

Tigermeeting Admin

User manual

Version 3.3.5

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Network configuration

IMPORTANT

Tigermeeting application is based on a distributed database architecture and unique, high watermark synchronization technology that works without an on premises central or any external cloud database but requires flowless communication between the devices on the local network that sets certain network requirements.

NETWORK REQUIREMENTS:

- **Broadcast requests need to be enabled** on and across the network segments (desired even over VPN if remote administration is used)
- UDP ports: 6024, 6025, 6030 and 6031 need to be enabled on the network segment.
- The admin->device, device->device, device->admin communication requires the **TCP ports 6026** and **8080** to be enabled on the network.
- If an external online calendar is used, like Google Workspace, Microsoft365 or external URLs for iCal files communication towards those resources need to be allowed through the firewall.
- Open communication towards the Tigermeeting Cloud tigermeeting.app via
 TCP port 443 is required only for the following functionalities:
 - Admin app: admin login
 - Admin app: forgotten password reset.
 - Admin app: analytics
 - devices' periodic licence validations
 - devices' event logging (if the analytics feature is enabled)
 - both Admin and devices: theme configuration and background updates
 - both Admin and devices: new software upgrade check
 - both Admin and devices: new firmware upgrade check

For more information see the GDPR statement.

If the network requirements are not satisfied, the Tigermeeting applications may not functional properly, leading most often to:

- "Network communication error" during Admin login
- Devices are not detected on the network during auto discovery in Admin app.
- Devices are not able to change to the chosen theme.

Introduction

The Tigermeeting solution is one of the most advanced meeting room management products on the market, since 2018.

How could we achieve this? The answer is simple: We listen to our customers.

We own the technology. We know the industry. We are passionate about what we do. We consider customer needs. We adjust our product and service roadmap accordingly.

We see that our product is able to provide great and affordable service for schools, universities, offices and organizations with simple, functional, efficient and reliable meeting room management solution - that is already highly appreciated worldwide.

Key features

The product features are carefully crafted to perfection and driven by genuine aim to provide an innovative and affordable meeting room management product with unique and original design - closing the gap between the huge market demand and the expensive, high-end competition.

- **Central management** no need for time wasting visits to every device. All configuration, settings and updates can be pushed out to the devices centrally via the Admin app.
- **Simplicity** we had the user experience as the highest focus for the front end design. The easier it is to navigate, the more it will be used.
- **Flexibility** use the same solution in different or mixed environments. In the offices book meeting rooms; in schools show classrooms' timetables; somewhere else book tables, desks or cabinets if needed. Freely use different devices that fit best the given environment and purpose.
- **Security** the solution runs on unique high watermark distributed database technology that does not need external datastore. All data stays within the organization's LAN.
- **Automation** one of our unique key features. Your users will always be able to find the available rooms. Book meetings in your online calendar or directly on the screen.
- **Localization** use your own language on the screens we support more than 40 languages and a new one can be easily added on request without software upgrades.

- **Compatibility** in todays interconnected World, the customers' infrastructure needs to be respected therefore we support all major calendar applications Exchange Server, Microsoft 365, Google Workspace, Google Calendar and iCalendar fitting easily into the most networked room booking ecosystems.
- Analytics provides glimpse over the company's meeting culture, people's habit as well the hardware usage and health.
- **Customization** change the look and feel of the screen. Make it own. Make the screens fit into your office environment with logo and background changes in all themes.
- **Unique features** every meeting room booking system on the market does the job the difference is in innovative, unique features where Tigermeeting makes the competitive edge.
- **Free updates** as the product evolves, new features are added, bugs are fixed all customers are eligible to upgrade their environments to the latest product releases with perpetual licensing model. This means lifetime effortless updates and product support.
- **Total cost of ownership** with Tigermeeting's perpetual licensing model and pricing strategy, the Tigermeeting suite became one of the most cost effective meeting room solutions on the market with the lowest TCO.



Tigermeeting products

Tigermeeting Booking screen

This product is designed to run on Android devices with screen sizes between 6" to 15", placed on a wall in front of the meeting rooms, classrooms, conference halls etc, showing the rooms' name, ongoing meeting status, meeting information, future meetings' schedule, running company videos and provide direct - on-screen meeting booking functionality synced with the attached corporate online calendars.

The same runs on micro devices with screen sizes 3-6" attached to office desks or school cabinets showing the resource availability and providing on-screen booking functionality.

It acts like fire alarm in case of emergency.



The booking screen appearance is easily customized by applying different themes via the Admin App











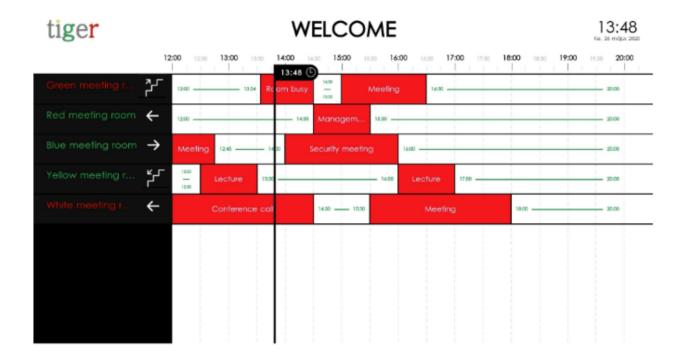


Tigermeeting Overview screen

This product is designed to provide real time, comprehensive overview of the meeting rooms' statuses over the whole company - most often used on huge, Android operating system powered screens placed in public spaces.

It shows the meeting rooms' name, schedule, and status on an intuitive timeline - also it presents the rooms' size and the relative position from the screen.

The overview screens are also part of the unique fire alarm feature.



Tigermeeting Admin App

The Admin app is a multi-platform, web-based management application that configures, updates and manages the whole Tigermeeting infrastructure on an easy, intuitive, efficient and secure way.

This tool is also used for troubleshooting, network backup/restore maintenance, fetching the logs and presenting useful analytics data that could be exported to any external BI tool.

The Admin app is a node.js, platform independent application that has installers provided for Windows, MacOS and Linux operating systems.

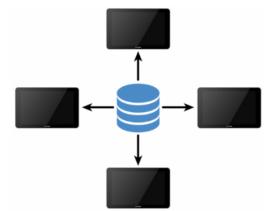
This document elaborates this product in detail.

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What is the Admin App's purpose?

For the best uptime and security, Tigermeeting applications' operation is based on a distributed database architecture and unique, high watermark synchronization technology.

This means that every device is up to date with the latest information and are not dependent on any centralized data store, external cloud environment or eventual local downtime in order to show the correct information to the users.



...even the Admin app - the central management console does not store any data on the Admin's local computer. Instead - when started - the Admin app becomes an organic part of the distributed database that is constantly shared between the booking and overview screens across the local network segment.

To make it clear what the Admin app does - it basically:

- discovers the devices on the network
- fetches the devices' configuration
- alters the configuration
- pushes back the new configuration to the devices

The devices will continue to work fully independently until the next Admin configuration session (that may or may not occur in the future).

Therefore, there is no requirement for a constantly running Admin app on a server - and the Admin app does not store any information, and there is no need for any external cloud server either.

At Tigermeeting - we believe this technology is the best, self-sustaining solution for an independent, modular application ecosystem.

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How to start? Where to begin?

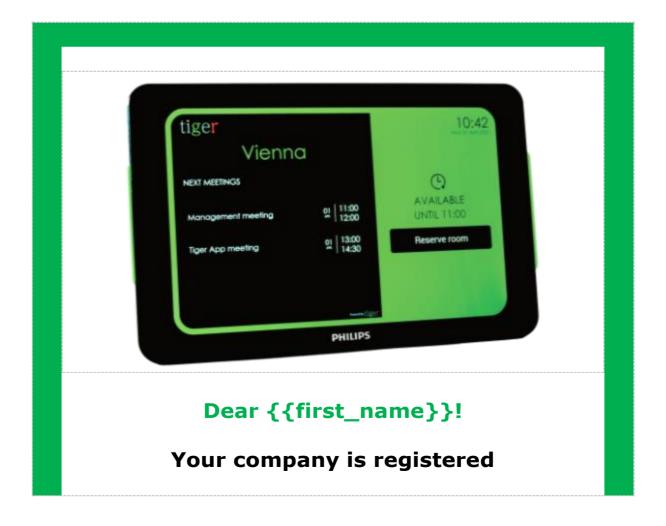
The journey starts with a request to create a demo licence or with a purchased licence that can be done via the home page https://tigermeeting.app/en/contact or sending a mail to info@tigermeeting.app

In order to proceed, Tigermeeting requires the following information:

- Company name the entity that will hold the licences
- Admin user's name used just for the e-mail communication personalization.
- Admin user's email address used for the authentication in the Admin app

Once the company with the requested licences is created – the Admin user will get an email with the instruction, what to do and how to start using the Tigermeting application. Please, make sure to check the spam or promotion folder if this mail has not arrived to your inbox.

The mail with the instructions will look something like this example:



Welcome to **Tigermeeting** - your affordable, high-end calendar solution with perpetual licence model.

This is the very beginning of your company's meeting enhancement process that will bring your meeting experience to a new level.

The Tigermeeting solution is one of the most advanced meeting room management products on the market.

To start - please, follow the easy steps listed below:

1. Download the Admin App from

https://tigermeeting.app/en/downloads

- **2.** Install and start the Admin application (allow network access through the firewalls if asked by the system)
- **3.** Use the following credentials to login into the Tigermeeting Admin App.

Please note, your admin account is already created. You can login directly - no need to Register.

Your unique Company code is used during the registration of an additional Admin user - but, please keep this information confidential as new registrations will share your license pool.

- **4.** Download the Tigermeeting Android APK from the Admin App
- **5.** Install the APK on your android devices (via USB, Bluetooth transfer... or if available on the device via Google Play, Amazon Appstore, HUAWEI AppGallery or SAMSUNG Galaxy Store for devices with Android versions 5.0 or higher)
- **6.** On your Android devices switch off the mobile network and turn on the Wi-Fi or Ethernet.
- **7.** If your devices that run Tigermeeting APK and the Admin App are both on the same network segment, the devices will be automatically discovered.
- **8.** Distribute the licences among your devices.
- **9.** Configure your calendar, theme, language and devices behaviour via the Tigermeeting Admin App

For the smooth start, read the manuals published at https://tigermeeting.app/en/downloads

First Name: {{first_name}}

Last Name: {{last_name}}

Email: {{email}}

Password: {{password}}

In case you want to share your licenses or let an another admin

user to register, use the Company code: {{code}}



A Swedish company, that brings high-end meeting management and calendar products to affordable level. Please, take contact with us for any inquiry.

Tigermeeting support helps you to shine up your meeting rooms: **support@tigermeeting.app**

That's all.

The Admin user just needs to follow the instructions.

It is not more complicated than that.

Tigermeeting is intentionally kept very simple, easily comprehensible, and very intuitive from the user perspective. Hiding the complex and advanced technology behind a user-friendly surface has been proven to be the key for the widely acceptable design and for a successful business strategy worldwide.

There will be challenges for sure, but the purpose of this manual is to guide the admin user through most of the obstacles on an easy, not too technical but rather using a human narrative tone.

The Tigermeeting customer support is also always available to help you shine up your meeting rooms and classrooms.

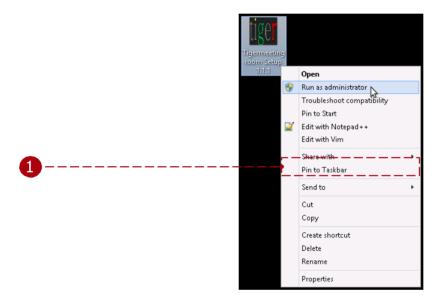
Tigermeeting Admin Installation

The Tigermeeting Admin Application is a multiplatform, web-based management application that configures, updates, and manages the whole Tigermeeting infrastructure in an easy, intuitive, efficient and secure way. Installers are available for Windows, MacOS and Linux platforms.

Installing Tigermeeting admin on Windows

Follow the installation steps:

- Go to the Tigermeeting website: https://tigermeeting.app/en/downloadsDownload the Tigermeeting admin application.
- Run the installer as administrator.

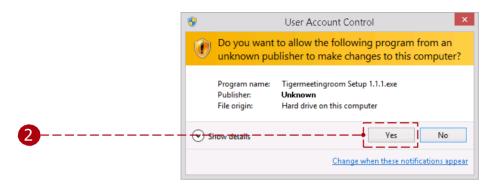


2 Tigermeeting Admin is a signed application – but in case it is denied, please allow installation of the unrecognized application.

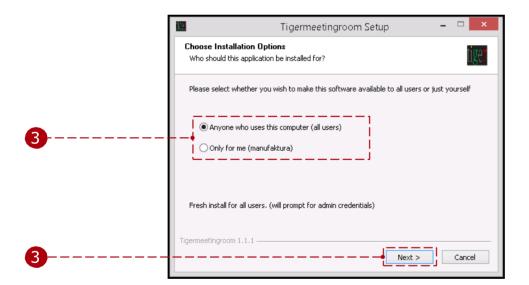


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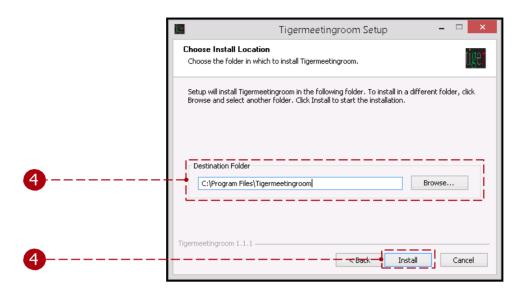




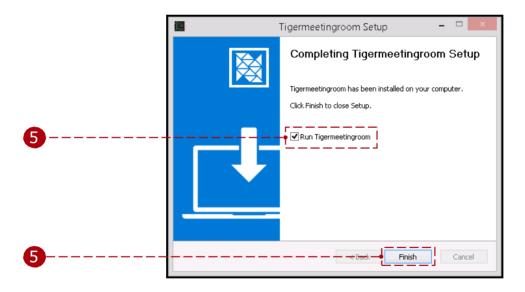
3 Continue the installation for the selected user or users and press the "Next" button.



4 Select the desired install location and press the "Install" button.

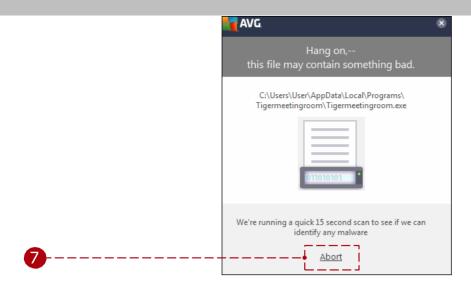


5 If the "Run Tigermeetingroom" is checked, after the install the Tigermeeting Admin application is opened. Finish the installation wizard. Allow the Tigermeeting admin application to make changes on the

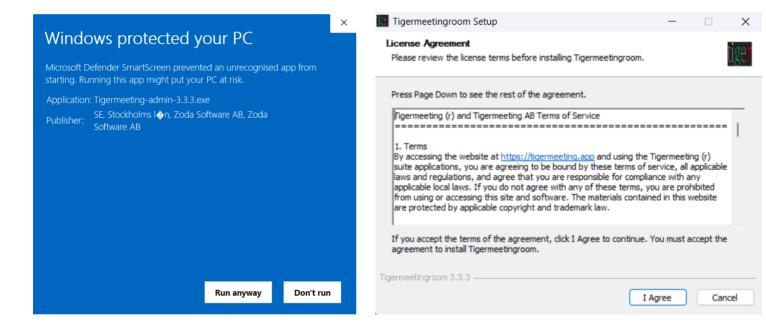




Allow the virus scan to finish or abort the scan.



NOTE: Tigermeeting is a signed application with a validated certificate. Please accept certificates from both Tigermeeting AB and Zoda Software AB (the former organization name)



Please read and accept the License Agreement before use.

Instructional video:

https://www.youtube.com/watch?v=sB8ea-VrYz8

Installing Tigermeeting admin on Linux

Tigermeeting Admin Application installer is available in three formats for Linux operating systems:

- RPM Redhat Package Manager for RedHat, Fedora, SuSE and others.
- DEB Debian software package for Debian, Ubuntu, Kali and others
- Applmage portable software package for Linux that contains the application and everything it needs to run on different Linux distributions.

RPM

Open a terminal and navigate to the location of the .rpm file. Execute the following command with superuser permissions:

\$sudo rpm -ivh filename.rpm

Start the application from the desktop or from command line:

\$/usr/bin/tigermeetingroom

DEB

Open a terminal and navigate to the location of the .deb file.

Execute the following command with superuser permissions:

\$sudo dpkg -i package file.deb

Start the application from the desktop or from command line:

\$/usr/bin/tigermeetingroom

AppImage

Open a terminal and navigate to the location of the Applmage file.

Make the Applmage file executable with the **chmod** +**x filename** command.

Execute the Applmage executable with the ./filename command.

NOTE: The Tigermeeting Admin App is a graphical application.

The installation can be done from the terminal/command line, but for the execution it requires a functional X windows environment.

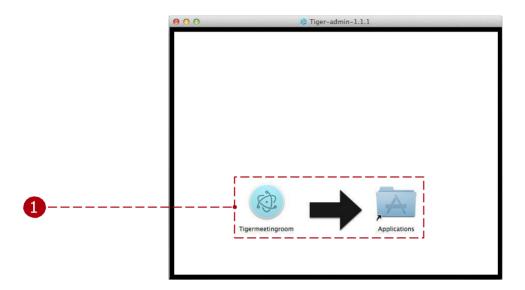
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Installing Tigermeeting admin application on MacOS

Follow the installation steps:

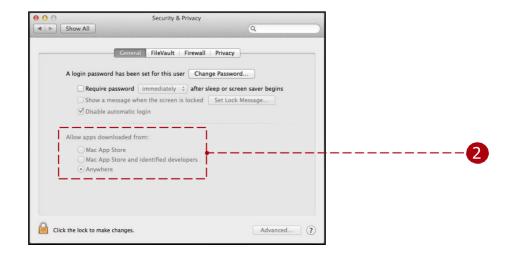
Go to the Tigermeeting web site https://tigermeeting.app/en/downloads Download the Tigermeeting admin application.

1 Run installer and after the verification drag and drop "Tigermeetingroom" to "Applications".





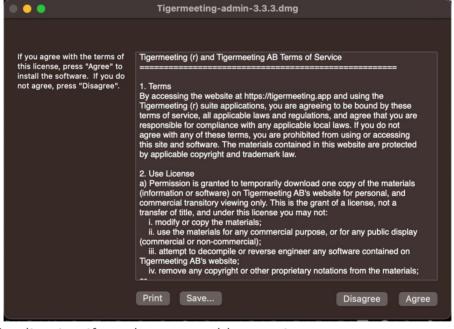
2 Run the Tigermeeting admin application. Change security settings if needed in some rare cases (the application is signed by Tigermeeting AB – verified Apple developer)



NOTE: Installer splash images may change between the releases. Please drag Tiger to the Applications folder to install the Admin App. It is recommended to overwrite the application if it already exists (upgrade case).



Please, accept the term of use before the installation.



Replace the Application if you have any older versions.



