: path to the JKS trust store file that contains the anchors
        file: /etc/trust.jks
        # SSL: indicates whether to reject certificates if the current time
        # is outside the validity window for the certificate
        validity: true
29
30
      key-store:
        \mbox{\# SSL:} path to the JKS client key store file that contains the key
31
        file: /etc/private.jks
32
        # SSL: password to access the keystore and the key
        password: foobar
34
35
36
        # SSL: alias of the key to use
        alias: key
      # Configure a read/write pool with different settings for read operations
37
38
39
      # and for write operations (i.e. different pools of LDAP servers).
      # Here comes the part for the read operations:
40
        # Use a failover cluster of two nodes:
        failover:
          - ldap1.example.com
43
          - ldap2.example.com
        # Pool connection management
        \# When creating a connection pool, you may specify an initial number of
47
        # connections (pool-min) and a maximum number of connections (pool-max).
        # The initial number of connections is the number of connections that should
        # be immediately established and available for use when the pool is created.
```



```
50
51
52
53
54
55
56
57
58
59
60
         # The maximum number of connections is the largest number of unused connections
         # that may be available in the pool at any time.
         # Whenever a connection is needed, whether by an attempt to check out a
         \# connection or to use one of the pool's methods to process an operation,
         # the pool will first check to see if there is a connection that has already
         # been established but is not currently in use, and if so then that connection
         # will be used.
         # If there aren't any unused connections that are already established, then
         # the pool will determine if it has yet created the maximum number of
         # connections, and if not then it will immediately create a new connection
61
62
         # If the pool has already created the maximum number of connections, then the
          \hbox{\tt\# pool may wait for a period of time (as configured using \verb'maxWaitTimeMillis' below, } \\
63
         # which has a default value of zero to indicate that it should not wait at all)
         # for an in-use connection to be released back to the pool.
64
65
         # If no connection is available after the specified wait time (or there should
         # not be any wait time), then the pool may automatically create a new connection
67
68
         # to use if 'createIfNecessary' is true (which is the default).
         # If it is able to successfully create a connection, then it will be used.
69
70
71
72
73
74
75
76
77
78
         # If it cannot create a connection, or if 'createIfNecessary' is set to false,
         # then an error will be thrown.
         # Note that the maximum number of connections specified when creating a pool
         # refers to the maximum number of connections that should be available for use
         # at any given time.
         # If 'createIfNecessary' is set to true, then there may temporarily be more
         # active connections than the configured maximum number of connections.
         # This can be useful during periods of heavy activity, because the pool will
         # keep those connections established until the number of unused connections
         # exceeds the configured maximum.
         \# If you wish to enforce a hard limit on the maximum number of connections so
         # that there cannot be more than the configured maximum in use at any time,
81
         \# then set 'createIfNecessary' to false to indicate that the pool should not
82
         # automatically create connections when one is needed but none are available,
83
         # and you may also want to set 'maxWaitTimeMillis' to a maximum wait time to allow
84
         # the pool to wait for a connection to become available rather than throwing
85
         # an exception if no connections are immediately available.
86
         pool-min: 10
87
         pool-max: 50
88
         maxConnectionAgeMillis: 30000
89
         maxWaitTimeMillis: 500
         createIfNecessary: true
91
         # Specifies whether certain operations that should be retried on a newly-created
92
         # connection if the initial attempt fails in a manner that indicates that the
93
         # connection used to process the request may no longer be valid.
94
95
         \mbox{\tt\#} Only a single retry will be attempted for any operation.
         retryFailedOperations: true
96
       # Here comes the part for the write operations:
97
       write:
98
         host: ldap0.example.com
99
         pool-min: 1
100
         pool-max: 10
101
         maxConnectionAgeMillis: 60000
102
         maxWaitTimeMillis: 1000
103
         createIfNecessary: false
104
         retryFailedOperations: false
105
       # Specifies whether the pool should attempt to abandon any request for which
106
       # no response is received in the maximum response timeout period:
107
       abandonOnTimeout: true
108
       # Specifies the maximum length of time in milliseconds that a connection attempt
109
       # should be allowed to continue before giving up.
110
       # A value of zero (default) indicates that there should be no connect timeout.
111
       connectionTimeoutMillis: 3000
112
       # Specifies the maximum length of time in milliseconds that an operation should
113
       \mbox{\tt\#} be allowed to block while waiting for a response from the server.
114
       # A value of zero indicates that there should be no timeout.
115
       responseTimeoutMillis: 5000
116
       # Specifies whether to use the SO_KEEPALIVE option for the underlying sockets
117
       # used by associated connections.
118
       keepAlive: true
119
       # Specifies whether to use the TCP_NODELAY option for the underlying sockets.
120
       tcpNoDelay: true
121
       # Specifies whether to operate in synchronous mode, in which at most one
```



```
\mbox{\tt\#} operation may be in progress at any time on a given connection.
123
       # When using asynchronous mode, a background thread takes care of multiplexing
124
       # and dispatching all the operations on connections that are shared for
125
       # multiple operations.
126
       synchronousMode: true
127
       # Specifies the length of time in milliseconds between periodic background
128
       # health checks against the available connections in this pool.
129
       healthCheckIntervalMillis: 120000
130
       # Specifies whether associated connections should attempt to follow any
131
       # referrals that they encounter.
132
       followReferrals: true
133
       # Specifies the maximum number of hops that a connection should take when
134
       # trying to follow a referral, must be greater than zero when 'followReferrals'
135
       # is true.
136
       referralHopLimit: 1
137
       # Specifies the maximum size in bytes for an LDAP message that a connection
138
       # will attempt to read from the directory server.
139
       \mbox{\tt\#} If it encounters an LDAP message that is larger than this size, then the
140
       # connection will be terminated.
141
       # Disabled when not specified or set to 0.
142
       maxMessageSize: 1024
143
144
     pool2:
145
       # A failover pool that uses the same set of servers for read and for
146
       # write operations.
147
      failover:
148
         - ldap0.example.com
         - ldap1.example.com
149
150
       pool-min: 5
151
      pool-max: 20
152
      trust-store:
153
         file: /etc/trust.jks
154
       key-store:
155
         file: /etc/private.jks
156
157
     pool3:
158
       # A simple single-host setup
159
       host: ldap.example.com
160
      pool-min: 5
       pool-max: 20
161
162
163
     pool4:
164
       # A load-balancing setup that will use a round-robin algorithm to
165
       # select the server to which the connection should be established.
166
       # Any number of servers may be included, and each request will
167
       # attempt to retrieve a connection to the next server in the list,
168
       # circling back to the beginning of the list as necessary.
169
       # If a server is unavailable when an attempt is made to establish
170
       # a connection to it, then the connection will be established to
171
       # the next available server in the set.
172
       round-robin:
173
         - host: ldap1.example.com
           port: 10389
174
175
           responseTimeoutMillis: 5000
176
         - host: ldap2.example.com
177
           port: 10389
178
           responseTimeoutMillis: 12000
179
       pool-min: 10
180
       pool-max: 50
181
182
183
       \# A DNS RR setup handles the case in which a given hostname may
184
       # resolve to multiplee IP addresses.
185
       \mbox{\tt\#} Note that while a setup like this is typically referred to as
186
       # "round-robin DNS", this option does not strictly require DNS (as names
187
       # may be resolved through alternate mechanisms like a hosts file or an
188
       \mbox{\tt\#} alternate name service), and it does not strictly require round-robin
189
       # use of those addresses (as alternate ordering mechanisms like
       # 'random' or 'failover' may be used).
190
191
       dns-round-robin:
192
         host: ldap.example.com
         # The selection mode that should be used if the hostname resolves
193
```



