SCEP Server

Version:
v3.1.1

Date:
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1 Introduction

This document intends to provide information and instruction on using the SCEP Server system. Includes information about the product's features and how some of the features are designed to work. The document also provides system requirements and copyright info.

1.1 System requirements

The system is designed to be used by a web browser. In order to ensure the proper functioning of the system, the web browser should support the following standards:

1. HTML 5
2. CSS 3
3. JavaScript support

The application is designed especially for the following web browsers:

1. Edge version 114 and compatible
2. Firefox version 115 and compatible
3. Google Chrome version 114 and compatible
4. Opera version 100 and compatible
5. Safari version 16.5 and compatible

1.2 Copyright info

The copyrights for certain portions of the Software may be owned or licensed by other third parties ("Third Party Software") and used and distributed under license. The Third Party Notices includes the acknowledgements, notices and licenses for the Third Party Software. The Third Party Software is licensed according to the applicable Third Party Software license notwithstanding anything to the contrary in this Agreement. The Third Party Software contains copyrighted software that is licensed under the GPL/LGPL or other copyleft licenses. Copies of those licenses are included in the Third Party Notices. Welotec's warranty and liability for Welotec's modification to the software shown below is the same as Welotec's warranty and liability for the product this Modifications come along with. It is described in your contract with Welotec (including General Terms and Conditions) for the product. You may obtain the complete Corresponding Source code from us for a period of three years after our last shipment of the Software by sending a request letter to: Welotec GmbH, Zum Hagenbach 7, 48366 Laer, Germany Please include "Source for Welotec VPN Security Suite" and the version number of the software in the request letter. This offer is valid to anyone in receipt of this information.

1.3 Trademark

Welotec is a registered trademark of Welotec GmbH. Other trademarks mentioned in this manual are the property of their companies.

1.4 Contact information

Welotec GmbH

Zum Hagenbach 7, D-48366 Laer

Phone: +49 (0)2554/9130-00

Fax: +49 (0)2554/9130-10

Email: info@welotec.com

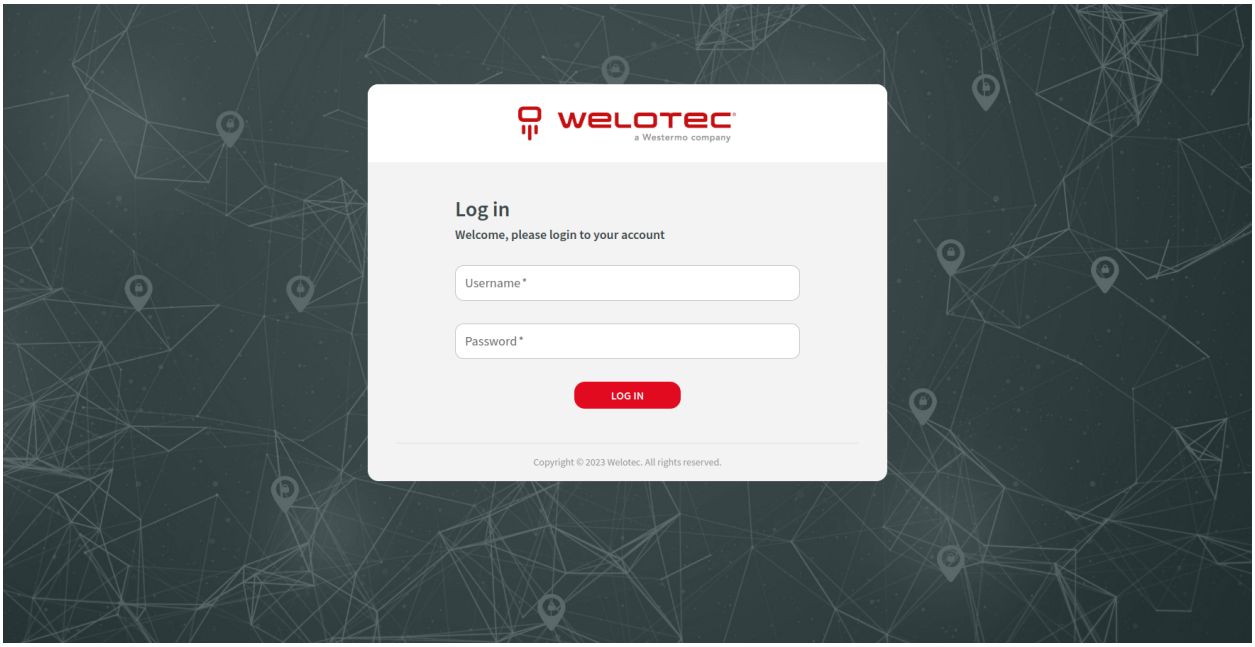
Website: www.welotec.com

2 Changelog

Version	Date	Log
v3.1.1	03.02.2026	Fixed mariadb server validation flag.
v3.1.0	19.11.2025	Extended HTTPS server SSL certificates to support RSA and Elliptic Curve (EC) keys. Update default branding. Fix PHP license version information. Fix RCE vulnerability. Added possibility to enable endpoint with a custom redirect URL for Microsoft Entra ID using OpenID Connect (Single Sign-On). Add possibility to configure CORS related headers. Register login attempt when successfully logged in using Microsoft Entra ID using OpenID Connect (Single Sign-On). Add visible columns search bar. Obfuscate sensitive data on UI by default with a possibility to reveal them. Lower number of layers in docker image. Upgrade to PHP 8.4.14 and Symfony 6.4. Add audit logs.
v3.0.1	29.01.2025	Ensure that database is empty before migrating from v2.x
v3.0.0	12.07.2024	Initial contents of this document

3 Login

Before using the system you will be asked to authorize yourself. It can be done by providing Username and Password and clicking the “Log in” button.



4 Interface overview

The interface might slightly differ in appearance on different web browsers, due to different ways of rendering the structure of the page.

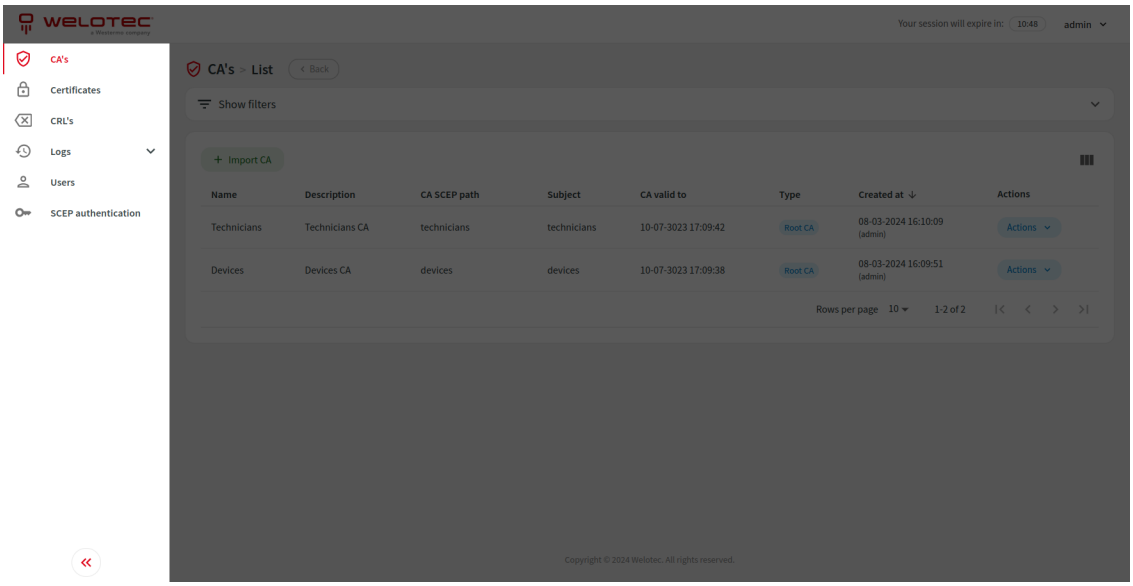
4.1 Branding

The system might be additionally personalized based on your branding needs, therefore screens presented in this document might differ in colour, appearance and branding from the system you are currently using. The structure and general interface of a personalized system remain intact.

