

swidch

# OTAC auth Client Install Guide



**V 1.0.0**

**swidch Ltd.**

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## Introduction

This document is intended for administrators who will be using the OTAC auth Client app available on the PLCNext Store and the mobile app on Google Play store and Apple Apple store. This mobile app works together with the backend OTAC service that typically protects web applications such as a PLC application. The mobile app generates a One Time Authentication Code (OTAC) which is the world's first one-way dynamic authentication technology that enables users to authenticate to PLC devices via their phone.

This client app is installed on every PLC that you want to protect with OTAC. The client app talks to the server app (installed typically on an edge device) to validate OTAC.

- **App Details:** Experience rapid and secure user/device authentication through OTAC's 8-character code.
- **Quick and Easy, No Registration:** Streamlined authentication without the hassle of sign-up or login processes. Your privacy is paramount; no personal information required.
- **Secure Authentication with OTAC Code:** Ensure robust security with time-sensitive OTAC codes. Safely access your accounts using a code that expires after a specific duration.
- **Manage Multiple Accounts Easily:** Effortlessly authenticate multiple accounts using a single OTAC auth app. Register and manage up to 20 accounts securely.

## Download the App

### PLCNext Store

You can download the OTAC auth client app from the PLCNext Store:



[OTAC auth - MFA Client](#)

### Mobile App

You can download the OTAC auth app from the respective Google and Apple app stores:



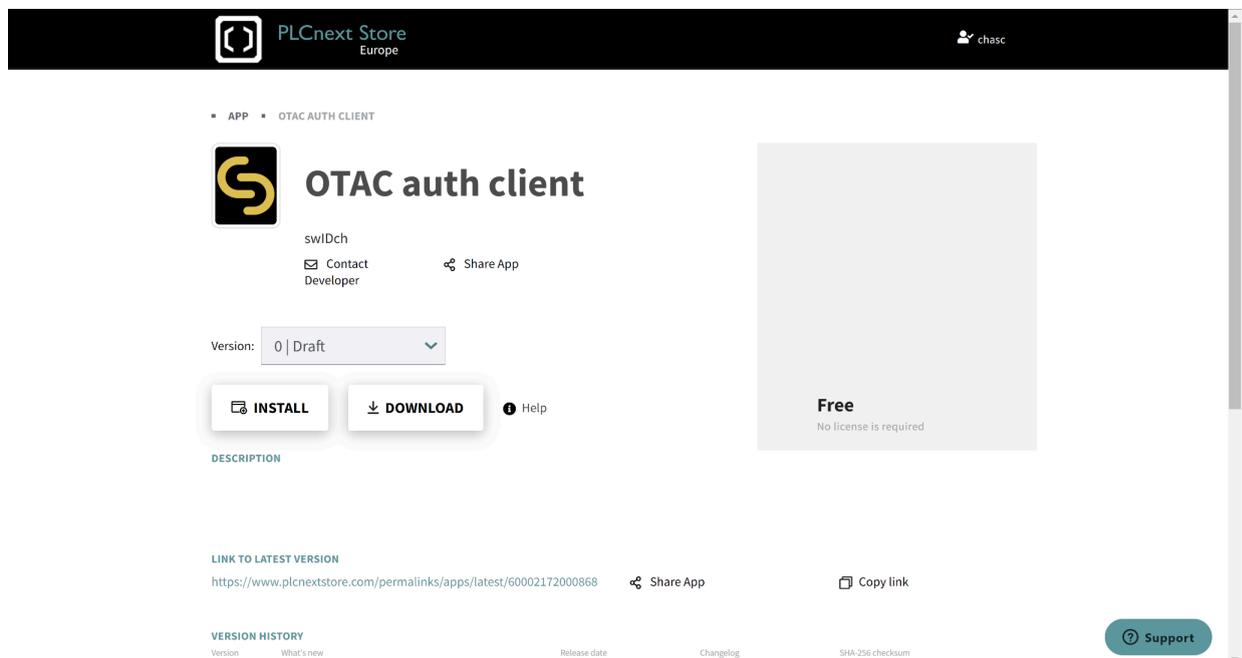
## Prerequisites

This client app only works with server app: [OTAC auth - MFA for PLCnext](#). Make sure you have installed the server app, gone through the install and design guides and also applied for the licenses for the server, Once you have done that you will have to:

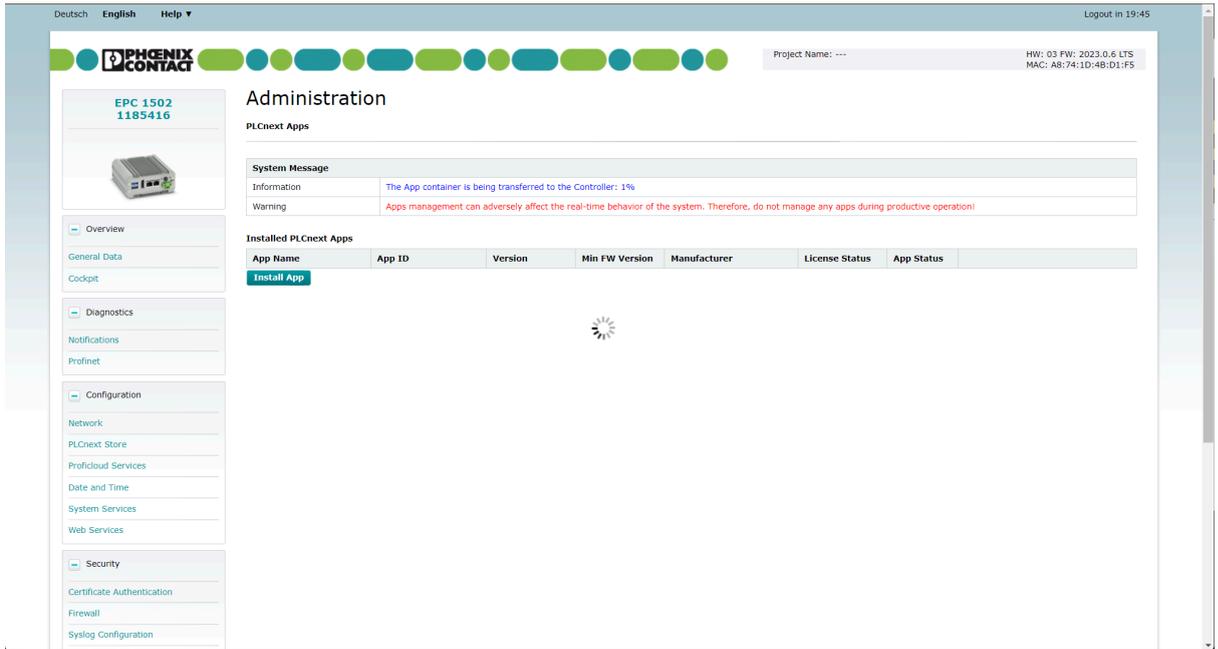
- Install the clients app
- Get the PLC's serial number. This is necessary for generating a license file
- Contact swIDch with the serial number to obtain a license file
- Set the IP address of the server.
- Apply the license file.