Open the App

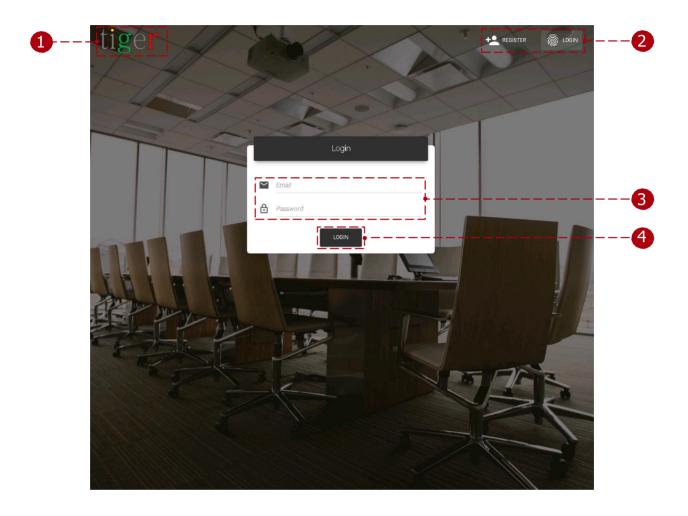


Instructional video:

https://www.youtube.com/watch?v=MvmDbgB7dnk

Login

Only registered users can use the Tigermeeting admin application. The user can login with the correct email address and password.



The login form has three main components:

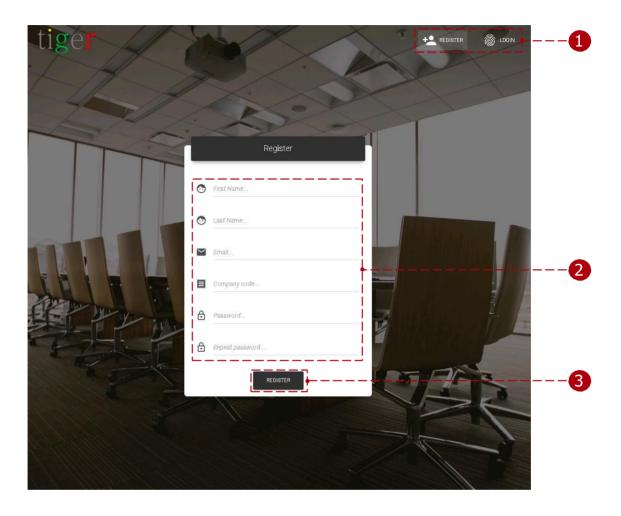
- 1 Logo: When clicked on logo, browser is opened and redirected to "https://tigermeeting.app/"
- Login and register: Switch between the user login and registration functions. Email and password: Only registered users can use the
- Tigermeeting admin application.
- Log in to the system: The user can proceed with a valid username and password.

NOTE: The initial Admin account is created by the Tigermeeting Customer service and the credentials are sent out by e-mail. There is no need for registration. Please login directly

.

User registration

Tigermeeting admin registration can be done with the shared "Company code". This substitutes the admin user creation functionality by another, existing admin user.



The registration form has three main components:

- 1 Login and register: Switch between the user login and registration functions.
- 2 User parameters: Every field is mandatory and must be filled out to finish the registration.

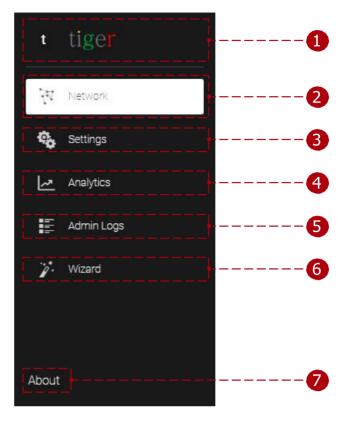
Company code: The company code determines the number of licenses, that can be distributed between the devices. The company code will be sent by email. Password: The user's password must contain a minimum of 8 characters.

Register: When all the fields are filled with valid data, the registration can be finished.

NOTE: Your unique Company code is used during the registration of an additional Admin user - but, please keep this information confidential as new registrations will share your licence pool.

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Menu structure



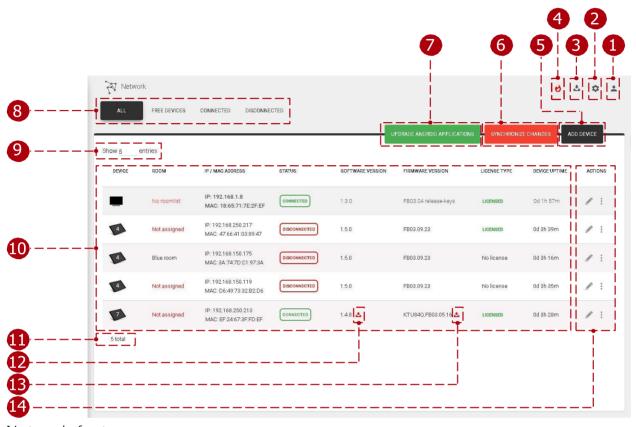
The main functions of the admin application are sorted under 3 main categories:

- 1 Logo: When clicked on logo, browser is opened and redirected to "https://tigermeeting.app/"
- 2 Network: Devices status can be monitored, and the parameters modified.
- Settings: License, calendar attachment, detachment, room management, and admin user settings can be modified.
- 4 Analytics: Device analytics can be loaded for booking devices, overview devices, admin, and company.
- Admin logs: User events are recorded and displayed, like login, logout, device synchronization etc.
- 6 Wizard: The user is guided by a step-by-step wizard, that helps the user to configure the devices. (it is used mainly when the admin application is used first time)
- 7 About: Information about the Tigermeeting admin application, privacy policy, terms of service, cookie policy, open-source licenses.

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Network

In the network panel, the devices' state can be monitored, room and license attachment, detachment and other important parameters can be edited. The network is constantly scanned for devices.



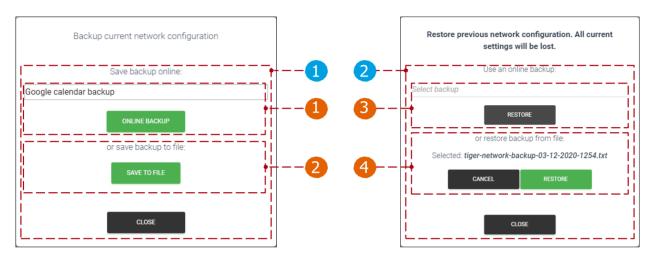
Network features:

1	er settings:	
•	Currentuser: Currently logged in user's email address. User settings: Opens current logged in users' data to edit. (redirected to: Settings, admin users, edit user) Logout: End session, and logout from the Tigermeeting admin application. The user will be logged out automatically after 5 minutes inactivity.	s of
2	stem settings: Version number: Current version of the Tigermeeting admin application. Set device logo: Logo can be uploaded to the Tigermeeting admin application, after the synchronization, the uploaded logo (120x60px) is used on the connected devices. (up left corner on the android application) Download admin log: Export the Tigermeeting admin application's log. Used for error tracking.	

Reset network: Reset the admin application and all connected devices to the default settings. Calendar, rooms, room lists are detached device settings returned to default. (booking devices, overview devices, admin application) Backup network: Backup booking,

overview devices (attached rooms, device settings, etc.) and Tigermeeting admin application settings (online calendar, rooms, etc.). There are two options to backup network settings:

- 🚹 Save backup online.
- Save backup to a file.
- 2 Restore network: Restore backed up settings for booking and overview devices (attached rooms, device settings, etc.), also for the Tigermeeting admin application (online calendar, rooms, etc.).
 - Restore from online backup.
 - Restore from a saved backup file.



- 3 Download android app: Download the Tigermeeting android application's APK file (4+ or 5+ Android booking or overview device) or office and exchange setup scripts to the desired destination. Also new admin updates can be downloaded here.
- Fire alarm: To activate the fire alarm press and hold the "Activate" button (for 3 sec.). After the activation (synchronization) all devices (booking and overview screen) flash and play fire alarm sound.



- Add device: Add device with IP address not discovered by the Tigermeeting admin application. It is used when a device is in another subnetwork.
- 6 Synchronize changes: When a device's properties are changed (room, license attached or detached, parameter changed (capacity, room info, open time, etc.)) it must be synchronized to all the devices to take its effect. When all devices are disconnected, synchronization is not allowed.
- Update devices: Update all connected devices software
- 👸 version.

	Device filter:
	All: All devices are listed without filtering.
	Free devices: Devices without rooms are listed.
	Connected: Devices with status of 'connected' are listed.
	Disconnected: Devices with status of 'disconnected' are listed.
9	Number of devices: The number of devices displayed per page.
10	Discovered devices: All devices are displayed when they are detected
40	on the network. The network is scanned every 30 seconds.
	\Box The number (\P) indicates the version of the android operating system.
A	
	connected, disconnected)
12	Update software: Update selected device's software version.
13	Update selected device's firmware: Update device's firmware. It takes
	several minutes, when updating the firmware do not turn off the device.
14	Actions:
	Device properties: Edit the selected device's properties.
	Restart device: Reboot the selected device.
	Download log: Export devices log into a .json file. Only visible when a
	device is connected. Used for error tracking.
	View screenshot: A screenshot is taken from the device.
	Remove device: Remove disconnected device from the admin
	application. Only visible when a device is disconnected.

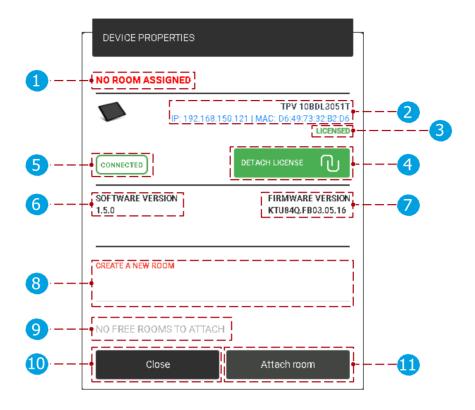
NOTE: "Add device" feature is needed in all those cases when the broadcast is not allowed through the firewall or between the network segments that cause network discovery failure.

The remote admin user operation is one of the typical cases when the administrative tasks are performed over the VPN connection, remotely, and the discovery of the devices usually fails - with standard VPN settings.

The solution is to use the "Add device" feature with a known device's IP address aiding the network discovery. Accessing one device by IP address allows access to the shared network database that will discover all the devices allowing full remote management of the Tigermeeting infrastructure.

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Booking device properties: Before room attachment



Device properties:

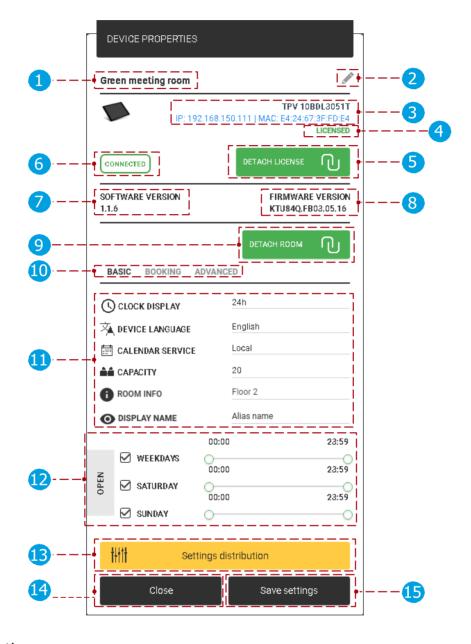
- 1 Device's room: Name of the currently attached room.
- 2 Booking device info: The selected device's IP and MAC address is displayed.
- License status: Type of the license attached to the selected device. (no license or licensed (only booking screen license can be attached))
- 4 Detach license: Detach the current license. After the detachment the selected device is returned to 'no license'. Detached license can be attached again.
- 6 Device status: Status of the selected device. (connected or
- disconnected) Software version: The selected device's current version is displayed.
- Firmware version: The selected device's current firmware version is displayed. Create new room: When a device has no license, rooms cannot be attached to the selected device. When the new room's name is added after the attachment, () the rooms is created and attached to the selected device.
- 9 Attachable rooms list: If there are rooms created previously it can be selected (from the list) and attached to the selected device.
- Olose: Cancel action, all parameters are reset to the previous
- state. Attach room: Attach the room to the selected device.

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Booking device properties: After room attachment

A device's properties can be divided into basic, booking, and advanced properties.

Basic properties



Basic properties:

- 1 Device's room: Name of the currently attached room.
 - Original room name is displayed, when there is no room alias added under "Settings" menu, "Rooms" tab, edit room properties, "display name". When an alias is added, it is displayed instead of the original name.
 - 2 Edit attached room's name: Attached room's name can be edited. When the settings are saved the name is changed. The room's name can be edited only when local or Google calendar is attached. The name of the imported

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rooms cannot be edited in the Tigermeeting admin application, (Microsoft365, Exchange, Google Workspace) only in the online calendar's admin panel.

- 3 Device info: The selected device's IP and MAC address is displayed.
- 4 License status: Type of the license currently attached to the selected device. (no license or licensed (only booking screen license can be attached))
- 5 Detach license: Detach the current license. After the detachment the selected device is returned to 'no license'. Detached license can be attached again.
- 7 Device status: Status of the selected device. (connected or
- disconnected) Software version: The selected device's current version is displayed.
 - Firmware version: The selected device's current firmware version is displayed. Detach room: Detach the currently attached room from the selected device. When a room is detached, after the synchronization the default 'conference room' is used.
- Basic, booking, and advanced properties: When selected, the basic, booking and advanced parameters are displayed.
- Basic parameters:

 Clock display: Change device's clock display. (24h or 12h format).

 Device language: Text on device will be displayed on the selected language. The default language is English.

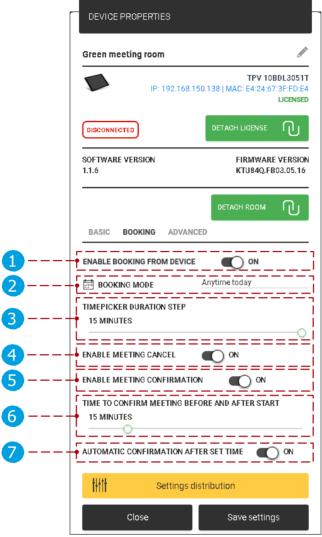
 Calendar service: It can be local or the attached online calendar. When an online calendar is attached, the device can only use online rooms. When there is no online calendar attached only local rooms can be used.

 Capacity: Capacity of the attached room.

 Room info: Room info is displayed on the device under "Available rooms". More info under "Settings, Rooms tab".
 - Display name: Alias is used, and it is displayed as room's name. When it is not added the room's original name is used instead.
- Open time:
 - Day: Device will take reservations for the selecteddays. Time: Device will take reservation between the set time.
- 13 Setting distribution:
- (4) Close: Cancel action, all parameters are reset to the previous
- state. Save settings: Save the device's parameters and close the dialog.

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Booking properties



Booking properties:

- 1 Enable booking from device: Public space mode. When it is turned on meetings can be booked from a device. Otherwise booking is not possible on the device. (only from online calendar if it is attached)
- 2 Booking mode: Three booking modes are available.
- Time picker duration step: Default duration for a meeting reservation. The time picker will be calibrated with the set value. (It can be 5, 10, 15
- minutes)
 Enable meeting cancel: When it is enabled, "cancel" button is displayed when a meeting is upcoming, when disabled "cancel" button is not displayed.
- 5 Enable meeting confirmation: Before the start of the meeting, confirmation is displayed for the upcoming meeting. When a meeting is confirmed, it will be approved. When it is canceled the upcoming meeting is removed. When it is turned off the confirmation button is not displayed, meeting is confirmed after time set.

(Time to confirm meeting before and after start)).

6 Time to confirm meeting before and after start: When will be the confirm controls displayed, before and after the meeting start time.

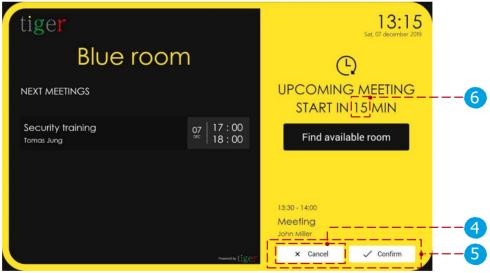
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Automatic confirmation after time: When the confirm meeting time is up (defined by point 6) upcoming meeting is confirmed or current meeting is confirmed automatically. When "Enable meeting confirmation" is turned off this option is

On an android device:

not displayed.





Confirm meeting on device when an online calendar is attached:

When a meeting has been confirmed and it has not begun:

Meeting can be canceled, and the meeting is removed from the attached room's calendar.

When a meeting has been confirmed and it has begun:

Meeting can be canceled, and the meeting is not removed

from the attached calendar's room, only the meeting end time is

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- Booking mode on device:
 - From this moment: Meeting can be reserved from the current time, only on current day.



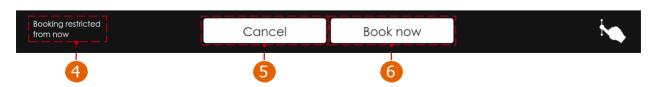
Any time today: Meeting can be reserved any time on the current day.



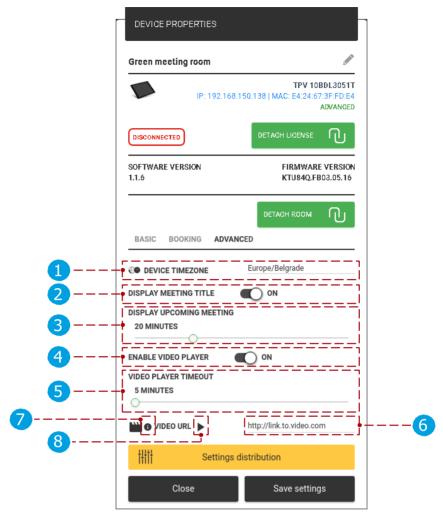
Anytime: Meeting can be reserved any time, any day in the future.



- Booking type is displayed on the bottom of the time
- 5 picker. Cancel: Cancel and return to main screen.
- 6 Book now: Confirm the meeting to the selected room.



Advanced properties



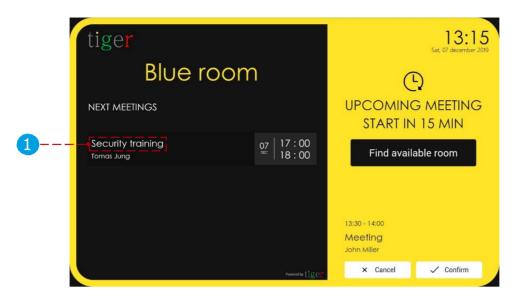
Advanced properties:

- 1 Device time zone: Selected device's time will be configured to the selected time zone, as well the meetings reserved on the device.
- Display meeting title: If it is turned on, meeting title is displayed (if title is not added then it is replaced with text "Room busy"), when turned off meeting title is replaced with text "Room busy".
- 3 Display upcoming meeting: Time before the meeting is displayed as upcoming. (for example, it is set to 20 minutes, and a meeting begins in 14:00, it will be displayed as upcoming at 13:40)
- 4 Enable video player: When enabled, additional video settings are available to set. (When a meeting is displayed as upcoming video playback is paused)
 - 5 Video player timeout: Video is played on the device after the set timeout.
 - 6 Video URL: Link to the video.
 - Video requirements: File type: MP4, maximum size: 200MB,
 - 丙 resolution:720p

Test video: When the button is pressed the video is displayed in the admin application in a popup window, it is for testing purposes.

