Partner Tech

CLOUD DEVICE MANAGEMENT

White Paper: Cloud Device Management

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1 About this Document

You find the latest version of this document at https://partner-tech.eu/cdm

This document provides a deep insight of Partner Tech's Cloud Device Management, so called CDM. In the first section it is described how companies can benefit from different business models depending on their IT infrastructure. Following the business models the server-side solution and the client application of the CDM is introduced, with its different functionalities and user scenarios.

2 Why is a device management tool needed?

Traditionally, errors and losses occur when firmware or software upgrades are required. Technicians need to identify the problems, fix them and often have to re-install on site. The on- site service leads to a delay of repair and costs that could have been prevented. With a device management tool technicians can analyze and fix the problem remotely. Furthermore, a device management tool is needed to track and manage users' inventory to see the kind of and the number of devices that are installed in the field.

3 What is Partner Tech's Cloud Device Management?

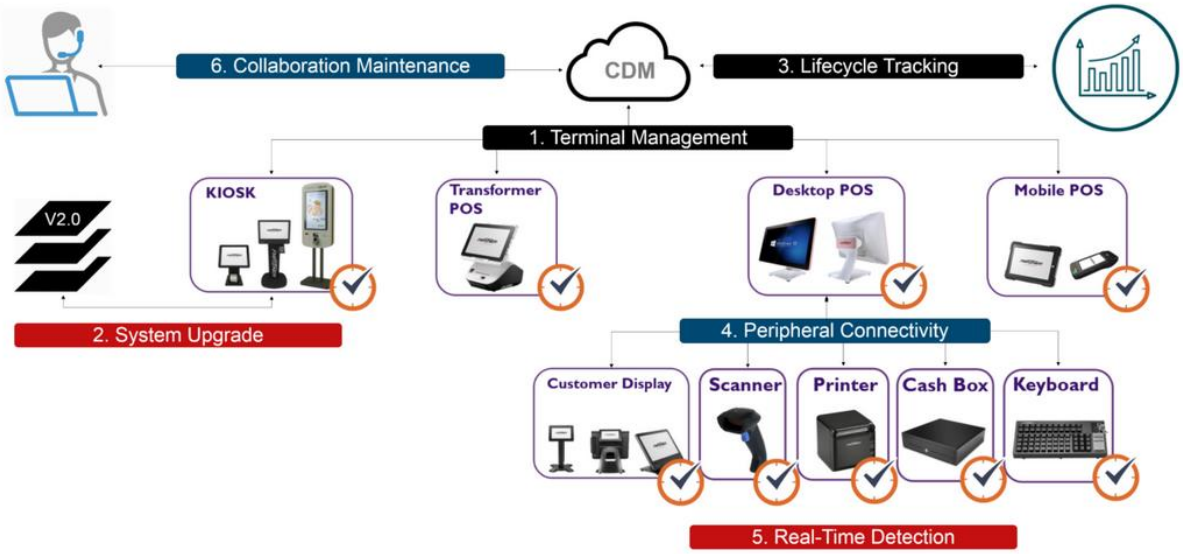
The CDM is a cloud-based solution that supports and helps technicians of the IT department or the Head Quarter of an ISV to remotely control and manage all POS terminals from Desktop POS, to Mobile POS and Kiosk solutions.

It provides the functionality to monitor all devices, to check their health status, to update hardware or any software application or even reinstall complete backups of your system. This can be done remotely with one terminal, a group of terminals or all terminals with just a few mouse clicks. The CDM also helps to set up a preventive maintenance system in order to predict hardware failures of the storage for example.

Key Features

1. Device Management
2. Inventory Management
3. Lifecycle Tracking
4. Hardware and Software Updates

5. Collaborative Maintenance
6. Software Distribution
7. Monitoring Peripherals
8. Task Management
9. Group Management
10. User Management
11. System Management



4 Business Models

4.1 Scenario 1: Users chooses cloud server hosted by Partner Tech Europe

The easiest and quickest way to get started with the CDM is to use the server environment hosted by Partner Tech. A company's IT administrator will receive an invitation from Partner Tech with his credentials to log into the server application, which is available at https://cdm.partner-tech.eu. There the company's IT administrator can add additional users, configurate the devices and can download the client software.

The main benefits of using the hosted server by Partner Tech is that users don't have to invest in own server infrastructure nor worry about maintaining the server or installing regularly updates. Partner Tech Europe is using only servers that are located in highly secure data centers in Germany. By providing this Software as a Service Partner Tech Europe is taking care of all the IT administration and customers can focus on their work.

The CDM server application allows multiple companies and multiple administrators in one account. That means customers will get a Super Administrator account and can create multiple company administrators for his sub-companies or end customers.

With this business model, scenario 1, the server infrastructure is free of charge. Only the server-side application needs a valid license. The server license contains the duration and the number of possible clients. Please get in touch with your sales representative for possible subscription models.

4.2 Scenario 2: Users chooses own on-premise server infrastructure

In case a customer doesn't want the server hosted by Partner Tech Europe he can use his own local server infrastructure. The CDM server application requires Windows Server 2016, 64-Bit and uses a MySQL database as well as the Microsoft Internet Information Services (IIS).

Once the setup of the users' server infrastructure is ready Partner Tech will install the CDM server application remotely.

This business model, scenario 2, requires a one-time fee for the server installation as well as a valid license for the CDM server-side application. The server license contains the duration and the number of possible CDM clients. Please get in touch with your sales representative for acquiring the CDM solution.

4.3 Scenario 3: Integrated solution via REST API

In case users already have a device management solution and wants to integrate the features and capabilities of the CDM Partner Tech will offer an integration via a REST API.

5 Target Groups

For whom is the Cloud Device Management (CDM) developed and who can benefit from it?

Software vendors, software integrators, chain stores or any kind of customer who have multiple and different POS solutions installed in many locations will benefit from the

CDM. With the CDM it is easy to keep track of the inventory and to monitor the hardware that is in the field.

But mostly the IT department will benefit from it. The IT staff doesn't have to install or update their POS terminals one by one anymore. They can send updates or new applications remotely to every terminal at once and track if the installation succeeded. This will save the IT department a lot of time and effort.

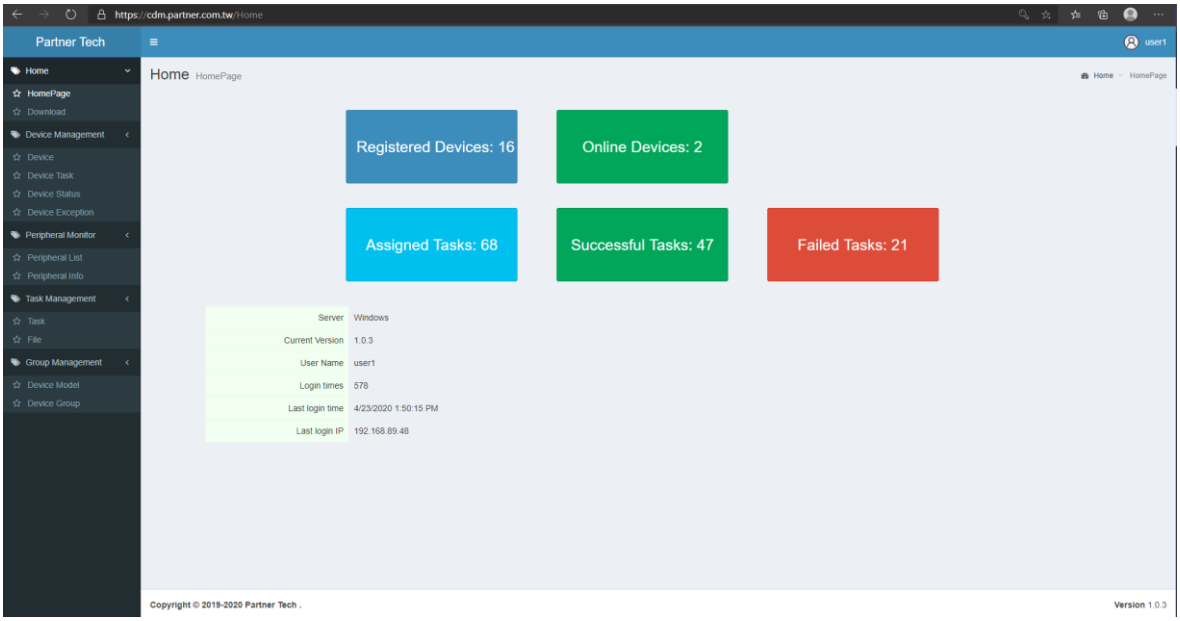
6 Server Application

The CDM server application can be reached at https://cdm.partner-tech.eu. In the following the user scenarios and features will be explained.

6.1 Home

Clicking on Home the CDM dashboard provides an overview of

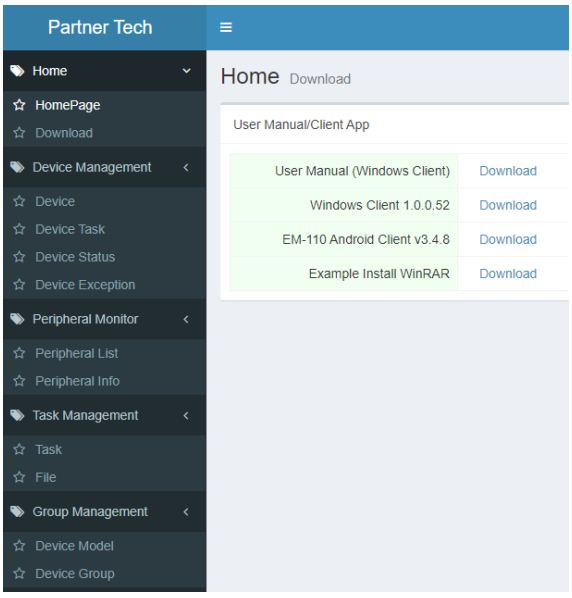
- Registered Devices
- Online Devices
- Assigned Tasks
- Successful Tasks
- Failed Tasks



6.2 Download

In the **Download** section users can download the current client applications or user manual.

