



# User Manual

# Umbrella Carbon for

# Ocularis

Document Version 1.0



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### 1 General

This chapter describes some general functionality and elements in the Umbrella UI.

#### 1.1 Umbrella Roles and User rights

Most navigation possibilities and actions are tied to the Umbrella license and the Umbrella user rights. They are only displayed if:

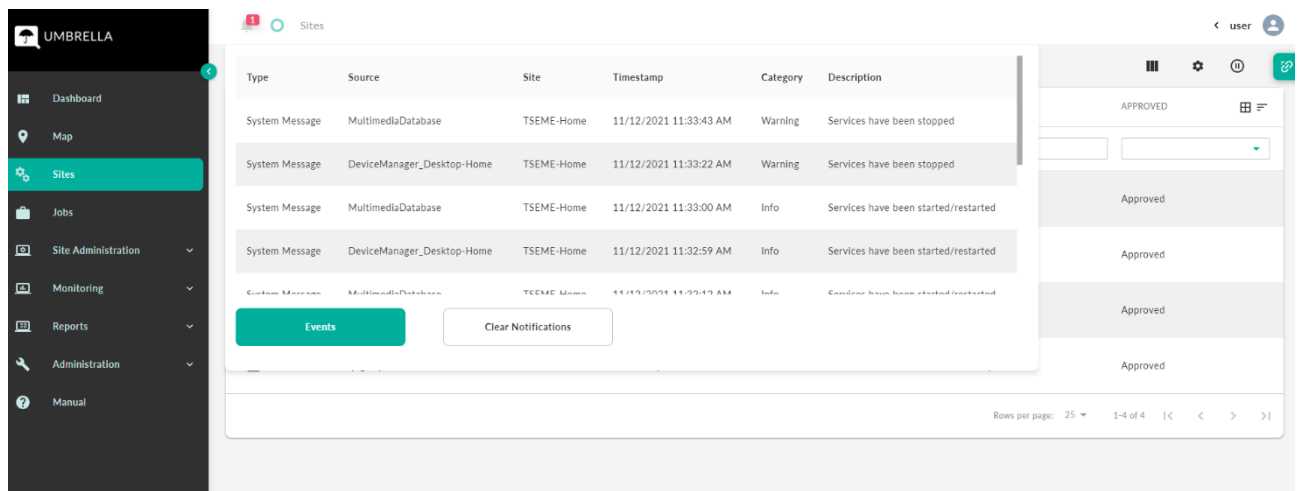
- a specific module is licensed, like monitoring, site administration or reports
- and the Umbrella User has a specific user right

#### 1.2 Top bar

The top bar of the Umbrella UI is not changing when navigating through the Umbrella pages and offers always the same functionality, only depending on the licensed Umbrella modules.

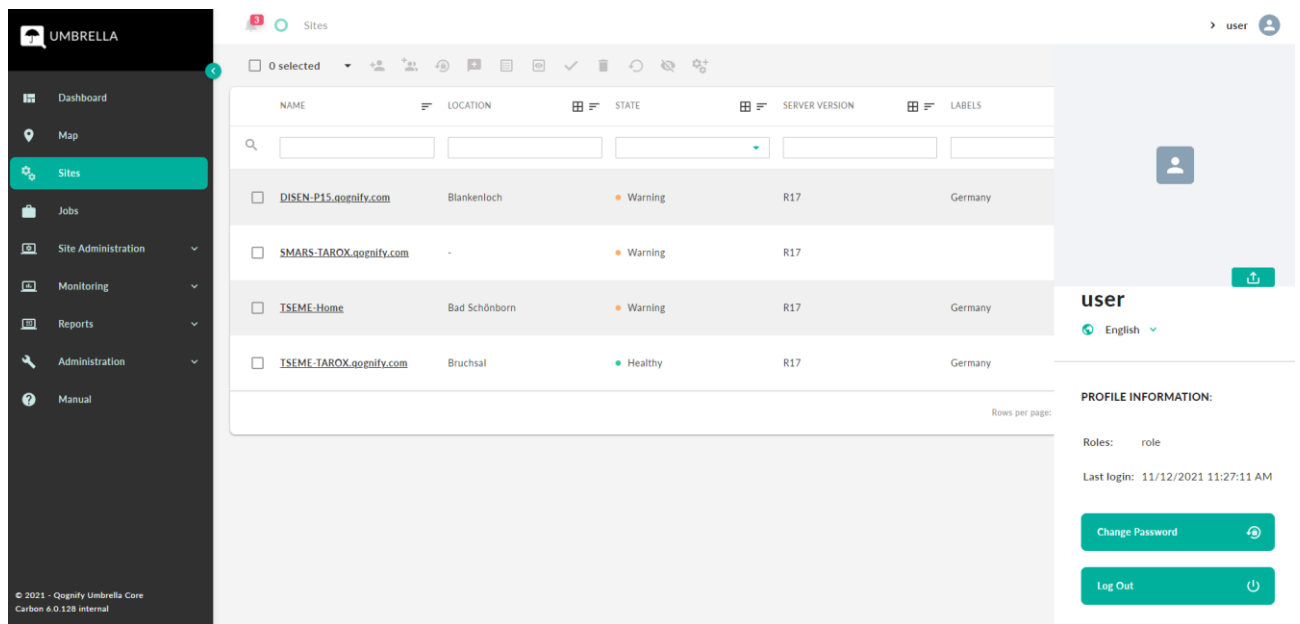
##### 1.2.1 Notifications

If your Umbrella license includes the monitoring module, it is possible to receive notifications in the Umbrella UI and via E-Mail. The notifications are just forwarded Events and the notification functionality needs to be configured in the Umbrella role management. Afterwards notifications are received in left positioned bell in the top bar in the UI. The bell has a counter to inform the Umbrella user about new notifications. By clicking on the bell, a modal window opens to show the 50 most recent notifications. It is possible to jump to the Events overview page for further investigation or clear the list of the recent notifications.



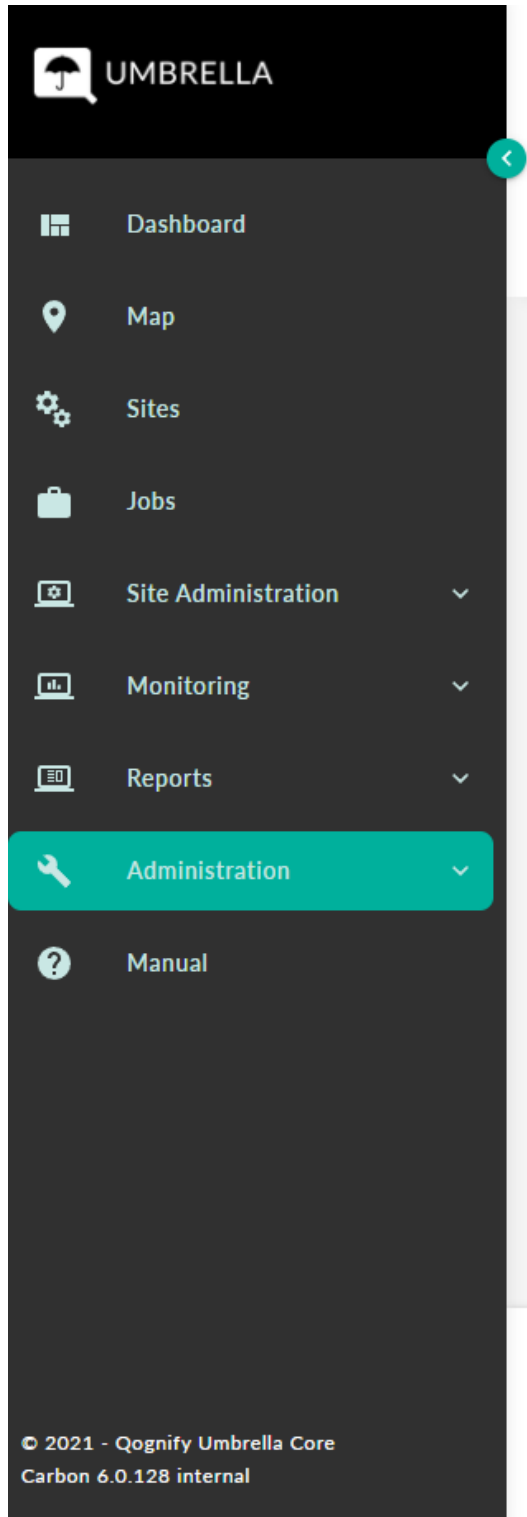
### 1.2.2 Profile settings

On the right side of the top bar the Umbrella user can view his profile. The Umbrella user can change his profile picture, change the language of the Umbrella UI, change his password or logout from the UI. The view also shows the last login time stamp and the Umbrella roles the Umbrella user currently inherits.



### 1.2.3 Navigation bar

The navigation bar is used to reach all pages the Umbrella UI has to offer. The navigation bar can be collapsed. The configuration (collapsed or not) is saved for each Umbrella user.



### 1.3 Overview grids

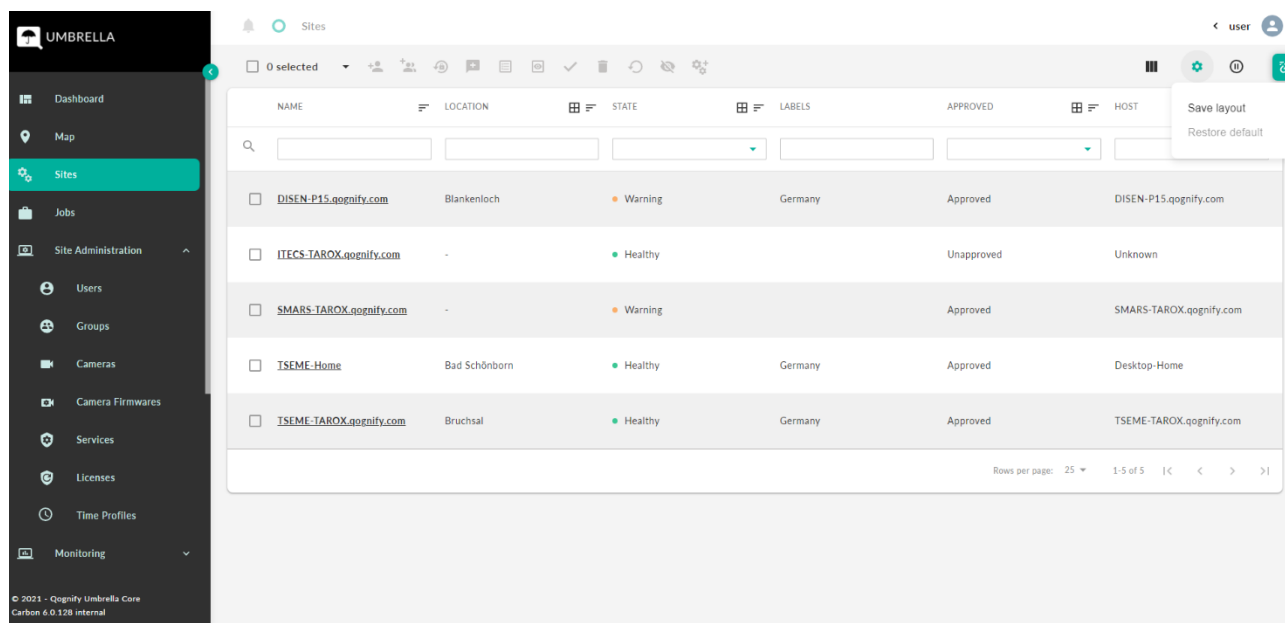
Most of the pages that are reachable from the navigation panel are overview pages. Each overview page shows a grid with some general and some specific functionality.

#### 1.3.1 Grid top bar

All grids offer the same look & feel and share similar functionality. The right side offers a column chooser, the custom grid functionality, and a switch to pause/start the live update mode. The live update mode is enabled as default on all grid pages. It is automatically paused when starting to select elements from the overview grid to perform action or when opening a details modal window. The live mode is resumed automatically when the modal window is closed or when the action is performed. The live update mode can be paused manually. The left side usually offers actions that can be performed on a single or multiple rows.

#### 1.3.2 Custom grid layouts

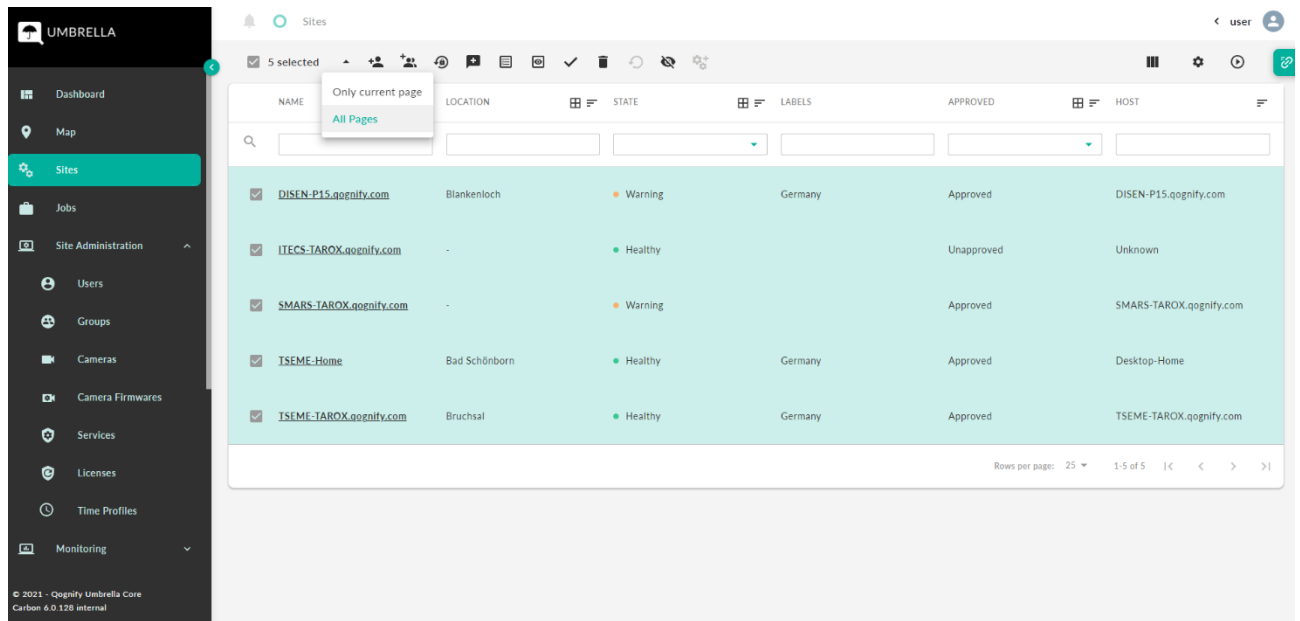
Most of the grids have the possibility to customize the visible columns of the grid. They usually also offer the possibility to save this custom grid. Every Umbrella user can currently save one custom configuration for each grid. Currently only the selected columns are saved. Specific sorting, filtering, or grouping is not saved.





### 1.3.3 Current page/Select all modes

Most of the grids also offer the possibility to switch between 'current page' and 'select all' mode. 'Current page' is the default mode and is used to manually select elements from the current grid page. The select all checkbox in the upper left corner will also only select all rows from the current page. 'Select all' mode disables the manual selection of rows. In this mode the actions performed will affect all rows. The only way to restrict the selection is to apply filters to the columns.



## 1.4 Details Windows

Each row in an overview grid provides a details window for a specific entity. This details window offers all information for one entity. Using the Site Administration, it is possible to change some properties and perform entity configuration.

## 1.5 Site entity configuration

To change a property of an entity of a VMS subsystem, you need to click the specific section in the Site Administration, select the entity to change and adjust the property in the Umbrella client. After that, the 'Create Jobs' button at the bottom of the entity details page will be enabled. Now click on the 'Create Jobs' button, the system will create the number of jobs needed to execute the desired change in the VMS subsystem.

The screenshot displays the 'Axis' configuration window. At the top, there are tabs for 'DETAILS', 'GENERAL', 'DEVICE', 'STREAM: 01' (which is selected and highlighted in teal), and 'STREAM: 02'. Below the tabs, a message states: 'Below you can change the camera properties according to your preferences.' The configuration area includes three rows of settings:

- Stream\_VideoCodec.01**: A dropdown menu set to 'H.264' with a 'Reset' link to its right.
- Stream\_Resolution.01**: A dropdown menu set to '1024x640 (16:10)' with a 'Reset' link to its right.
- Stream\_Framerate.01**: A slider control with a teal dot and a '5' value, and a dropdown arrow to its right.

Below these settings is a section titled 'Advanced Job Configuration:' with a dropdown arrow. Underneath is a 'Comment:' label followed by a text input field. At the bottom of the configuration area, there are two buttons: a teal button labeled 'Create 'Change Property' Job(s)' and a white button labeled 'Reset all'. A final note at the bottom reads: 'Selected changes will not be done immediately. They will be applied when the created jobs are processed.'

### 1.5.1 Advanced job configuration

For more options on when and how the job is executed click on the Advanced Job Configuration section from the same place where you configured the changes to be executed by the job. There are 3 options:

- Execution time. By enabling the execution time, you can choose the Site's local time at which the job is executed. By default, the time is set to 10 minutes in the future from the time the Advanced Job configuration was chosen (extended)
- Undo time. By enabling the undo time, you can choose the Site's local time at which the job gets reverted by creating an Undo Job. By default, the time is set 10 minutes in the future from the Execution time. This time cannot be earlier than the Execution time. The time can be chosen starting from 10 minutes delayed from the Execution time.
- Retry number. By enabling this option, you can choose the maximum number the job is executed until a successful status. Minimum number is 1, maximum is 10 tries. If the job is not successful, the next retry happens in 10 seconds.

Undo Jobs are created by selecting the Undo time when creating a job. With this selection a second job will be created reverting the changes of the initial job. Undo Jobs can only be triggered after the initial job and are only executed if the initial job was executed successfully. The Umbrella user must manage the job executions and to avoid conflicting changes and the order of job executions.

The screenshot shows the 'Axis' configuration page with a 'GENERAL' tab selected. The 'Enabled' checkbox is checked. Under 'Advanced Job Configuration', there are three options: 'Execution (Site timezone)' with a date/time picker set to '11/12/2021 11:04 AM', 'Undo' with a date/time picker set to '11/12/2021 11:14 AM', and 'Retries' with a numeric input set to '5'. A 'Comment' field is also present. At the bottom, there are buttons for 'Create 'Change Property' Job(s)' and 'Reset all'. A note at the bottom states: 'Selected changes will not be done immediately. They will be applied when the created jobs are processed.'

The following VMS Configurations can be automatically reverted using the undo job functionality:

- Create User → Delete User
- Create Group → Delete Group
- Change Entity property → Change to previous Entity property value

VMS Configurations where undo jobs are currently not possible to use:

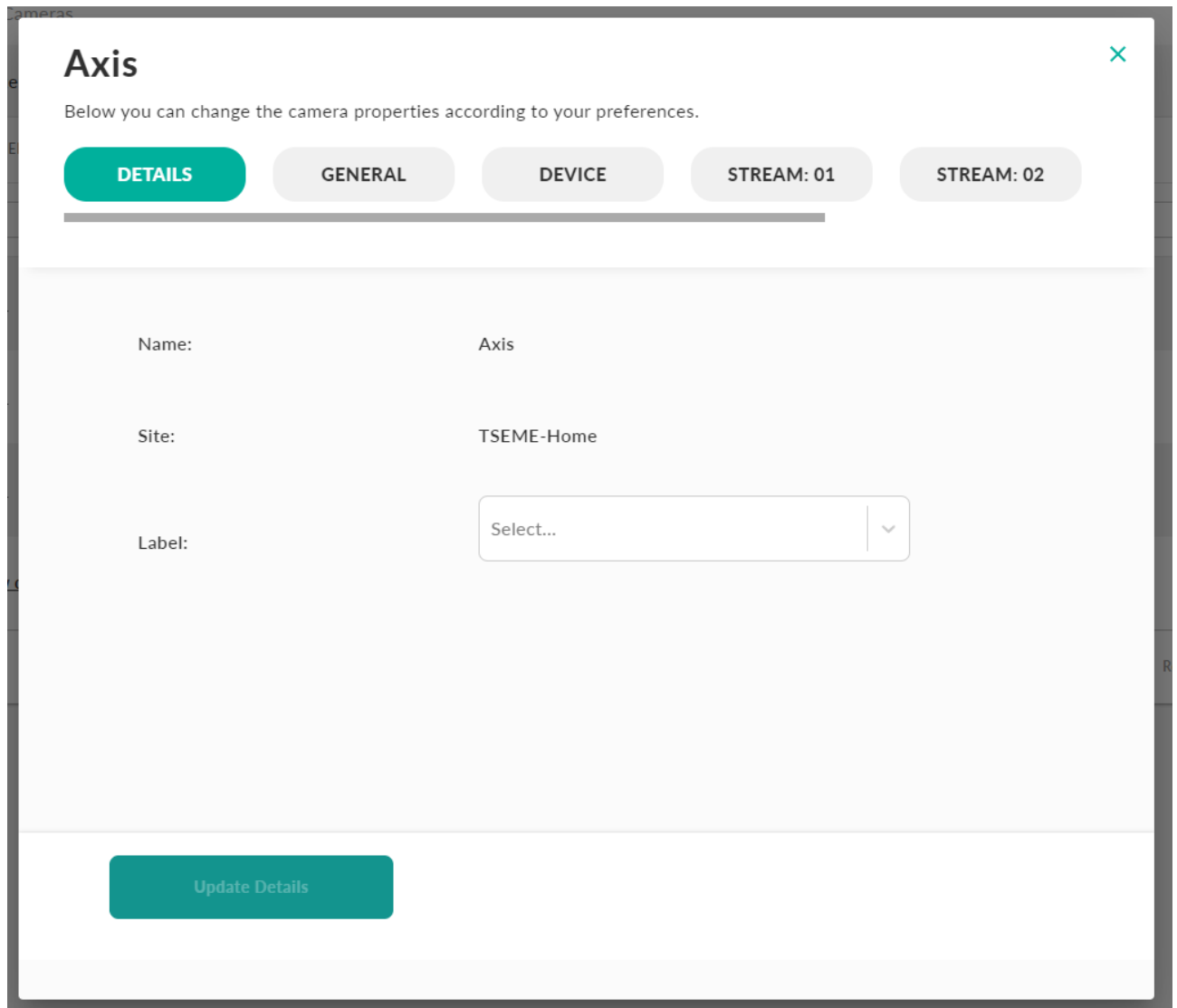
- Change User password
- Delete User
- Delete Group

### 1.5.2 Property Types

- **Flags:** Flags that can be set to either false or true appear as simple check boxes that you can click to make your change to the property.
- **Text:** A text property will appear as a simple text box where you can type in your change on your keyboard. If the text property is restricted, a drop-down box will appear instead from where you can choose one of the valid values.
- **Numbers:** A number property will appear as a simple number box where you can type in your change on your keyboard. If the number property is restricted, a slider will appear instead of a number box where you can adjust the property in between the range of valid values.
- **Collections:** To a collection property, multiple values can be assigned at once (e.g., the users which are assigned to a group). In order to change such a collection, a tag box is displayed where you can click the tag box and select the desired values for the collection with your mouse. By typing with the keyboard, the suggested possible values are filtered.