4.2 General

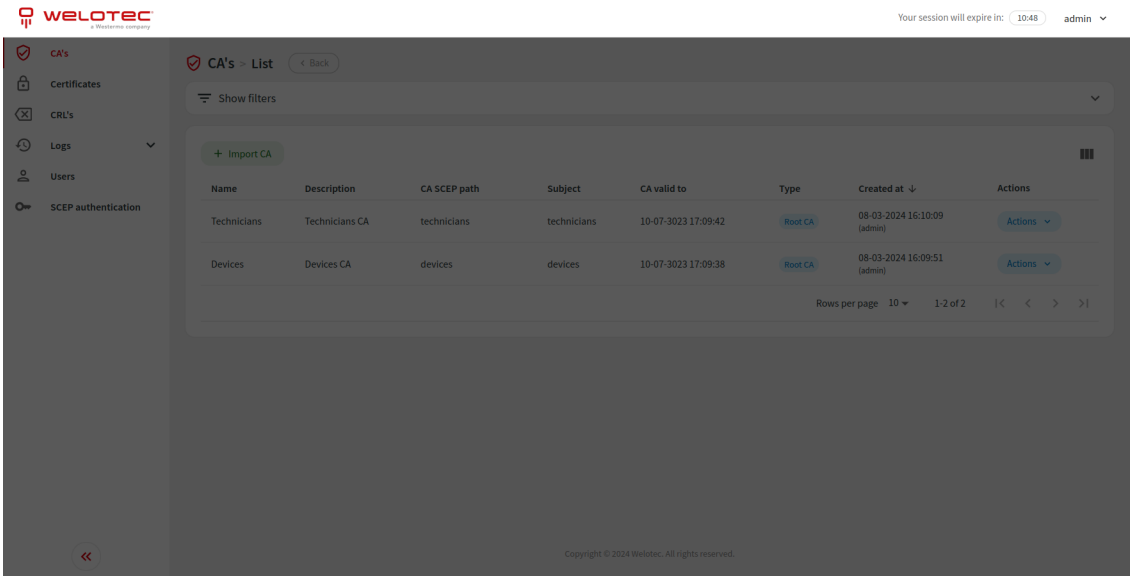
4.2.1 Sidebar

Sidebar is located on the left and holds an expandable menu designed to navigate through the system. Sidebar can also be collapsed to have more space for content.

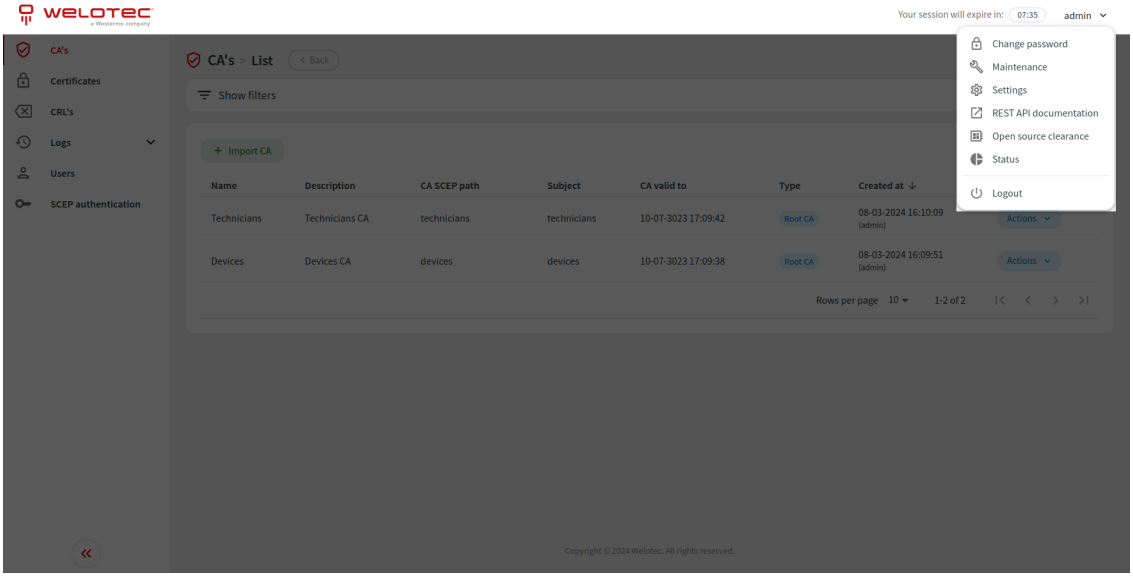


4.2.2 Navbar

Navbar is located at the top and holds information about currently logged-in user and session expiration time.

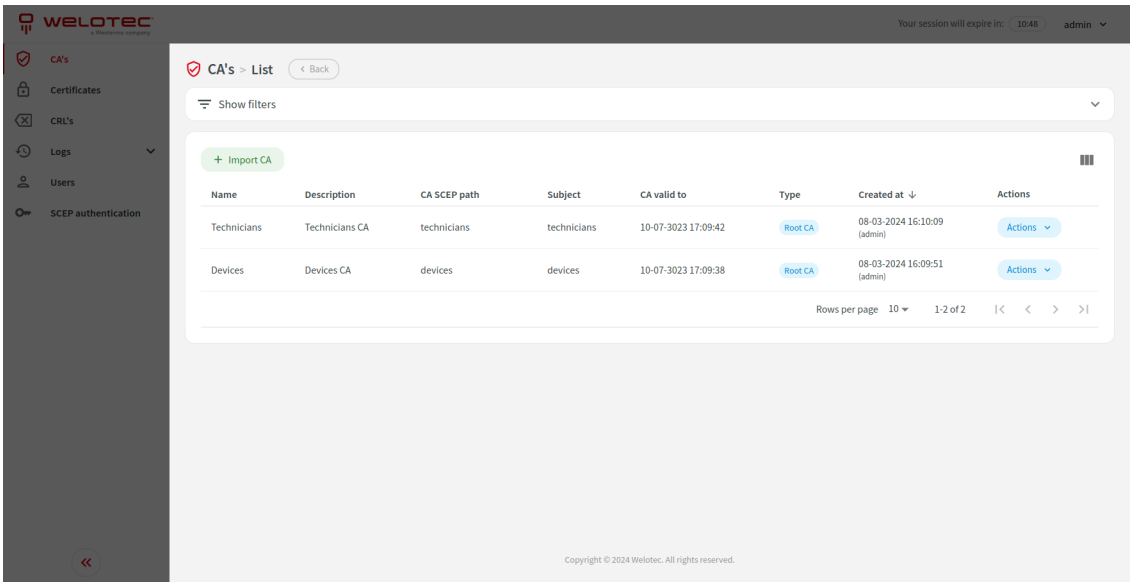


An expandable menu with additional options is available after clicking on the username.



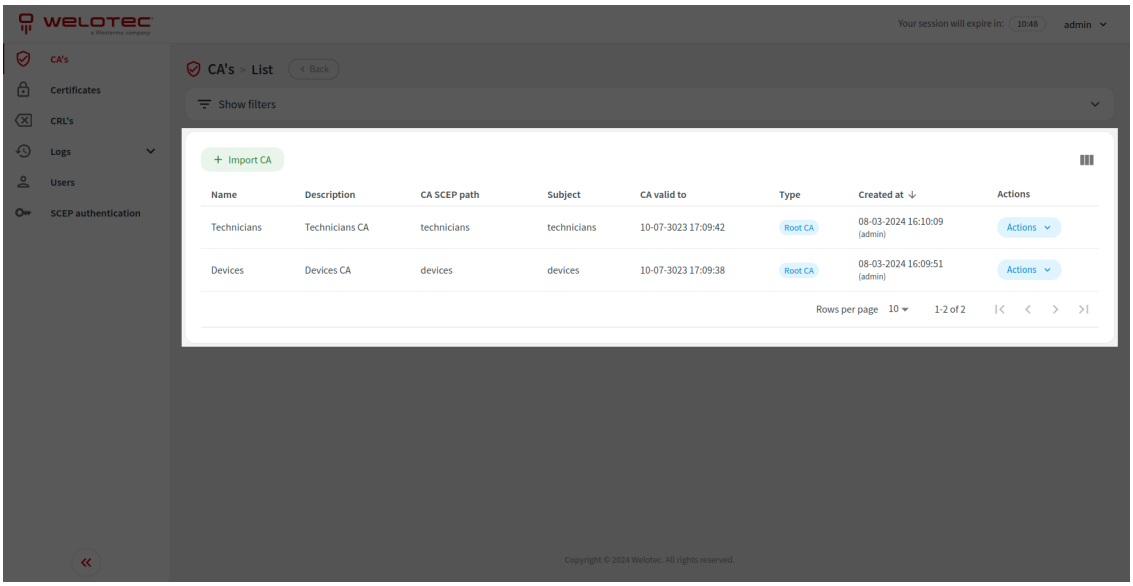
4.2.3 Content

General content is located in the middle and presents selected information.