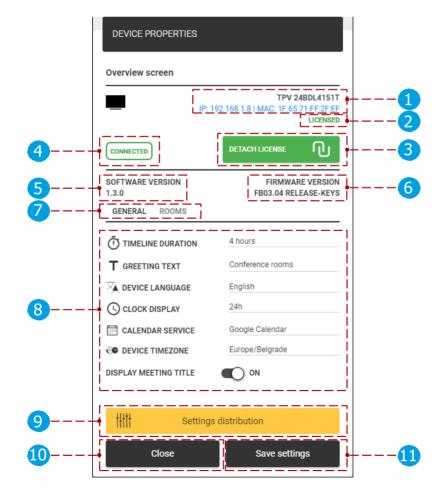
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On android device:



Overview screen properties

General properties



General properties:

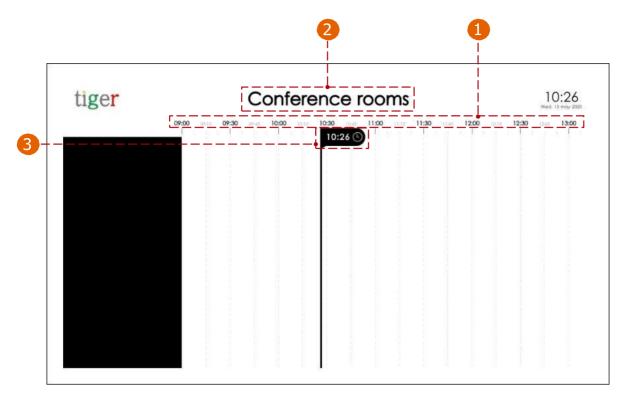
- 1 Overview screen device info: The selected device's IP and MAC address is
- License status: Type of the license currently attached to the selected device. (no license or licensed (only overview screen license can be attached))
- 3 Detach license: Detach the current license. After the detachment the selected device is returned to 'no license'. Detached license can be attached again.
- 4 Device status: Status of the selected device. (connected or
- disconnected) Software version: The selected device's current
- version is displayed.
- Firmware version: The selected device's current firmware version is displayed. General and rooms settings: When selected, the general or rooms parameters are displayed.
- **8** General parameters:
 - 🚹 Timeline duration: Timeline can be displayed in 4- or 8-hour sections. (For example, if it is set to 4-hour, timeline will be displayed
 - from 09:00-13:00) Greeting text: Greeting text on the top of the timeline.

Device language: Text on device will be displayed in the selected language. The default language is English.

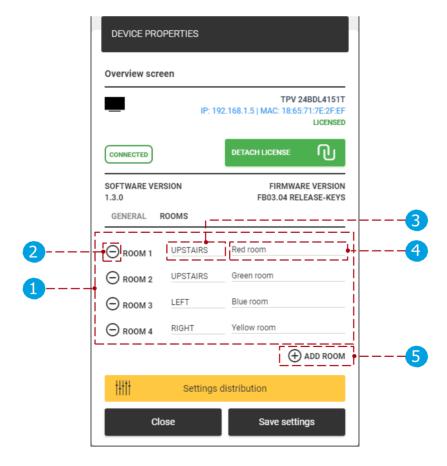
- Clock display: Change device's clock display. (24h or 12h format).
- Calendar service: It can be local or the attached online calendar. When an online calendar is attached, under "rooms" settings (). When there is no online calendar attached, only local rooms can be used.
- Device time zone: Overview screen device's time will be configured to the selected time zone, as well the meeting reservations.
- Display meeting title: If it is turned on, meeting title is displayed (if title is not added then it is replaced with text "Room busy"), when turned off meeting title is replaced with text "Room busy".
- Setting distribution:
 - Set for all devices: The checked parameters will be saved for all devices.
- Close: Cancel action, all parameters are reset to the previous
- 👔 state. Save settings: Save the device's parameters and close the dialog.

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On the overview screen:



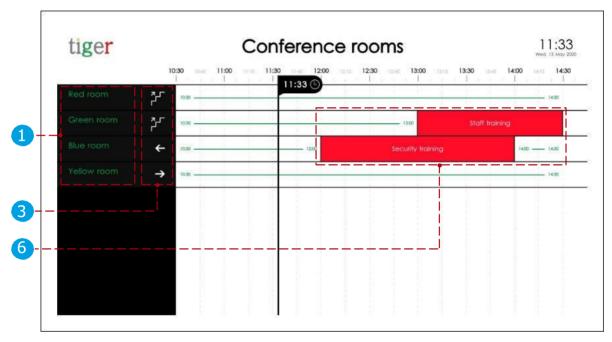
Room properties



Room properties:

- Room list: Rooms are listed that are attached to the overview screen device.
- Remove room: Selected room is removed from the room list.
- Location info: Info icon ($\rat{F}, \rat{F}, \leftarrow, \rightarrow$)(upstairs, downstairs, left, right) about the device location.
- Room: Previously created rooms (local or attached online calendar) can be attached to the room list.
- 5 Add room: Add new room to the list.

On an overview screen:



6 A meeting list is displayed. When "display meeting title" is turned on meeting title is displayed, when it is turned off "Room busy" is displayed as meeting title.

Download android APKs from the Tigermeeting admin app

Tigermeeting Android APKs are compatible with most tablets, phones, and TV devices from Android 4.1 and higher both for the booking screens and the overview screens.

Two APKs are available for download from the Admin app:

- APK that supports devices from Android 4.1 (4.x)
- APK that supports devices from Android 5.0 to 14 (5+)
- ☐ The Google play, Amazon Appstore, HUAWEI AppGallery and SAMSUNG Galaxy

Store releases are identical to the Android 5+ version APK, from the Admin App.

To install on a device, please click on the icon or scan the corresponding QR code.













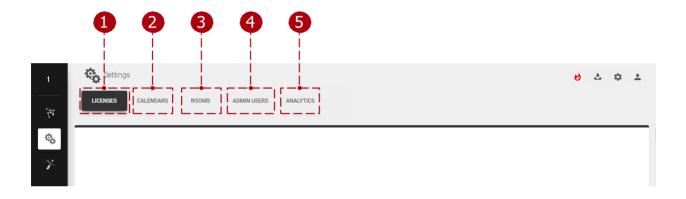




The Android installation is elaborated in detail in the Android setup manual.

Settings

The settings are divided into five sections:

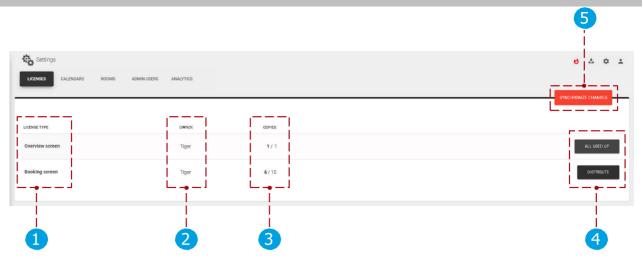


- 1 Licenses tab: Licenses can be assigned to devices.
- Calendars tab: Online calendars can be attached or detached.
- Rooms tab: Rooms can be created, removed, or edited.
- Admin users tab: Registered users are displayed.
- Analytics: The collected data will be used to present valuable information about the usage of the meeting rooms. On explicit request, all accumulated event logs can be requested or permanently deleted complying with the GDPR, CCPA, LGPD and POPI regulations.

Licenses tab

Licenses can be managed in this section. The company code contains a defined number of licenses. These licenses can be distributed among the devices. One device can only have one license. A license defines a set of functions:

- No license: Devices with no license can use only the local calendar and cannot reserve meetings in other rooms − this is a DEMO mode.
- ☐ Booking screen license: License can only be attached to the booking devices. The device can be used by any online calendar and can reserve meetings in other rooms if configured so.
- Overview screen license: License can only be attached to the overview devices. The device can use any online calendar.



Licenses tab:

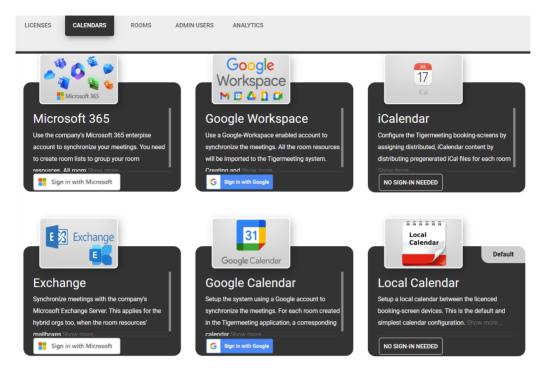
- 1 License type: Type of the license that can be distributed among the devices. (Booking screen licenses can be attached only to booking devices, overview screen licenses can be attached only to overview screening devices.
- 2 Owner: Owner of the licenses.
- 3 Copies: Currently used licenses and total number of licenses.
 - First number: Number of licenses currently in use.
 - Second number: Total number of licenses.
- 4 Distribute license: Distribute licenses to the selected device or devices.
 - All used up: When all licenses are distributed.
- 5 Synchronize changes: When the licenses are distributed, it must be synced with the devices. When all devices are disconnected, synchronization is not allowed.



- 4 License distribution:
 - 🚹 Device selection: Selected devices for license
 - distribution. Activate: Activate license for the selected
 - devices.

Close: Cancel and close distribution.

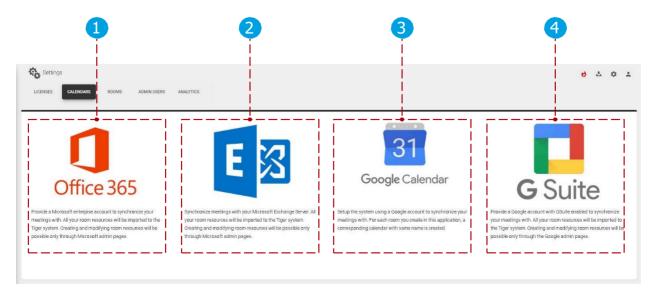
Calendars tab



Only one calendar can be attached at a time:

- 1 Microsoft365 calendar: Provide a Microsoft enterprise account to synchronize meetings with. Room resources will be imported to the Tigermeeting system. Creating and modifying room resources will be possible only through Microsoft admin pages.
- Exchange calendar: Synchronize meetings with Microsoft Exchange Server.

 Room resources will be imported to the Tigermeeting system.
- 3 Google calendar: Setup the system using a Google account to synchronize meetings with. For each room created in this application, a corresponding calendar with the same name is created.
- 4 Google Workspace calendar: Provide a Google admin account to synchronize meetings with. Room resources will be imported to the Tigermeeting system. Create and modify room resources through the Google admin pages.

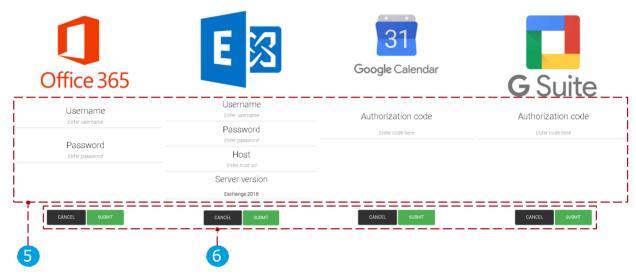


Beside the online calendars Tigermeeting has support for iCalendar and Local Calendar.

iCalendar: expose via a web server (http or https protocols) a pre generated iCal file in a format that complies to the RFC 5545 specification, and it is not larger than 10Mb.

These files will be treated as a room resource as long as they are available. Replacing the files is allowed as long as the URLs do not change.

Local Calendar: is the default configuration when no other calendar is set. The booking devices synchronize meetings only between each other by booking on the screen – this is mainly for DEMO purposes. Please use other calendars in production. .(Google Calendar with a personal account would be the simplest)

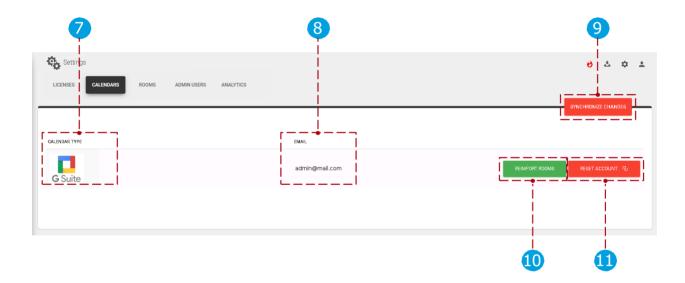


When a calendar is selected for attachment:

5 User parameters:
Microsoft365 parameters: Username and password must be added,
after the room list is selected (for more information about room
lists read section "Configuring Microsoft365 calendar") the
attachment process can be finished.
Exchange parameters: username, password, exchange server URL and server version must be added, after the room list is selected (for
more information about room lists read section "Configuring Exchange calendar") the attachment process can be finished.
Google and Google Workspace parameters: After registering the
calendar account the attachment process can be finished.
6 Confirm controls:
Cancel: Cancel the attachment
process. Submit: Finish the
attachment process.

After calendar attachment:

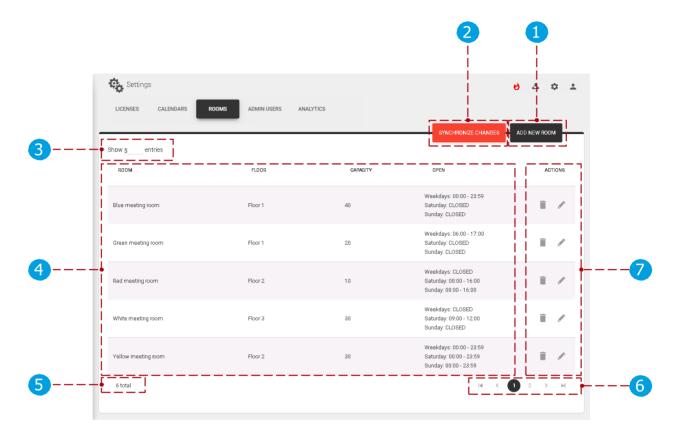
- 7 Calendar type: Type of the attached calendar.
- Email: Email address of the attached calendars
- j user.
 - Synchronize changes: After the attachment, the changes must be synchronized with the devices. When all devices are disconnected, synchronization is not allowed.
- Reimport rooms: Rooms and their parameters can be reimported to the Tigermeeting admin application. It is used when rooms are created, removed or its parameters changed (floor, capacity) via calendar's admin interface. It is available when Microsoft365, Exchange or Google
- Workspace calendars are attached.
 Reset account: Detached the selected online calendar. After the detachment the changes will be synchronized automatically.



Link to the instructional video how to attach Google Workspace calendar to the Tigermeeting admin application: https://www.youtube.com/watch?v=j1cN9OalDwU

Rooms tab

Rooms can be created, removed, and their properties can be edited. Only one room can be attached to a device at a time.



Rooms tab:

- 1 Add new room: Create a new room. New rooms can be created when no calendar or Google calendar is attached to the Tigermeeting admin application.
- 2 Synchronize changes: After a room is created or its properties changed, the changes must be synchronized with the devices. When all devices are disconnected, synchronization is not allowed.
- 3 Number of rooms: The number of rooms displayed per page.
- 4 List of rooms: List of created or synchronized online calendar rooms.
- Total number of devices: Total number of devices filtered by device filter. (all, free, connected, disconnected)
- 6 Paging: If there are more rooms, they are displayed on other pages.
- Actions:
 - Remove room: Remove the selected room from the admin application. Rooms cannot be removed when Microsoft365, Exchange or Google Workspace calendar is attached. Only local and Google rooms can be removed.
 - Edit room: Edit room properties.

Creating rooms if there is no online calendar attached:

☐ If there is no online calendar attached (local calendar is used), rooms can be created, removed, and edited without restrictions.

Creating rooms if Google calendar is attached:

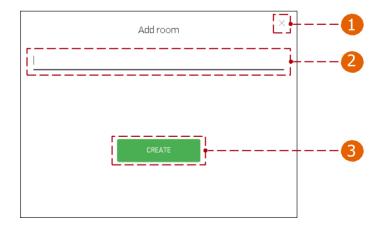
When a room is created, it is checked if the room already exists on Google calendar. If it exists, it is synchronized with the calendar's room. If not, then it is automatically created, and it is created on the attached Google calendar as well. When a room is removed, it can be removed from the admin only, or from the calendar and from the admin.

Room management when Microsoft365, Exchange or Google Workspace calendars are attached:

When there are previously defined rooms, and Microsoft365, Exchange or Google Workspace calendar is attached, the previously defined rooms are removed, and the online calendar's rooms are synchronized and created in the admin application.

Edit room's properties:

- Room's name: A room's name can be edited only when local or Google calendar is attached. The name of the imported rooms cannot be edited in the Tigermeeting admin application, (Microsoft365, Exchange, Google Workspace) only through the online calendar's admin panel.
- ☐ Capacity: Parameter is fetched from Microsoft365, Exchange or Google
- ─ Workspace. Room info: Parameter can be edited in all calendars.
- Display name: Parameter can be edited when local, Microsoft365, Exchange, Google calendar, is attached.
- 1 Add new room:
 - 1 Close: Close the 'Add room' popup window.
 - Name of the room: Name of the new room.
 - Create: Create a new room. Rooms with the same names are not allowed.



- Edit room properties:
 - Name of the room: Name of the selected room.
 - Edit name: Room's name can be edited. The room's name can be edited only when Local or the Google calendar is attached. The name of the imported rooms cannot be edited in the Tigermeeting admin application, (Microsoft365, Exchange, Google Workspace) only in the online calendar's admin panel.
 - Capacity: Capacity of the selected room.
 - 4 Info: Room info is displayed under the room's name.
 - 5 Display name: Alias is used, and it is displayed as room's name. When it is not added the room's original name is used instead.
 - 6 Time: Device is available between the set time. (for example, between 06:00 and 17:00)
 - Days: Checked days are available and reservations can be booked from a device. (for example, on workdays reservations are available, on Saturday and Sunday the room is closed, and no reservations can be made)
 - 8 Close: Cancel and close room properties.
 - Save settings: Save room properties. After it is saved, it must be synchronized with the other devices.

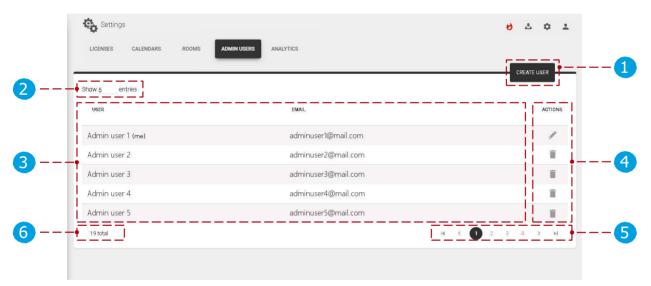


On android device:



Admin users tab

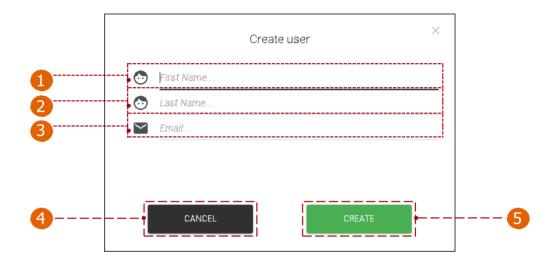
All users of the Tigermeeting admin application are listed here.