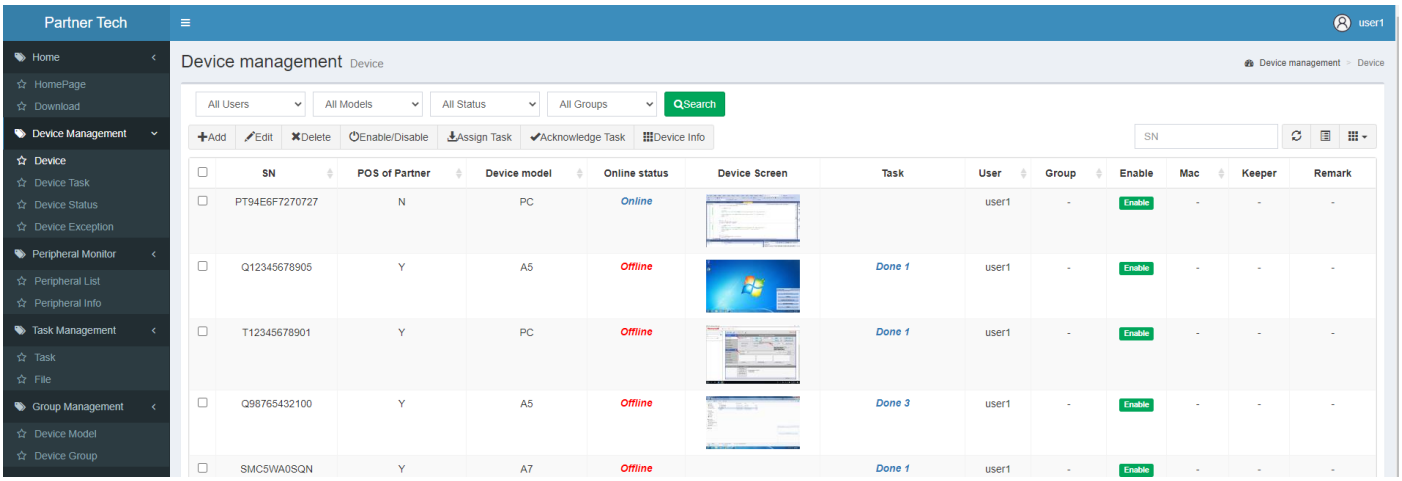
Notice: For Android clients every device model requires its own respective client.



6.3 Device Management

The Device Management sections consists of multiple pages for different features and use cases.

6.3.1 Device

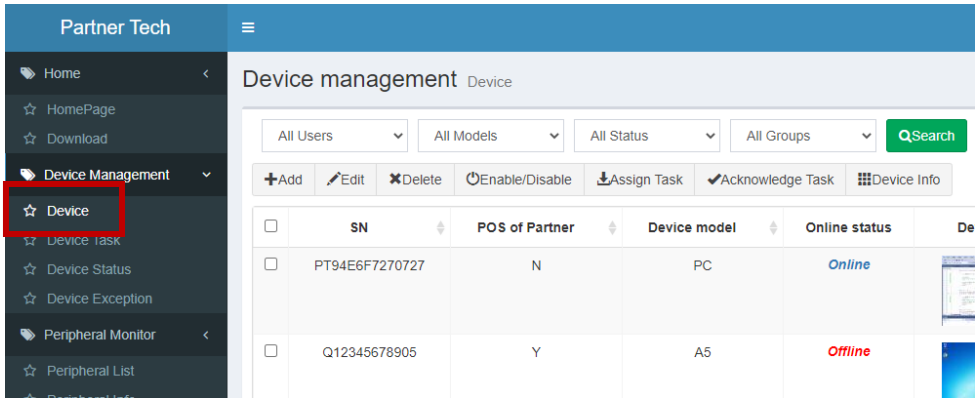


The **Device** tab lists all the existing devices of the user's account. The overview provides an inventory of the devices with the most important information. These columns can be selected / unselected to be shown in the overview:

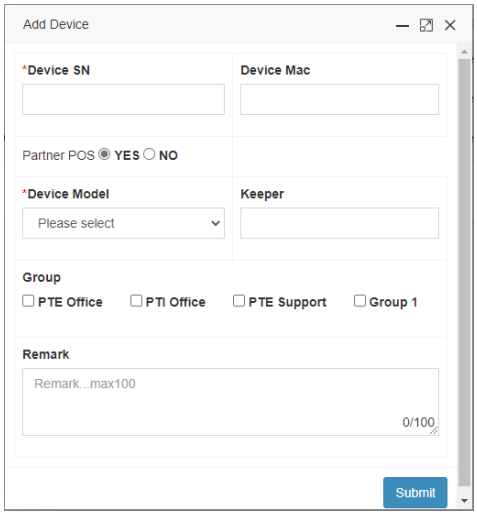
- Serial Number (SN)
- POS of Partner Tech
- Device Model
- Online status
- Device Screen
- Task
- User
- Group
- Enable
- MAC
- Keeper
- Creator
- Create Time
- Modifier
- Modified Time
- Remark

6.3.1.1 Add a new device

Please install the CDM client first, therefore please refer to **chapter 7.1**. In the CDM server by pressing the **Add** button, you can add more devices to your account

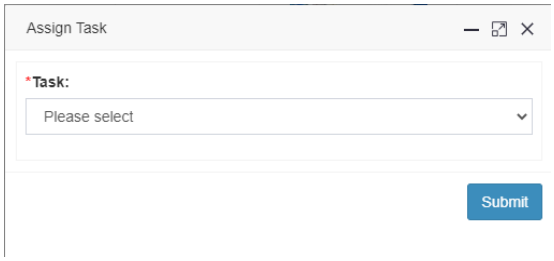


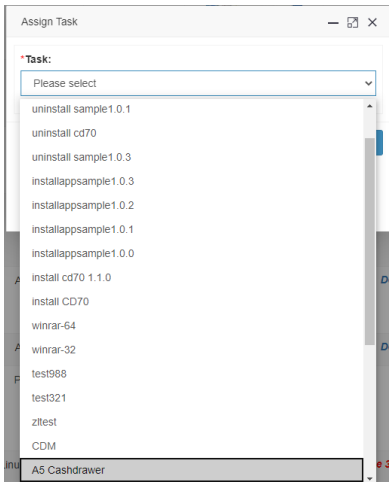
Type in the required **Device SN** (serial number), select the **Device Model** from the dropdown menu. Please refer to the section **Device Model** for adding new models. Furthermore, you can put the Device MAC address, the keeper of the device as well as the device **Group**. Click **Submit** to save the new device.



6.3.1.2 Assign Task

In the device overview select the devices, device group or device model that shall be assigned a new task. Then click the **Assign Task** button to select a task from the dropdown menu.

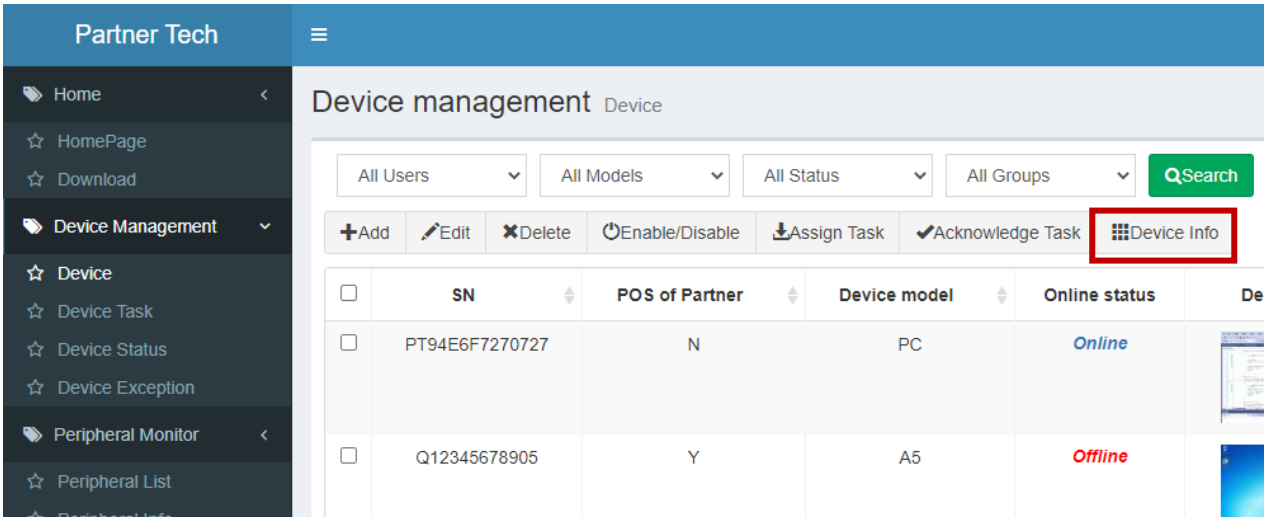




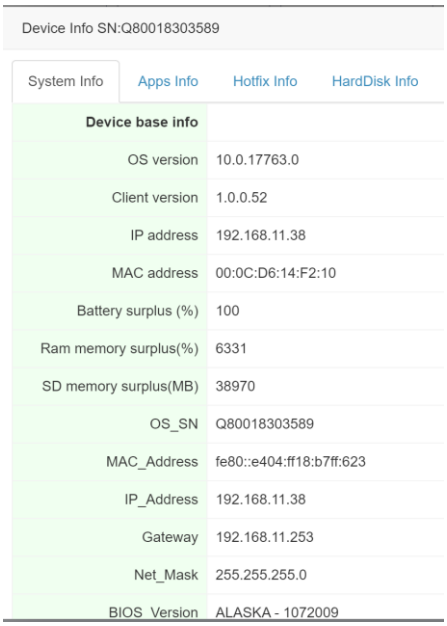
Click the Submit button to assign the task for your desired devices. Please refer to the section **Task Management** to create and edit tasks.