```
194
         # to multiple addresses.
195
        # Possible values:
196
         # - random: the order of addresses will be randomized for each attempt
        # - failover: addresses will be consistently attempted in the order
197
198
                 they are retrieved from the name service.
199
         # - round-robin: connection attempts will be made in a round-robin order
200
         selection-mode: random
201
         # Only use DNS if set to 'true'.
202
         # If set to 'false' then the operating system's hostname resolution
203
         # service will be used, which may include a hosts file.
204
         only-dns: false
205
         # The maximum length of time in milliseconds to cache addresses resolved
206
         # from the provided hostname.
207
         # Caching resolved addresses can result in better performance and can
208
         # reduce the number of requests to the name service.
209
         \# A value that is less than or equal to zero indicates that no caching
210
         # should be used.
211
        cache-timeout: 1440000
212
       pool-min: 5
213
       pool-max: 20
214
215
216
      # A failover pool that uses the same set of servers for read and for
217
       # write operations, as well as StartTLS
218
       failover:
         - ldap0.example.com
219
        - ldap1.example.com
220
      pool-min: 5
221
222
      pool-max: 20
223
       starttls: true
224
      trust-store:
225
        file: /etc/trust.jks
226
       key-store:
        file: /etc/private.jks
```

### File 21 /opt/open-xchange/etc/metrics-http.properties

```
2
3
4
5
6
   # The following property defines the various elements to use to compose the names of
   # the metrics, to determine how to group them and what to see.
   # The elements are separated by dots (".") and parsed individually, then replaced by
   \# their respective value for each inbound HTTP request to determine the name of
7
   # the metric to update.
   # Note that not all elements necessarily always result in a value as some are only
10
   # present for specific types of HTTP requests, and others are optional (for example
   # all the user information related ones that are only available when the HTTP request
12
   # is authenticated or used in the context of an established Open-Xchange session).
13
    # Values that are not available are skipped in the resulting name of the metric.
14
15
   # For each component, here are the possible values to specify in this property:
   # status
17
   # Will be replaced by "success" or "error" depending on the result, for example:
19
   # /api/rest/x/y/z -> success
20
   #
21
   # path
22
   # If the HTTP is an AJAX API call, it will be replaced by "//module/action", and if not
    # (e.g. accessing a servlet instead), it will be replaced with the servlet path.
25
26
   # Examples:
   # /ajax/folders?action=get&id=1,2,4 -> //folders/get
   # /rest/api/x/y/z -----> /rest/api/x/y/z
29
30
   # info
   # ====
```



```
# Will be replaced with the servlet path info, i.e. the part of the URL that is behind
33
    # the servlet path.
34
35
    # Examples:
36
    # /rest/api/users/john.doe@example.com -> john.doe@example.com
37
38
    # session
    # ======
39
40
    # The value "session", "session_id" or "sessionid" will be replaced by the Open-Xchange
         session
41
    # identifier, if applicable.
42
    # For HTTP operations that are not authenticated, it will be left out.
43
44
    # context id
45
    # =======
46
    # The value "context_id" or "cid" will be replaced by the numeric context identifier of
47
    # user, if applicable.
48
    # For HTTP operations that are not authenticated, it will be left out.
49
50
    # user_id
51
    # ======
52
    # The value "user_id" or "cid" will be replaced by the numeric user identifier of the
53
    # user within the context, if applicable.
54
55
    # For HTTP operations that are not authenticated, it will be left out.
56
    # login
57
58
    \# The value "login" will be replaced by the login the user entered to authenticate or the
59
    # user identifier provided by an SSO mechanism, if applicable.
60
    # For HTTP operations that are not authenticated, it will be left out.
61
    #
62
     # property(module)
63
64
    # Will be replaced by the AJAX API module, if applicable.
65
66
    # property(action)
67
68
    # Will be replaced by the AJAX API module action, if applicable.
69
    #
70
    # header(...)
71
72
    # Will be replaced by the value of an HTTP request header, the name of the header
73
     # being specified between the parentheses.
74
75
76
    # Note that header names are case sensitive.
    # Example:
77
    # header(Host).path -> appsuite01.example.com.//folders/list
78
79
    # parameter(...)
80
    # =========
81
    # Will be replaced by the value of an HTTP request parameter, the name of the
82
    # parameter being specified between the parentheses.
83
84
    # Example:
85
    # header(Host).parameter(app).path -> appsuiteO1.example.com.io.ox/mail.//folders/list
86
87
    # cookie(...)
88
     # Will be replaced by the value of a cookie present in the HTTP request, the name of the
90
    # cookie being specified between the parentheses.
91
92
    # session(...)
93
94
     # Will be replaced by the value of a parameter present in the user's Open-Xchange session,
95
    \# the name of the session parameter being specified between the parentheses.
96
97
    # text(...)
98
    # =======
99
    # Specifies text that will be used as-is.
100
101
     com.openexchange.metrics.http.elements=path.status
```