## Installation

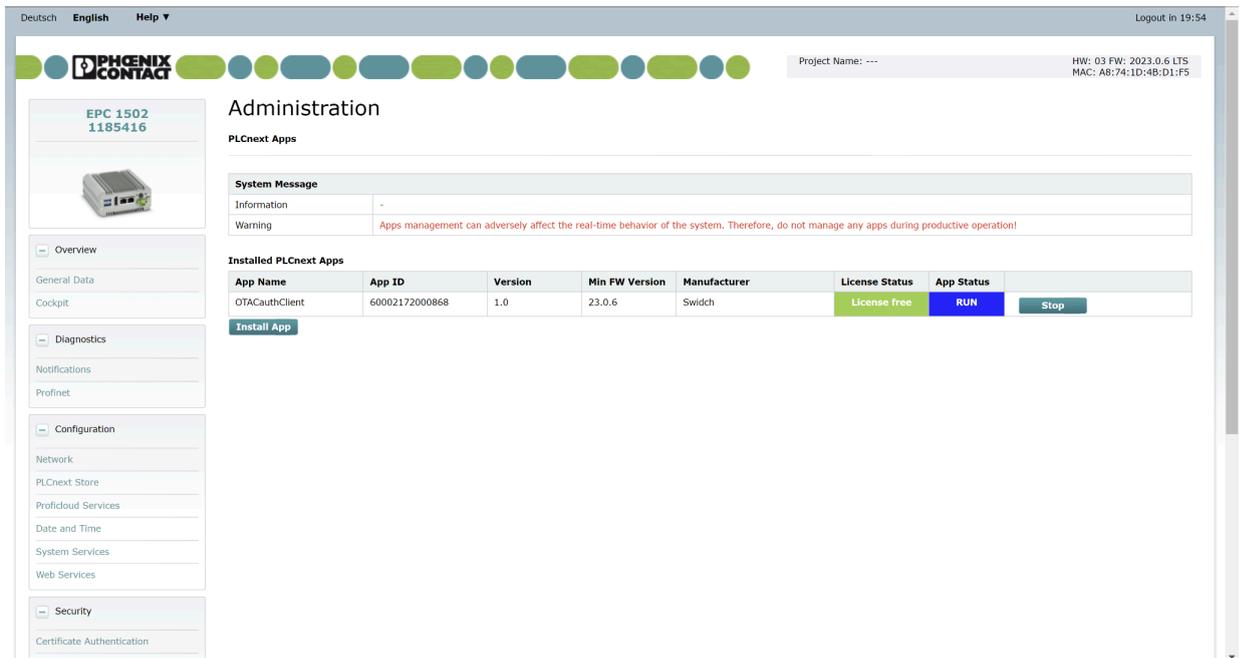
- Goto the PLCNext store and search for [OTAC auth client](#).



- 
- Click on Download to download the app file.
- Logon to WBM of the PLC



- 
- Navigate to Administration > PLCnext Apps and click on install app. Browse for the app file you downloaded from the store.
- The app will take a few minutes to transfer, after which click on start



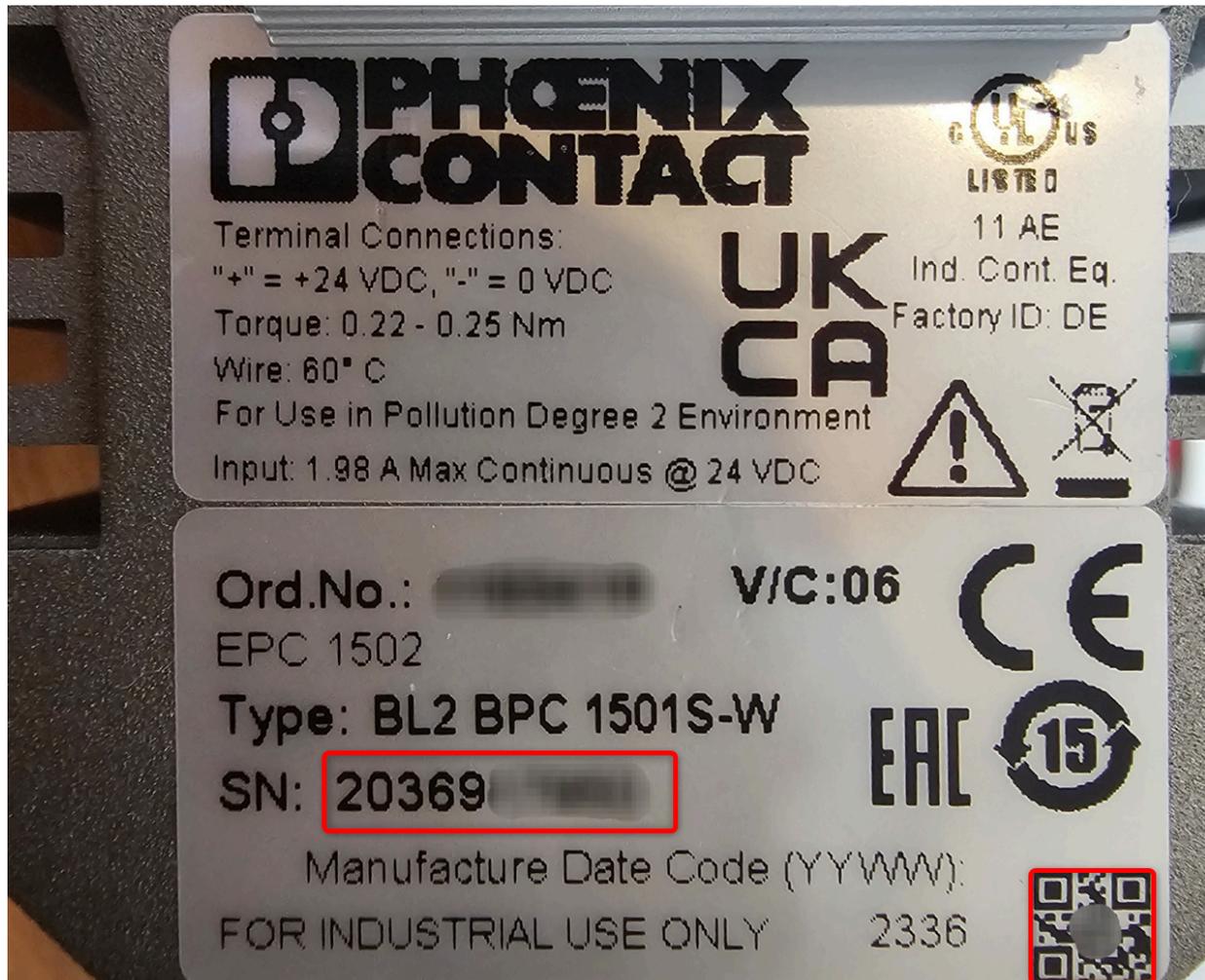
- 
- Once the app is installed, the PLC will reboot.