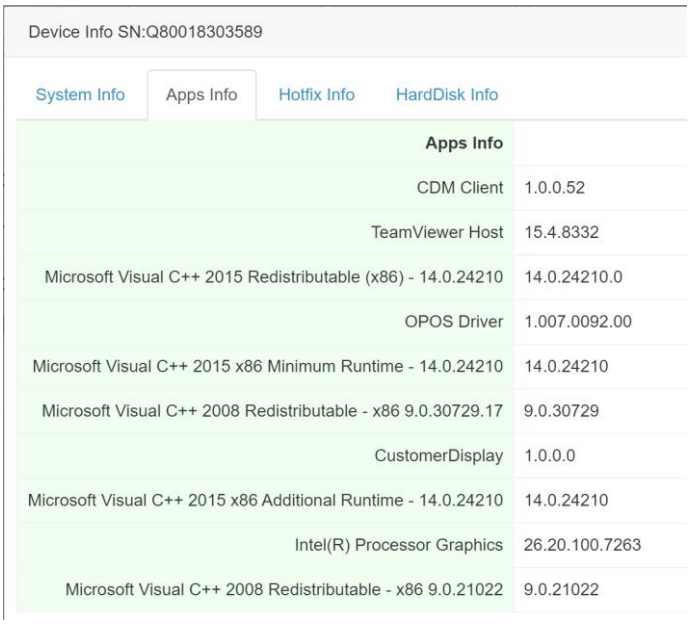
6.3.1.3 Device Info

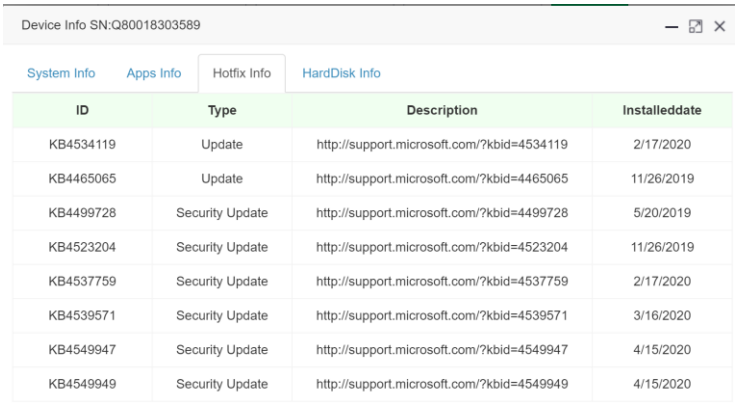
Select a device from the overview and click the Device Info button



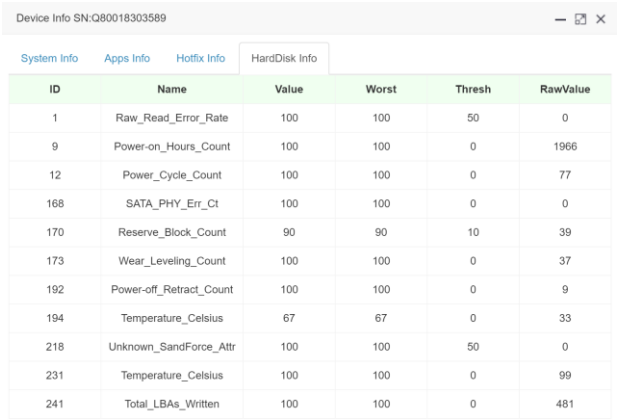
The **Device Info** window opens with information about System Info, Apps Info, Hotfix Info and Hard Disk Info. The Device Info provides a total checkup about the System, from OS version, BIOS version, to the built-in hardware components like RAM, storage and processor. Furthermore, the Device Info gives you an insight of all installed applications and the health status of the hard drive.







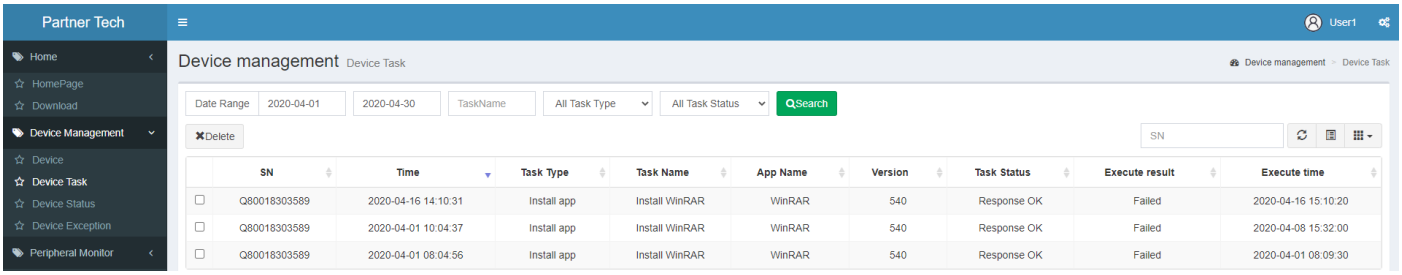
ID	Type	Description	Installeddate
KB4534119	Update	http://support.microsoft.com/?kbid=4534119	2/17/2020
KB4465065	Update	http://support.microsoft.com/?kbid=4465065	11/26/2019
KB4499728	Security Update	http://support.microsoft.com/?kbid=4499728	5/20/2019
KB4523204	Security Update	http://support.microsoft.com/?kbid=4523204	11/26/2019
KB4537759	Security Update	http://support.microsoft.com/?kbid=4537759	2/17/2020
KB4539571	Security Update	http://support.microsoft.com/?kbid=4539571	3/16/2020
KB4549947	Security Update	http://support.microsoft.com/?kbid=4549947	4/15/2020
KB4549949	Security Update	http://support.microsoft.com/?kbid=4549949	4/15/2020



ID	Name	Value	Worst	Thresh	RawValue
1	Raw_Read_Error_Rate	100	100	50	0
9	Power-on_Hours_Count	100	100	0	1966
12	Power_Cycle_Count	100	100	0	77
168	SATA_PHY_Err_Ct	100	100	0	0
170	Reserve_Block_Count	90	90	10	39
173	Wear_Leveling_Count	100	100	0	37
192	Power-off_Retract_Count	100	100	0	9
194	Temperature_Celsius	67	67	0	33
218	Unknown_SandForce_Attr	100	100	50	0
231	Temperature_Celsius	100	100	0	99
241	Total_LBAs_Written	100	100	0	481

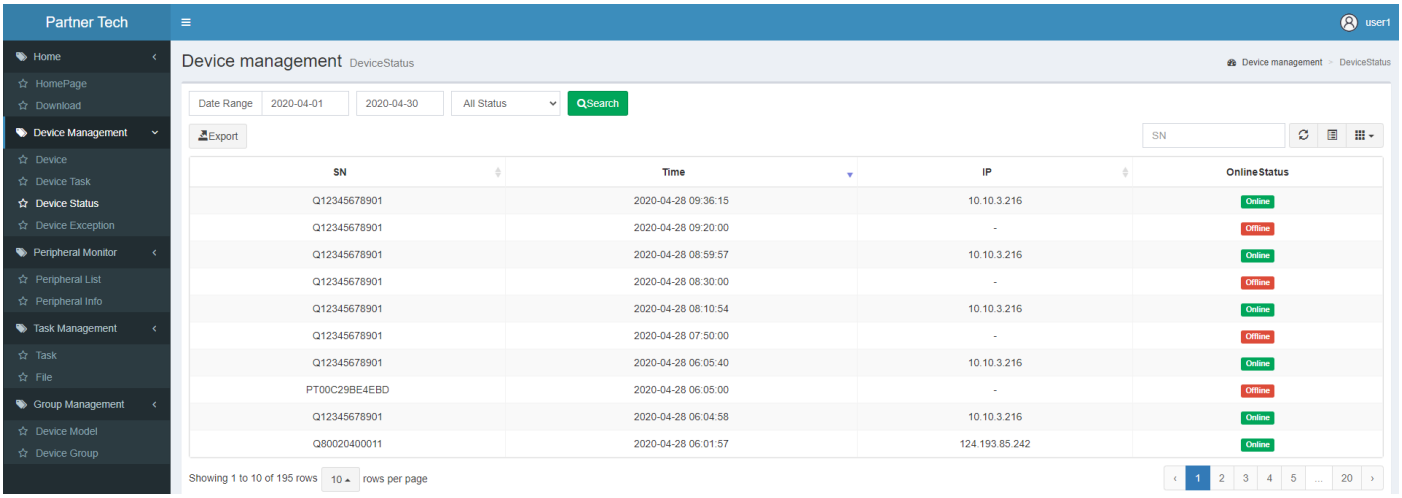
6.3.2 Device Task

The **Device Task** provides an overview of all applied tasks, which tasks were executed successfully or not. You can filter here for a certain task type, task name, task status or a certain range of date. With this overview you can easily detect if certain tasks failed of if all your updates were successfully installed.



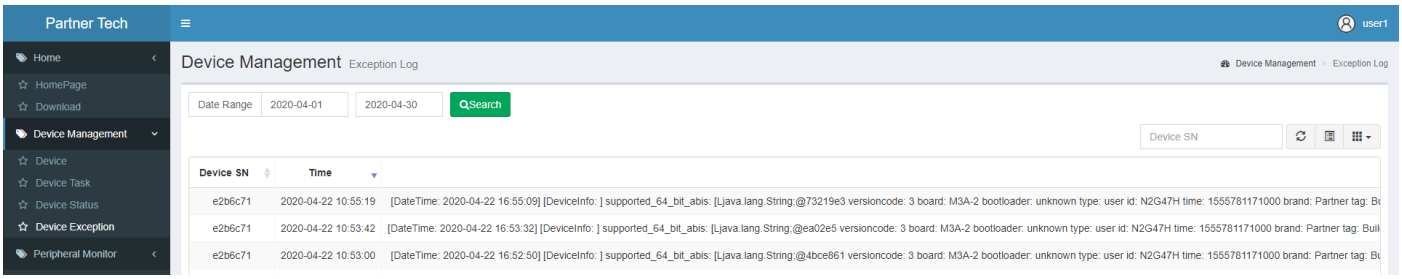
6.3.3 Device Status

The **Device Status** provides a quick overview about the online / offline status of the devices.