```
102
     # When aggregation is enabled (by setting this value to true), each element as configured
103
     # by the property com.openexchange.metrics.http.elements will be a metric in its own right
105
     # and aggregated accordingly to its path.
106
     # Without aggregation, each metric is "flat".
107
108
    # For example, with the following configuration
109
    # com.openexchange.metrics.http.elements=header(Host).path.status
110
    #
         com.openexchange.metrics.http.aggregation=true
111
    # each element will be a metric, namely:
112
    # 1. header(Host)
113
    # 2. header(Host).path
114
    # 3. header(Host).path.status
115
116
    # Specifically, results will look along the lines of the following, each being a metric:
    # - appsuite01.example.com
# - appsuite01.example.com.//folders/list
117
118
119
     # - appsuite01.example.com.//folders/list.success
120
121
    # Each of those metrics except for the last one will be aggregating the measurements
122
     # of their parent metrics.
123
124
     com.openexchange.metrics.http.aggregation=false
125
126
    # List of logins for which to create specific metrics.
127
    # In order to be able to track and aggregate the metrics of specific users, the
128
     # following property can be set to a (full) login name as entered by the user when
129
    \mbox{\tt\#} authenticating or as provided by an SSO system if applicable.
130
    # For each of the logins specified through this property, an additional set
131
132
    # of metrics will be created, prefixing the elements that are defined in
133
     # com.openexchange.metrics.http.elements
134
    # with the login value.
135
136
    # For example, the following configuration
137
         com.openexchange.metrics.http.elements=header(host).path.status
138
         com.openexchange.metrics.http.aggregation=true
139
        com.openexchange.metrics.http.logins=jdoe@example.com
140
    # will result in the following list of metrics:
141
     # 1. header(Host)
142
    # 2. header(Host).path
143
    # 3. header(Host).path.status
144
     # 4. login
145
    # 5. login.header(Host)
146
    # 6. login.header(Host).path
147
    # 7. login.header(Host).path.status
148
149
    # Specifically, results will look along the lines of the following, each being a metric:
150
    # - appsuite01.example.com
151
    # - appsuite01.example.com.//folders/list
152
     # - appsuite01.example.com.//folders/list.success
     # - jdoe@example.com
153
154
     # - jdoe@example.com.appsuite01.example.com
155
     # - jdoe@example.com.appsuite01.example.com.//folders/list
     # - jdoe@example.com.appsuite01.example.com.//folders/list.success
156
157
158
    # Without aggregation, the following configuration
159
     #
        com.openexchange.metrics.http.elements=header(host).path.status
160
         com.openexchange.metrics.http.aggregation=false
161
         com.openexchange.metrics.http.logins=jdoe@example.com
162
     # will result in this list of metrics instead:
163
     # 1. header(Host).path.status
164
     # 2. login.header(Host).path.status
165
166
    # Note that if this property is commented out (not set) or left empty,
167
    # no such additional per-login metrics will be created, which is the default
168
     # behavior.
169
170
    # Multiple logins may be specified, either by separating them with whitespaces
    # and/or commas. e.g.:
172
     # com.openexchange.metrics.http.logins=john.doe@example.com, jane.doe@example.com
```



```
# or by specifying multiple properties as follows:
174
     \hbox{\tt\# com.openexchange.metrics.http.logins.1=john.doe@example.com}
175
     # com.openexchange.metrics.http.logins.2=jane.doe@example.com
176
    # (both may also be combined).
177
178
     # Furthermore, it is possible to use regular expressions and wildcards:
179
    \mbox{\tt\#} - if a login contains \mbox{\tt\#} or ?, it is understood to be a wildcard
180
    # - if a login is enclosed in /\dots/ or /\dots/i (case insensitive), it is understood
181
        to be a regular expression
182
     # Examples:
183
     # com.openexchange.metrics.http.logins=*@example.com, /^j(ohn|ane)\.doe@example\.cm$/
184
185
     # Being a wildcard, the following value would match all logins:
186
     # com.openexchange.metrics.http.logins=*
187
188
     com.openexchange.metrics.http.logins=
189
190
     # List of paths and path patterns for which to maintain metrics.
191
192
    \mbox{\tt\#} The following property specifies discrete paths, path wildcard patterns, or
193
     # regular expressions that will be matched against the HTTP request paths, and
194
     # only those that match will have metrics.
195
196
    \# If the property value contains * or ?, it will be understood as a wildcard pattern.
197
     # If it starts with / and ends with / or /i (cae insensitive), it will be understood
198
     # as a regular expression.
199
     # If it is neither of those, it will be interpreted as an exact (string comparison) value.
200
201
    \mbox{\tt\#} To enable metric collection for all URLs, use the following value:
202
    # com.openexchange.metrics.http.path=*
203
204
    # If the value is not defined or empty, no metrics will be collected:
205
     # com.openexchange.metrics.http.path=
206
207
    # Example:
208
    # com.openexchange.metrics.http.path.1=/^/appsuite/.+/(boot|precore)\.js$/
209
    # com.openexchange.metrics.http.path.2=/appsuite/api/apps/manifests
210
     # com.openexchange.metrics.http.path.3=/appsuite/api/mail
211
212
     com.openexchange.metrics.http.path=
213
214
    # The behavior of the path matching above can be configured with the following property.
215
     # Possible values:
216
     # - whitelist: any URL path that matches one of the URL patterns configured
217
        using com.openexchange.metrics.http.path will be measured with metrics;
218
    #
         any URL path that does not, will not be measured with metrics
    # - blacklist: any URL path that does not matches one of the URL patterns configured
219
220
    #
       using com.openexchange.metrics.http.path will be measured with metrics
221
222
    # When omitted, left empty or invalid, the default mode is whitelist
223
224
    # Example:
225
    # com.openexchange.metrics.http.path.mode=blacklist
226
    com.openexchange.metrics.http.path.mode=whitelist
```

#### File 22 /opt/open-xchange/etc/metrics-imap.properties

```
# Configure whether to enable metrics for IMAP operations.
# When this property is omitted (commented out) or set to false, or empty,
# IMAP metrics will not be collected.
com.openexchange.metrics.imap.enable=false

# The number of threads to use to process IMAP operation results,
# updating metrics.
com.openexchange.metrics.imap.threads=2
```



#### File 23 /opt/open-xchange/etc/minimal-api.properties