## 1.6 Labels

Labels can be assigned to sites and all site entities and can be used to better filter and search for specific elements in the overview grids.



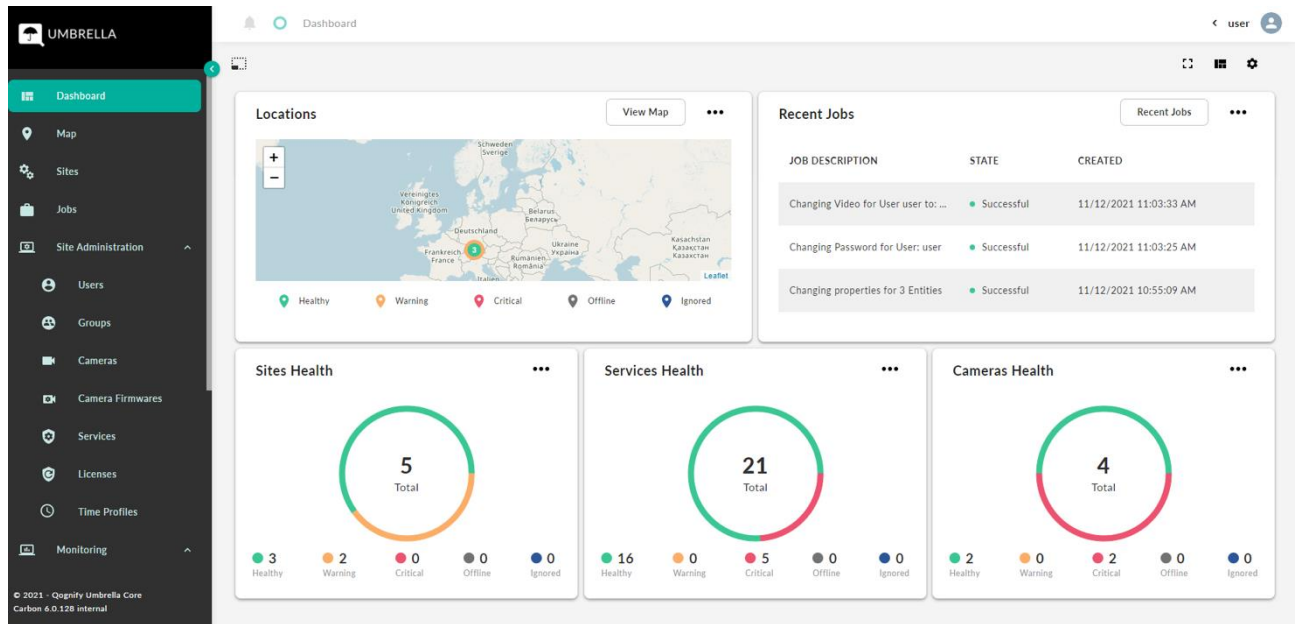
The screenshot displays a configuration window for an Axis camera. At the top, the title 'Axis' is shown with a close button (X) in the top right corner. Below the title, a subtitle reads: 'Below you can change the camera properties according to your preferences.' There are five tabs: 'DETAILS' (active, highlighted in teal), 'GENERAL', 'DEVICE', 'STREAM: 01', and 'STREAM: 02'. The 'DETAILS' tab contains the following fields:

- Name: Axis
- Site: TSEME-Home
- Label: Select... (dropdown menu)

At the bottom of the form is a teal button labeled 'Update Details'.

### 2 Dashboard

The dashboard can be adjusted to the needs of each user. So, every user can customize the dashboard like he needs it and save his layout for later usage. If the user doesn't create a custom layout the default layout will be displayed.

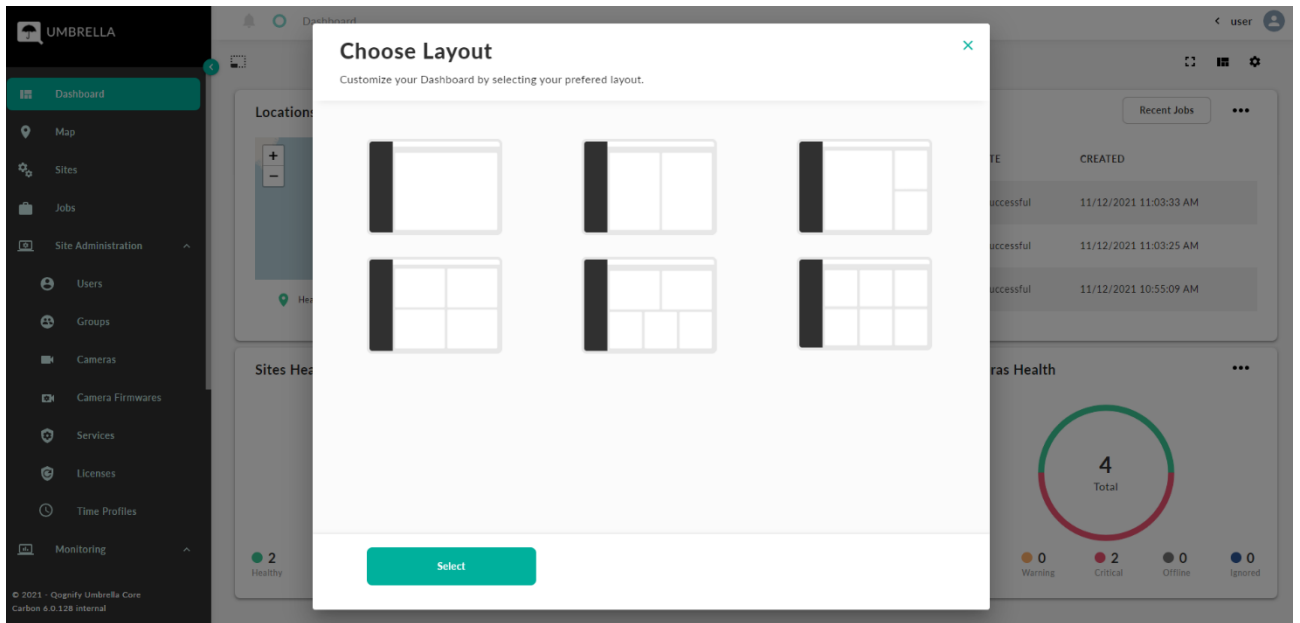


### 2.1 Fixed Layouts

On the upper right side, a fixed layout can be chosen and customized with the desired dashboard widgets.

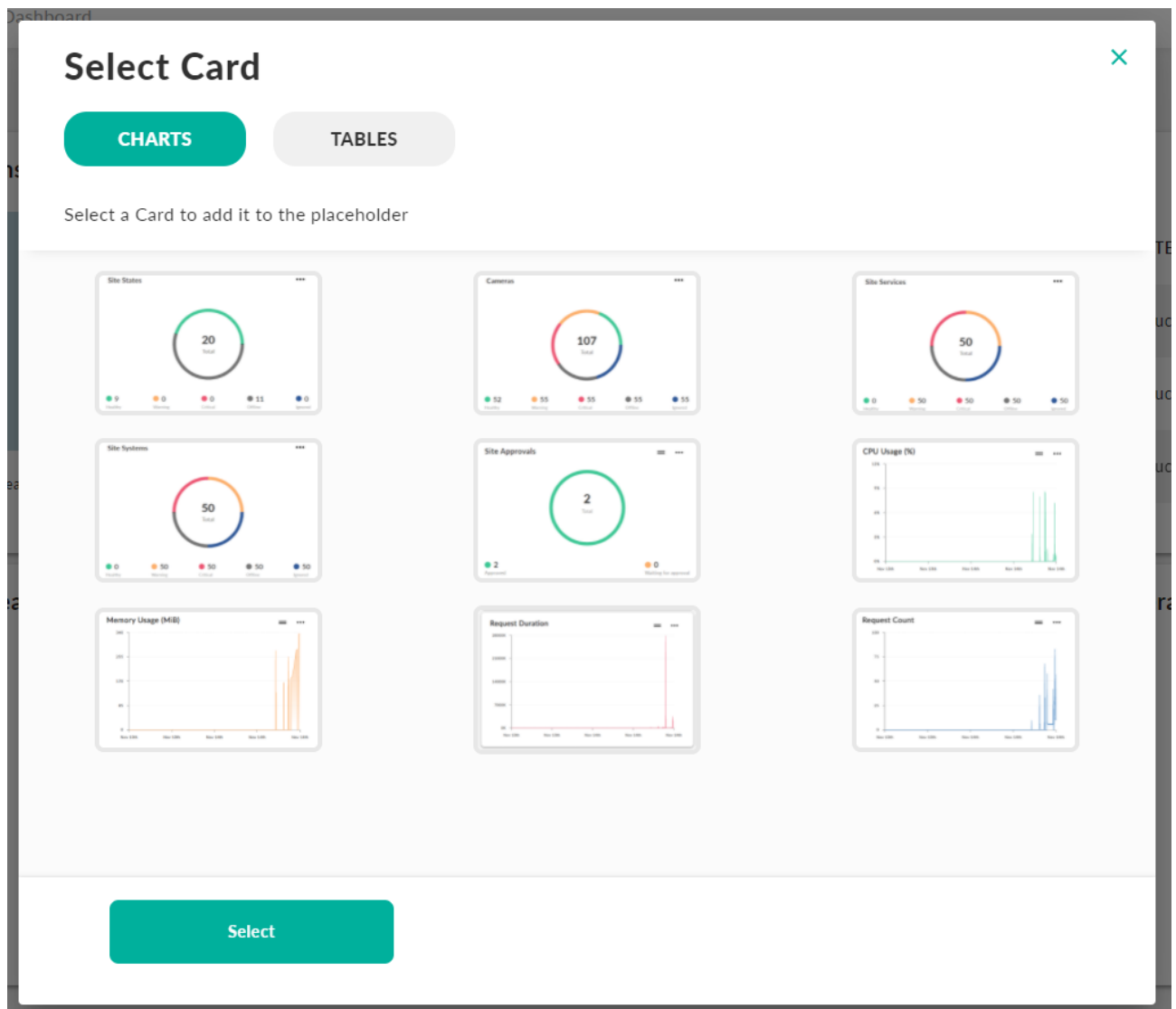
#### 2.1.1 Create new layout

An Umbrella user can create his own custom dashboard layout by clicking the 'Settings' icon on the top right of the dashboard and then 'New layout'. The current dashboard will be cleared. If a user wants a different arrangement of the dashboard he must click on the 'Layout' button beside the 'Settings' button and choose his preferred layout.



### 2.1.2 Add widgets

After the layout was chosen, the user can click on 'Add Card' and can choose which widget should be displayed at that position. Also, existing widget can be replaced by clicking the three dots on the upper right on each widget and select 'Replace Card'.



### 2.1.3 Save layout

After creating his custom layout, the user must save it by clicking the 'Settings' button and 'Save Layout'. Now every time the user opens the dashboard, he will see his custom layout.

### 2.1.4 Delete layout

If the user wants the default dashboard back, he can delete his custom layout by clicking the 'Settings' button and 'Delete layout' and he will see the default dashboard in the future.

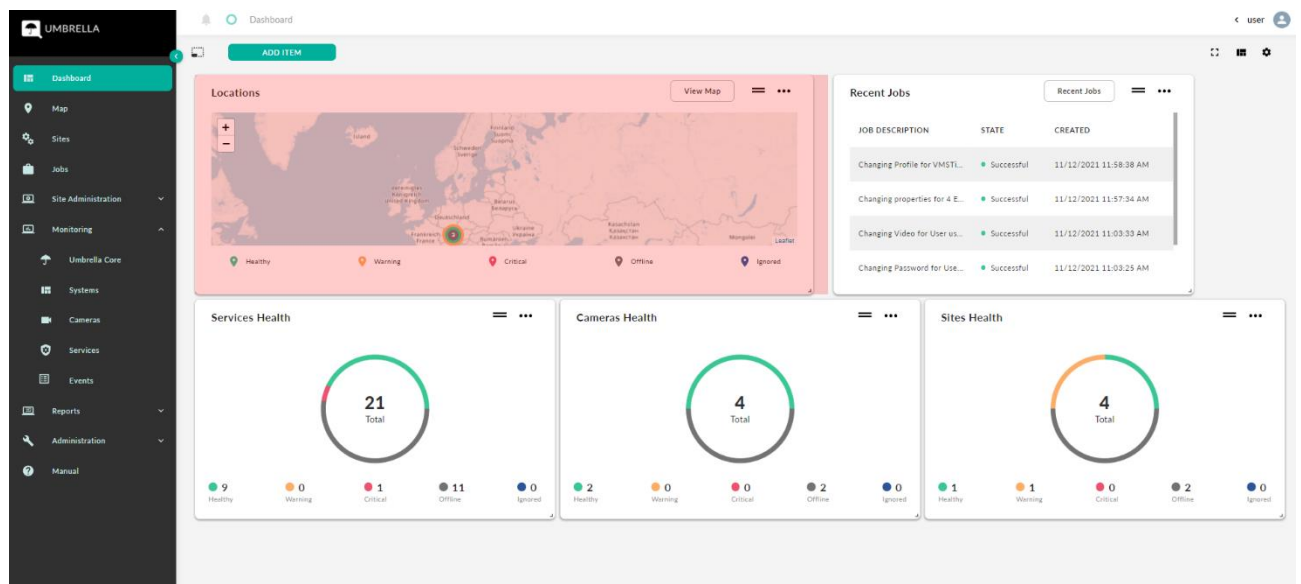


### 2.1.5 Temporarily default dashboard

If the user wants to see the default dashboard temporarily, he must click the 'Settings' button and 'Show default'. The default dashboard will then be shown until he leaves the dashboard.

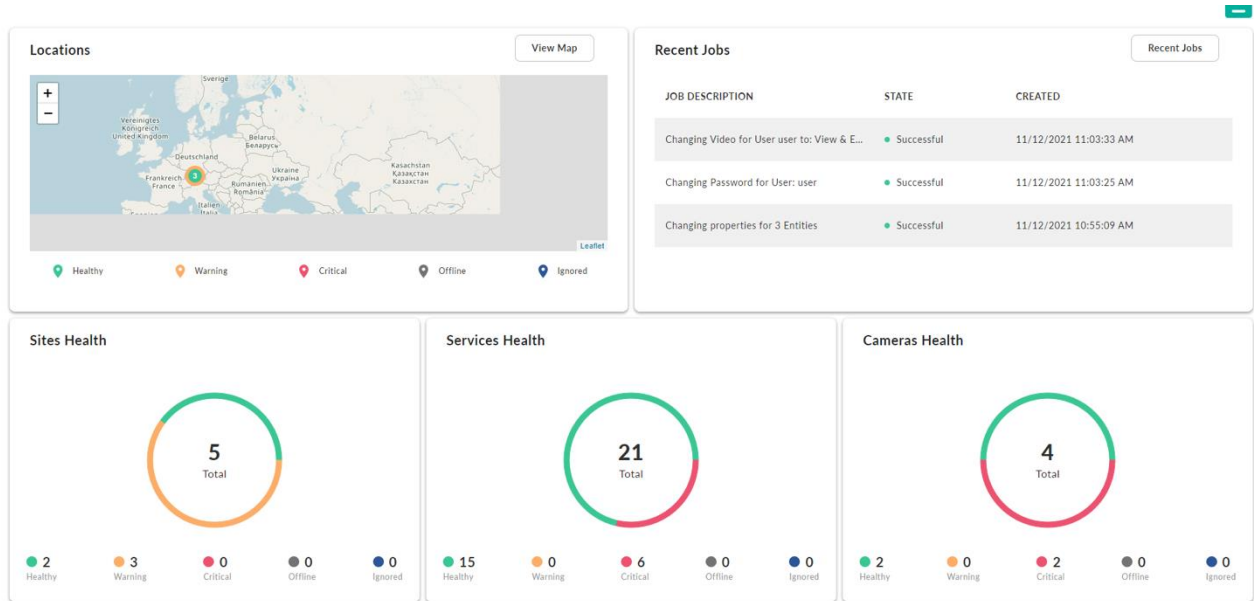
## 2.2 Custom Layouts

Alternatively, each Umbrella user can also customize the dashboard fully by clicking on the upper left icon. The same rules apply here as described in the previous section of 'Fixed Layouts'. Each widget is resizable (lower right corner of each dashboard widget) and can be moved (drag & drop using the burger menu in the upper right corner of each dashboard widget) to a desired position to further customize the dashboard layout. An individual number of elements can be added to the dashboard. A custom layout might be helpful to create better fitting dashboards for the dashboard full screen mode or vertical monitor screens for example.



### 2.3 Full Screen mode

In the upper right corner of the dashboard page the Umbrella user can also switch to a full screen mode, removing the top-bar and navigation bar from the view. The browser will still be visible, but in most cases can also be switched to full screen mode by pressing F11. The full screen mode can be exited through the icon in the upper right corner.

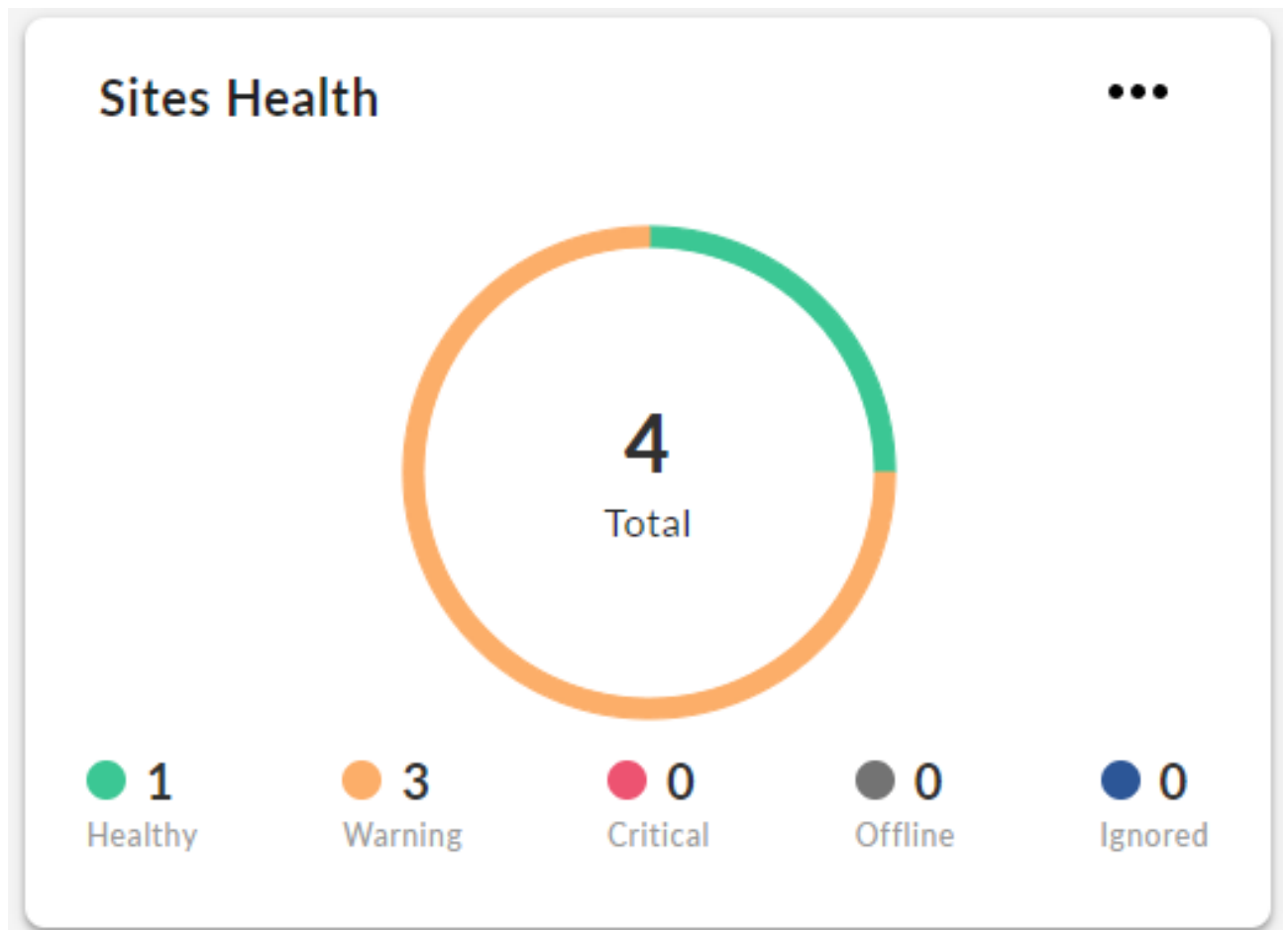


## 2.4 Widgets

Some cards provide clickable elements that serve as shortcuts linking to Overview Pages.