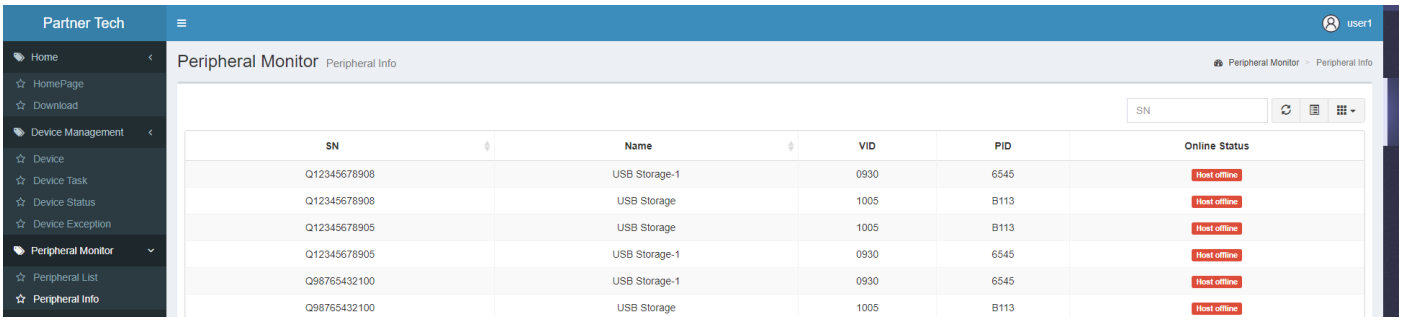
6.3.4 Device Exception

The **Device Exception** provides a quick overview if a device had any exceptions.



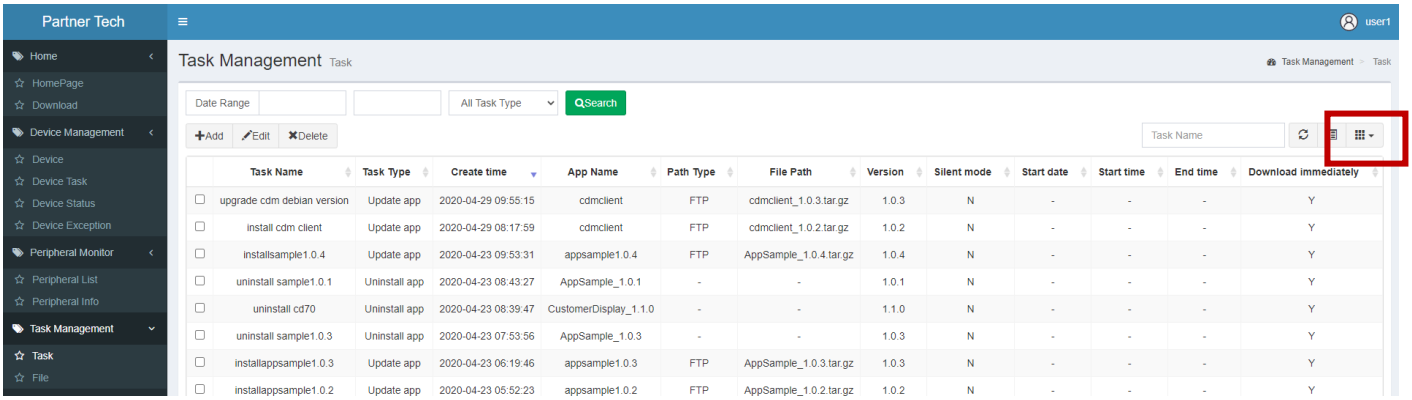
6.4 Peripheral Monitor

In the section **Peripheral Monitor**, you can add USB peripherals and monitor their online status.



6.5 Task Management

The Task Management section provides an overview all your created tasks.

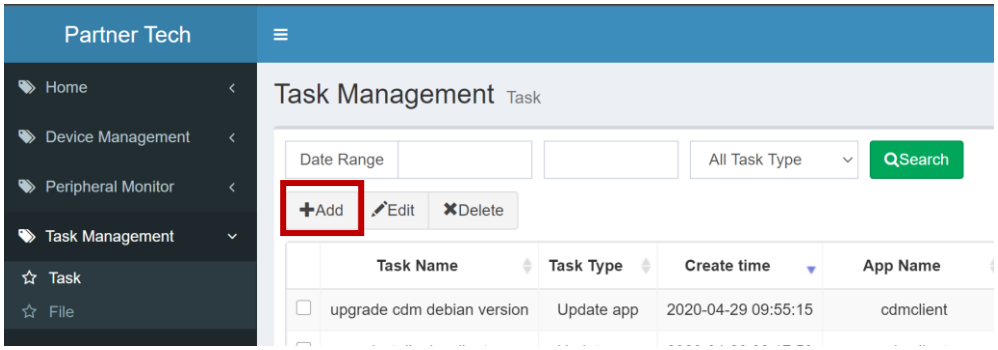


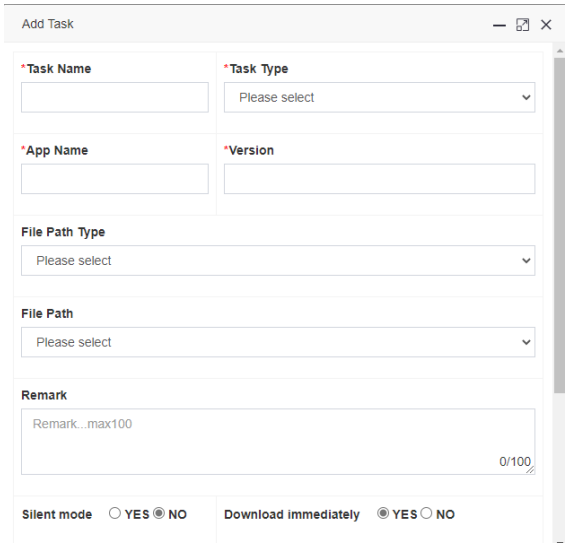
By clicking the columns icon, you can select / unselect the columns in your task overview. The columns are:

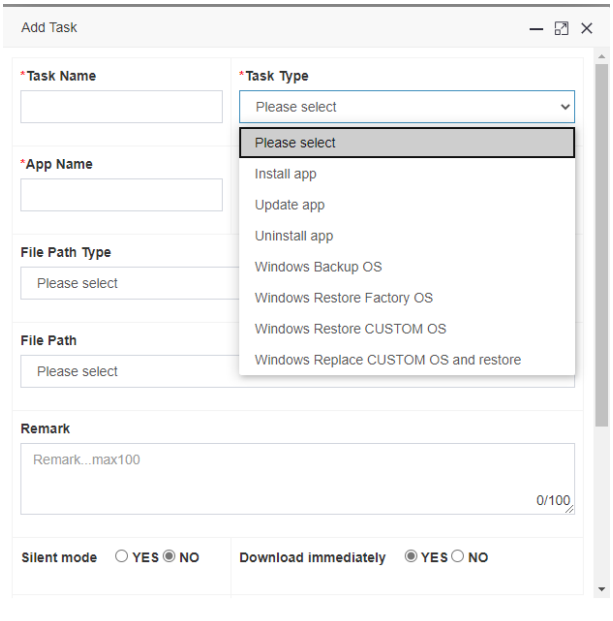
- Task Name
- Task Type
- Create Time
- App Name
- Path Type
- File Path
- Version
- Silent Mode
- Start date
- Start time
- Download immediately

6.5.1 Add a new task

By clicking the **Add** button you can create a new task that you can assign to your devices in the Device Management.





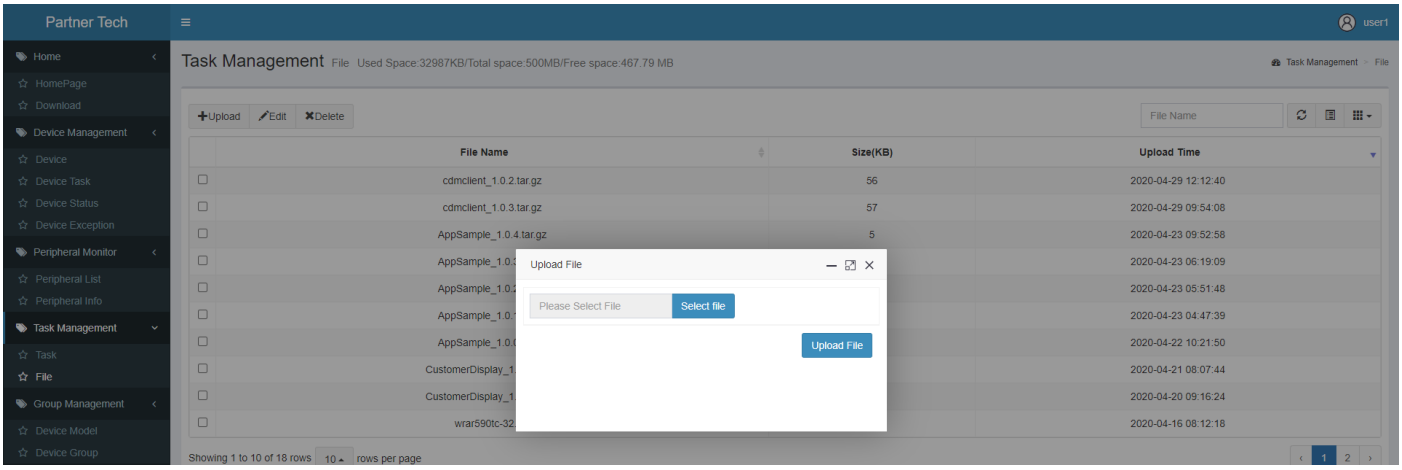


Enter the requested fields and click Submit to save the new task.

Task Name	Enter a name of your task to find it in the Device Management
Task Type	Select: - Install app - Update app - Uninstall app - Windows Backup OS - Windows Restore Factory OS - Windows Restores CUSTOM OS - Windows Replace CUSTOM OS and restore
File Path Type	Select: FTP or HTTP
File Path	If FTP Path Type is selected, select the file that you uploaded Task Management / File List. If HTTP Path Type is select, enter the URL of or the file
Remark	Enter comments about this task
Silent Mode	Yes / No. Select No, if the operator of the device shall actively accept the task. Select Yes, if the task shall be executed silently in the background.
Download immediately	Yes /No. Select Yes, if the device shall download the task immediately. Select No, if the download shall be scheduled by entering Start Date, Start Time and End Time.