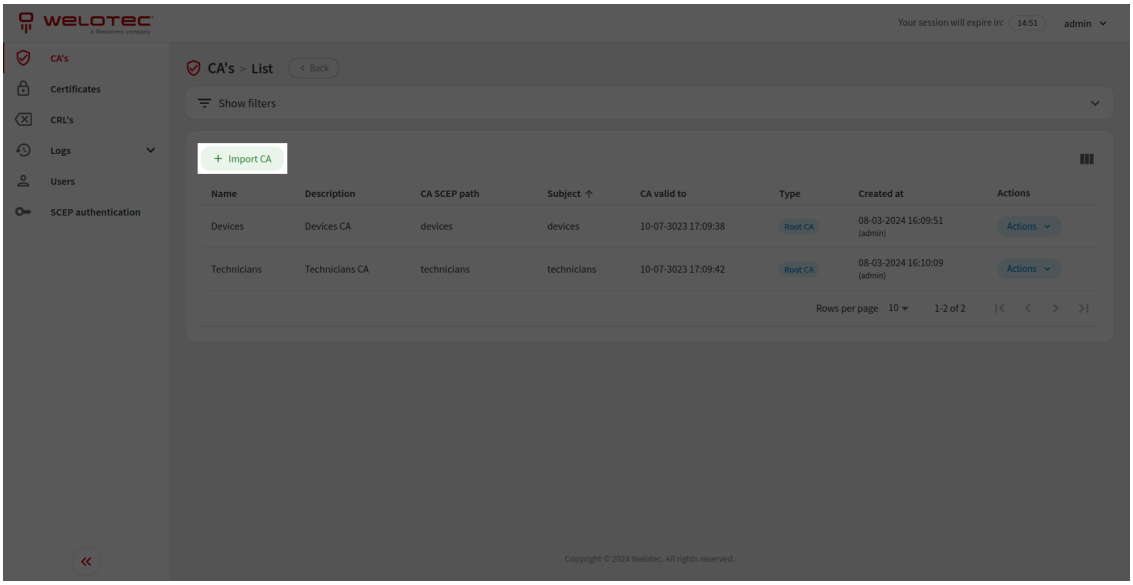
4.3 List view

Inside the content area you can often find a table with columns and rows that presents a list of selected data.



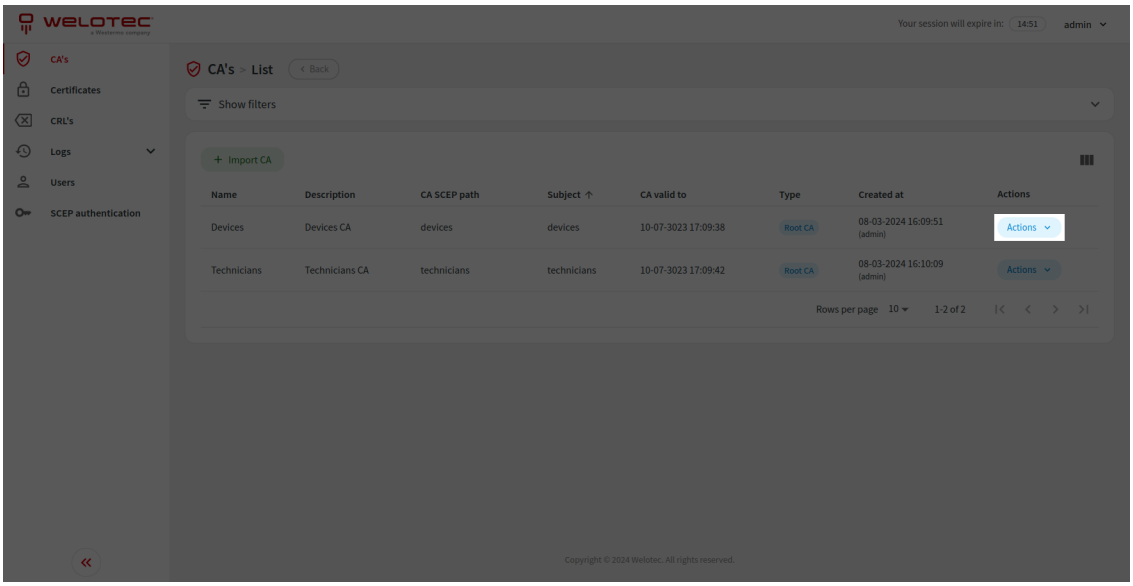
4.3.1 List actions

Most lists allow you to perform actions related to visible data i.e. create or export.



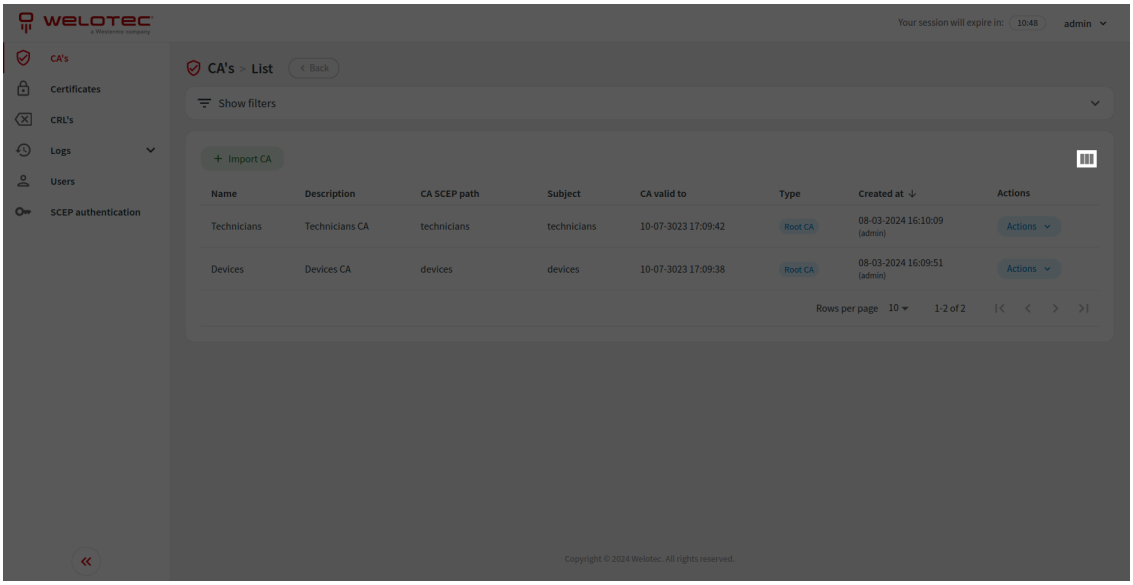
4.3.2 Row actions

In most cases you can also perform actions related to a specific row i.e. edit or delete. Some actions may be disabled, please hover over the disabled button to see a tooltip with detailed information.

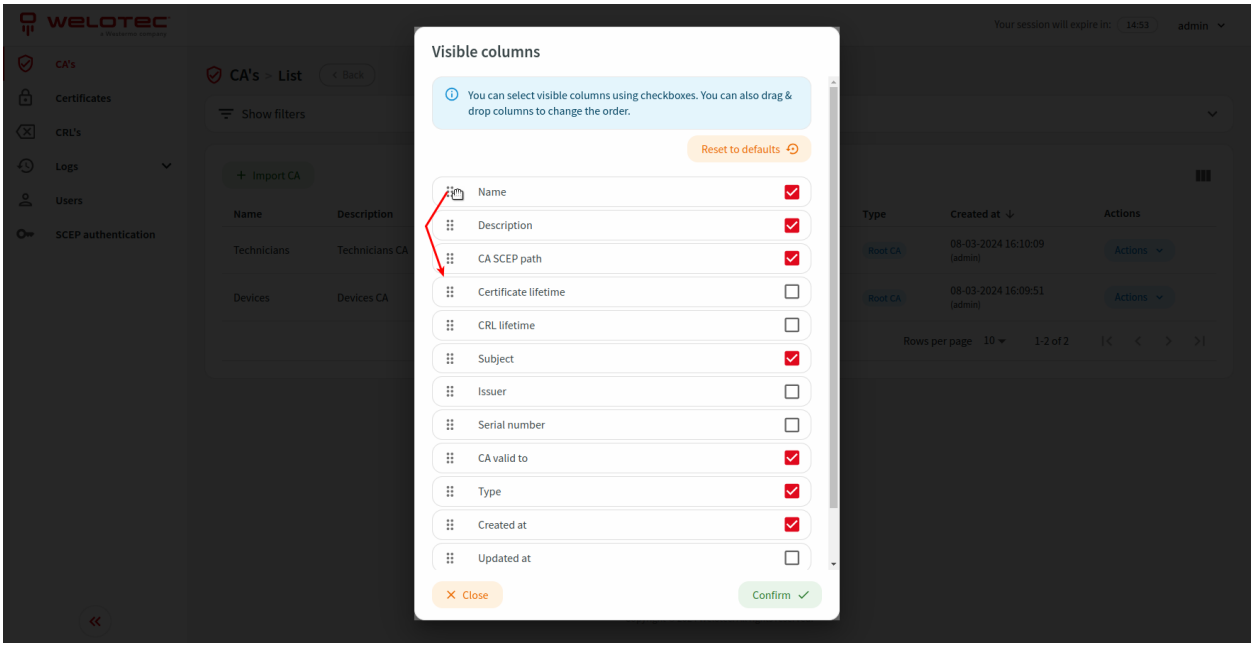


4.3.3 Visible columns

Lists that may have plenty of columns have the possibility to adjust them. Please click the “Adjust visible columns” button.