```
# The capability to control whether or not the user is allowed to access the API
23456789
    # at all
    # Optional, default value: false
    # com.openexchange.capability.minimalapi=true
    com.openexchange.capability.minimalapi=false
10
    # The clients names enabled for a user
    # Must be provided as a comma separated list
12
13
    # Optional, default value: ""
15
    \# Must be provided as a comma separated list
16
17
    # Example:
18
    # com.openexchange.plugins.minimal.api.clients=exampleClient,exampleClient2
    com.openexchange.plugins.minimal.api.clients=
20
21
    # The user-friendly name of a client
23
    # Optional, default value: ""
24
    # If not set, the client identifier is returned.
26
27
28
    # Example:
    # com.openexchange.plugins.minimal.api.exampleClient.name=Example Preview
29
    com.openexchange.plugins.minimal.api.[client].name=
31
    # The claims assigned to a client
32
33
    # Optional, default value: ""
34
35
    # Must be provided as a comma separated list
36
37
    # com.openexchange.plugins.minimal.api.exampleClient.claims=readMail
39
    com.openexchange.plugins.minimal.api.[client].claims=
40
    # Default consent if user has not yet decided on first access
    # WARNING: It might be required by law to enforce user consent
    # Optional, default value: false
45
46
    # Example:
    # com.openexchange.plugins.minimal.api.exampleClient.defaultconsent=true
    com.openexchange.plugins.minimal.api.[client].defaultconsent=false
    # Maximum amount of requests per second per source IP address if the token could not be
        validated from cache
51
    # May be a decimal number.
52
    # Optional, default value: 1.0
    # Optional, default for client: 5.0
    # Example:
57
    # com.openexchange.plugins.minimal.api.ratelimit.requestsPerSecond=10.0
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.maxRequestsPerSecond=10.0
    \verb|com.openexchange.plugins.minimal.api.ratelimit.requestsPerSecond=1.0|
60
    # Maximal time window, in milliseconds: after a given source IP address has not accessed
    # the minimal API, its number of requests per second rate is reset.
    # Optional, default value: 300000
# Optional, default for client: 300000
65
    # Example:
67
    {\tt\#} \verb|com.openexchange.plugins.minimal.api.ratelimit.maxRateTimeWindow=60000| \\
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.maxRateTimeWindow=60000
```



```
com.openexchange.plugins.minimal.api.ratelimit.maxRateTimeWindow=300000
71
72
     # Strategy to use for reacting to the inability to access the API for a given source
73
74
75
76
77
     \mbox{\tt\#} IP address due to surpassing the \mbox{\tt maxRequestsPerSecond} rate.
     # Format: it must be one of:
     # * fail-fast
     # * block
 78
     # * timeout:...
 79
80
     # fail-fast
81
     # if the rate limit is exceeded, the API will respond with a 401 Unauthorized
82
     # block
83
        if the rate limit is exceeded, the API will block infinitely until the rate limit
        allows for another request to be performed
85
        block until the specified timeout is reached, after which the API responds with a
87
        401 Unauthorized
88
        if the timeout does not allow to get a new token in time, a 401 Unauthorized is
89
         returned
90
        The value after "timeout:" consists of a number followed by a time unit, examples:
91
        - timeout:400s ---> 400 seconds
         - timeout:1m ----> 1 minute
 92
    #
93
    #
        - timeout:2000ms -> 2000 milliseconds
     # If the token could be validated and is correct, the API will not return a
96
     # 401 Unauthorized but a 429 Too Many Requests instead.
98
    # Optional, default value: timeout:250ms
99
     # Optional, default for client: timeout:500ms
100
101
    # Example:
102
     # com.openexchange.plugins.minimal.api.ratelimit.strategy=timeout:1s
103
    # com.openexchange.plugins.minimal.api.ratelimit.exampleClient.strategy=timeout:5s
104
    com.openexchange.plugins.minimal.api.ratelimit.strategy=timeout:250ms
```

### File 24 /opt/open-xchange/etc/plugins-antiphishing.properties

```
# Setting to control the used connector for a specific user
   # This setting is config-cascade aware to support different implementations for each user.
   # Default is <none> which means that the feature is disabled for a user
    # To enable vade secure com.openexchange.plugins.antiphishing.connector=
       plugins_antiphishing_vadesecure
    com.openexchange.plugins.antiphishing.connector=
   # Setting to enable/disable the antiphishing capability
    # This setting is config-cascade aware to support different implementations for each user.
    # Default is false which means that the feature is disabled for a user
   \verb|com.openexchange.plugins.antiphishing.enabled=false|
12
   # Setting to enable/disable the antiphishing mta_capability
   \# If true, the user has the ability to choose antiphishing at the MTA level
    # This setting is config-cascade aware to support different implementations for each user.
   # Default is false which means that the feature is disabled for a user
    com.openexchange.plugins.antiphishing.mta_capability=false
   \mbox{\tt\#} Setting to enable/disable the antiphishing at the mta level
   # If true, an antiphishing check will take place at the MTA level
   # This setting is config-cascade aware to support different implementations for each user.
   # Additionally, this property can be set by the user in the UI
    # Default is false which means that the feature is disabled for a user
   com.openexchange.plugins.antiphishing.mta_antiphishing=false
```

### File 25 /opt/open-xchange/etc/plugins-antiphishing-vadesecure.properties



```
# The customer name as provided by VadeSecure; required to access Phishing API
   # Default: NONE
   # Config-cascade aware: true
    # Lean: false
   com.openexchange.plugins.antiphishing.vadesecure.name.passcrypt=<Customer name provided by
         VadeSecure>
6
7
8
    # The customer license provided by VadeSecure; required to access Phishing API
    # Default: NONE
    # Config-cascade aware: true
10
    # Lean: false
    com.openexchange.plugins.antiphishing.vadesecure.license.passcrypt=<Customer license
        provided by VadeSecure>
12
13
   # Setting to change the VadeSecure IsItPhishing API URL
    # Default: https://iip.eu.vadesecure.com/api/v2/url
    # Config-cascade aware: true
    # Lean: true
    com.openexchange.plugins.antiphishing.vadesecure.phishing_url=https://iip.eu.vadesecure.
        com/api/v2/url
18
19
   # Setting to change the VadeSecure connector identifier referenced in plugins-antiphishing
        .properties / com.openexchange.plugins.antiphishing.connector
20
   # Default: "plugins_antiphishing_vadesecure"
21
    # Config-cascade aware: true
    # Lean: true
23
    com.openexchange.plugins.antiphishing.vadesecure.identifier=
        plugins_antiphishing_vadesecure
24
25
    # If set to true, the URL will always be crawled and analyzed, even if it can trigger
        collateral damages (such as unsubscribing a user, canceling an order, etc.).
26
    \# If set to false, the service checks whether the URL may cause collateral damage to the
        end user (unsubscribe, order confirmation, etc.). If so, the URL is not crawled and
        NOT_EXPLORED is returned in the response.
27
    # Default: false
    # Config-cascade aware: true
    # Lean: true
    \verb|com.openexchange.plugins.antiphishing.vadesecure.force=false|
    # Vade Secure IsItPhishing Smart mode enables URL anonymization. Typically, this is meant
    # replace any unique-ID like tokens in a URL by random characters, to prevent side effects
         when crawling certain URLs, which if visited, could trigger unwanted actions:
        unsubscription, cancelation, etc.
34
    # Set to true to enable the smart mode. If set to false, URLs will be crawled in the way
        they were originally provided. If argument randomization fails, the URL is not crawled
         and NOT_EXPLORED is returned.# Default: "plugins_antiphishing_vadesecure"
35
    # NOTE: Vade Secure strongly recommends enabling the smart parameter to true, so that the
        API can trigger token anonymization, to try and prevent any collateral damages.
    # Default: false
    # Config-cascade aware: true
    com.openexchange.plugins.antiphishing.vadesecure.smart=true
40
    # Timeout in milliseconds, with a minimum value of 1000. Once timeout is reached, TIMEOUT
        response is returned.
42
   # Default: 3000
43
    # Config-cascade aware: true
    # Lean: true
    com.openexchange.plugins.antiphishing.vadesecure.timeout=3000
```

### File 26 /opt/open-xchange/etc/plugins-blackwhitelist.properties

