Tigermeeting

Admin User manual

Version 3.4.1

Contents

Contents 2

Translation disclaimer 9

Network requirements summary 10

Introduction 11

- Key features 11

Tigermeeting products 13

- Tigermeeting Booking screen 13
- Tigermeeting Overview screen 14
- Tigermeeting Admin App 14

What is the Admin App’s purpose? 15

How to start? Where to begin? 16

Tigermeeting Admin installation 19

- Installing Tigermeeting admin on Windows 19
  - Instructional video: 22
- InstallingTigermeeting admin on Linux 23
  - RPM package 23
  - DEB package 23
  - AppImage file 23
- InstallingTigermeeting admin on BSD variants 24
- Installing Tigermeeting admin application on MacOS 25
  - Instructional video: 26

User Login 27

User registration 28

Menu structure 29

Network 30

- Booking device properties: Before room attachment 33

Booking device properties: After room attachment 34
Basic properties 34
Booking properties 36
Advanced properties 39
Overview screen properties 41
General properties 41
Room properties 43
Download android APKs from the Tigermeeting admin app 45
Settings 47
Licenses tab 47
Calendars tab 49
Rooms tab 52
Admin users tab 55
Analytics tab 57
Analytics 59
Admin logs 63
Wizard 64
Overview 64
Licenses 65
Calendars 66
Rooms 67
Practical use cases 68
Install the admin application 68
Turn on the devices 68
Start the admin application 68
Run wizard in admin application 68
Configuring Microsoft365 calendar 69
Microsoft365 admin panel 70

Configuration through Windows PowerShell 72
Configuration by using the Microsoft 365 setup helper script 73
Running the Microsoft365 helper script 75
Manual configuration 75
Instructional video: 75
Tigermeeting admin application 76
Configuring Exchange calendar 77
Exchange admin panel 77
Configuration through Exchange Management Shell 79
Configuration with the Microsoft helper script 79
Runningthe Microsoft365 helper script 80
Manual configuration 80
Tigermeeting admin application 80
IMPORTANT NOTES 82
Microsoft365 helper script 86
Introduction 86
Download and installation 86
PowerShell installation on different operating systems 87
MacOS PowerShell install 87
Ubuntu PowerShell install 87
OpenSuSE install 87
Fedora installation 87
Windows PowerShell 87
Prepare the room resources 87
Running the script (example) 88
Important usage notes 90
Common use case 90
IMPORTANT NOTE 94

Configuring Google Workspace 95
IMPORTANT NOTE 98
Instructional video 98
Configuring Google Calendar 99
Authentication 99
Configuring iCalendar calendar 103
Common calendar functionalities 106
Rooms with several entrances 106
Room's "Display Name" 107
Editable, descriptive "Room info" 107
Environment choice 107
Support for dedicated screens 108
Led backlight color 108
Led luminance 109
Led light positions 109
Led ON interval 110
Screen ON interval 111
Ambient temperature and humidity 111
Weather information 112
Room Service configuration 114
Send-email 115
QR code webhook 116
NFC 117
Tigermeeting implementation of NFC authentication 117
NFC usage 118
NFC validation service 118
Instructions for Active Directory/LDAP integration 119
Instructions for CSV file integration 120

Instructions for API REST integration 121
GPIO Control 122
What Is GPIO? 122
GPIO usage usecases 122
GPIO pins / ports 122
Door lock and access control systems 123
Theme configuration 124
Theme background image configuration 125
Theme configurations for each device 126
Portrait and Landscape orientation of the theme 127
Device changes - replaces 128
Remove a device from the network 129
Move a device to another network segment 130
Software and firmware upgrades 131
Software upgrade 131
Firmware upgrade 132
Tigermeeting architectural concepts 133
Tigermeeting product architecture 133
Network segmentation 133
Broadcast communication 134
Tigermeeting on network segments 136
Tigermeeting cloud 136
Tigermeeting network usage 137
Tigermeeting administration 138
Administration via VPN connection 139
The virtual brands and the virtual networks concept 141
Troubleshooting 142
Download Admin log 142

Download device log 142
Device UID (Unit Identification) 143
View device information 144
Tigermeeting room parameters 145
Maintenance mode 146
POST command 148
Hardware metrics 149
Device discovery issues 150
Network reboot 152
Missing licenses 153
Same device multiple times with different identifications 154
Company logo, background image and branding 156
Microsoft / Google authentication token expires 158
Is the device's time correct? 158
The video player does not start 159
Portrait theme in landscape mode 160
Hardware specific settings 161
ProDVX token 161
Rockchip serial device 162
ShiMeta serial device 162
Application Clear Data 162
Device Factory Reset 162
Tiger services in a closed, on-premises environment 163
Tiger software upgrade 164
Theme changes 164
Weather service 165
NFC / Scanner authentication service 165
Analytics 165

IMPORTANT STATEMENT 166
Uninstall the Tigermeeting Admin App 167
Windows operating system 167
MacOS operating system 167
Linux operating system 168
FAQ 169
Where to obtain compatible Android screens? 171
Tigermeeting hardware compatibility matrix 172
GDPR statement 176
Booking and overview screens 176
Admin App 176
Analytics 176
Web cookies 177
Ask for DEMO licenses 178
Contact information 179
Social media 179

Translation disclaimer

Our documentation is originally written in English to provide comprehensive and accurate information about the Tigermeeting product, its features and usage.

To accommodate our global audience, we utilize advanced, automatized AI tools and commercial translation services to create versions in other languages.

Despite our best efforts to ensure precision, there may be occasional errors in translation or text formatting.