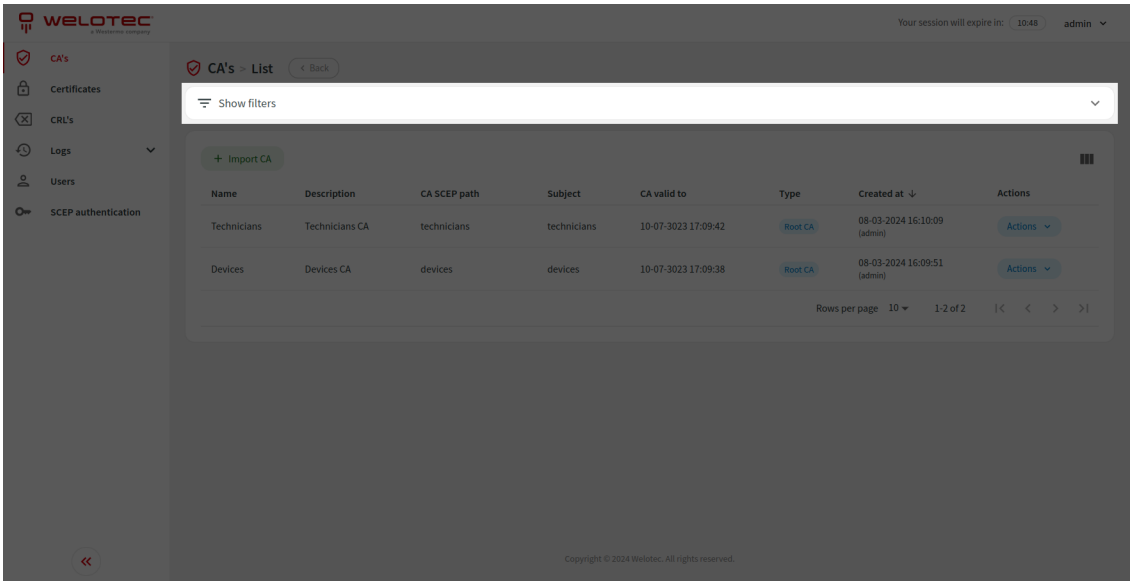


Visible columns dialog will be shown. It will allow you to select visible columns and adjust their order by using the drag & drop technique. Afterward please the changes by clicking the “Confirm” button. You can also reset visible columns to defaults by clicking the “Reset to defaults” button.

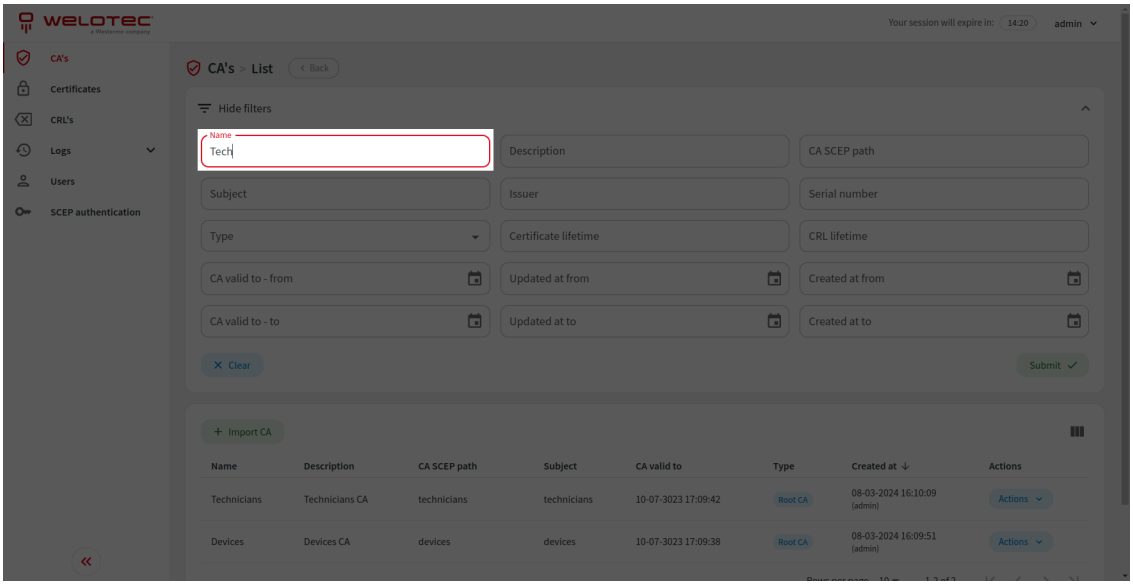


4.3.4 Filtering list results

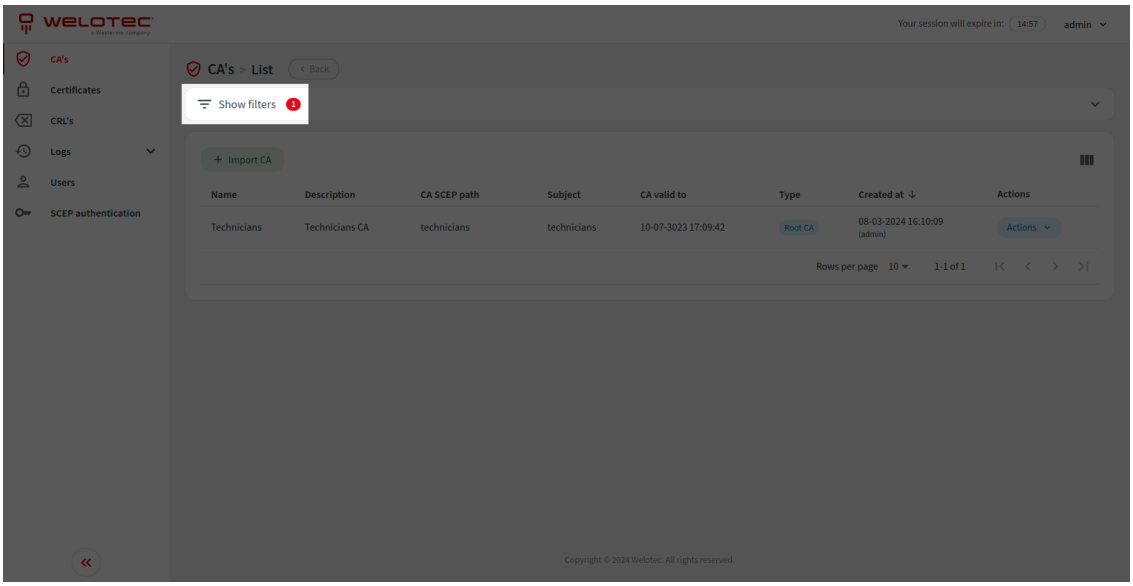
Visible results on the list can be filtered according to available filters. You can find an expandable “Show filters” section.



You can use a specific filter by filling in or choosing the proper value in related input and clicking “Submit”. You can also reset all filters by clicking “Clear”.

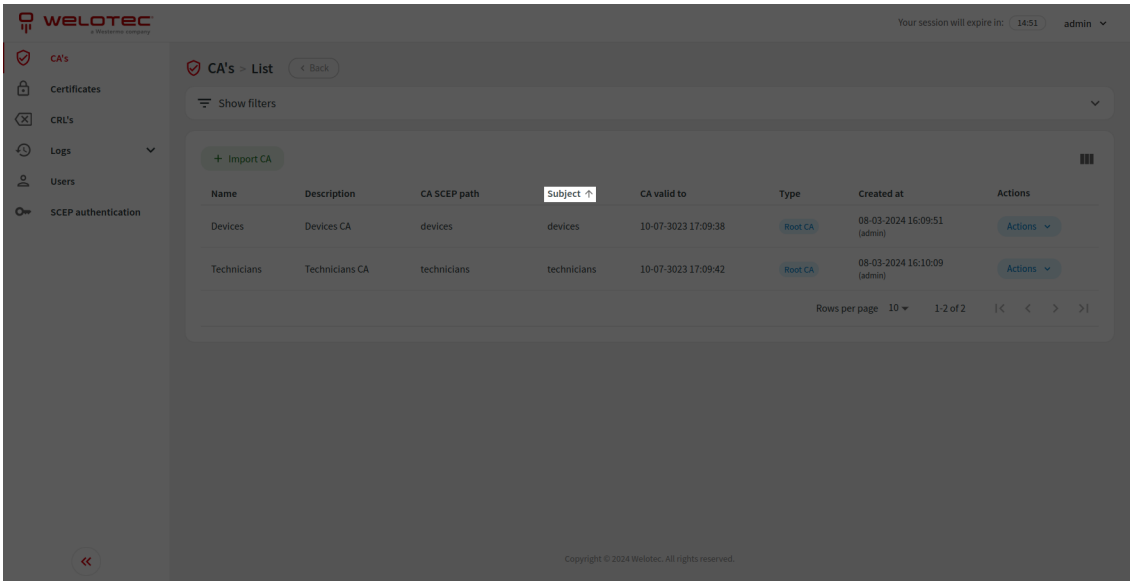


There is an additional indicator (a badge) on the “Show filters” section in case any of the available filters are currently active.