```
# Setting to control the used connector for a specific user
# This setting is config-cascade aware to support different implementations for each user.
# Default is <none> which means that the feature is disabled for a user
com.openexchange.plugins.blackwhitelist.connector=
```



```
5
6 # Setting to check if memory backed test System should be started
7 # This connector is identified by plugins_blwl_test
8 # Default: false
9 com.openexchange.plugins.blackwhitelist.test=false
```

### File 27 /opt/open-xchange/etc/plugins-blacklist-sieve.properties

```
# Identifier of this blackwhitelist connector: plugins_blackwhitelist_sieve
 2
    # Setting to control the rulename to be set and checked as a antispam value inside the
        sieve rules
3
   # Default: Blacklist
   # Config-cascade aware: true
   # Lean: true
   \verb|com.openexchange.plugins.blackwhitelist.connector.sieve.rulename=Blacklist|
   # Setting to control wether the blacklisted mails should be moved to SPAM or deleted
       directly
   # If set to true, mails are moved to SPAM
   # If set to false, mails are deleted
   # Default: true
12
   # Config-cascade aware: true
    # Lean: true
   com.openexchange.plugins.blackwhitelist.connector.sieve.moveToSpam=true
   # Setting to check if memory backed test System should be started
17
   # This connector is identified by plugins_blwl_test
18
   # Default: false
   com.openexchange.plugins.blackwhitelist.connector.sieve.test=false
```

### File 28 /opt/open-xchange/etc/plugins-contact-storage-group.properties

```
\# Configures whether the group contact storage is enabled for a context or not.
   # Default: false
3
4
5
6
   \verb|com.openexchange.plugins.contact.storage.group.enabled=false|
  # Defines an optional list of those groups for which no group contact folder should
  # be used, as a comma-separated string of the identifiers of those groups that should
  # be excluded. The groups "All Users", "All Guests" and the "Standard Group" are
  # always excluded.
   # Default: <empty>
  com.openexchange.plugins.contact.storage.group.excludedGroups=
  # Defines if the display name of the groups should be used to create the folder
  # names in the folder tree.
  # If set to <true>, the displayname is used
  # If set to <false>, the group name is used
  # The Group Names are limited by the property CHECK_GROUP_UID_REGEXP
  \verb|com.openexchange.plugins.contact.storage.group.useDisplayName=true|\\
```

### File 29 /opt/open-xchange/etc/plugins-contacts-whitelist.properties

```
# This setting enables or disables special handling for the ContactCollectionFolder
# If set to true, the contactCollectFolder is ignored and contacts in this folder
# are not added to the whitelist. Contacts moved to this folder are also removed from the
whitelist
# If set to false, the contactCollectFolder is handled like any other folder.
# config-cascade aware
# Default: true
```



```
com.openexchange.plugins.contacts.whitelist.ignoreContactCollectFolder=true

# This setting is used to set the connector for the contact sync.

# Currently available options are:

# <not-set> (this will disable the sync for the user)

# rdb

# Default: <not-set>
com.openexchange.plugins.contacts.whitelist.connector=
```

### File 30 /opt/open-xchange/etc/plugins-contacts-whitelist-migration.properties

```
# Defines the strategy of the automatic migration
2
3
4
5
6
7
8
9
   # Can be either
   #
         <not-set> which disables the automatic migration
         time:<timeinmillis>
    # Default: <not-set>
   # Examples
   # If sync should happen once a day:
   {\tt\# com.openexchange.plugins.contacts.whitelist.migration.strategy=time:86400000}
   # If sync should happen once a week
    # com.openexchange.plugins.contacts.whitelist.migration.strategy=time:604800000
    com.openexchange.plugins.contacts.whitelist.migration.strategy=
   # Setting, if a warning should appear in the logs, if a user has more than configured
        contacts in one folder.
16
   # Default: 10000
   com.openexchange.plugins.contacts.whitelist.migration.warningSize=10000
```

### File 31 /opt/open-xchange/etc/plugins-contacts-whitelist-rdb.properties

```
# Pool to be used
2
3
4
5
6
7
8
9
                     # normal or tombstone
                     com.openexchange.plugins.contacts.whitelist.rdb.strategy=normal
                     com.openexchange.plugins.contacts.whitelist.rdb.tableName=senderwl
                     # Name of the column used for the primary mail
11
12
                     com.openexchange.plugins.contacts.whitelist.rdb.primaryAddressColumnName=rcpt
                     # Name of the column used for the contact mails
14
15
                     com.openexchange.plugins.contacts.whitelist.rdb.contactMailColumnName=sender
                     # Name of the column used for the individual contactIds
                     \verb|com.openexchange.plugins.contacts.whitelist.rdb.contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColumnName=contactIdColum
 19
                     # Name of the deleted_at column if tombstone is enabled
20
                     \verb|com.openexchange.plugins.contacts.whitelist.rdb.tombstone.deletedAtColumnName=deleted\_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atcolumnName=deleted_atc
22
                     # Name of the updated_at column if tombstone is enabled
```

### File 32 /opt/open-xchange/etc/sql-client.d/sql-plugins-whitelist.yaml.example