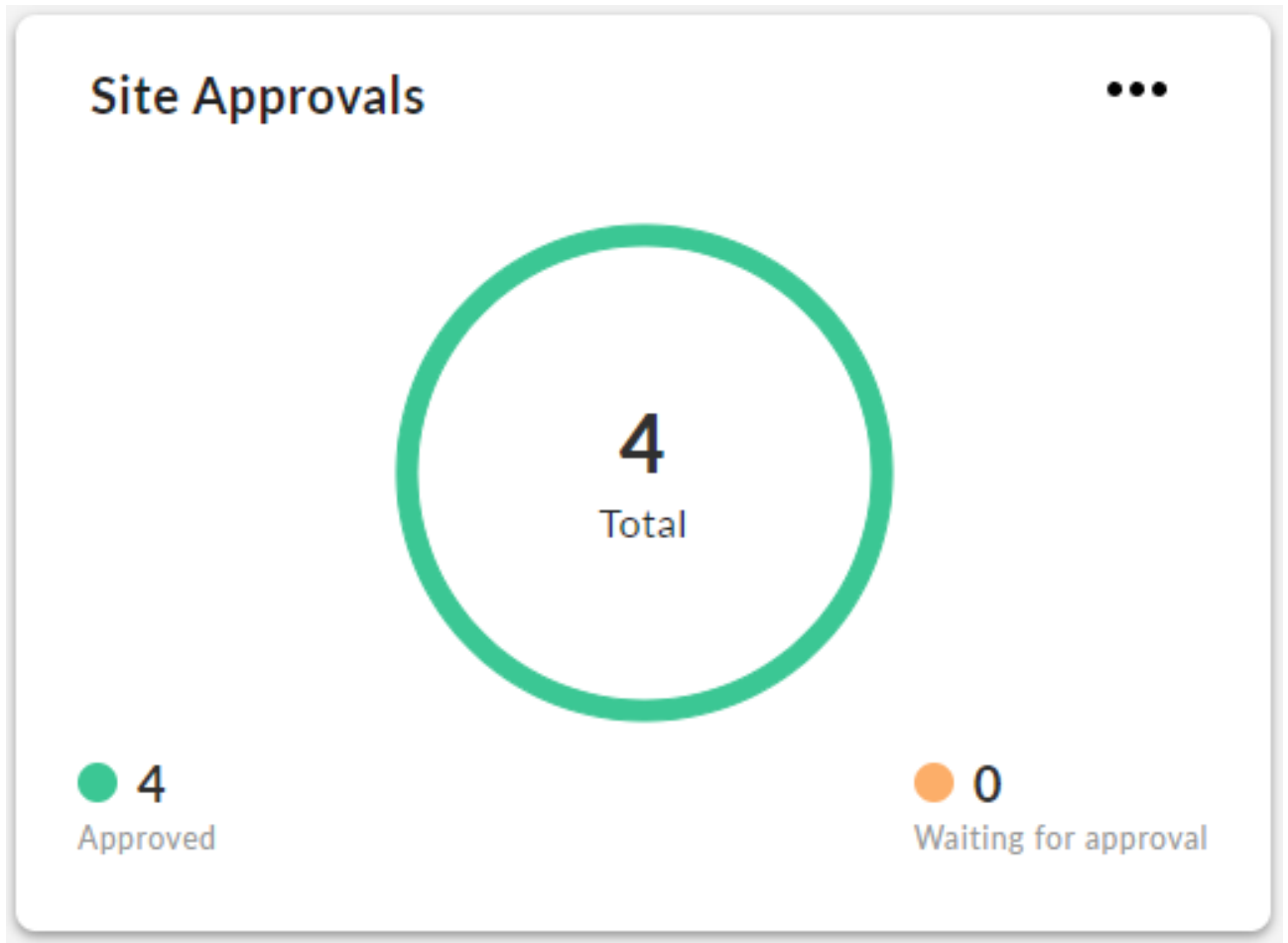
### 2.4.1 Sites Health

This widget displays a brief overview of all accessible sites. When hovering over the 'Healthy' state, a tooltip is shown which gives more insights about how many sites are currently healthy or busy updating. Each state is clickable and leads to an overview page where the selected state is filtered. More information about site states can be found under the section 'Monitoring' or 'Sites/States'.



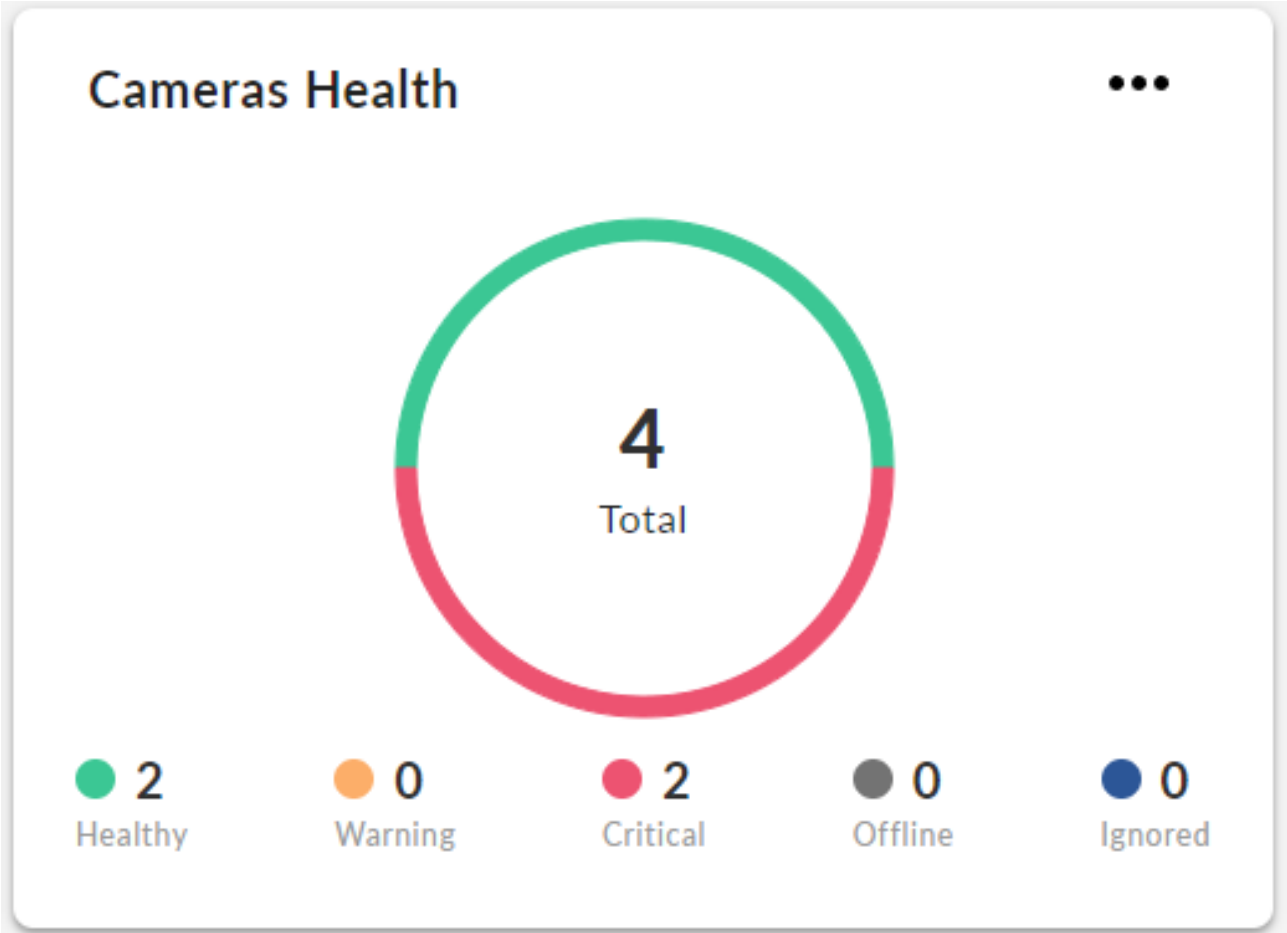
## 2.4.2 Sites Approval

This widget displays a brief overview of how many sites are currently approved and therefore can be managed via Umbrella and unapproved.



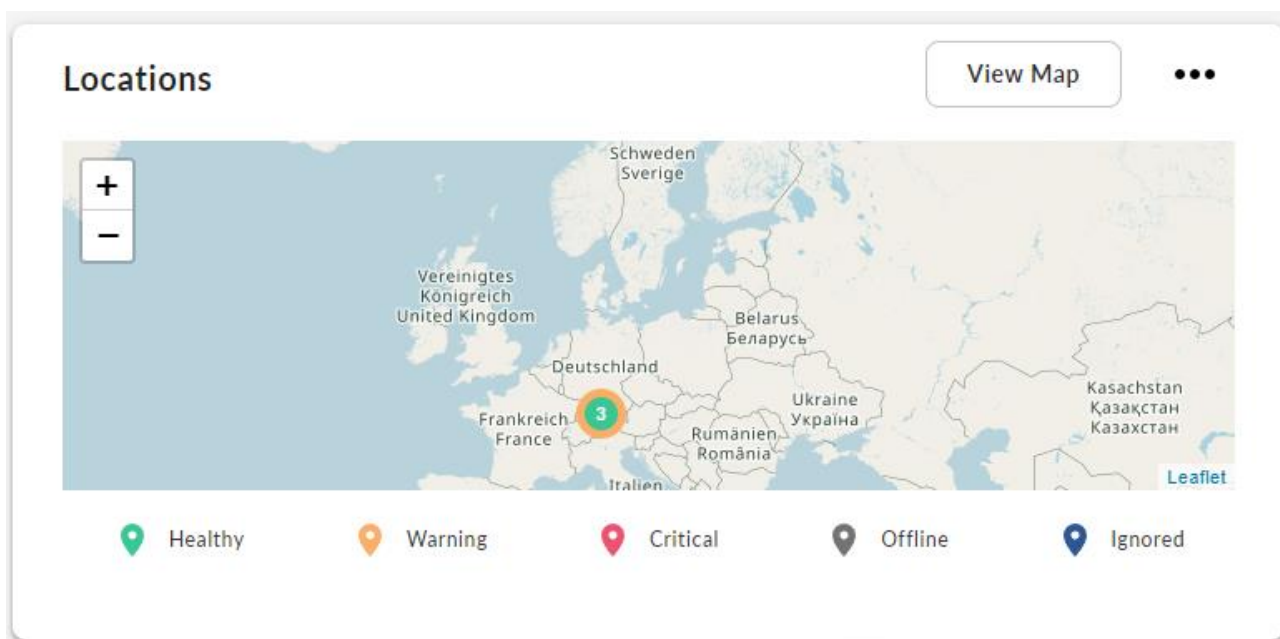
### 2.4.3 Cameras Health

This widget displays the state of all cameras in the Umbrella system. Each state is clickable and leads to an overview page where the selected state is filtered. More information about site states can be found under the section 'Monitoring'.



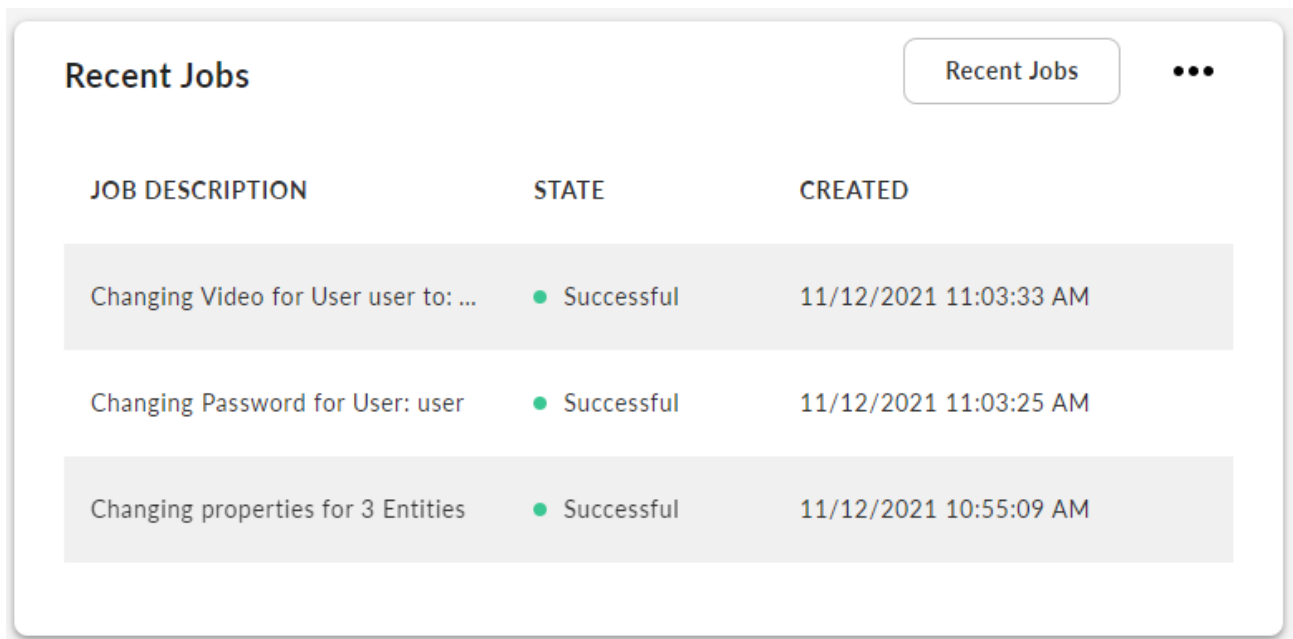
## 2.4.4 Locations

This widget displays all sites which have a location assigned. The location can be assigned from the site's details page. The color of the site marker depends on the site state. A bigger map can be found by clicking the button 'View Map'. More information about the Map can be found under the section 'Map'.



## 2.4.5 Recent Jobs

This widget displays the last 5 jobs that were created via the Umbrella system. Batch jobs and their associated single jobs are aggregated and displayed as one. More information about jobs and batch jobs can be found under the section 'Jobs'.



The screenshot shows a 'Recent Jobs' widget with a title bar containing the text 'Recent Jobs' and a three-dot menu icon. Below the title bar is a table with three columns: 'JOB DESCRIPTION', 'STATE', and 'CREATED'. The table contains three rows of job data, each with a light gray background.

JOB DESCRIPTION	STATE	CREATED
Changing Video for User user to: ...	● Successful	11/12/2021 11:03:33 AM
Changing Password for User: user	● Successful	11/12/2021 11:03:25 AM
Changing properties for 3 Entities	● Successful	11/12/2021 10:55:09 AM

## 2.4.6 Recent Events

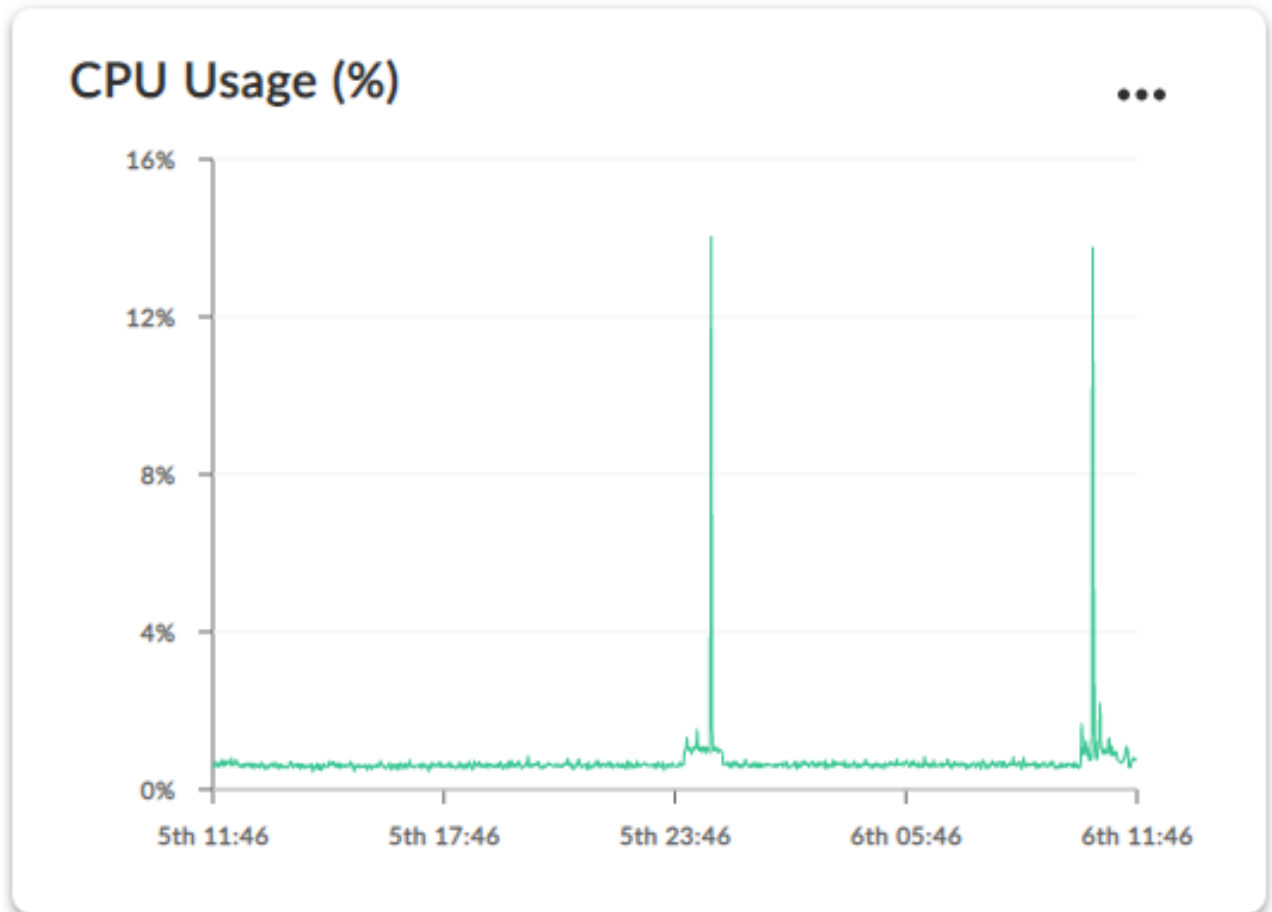
This widget displays the last 10 events that were sent to Umbrella from the VMS system. More information about the events can be found under the section 'Monitoring/Events' or by clicking the button 'View Events'.

DESCRIPTION	SITE	DATE
Services have been started/restarted	TSEME-Home	11/12/2021 11:34:16 AM
Services have been started/restarted	TSEME-Home	11/12/2021 11:34:15 AM
Services have been stopped	TSEME-Home	11/12/2021 11:33:43 AM



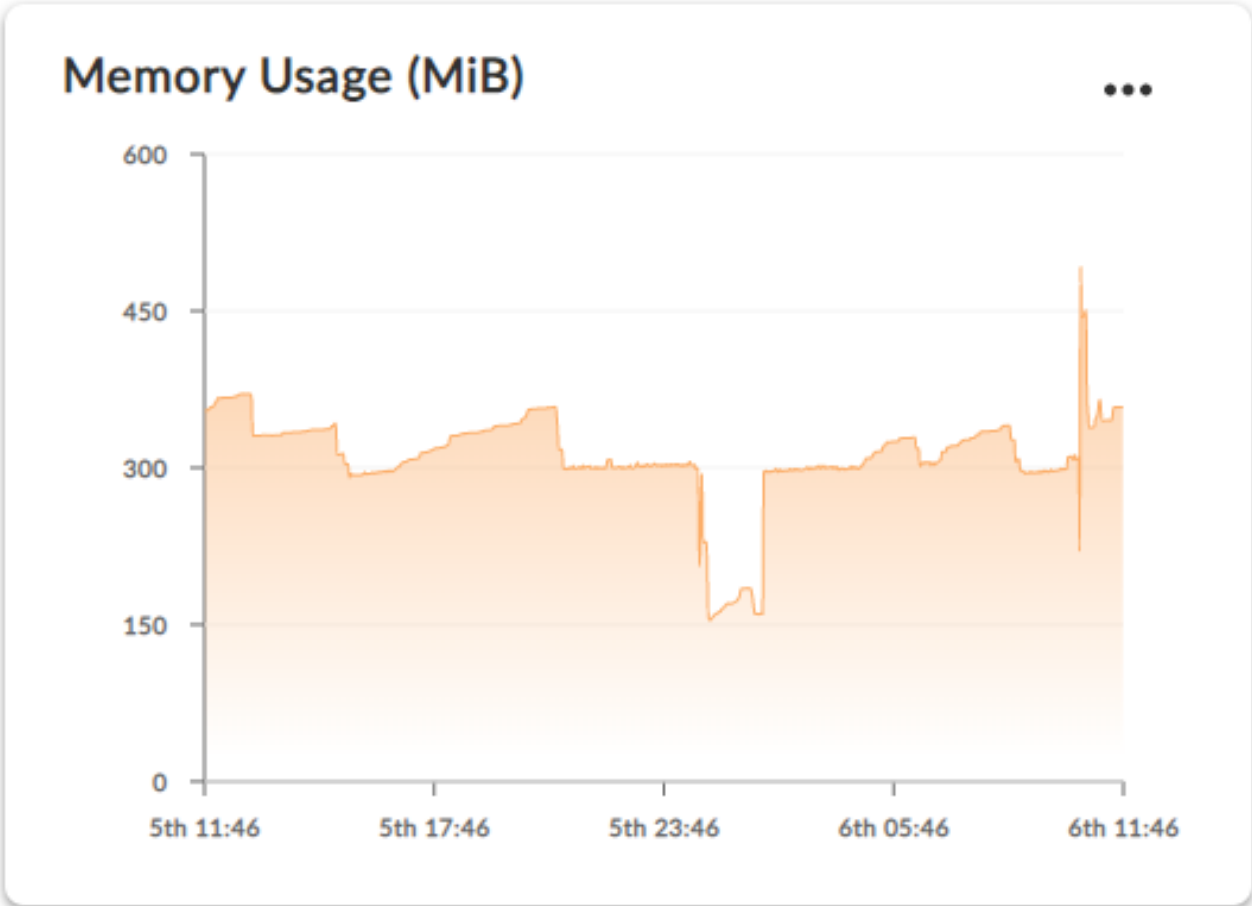
## 2.4.7 CPU usage

This widget displays the CPU usage of the Umbrella Core of the last 24 hours. More information about the resource usage of the Umbrella Core can be found under the section 'Monitoring/Umbrella Core' or by clicking on the widget itself.