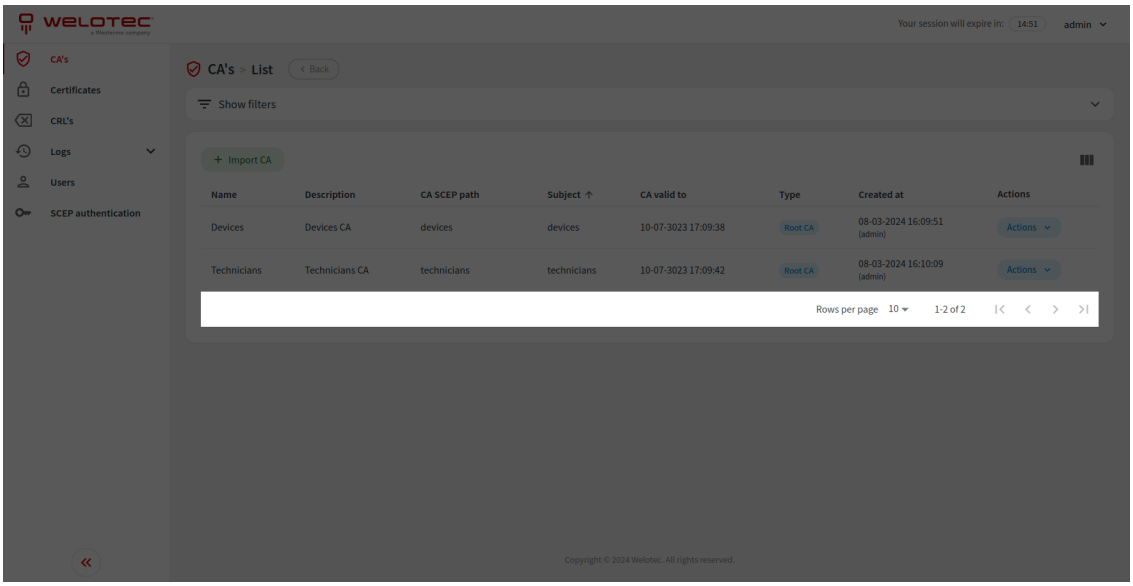
4.3.5 Sorting list results

You can also sort visible results by clicking on the desired column. The second click on the same column will reverse the sorting order.



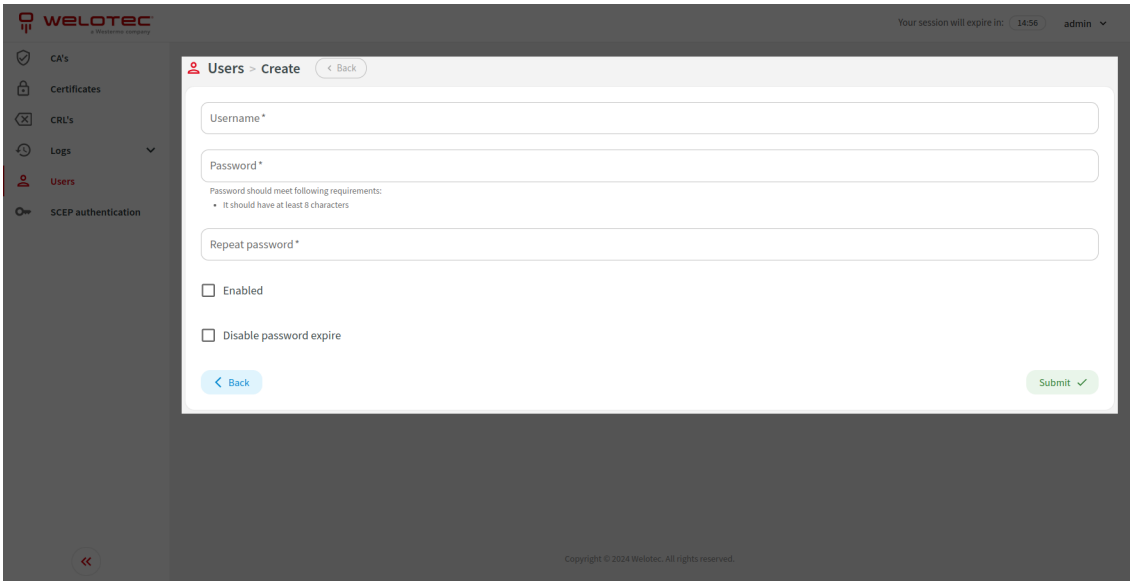
4.3.6 List pagination

Visible results are divided into pages. You can go to a specific page by using the proper button below list results.



4.4 Forms

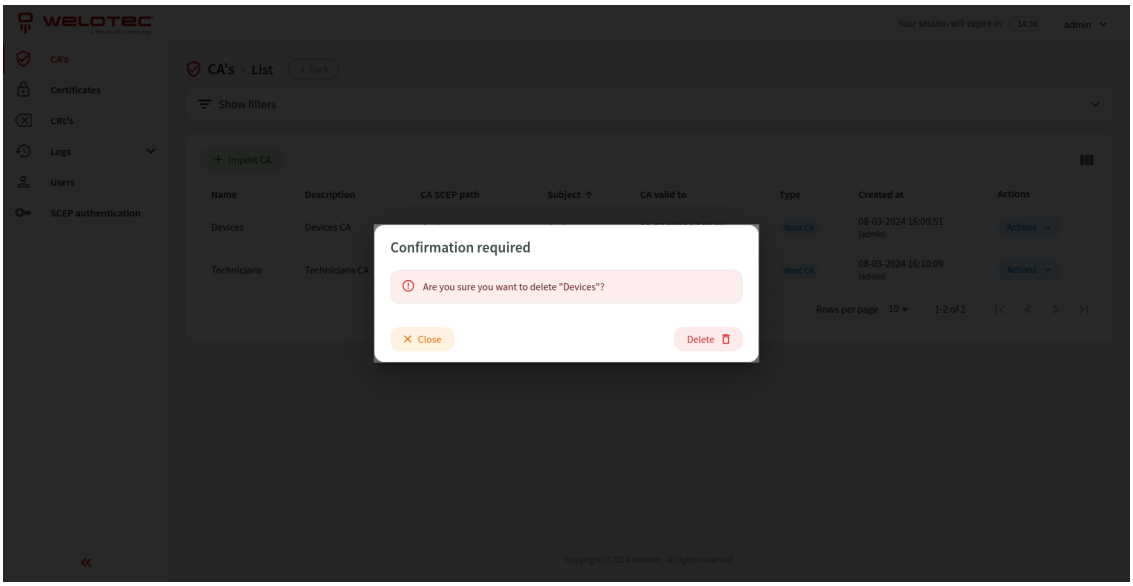
In order to input or change data you will use forms (i.e. to edit or create a device). Such a form consists of inputs that may need filling. When you edit or create information you can click “Submit” to store or update them in our system.



4.5 Dialogs

Modal dialogs appear on top of the content and move the system into a special mode requiring user interaction. This dialog disables the main content until the user explicitly interacts with the modal dialog.

An example use of such dialog is a delete action. In order to perform this action you have to confirm your decision. There are some cases in which deleting some information might lead to additional consequences, you will be informed about them on the delete confirmation screen.



5 Using SCEP Server

5.1 CA's

This section allows you to manage existing certificate authorities. Please be aware that by default only a few selected columns are visible, you can adjust them by using the visible columns functionality.

5.1.1 List actions

You can perform the following extra list actions:

1. Import CA - Redirects to create CA screen

5.1.2 Row actions

You can perform the following extra actions on a single row:

1. Actions - Expandable group of actions.
    1. Edit - Redirects to edit screen for selected CA.
    2. Delete - Opens delete confirmation dialog for selected CA.
    3. CA's certificates - View certificates for the selected CA.
    4. CA's CRL's - View CRL's for the selected CA.
    5. CA's logs - View SCEP logs for the selected CA.
    6. Show CA certificate trust chain - Visible only for CA's with intermediate CA. Open dialog with trust chain for the selected CA.
    7. Show CA certificate - Open dialog with public certificate for the selected CA.
    8. Show CA private key - Open dialog with private key for the selected CA.
    9. Show CRL - Open dialog with CRL for the selected CA.