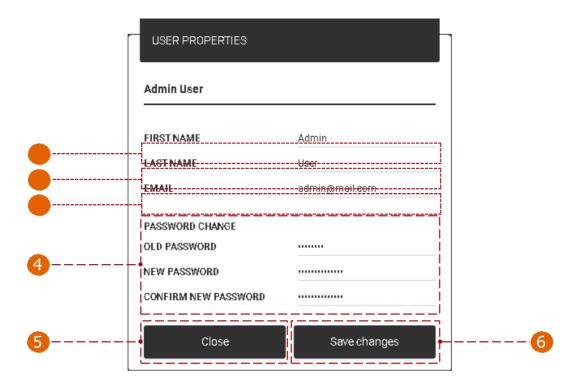
Adminusers tab:

- 1 Create user: Create a new admin user.
- Number of admins: The number of admins displayed per page.
- List of admins: Admin parameters are displayed. (the active admin user is marked as "(me)")
- 4 Action:
 - Edit: Edit current admin user's parameters.
 - Remove: Remove selected admin user from the Tigermeeting admin application.
- Paging: If there are more admins, they are displayed on other pages.
- Total number of admins: Total number of admins in the application.

- 1 Create new admin user: When a new user is created, a registration email is sent to the provided email address, with the user password. Make sure that the activation email is not in the spam folder.
 - First name: First name of the admin user.
 - Last name: Last name of the admin user.
 - Email: Email address of the admin user.
 - Cancel: Cancel action.
 - Create: Create the user and send the activation email.

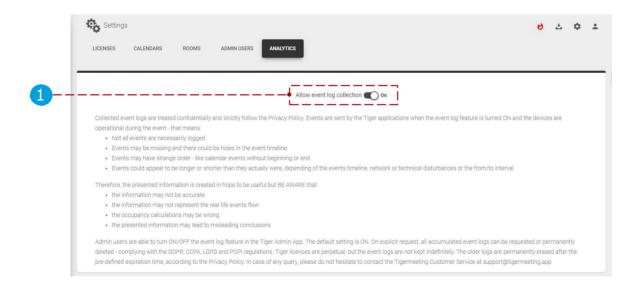


- 4 Edit current admin user:
 - 1 First name: First name of the admin user.
 - Last name: Last name of the admin user.
 - Email: Email address of the admin user.
 - 4 Password change:
 - Old password: Without the old password, a new password cannot be created.
 - □ New password: New password must contain minimum 8
 - characters. Confirm new password: New password and confirm password must be exactly the same.
 - 5 Close: Close the user properties section.
 - 6 Save changes: Save current admin user's parameters.



Analytics tab

The collected data is used to present useful and valuable information about the usage of the meeting rooms, company culture and event analytics.



Analytics tab:

1 Admin users are able to turn ON/OFF the event log feature in the Tigermeeting Admin App. The default setting is ON.

Collected event logs are treated confidentially and strictly follow the Privacy Policy. Events are sent by the Tigermeeting applications when the event log feature is turned ON and the devices are operational during the event - that means:

Not all events are necessarily logged. Events may be missing and there could be holes in the event timeline. Events may have strange order - like calendar events without beginning or end Events could appear to be longer or shorter than they actually were, depending on the events timeline, network or technical disturbances or the from/to interval.
efore, the presented information is created in hope to be useful but BE RE that:
the information may not be accurate.
the information may not represent the real-life events flow the occupancy calculations may be wrong.
the presented information may lead to misleading conclusions.

Admin users are able to turn ON/OFF the event log feature in the Tigermeeting Admin App. The default setting is ON. On explicit request, all accumulated event logs can be requested or permanently deleted - complying with the GDPR, CCPA, PIPEDA, CDR, LGPD and POPI regulations.

Tigermeeting licences are perpetual, but the event logs are not kept indefinitely. The older logs are permanently erased after the pre-defined expiration time, according to the Privacy Policy. In case of any query, please do not hesitate to contact the Tigermeeting Customer Service at: support@tigermeeting.app

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Analytics

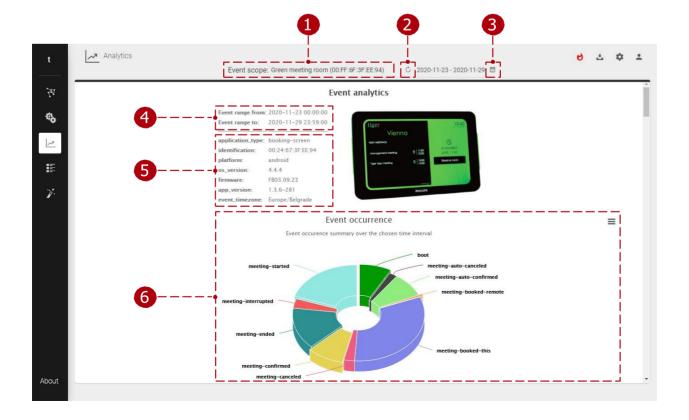
Analytics can be generated for booking, overview devices, admin and company between the given date range.



Please, select the event scope to view the analytics

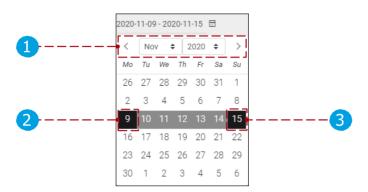
Settings:

- 1 Device list: Analytics will be generated for the selected device. Booking and overview devices, admin application and company.
 - Company analytics will include all data from all booking screen devices that the company has.
- Reload analytics: Reload analytics data to the selected
- device. Date pickers: Analytics will be generated between
- the set dates. Event analytics date range.
- Device info. (type, identification, platform,
- etc.) Data of the analytics are represented in charts.



- 3 Date pickers:
 - Year and month pickers.
 - First, the start date must be selected.
 - Second, the stop date must be selected.

To set date range across months use the Year and month pickers.



- 6 Charts:
 - 1 Chart options:
 Chart data can be printed (Print chart), or downloaded (download PNG, JPEG, PDF, SVG image, or data as CSV, XLS). Data can be displayed in table view (view data table).
 - Events (in case of booking device, boot, meeting booked, meeting confirmed, meeting started, meeting ended, etc.) are displayed in the event timeline. The chart is zoomable, by clicking and dragging a selectable area. The Timeline chart and table data contains max 300 events. Other charts do not have this limitation.
 - 3 When hovered above the event, the event details are displayed.
 - 4 Event timeline chart filter.
 - Event timeline filter. (chart zoom can be changed here)



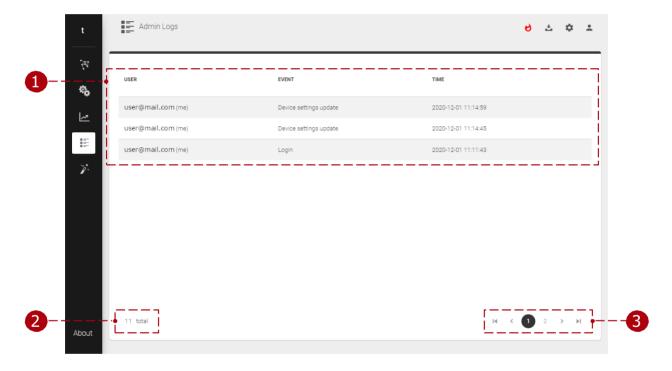
Charts and data visualization can be changed by later releases.

Admin logs

Every event that has been executed int the Tigermeeting admin application is displayed in the event list. Events like admin user login, logout, Device settings update, software update, license attachment, detachment, device reboot, etc. are listed.

Admin log:

- 1 List of events, causes, date and time.
- **T**otal number of events.
- 3 Paging: Page through the events.



Important events are marked with red color to turn attention.

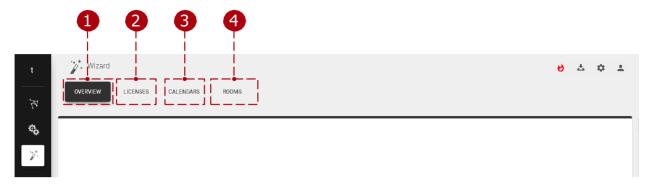
zoli@tigermeeting.app (me)	License attached (797259278f446f60)	2024-03-29 18:37:49	83.251.235.241	Windows (3.3.5)
zoli@tigermeeting.app (me)	Screenshot (797259278f446f60) 2024-03-29 18:18:08	83.251.235.241	Windows (3.3.5)
zoli@tigermeeting.app (me)	Device settings sync	2024-03-29 18:17:57	83.251.235.241	Windows (3.3.5)
zoli@tigermeeting.app (me)	Theme applied (manufaktura)	2024-03-29 18:17:55	83.251.235.241	Windows (3.3.5)

The Admin logs loads just the last 1000 records, however customers are able to request to see or delete all available logs according to the Privacy Policy.

NOTE: The admin logs cannot be turned off.

Wizard

Generally, it is used when the Tigermeeting admin application is started for the first time. The user is guided by a step-by-step wizard.

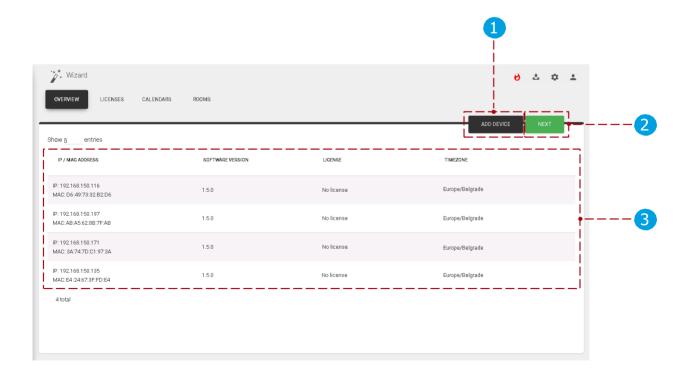


Wizard:

- 1 Overview tab: Basic overview of the devices.
- Licenses tab: Available licenses to distribute among the
- devices. Calendars tab: Online calendars to attach the admin
- application. Rooms tab: Available rooms to attach to devices.

Overview

Basic overview of the available devices.

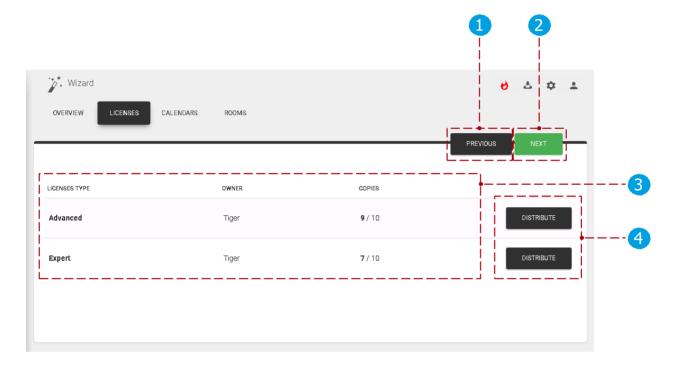


Overview:

- 1 Add device: Add device with IP address not discovered by the Tigermeeting admin application. It is used when a device is in another subnetwork.
- 2 Next: Takes the user to the next setting, 'Licenses'.
- 3 List of devices: Available devices are displayed for attachment.

Licenses

Licenses can be distributed among the devices. For more details check section Settings, Licenses tab.

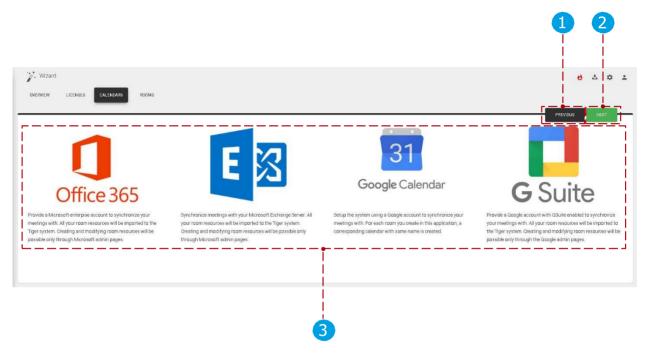


Licenses:

- 1 Previous: Go to previous setting, 'Overview'.
- Next: Go to the next setting, 'Calendars'.
- 3 List of licenses: List of available licenses.
- A Distribute licenses: Distribute licenses to the available devices.

Calendars

Calendars can be attached to the admin application. For more details check the section Settings, Calendars tab.



Online calendars:

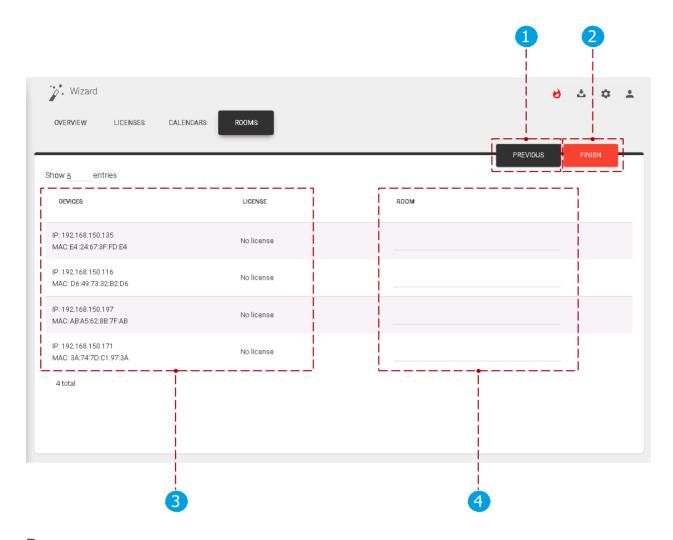
- 1 Previous: Go to previous setting, 'Licenses'.
- Next: Go to the next setting, 'Rooms'.
- List of calendars: List of attachable calendars. (Microsoft365, Exchange, Google, Google Workspace)

Additional calendars:

- ☐ iCalendar a file in iCal file format is exposed via an URL for each room no authentication is needed.
- ☐ Local Calendar a default calendar where the booking screens exchange bookings between each other.

Rooms

Rooms can be attached to the devices. For more details check the section Settings, Rooms tab.



Rooms:

- 1 Previous: Go to previous setting, 'Calendars'.
- Finish: Finish the wizard (attach licenses, attach calendars, create, and attach rooms to devices) and synchronize the settings with the devices.
- 3 List of devices: List of devices.
- A Rooms:
 - No calendar or Google calendar attached: Room name can be added and when the wizard is finished the room is created. (on google
 - calendar as well) Microsoft365, Exchange, Google Workspace calendars attached: Imported rooms can be selected from a dropdown.

Practical use cases

Install the admin application

	Go to 'https://tigermeeting.app/en/downloads' and download the latest Tigermeeting admin application for the desired operating system. Run the Tigermeeting admin installer. Select 'Anyone who uses this computer (all users)'. Click the 'Next' button. Choose the destination folder. By default, it is: 'C:/Program Files/Tigermeetingroom'. Click the 'Install' button. When the installation is finished, uncheck the 'Run Tigermeetingroom' checkbox and click the 'Finish' button.
Tur	n on the devices
	Turn on the Android device. Install the Tigermeeting android application. Search for the Tiger android application among the apps. Run the Tiger application. Turn on the "Draw over other apps" permission.
Stai	rt the admin application
	Run the admin application. Register a new user by selecting the 'register' tab. Fill in the required user information. The company code will determine the number and type of usable licenses. Finish the registration. Log in to the Tigermeeting admin application. For the first time setup, press the 'Yes' button.
Rur	wizard in admin application
	Make sure that all the android applications and firmware are up to date. Wait for the admin application to discover all devices. When all devices are discovered press the 'Next' button to licenses. Distribute licenses to the devices. Press the 'Next' button to calendars. Attach the desired calendar to the admin application. Press the 'Next' button to rooms. Attach rooms to the selected devices. Finish the wizard by pressing the 'Finish' button. After the synchronization all devices should be configured.

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Configuring Microsoft365 calendar

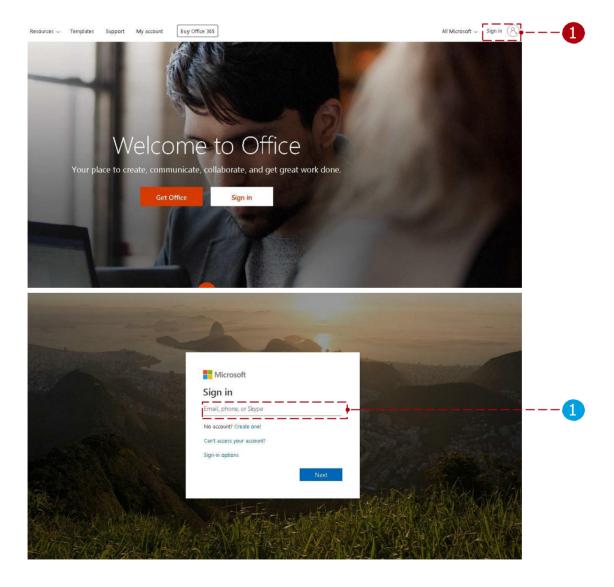
To use Microsoft365 calendar in the Tigermeeting admin application, it requires previous configuration.

Rooms must be created via Microsoft365 admin panel and room groups (roomlists) and permissions via Windows PowerShell.

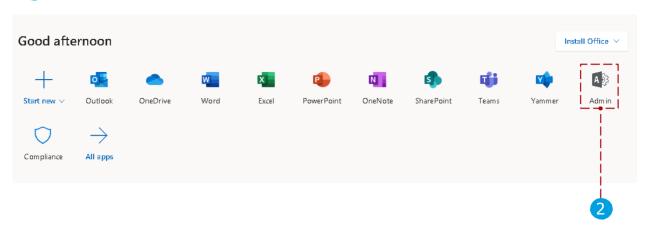
To accomplish this, follow these steps:

Microsoft365 admin panel

- ☐ Go to "https://www.office.com".
- Press the "Sign in" button.
 - 1 Enter username and password.
 - Username: admin@company.onmicrosoft.com
 - Password: ********



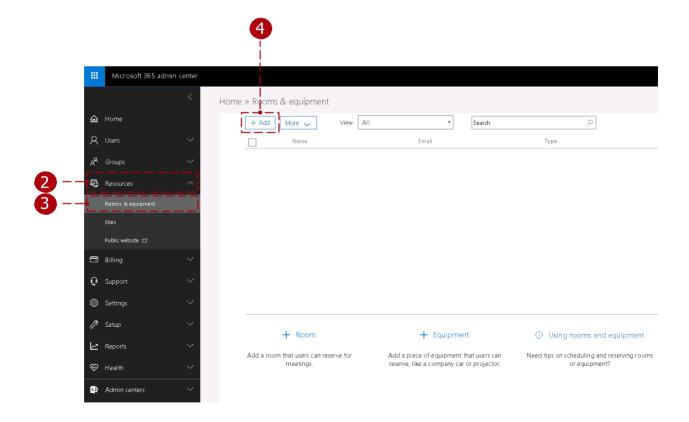
2 Select the admin center.



All room resources are listed here, and these resources can be added to the room group later, if there are no rooms defined, they can be added or edited here.