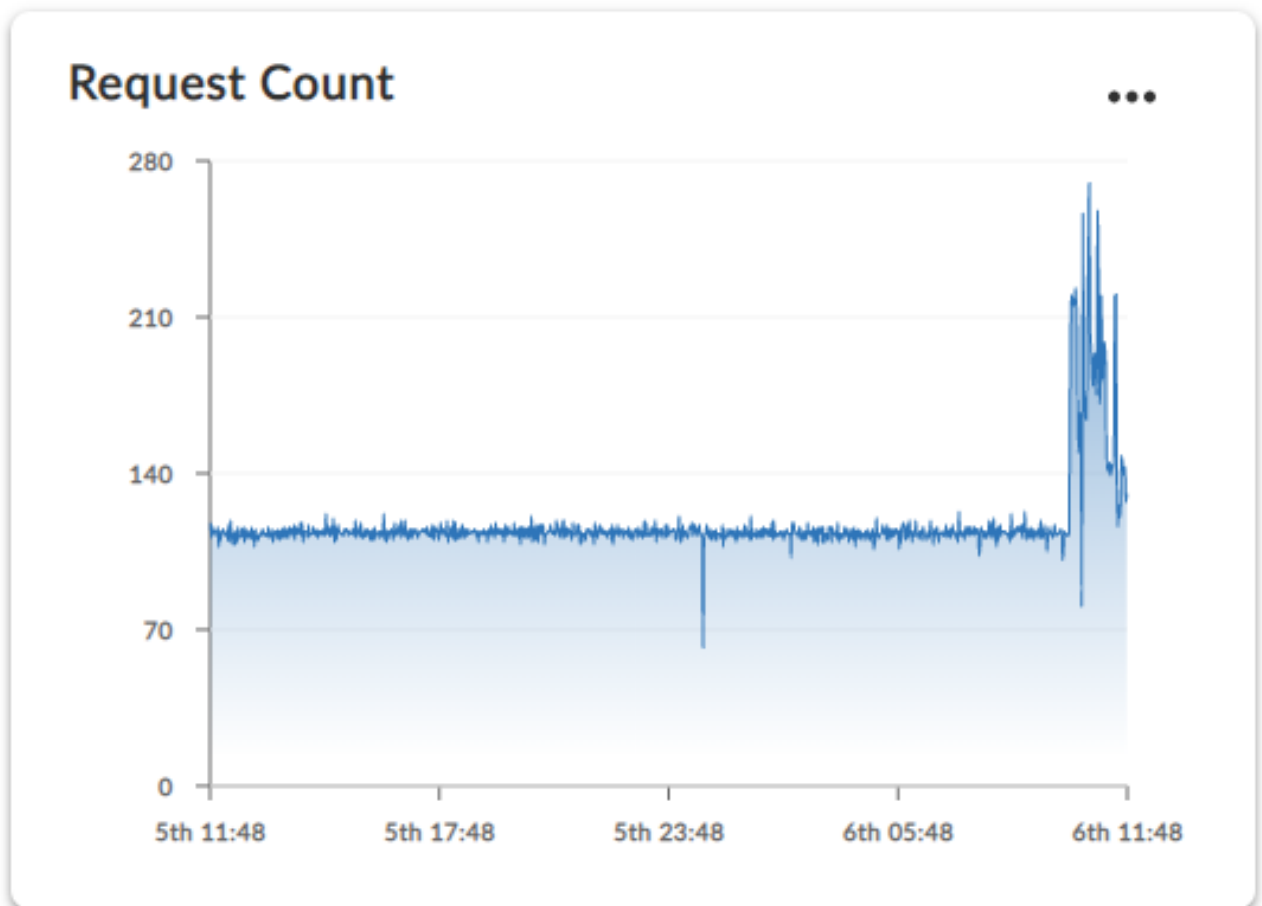
### 2.4.8 RAM usage

This widget displays the memory usage of the Umbrella Core of the last 24 hours. More information about the resource usage of the Umbrella Core can be found under the section 'Monitoring/Umbrella Core' or by clicking on the widget itself.



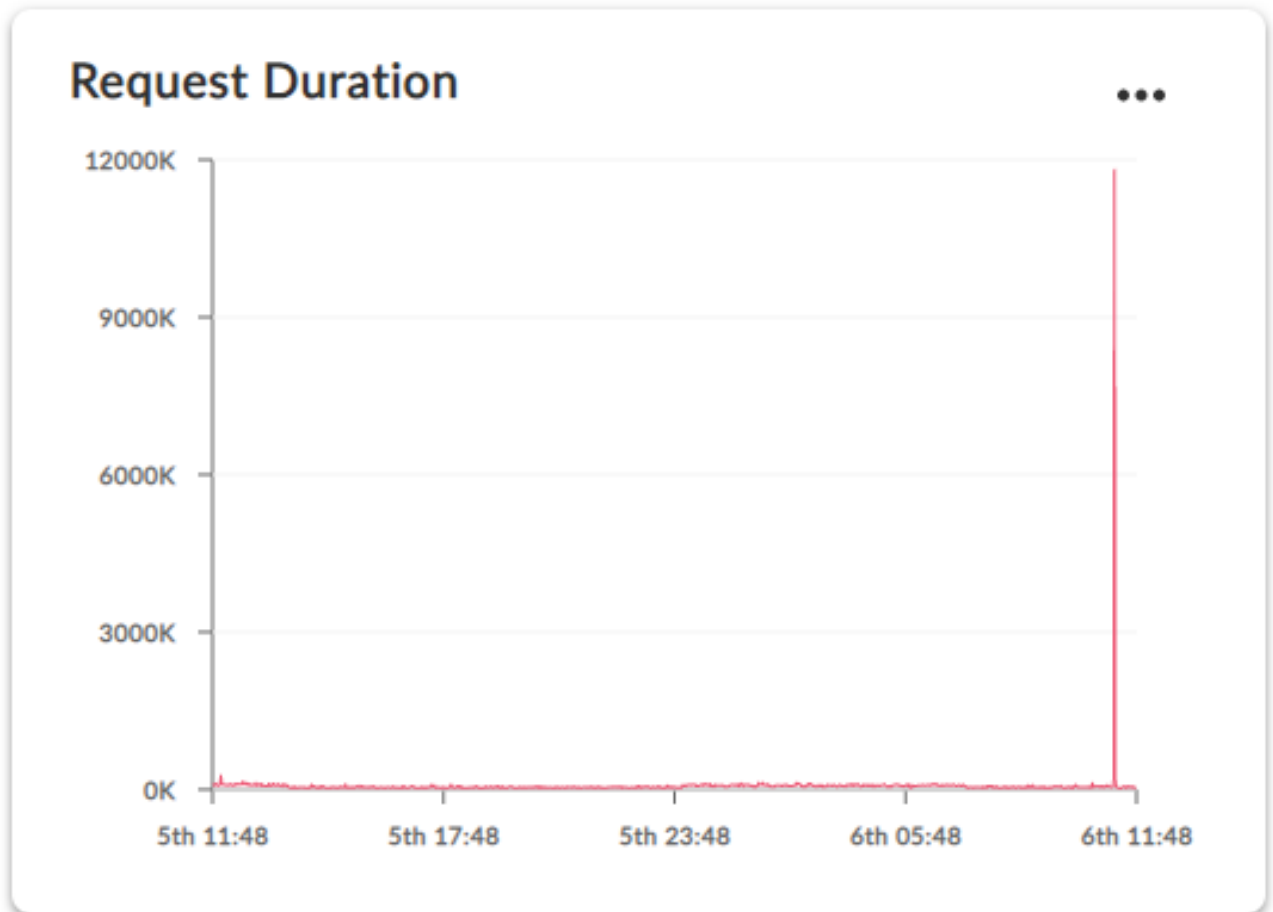
## 2.4.9 Request count

This widget displays the amount of request which were ran against the Umbrella Core of the last 24 hours. More information about the resource usage of the Umbrella Core can be found under the section 'Monitoring/Umbrella Core' or by clicking on the widget itself.



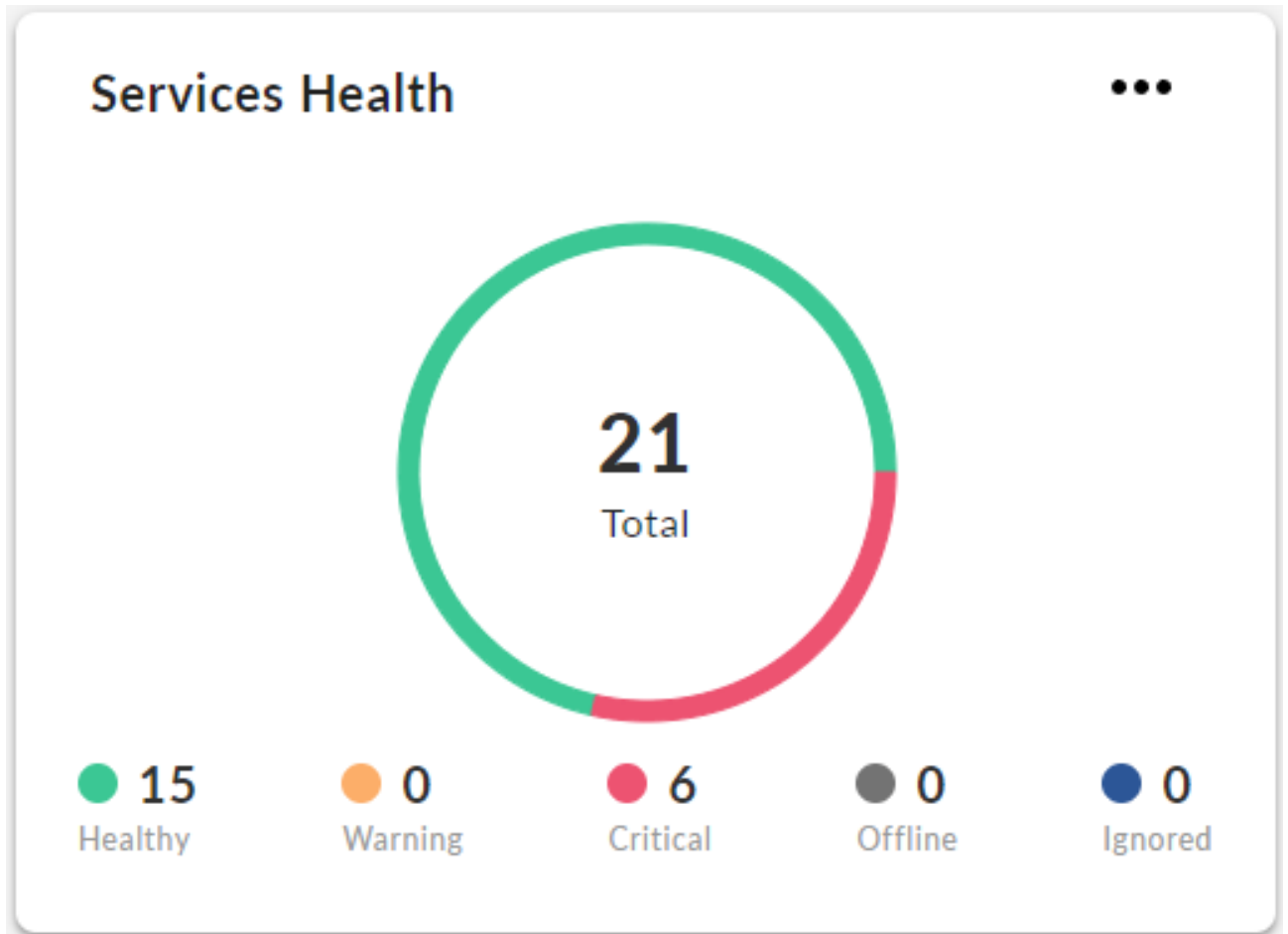
## 2.4.10 Request duration

This widget displays the duration of the requests which were ran against the Umbrella Core of the last 24 hours. More information about the resource usage of the Umbrella Core can be found under the section 'Monitoring/Umbrella Core' or by clicking on the widget itself.



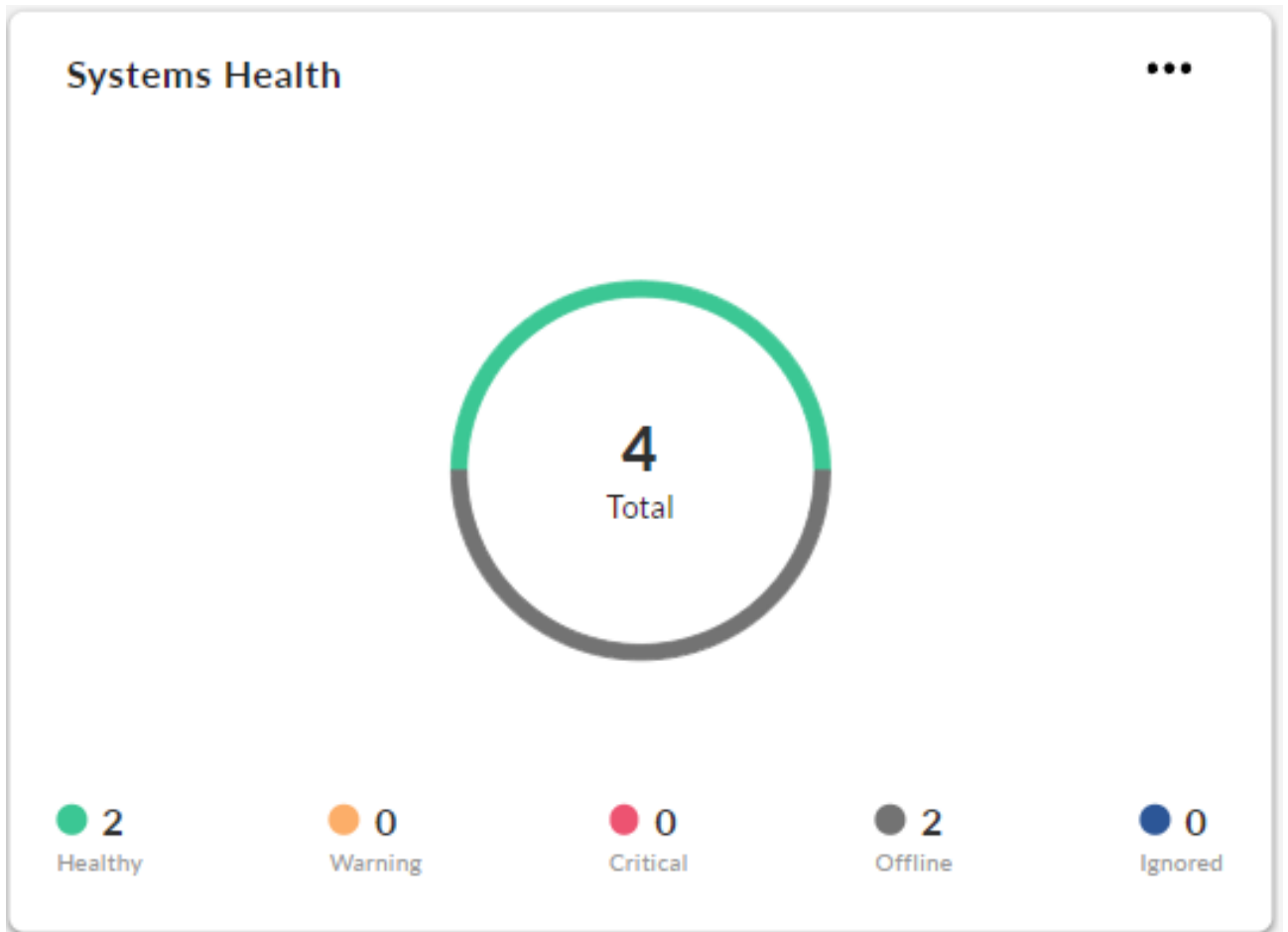
## 2.4.11 Services Health

This widget displays the state of all services in the Umbrella system. Each state is clickable and leads to an overview page where the selected state is filtered. More information about site states can be found under the section 'Monitoring'.



## 2.4.12 Systems Health

This widget displays the state of all systems in the Umbrella system. Each state is clickable and leads to an overview page where the selected state is filtered. More information about site states can be found under the section 'Monitoring'.



## 3 Map

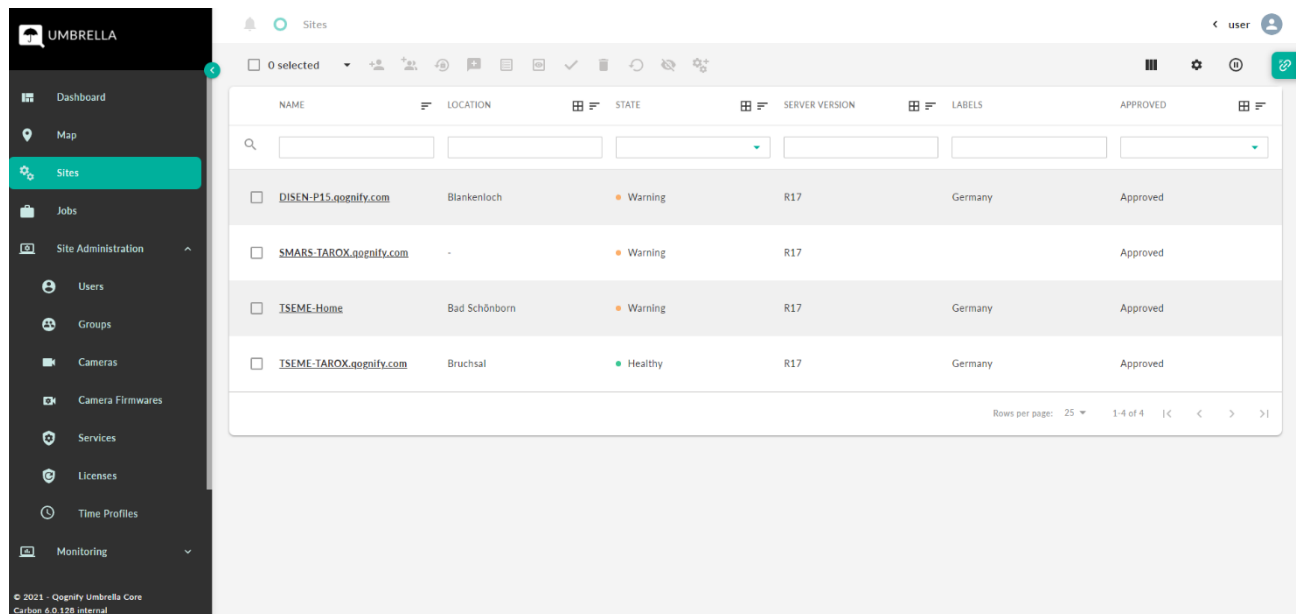
The Map displays all sites which have a location assigned. The color of the site marker depends on the site state. Each single Marker can be clicked to show a site details overview. More information about site states can be found under the section 'Monitoring' or 'Sites/States'.

### 3.1 Map Controls

- You can move the map by dragging the mouse in the desired direction.
- You can hover over a Site marker to get basic information of the Site.
- You can click on a Site marker to open the Site details modal window.

### 4 Sites

The Sites page offers the main overview of all Sites and their properties. It also offers several actions and the grid functionality.



#### 4.1 Site States

There are five different states an approved site can have:

- **Healthy:** The site is online, and no problems are known.
- **Updating:** The site is currently updating itself.
- **Warning:** There are cameras of the site which are not in a positive state.
- **Not Reachable:** The site itself is online, but the connection to the VMS subsystem is lost.
- **Offline:** The site is currently offline. After not receiving 6 consecutive heart beats, the site is deemed as offline.
- **Ignored:** The site is currently ignored. More information about site states can be found under the section 'Monitoring'

#### 4.2 Deployment

To deploy a new site, hover on the badge in the upper right corner of the page and click on Deploy a Site. After this, a dialog appears where you can configure the site to deploy. When you are done with the configuration, click the 'Download Installer' button at the bottom of the dialog. After the download finished, you can proceed installing the site by executing the Umbrella.Gateway.Installer.exe in an administrative shell on the sites' computer.