These errors might include, but are not limited to:

- **Mistranslations**: Certain technical terms or phrases may not translate perfectly into other languages, leading to potential misunderstandings.
- **Formatting issues**: The layout, styling, and structure of the translated document may not perfectly match the original, causing readability concerns.
- **Cultural nuances**: Subtle cultural references or idiomatic expressions in the original text may not be fully captured in the translated versions.

We sincerely apologize for any inconvenience this may cause and appreciate your understanding as we continually strive to improve the quality of our translations.

Your feedback is invaluable to us.
In case you need this document in a language that is not published, please let us know.
Also, if you encounter any issues or inaccuracies, please do not hesitate to contact us for clarification or report the problem to Tigermeeting customer service:
support@tigermeeting.app

Thank you for your understanding and cooperation.

Network requirements summary

IMPORTANT: read more in chapter: Tigermeeting architectural concepts

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.

TIGERMEETING 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** to be enabled on the network.
- If an external online calendar is used, like Google Workspace, Microsoft365, Exchange Online 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: view analytics
  - devices' weather service
  - devices' NFC validation service (if hosted in Tiger cloud)
  - 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 on-premises 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 solutions - 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 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. Scale as you grow.
- **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.

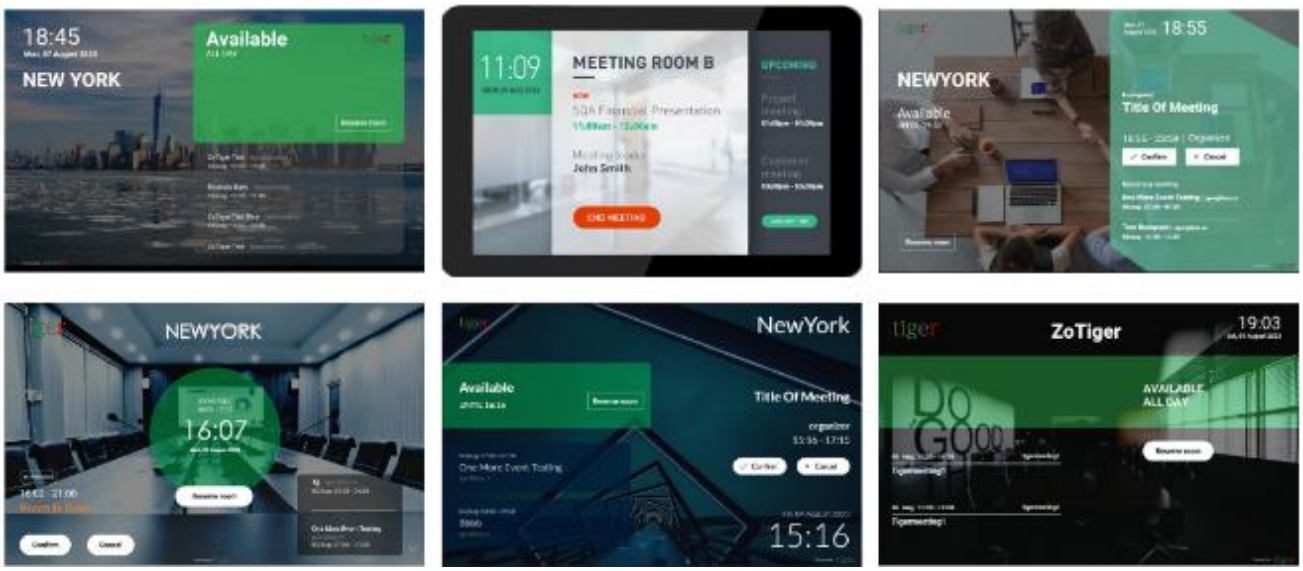
- **Compatibility** - in today's interconnected World, the customers' infrastructure needs to be respected - therefore we support all major calendar applications – on-prem Exchange Server, Exchange Online, Microsoft 365, Google Workspace, Google Calendar and iCalendar - fitting easily into the most networked room booking ecosystems.
- **Analytics** - provides glimpse over the company's meeting culture, people's habits as well the hardware usage and health.
- **Customization** - change the look and feel of the screen. Make it your 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 a 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