```
1 # The top-level key is the identifier of the pool, which can be
```



```
# any string of text and is being used by the bundles and applications
2345678
   # to access that pool configuration.
    # Typically, those are fixed or need to be configured in the bundles
   # that use this library.
    # When Java Security Manager support is enabled, files that are referenced
   # in these configuration files must be in a directory that is already
    # whitelisted, or in a subdirectory thereof, such as
    # /opt/open-xchange/etc/
11
12
    # A good candidate would be something along the lines of
13
    # /opt/open-xchange/etc/sql-files/
14
15
    # Otherwise, the filename or its directory must be put into a new .list
    # file in the folder
17
    # /opt/open-xchange/etc/security/
    # with e.g. the following content:
19
20
    # file:/etc/trust.jks
21
22
    contact-whitelist-pool:
23
     # This is the name of the DataSource class provided by the JDBC driver.
     # Consult the documentation for your specific JDBC driver to get this class name, or see
           the table below.
25
     # Note XA data sources are not supported. XA requires a real transaction manager like
          bitronix.
26
      # Note that you do not need this property if you are using jdbcUrl for "old-school"
          DriverManager-based JDBC driver configuration.
27
      # Default: none
      \tt dataSourceClassName: com.mysql.jdbc.jdbc2.optional.MysqlDataSource
      # This property directs HikariCP to use "DriverManager-based" configuration.
     # We feel that DataSource-based configuration (above) is superior for a variety of
          reasons (see below), but for many deployments there is little significant difference
31
      # When using this property with "old" drivers, you may also need to set the
          {\tt driverClassName\ property,\ but\ try\ it\ first\ without.}
32
      # Note that if this property is used, you may still use DataSource properties to
          configure your driver and is in fact recommended over driver parameters specified in
           the URL itself.
33
      # Default: none
      jdbcUrl: jdbc:mysql://mysql.example.com
      # This property sets the default authentication username used when obtaining Connections
           from the underlying driver.
36
      # Note that for DataSources this works in a very deterministic fashion by calling
          {\tt DataSource.getConnection(*username*,\ password)\ on\ the\ underlying\ DataSource.}
37
      # However, for Driver-based configurations, every driver is different.
      # In the case of Driver-based, HikariCP will use this username property to set a user
          property in the Properties passed to the driver's DriverManager.getConnection(
          jdbcUrl, props) call.
39
      # If this is not what you need, skip this method entirely and call addDataSourceProperty
          ("username", ...), for example.
40
      # Default: none
41
      username: user
42
      # sets the password of the connection
      password: secret
```

#### File 33 /opt/open-xchange/etc/plugins-mx-checker.properties

```
# Determines which connector will be used for a user
# This setting is config-cascade aware to support different implementations for each user.
# Default is <none> which means that the feature is disabled for a user
com.openexchange.plugins.mx.checker.connector=
```

### File 34 /opt/open-xchange/etc/client-onboarding-maillogin.properties



```
# Default value for overriding the login information displayed
2
   # in the client onboarding.
 4
5
   # Possible values:
   # email
6
       uses the user's defaultSenderAddress
7
8
9
    # attr:<name>
       uses the user's attribute <name>
       uses the user's login, which is the same as if the
11
       onboarding login was not overriden by this plugin
    # login_name
13
       uses the loginName attribute when possible, which is only the case
14
       for session based logins (IMAP, SMTP) and for protocols that do not
       create a session (CalDAV, CardDAV, EAS), it falls back on the login
16
   #
       instead
17
   # This property is config cascade aware and must be set globally
19
   # (in this file), and can then be overriden by context and/or by
20
21
22
   # Note that for this feature to be enabled, one is also required
   # to set one or more the following properties, depending on the
   \mbox{\tt\#} client onboaridng dialogs that need the login information to
   # be overriden by this plugin:
   # com.openexchange.client.onboarding.caldav.login.customsource=true
   # com.openexchange.client.onboarding.carddav.login.customsource=true
    # com.openexchange.client.onboarding.mail.imap.login.customsource=true
   # com.openexchange.client.onboarding.mail.smtp.login.customsource=true
30
   com.openexchange.plugins.onboarding.login=login
```

### File 35 /opt/open-xchange/etc/trustedidentity.properties

```
\mbox{\tt\#} URI to the private and public key resource to use to sign JWTs.
2
   # The format of the URi epends on the scheme and driver.
4
5
6
   # The "file" scheme is always supported.
   # Format: file:<algorithm>:<path>[#<keyid>]
   # Algorithm may either be "auto" in which case the signing algorithm will be inferred
    \# from the EC curve OID within the encoded private key part in the file, or be explicitly
10
   # one of the supported values:
   # - ES256: ECDSA using P-256 curve and SHA-256 hash algorithm
12
   \# - ES384: ECDSA using P-384 curve and SHA-384 hash algorithm
    # - ES512: ECDSA using P-521 curve and SHA-512 hash algorithm
15
    # Note that for the time being, only ECDSA keys are supported.
16
    # The key id may be set as the fragment part of the URI: if set, will be stored as a kid (
17
       key id)
    # claim in the JWT header, which identifies the key in some form that is understandable
        for consumers
19
    # of the JWT token.
20
    # Optional, does not set the kid claim when absent.
21
   # The path is a fully qualified filesystem path to the private key PEM file to use for
       signing.
23
   # It should also contain the certificate (public key part) in order to include the
    # x5t#S256 (X.509 certificate SHA-256 thumbprint) in the signed token.
25
26
    # Content of the file:
    # ----BEGIN EC PRIVATE KEY----
28
    {\tt\#MIGHAgEAMBMGByqGSM49AgEGCCqGSM49AwEHBGOwawIBAQQgyGdEuJcaHlaOCDtX}
    # Jvb9wIBomkOsFr++dEnvM97Sm3G+c8wkqL0+WFBRwTw79sQioT3V0MVV
```