### 4.3 Approval

A newly deployed site is only allowed to send its heartbeat to the Umbrella core service. To be able to work with a new site, an Umbrella administrator needs to approve the site and therefore give it access to all needed resources to manage the VMS subsystem via Umbrella. It is possible to approve by selecting one or multiple Sites in the grid and using the Approve action.

### 4.4 Change connection user password

Each Gateway uses a user login to connect to the VMS. Here we can change the password of this specific user and make sure the Umbrella Gateway is still able to connect to the VMS.

### 4.5 Set Custom Comments

Each Site can have up to 10 custom comments, which are currently displayed in the Inventory Report and Audit Report. They can be changed for all/selected Sites in the Sites overview or in the Site Details page for one Site only.

### 4.6 Create Inventory Report

Generates an Inventory Report PDF for all/selected Sites which can be downloaded in the Reports. An Inventory Report includes general information, Service Status information, Camera configuration and status, Maps, Attachments and Time Profiles

### 4.7 Create Audit Report

Generates an Audit Report PDF for all/selected Sites which can be downloaded in the Reports. An Audit Report displays all User events. A time range is selected prior to generating the Audit Report.

### 4.8 Restart Site Gateway

It is possible to restart a Site Gateway.

### 4.9 Deploy Monitoring Plugin for a Site

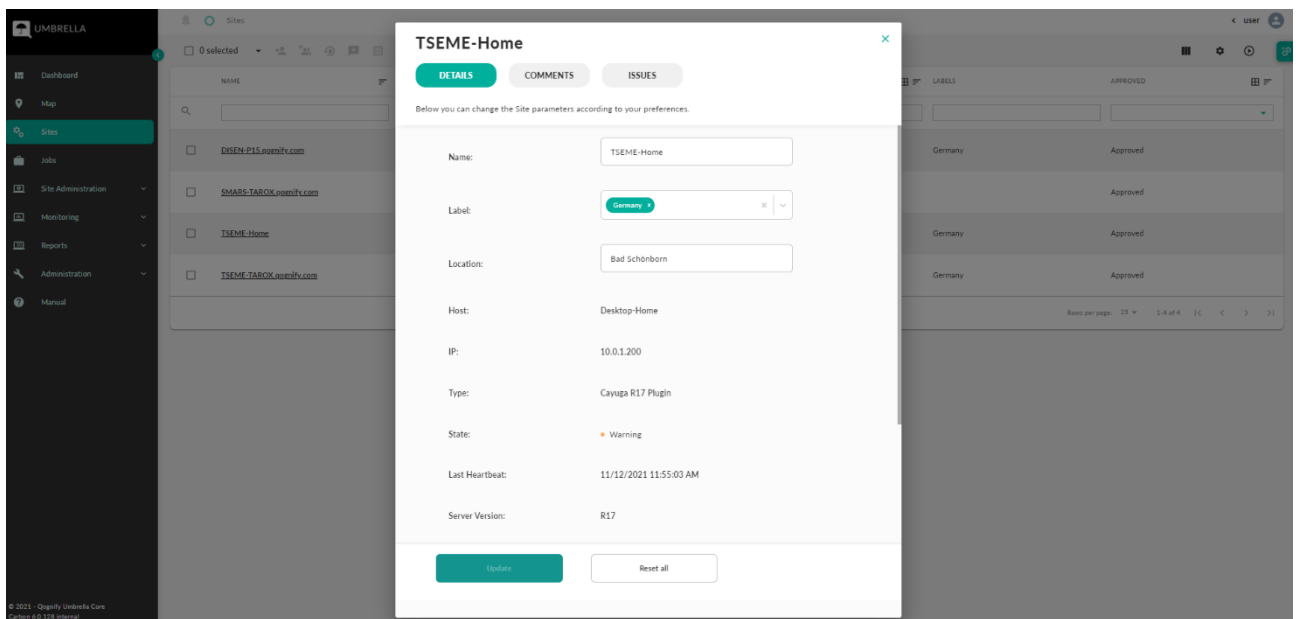
The monitoring functionality is provided by the Umbrella Monitoring Plugin. If the VMS installation is spread over multiple systems, additional Umbrella Monitoring Plugins need to be deployed, one for each system. The Umbrella Monitoring Plugin can be pre-configured in the modal window and the installer package is used the same way as the Umbrella Gateway Installer package. This action is only available for one selected Site because of the individual installer configuration. More information about site states can be found under the section 'Monitoring'.

### 4.10 Ignore Sites

A site can be set to be ignored. More information about site states can be found under the section 'Monitoring' or 'Sites/States'.

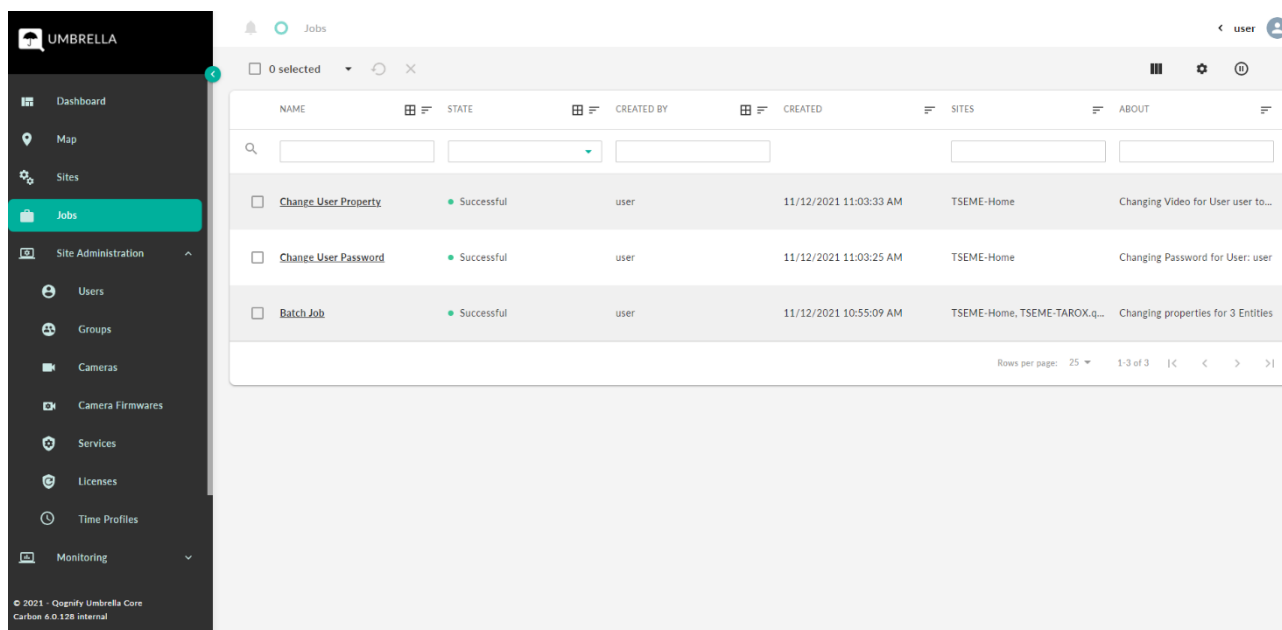
### 4.11 Site details page

On the Site details page the name, the location and the assigned labels of a site can be changed. Entering a valid address enables the site to appear on the map, where its status can be monitored. Additionally, the Custom Comments can be changed for this Site individually.



## 5 Jobs

A job represents a change in a VMS subsystem managed by Umbrella. It contains various information like its creation date, sequence id, when it was updated, what should be changed as well as the result if the change was successfully executed on the site.

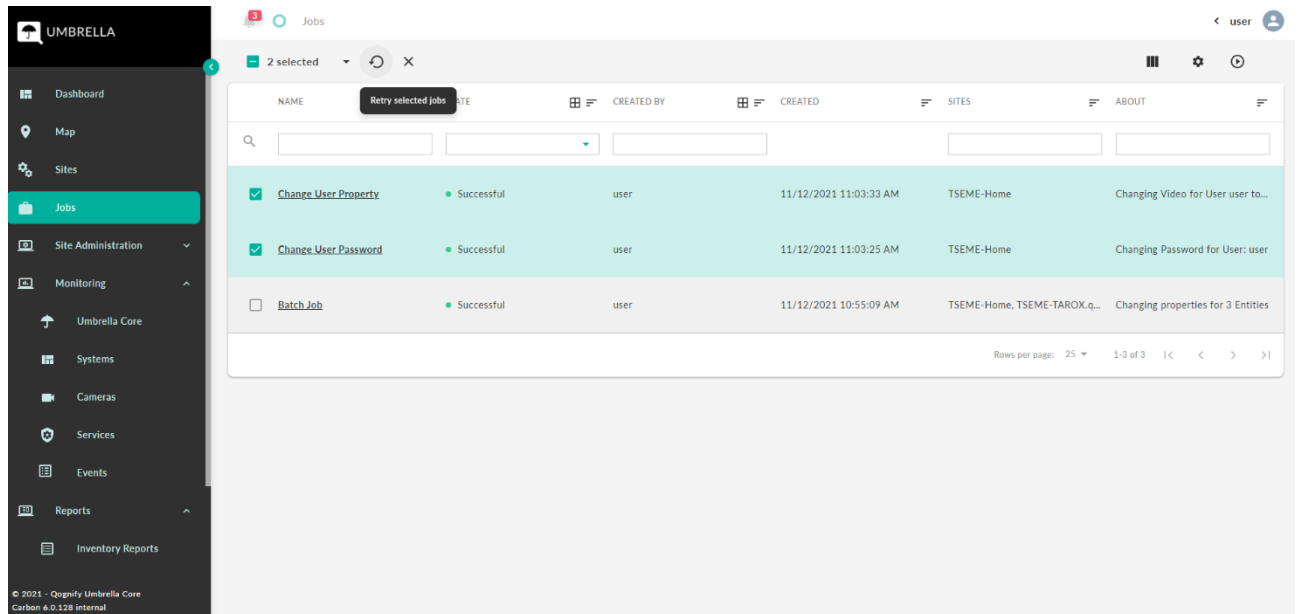


### 5.1 Sequence Jobs and Id

Undo jobs are a special case of job sequences and currently the only type of job sequences we have implemented. Single jobs are treated as job sequences with only one job. In general, each job sequence has a unique Id to identify and group jobs together belonging to the same sequence. Additionally, each job has a sequence order number to execute jobs from sequences in the correct order. For a single job the sequence total number and sequence order are both 1. If one job of a job sequence fails all following jobs are "canceled" and fail immediately.

### 5.2 Retry jobs

A retry job is the copy of another job you configured previously. You can select jobs and batch jobs in the job overview or batch job details page grid and retry them. In this case the job or all jobs from a batch job are cloned and handled the same way a new job or batch job is handled. All properties are copied, including execution time and retries. Important: the undo part is not copied in a retry job. The undo job is a separate job from the actual job which means we do not take care of it. In this case you need to retry the undo job manually. To create a retry job select the job or jobs or batch job you want to retry and click on the retry icon in the action menu above the jobs grid.



### 5.3 Canceled jobs

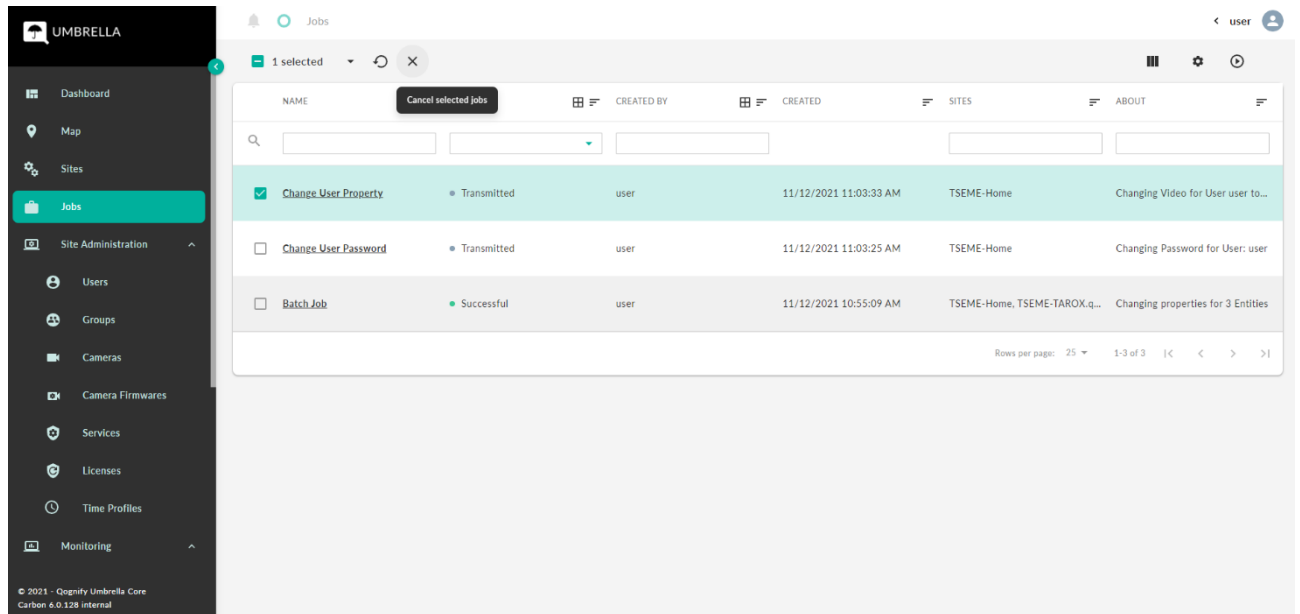
Only jobs which are not yet processed can be canceled, which means if a job already has a Done or Failed state it is too late.

In case the job is in to-do state the job is canceled directly on the Umbrella Core.

In case the job is in the transmitted state the job is already on the Gateway, it may or may not be processed already but the new state is not synced back to the Umbrella Core. In this case the Umbrella Core signal the Gateway to cancel the job, if this cancel request is processed by the Gateway before the job is processed, the job is successfully canceled, and instead of a done or failed state the cancel state is synced back to the Umbrella Core.

It might be that while sending the cancel request to the Gateway the job was already processed, in this case the cancel request is ignored, and it was too late to cancel the job. The state done or failed is synced back to the Umbrella Core.

To cancel a job, select the job or jobs or batch job you want to cancel and click on the cancel icon in the action menu above the jobs grid.



### 5.4 Job States

- **To Do:** The job was created on the Umbrella core system, but not yet transmitted to the related site. It will be transmitted as soon as the site will send it next heartbeat.
- **Transmitted:** The job was successfully transmitted to the related site but was not yet processed.
- **Successful:** The job was successfully processed by the site and the changes were applied.
- **Failed:** The job failed during processing due to various reasons. For further details, have a look at the message which was added to the job by the VMS subsystem to resolve the problem.
- **Canceled:** The job was created and before its changes were applied, it got canceled and the job changes were dropped and not applied by the site.

## Change User Password ✕

Changing Password for User: user

**JOB:**

**CREATED**  
11:03:25 AM  
11/12/2021

**STATUS**  
**SUCCESSFUL**  
Duration: 21 seconds

**Description:** Changing Password for User: user

**Comment:**

**Type:** ChangeVMSUserPasswordJob

**Site:** TSEME-Home

**Created By:** user

**Created:** 11/12/2021 11:03:25 AM

**To Do:** 11/12/2021 11:03:25 AM

**Transmitted:** 11/12/2021 11:03:37 AM

**Successful:** 11/12/2021 11:03:47 AM

**Message:** OK (0)

**Execution time (Site timezone):** -

**Undo Time (Site timezone)** -

**Retries:** 0

## 5.5 Batch Jobs

A batch job corresponds to a volume of jobs that are related to one or multiple sites as well as to one or multiple properties. The batch job is created as soon as you change multiple properties and/or multiple entities at once. Each change creates a single job which is related to your batch job operation you just created; therefore, each change will be tracked individually and can be monitored in detail.

Jobs > Batch Job

**Batch Job**

Changing properties for 3 Entities

- Failed (0)
- Successful (0)
- To Do (3)
- Canceled (0)
- Transmitted (0)

0 selected

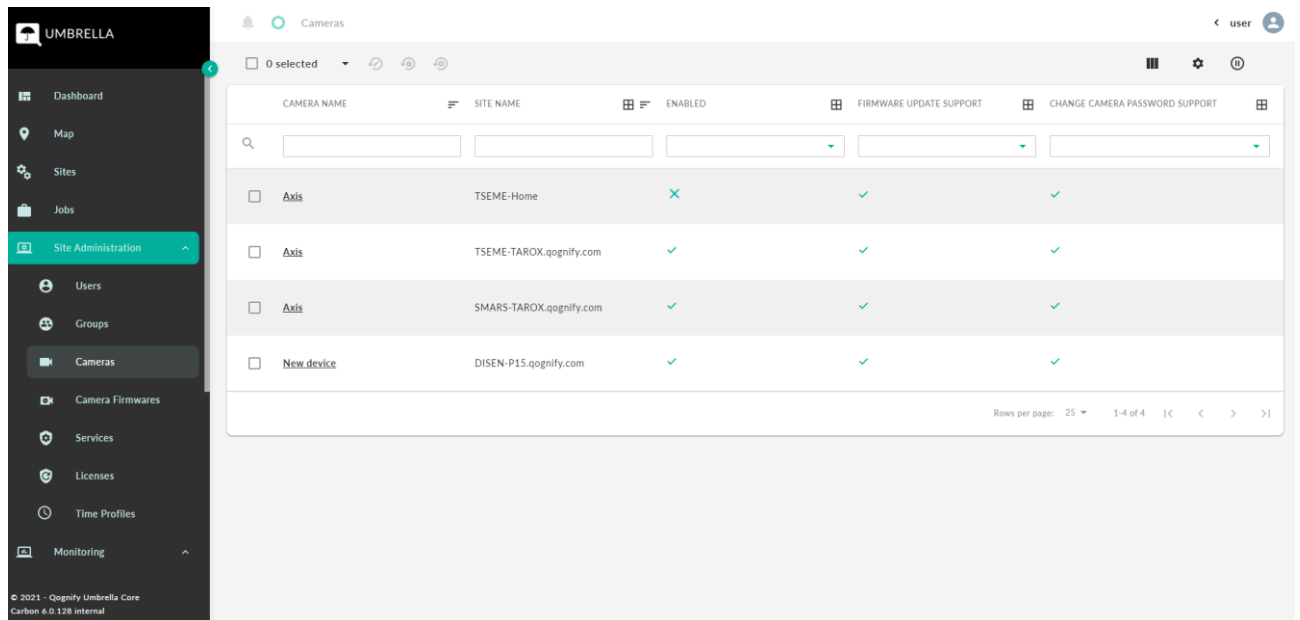
NAME	STATE	CREATED BY	CREATED	SITES	ABOUT
<a href="#">Change Camera Property</a>	Successful	user	11/12/2021 10:55:09 AM	SMARS-TAROX.qognify.com	Changing Stream_Framerate.01 ...
<a href="#">Change Camera Property</a>	To Do	user	11/12/2021 10:55:09 AM	TSEME-TAROX.qognify.com	Changing Stream_Framerate.01 ...
<a href="#">Change Camera Property</a>	Successful	user	11/12/2021 10:55:09 AM	TSEME-Home	Changing Stream_Framerate.01 ...

## 6 Site Administration

Available if the configuration module is licensed in Umbrella. Offers the possibility to perform Site Entity configuration changes.

### 6.1 Cameras

They are the cameras that run as part of the VMS application. The cameras can be edited from the details page for a change on only one camera or edited from the overview page by selecting multiple cameras. Changing a camera password or updating a camera firmware is only available on the cameras grid overview page. Columns for change camera password support and update firmware support can be displayed and used to filter for cameras which support these operations.





## 6.1.1 Change Camera password

To change the password of one or multiple cameras, select one or multiple cameras in the overview grid and perform the change password action. Umbrella does not know the old camera password.