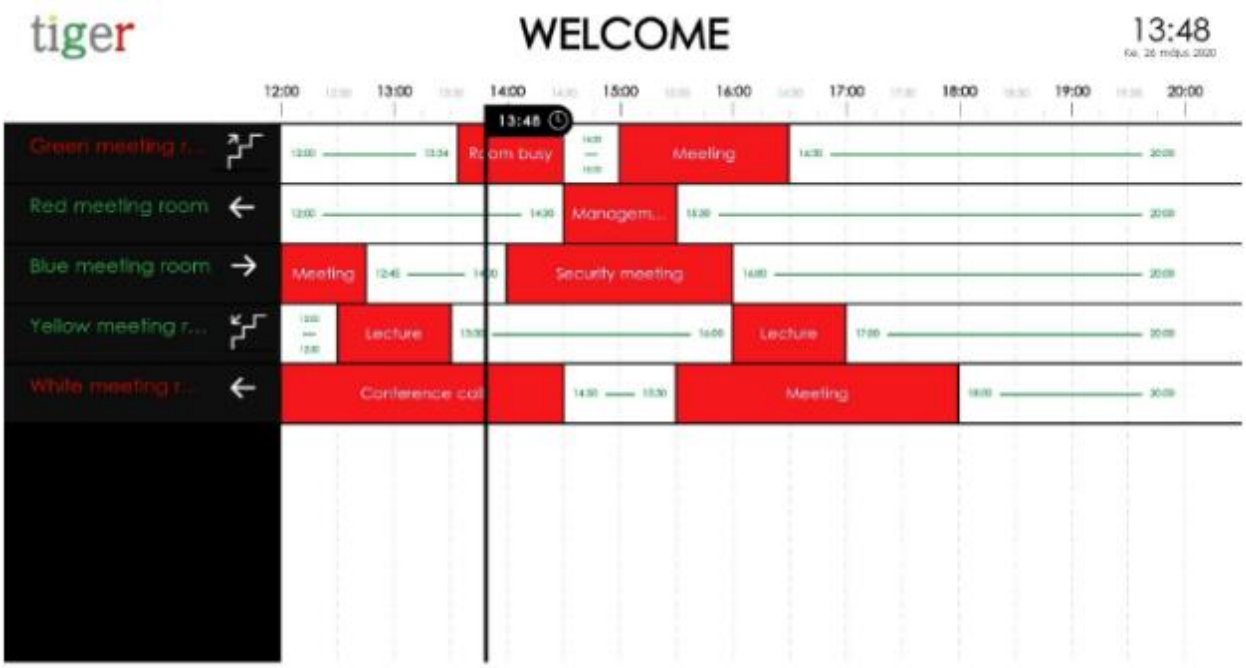
This product is designed to run on Android devices with screen sizes between 6" to 15", placed on a wall in front of the meeting rooms, classrooms, conference halls etc, showing the rooms' name, ongoing meeting status, meeting information, future meetings' schedule, running company videos and providing 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 a fire alarm in case of an 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 a 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 - similar to the TV EPG. It also shows the temperature, humidity, the rooms' sizes and the rooms' relative positions from the screen (left, right, upstairs, etc.)
The overview screens are also part of the unique fire alarm feature.



Tigermeeting Admin App

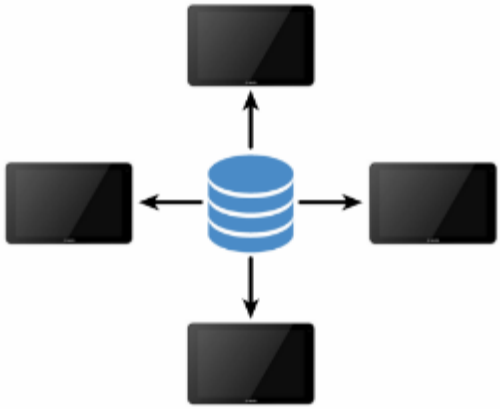
The Admin app is a multi-platform, web-based management application that configures, updates and manages the whole Tigermeeting infrastructure in an easy, intuitive, efficient and secure way.
This tool is also used for troubleshooting, network backup/restore maintenance, fetching the logs and presenting 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 on this product in detail.

What is the Admin App’s purpose?

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

This means that every device is up to date with the latest information and is 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.

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 e-mail 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:

Dear {{first_name}}!

Your company is registered

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, SAMSUNG Galaxy Store or Xiaomi GetApps or other appstores 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, who 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 isintentionally 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 to 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

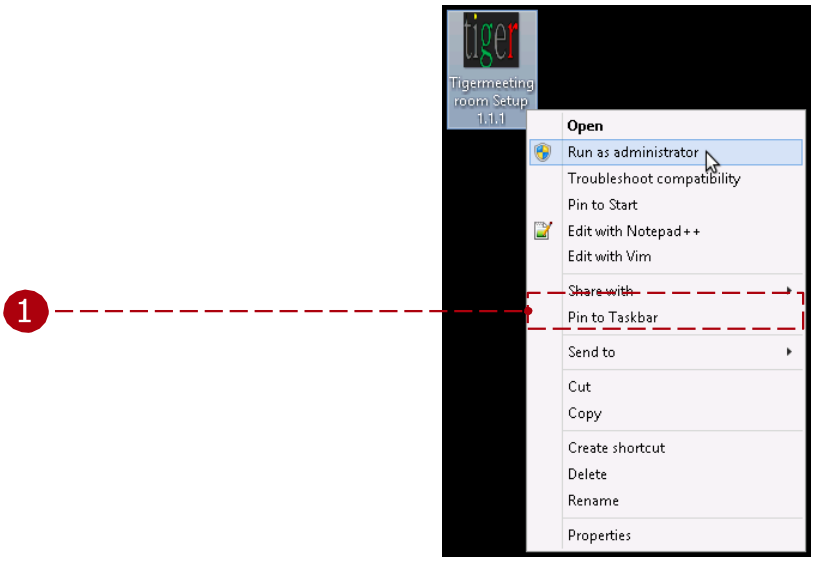
The Tigermeeting Admin Application is a multiplatform, web-based management application that configures, updates, and manages the whole Tigermeeting infrastructure in an easy, intuitive, efficient and secure way. Installers are available for Windows, MacOS and Linux platforms.

Installing Tigermeeting admin on Windows

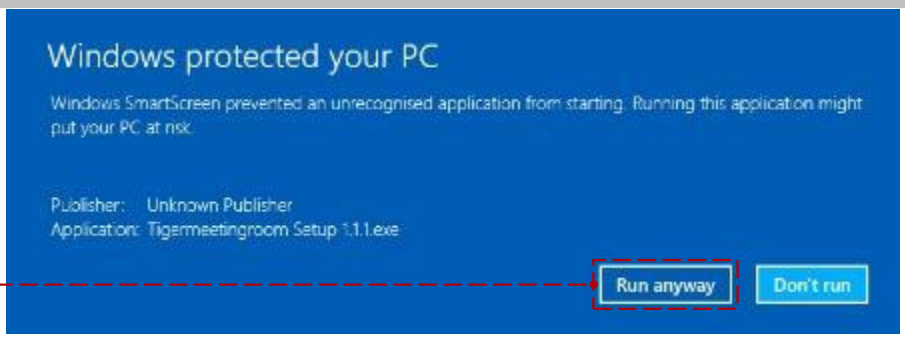
Follow the installation steps:

- Go to the Tigermeeting website: https://tigermeeting.app/en/downloads
- Download the Tigermeeting admin application.