## Getting the PLC's serial number:

The license for the client is tied to the serial number of the PLC. You can obtain the serial number in two ways:

### Printed on the PLC

On the back of the plc you have SN printed along with a QR code to quickly scan the serial number.



### Using a script

We provide a folder called userScripts under `/opt/plcnext/userScript` that provides sh scripts to get the serial number, register a license and configure the server's IP address.

- To get the serial number from within the PLC, SSH into the PLC.
- Navigate to "`/opt/plcnext/userScript`" folder.

```
admin@epc1502:~$ cd userScript/  
admin@epc1502:/opt/plcnext/userScript$
```

- You will have to run the script `GetSerial.sh` with root permission.
- In order to run the script as root, you will have to set a password, If you haven't done that already: use the "`sudo passwd root`" command. You will be prompted for the current password followed by the new password you want to set for the root.

```
admin@epc1502:~$ sudo passwd root  
  
We trust you have received the usual lecture from the local System  
Administrator. It usually boils down to these three things:  
  
#1) Respect the privacy of others.  
#2) Think before you type.  
#3) With great power comes great responsibility.  
  
Password:  
New password:  
Retype new password:  
passwd: password updated successfully
```

- Use the "`su`" command to switch to root and provide the root password when prompted.

```
admin@epc1502:/opt/plcnext/userScript$ su  
Password:
```

- No run the "`sh GetSerial.sh`" command to get the PLCs serial number.

```
root@epc1502:/opt/plcnext/userScript# sh GetSerial.sh  
2036!
```

Please contact [license@swidch.com](mailto:license@swidch.com) with the PLC's serial number to obtain a license file.