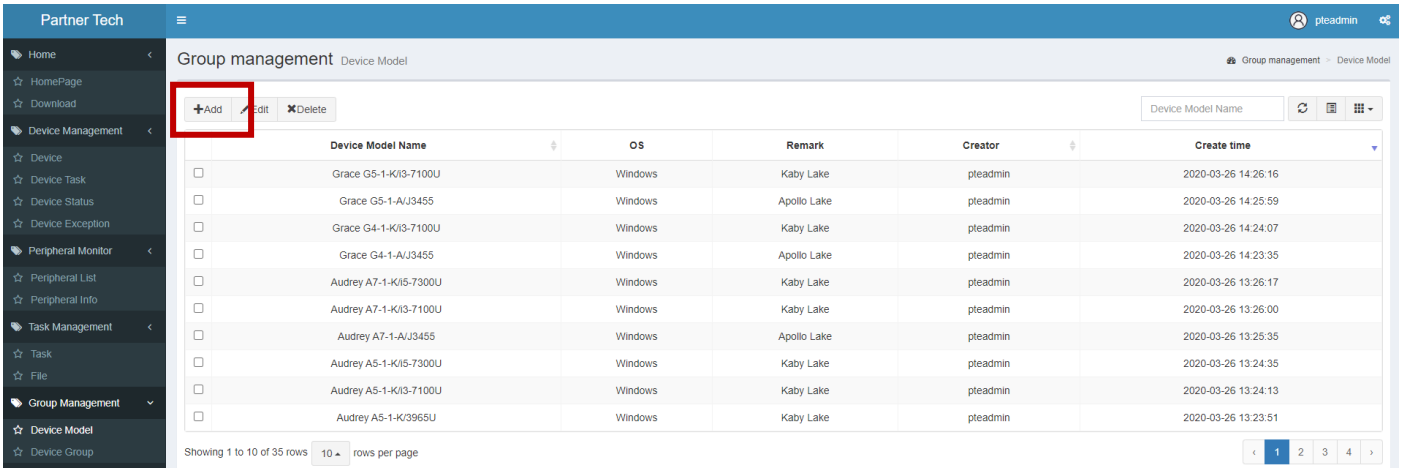
6.5.2 Upload a file

In order to create a task your file has to be uploaded first to the sever. To upload it go the Task / File section and click the **Upload** button. Select your file and click the **Upload File** button. Once the file uploaded to the server, you can select it when adding a new task.

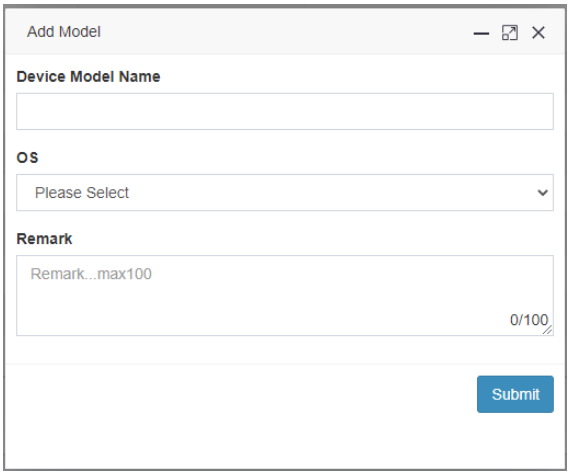


6.6 Group Management

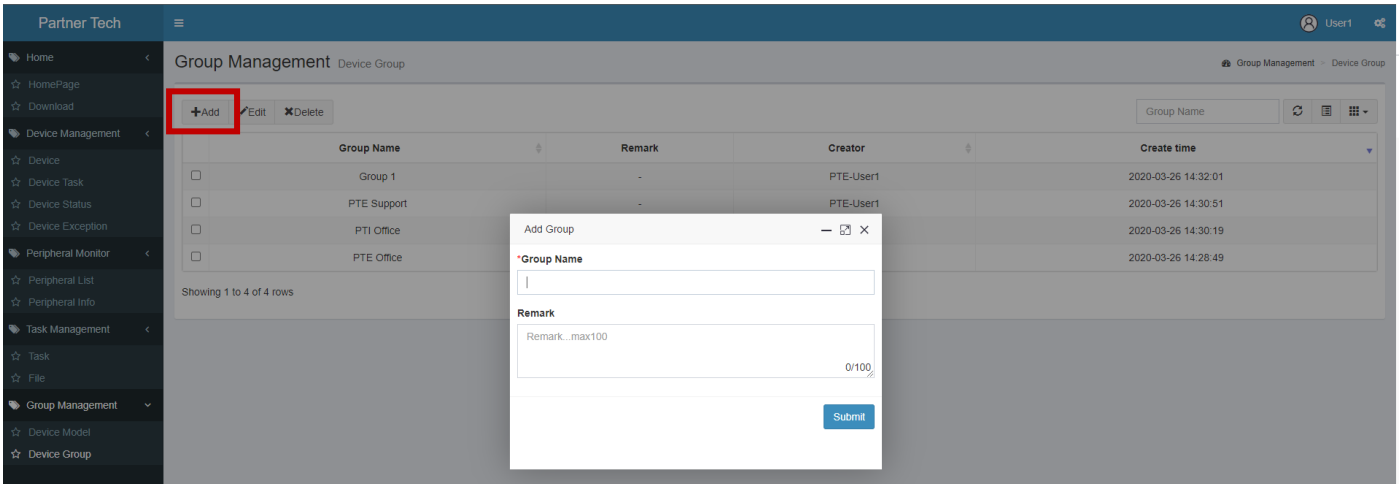
In the **Group Management** you can add your **Device Models** and **Device Groups**. For adding a device model, you have to be signed as a company administrator.



Click the **Add** button to create a new device model. Enter your device model name, select the OS and put any remarks to it. Click **Submit** to save the device model.



For adding a Device Group go to the **Group Management** / **Device Group** section.

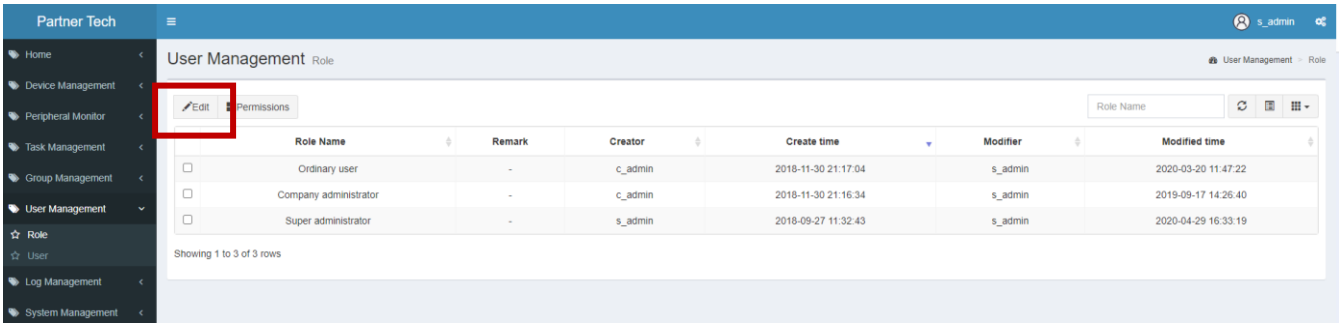


Click the **Add** button to create a new Group, enter the Group Name and optional remarks. Click Submit to save the device Group.

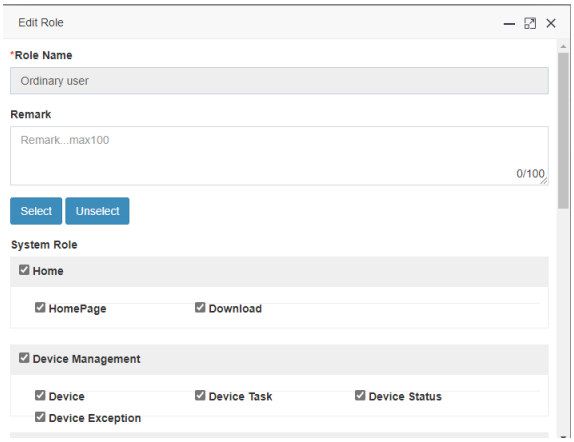
6.7 User Management

6.7.1 Role

When signed in as a Super administrator you can edit the role permissions for an Ordinary user, Company administrator and Super administrator.

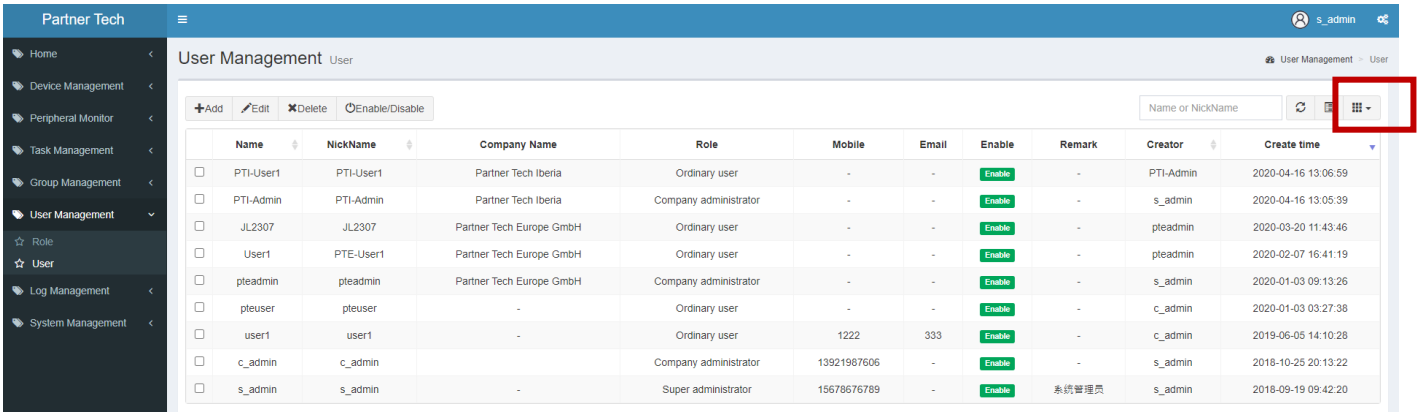


Select Role Name and click the **Edit** button. Select or unselect the permissions and click Submit to save the role.