After selecting the admin center:

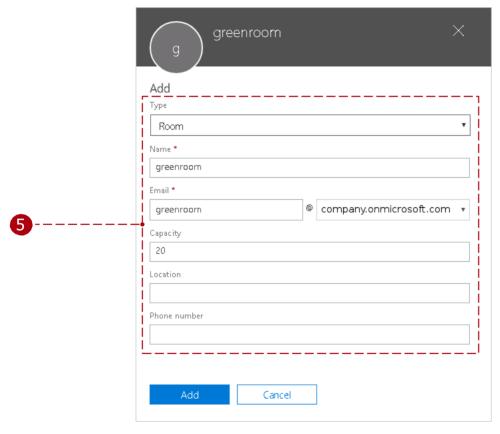
- 2 Select "Resources" menu.
- 3 Select "Rooms & equipment" submenu.
- 4 Create new room resources with the "+ Add" button.



5 Add room parameters:

- ☐ Type must be "Room".
- ☐ Add the room's name (for example:
- □ "greenroom") Email (for example:
 - "greenroom")
- □ Capacity (how many seats are in the meeting room)
- Location
- ☐ Phone number

Room's name, and email parameters are mandatory.



If more rooms are required repeat 4 and 5

Configuration through Windows PowerShell

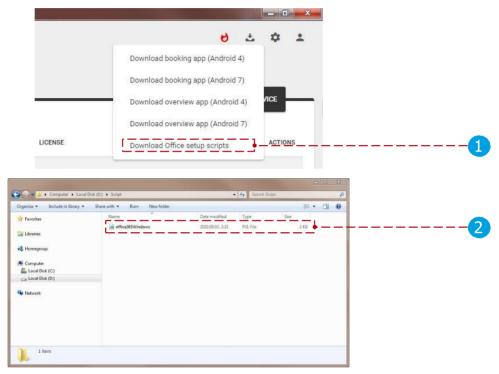
There are two ways to configure Microsoft Microsoft365 calendar roomlists:

- ☐ Through Microsoft365 helper script (read more in a dedicated chapter):
 - This script must be executed in admin Windows Power Shell:
 - Download the setup script through the Tigermeeting admin application.
- Or manually:
 - To configure the Microsoft365 calendar, follow the steps under "Manual configuration".

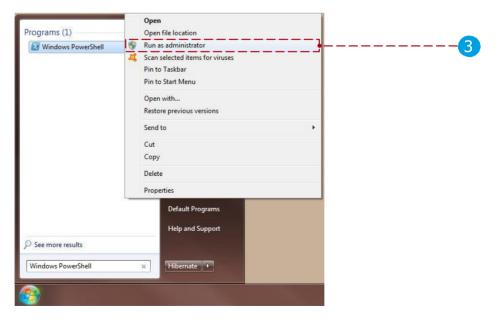
Configuration by using the Microsoft 365 setup helper script

Follow these steps:

- 1 Download the setup script through the admin application. In the downloaded file, scrips are for Microsoft365 and Exchange configuration, used on Linux, Mac, and Windows operating systems.
- 2 Extract downloaded file. (In this example Microsoft365 script will be used for Windows operating system)



- Run the Windows PowerShell in admin mode.
- 4 Inside the Windows PowerShell, navigate to the extracted script file.





Use the following commands:

Change execution policy to run script:
Set-ExecutionPolicy Unrestricted -Scope CurrentUser When asked
to change policy type, type "Y" and press enter.
Set process "Bypass" policy:
Set-ExecutionPolicy-Scope Process-ExecutionPolicy Bypass When
asked to change policy type, type "Y" and press enter.
Display execution policy list: Get-ExecutionPolicy -List

Running the Microsoft365 helper script

☐ Read the README.md file. Review the code and run the script:

```
./tigermeeting_microsoft365.ps1
```

```
Administrator: Windows PowerShell

Windows PowerShell
Copyright (C) 2009 Microsoft Corporation. All rights reserved.

PS C:\Windows\system32> D:
PS D:\> cd \Script
PS D:\> Script \Script \Script \Script \Office365\Windows\.ps1
Office365 Tigermeeting config script
Please enter your admin user email address: ______
```

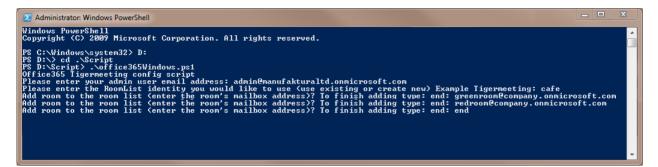
☐ Enter admin user email address: Enter admin's email address. It is IMPORTANT that the office365 admin user's email is used. In this example "admin@company.onmicrosoft.com" is used.

```
Windows PowerShell
Copyright (C) 2009 Microsoft Corporation. All rights reserved.

PS C:\Windows\system32> D:
PS D:\Script \color{\text{Noffice365Windows.ps1}}
Office365 Tigermeeting config script
Please enter your admin user email address: admin@company.onmicrosoft.com
Please enter the RoomList identity you would like to use (use existing or create new) Example Tigermeeting:
```

☐ Enter room list name: Room list will be attached in the Tigermeeting admin application. In the next step, rooms will be created and attached to the room list. In this example create a new room list "cafe".

□ Enter room email addresses: For this example, enter 2 room email address:
 □ "greenroom@company.onmicrosoft.com" and press enter. Created in step (,)
 □ "redroom@company.onmicrosoft.com" and press enter. Created in (, 5)
 step (
 □ "end" and press enter. (now the room list is ready)





☐ If an error occures that is because of the excecution policy. Enter your office 365 admin email address and password and press the "ok" button.

☐ The roomlist is processed.

```
RunspaceId : 632e1243-ad51-476b-9595-e2855485596b
RccessRights : (FullAccess)
Deny : False
InheritanceType : All
User
Identity : redwoon
Isinherited : False
IsUalid : True
ObjectState : Unchanged

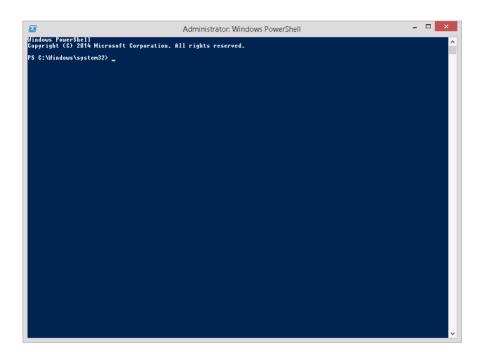
Completed!

PS D:\Script>
```

☐ At the end the "Completed" text is displayed. (full text is not included in the last screenshot.)

Manual configuration

Run Windows PowerShell as Administrator:



Use the following commands:

- 6 It is required that all PowerShell scripts are signed by a trusted publisher: Set-ExecutionPolicyRemoteSigned
- Connect to Microsoft 365 calendar:
 - \$UserCredential = Get-Credential
 - It is recommended to use the Microsoft365 account which you plan to use for authenticating within the tiger admin application.
 - \$\script{\$\script{Session} = New-PSSession ConfigurationName Microsoft.Exchange}\$
 - -ConnectionUri https://outlook.office365.com/powershell-liveid
 - -Credential \$UserCredential -Authentication Basic -
 - AllowRedirection Import-PSSession \$Session
- ☐ IMPORTANT: If no room lists are defined then define one first, otherwise

continue with step . You will get "no room resources defined" message in the Tigermeeting admin application if there are no room lists defined.

Create new room group: New-DistributionGroup-Name testlist-DisplayName "testlist"—RoomList
 Add room resource to the room group: Add-DistributionGroupMember –Identity testlist -Member greenroom@company.onmicrosoft.com
$\ \square$ If there are more room resources to add to the room group, repeat ste $oldsymbol{9}$.
Add permission for user (admin@company.onmicrosoft.com) to book meeting on room resource: (It is important to use the account set after "-User" parameter for Tigermeeting admin Microsoft365 authentication) Add-MailboxPermission -Identity greenroom@company.onmicrosoft.com -User admin@company.onmicrosoft.com -AccessRights FullAccess-InheritanceType All
\square If there are more room resources to add to the room group, repeat ste ${f 10}$.
If the resource mailbox's calendar shows the organizer's name instead of the subject, run this command for each room resource: Set-CalendarProcessing -Identity greenroom@company.onmicrosoft.cor -AddOrganizerToSubject \$false -DeleteSubject \$false -DeleteComments \$false -RemovePrivateProperty \$false
Step is required for all room resources. Repeat step with different room resource identity.
Disconnect from PowerShell session: Remove-PSSession \$Session

In this example "testlist" room group is created under the name of "testlist" (this name will appear in the Tigermeeting admin application after the calendar attachment when setting the group of rooms (room lists)). The room group contains one room "greenroom@company.onmicrosoft.com". Now the Microsoft365 calendar is configured and ready to use in the Tigermeeting admin application.

Instructional video:

https://www.youtube.com/watch?v=tzfgVGXUHVo

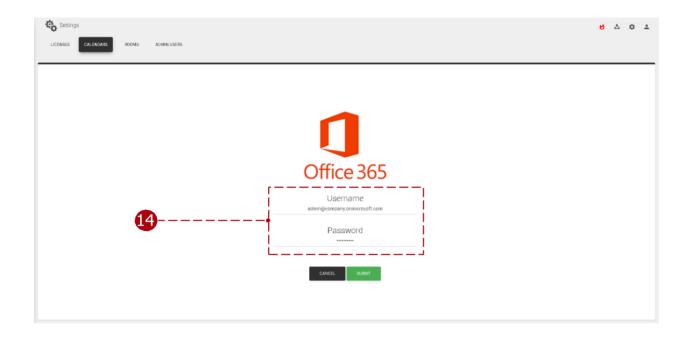
Page: 68 ti**ger**

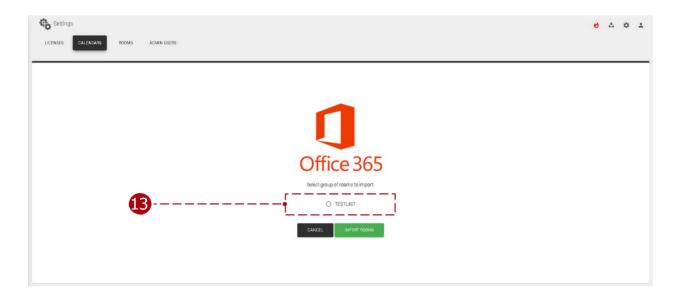
Tigermeeting admin application

Attach Microsoft365 calendar with the following user parameters:

Username: admin@company.onmicrosoft.com

Password: *******





Configuring Exchange calendar

To use Exchange calendar in the Tigermeeting admin application, it requires previous configuration. Rooms must be created via the Exchange admin panel and room groups and permissions via the Exchange Management Shell. To accomplish this, follow these steps:

Exchange admin panel



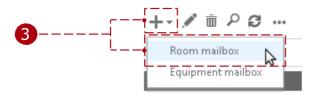
After the login:

2 Select recipients, resources tab. (All room resources are listed here, and these resources can be added to the room group later, if there are no rooms defined, they can be added or edited here.)



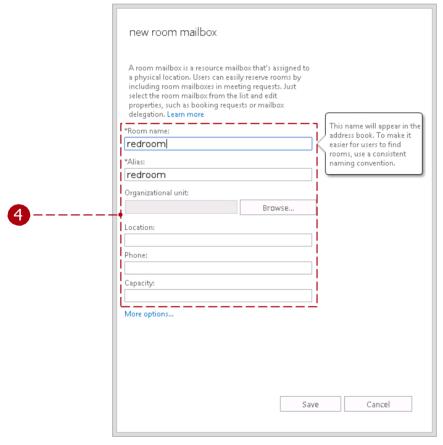
Page: 70 tiger

3 Press the New (Plus) icon, and from the dropdown list select "Room mailbox".



- 4 Add room's parameters:
 - ☐ Add the room's name (for example: "redroom")
 - ☐ Alias (also called mail nickname) (for example: "redroom")
 - Location
 - Phone
 - ☐ Capacity (how many seats are in the meeting room)

Room's name, and alias parameters are mandatory.



If more rooms are required repeat 3 and 4

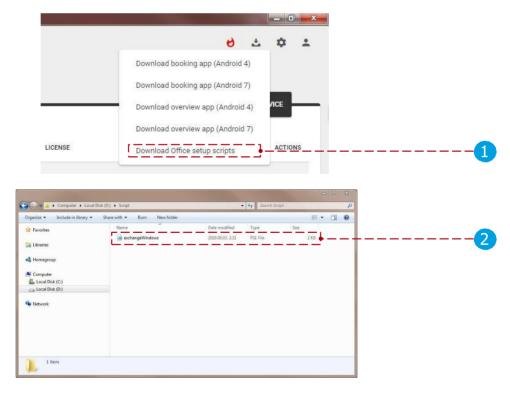
Configuration through Exchange Management Shell

There are two ways to configure Microsoft Exchange
calendar: Through script:
This script must be executed in Windows Exchange management
Shell: Download the setup script through the Tigermeeting admin application.
Or manually:
To configure the Microsoft Exchange calendar, follow the steps under "Manual configuration".

Configuration with the Microsoft helper script

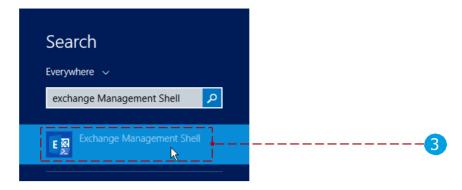
Follow these steps:

- 1 Download the setup script through the admin application. In the downloaded file, scrips are for Microsoft365 and Exchange configuration, for Linux, Mac, and Windows operating systems.
- 2 Extract downloaded file. (In this example Exchange script will be used for Windows operating system)



- 3 Run the Exchange management shell.
- 4 Inside the Exchange management shell, navigate to the extracted script file.

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```
Welcome to the Exchange Management Shell!

Full list of cmdlets: Get-Command
Only Exchange cmdlets: Get-ExCommand
Cmdlets that match a specific string: Help *\string\*
Get general help: Help
Get help for a cmdlet: Help \cmdlet name \rangle or \cmdlet name \rangle -?
Exchange team blog: Get-ExBlog
Show full output for a command: \cmdlet \cmand \rangle for a change \cmdlet \cmdlet \cmdlet for a command \cmdlet for a
```

Running the Microsoft 365 helper script

- Read the README.md file, review the code and run the script:
 - ./tigermeeting_microsoft365.ps1

```
Welcome to the Exchange Management Shell?

Full list of cmdlets: Get-Command
Only Exchange cmdlets: Get-ExCommand
Cmdlets that match a specific string: Help *\string\*
Get general help: Help
Get peneral help: Help
Get help for a cmdlet: Help \(\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\chince{\c
```

☐ Enter admin user email address: Enter admin's email address. It is IMPORTANT that the exchange admin user's email is used. In this example "administrator@company.local" is used.

```
Welcome to the Exchange Management Shell!

Full list of condlets: Get-Command
Only Exchange condlets: Get-ExCommand
Condlets that match a specific string: Help *\string\*
Get general help: Help
Get help for a condlet: Help \times condlet name \rightarrow or \times condlet name \rightarrow -?
Exchange team blog: Get-ExBlog
Show full output for a command: \times command \rightarrow format-List

Show quick reference guide: QuickRef
UERBOSE: Connecting to MSEX.company.local.
UPSI C:\Windows\sustem32\D:
IPSI D:\Script \rightarrow (Seript)
IPSI D:\Script \rightarrow (Se
```

☐ Enter room list name: Room list will be attached in the Tigermeeting admin application. In the next step, rooms will be created and attached to the room list. In this example create a new room list "cafe".

```
Welcome to the Exchange Management Shell?

Full list of cmdlets: Get-Command
Only Exchange cmdlets: Get-ExCommand
Cmdlets that match a specific string: Help **(string)**
Get general help: Help
Get help for a cmdlet: Help (cmdlet name) or (cmdlet name) -?
Exchange team blog: Get-ExBlog
Show full output for a command: (command) ! Format-List

Show quick reference guide: QuickRef
UERBOSE: Connecting to MSEX.company.local.
UERBOSE: Connected to MSEX.company.local.
IPS1 C:\Windovs\sustem32\D:
IPS1 D:\Script) .\exchange\Windows.ps1
Exchange Iigermeeting config script
Please enter your admin user email address: administrator@company.local
Please enter the RoomList identity you would like to use (use existing or create new) (Example: Tigermeeting): cafe
Add room to the room list (enter the room's mailbox address)? To finish adding, type: end:
```

```
    □ Enter room email addresses: For this example, enter 2 room email address:
    □ "greenroom@company.local" and press enter. Created in step (, , )
    □ "redroom@company.local" and press enter. Created in step (
    □ "end" and press enter. (now the room list is ready)
```

```
Welcome to the Exchange Management Shell!

Full list of cmdlets: Get-Command
Only Exchange cmdlets: Get-ExCommand
Cmdlets that match a specific string: Help *(string)*
Get general help: Help
Get help for a cmdlet: Help (cmdlet name) or (cmdlet name) -?
Exchange team blog: Get-ExBlog
Show full output for a command: (command) ! Format-List

Show quick reference guide: QuickRef
VERBOSE: Connecting to MSEX.company.local.
VERBOSE: Connected to MSEX.company.local.
IPSI C:\Windows\svstem32\D:
IPSI D:\calkscript \cdot\company.local.
IPSI D:\calkscript \cdot\company.local
Exchange Tigermeeting config script
Please enter your admin user email address: administrator@company.local
Please enter the RoomList identity you would like to use (use existing or create new) (Example: Tigermeeting): cafe
Add room to the room list (enter the room's mailbox address)? To finish adding, type: end: greenroom@company.local
Add room to the room list (enter the room's mailbox address)? To finish adding, type: end: redroom@company.local
Add room to the room list (enter the room's mailbox address)? To finish adding, type: end: mailbox.

V
```

☐ At the end the "Completed" text is displayed. (full text is not included in the last screenshot.)