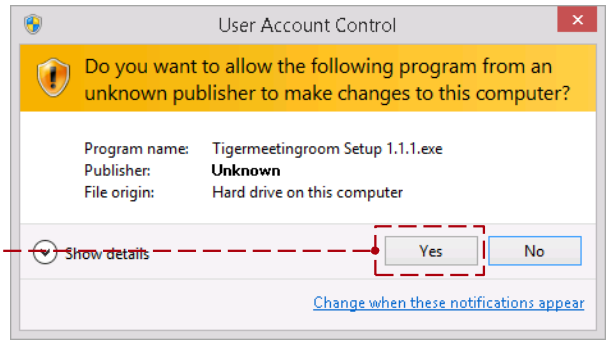
1. Run the installer as administrator.



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

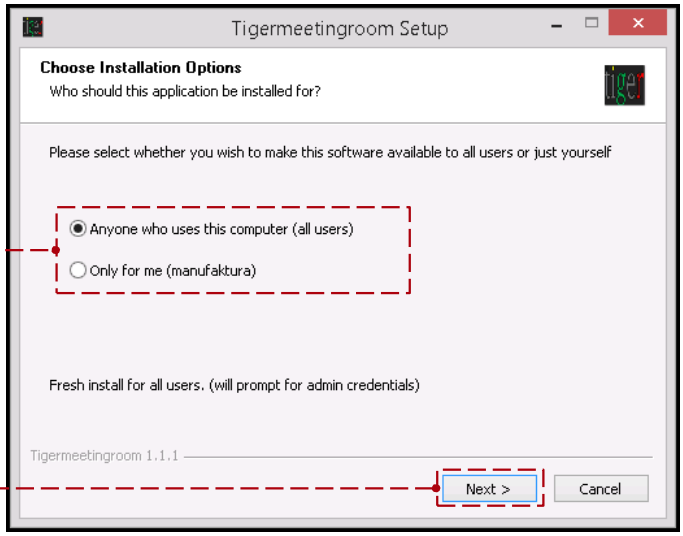


2



2

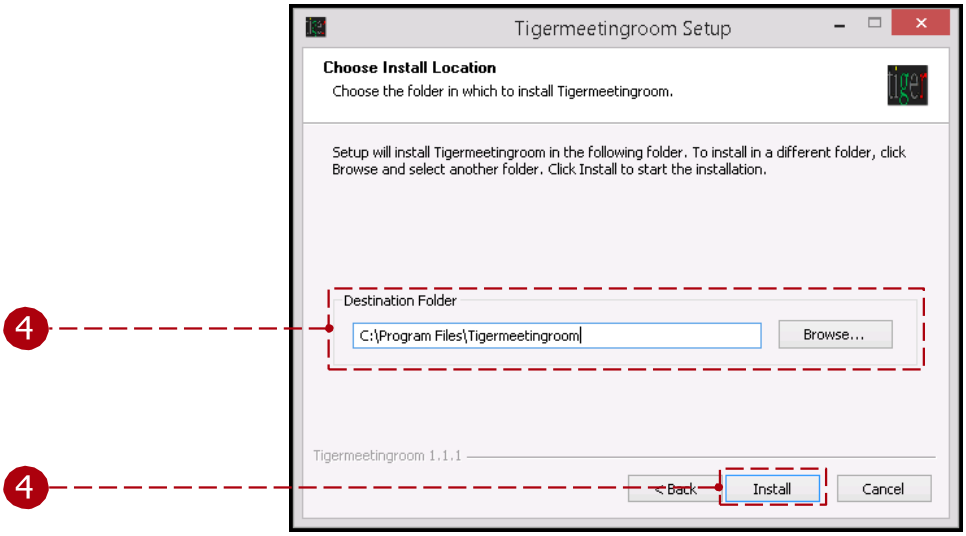
3 Continue the installation for the selected user or users and press the "Next" button.