```
# ----END EC PRIVATE KEY----
    # ----BEGIN EC PUBLIC KEY----
    # MFkwEwYHKoZIzjOCAQYIKoZIzjODAQcDQgAEqxHR/v8D3NktT/EfE5Mq2dv1IZ6H
    # QCb2/cCAaJpDrBa/vnRJ7zPe0ptxvnPMJKi9PlhQUcE80/bEIqE91TjFVQ==
    # ----END EC PUBLIC KEY---
37
    # The type (specified after BEGIN and END) in the PEM headers must be one of:
38
    \mbox{\tt\#} - for the mandatory private key: PRIVATE KEY, EC PRIVATE KEY
    # - for the optional public key: CERTIFICATE, PUBLIC KEY, EC PUBLIC KEY
40
41
    # Examples:
42
    # com.openexchange.plugins.trustedidentity.key=file:auto:/opt/open-xchange/etc/
        trustedidentity.pem#ox-trust-key-2021-1
43
    # com.openexchange.plugins.trustedidentity.key=file:ES256:/opt/open-xchange/etc/
        trustedidentity.pem
44
45
    # Mandatory, there is no default value.
46
    com.openexchange.plugins.trustedidentity.key=
47
    # The issuer (iss) string to include in the signed JWT.
49
    # Describes this App Suite instance in its role as an authority.
51
    # Mandatory, has no default value.
52
53
54
    # Example:
    # com.openexchange.plugins.trustedidentity.issuer=Open-Xchange
55
    com.openexchange.plugins.trustedidentity.issuer=
    \mbox{\tt\#} Expiration duration: the signed JWT contains a standard claim field
    # "exp" that defines when the validity of the JWT should expire.
    # The following configuration property configures how long that expiration
60
    # time frame should be, always in addition to the current timestamp as
    # of the system clock.
    # e.g. "5m" will produce an expiration timestamp that is 5m in the future
62
63
64
    # Format: <duration>[h|m|s|ms]
65
66
    # Example:
67
    # com.openexchange.plugins.trustedidentity.expiration=30m
68
69
    # Optional, the default value is "5m" (5 minutes)
70
71
72
    com.openexchange.plugins.trustedidentity.expiration=5m
73
74
75
    # Public key file (PEM) location on disk.
    # This is the public key to use for encrypting JWTs. That public key must be
76
    # provided to us by the peer or customer that will receive the encrypted
77
    # JWT, as they will be able to decrypt it using their private key part.
79
    # Note tha this property is config-cascade aware.
80
81
    # Example:
82
    # com.openexchange.plugins.trustedidentity.peer.publicKeyFile=/opt/open-xchange/keys/
        customer1-pubkey1.pem
83
    # This configuration setting is mandatory and has no default value.
85
    # When left empty, it disables encryption.
86
    com.openexchange.plugins.trustedidentity.peer.publicKeyFile=
88
    \mbox{\tt\#} Algorithm to use to encrypt the \mbox{\tt JWT}\,.
89
    # The supported algorithms depend on the type of the public key.
91
92
    # For an EC key:
93
94
    # - ECDH-ES: Elliptic Curve Diffie-Hellman Ephemeral Static (RFC 6090) key agreement using
95
                 Concat KDF, as defined in section 5.8.1 of NIST.800-56A, with the agreed-upon
         key
96
                 being used directly as the Content Encryption Key (CEK) (rather than being
        used to
```



```
97
                  wrap the CEK).
98
99
       - ECDH-ES+A128KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
         -ES",
100
                  but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
101
                  the "A128KW" function (rather than being used directly as the CEK).
     #
102
103
         ECDH-ES+A192KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
         -ES",
104
                  but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
105
                  the "A192KW" function (rather than being used directly as the CEK).
     #
106
107
       - ECDH-ES+A256KW: Elliptic Curve Diffie-Hellman Ephemeral Static key agreement per "ECDH
108
                  but where the agreed-upon key is used to wrap the Content Encryption Key (CEK
         ) with
109
     #
                  the "A256KW" function (rather than being used directly as the CEK).
110
111
     # For an RSA key:
112
113
     #
       - RSA-OAEP-256: RSAES using Optimal Asymmetric Encryption Padding (OAEP) (RFC 3447),
         with the
114
                  SHA-256 hash function and the MGF1 with SHA-256 mask generation function.
115
116
     # Note tha this property is config-cascade aware.
117
118
     # Example:
119
     # com.openexchange.plugins.trustedidentity.peer.algorithm=ECDH-ES+A256KW
120
121
     # The property is optional and defaults to either ECDH-ES for EC keys, or
122
     # to RSA-OAEP-256 for RSA keys.
123
     com.openexchange.plugins.trustedidentity.peer.algorithm=
124
125
     # Encryption Method to use to encrypt the JWT.
126
127
     # The supported methods are as follows:
128
     # - A128GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 128 bit key
129
130
     # - A192GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 192 bit key
131
     # - A256GCM: AES in Galois/Counter Mode (GCM) (NIST.800-38D) using a 256 bit key
132
133
     # Note tha this property is config-cascade aware.
134
135
     # Example:
     # com.openexchange.plugins.trustedidentity.peer.encryptionMethod=A256GCM
136
137
138
     # The property is optional and defaults to A256GCM
139
     com.openexchange.plugins.trustedidentity.peer.encryptionMethod=
140
141
     # Peer public key time-to-live in cache.
142
143
     # Public keys are loaded from PEM files on-demand and are then cached for a configurable
144
     # amount of time before being loaded again.
145
146
     # Format: <duration>[w|d|h|m|s|ms]
147
148
     # Example:
149
     # com.openexchange.plugins.trustedidentity.peer.publicKeyCacheTtl=5d
150
151
     # The property is optional and defaults to 1d (1 day)
     com.openexchange.plugins.trustedidentity.peer.publicKeyCacheTtl=
```

### File 36 /opt/open-xchange/etc/plugins-unsubscribe.properties

```
1 # Setting to control the used connector for a specific user
2 # This setting is config-cascade aware to support different implementations for each user.
```



```
# Default is <none> which means that the feature is disabled for a user
# To enable vade secure com.openexchange.plugins.unsubscribe.connector=
    plugins_unsubscribe_vadesecure
com.openexchange.plugins.unsubscribe.connector=

# Setting to enable safe_mode capability via config-cascade
# This setting is config-cascade aware to support different implementations for each user.

# Default is false which means that the feature is disabled for a user
com.openexchange.plugins.unsubscribe.safemode=false
```

### File 37 /opt/open-xchange/etc/plugins-unsubscribe-vadesecure.properties

```
# The customer license provided by VadeSecure; required to access unsubscribe API
   # Default: The OX customer license
   # Config-cascade aware: true
   # Lean: true
   com.openexchange.plugins.unsubscribe.vadesecure.license.passcrypt=<Customer license
        provided by VadeSecure>
   \mbox{\tt\#} Setting to change the VadeSecure unsubscribe API URL
   # Default: https://ws.vaderetro-unsubscribe.com/
   # Config-cascade aware: true
    # Lean: true
   com.openexchange.plugins.unsubscribe.vadesecure.unsubscribe_url=https://ws.vaderetro-
        safeunsubscribe.com/
    \hbox{\tt\# Setting to change the VadeSecure connector identifier referenced in plugins-unsubscribe}. \\
        properties / com.openexchange.plugins.unsubscribe.connector
   # Default: "plugins_unsubscribe_vadesecure"
15
   # Config-cascade aware: true
   com.openexchange.plugins.unsubscribe.vadesecure.identifier=plugins_unsubscribe_vadesecure
```

## File 38 /opt/open-xchange/etc/twilio.properties

```
# Twilio accountSID
com.openexchange.plugins.sms.twilio.accountSID.secret=ACCOUNT_SID