```
_ 🗇 🗙
                                                                                                          Machine: MSEX.tiger.local
               Welcome to the Exchange Management Shell!
    l list of cmdlets: Get-Command
y Exchange cmdlets: Get-ExCommand
lets that match a specific string: Help *<string>*
general help: Help
help for a cmdlet: Help <cmdlet name> or <cmdlet name> -?
hange team blog: Get-ExBlog
w full output for a command: <command> | Format-List
          uick reference guide: QuickRef
E: Connecting to MSEX.company.local.
E: Connected to MSEX.company.local.
                                                                                                                              GroupT ype
                                                                                                                                                                                               PrimarySmtpAddress
       Cafe Universal
NG: The appropriate access control entry is already present on the object "CN=green CN=Users,DC=tiger,DC=local" for account "TIGER\Administrator".
                                                                                                                                                                                               cafe@company.local
                                 0e940bd2-e19c-4289-baee-a11223d05bb2
(FullAccess)
False
All
TIGERAdministrator
company.local/Users/greenroom
False
   y
eritanceType
er
lentity
sInherited
sValid
bjectState
   NING: The appropriate access control entry is already present on the object "CN=redroom,CN=Users,DC=tiger,DC=local"
• account "TIGER\Administrator".
                                  0e940bd2-e19c-4289-baee-a11223d05bb2

{FullAccess}
False

All

II GER\Administrator

company .local/Users/redroom

False

Irue

Unchanged
ınspaceId
:cessRights
 ny
heritanceType
 er
entity
Inherited
Jalid
jectState
  mpleted!
```

Manual configuration

Open rdb client and connect to the exchange server. When the connection is successful, open the Exchange Management Shell. Windows PowerShell is also available for remote configuration. For more information visit:

https://docs.microsoft.com/en-us/powershell/exchange/exchange-online/connect-to-exchange-online-powershell/connect-to-exchange-online-powershell?view=exchange- ps

Use the following commands:

	IMPORTANT: If no room lists are defined then define one first, otherwise continue with step. You will get "no room resources defined" message in the Tigermeeting admin application if there are no room lists defined.	
5	Create new room group: New-DistributionGroup -Name DistributionGroup -DisplayName "Meeting Rooms" –RoomList	
6	Add room resource to the room group: Add-DistributionGroupMember –Identity DistributionGroup - Member redroom@tiger.local	
	If there are more room resources to add to the room group, repeat ste	
7	Add permission for user (admin@mail.local) to book meeting on room resource: (It is important to use the account set after "-User" parameter for Tigermeeting admin Exchange authentication) Add-MailboxPermission -Identity redroom@tiger.local -User admin@mail.local -AccessRights FullAccess -InheritanceType All -Automapping \$false	
	If there are more room resources to add to the room group, repeat ster.	
8	If the resource mailbox's calendar shows the organizer's name instead of the subject, run this command for each room resource: Set-CalendarProcessing -Identity redroom@tiger.local -DeleteSubjec \$False -AddOrganizerToSubject \$False	

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 \square Step 8 is required for all room resources. Repeat step 8 with different

room resource identity.

- Private meetings are visible if the Private Flag is not processed: Set—
 CalendarProcessing -Identity redroom@tiger.local
 -RemovePrivateProperty \$False
- To change more rooms private meeting flag repeat sto with different room resource, identify.
 - Enable correct meeting title and author on device:
 Set-CalendarProcessing -Identity redroom@tiger.local -DeleteComments
 \$False
 - ☐ To change display of title and author for different rooms repeat **(1)** p with different room resource identify.

In this example "DistributionGroup" room group is created under the name of "Meeting Rooms" (this name will appear in the Tigermeeting admin application after the calendar attachment where electing the group of rooms (room lists)). The room group contains one room "redroom@tiger.local". Now the Exchange calendar is configured and ready to use in the Tigermeeting admin application.

Tigermeeting admin application

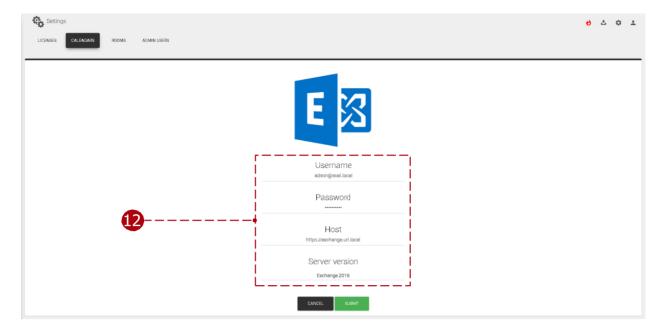
Attach exchange calendar with the following user parameters:

	username:admin@mail.local(usefullemailaddress)
	Password: *******
Ī	Host: https://exchange.url.local (If the server uses 'http' or 'https
	protocol then use it)
	Server version: Example: "Exchange 2016"

NOTE: Tigermeeting is compatible with Microsoft Exchange servers 2007 to 2019. It is important to set the actually used Exchange server version as the API schemas are different and server version dependent.

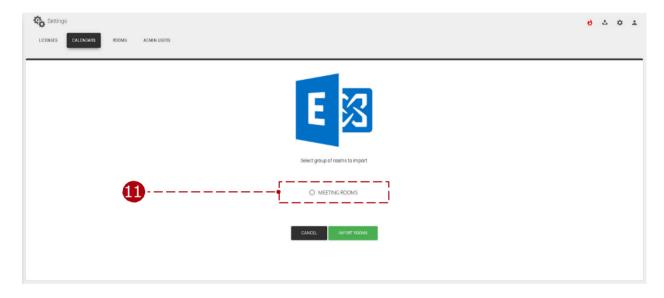


REQUIREMENT: Exchange Servers **must have NTLM enabled**. Please, read the Windows Server and the Exchange Server documentation for more information.



If the authentication was successful, the configured roomlists will appear.

Choose the room list that contains room resources for the intended office/school environment.



The Exchange calendar is attached now.

You can continue assigning online room resources to the devices listed in the Network tab.

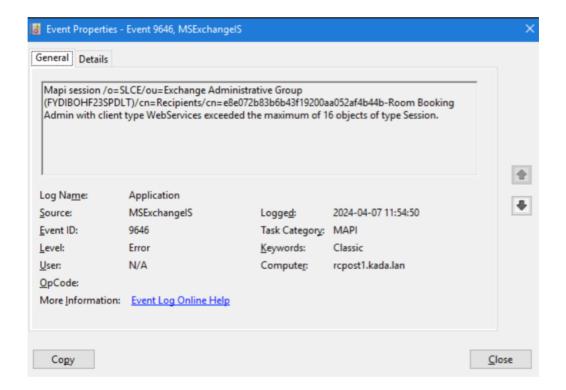
IMPORTANT NOTE

Devices running Tigermeeting Android applications are independent entities, that maintain their own sessions during the normal operation, therefore larger installations may hit some of the Exchange Server's default session limits.

REQUIREMENT: Please, allow one session per device running Tigermeeting for the Admin user.

The error will manifest as described below:

- Some of the screens running Tigermeeting will not be able to retrieve the room bookings
- The Tigermeeting device log will show: Action: [ACTION_GET_RESERVATION]: Error: [The request failed. The server cannot service this request right now. Try again later.]
- In the Exchange Server Event logs (MSExchangelS) "client type WebServices exceeded the maximum of 16 objects of the type "Session" events will appear



The solution is to raise the limits in the Exchange Server

Maximum Allowed Sessions Per User

Maximum Allowed Sessions Per User limit as described in Microsoft documentation (like https://learn.microsoft.com/en-us/exchange/managed-store-limits-exchange-2013-help)

To increase the maximum number of sessions, the following value must be adjusted in the Windows registry on the Exchange Server. In this example, the maximum number of concurrent sessions is increased to 128 sessions (80 hexadecimal):

[HKEY_LOCAL_MACHINE/SYSTEM/CurrentControlSet/Services/MSExchangelS/Para

metersSystem]

"Maximum Allowed Sessions Per User"=dword:00000080

Afterwards the service "Microsoft Exchange Information Store" must be restarted.

NSPI session limit

The NSPI session limit that allows a maximum of 50 sessions per user and domain controller by default can be reached as well.

To increase this limit, the following value must be set in the Windows registry on each domain controller:

[HKEY_LOCAL_MACHINE/SYSTEM/CurrentControlSet/Services/NTDS/Parameters] "NSPI max sessions per user"=dword:00000200

Afterwards, please restart the domain controller.

Read more at https://support.microsoft.com/en-us/topic/error-trying-to-connect-to-microsoft-exchange-server-results-in-mapi-e-logon-failed-7d322bd7-0dce-1fe9-b446-90f153000286

Throttling policy

Exchange may lock out the admin user for some time with message like: **The budget** for user 'Sid~[some user]' is locked out until [some time]. Max Burst: 480000, Recharge Rate: 1800000, CutoffBalance: -600000

The Exchange Server is limiting the amount of server resources that a single user or application can consume.

Please allow more resources for the Admin user that serves all the screens in the entire installation.

Read more at:

https://learn.microsoft.com/en-us/exchange/client-developer/exchange-web-services/ews-throttling-in-exchange

For professional assistance, please reach out to Microsoft Support.

Microsoft365 helper script

Introduction

Microsoft365 and Exchange Server are very sophisticated calendars that can be used in many different environments.

Huge corporations stretch over many continents, have offices in many cities, numerous buildings – but everything is kept in a single calendar.

In order to organize resources Microsoft uses the term "roomlist" to group rooms that belong to one entity – one office for example.

Room list management can be done in the Admin panel or using powershell commands – but Tigermeeting customers had troubles setting up themselves, therefore Tigermeeting developers have created a simple, menu based tool that help with the roomlist management.

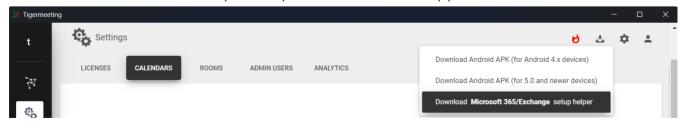
Tigermeeting Microsoft365/Exchange Online config helper script is a lightweight powershell script, intentionally written without fancy scripting techniques in order to be easily human readable.

We encourage all customer administrators who intend to use this helper script to review, understand and acknowledge all the RoomList related operations.

This script is written to be helpful for the customers, but all operations can be executed line by line or via the Microsoft365 Admin setup console or Exchange Management Shell.

Download and installation

Download the Microsoft helper script from the Admin App



Unpack the zip file in a directory.

The script needs to be run from an Admin PowerShell or Exchange Management



Shell

Powershell installation on different operating systems

MacOS powershell install

brew cask install powershell pwsh

Ubuntu powershell install

snap install powershell --classic powershell

OpenSuSE install

Please follow https://snapcraft.io/install/powershell/opensuse

Fedora installation

Please follow https://snapcraft.io/install/powershell/fedora

Windows powershell

powershell -> run as Administrator

Prepare the room resources

NOTE: This script operates just with the RoomLists!

NOTE: Creating and deleting room resources are admin tasks that need to be done prior running the script that are done via the Microsoft365 Admin or Exchange Admin Center.

To manage room resources in Microsoft365

- Login to your Microsoft365 account.
- Click on the top left menu icon
- Select All apps -> Admin -> Show All -> Resources -> Rooms & Equipment.
- add, delete and edit the room resources

To manage room resources in Exchange Server

- Login to your Exchange admin center
- On the left menu: recipients -> resources
- add, delete and edit the room resources

For RoomList related operations - to run this script - Global Admin, Power user is needed.

For the calendar operations Office365 E1 user permission/licence is enough. It is recommended to remove the Global Admin permissions after attaching the calendar operation is done and verified to work from the Tigermeeting Admin Application.

Running the script (example)

Start Powershell as Administrator

Change to the directory where the script is

The execution policy MUST be set before running the script:

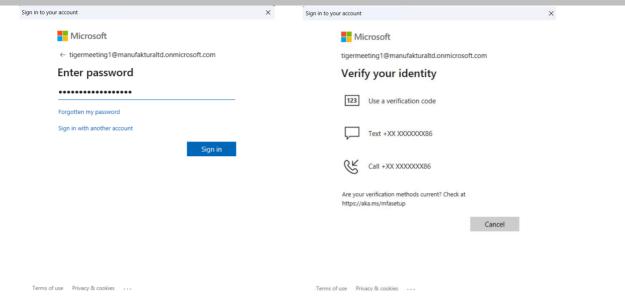
Set-ExecutionPolicy - ExecutionPolicy Unrestricted

```
Administrator: Windows PowerShell (x86)
 PS C:\WINDOWS\system32> cd ..\..\Users\Zoli\Work\tigermeeting-github\meetingroom setup scripts\
 PS C:\Users\Zoli\Work\tigermeeting-github\meetingroom_setup_scripts> Set-ExecutionPolicy -ExecutionPolicy Unrestricted
Execution Policy Change
 The execution policy helps protect you from scripts that you do not trust. Changing the execution policy might expose
 you to the security risks described in the about_Execution_Policies help topic at
 https:/go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
 [Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): Yes
  PS C:\Users\Zoli\Work\tigermeeting-github\meetingroom_setup_scripts> .\tigermeeting_microsoft365.ps1
   Tigermeeting Microsoft365/Exchange Online config helper
  Setting the ExecutionPolicy - please answer YES to accept.
   bet-ExecutionPolicy: Windows PowerShell updated your execution policy successfully, but the setting is overridden by a policy defined at a more specific scope. Due to the override, your shell will retain its current effective execution policy of Unrestricted. Type "Get-ExecutionPolicy -List" to view your execution policy settings. For more enformation please see "Get-Help Set-ExecutionPolicy".

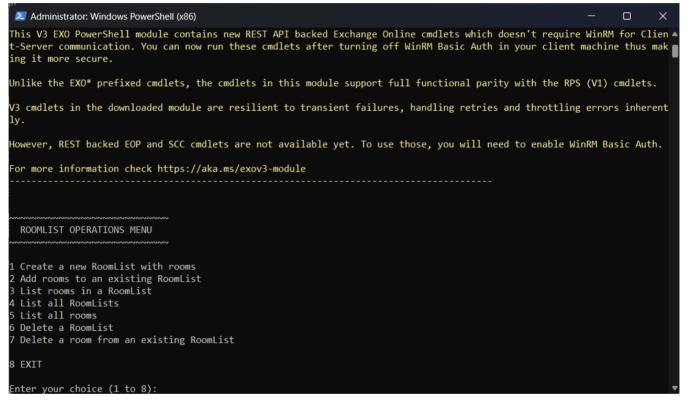
It C:\Users\Zoli\Work\tigermeeting-github\meetingroom_setup_scripts\tigermeeting_microsoft365.ps1:42 char:1
            + CategoryInfo : PermissionDenied: (:) [Set-ExecutionPolicy], SecurityException + FullyQualifiedErrorId : ExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.PowerShell.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverride,Microsoft.Commands.SetExecutionPolicyOverrid
 If the ExecutionPolicy is accepted - the errors above can be safely ignored.
      .but please make sure that the ExecutionPolicy is Unrestricted below.
 The current ExecutionPolicy is: Unrestricted
```

Authenticate the Administrator. To make sure that the roomlists are accessible for the Admin user that will be used to the Authentication and calendar operations, the best practice is to use the same Admin credentials.

The authentication supports MFA – Multi Factor Authentication.



After a successful authentication the following menu will appear:



The ROOMLIST operations menu is very intuitive and straight forward:

- 1 Create a new RoomList with rooms
- 2 Add rooms to an existing RoomList
- 3 List rooms in a RoomList
- 4 List all RoomLists
- **5** List all rooms
- 6 Delete a RoomList
- 7 Delete a room from an existing RoomList
- 8 EXIT

Operations

Please note: this his script deal just with roomlists: creates, lists, deletes.

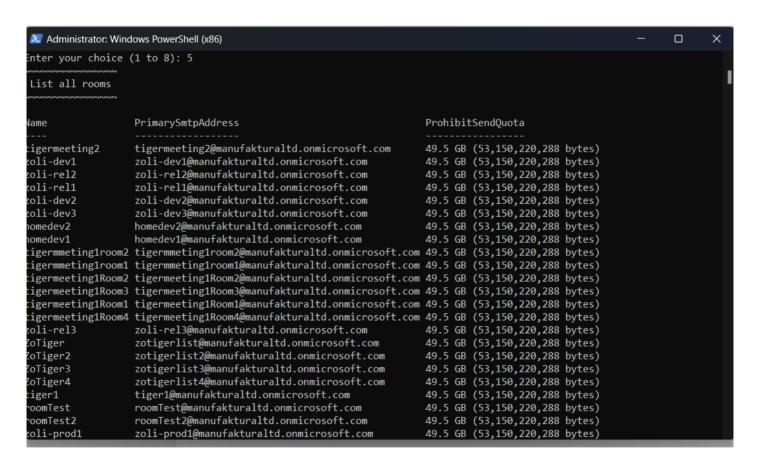
One room/room resource can be part of several roomlists.

Deleting a roomlist does not delete the room resources

NOTE: the changes are permanent. THERE IS NO ROLLBACK AVAILABLE

Common use case

Verify if the room resources are created in the Microsoft365/Exchange Admin panel **press 5**



The listed rooms can be bundled into room lists.

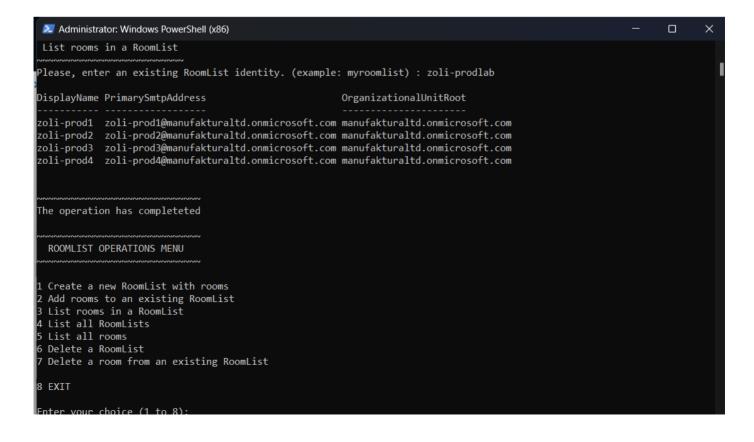
You can copy paste room names later when needed.

List currently defined roomlists: press 4