6.7.2 User

Signed in as a Super administrator the user table provides an overview of all Company administrators and Ordinary users that the CDM hosts.

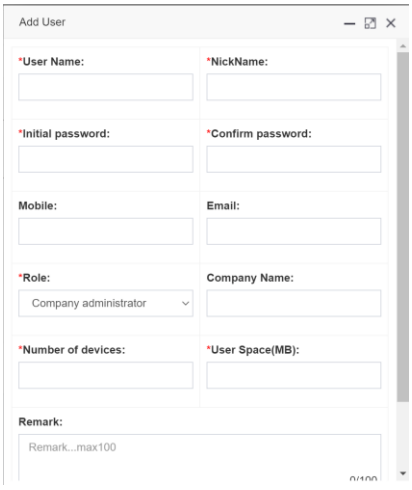


By clicking the columns icon, you can select / unselect the columns in your user overview. The columns are:

- Name
- NickName
- Company Name
- Role
- Mobile
- Email
- Enable
- Remark
- Creator
- Create time
- Modifier
- Modified time

As a Super administrator you can add more Company administrators by clicking the **Add** button.

Please note: To add an Ordinary user, you have to be signed in as the respective Company administrator

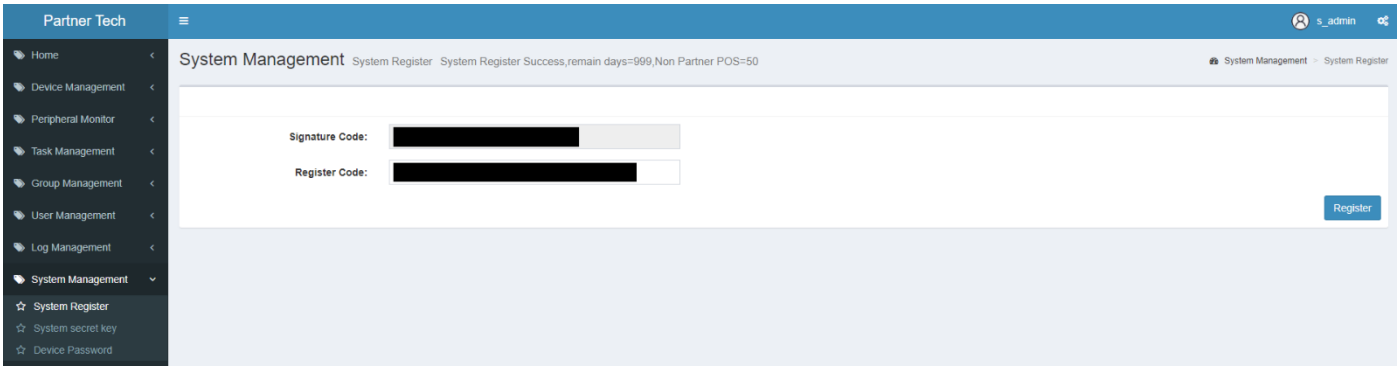


Fill in the required fields and click **Submit** to save the new user.

6.8 System Management

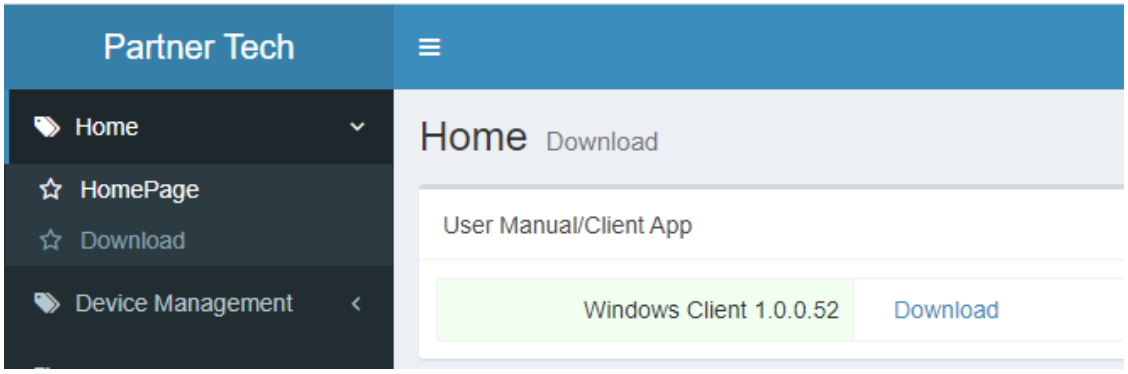
In the **System Management** section, the Super Administrator manages the licenses keys for activating the system. Therefore, the administrator has to provide the

automated **Signature Code** and Partner Tech Europe will provide the required **Register Code**.



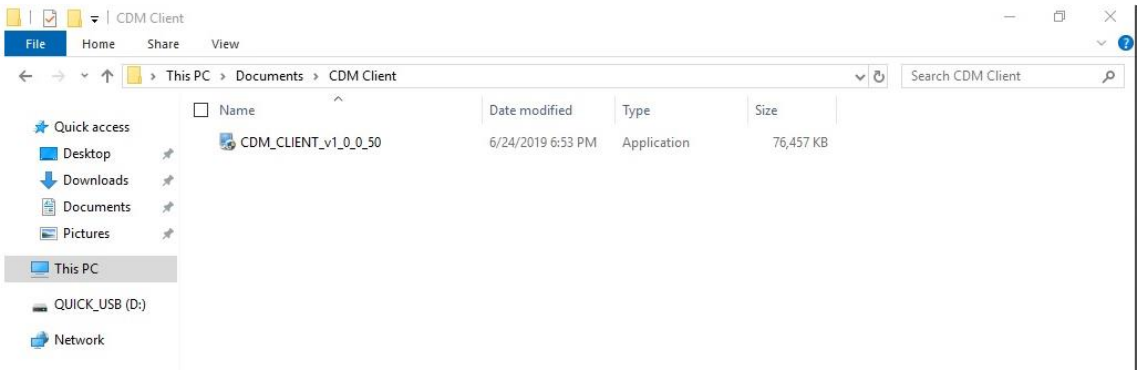
7 Client

The clients for the terminals can be downloaded in the **Home Section / Download**

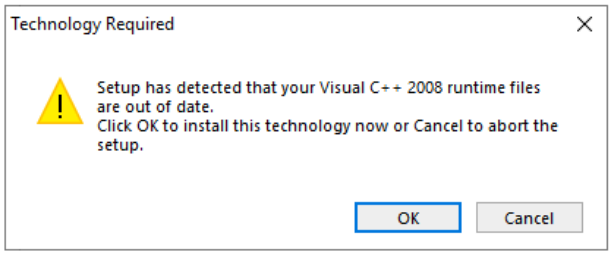


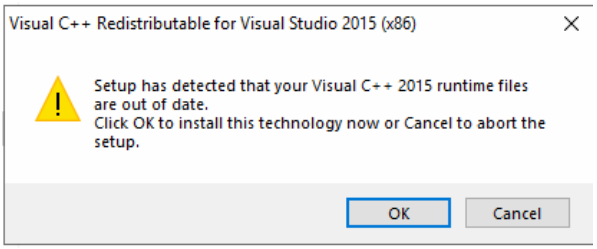
7.1 Install Client

After having downloaded the latest client version, execute the installer. Make sure that your terminal is online.

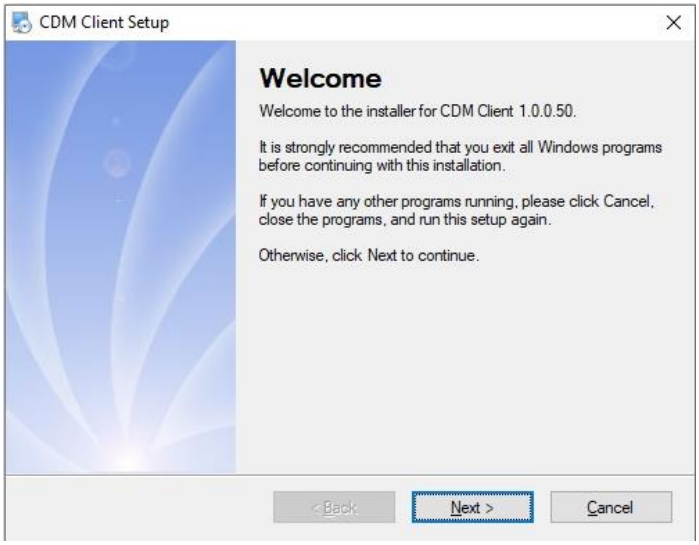


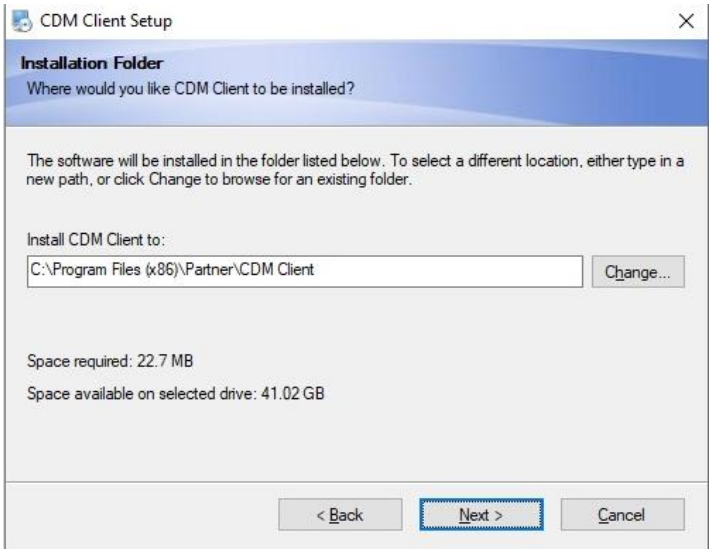
In case your system has not the latest C++ 2008 and 2015 Redistributables, click OK to download and install them. After rebooting execute the CDM client installer again.