### Change Camera Password



Change Password for the selected cameras

**Required parameters:**

Password:

**Advanced Job Configuration:**

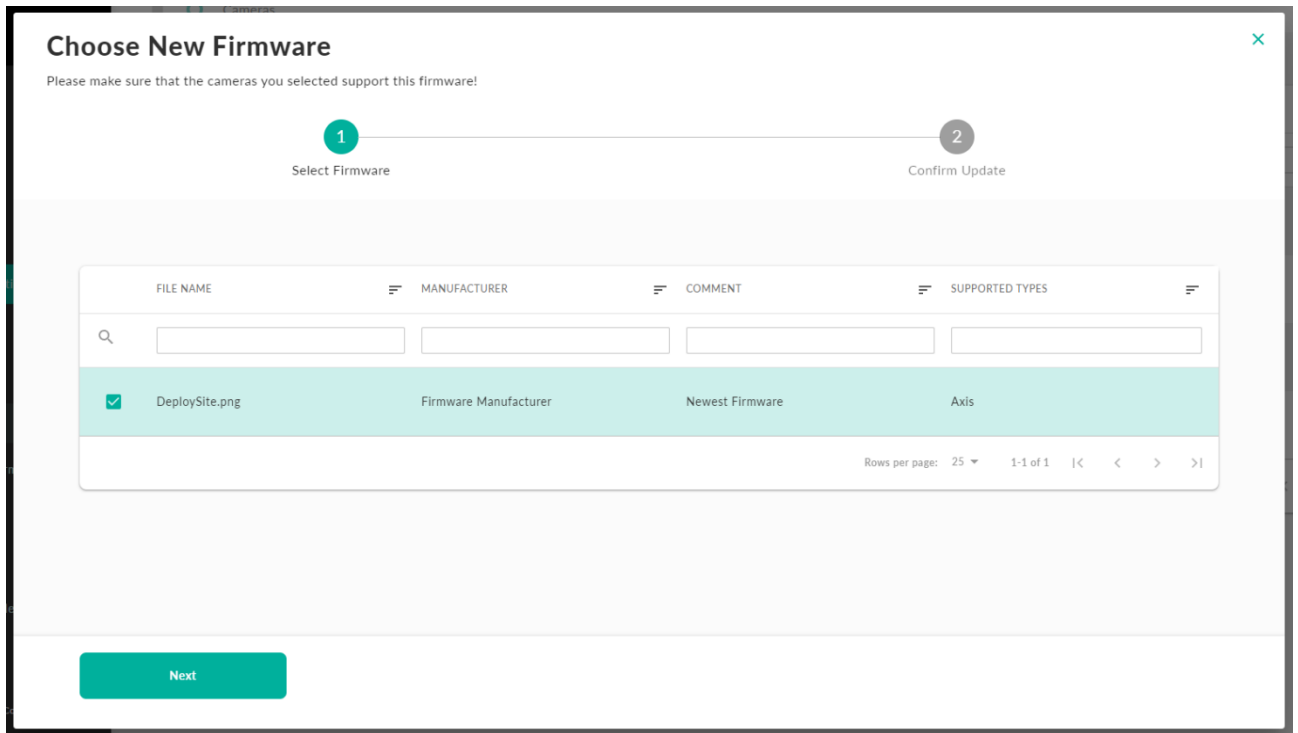
**Job Comment:**

Comment:

Create 'Change password' job(s)

### 6.1.2 Camera Firmware update

The camera firmware update is done in two parts. After you select one or multiple cameras in the overview grid and click on the update firmware action button, you can select one firmware from the list of available firmware's. After that you get a final confirmation screen to validate the selected firmware and cameras.



### Firmware Update

Listed cameras will be updated to DeploySite.png.

1  Select Firmware

2  Confirm Update

CAMERA NAME	SITE NAME	FIRMWARE	MODEL
Axis	TSEME-Home	6.50.2.1	AXIS Q1604
Axis	TSEME-TAROX.qognify.com	6.50.2.1	AXIS Q1604
Axis	SMARS-TAROX.qognify.com	9.20.1	AXIS P1448-LE

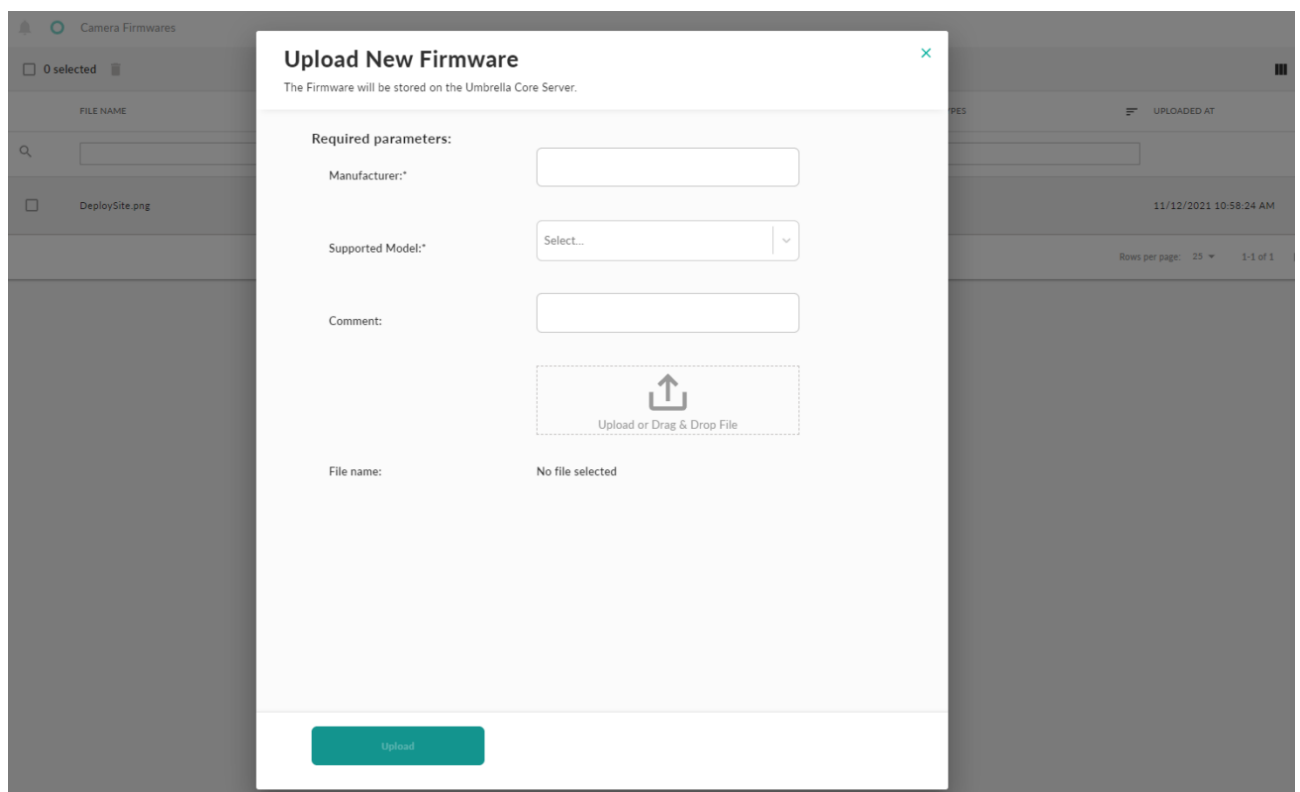
Rows per page: 25 1-3 of 3 |< < > >|

### 6.2 Camera Firmwares

The camera firmware section offers the possibility to upload camera firmware files to the Umbrella Core. These files are available when performing a camera firmware update in the Cameras section of the Site Administration. It supports the following properties to make searching and filtering easier:

- Manufacturer
- Comment
- Supported Types

It is also possible to delete one or multiple files.

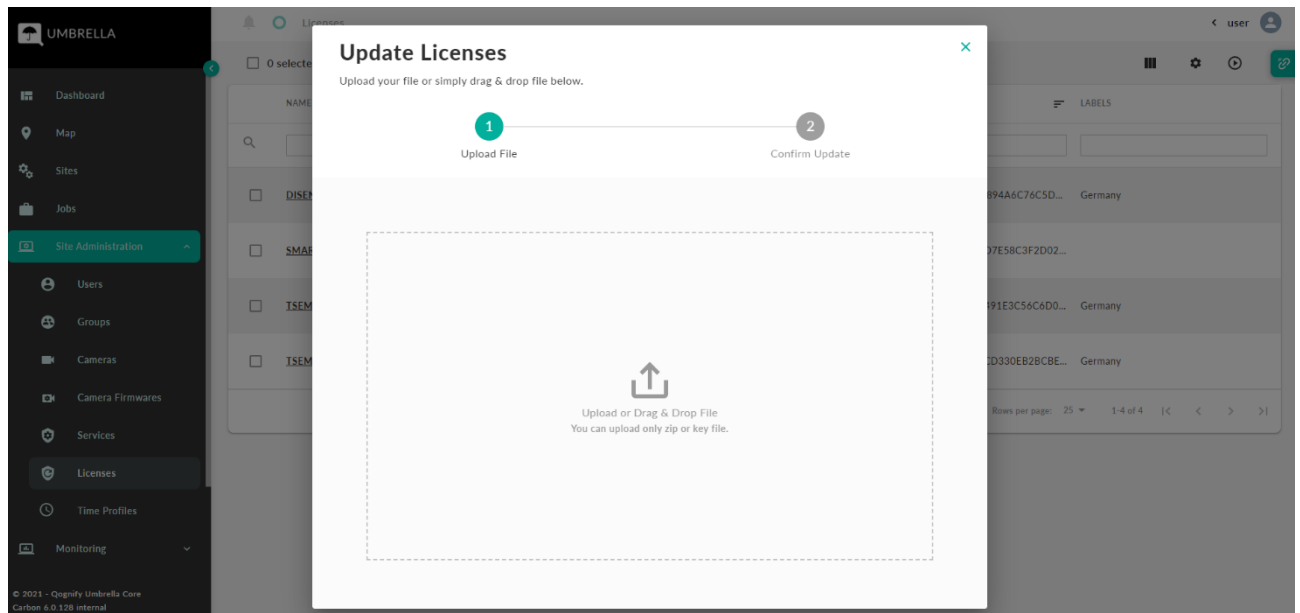


### 6.3 Services

They are the Services that run as part of the VMS application. The services can be edited from the details page for a change on only one service or edited from the overview page by selecting multiple services and editing for the selected services.

### 6.4 Licenses

To update the licenses of one or several sites, click the 'Update Licenses' button by hovering on the badge in the upper right corner of the table. A dialog appears where you can drag and drop a single license or an archive of multiple licenses into the file drop zone of the dialog. The Umbrella service will now map the uploaded licenses to the sites currently in the system. A list of all sites which will receive license updates will be shown to you as soon as the process is finished. The Server ID property of a site is used to map the license file to the site.

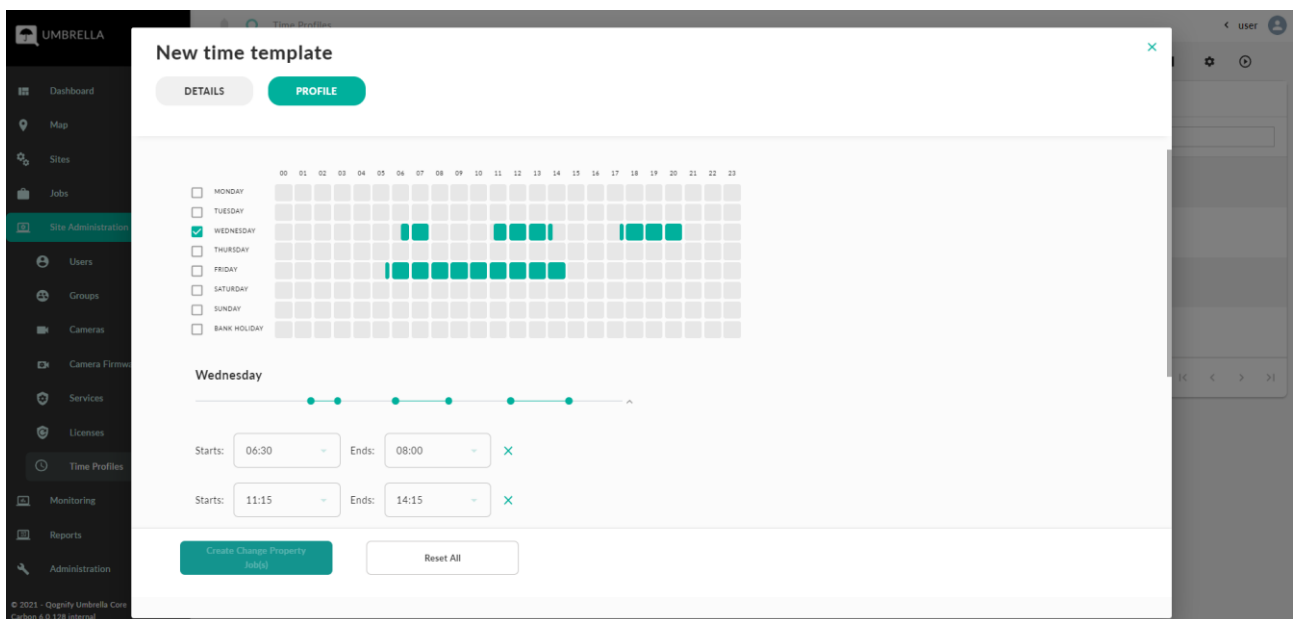


### 6.5 Time Profiles

VMS systems are using Time Profiles to enable/disable specific features in their systems at a specific time and date. One example is to enable camera motion detection only during off hours in shops. Here in Umbrella, you can configure one or multiple Time Profiles. The overview page offers the same functionality as all the others.

#### 6.5.1 Time Profile Configuration

The grid over all days is just for displaying and cannot be edited directly. Currently you can edit one day at a time. After you select a day for configuration you can use the slider bar at the bottom to add new time ranges, to change their start and/or endpoint or to move a whole-time range. Multiple time ranges for each day can be added. In case two-time range endpoints are equal or overlapping the two-time ranges will be merged into one after releasing the mouse button. Editing steps are currently 15 minutes. For advanced editing or to remove time ranges from a day the view can be expanded to show a more detailed view on the time ranges for the currently selected day.



## 7 Monitoring

Monitoring is only available if the Umbrella license includes the monitoring module. Its main purpose is to provide faster information from sites, especially related to the cameras, services and systems. It also enables the Umbrella user to track system messages from sites. Additionally, it allows the monitoring of the Umbrella Core. It is very similar to the Site Administration but offers no configuration functionality in general.

Only reachable Sites and Site entities are shown under Monitoring. If a Gateway is not reachable or the VMS behind it is not reachable most of the data will not show up or will be displayed as offline.

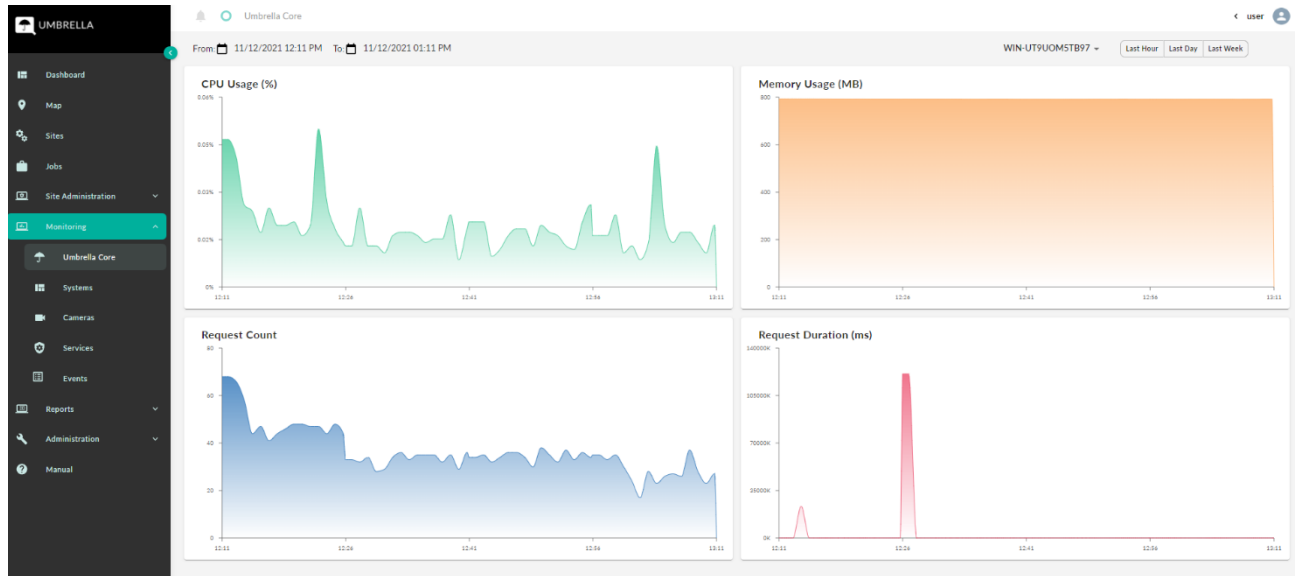
Sites, cameras, services and systems can have one of the following states:

- **Healthy:** Entity is healthy, disabled (only cameras) or updating (only Sites)
- **Warning:** Entity is not healthy. A Site is in warning state if at least one camera and/or service is not healthy, offline or ignored
- **Critical:** Entity is in a critical state. A Site is critical if there is a problem with the Gateway (e.g., VMS not reachable)
- **Offline:** Entity has not synced any data or any new data for 6 heartbeats or the Site is offline. A Site is offline if the Gateway is not reachable for 6 heartbeats
- **Ignored:** Entity is set to ignore, or the Site is set to ignore. Entities inherit the ignore state from their respective Site

Systems, cameras and services monitoring overview pages group the entities by Site. They all offer the same filter functionality.

### 7.1 Umbrella Core

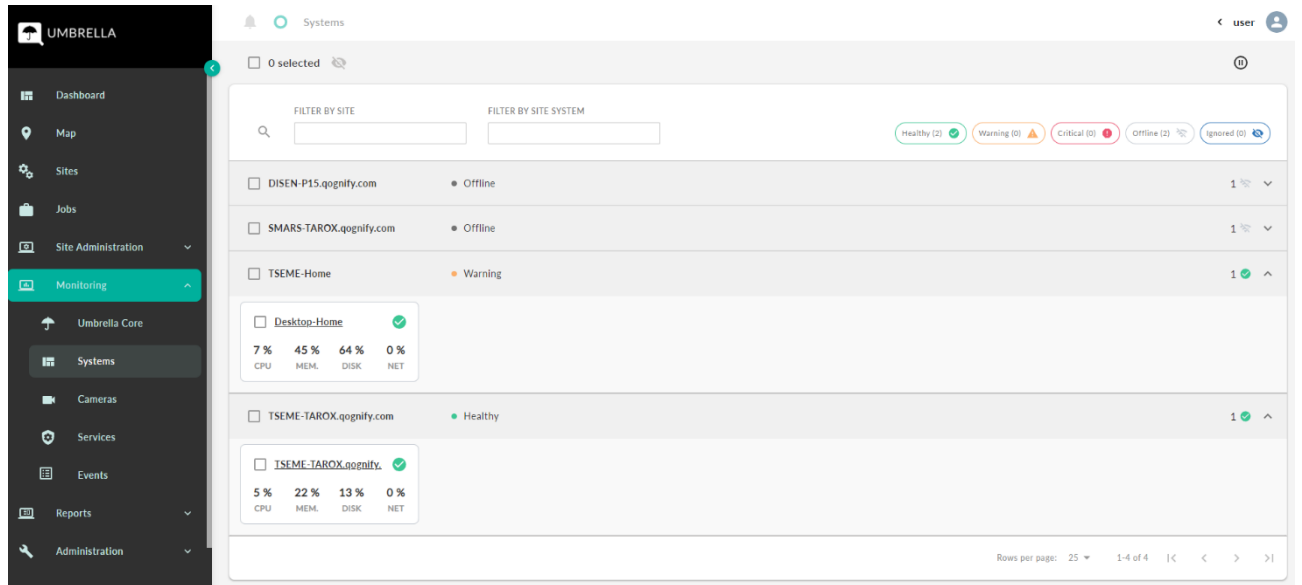
The Umbrella Core overview pages offers information about the Umbrella Cores like CPU and memory consumption, as well as the request count and duration. It is possible to show this information over specified time ranges (day, week, month) or set a custom time range if necessary. It is also possible to select performance data for different Umbrella Cores.





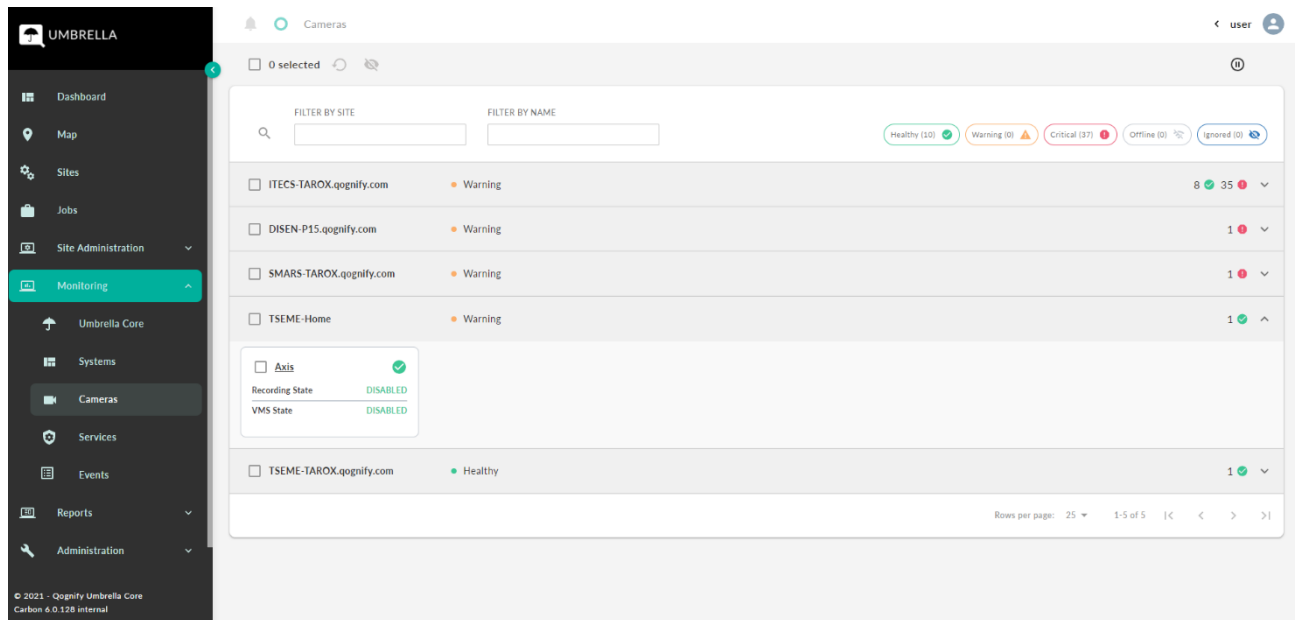
### 7.2 Systems

Site Systems provide a grouped overview of all connected systems within their respective site.