5.2 Certificates

This section allows you to manage existing certificates. Please be aware that by default only a few selected columns are visible, you can adjust them by using the visible columns functionality.

5.2.1 Row actions

You can perform the following extra actions on a single row:

1. Certificate - Open dialog with contents of the selected certificate.
2. Show CA certificate - Open dialog with CA public certificate of the selected certificate.
3. Revoke - Visible only for signed certificates. Revoke the selected certificate.

5.3 CRL's

This section allows you to manage existing CRL's (Certificate Revocation Lists). Please be aware that by default only a few selected columns are visible, you can adjust them by using the visible columns functionality.

5.3.1 Row actions

You can perform the following extra actions on a single row:

1. Show CRL - Open dialog with contents of the selected CRL.

5.4 Logs

5.4.1 Login attempts

This section allows you to view a list of login attempts.

5.4.2 SCEP logs

This section allows you to view a list of logs . Please be aware that by default only a few selected columns are visible, you can adjust them by using the visible columns functionality.

Row actions

You can perform the following extra actions on a single row:

1. Show content - Open a dialog with the contents of a request that is connected to the selected SCEP log.

5.5 Users

This section allows you to manage existing users.

5.5.1 Row actions

You can perform the following extra actions on a single row:

1. Change password - Allows you to change password for the selected user.
2. Reset secret - Allows you to reset secret for the selected user. Only available when two-factor authentication is enabled in the system.
3. Reset login attempts - Allows you to reset login attempts for the selected user. Only visible when the user exceeded the configured limit for failed login attempts.

5.5.2 Disabled users

Disabled users will not be able to log in to the system. They will be informed that their account is disabled on the login screen.

5.6 SCEP authentication

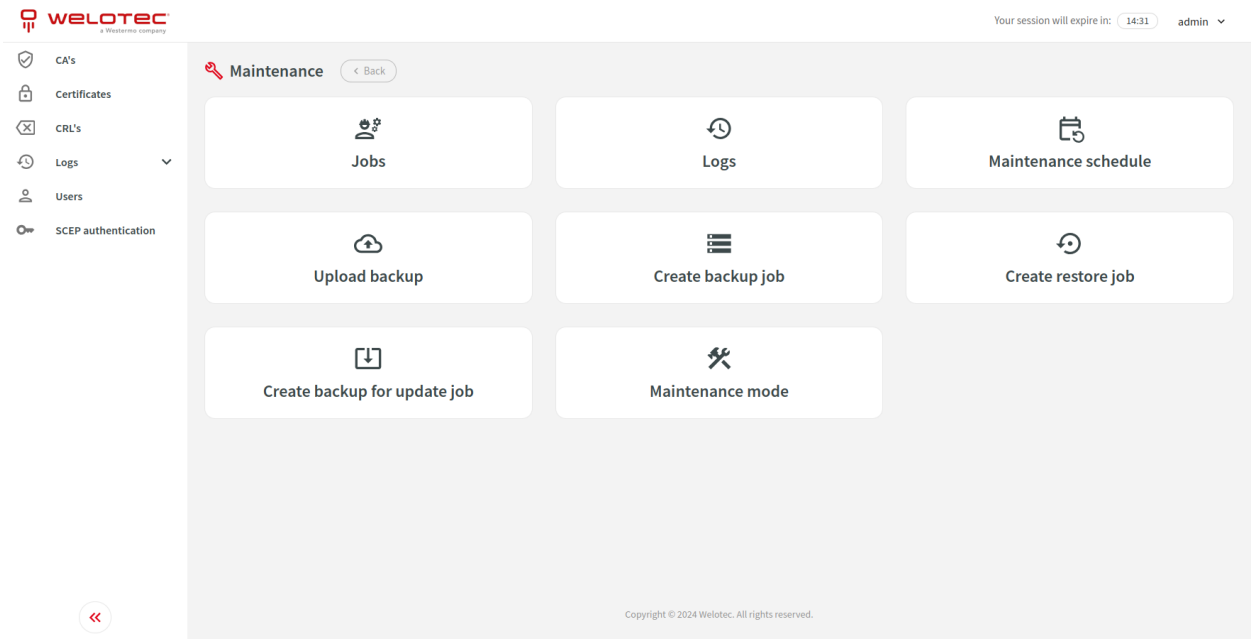
This section allows you to manage existing SCEP authentication.

5.6.1 Disabled SCEP authentication

Disabled SCEP authentication will not be able to log in to the system. The system will respond with a 401 Unauthorized response status code.

6 Maintenance

You can access the maintenance screen in the navbar menu.



6.1 Jobs

This section allows you to view a list of existing maintenance jobs. Maintenance jobs are executed roughly every minute.

6.1.1 Row actions

You can perform the following extra actions on a single row:

1. Download - Download the backup file. Available only for successful backup maintenance jobs.
2. Logs - View maintenance logs for the selected maintenance job.

6.2 Logs

This section allows you to view a list of existing maintenance logs.

6.3 Maintenance schedules

This section allows you to manage maintenance schedules. Maintenance schedules allow you to define recurring backups.

6.4 Upload backup

This section allows you to upload a backup file. The uploaded backup will be placed in the “backup/” folder located in “/var/www/application/archive” which is by default on the “scepserver-volume-archive” volume.

6.5 Create backup job

This section allows you to create a single backup job. After submitting the form, a backup maintenance job will be created.

6.6 Restore backup job

This section allows you to restore a backup from a file. The list of archives to restore is loaded from “backup/” folder located in “/var/www/application/archive” which is by default on “scepserver-volume-archive” volume. After submitting the form, a restore maintenance job will be created.

Be careful! Restoring a corrupted or invalid version of a backup will cause the application to malfunction.

6.7 Create backup for update job

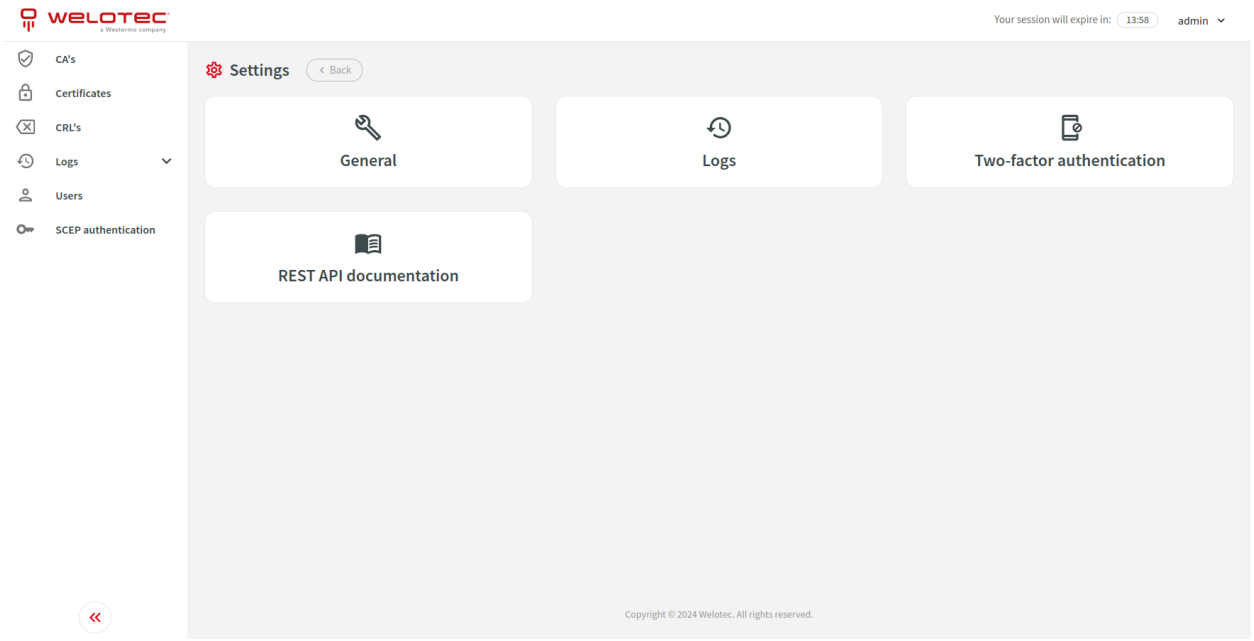
This section allows you to create a backup for update job. It is recommended to activate maintenance mode before preparing a backup for update. After submitting the form, a backup for update maintenance job will be created.

6.8 Maintenance mode

This section allows you to enable or disable maintenance mode. Enabling maintenance mode will reject device communication and disallow access to the application for every user except administrators.

7 Settings

You can access the settings screen in the navbar menu.