3

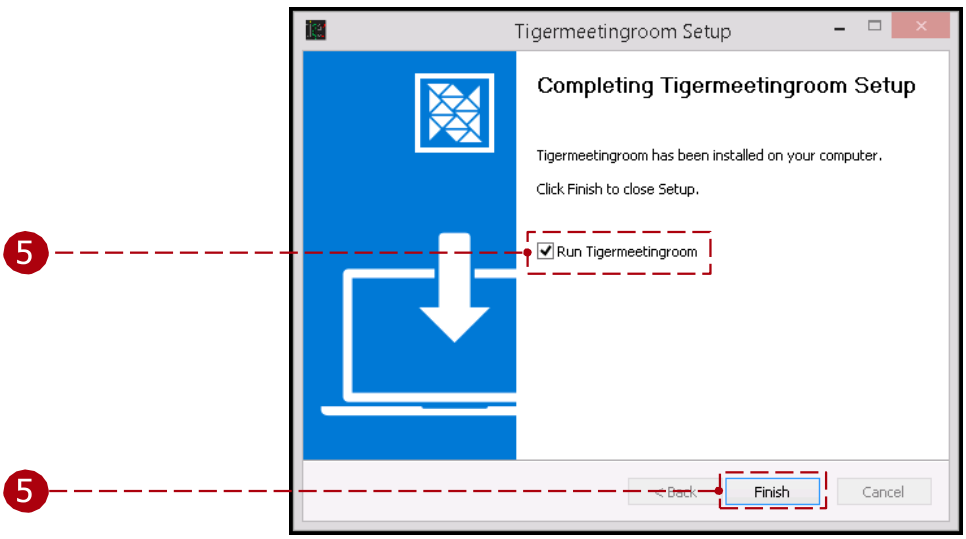
3

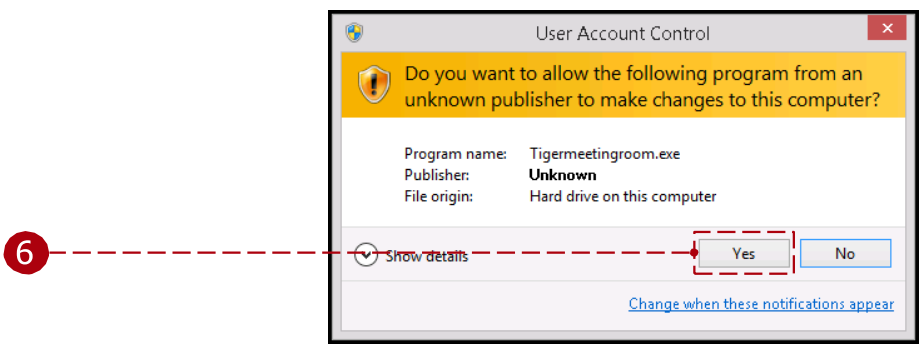
4 Select the desired install location and press the "Install" button.



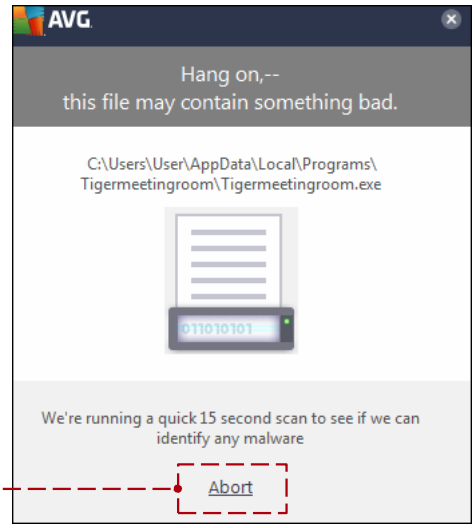
5 If the "Run Tigermeetingroom" is checked, after the installation, the Tigermeeting Admin application is opened.
Finish the installation wizard. Allow publisher 6

Tigermeeting admin application to make changes on the computer)

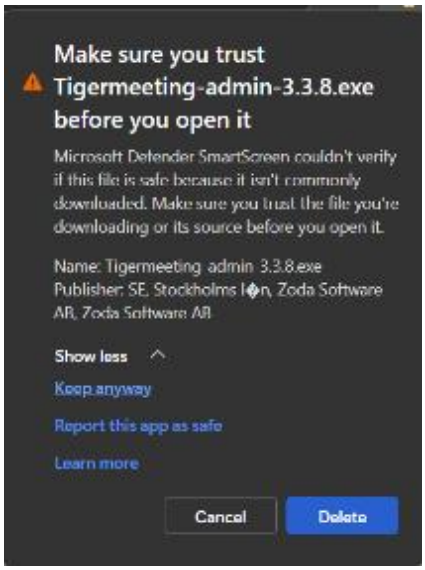


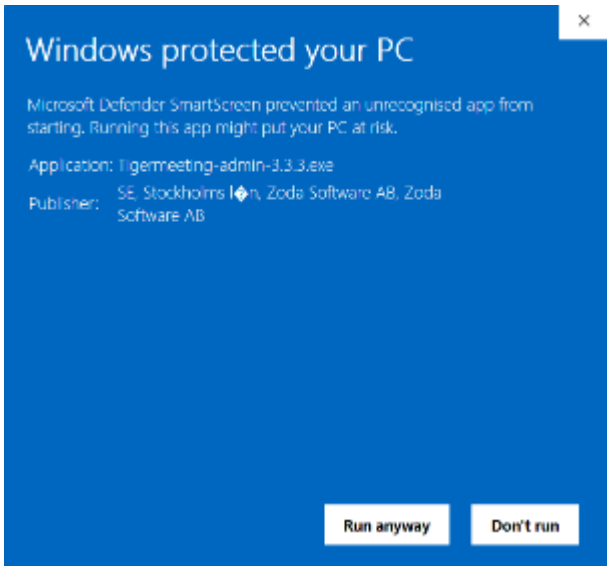


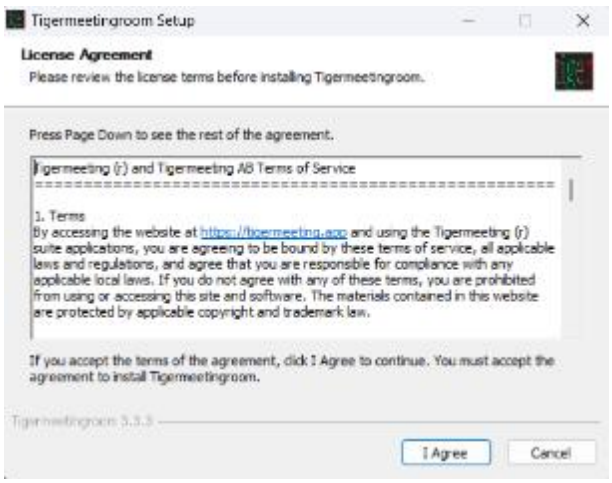
7 Allow the virus scan to finish or abort the scan.