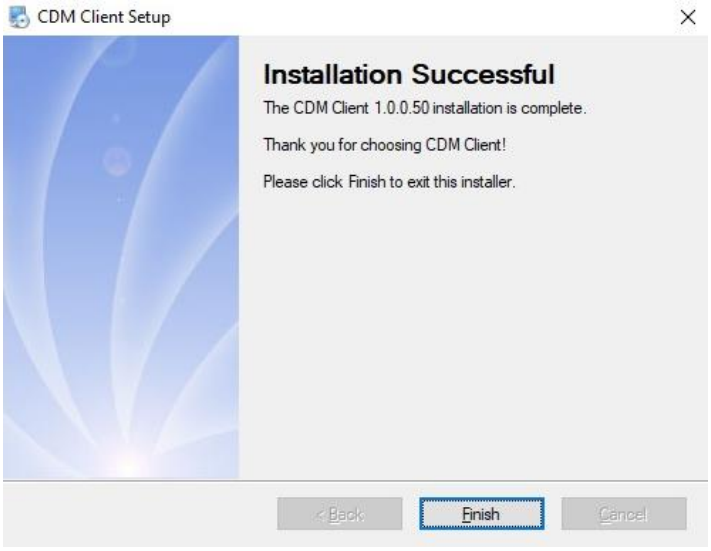




Click through the installer.



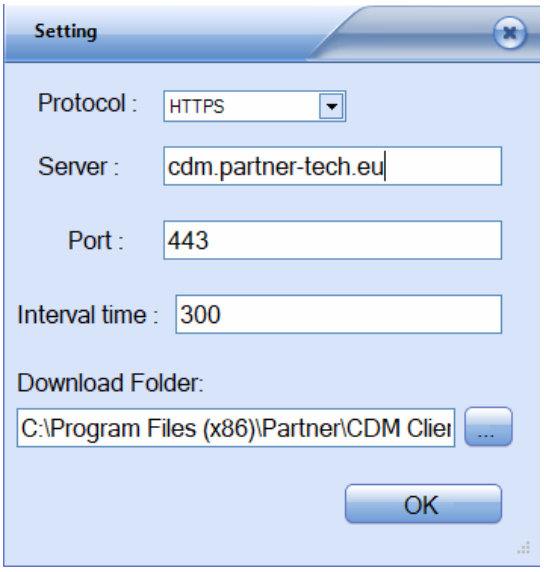




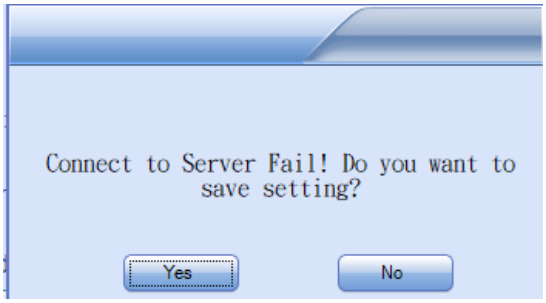
Click **Finish** and reboot the terminal. The client will start automatically to setup and the server settings.

Change the respective server settings:

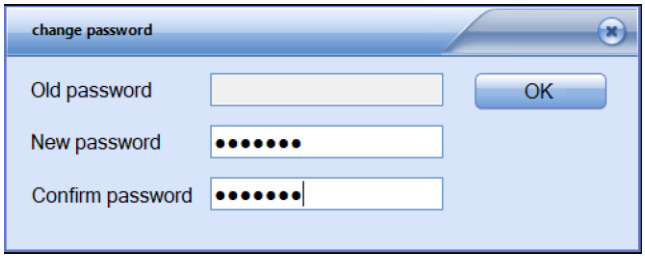
Protocol: HTTPS
Server: cdm.partner-tech.eu
Port: 443
Intervall time: 300



You will get a notification that the connection to the server failed, because we haven't added the device to our server yet. Nonetheless, click **Yes** to save the server settings.

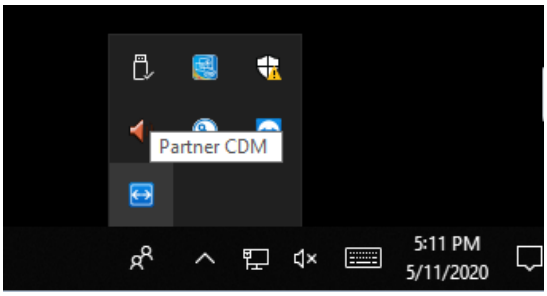


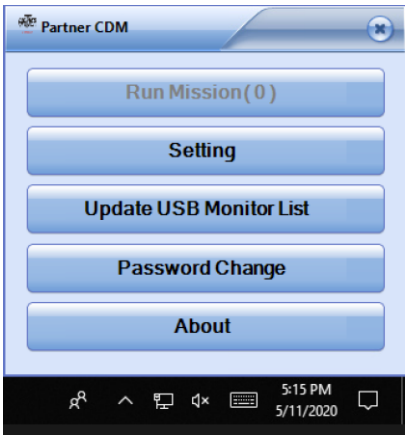
After saving the server settings, enter a new password for that terminal.



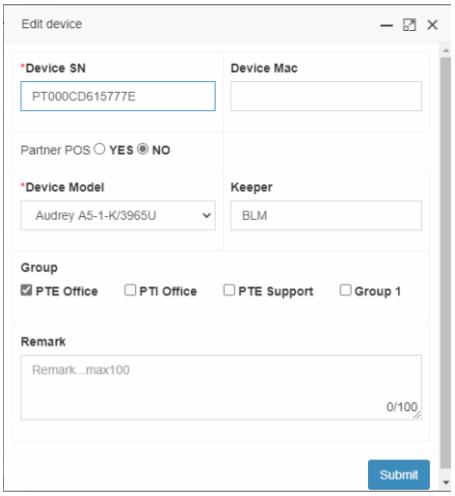
This password has to be entered by the user when the task is executed in non-silent mode.

After finishing the setup, you will find the CDM icon in the Windows Task Bar. Click the Up Arrow to see the hidden icons, click the CDM icon and press the **About** button.

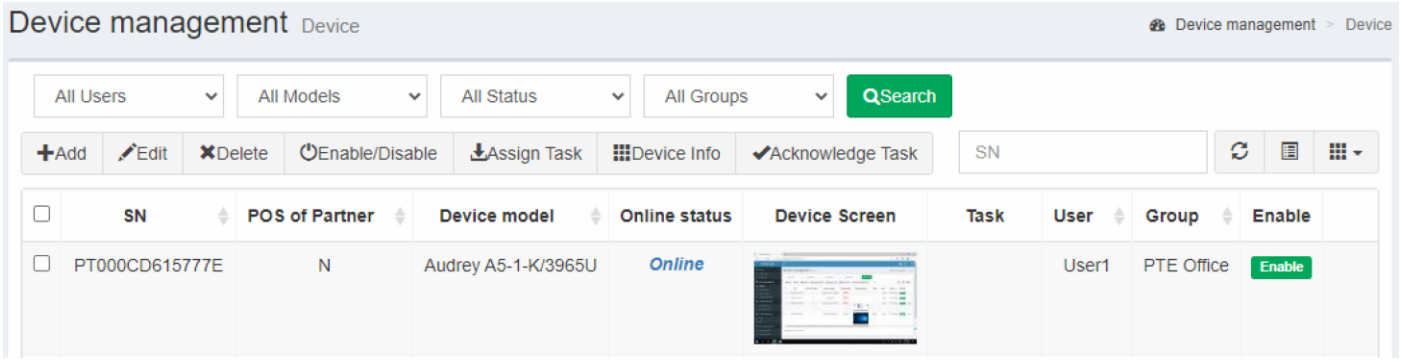




In the About window read out the Device Serial and enter it in the CDM server when adding a new device., see chapter **6.3.11 Add a new Device**.



After clicking **Submit**, you should see your new device marked as online.

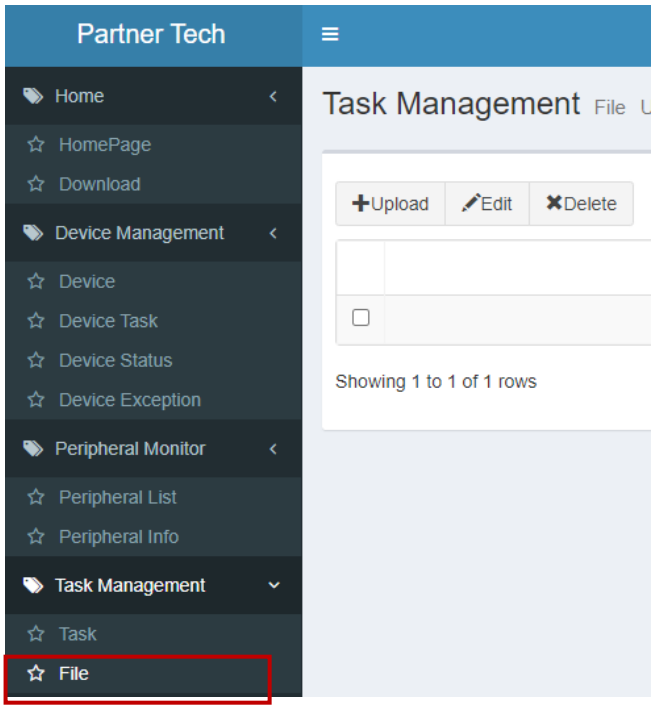


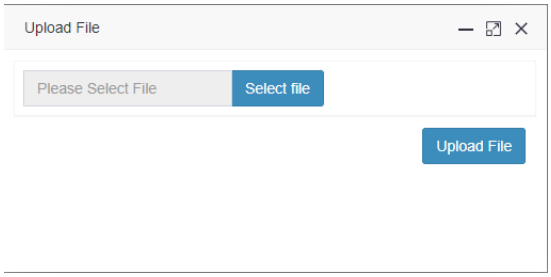
8 User Scenarios

8.1 Create a new Task

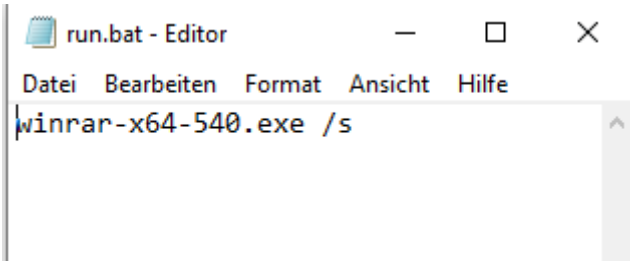
With this example you create a task that distributes the tool WINRAR and installs it on a Windows client in silent mode.