7.1 General

This section allows you to adjust general settings for the system i.e. automatically remove backups, login and password restrictions.

7.2 Logs

This section allows you to adjust settings for cleanup duration and size of different types of logs.

7.3 Two-factor authentication

This section allows you to adjust settings for two-factor authentication (TOTP).

7.4 Single Sign-on (SSO)

This section allows you to adjust settings for single sign-on (SSO).

7.4.1 Microsoft Entra ID with OpenID Connect

You can configure SCEP Server to use OpenID Connect to sign-in users via Azure portal App.

You can find “Application (client) ID” and “Directory (tenant) ID” in your Azure Application under “Overview”. You can read more about “Credential” options below. Please refer to “Roles” section under “Azure Application configuration” and fill “Role mappings”.

After clicking “Submit”, a new button “Log in using Microsoft” will be visible on SCEP Server login screen.

Client secret credential

On your Azure Application please navigate to “Certificates & secrets” (“Manage” section), click “New client secret”, fill the form according to your needs and click “Add”. Value in “Value” of created client secret will be needed to configure SCEP Server.

Uploaded certificate credential

Please upload public and private key. Public key should be uploaded to your Azure Application on “Certificates” tab in “Certificates & secrets” (“Manage” section).

Generated certificate credential

You can generate public and private key by checking “Generate public and private key” and saving the form. You will be able to view or download generated public key afterwards. It should be uploaded to your Azure Application on “Certificates” tab in “Certificates & secrets” (“Manage” section).

Azure Application configuration

Please navigate to “App registrations”, select your application and navigate to “Authentication” (“Manage” section). Please add platform for “Web” and add to “Redirect URIs” your SCEP Server URL followed by `/authentication/sso/microsoftoidc/login` (i.e. `https://example.com/authentication/sso/microsoftoidc/login`).

Please navigate to “Certificates & secrets” (“Manage” section) and configure it according to selected “Credential” in SCEP Server.

`preferred_username` claim can be used to have human readable username for the user. In order to use it please navigate to “Token configuration” (“Manage” section) and click “Add optional claim”. Select “Token type” `ID`, check `preferred_username` claim and click “Add” to apply the changes.

In order to support front-channel logout (recommended) please also configure “Front-channel logout URL”. Use your SCEP Server URL followed by `/web/api/authentication/sso/microsoftoidc/logout` (i.e. `https://example.com/web/api/authentication/sso/microsoftoidc/logout`). You also need to adjust token configuration. Please navigate to “Token configuration” (“Manage” section) and click “Add optional claim”. Select “Token type” `ID`, check `sid` claim and click “Add” to apply the changes.

Roles

In order to assign roles to specific groups or users please navigate to “App roles” (“Manage” section). Please click “Create app role” and fill the form according to your needs. Please take into consideration that value set in “Value” field is used by SCEP Server to map roles in the application.

In order to map roles in SCEP Server please navigate to “Settings” (click on your username in top right corner) and “Single sign-on (SSO)”. Under “Role mappings” you can set user permissions for each role that has been created in “App roles”.

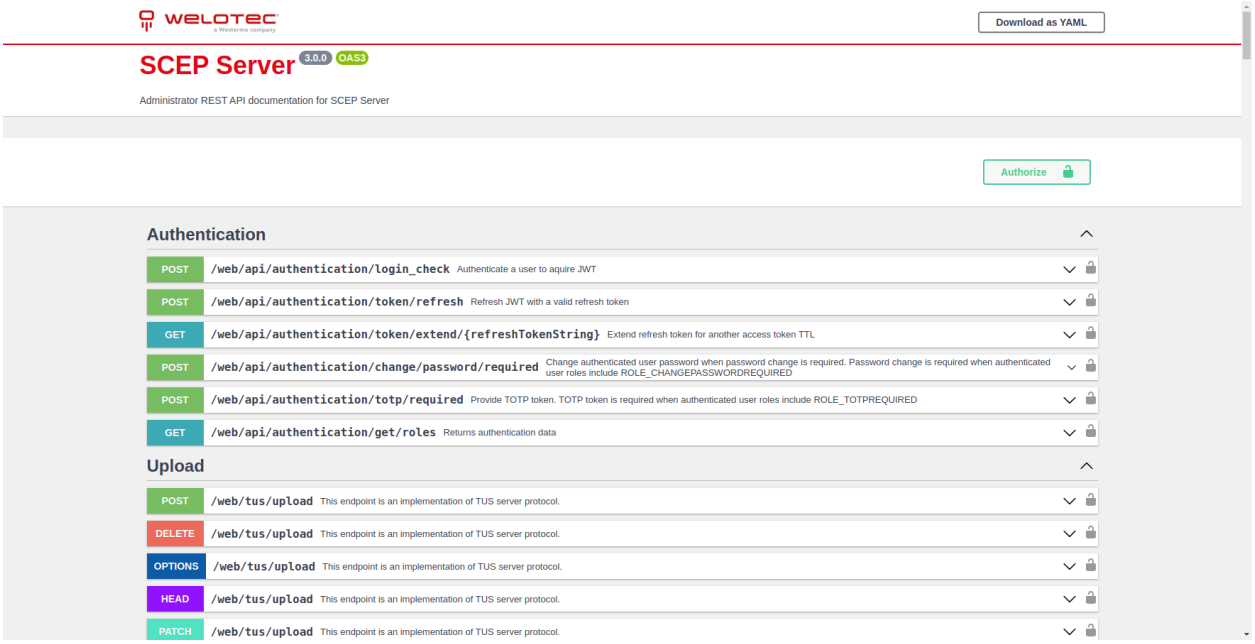
7.5 REST API documentation

This section allows you to enable or disable REST API documentation for specific users.

8 REST API Documentation

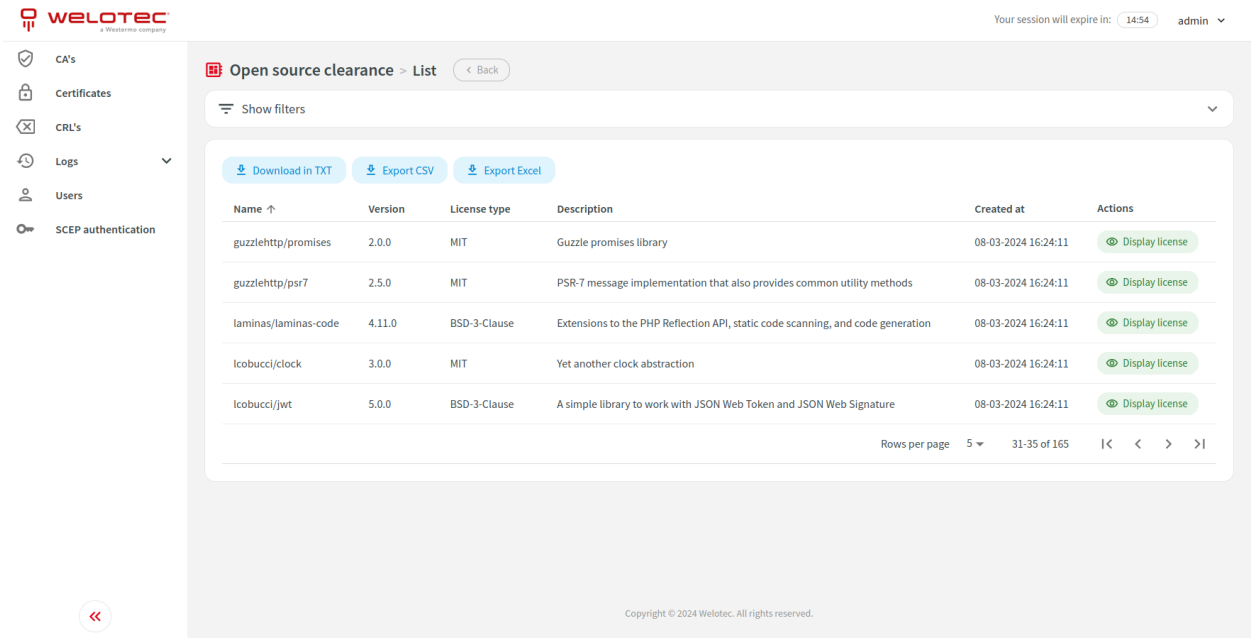
You can access REST API documentation in the navbar menu. This option might be disabled by the Administrator.

This screen allows you to read through REST API documentation described using OpenAPI 3.0 (OAS 3.0) standard and visualised by Swagger UI. You can also download the OpenAPI specification as a YAML file by clicking the “Download as YAML” button in the top right corner.



9 Open source clearance

You can access the open source clearance screen in the navbar menu.