```
Administrator: Windows PowerShell (x86)
                                                                                                                  П
                               PrimarySmtpAddress
                                                                                      DisplayName
Name
                               roomroom@manufakturaltd.onmicrosoft.com
oomroom
                                                                                      roomroom
zoli-testlab
                               zoli-testlab@manufakturaltd.onmicrosoft.com
                                                                                      zoli-testlab
nomedev
                               homedev@manufakturaltd.onmicrosoft.com
                                                                                      homedev
igerMeeting1RoomList3
                               TigerMeeting1RoomList3@manufakturaltd.onmicrosoft.com TigerMeeting1RoomList3
DelgateGroupList20210924091817 delgategrouplist@manufakturaltd.onmicrosoft.com
                                                                                      DelgateGroupList
ZolTiger List 1
                               ZolTigerList@manufakturaltd.onmicrosoft.com
                                                                                      ZolTiger List 1
                                                                                      zoli-prodlab
                               zoli-prodlab@manufakturaltd.onmicrosoft.com
zoli-prodlab
The operation has completeted
 ROOMLIST OPERATIONS MENU
 Create a new RoomList with rooms
 Add rooms to an existing RoomList
 List rooms in a RoomList
 List all RoomLists
 List all rooms
 Delete a RoomList
 Delete a room from an existing RoomList
 EXIT
```

On the very same way it is possible to create new roomlist, add rooms to an existing room list, delete rooms from a roomlist, see the roomlist content and delete a roomlist.

To see the final result – the roomlist that will be imported into the Tigermeeting Admin app when attaching Microsoft365 or Exchange server calendar – **press 3**



IMPORTANT NOTE

In some cases, it takes time (sometimes even a few hours) to sync the Microsoft365 setup.

Results from the script operations are immediately visible in the Microsoft365 and Exchange Online Admin console - but the Azure app used for interfacing towards the Azure app consumers – like the Tigermeeting Admin app - does not see the updates immediately.

This is a known issue on Microsoft's side, and it takes time for the newly created room list changes to appear in the Admin App when attaching the calendar.

The symptoms are:

- the newly created room list will not appear in the Tigermeeting Admin app after a successful authentication.
- The newly added rooms to the room list are not listed after the authentication or reload room list operation.

So far, the only known solution is to try to import to the Tigermeeting Admin App a few hours later.

Please note: Exchange Servers – that use the very same script for room list management- are not affected by this bug.

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Configuring Google Workspace

Use a Google-Workspace enabled account to synchronize the meetings.

All the room resources will be imported to the Tigermeeting system. Creating and modifying room resources will be possible only through the Google-Workspace admin pages. Tigermeeting, does not modify room resources (see Google Calendar below)

Please, whitelist the Google certified Tigermeeting app if needed by your company policy. Google Workspace administrators for enterprise accounts can control which applications their users can access.

NOTE: for the authentication an Admin account needs to be used with admin roles to handle read/write calendar related operations

Instructional video

https://www.youtube.com/watch?v=j1cN9OalDwU

Configuring Google Calendar

Setup the system using a Google account to synchronize the meetings using an ordinary Google account.

Tigermeeting Admin app will manage the room resources. For each room created in the Tigermeeting application, a corresponding calendar resource with the same name is created in the Google Calendar, automatically.

The Google Calendar resources are manageable via Google admin pages. You may add meetings, recurring meetings, import iCalendars etc – that will be transparent via the meeting room devices assigned to the room resources.

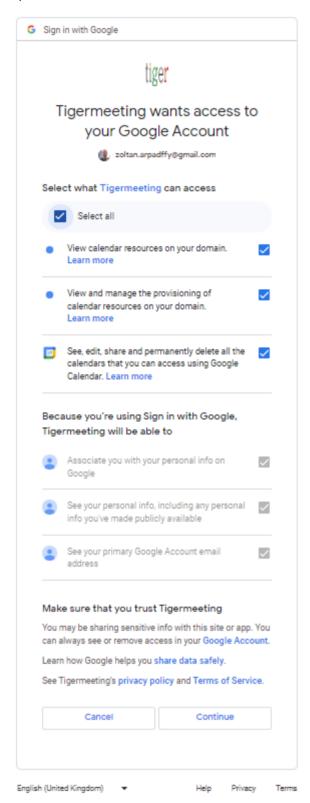
Meetings booked via the devices will actually book the meetings in the corresponding resources calendar.

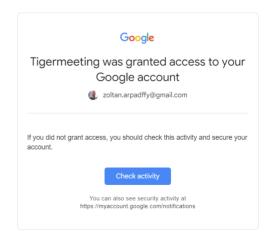
In case the Google Calendar is detached - Admin will have a choice to keep or delete the calendar resources created by the Tigermeeting Admin app.

Authentication

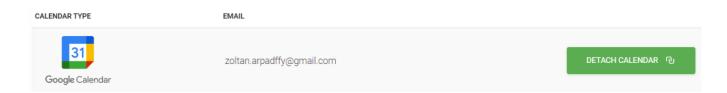
Page: 88 tiger

Please select all and allow access to Google resources. This is required for the normal operation.

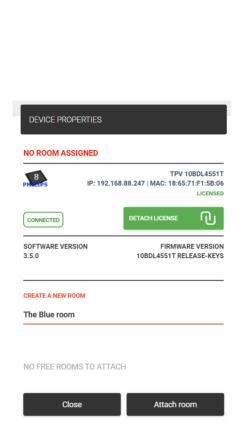


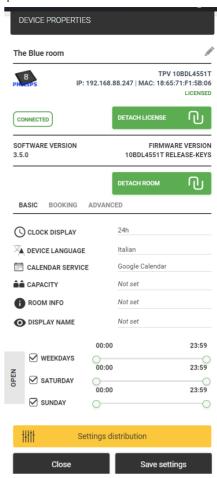


Once the Google Calendar is attached – the room management will be possible.



Create a new room simply by editing the device properties:



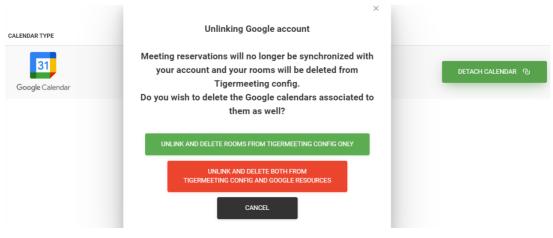


The calendars are immediately created in Google Calendar



The created calendar content and events ("The Blue room" in example) can be edited both online in Google Calendar and via the booking devices. The Overview screen shows it status like with any other calendar.

Once the Google calendar is detached, the Tigermeeting admin has a choice to remove these calendar resources—that are created by the Admin App- or keep them.

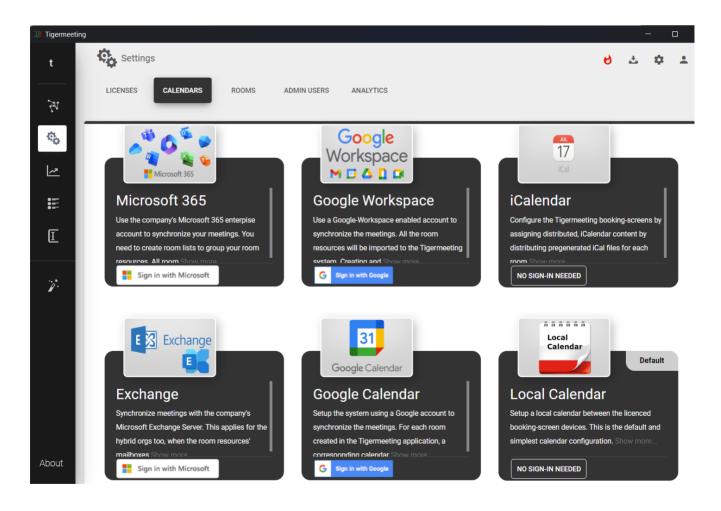


Configuring iCalendar calendar

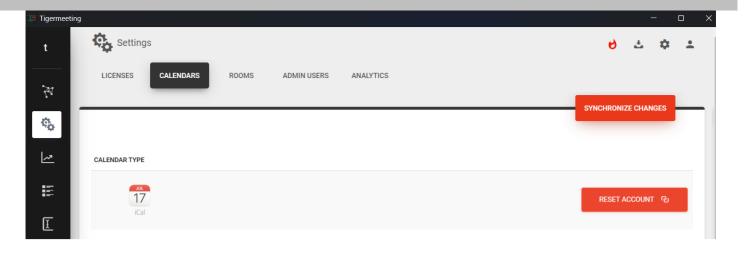
It is a simple and convenient way to expose pre-generated iCal files in a format that complies to the RFC 5545 specification via an ordinary web server. This is a very efficient and cost-effective way of distributing a huge number of relatively static calendars that suit well for school and university operations' use case.

iCalendar files are most often created by one of the widely available iCalendar generator programs. Tigermeeting's flexible design allows replacing and updating the iCal files. As long as the URL pointing to the file does not change, the room configuration does not need to be updated.

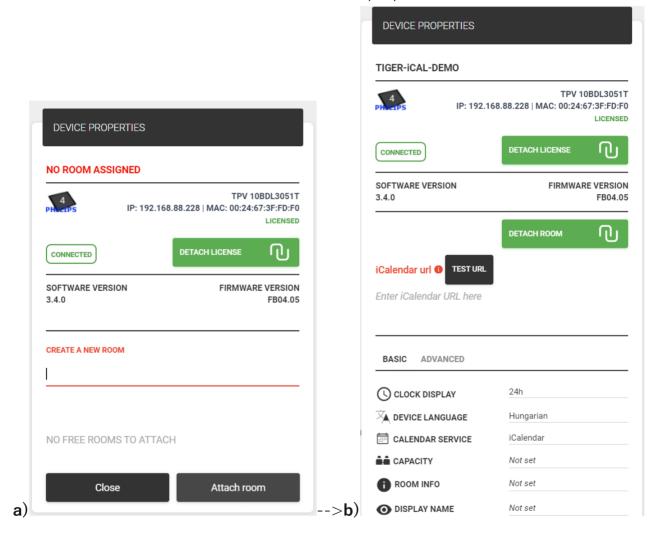
This feature opens a new era in cost effective meeting room management for all those customers who cannot appreciate or are not willing to pay high costs for a commercial online calendar service (like Google's or Microsoft's)



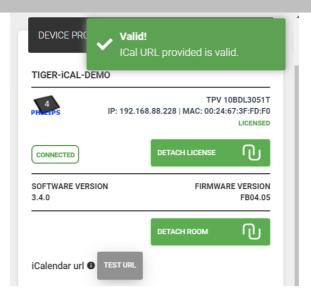
Choose iCalendar and synchronize the changes.



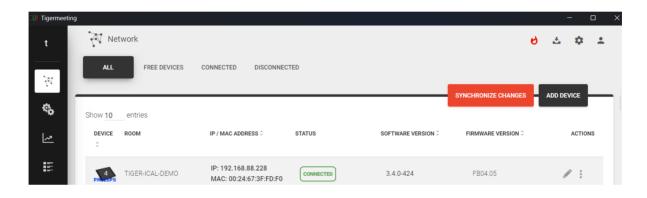
In the Network menu choose a device and edit the properties



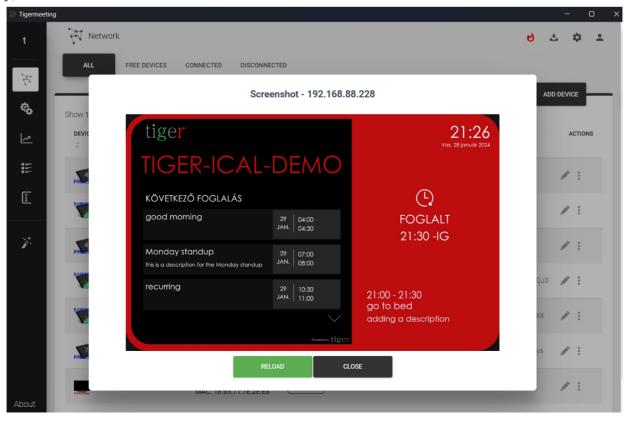
- a) Create a new room by entering the name of the room.
- **b)** It is possible to enter a URL pointing to an iCal file that provides calendar events for this room. Please test the URL validity and accessibility by pressing the TEST URL button. NOTE: the max size of the iCal file is 10Mb, however the iCal file can change the Tigermeeting booking, and Overview screens will work well following the new file content as long the configured URL is reachable.



Synchrononize the changes to deploy the configuration to the devices



Test the configuration by changing the device's screenshot (or the device screen if it is nearby)



Common calendar functionalities

Tigermeeting is compatible with all major calendars. Calendars may have specific functionalities, but Tigermeeting always tries providing as common as possible set of features and functionalities across all calendars.

Rooms with several entrances

There are cases when a room has several entrances it is desired to show the very same room status on several devices. Tigermeeting supports this functionality on all calendars.

On a device that does not have attached any rooms yet choose "show assigned rooms" Then it is possible to choose any room that has already been assigned a device. This allows to attach as many devices is needed to a single room (calendar resource)

DEVICE PROPERTIES				
NO ROOM ASSIGNED				
7 PH - IPS IP: 192.168.8	TPV 10BDL4151T 88.253 MAC: AA:BA:21:57:73:E2 LICENSED			
CONNECTED	DETACH LICENSE U			
SOFTWARE VERSION 3.4.0	FIRMWARE VERSION 10BDL_3368 RELEASE-KEYS			
SHOW/HIDE ALREADY ASSIGNED ROOMS ON				
NO FREE ROOMS TO ATTACH	H			
PICK ALREADY ASSIGNED:				
O homedev1				
homedev2				
○ ZoTiger				
○ ZoTiger2				
○ ZoTiger3				
○ 7aTigard				
Close	Attach room			

As a result of attaching multiple devices to a same calendar resource: all devices show the same status, next meetings etc

Room's "Display Name"

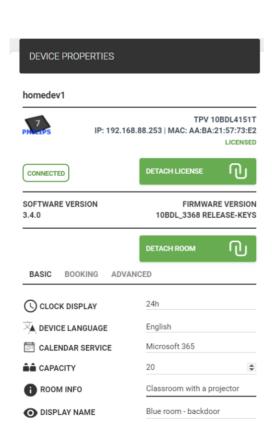
Calendar resource names can be very cryptic and generic organization wise following the organization's LDAP or Directory service naming conventions.

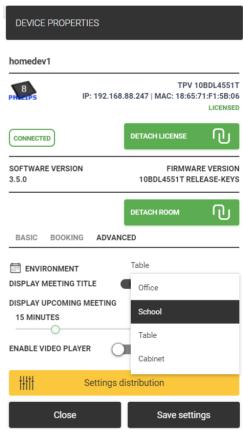
The default names can be easily overwritten by adding an alias/display name for a room.

Editable, descriptive "Room info"

Adding additional descriptive room information can help identifying or choosing the right room during booking the room.

Room information appears in the Overview screen as well.





Environment choice

<u>U</u>se the same solution in different or mixed environments. In offices book meeting rooms, in the schools show classrooms' timetables; somewhere else book tables, desks or cabinets if needed. Freely combine different devices with different screen sizes that fit best the given environment and purpose.

The environment parameter is assigned to a device giving a possibility for creating mixed environments: meeting rooms for teachers, classrooms for pupils and bookable desks for special classes.

Tigermeeting Admin – User manual version 3.3.5

Support for dedicated screens

There are many specialized screens – meeting room displays- on the market

Tigermeeting has a native support for some of them, like Philips TPV 10 inch series

screens, ProDVX screens, Aurora multimedia devices, IAdea screens etc.

The supported devices are able to perform most of the operations – though it may vary

between the suppliers and models:

- Screenshot

- Reboot

- LED side and backlights (colors change, LEDs on/off, LEDs luminance

- Tigermeeting software (APK) upgrade

- Firmware upgrade

Led backlight color

Led back lights and the theme colors help the user to determine the room's state.

Green light means that the room is now available.

Yellow: the rooms is about to get occupied (time limit can be set in the Admin application).

Red indicates that the meeting room is now busy and cannot be booked. However – on each

booking screen the user can find the list of other available rooms and on an easy way book a

meeting remotely.

The default LED backlight color codes used are the following:

- **Red**: 0xFF0000

- **Green**: 0x00FF00

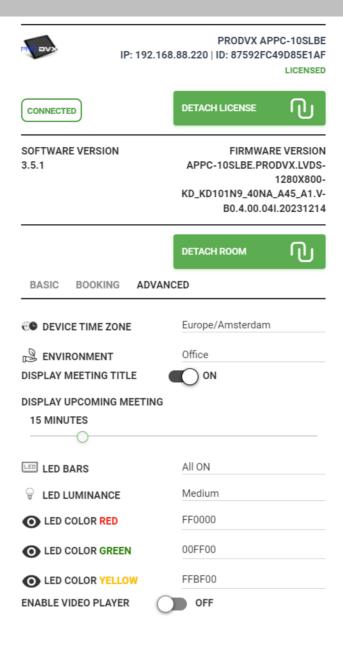
- Yellow: 0xFFDF00

These colors can be changed from the Admin App for those devices that support the full

RGB range.

The red bar below the color input shows if the entered value is correct RGB value or not. In

case of incorrect input, the default color is used.



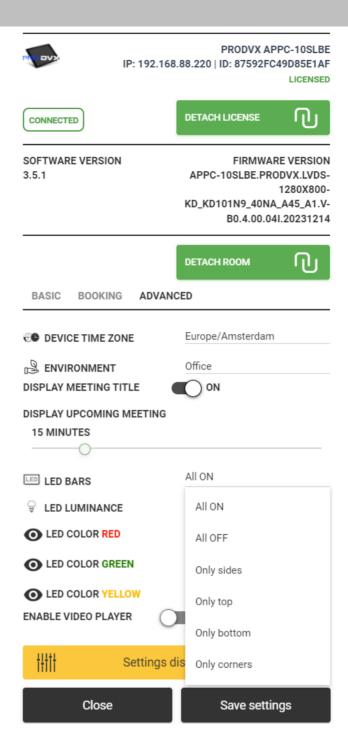
Led luminance

The LED bars luminance/brightness can be set between Low, Medium, and High.

Led light positions

Tigermeeting supports the following Led light positions:

- o All OFF all LEDs are turned off
- o All ON all available LEDS are turned on
- o Only sides only the LEDs on the screen left and right sides are lit
- o Only top only the LED stripe on the screen's top is used
- o Only bottom - only the LED stripe on the screen's bottom is used
- Only corners only the screen corners are lit (very limited number of devices are able to handle this – an example is the ProDVX APPC-10SLBE)



IMPORTANT NOTE: If the devices do not have all the requested LED bars, or do not support dividing the LED bars to regions – the devices' LED bars might not behave as expected. In that case, please use All ON as a safe fall back.

If the screen is not fully supported by the Tigermeeting Android application – the LED bars will not be functional.

Please consult the Tigermeeting Customer Support if your devices are supported or not before the purchase.

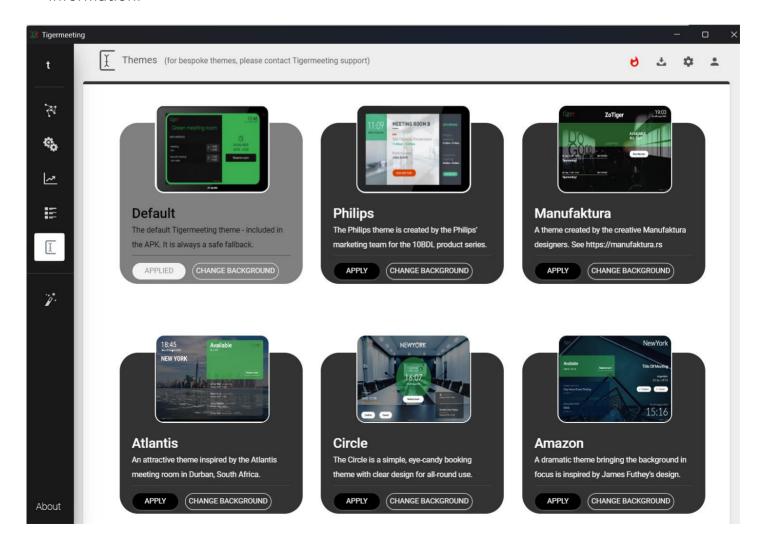
Theme configuration

Tigermeeting suite allows customers to change the booking-screen's home screen layout by changing the theme, the background image and the company logo - making the devices' appearance personal and branded.

There are different themes to choose from - the default theme and many others, inspired by Tigermeeting's excellent designers and customer ideas around the world.

New themes are added continuously and dynamically - on demand or when new design ideas arise - without any need for software upgrade. Themes' templates and the customer custom backgrounds are stored in the Tigermeeting Cloud – therefore this operation requires access to the https://tigermeeting.app URL through the firewall.

On request - bespoke themes can be crafted and enabled for the dedicated customers or allowed to be common for all. Please, ask the Tigermeeting support for more information.



Theme background image configuration

Every theme supports background image change.

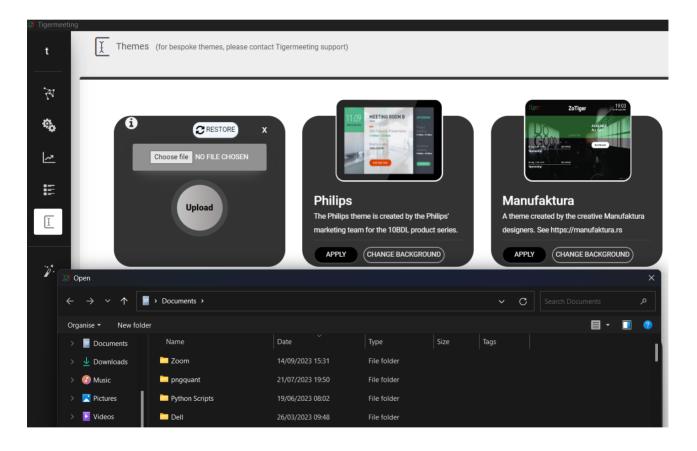
Upload the desired background image in the Admin app -> Themes menu

Image file requirements:

- PNG format
- max file size 4Mb.
- resolution and ratio that match the used screen sizes.

For Philips screens: ratio 16:9, size 1280 x 800 px.

For other Android devices, please choose an image that matches the screen ratio and the resolution.



Every theme can have its own custom, customer specific background, but a new background upload to the theme will override the previous image for that theme.

Restore the theme's original, default background image using the RESTORE button.

SYNC with devices in order to commit changes and start the theme change process on the devices. The devices will first download the theme from the cloud server and apply them.

NOTE: devices need to have access to the https://tigermeeting.app cloud server.



Device changes - replaces

There are situations when some or all devices need to be replaced.

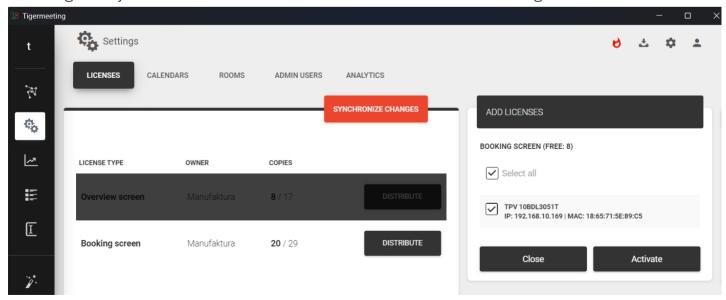
Tigermeeting licenses are perpetual, and they are tied to the devices' MAC addresses or Ad IDs within an organization

The organization owns the licenses, therefore, it is possible to detach licenses from the configured devices and attach the same licenses to other, new devices as long the number of total/available licenses are within the organization's purchased range.

- 1. Install the Tigermeeting APK to the new devices and let they appear in the Admin App
- **2.** In the Network tab, edit the device properties and DETACH the license from the old devices on by one.



3. Assign the just freed licenses to the unlicensed screens in Settings->Licenses tab

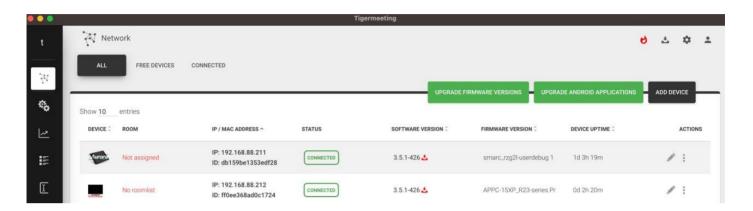


- **4.** Remove the "unlicensed" devices in the Network tab
- **5.** Configure the licensed devices and finish with SYNCHRONIZE to deploy the changes.

Software and firmware upgrades

Software upgrade

Software upgrades are supported on almost all devices and Tigermeeting is proud to offer free software upgrades for all customers.



The new android software availability will be show up in the Admin App ->Network list and the Admin user have an opportunity to upgrade one device (by pressing the red upgrade sign in the screen row) or all devices (by pressing on UPGRADE ANDROID APPLICATIONS)



Software version changes over time are tracked in Analytics -> device ID selector.

The software release notes are published in the Admin application under the About menu

IMPORTANT: Tigermeeting Android APK is signed by the Tigermeeting signature. This signature is crucial during software upgrades. The software upgrade orchestrated by the Admin App will fail in case the signature is removed, re-signed or changed for whatever reason.

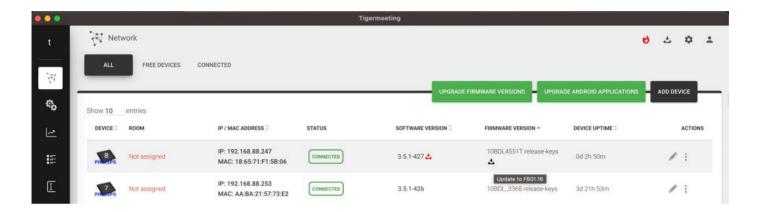
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Firmware upgrade

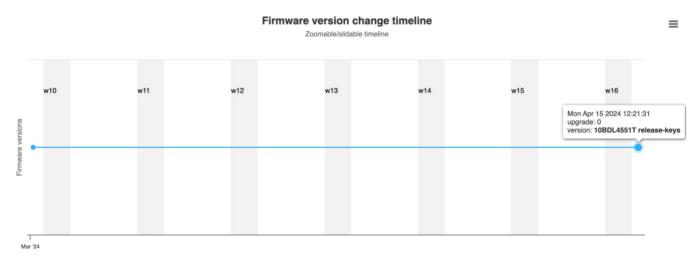
Firmware upgrades are available just for the supported devices. Philips Android based screens are one of them.

Tigermeeting will release the firmware updates once the firmware has been tested and passed the Tigermeeting Quality assurance rigorous tests.

The firmware availability will be show up in the Admin App ->Network list and the Admin user have an opportunity to upgrade one device (by pressing the red upgrade sign in the screen row) or all devices (by pressing on UPGRADE FIRMWARE VERSIONS)



Firmware version changes over time are tracked in Analytics -> device ID selector.



NOTE: Tigermeeting does not take any responsibility for any damage created by the firmware upgrade. The firmware itself is an unchanged, signed package from the screen manufacturer.

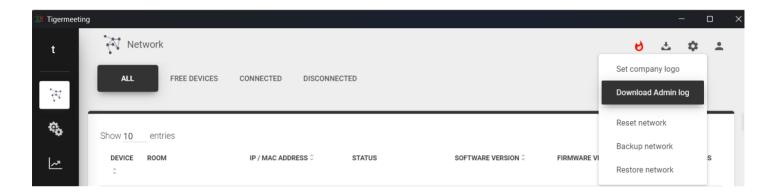
Read more about in the Terms of Service document: https://tigermeeting.app/terms-of-service

Troubleshooting

Both the Admin app and each of the devices have troubleshooting logging enabled. These logs can be very useful when troubleshooting some eventual issue.

Download Admin log

Download the Admin App logs from the settings menu (the gear symbol in the upper right corner)

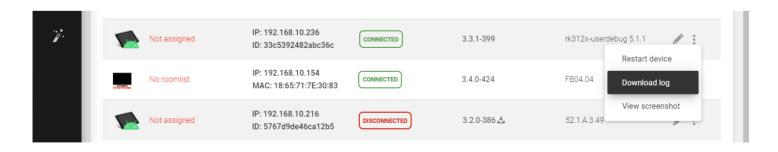


The downloaded log file has a descriptive filename like Tigermeeting-AdminLog-29-02-2024-2343.log. Please do not rename or edit the file content.

Download device log

Download device logs by choosing the device from the Network menu and clicking on the three dots at the end of the row.

Please note that the device needs to be in "CONNECTED" state.



The downloaded log file has a descriptive filename like Tigermeeting-DeviceLog-(18-65-71-5E-89-C5)-29-02-2024-2345.log. Please do not rename or edit the file content.

The logs are encrypted text files that are safe to send by email. Please, send them to the Tigermeeting Customer support when requested.

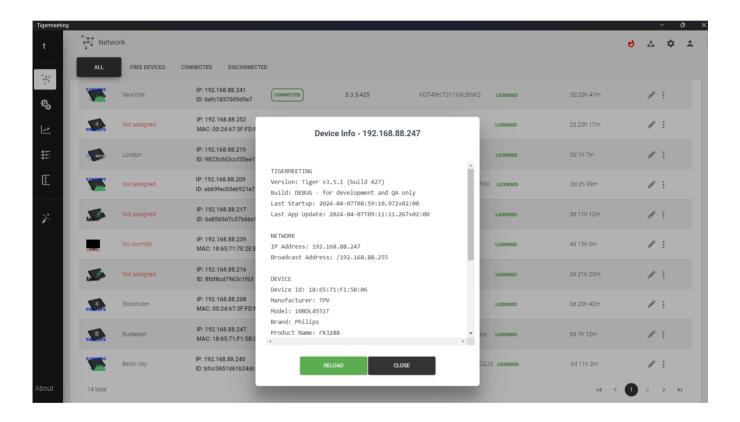
View device information

There are cases when it is useful to see more details about the device.

Use function "View device information" that gathers relevant hardware, software and vendor specific API related information.



If the device is in "connected" state the information will be presented shortly: in a scrollable format.



The information contains vendor specific API information that could be valuable during troubleshooting. Please, share this information with Tigermeeting support when requested.