# Twilio auth token
com.openexchange.plugins.sms.twilio.authtoken.secret=AUTH_TOKEN

# Twilio Message Service SID
com.openexchange.plugins.sms.twilio.messageservicesid.secret=SERVICE_SID

# Max message length. 1600 characters is Twilio's maximum
com.openexchange.plugins.sms.twilio.maxlength=1600
```

### File 39 /opt/open-xchange/etc/sql-client.d/sql-client-pools.yaml.example

```
# The top-level key is the identifier of the pool, which can be
# any string of text and is being used by the bundles and applications
# to access that pool configuration.
# Typically, those are fixed or need to be configured in the bundles
# that use this library.
# When Java Security Manager support is enabled, files that are referenced
# in these configuration files must be in a directory that is already
# whitelisted, or in a subdirectory thereof, such as
# /opt/open-xchange/etc/
```



```
12
    \mbox{\tt\#} A good candidate would be something along the lines of
    # /opt/open-xchange/etc/sql-files/
15
    # Otherwise, the filename or its directory must be put into a new .list
    # file in the folder
17
    # /opt/open-xchange/etc/security/
18
    # with e.g. the following content:
20
    # file:/etc/trust.jks
21
22
    # For a complete list of property values, read https://github.com/brettwooldridge/HikariCP
23
24
      \mbox{\tt\#} This is the name of the DataSource class provided by the JDBC driver.
      # Consult the documentation for your specific JDBC driver to get this class name, or see
           the table below.
26
      # Note XA data sources are not supported. XA requires a real transaction manager like
          bitronix.
27
      # Note that you do not need this property if you are using jdbcUrl for "old-school"
          DriverManager-based JDBC driver configuration.
28
      # Default: none
29
      \tt dataSourceClassName: com.mysql.jdbc.jdbc2.optional.MysqlDataSource
30
      # This property directs HikariCP to use "DriverManager-based" configuration.
      # We feel that DataSource-based configuration (above) is superior for a variety of
          reasons (see below), but for many deployments there is little significant difference
32
      # When using this property with "old" drivers, you may also need to set the
          driverClassName property, but try it first without.
33
      # Note that if this property is used, you may still use DataSource properties to
          configure your driver and is in fact recommended over driver parameters specified in
           the URL itself.
      # Default: none
      jdbcUrl: jdbc:mysql://mysql.example.com
      # This property sets the default authentication username used when obtaining Connections
           from the underlying driver.
37
      # Note that for DataSources this works in a very deterministic fashion by calling
          DataSource.getConnection(*username*, password) on the underlying DataSource.
      # However, for Driver-based configurations, every driver is different.
      # In the case of Driver-based, HikariCP will use this username property to set a user
          property in the Properties passed to the driver's DriverManager.getConnection(
          jdbcUrl, props) call.
40
      # If this is not what you need, skip this method entirely and call addDataSourceProperty
          ("username", ...), for example.
      # Default: none
      username: user
43
      # sets the password of the connection
      password: secret
45
      jdbcUrl: jdbc:mysql://mysql.example.com
48
      # This property controls the maximum number of milliseconds that a client (that's you)
          will wait for a connection from the pool.
49
      # If this time is exceeded without a connection becoming available, a SQLException will
      # Lowest acceptable connection timeout is 250 ms.
51
      # Default: 30000 (30 seconds)
      connectionTimeout: 30000
      # This property controls the maximum amount of time that a connection is allowed to sit
          idle in the pool.
54
      # This setting only applies when minimumIdle is defined to be less than maximumPoolSize.
           Idle connections will not be retired once the pool reaches minimumIdle connections.
      # Whether a connection is retired as idle or not is subject to a maximum variation of
55
          +30 seconds, and average variation of +15 seconds.
      # A connection will never be retired as idle before this timeout.
57
      # A value of O means that idle connections are never removed from the pool.
      # The minimum allowed value is 10000ms (10 seconds).
59
      # Default: 600000 (10 minutes)
      idleTimeout: 600000
61
      # This property controls the maximum lifetime of a connection in the pool. An in-use
          connection will never be retired, only when it is closed will it then be removed.
      # On a connection-by-connection basis, minor negative attenuation is applied to avoid
          mass-extinction in the pool.
```



```
63
      # We strongly recommend setting this value, and it should be several seconds shorter
          than any database or infrastructure imposed connection time limit.
64
      # A value of 0 indicates no maximum lifetime (infinite lifetime), subject of course to
          the idleTimeout setting.
65
      # Default: 1800000 (30 minutes)
      maxLifetime: 1800000
      # This property controls the minimum number of idle connections that HikariCP tries to
          maintain in the pool.
68
      # If the idle connections dip below this value and total connections in the pool are
          less than maximumPoolSize, HikariCP will make a best effort to add additional
          connections quickly and efficiently.
69
      # However, for maximum performance and responsiveness to spike demands, we recommend not
           setting this value and instead allowing HikariCP to act as a fixed size connection
          pool.
70
      # Default: same as maximumPoolSize
71
      minimumIdle: 0
      # This property controls the maximum size that the pool is allowed to reach, including
          both idle and in-use connections.
73
      # Basically this value will determine the maximum number of actual connections to the
          database backend. A reasonable value for this is best determined by your execution
          environment.
74
      # When the pool reaches this size, and no idle connections are available, calls to
          getConnection() will block for up to connectionTimeout milliseconds before timing
          out.
      # Default: 10
76
      maximumPoolSize: 10
77
    # The following example shows how to provide additional dataSource properties to the pool
        by using the dataSourceProperties key.
79
    # The DataSource will be started with all key-value pairs added.
80
    pool3:
81
      jdbcUrl: jdbc:mysql://mysql.example.com
82
      username: user
      password: secret
83
84
      dataSourceProperties:
85
        useUnicode: true
86
       characterEncoding: UTF-8
87
        autoReconnect: false
88
        useServerPrepStmts: false
89
        useTimezone: true
        serverTimezone: UTC
91
        connectTimeout: 15000
92
        socketTimeout: 15000
93
        useSSL: false
94
        requireSSL: false
        verifyServerCertificate: false
95
        enabledTLSProtocols: TLSv1, TLSv1.1, TLSv1.2
```

### File 40 /opt/open-xchange/etc/sql-client.properties

```
# Comma seperated list of drivers to read into the system
# As the sql-client is very early, it may happen that the excepted driver is not yet
    registered.
# To work around this issue, the following list of drivers will be read before any
    connection is
# created.
# Default: com.mysql.jdbc.Driver
com.openexchange.sql.client.drivers=com.mysql.jdbc.Driver
```