9.1 List actions

You can perform the following extra list actions:

1. Download in TXT - Download open source clearance as a TXT file.

9.2 Row actions

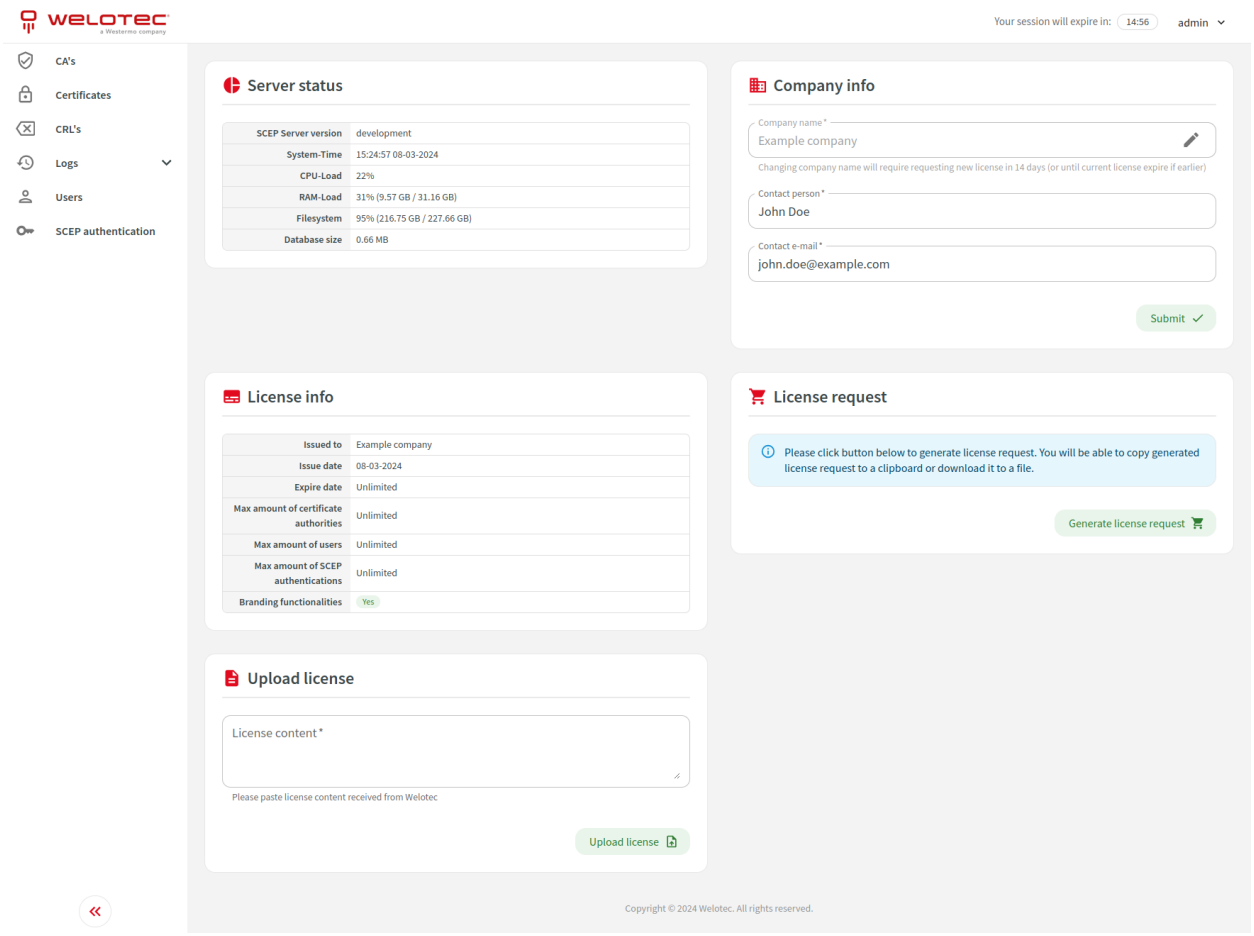
You can perform the following extra actions on a single row:

1. Display license - Open a dialog with the license.

10 Status and license

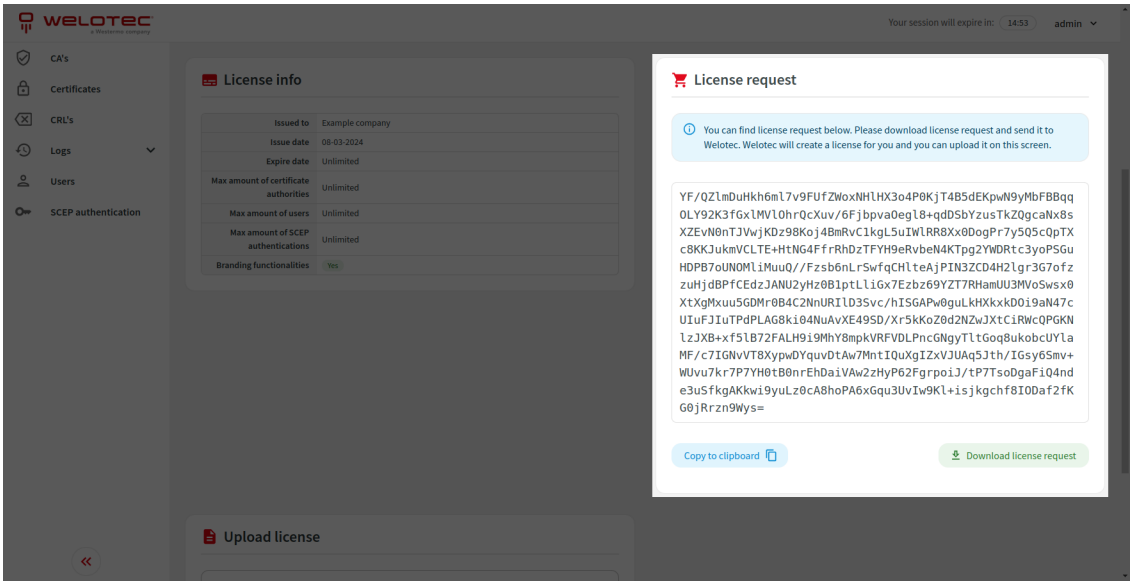
You can access the status and license screen in the navbar menu.

This screen allows you to see server status, license status, adjust company information, generate license request and upload license.

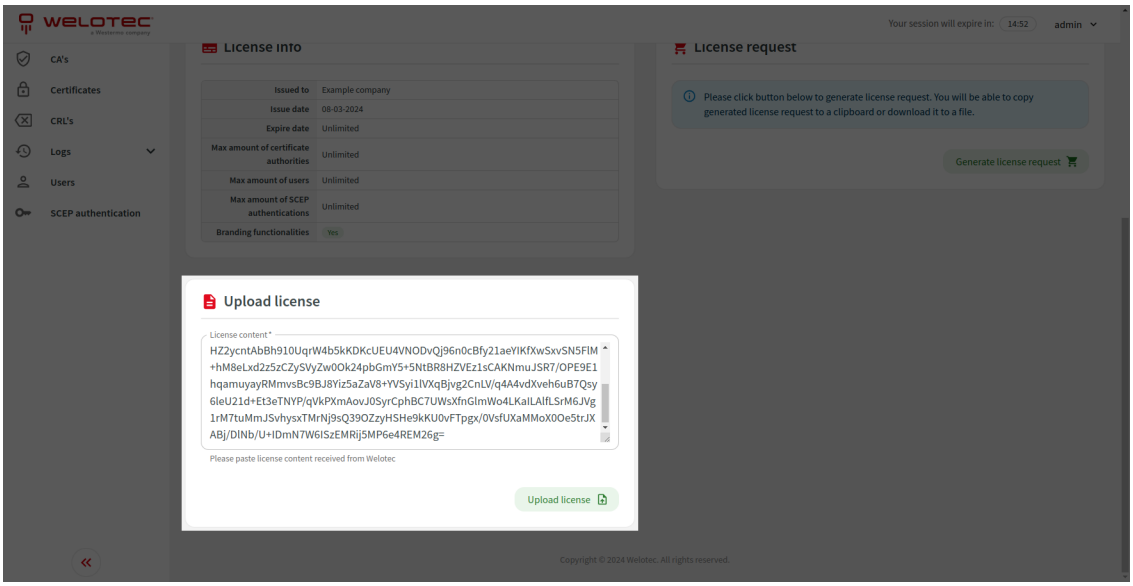


10.1 Requesting license

You can request a license by clicking “Generate license request”.



License request will be shown. You can copy it to a clipboard or download it to a file. Please send generated license request to Welotec so we can generate an appropriate license for you. The generated license should be uploaded to the system using the “Upload license” form.



10.2 License expiration

In case of license expiry, the system will switch back to the demo license. When the demo license expires, the system will run in maintenance mode.

11 OSS clearings

You can find OSS clearings under following link: OSS Licenses