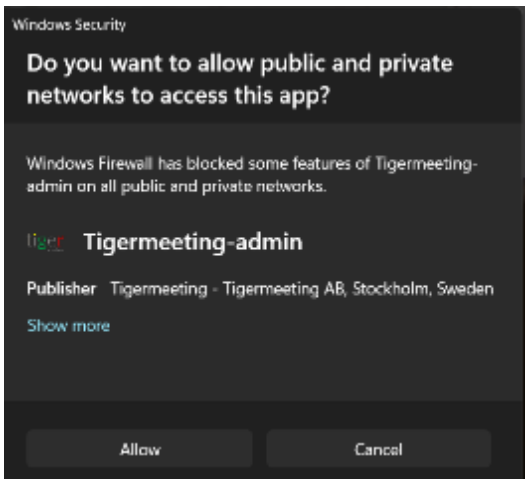


NOTE: Tigermeeting is a signed application with a validated certificate. Please, accept certificates from both Tigermeeting AB and Zoda Software AB (the former organization's name).









Please, read and accept the License Agreement and allow access to the network.

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
- AppImage - portable software package for Linux that contains the application and everything it needs to run on different Linux distributions.

RPM package

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

```
$sudo rpm -ivh filename.rpm
```

Start the application from the desktop or from command line:

```
$/usr/bin/tigermeetingroom
```

DEB package

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

```
$sudo dpkg -i package_file.deb
```

Start the application from the desktop or from command line:

```
$/usr/bin/tigermeetingroom
```

AppImage file

Open a terminal and navigate the location of the AppImage file.
Make the AppImage file executable with the **chmod +x filename** command.

Execute the AppImage 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.

Installing Tigermeeting admin on BSD variants

Building a BSD executable for a Node.js Electron application – like the Tigermeeting Admin App - is not officially supported. Electron Builder primarily supports Windows, macOS, and Linux, while FreeBSD and other BSD variants are not listed as target platforms.

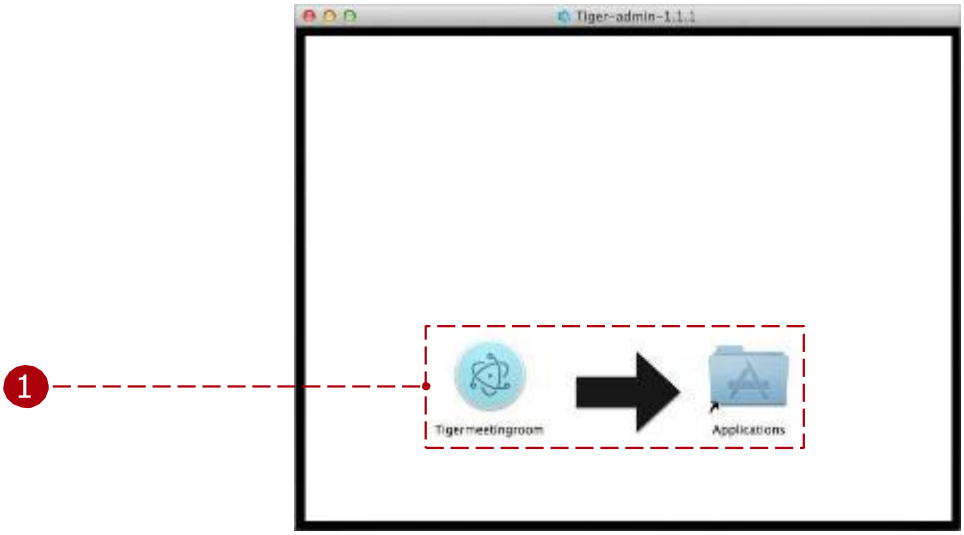
However, there are workarounds to run the Tigermeeting Admin app on some of the BSD environments by using the Linux Compatibility Layer.
FreeBSD has a Linux compatibility layer, which allows running ordinary Linux binaries.
NetBSD and Dragonfly BSD use a very similar approach for the Linux binaries support.

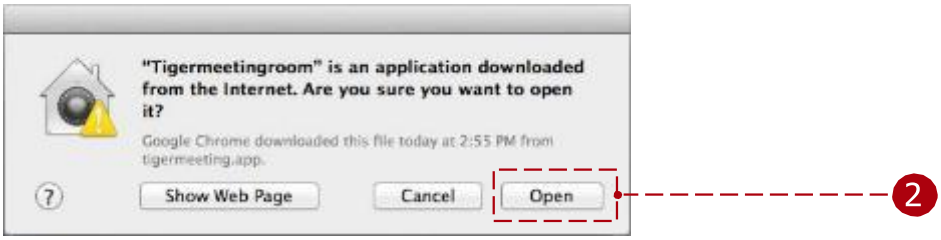
Installing Tigermeeting admin application on MacOS

Follow the installation steps:

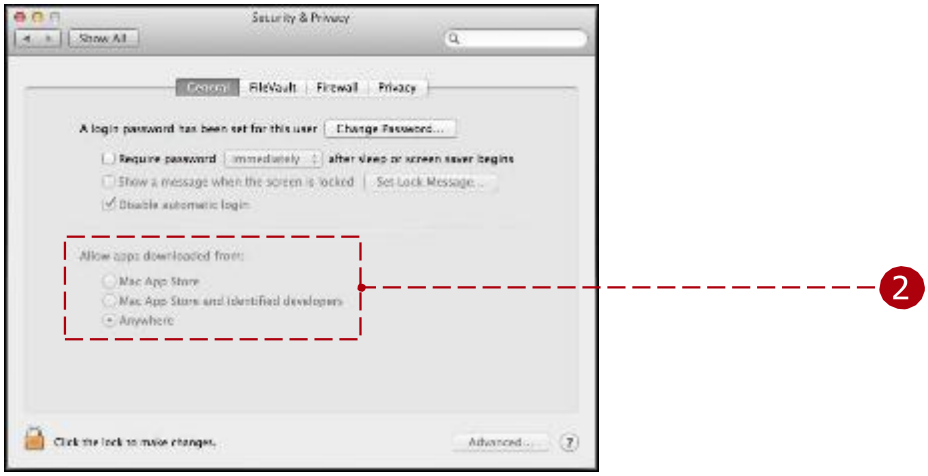
Go to the Tigermeeting web site https://tigermeeting.app/en/downloads
Download the Tigermeeting admin application.

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



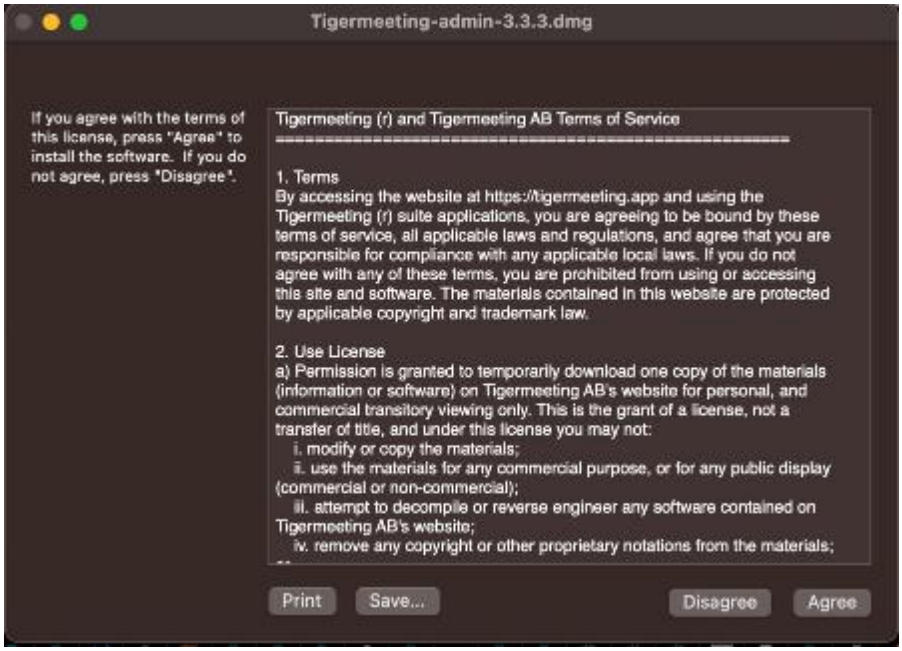


2. Run the Tigermeeting admin application. Change security settings if needed in some rare cases (the application is signed by Tigermeeting AB – verified Apple developer)

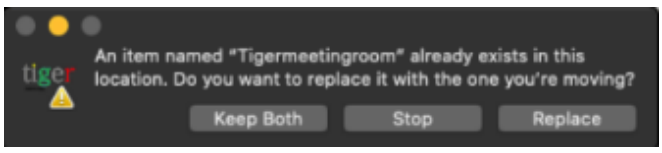


NOTE: Installer splash images may change between the releases. Please, drag the Tiger icon to the Applications folder to install the Admin App. It is recommended to overwrite the application if it already exists (upgrade case).

Please, accept the term of use before the installation.



Replace the Application if you have any older versions.