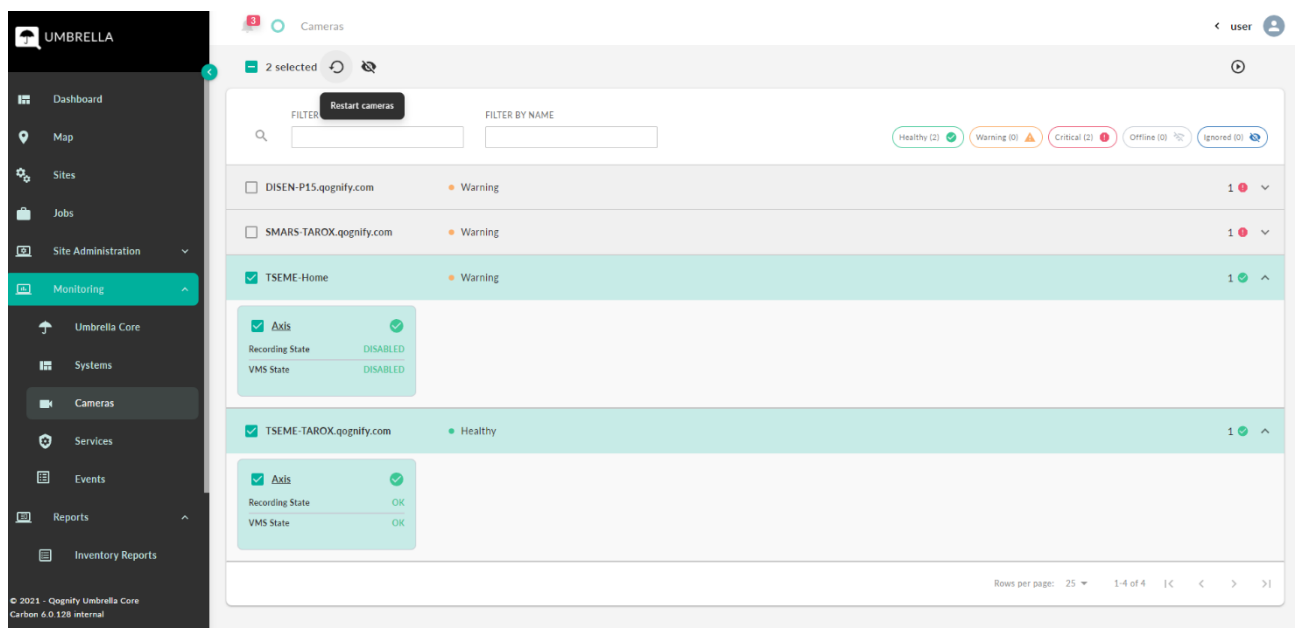
### 7.3 Cameras

The camera overview page under Monitoring has its focus on cameras and their current status.



#### 7.3.1 Restart cameras

It is possible to restart cameras in the cameras overview page under Monitoring. Sometimes problems can be resolved by disabling and enabling a camera. That's also exactly what the restart button does, it creates two configuration Jobs for each camera to disable and enable them. The two jobs are ordered in a sequence so they will not be executed in the wrong order.

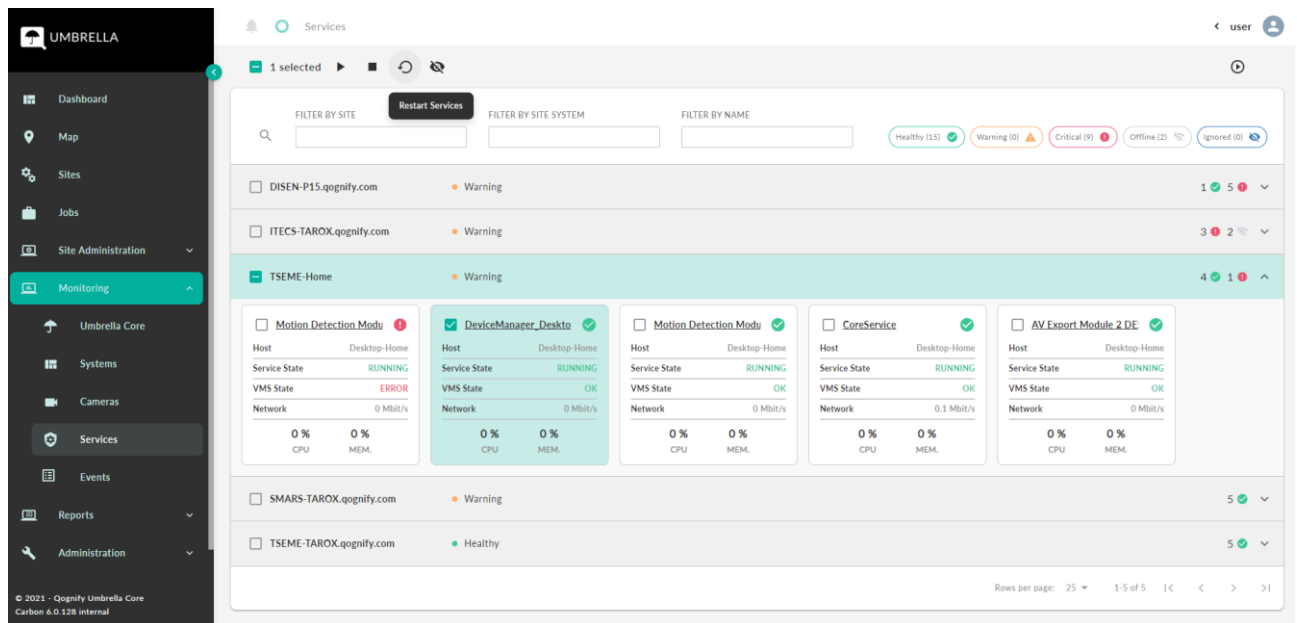


## 7.4 Services

The services overview page under Monitoring has its focus on services and their current status.

### 7.4.1 Restart Services

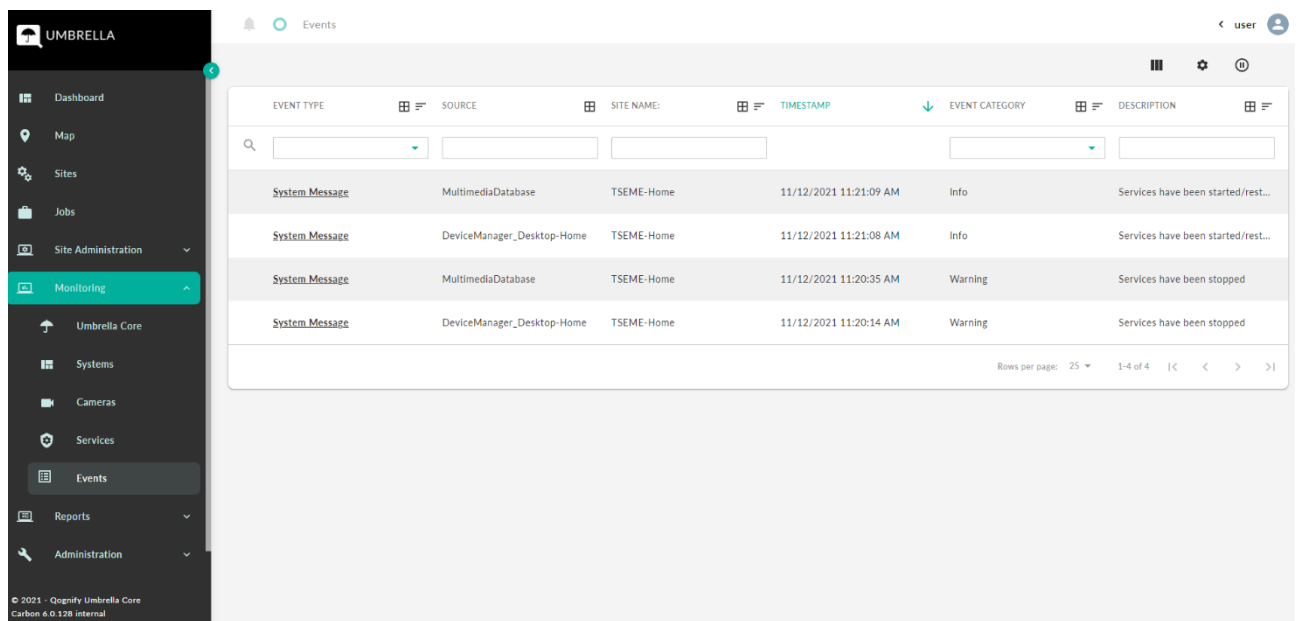
Services running locally on the same system as the Gateway can be restarted. The overview grid column "runs locally" can be used to search and filter for Services which support this operation.



### 7.4.2 Events

The events overview page shows the events collected from all Sites if the Umbrella license includes the monitoring module. Currently only system messages are collected from the Sites. Normally they must be configured in the VMS itself and the user which is connected to the VMS must be subscribed to these system messages.

The system messages are deleted in the Umbrella system if they are older than 30 days by default. The time range can be adjusted in the Umbrella settings. It may be necessary to adjust the time range for deletion for every Umbrella system. Depending on the number of Sites and events collected in the Umbrella System it may influence the system performance to save too many events.



The screenshot displays the 'Events' page in the Umbrella interface. The left sidebar contains navigation options: Dashboard, Map, Sites, Jobs, Site Administration, Monitoring (highlighted), Umbrella Core, Systems, Cameras, Services, Events, Reports, and Administration. The main content area shows a table of events with the following columns: EVENT TYPE, SOURCE, SITE NAME, TIMESTAMP, EVENT CATEGORY, and DESCRIPTION. The table contains four rows of system messages. At the bottom right of the table, it indicates 'Rows per page: 25' and '1-4 of 4'.

EVENT TYPE	SOURCE	SITE NAME	TIMESTAMP	EVENT CATEGORY	DESCRIPTION
System Message	MultimediaDatabase	TSEME-Home	11/12/2021 11:21:09 AM	Info	Services have been started/rest...
System Message	DeviceManager_Desktop-Home	TSEME-Home	11/12/2021 11:21:08 AM	Info	Services have been started/rest...
System Message	MultimediaDatabase	TSEME-Home	11/12/2021 11:20:35 AM	Warning	Services have been stopped
System Message	DeviceManager_Desktop-Home	TSEME-Home	11/12/2021 11:20:14 AM	Warning	Services have been stopped

## 7.5 Site Summary

A complete monitoring overview of a Site can be seen in the Site details issues tab. It can be viewed via the map markers or Sites overview.

**TSEME-Home** [Close]

DETAILS COMMENTS **ISSUES**

Below you can take a look at the issues of this Site

0 selected [Refresh] [Filter]

FILTER BY NAME [Search]

Healthy (6) [Warning (0)] [Critical (1)] [Offline (0)] [Ignored (0)]

**Cameras** 1 [Green Checkmark] [Up Arrow]

- Axis** [Green Checkmark]  
Recording State: **DISABLED**  
VMS State: **DISABLED**

**Systems** 1 [Green Checkmark] [Up Arrow]

- Desktop-Home** [Green Checkmark]  
13 % CPU   33 % MEM.   63 % DISK   0 % NET

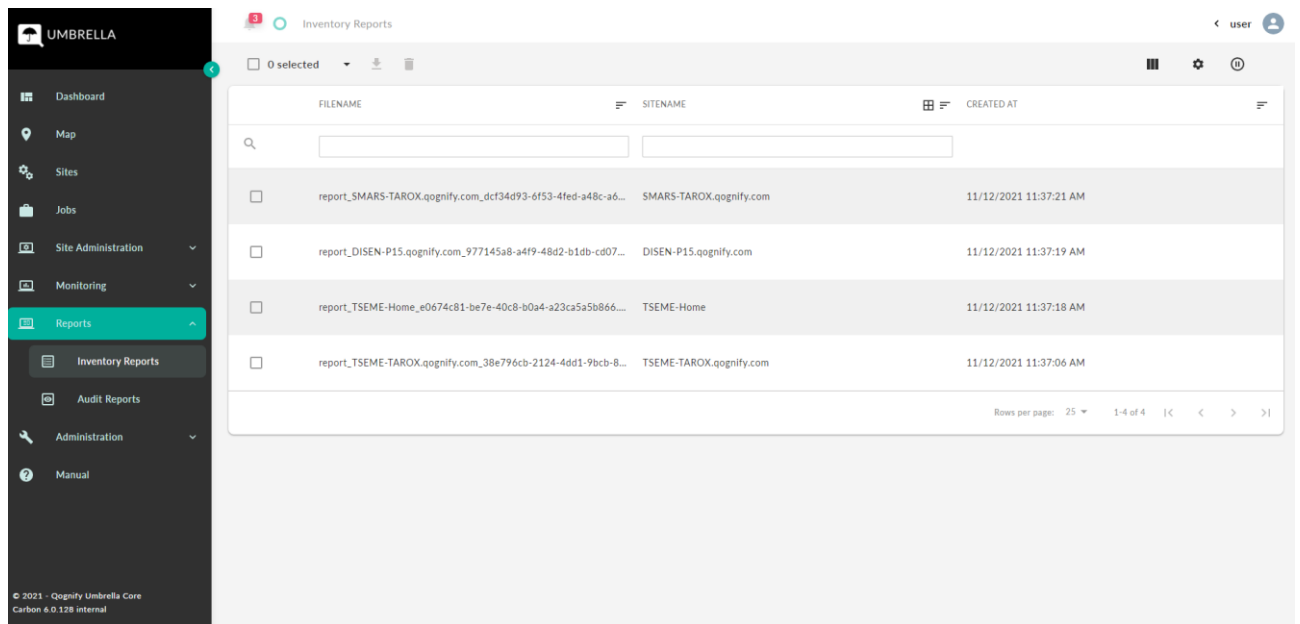
**Services** 4 [Green Checkmark] 1 [Red Exclamation Mark] [Up Arrow]

- Motion Detection Modu** [Red Exclamation Mark]  
Host: Desktop-Home  
Service State: **RUNNING**  
VMS State: **ERROR**  
Network: 0 Mbit/s
- Motion Detection Modu** [Green Checkmark]  
Host: Desktop-Home  
Service State: **RUNNING**  
VMS State: **OK**  
Network: 0 Mbit/s
- CoreService** [Green Checkmark]  
Host: Desktop-Home  
Service State: **RUNNING**  
VMS State: **OK**  
Network: 0.1 Mbit/s

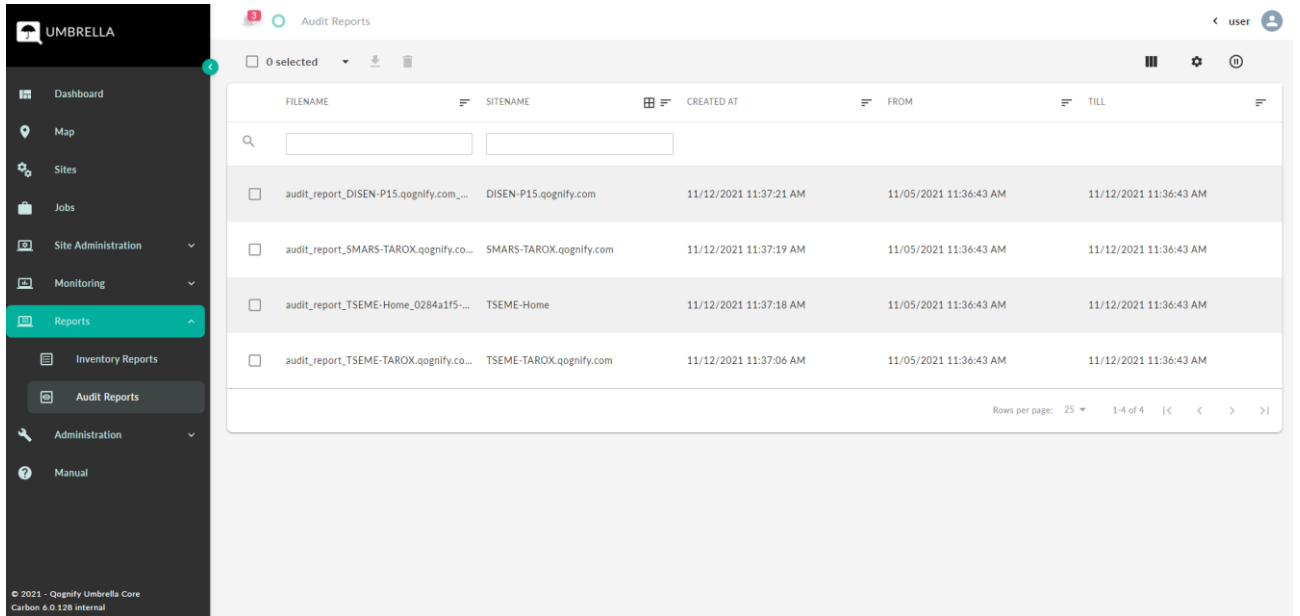
### 8 Reports

The Reports offers the possibility to download and delete the reports you created. There is the possibility to enable a setting to delete reports immediately after download.

#### 8.1 Inventory Reports



### 8.2 Audit Reports



## 9 Administration

The built-in administrator cannot be deleted or modified. The administrator has only access to the Umbrella Administration section and can create new Umbrella users and Umbrella roles.

### 9.1 Umbrella Users

Umbrella Users are users that can log in to Umbrella and do the actions they have the rights to do. The rights are given to the Umbrella users by assigning them Umbrella Roles. If the role already exists, it can be assigned to a user at the time of creating or editing the user. When creating or editing a role, an existing user can be assigned to this role. A user with no role is a user with no rights on Umbrella and therefore does not have access to any Umbrella resources. When a user has multiple roles, his Umbrella rights will add up from all the roles he is assigned. If the User has multiple Roles where one has Site Administration rights, then the user will have Site Administration rights on all sites from all his roles.

#### 9.1.1 Create Umbrella Users

To create a new Umbrella user, click the 'Create User' button by hovering over the badge on the top right corner of the 'Administration/Users' page. A dialog appears where you can configure the username of the new user, its password and assign its roles. Click the, now enabled, button at the bottom of the dialog.

#### 9.1.2 Remove Umbrella Users

To delete one or multiple Umbrella users, select the users on the overview page and then click the trash can icon on top of the overview.

#### 9.1.3 Active Directory Login

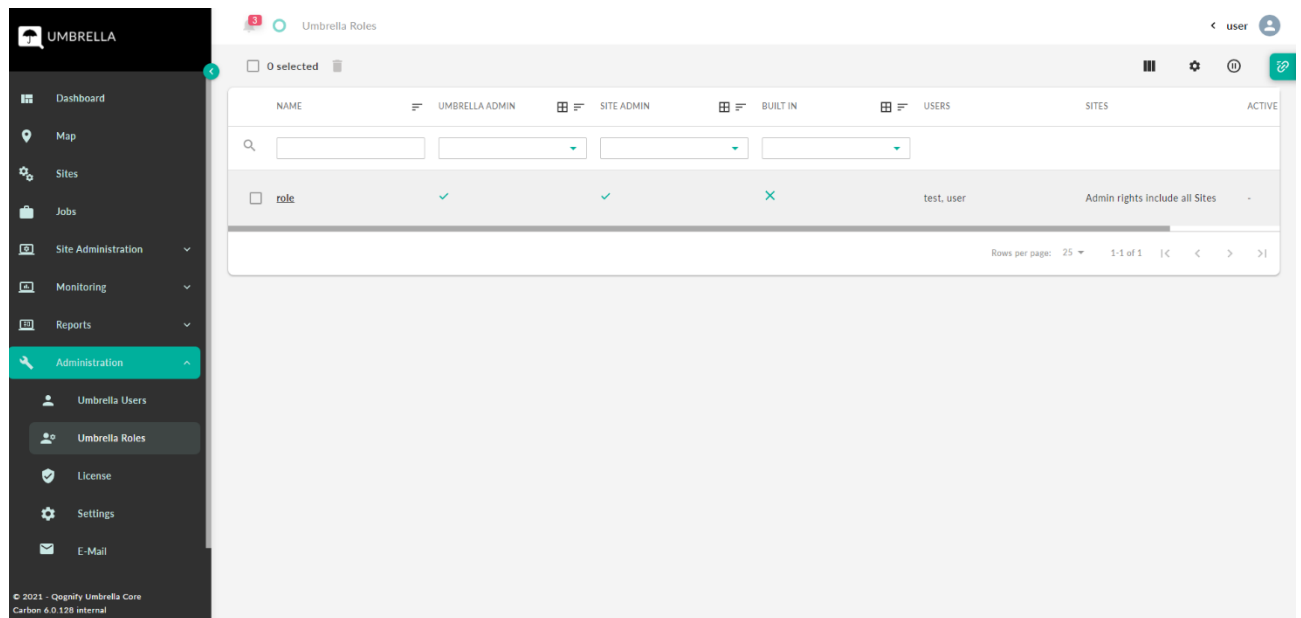
If the 'IsActiveDirectoryLoginAvailable' flag in you appsettings.json is set to true, it is also possible to login using your windows credentials. An Active Directory Umbrella user is automatically created in the Umbrella system. This Active Directory Umbrella user automatically receives the rights of all roles mapped to an active directory group which the Active Directory Umbrella user is part of.