```
VENDOR API getDeviceInfo = { "status": "OK", "deviceKey": "ProDVXapi",
"deviceManufacturer": "ZDMID", "deviceModel": "APPC-7XPL", "deviceProduct":
"rk3368", "deviceDisplay": "APPC-7XPL.AP6255.ProDVX.LVDS-1024x600.HW-
V1.1_1.11.10e.A23_04", "devicePlatform": "rk3368", "androidSdk": 27,
"androidVersion": "8.1.0", "serialNumber": "7XPL22900181", "ip4Address":
"192.168.88.219", "screenBrightnessInternal": 200, "screenBrightness": 78,
"showSystemBars": false, "touchScreenEnabled": true, "deviceInteractive": true,
"apiAppPackageName": "com.prodvx.api", "apiAppVersion": "1.0",
"apiAppVersionCode": 20, "apiAppSystemSigned": true, "apiAppSystemFlagged": true,
"apiAppSystemUser": true }
```

Tigermeeting room parameters

In Tigermeeting infrastructure the configuration could be shared between the devices (set distribution) or every device can have its own settings – from the language, to the led or booking behavioral parameters.

Under Analytics -> deviceID selector there are presented room specific configuration details.

Tigermeeting room parameters

key	value
booking_mode	today
clock_type	24h
calendar_sync_interval	10000
check_app_state_interval	1000
check_new_booking_interval	10000
confirm_after_start_interval	600000
confirm_before_start_interval	900000
confirm_interval	900000
default_confirmation	0
default_duration	15
device_id	18:65:71:F1:5B:06
duration_step	5
enable_cancel	1
enable_disable_confirmation	1
enable_reservation	1
greeting_text	Conference rooms
language	en
roll_step	5
screen_saver_interval	3600000
screen_saver_enabled	0
show_title	1
timeline_duration	4
timezone	Europe/Belgrade

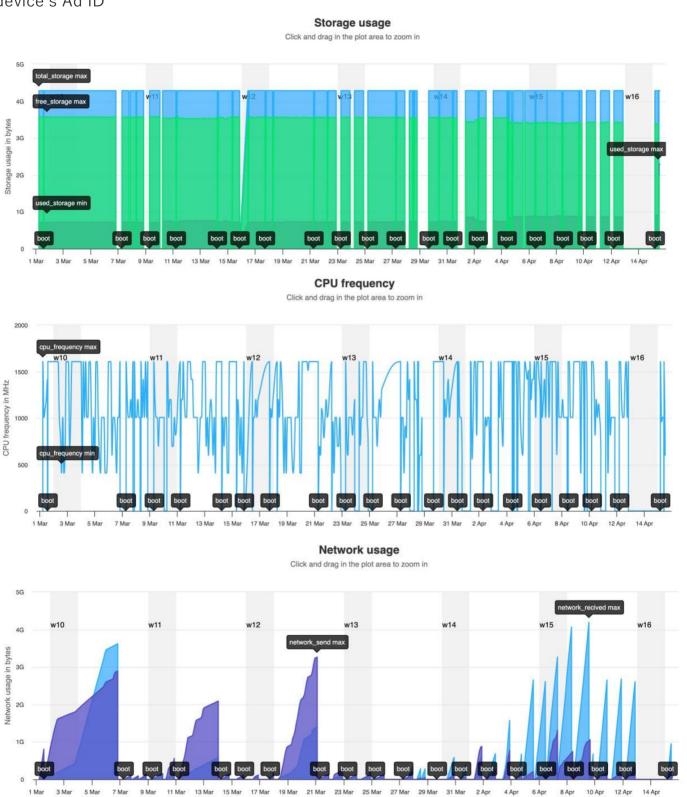
This information can be valuable when troubleshooting the system.

Please share this information with Tigermeeting customer support if this information is asked.

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Hardware metrics

When the Analytics feature is turned ON, valuable hardware related information is available for troubleshooting purposes. The devices send the measurements about every two hours or when an event happens. This information is tied purely to the MAC address or the device's Ad ID



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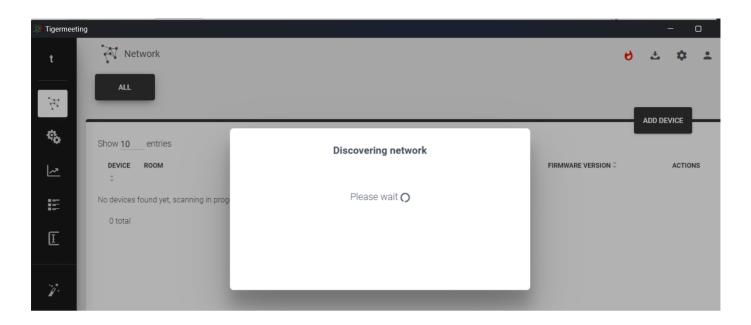
=

Please, read more details about in the privacy policy and the GDPR compliance page https://tigermeeting.app/en/features/gdpr-compliance

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Device discovery issues

If the Admin app is started on the same network segment where the screens/devices that are running Tigermeeting application, the devices are automatically discovered.

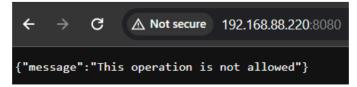


If no devices are discovered, perform the following tests:

- **1.** The network satisfies the Network requirements (see at the beginning of the document)
- **2.** The Admin app is allowed to use the network (Windows may ask for this permission to allow an application through the Windows firewall)
- 3. Make sure the devices have network access (test with ping command for example)

VPN connections and routers usually do not forward the network broadcast packages, in those cases a device can be added via the **ADD DEVICE** button by entering the device's IP address.

If the device IP is correct and Tiger APK is properly running on the device – and regardless the Admin app is not able to make contact with the device, please open a browser and enter the following URL: http://device_IP_address:8080 or port 6026 (for IAdea screens). The expected response is in JSON format like:



If the response is different or times out – there is no communication between the Admin app and the Tiger APK on the device. Please, send the Admin log to the support for analysis.

GDPR statement

Tigermeeting products use a unique, high watermark distributed database technology

- therefore the information and the configuration itself are distributed between the screen devices within the local network infrastructure only.

There is no need for on premises, central or any external data store - therefore it does not exist.

Booking and overview screens

- Calendar operations - like booking on the screens and presenting the calendar events on the booking and overview screens are API based request/response type of operations between the online calendar supplier (like Microsoft or Google) for display purpose only. No personal data is stored on the devices or transferred elsewhere.

Admin App

- The Tigermeeting Admin app itself becomes part of the distributed database just when an Admin logs in on the network and no information is stored on the Admin's computer.
- However, the Admin users' login credentials and the customers' license information are stored in the Tigermeeting cloud (license server, how we call it) in hashed format using high security cryptography algorithm. This is information used for the admin authentication.
- In case, the customer chooses so the Tigermeeting cloud can be used to store the customers' network backup the infrastructure settings snapshot in encrypted format that is used for network restore functionality.

Analytics

- If the customer chooses so Tigermeeting cloud is used to store the collected, anonymous meeting room usage information that is presented under the meeting room Analytics pages visualizing the room usage statistics, booking tendency, company's booking behavior providing useful information for better meeting room utilization and the hardware health itself.
- The events are anonymous in a sense, that they are tied to the devices' MAC address or Ad ID only.
- The events are sent by the Tigermeeting applications when the analytics/event log feature is turned ON and the devices are operational during the event. For more

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information, please read the Admin App documentation and the Analytics disclaimer at the bottom of every Analytics page.

Web cookies

- Tigermeeting does not use any cookies that contain personal data- read more about in https://tigermeeting.app/cookie-policy

On explicit request, all accumulated event logs and other customer data can be requested to be presented/delivered or permanently deleted.

For more information, please read the Tigermeeting Privacy Policy - https://tigermeeting.app/privacy-policy - that complies with GDPR, CCPA, PIPEDA, CDR, LGPD and POPI regulations.

Ask for DEMO licences

DEMO licenses are fully functional production licenses with a limited time validity. There is no payment involved - neither during the DEMO licenses request or after when the DEMO licenses expire.

The idea is that potential customers are able to test the power of the Tigermeeting solution in their own environment with their own equipment.

When the DEMO license validity expires. The screens simply stop using online calendars and fall back to the initial DEMO mode - without making any harm or change in the customers' environment.

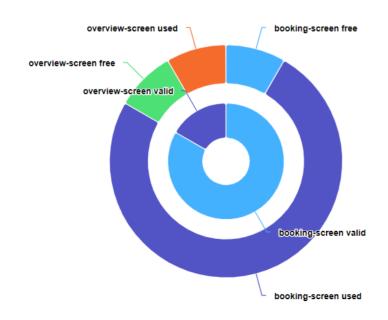
The customers can any time - under the evaluation/trial period or after the DEMO licenses have expired - order perpetual licenses and continue using the Tigermeeting infrastructure with full power and functionality again.

Ask for a free DEMO license to test the Tigermeeting products in your own environment before the purchase at https://tigermeeting.app/en/contact.

DEMO licenses are usually valid for 30 days but this is not a hard limit. DEMO license validity can be easily extended if more time is needed for the evaluation. The validity and the distribution of the licenses can be checked in the **Admin App** -> **Analytics** -> **Company**. analytics report.

booking-screen licences: 10 total / 9 used / 1 free / 0 demo / 0 expired / 0 deleted overview-screen licences: 2 total / 1 used / 1 free / 0 demo / 0 expired / 0 deleted





Contact information

Email: info@tigermeeting.app

Web: https://tigermeeting.app/en/contact

Customer Support: support@tigermeeting.app

More information can be obtained by clicking on the "About" menu point in the Admin Application.



TIGERMEETING ADMIN VERSION: 3.3.3

Tigermeeting AB

A Swedish company, that brings high-end meeting management and calendar products to affordable level.

Please, take contact with us for any inquiry.

Address: Edbovägen 47, 142 63 Stockholm, Sweden info@tigermeeting.app | support@tigermeeting.app

Release Notes Terms of Service
Customer Support Privacy Policy
Open Source Licenses Cookie Policy

Let us shine up your meeting rooms.

Global presence with Scandinavian quality.

Social media

Follow us on social media to get event updates and product news above the regular release newsletter.

Facebook https://facebook.com/tigermeeting/

Twitter https://twitter.com/tigermeeting

Instagram https://instagram.com/tigermeeting

Pinterest https://www.pinterest.com/tigermeetingroom/

LinkedIn https://linkedin.com/company/tigermeeting/

Github https://github.com/tigermeeting

Youtube https://youtube.com/@tigermeeting

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