In the section Task Management go to files and click the **Upload** Button to upload your file to the server.

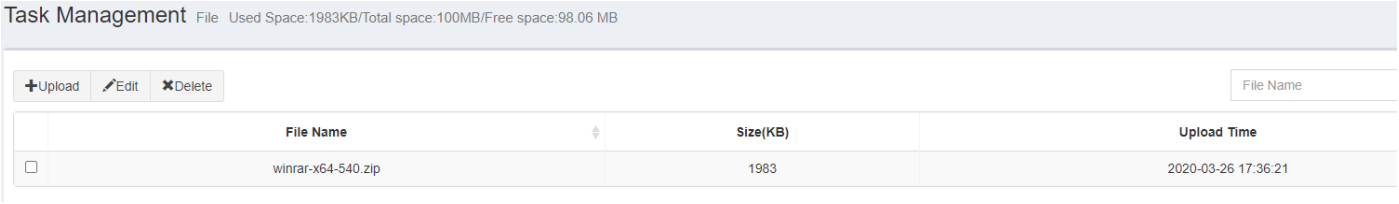




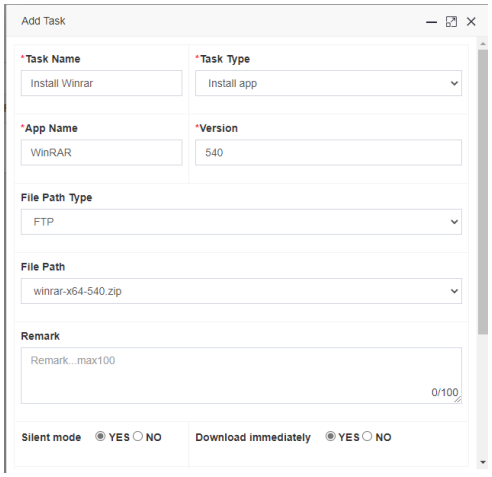
The file that you want to distribute has to be a ZIP file containing the install executable and a batch file. The batch file contains the script that you want the client to run.



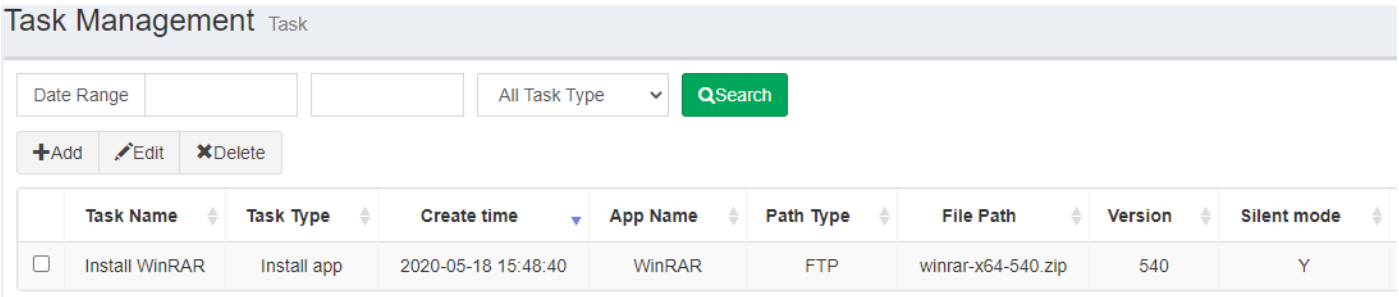
Having uploaded the file to server you can see it in the File overview



Then click **Task** in the Navigation Menu and the **Add** button to create your new task. Please also refer to chapter **6.5.1 Add a new Task** to learn more about creating tasks. Type in the Task Name, App name and version number. Choose Install app as Task Type, FTP as File Path and select your Winrar file in the dropdown menu. Choose Yes for Silent mode if you want the client to install Winrar silently in the background.

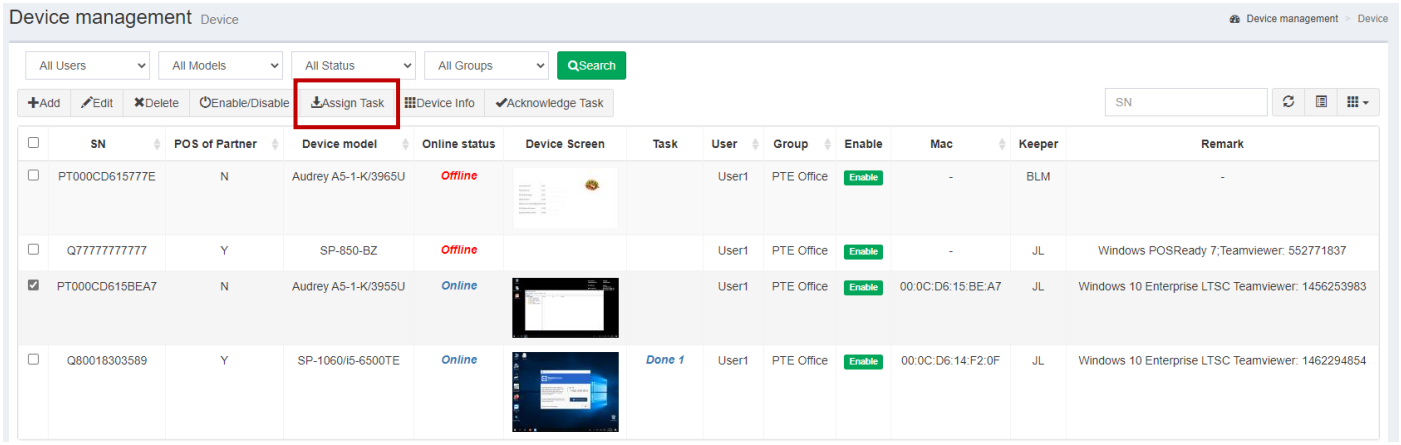


After clicking the Submit button you see your new task in the overview.

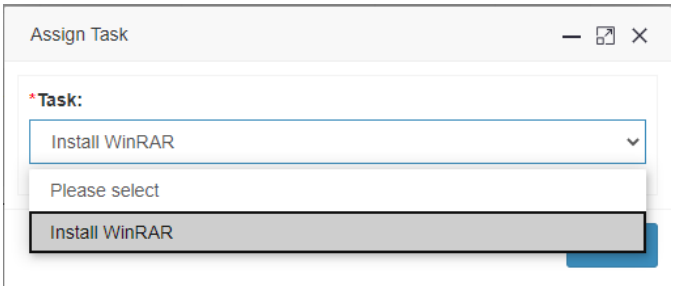


8.2 Assign a task

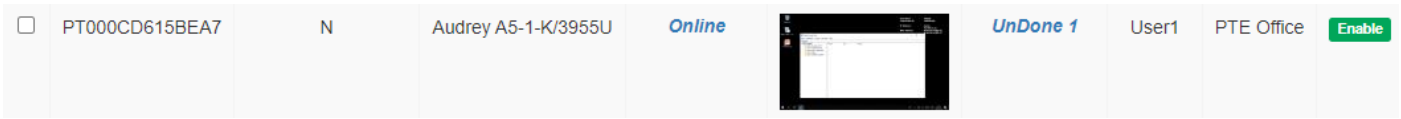
In the navigation menu go the Device Management section and click Device. In the device overview select the terminals that you want to assign the task to. Then click the **Assign Task** button



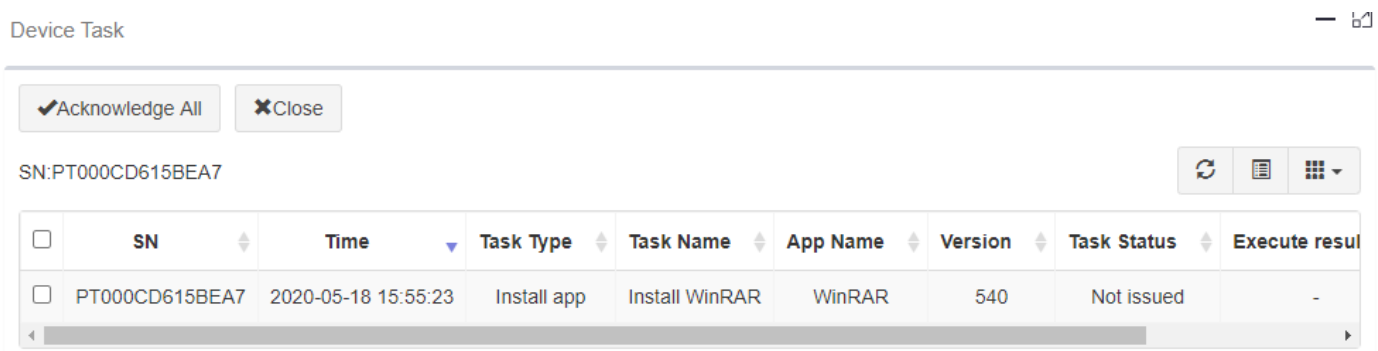
Choose your task and click Submit.



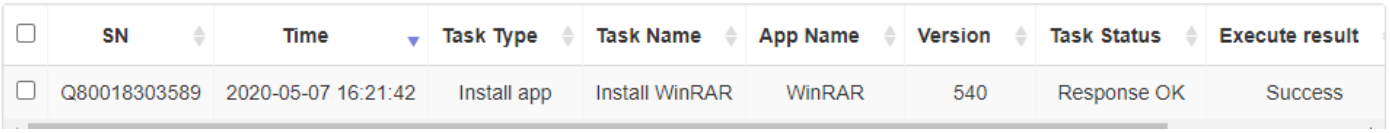
After assign the task the task status changes in the Device Overview to ***UnDone***



Click on the task status ***UnDone*** to see more detail.



When the task has been executed successfully the task status changes to ***Done***. Details of the executed task:



SN	Time	Task Type	Task Name	App Name	Version	Task Status	Execute result
Q80018303589	2020-05-07 16:21:42	Install app	Install WinRAR	WinRAR	540	Response OK	Success

+49 40 450 635 0

info@partner-tech.eu

Beim Umspannwerk 10, 22844 Hamburg

https://partner-tech.eu/