The screenshot displays the 'Umbrella Users' management interface. On the left is a dark sidebar with navigation options: Dashboard, Map, Sites, Jobs, Site Administration, Monitoring, Reports, Administration (highlighted), and Manual. The main content area shows a table of users with columns for USERNAME, BUILT IN, ACTIVE DIRECTORY, ROLES, and LAST LOGIN. The table contains three rows: 'administrator', 'test', and 'user'. The 'administrator' row has a checkmark in the 'BUILT IN' column and an 'X' in the 'ACTIVE DIRECTORY' column. The 'test' and 'user' rows have 'X' marks in both the 'BUILT IN' and 'ACTIVE DIRECTORY' columns. The 'user' row has 'role' listed in the 'ROLES' column. The 'LAST LOGIN' column shows dates and times for each user. At the bottom right of the table, it indicates 'Rows per page: 25' and '1-3 of 3'.

USERNAME	BUILT IN	ACTIVE DIRECTORY	ROLES	LAST LOGIN
<input type="checkbox"/> administrator	✓	✗		11/12/2021 11:51:26 AM
<input type="checkbox"/> test	✗	✗	role	11/12/2021 10:33:34 AM
<input type="checkbox"/> user	✗	✗	role	11/12/2021 11:51:58 AM

## 9.2 Umbrella Roles



### 9.2.1 Create Umbrella Roles

To create a new role, click the 'Create Role' button by hovering over the badge on the top right corner of the 'Administration/Roles' page. A dialog appears where you can configure the name of the new role, its access rights and its associated sites. If Active Directory is integrated, you can map the role to an Active Directory user group. Click the, now enabled, button at the bottom of the dialog.

### 9.2.2 Map Umbrella Role to an Active Directory group

Map the Umbrella Role with an Active Directory Group by typing the name of the Group in the Active Directory Group input field. By typing the name of the group, a list with groups that contain the typed characters will appear. Continue typing till the desired group is showed in the list and click on it to choose it or write the whole name of the group and hit Enter. There are two ways of searching and finding the group name that was introduced in the input field:

1. Type the name of the Active Directory Group and the search will start for this name on all Umbrella known domains (which were set in appsettings.json)
2. Type the domain name followed by backslash character to delimiter the search of the name only in the typed domain and continue typing the Active Directory Group. For Example, "domain\group"

Important to notice: The search starts when the first character is typed or with the first character that follows the domain name and backslash character.

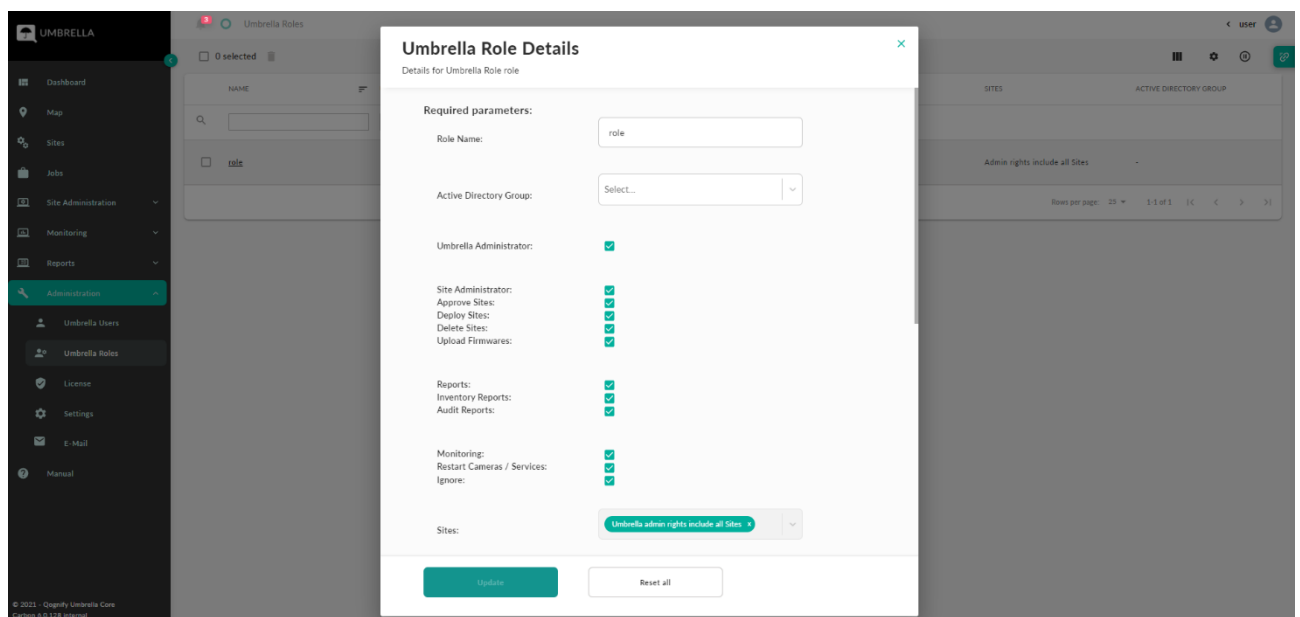
### 9.2.3 Remove Umbrella Roles

To delete one or multiple roles, select the roles on the overview page, then click the trash can icon on top of the overview.

### 9.2.4 Access Levels

A role offers the possibility to enable Umbrella rights, Site admin rights and additional individual rights:

- **Umbrella Administrator:** Gives the right to administer Umbrella and enables access to the administration pages
- **Site Administrator:** Gives general access to Site Administration where specific rights are not needed
  - **Approve Sites:** User can approve Sites
  - **Deploy Sites:** User can delete Sites
  - **Delete Sites:** User can deploy new Sites
  - **Upload Firmwares:** User can upload Firmwares
  - **Restart cameras / services:** User can restart cameras / services
- **Reports:** Gives general access to the Reports where specific rights are not needed
  - **Inventory Report:** Gives access to the Inventory Reports overview page and enables users to create Inventory Reports
  - **Audit Report:** Gives access to the Audit reports overview page and enables users to create Audit reports
- **Monitoring:** Gives general access to the Monitoring section and the monitoring functionality
  - **Restart Cameras/Services:** Gives access to the start/stop/restart actions for cameras and services
  - **Ignore:** Gives access to the ignore actions for Sites, systems, cameras and services

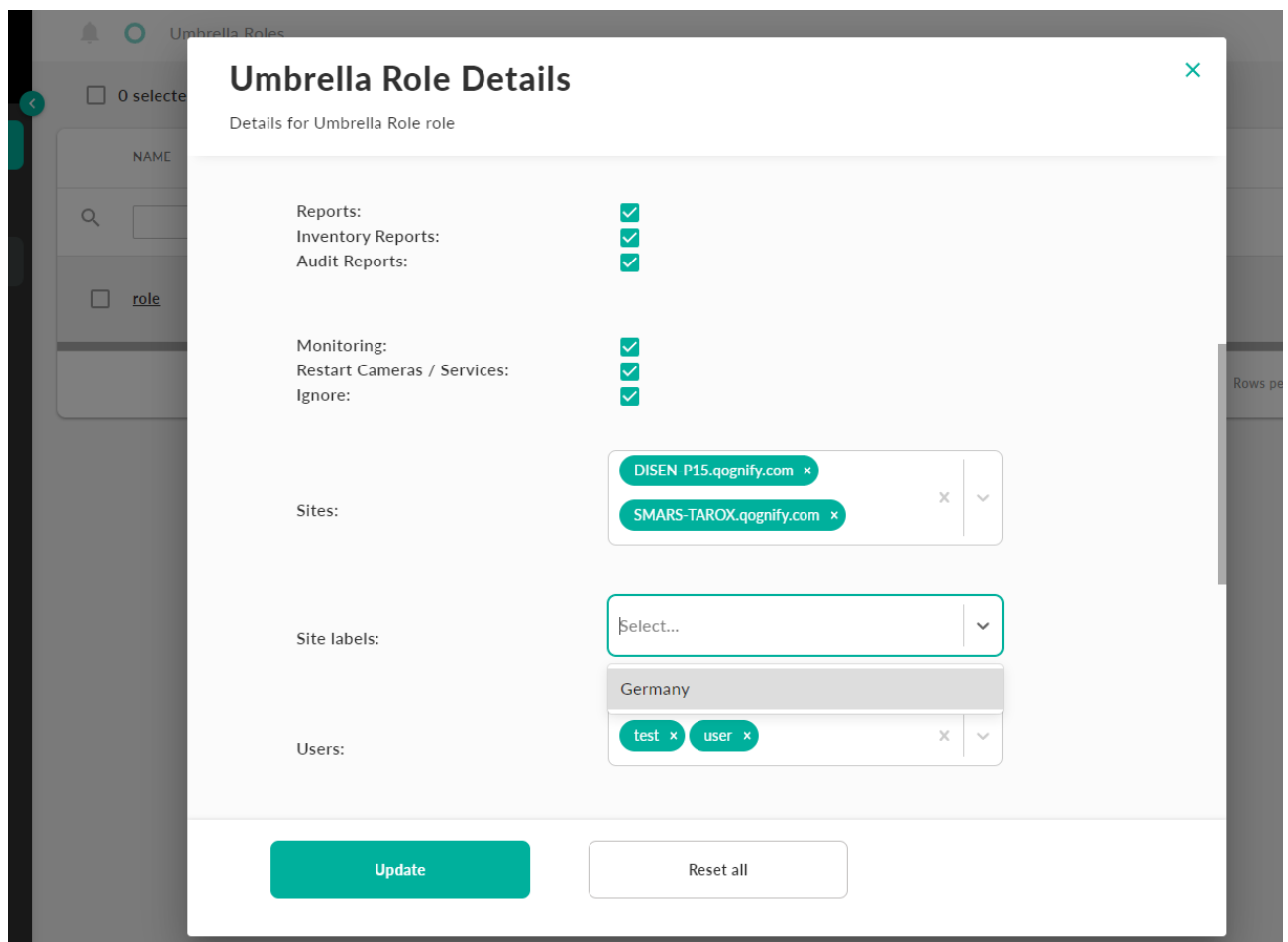


### 9.2.5 Site access

There are 3 ways to grant specific Site access to an Umbrella Role.

1. To get access to all Sites in the Umbrella system check the "Umbrella Administrator" checkbox
2. To get access to all Sites having the same Site Label add the Site Label using the "Site labels" property
3. To get access to single specific Sites add a Site name manual using the "Sites" property

A combination of Sites and Site labels is allowed for an accumulated Site access.



### 9.2.6 Active Directory Integration

To enable Active Directory integration, you need to:

- Set the 'IsActiveDirectoryLoginAvailable' flag in your appsettings.json to true.
- Specify the domain names in 'DomainNames' in your appsettings.json.
- Now restart the Umbrella core instance.

From now on you can map roles to your Active Directory groups. Each Active Directory user that is in a mapped group, gains the mapped roles.

## 9.2.7 Notifications

Umbrella is receiving the Events that were configured on the VMS for the connection user. For the incoming Events the user can choose to get notified about the Events he/she is interested in. The notification is done in the left positioned bell in the top bar in the UI or together with e-mail notification. The configuration of the notifications is done in the Umbrella role. When the role is configured to receive Events, the users that are assigned this role get the notifications. The configuration is done by going to the details page of the role that will receive notifications and clicking on the Events Notification section to open the options. The configuration is valid when the fields for Event Categories, Event Types and Entity Types have at least one element each.

- **Event Categories:** Select one or multiple Event categories for which you want to receive notifications.
- **Event Types:** Select one or multiple Event types for which you want to receive notifications.
- **Entity Types:** Select one or multiple Entity types for which you want to receive notifications.
- The filter is applied to get notifications for Events that contain in their Description or Source the input of this field. The Contains Filter field can be left empty to receive all Event Notifications configured in the previous fields. To enter elements for filtering of the Events, start typing the desired text and click Enter to create the filter. More than one filter can be configured and is case invariant.
- **Send E-mail:** for the users that belong to this notification role and have a valid e-mail address, an email will be sent to their e-mail address. If this option is not checked, e-mail will not be sent. An Umbrella user who is part of multiple Umbrella roles that each receives notifications, will receive any Event Notifications matched by the field options from all Umbrella roles.

### 9.3 Settings

In this section you can change the settings for the Umbrella system. The table below will give a quick overview what is meant by each setting parameter and what kind of value is expected. Setting parameters which are marked with a 'Restart Required' will automatically restart the Umbrella Core after you pressed 'Update'. In the UI these settings are marked with an '\*'.

The screenshot shows the Umbrella web interface. On the left is a dark sidebar with a navigation menu. The main content area is titled 'Settings' and 'General Settings'. Below the title, it says 'Below You can edit General Settings'. The settings are grouped under 'CORE SETTINGS:'. Each setting has a label, a value field, and a checkbox. The settings are: 'Delete VMS events older than (in days):' with a value of 30; 'Provide health endpoint:\*' with a checked checkbox; 'Performance Measure Interval (in minutes):' with a value of 1; 'Delete Performance Measurements Interval (in days):' with a value of 30; 'Display Usernames in Jobs:\*' with a checked checkbox; 'Make Job Comment mandatory:\*' with an unchecked checkbox; 'Delete reports when downloaded:\*' with an unchecked checkbox; 'Delete jobs older than (in days):' with a value of 30; and 'Delete Logfiles older than (in days):\*' with a value of 30. At the bottom of the settings area are three buttons: 'Update', 'Reset all', and 'Restore default'. Below the buttons is a red asterisk warning: '\* Changes to these values will restart the Umbrella Core immediately'. The sidebar menu includes: Dashboard, Map, Sites, Jobs, Site Administration, Monitoring, Umbrella Core, Systems, Cameras, Services, Events, Reports, Administration (highlighted), Umbrella Users, Umbrella Roles, License, Settings (highlighted), E-Mail, and Manual. The footer of the sidebar shows '© 2021 - Qognify Umbrella Core Carbon 6.0.128 internal'.

Setting	Value	Restart Required
Delete VMS events older than (in days):	30	No
Provide health endpoint:*	<input checked="" type="checkbox"/>	Yes
Performance Measure Interval (in minutes):	1	No
Delete Performance Measurements Interval (in days):	30	No
Display Usernames in Jobs:*	<input checked="" type="checkbox"/>	Yes
Make Job Comment mandatory:*	<input type="checkbox"/>	Yes
Delete reports when downloaded:*	<input type="checkbox"/>	Yes
Delete jobs older than (in days):	30	No
Delete Logfiles older than (in days):*	30	Yes

\* Changes to these values will restart the Umbrella Core immediately

Parameter	Restart Required	Value	Meaning
<b>Core Config</b>			
Delete VMS events older than (in days):	No	Numerical	Events older than the value will be deleted from the DB
Provide health endpoint:	Yes	Bool	Health-Endpoint in Client UI reachable or not
Performance Measure Interval (in minutes):	No	Numerical	Interval to collect Core Performance data
Delete Performance Measurements Interval (in days):	No	Numerical	Performance measurements older than the value will be deleted from the DB
Display Usernames in Jobs:	Yes	Bool	If enabled the job overview and details page will show which Umbrella user created the job
Make Job Comment mandatory:	Yes	Bool	If enabled a comment has to be added when creating a job
Delete reports when downloaded:	Yes	Bool	If enabled a report is deleted immediately after download
Delete Jobs older than (in days)	No	Numerical	Jobs older than the value will be deleted from the disk
Delete Logfiles older than (in days)	Yes	Numerical	Logfiles older than the value will be deleted from the disk
<b>Gateway</b>			
Heartbeat interval (in seconds):	No	Numerical	Interval when Gateway sends its heartbeat to Umbrella Core

Use SignalR for VMS event:	No	Bool	VMS Events are forwarded from Gateway to Core via SignalR or not
VMS network timeout (in seoncds):	No	Numerical	Timeout for VMS internal components communication
Fetch recordings interval (in minutes):	No	Numerical	Interval when Gateway collects and sends its Camera Recording statistics to Umbrella Core
Performance Measure Interval (in minutes):	No	Numerical	Interval to write Gateway Performance data in DB
Delete Performance Measurements Interval (in days):	No	Numerical	Performance measurements data older than the value will be deleted from the DB
Delete Logfiles older than (in days)	No	Numerical	Logfiles older than the value will be deleted from the disk
<b>Login</b>			
Is remember me available:	Yes	bool	Login page displays Remember me checkbox or not
Cookie persistence duration (in hours):	Yes	Numerical	Number of hours the cookie is persisted if Keep me signed in is on
Sliding expiration of Session Cookie:	Yes	Bool	The SlidingExpiration is set to true to instruct the handler to re-issue a new cookie with a new expiration time any time it processes a request which is more than halfway through the expiration window.
Validation Interval (in seconds)	Yes	Numerical	Interval for the user to get logged out after he was deleted from the Umbrella system



<b>Active Directory</b>			
Is Active Directory login available:	Yes	Bool	Login page displays AD login button or not
Domain names:	Yes	Text List	Enter all domains which should be used for AD login
Synchronize Active Directory Email:	Yes	Bool	Sync and get email of AD users or not
Refresh Active Directory Cache (in minutes):	Yes	Numerical	Interval to refresh the Active Directory Cache
<b>Password</b>			
Required length:	Yes	Numerical	Minimum length of the password
Required unique chars:	Yes		Require or not unique characters for a valid password
Require digit:	Yes	Bool	Require a digit or not for the password to be valid
Require uppercase:	Yes	Bool	Require or not uppercase for a valid password
Require lowercase:	Yes	Bool	Require or not lowercase for a valid password
Require non alphanumeric:	Yes	Bool	Require non alpha numeric characters or not for the password to be valid
<b>License</b>			
LicenseKey	No		Valid license key for Umbrella which can't be changed here.

## 9.4 License

Here you can have a look at the various values of your current Umbrella license.

- Amount of overall camera licenses.
- Number of licensed cameras.
- Number of unlicensed cameras.
- Expiration date.

Also, which modules are licensed can be checked:

- Site Administration: if available, the Site Administration will be shown in the navigation
- Monitoring: if available, the Monitoring will be shown in the navigation
- Reports: if available, the Reports will be shown in the navigation

It also shows the Machine Code needed for a new license. The Umbrella license can be updated by applying the new license in this overview page.

**License Management**  
An overview of the Umbrella license.

**Licenses**

10000  
Total

4 In use      9996 Unused

UNLICENSED CAMERAS: 0

EXPIRATION DATE: 10/27/2025

Machine code: GMn4wffgbQAC1PKzArN2cw==

Apply license key: \*

\* Update the license key will restart the Umbrella Core immediately

## 9.5 E-Mail

This is the configuration page for the SMTP Server in your network that will send e-mail notifications to the users. The users must belong to a role that has e-mail notifications activated and a valid e-mail address saved in their user profile. Configure the SMTP Host and SMTP Port which should not be empty and set the username and password used for logging into the Email Server. Configure e-mail of the sender and the Email subject. The subject and the sender's e-mail address should not be empty. Configure the

encryption used between client and SMTP server by choosing SSL/TLS or no Encryption.

The screenshot shows the 'E-Mail configuration' page in the Qognify Umbrella Carbon interface. The left sidebar contains a navigation menu with options: Dashboard, Map, Sites, Jobs, Site Administration, Monitoring, Reports, Administration (highlighted), Umbrella Users, Umbrella Roles, License, Settings, E-Mail, and Manual. The main content area is titled 'E-Mail configuration' and includes a sub-header: 'Configure communication with the SMTP-Server and send a Test E-mail to validate settings.' The configuration fields are: SMTP Host (text input), SMTP Port (text input with value '0'), Username (text input), Password (password input with an eye icon), Sender E-mail (text input), Encryption method (dropdown menu with 'No encryption' selected), Subject (text input), and Test receiver (text input with a 'Test' button). At the bottom, there are 'Update' and 'Reset all' buttons. The footer of the sidebar shows '© 2021 - Qognify Umbrella Core Carbon 6.0.128 internal'.

### 9.5.1 Test Email Server Configuration

To test the configuration, expand the Test Receiver section and enter the email address where you want to receive the default test e-mail. Now click on the 'Test' button and you will receive the test e-mail. The test e-mail address will not be saved in the configuration.

## 10 System Health

The URL Endpoint `"/health"` offers a simple HTTP health check. The endpoint must be enabled in the `appsettings.json` file and the Umbrella Core must be restarted. Currently the health checks include:

- Reachability check
- Database check

The HTTP response returns the following system states:

- HTTP 200 (OK): Healthy
- HTTP 503 (Service Unavailable): Unhealthy

## 11 Web API

Some functionality of Umbrella is available via a REST Web API.

### 11.1 General

The URL Endpoint `"/swagger"` offers a simple UI and documentation for our Web API. Also, the document 'Umbrella Web API v1' provides some more information how to obtain an API key from the system.

### 11.2 Api Key

Using the Web API requires an API Key for authentication, which can be managed by any Umbrella administrator user. Each request must provide the API key in the "Authorization" header field with the following value: `"ApiKey xxxxx"` where xxxxx is the actual API key.

### 11.3 Security

It is highly recommended to enable HTTPS on the Umbrella Core and communicate via HTTPS with the Web API to protect the API key secret.

The screenshot displays the Swagger UI for the Umbrella Core Web API. At the top, the Swagger logo is visible on the left, and a dropdown menu on the right is set to 'Web API v1'. The main heading is 'Umbrella Core Web API 1.0'. Below this, the base URL is shown as '[ Base URL: localhost:30000 ]' and the Swagger file path as '/swagger/Web API v1/swagger.json'. There are links for 'REST Web API for Umbrella Core', 'Terms of service', and 'Contact Umbrella Development Team'. A 'Schemes' dropdown is set to 'HTTP', and an 'Authorize' button is present. The API endpoints are listed in a table-like structure with right-pointing chevrons:

Jobs	>
SiteGroups	>
Sites	>
SiteUsers	>
Models	>