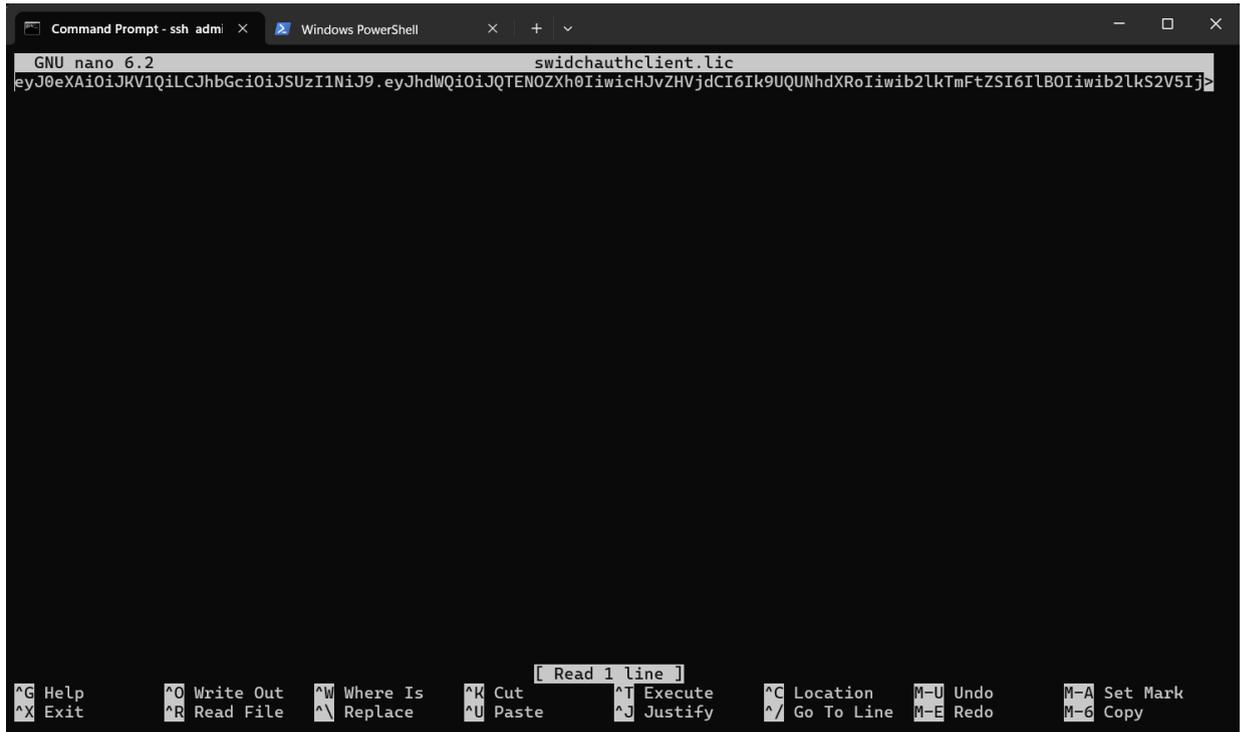
## Applying the License

Once you have obtained the license file, copy the contents of the file.

- SSH into the PLC
- Navigate to the "`/opt/plcnext/otac/licenses`" folder

```
admin@epc1502:/opt/plcnext$ cd otac/license/  
admin@epc1502:/opt/plcnext/otac/license$ |
```

- Use the following command to edit the license file "`nano swidchauthclient.lic`"
- In the editor pate in the contents of the license file you received



```
GNU nano 6.2 swidchauthclient.lic
eyJ0eXA10iJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJQTEN0ZXh0IiwicHViIjoiJmFtZSI6IjEwIiwiaWF0IjoiYXNjaWV1b2lkS2V5Ij>
```

Terminal window showing the nano text editor editing a license file named 'swidchauthclient.lic'. The license key is a long string of alphanumeric characters. The terminal window title is 'Command Prompt - ssh admin' and 'Windows PowerShell'.

- Press ctrl + x and then Y and enter to exit and save the file.
- Reboot the PLC for the license to take effect.

## Setting the Server IP

- SSH into the PLC
- Navigate to “/opt/plcnext/userScript/” folder.

```
admin@epc1502:~$ cd userScript/
admin@epc1502:/opt/plcnext/userScript$
```

- You will have to run the script `change-ip.sh` with root permission.
- In order to run the script as root, you will have to set a password, If you haven't done that already: use the “`sudo passwd root`” command. You will be prompted for the current password followed by the new password you want to set for the root.

```
admin@epc1502:~$ sudo passwd root

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

#1) Respect the privacy of others.
#2) Think before you type.
#3) With great power comes great responsibility.

Password:
New password:
Retype new password:
passwd: password updated successfully
```

- Use the “`su`” command to switch to root and provide the root password when prompted.

```
admin@epc1502:/opt/plcnext/userScript$ su
Password:
```

- Set the ip address of the server by typing in the following command “`sh change-ip.sh` `<Server IP>`”

```
root@epc1502:/opt/plcnext/userScript# sh change-ip.sh 192.168.1.100
The ip address you entered: 192.168.1.100
Change success. Please reboot to apply the configuration changes.
```

Once the IP has been applied, reboot the PLC for changes to take effect.

**Please Note:** The client license is a one-time fee per PLC device, starting at £40 (approx €47) per PLC.

License is valid for the lifetime of the device, regardless of number of registered users or number of authentication requests. License is non-transferrable.

Maintenance is available at 20% per annum - covers software upgrades, patches and technical support.