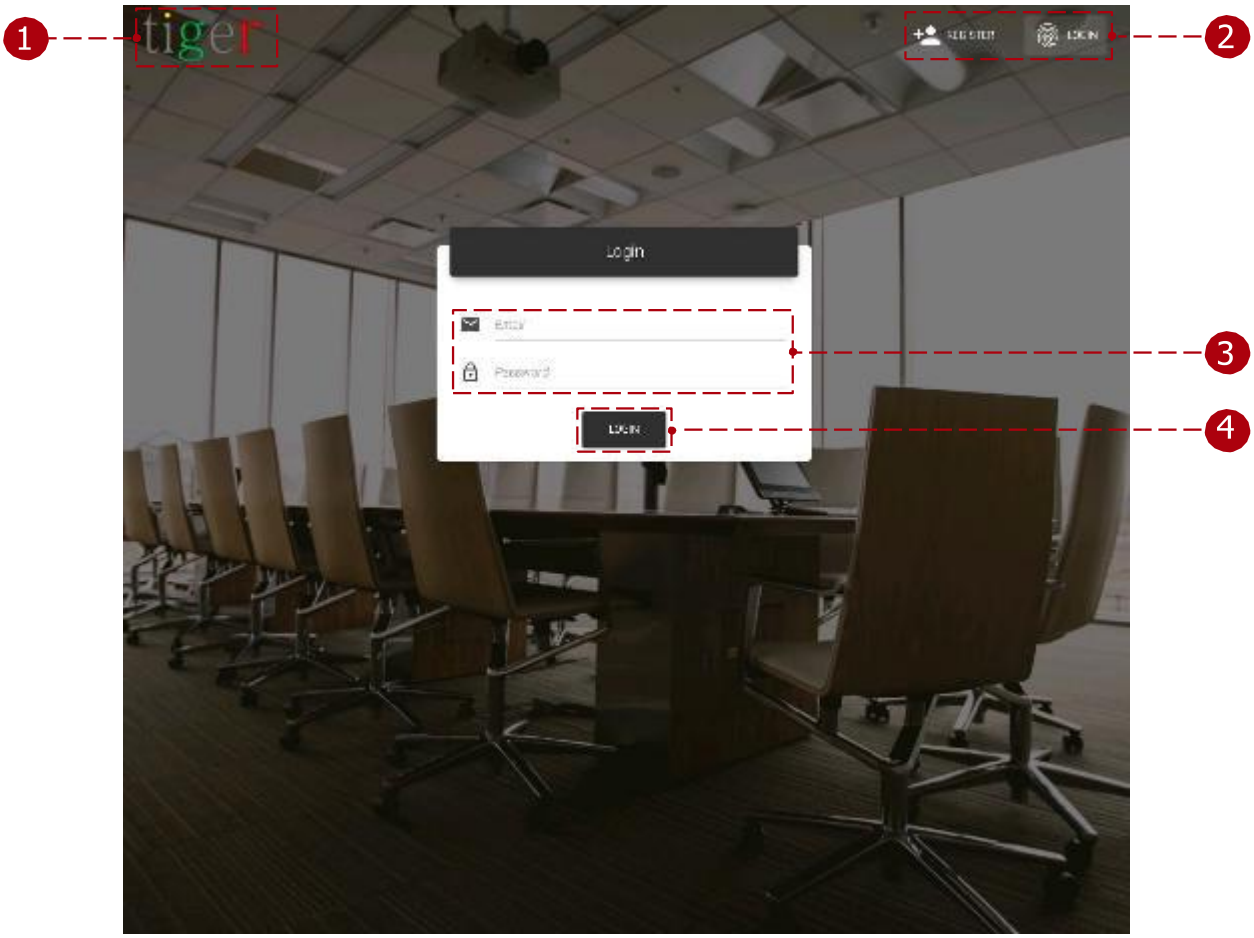
Open the App

Instructional video:

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

User 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:

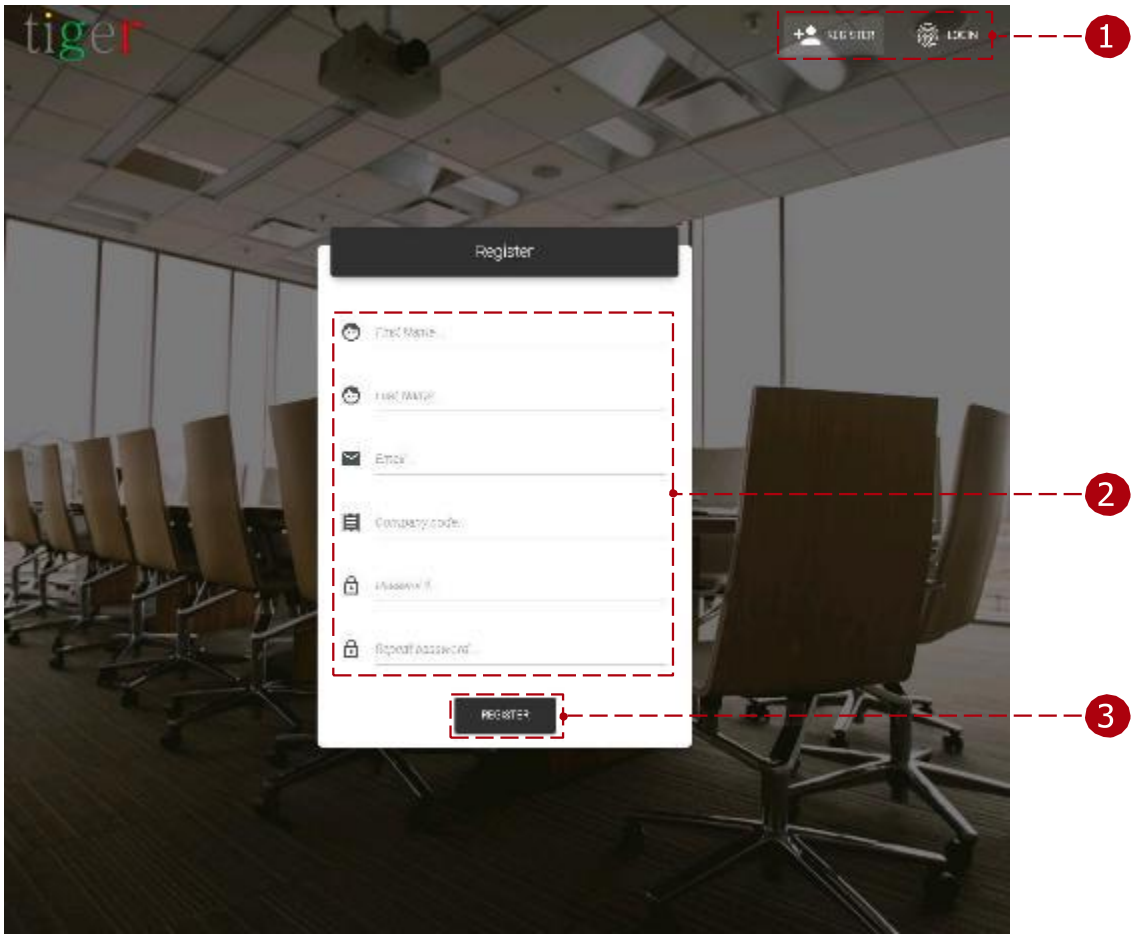
1. Logo: When clicked on logo, browser is opened and redirected to https://tigermeeting.app/
2. Login and register: Switch between the user login and registration functions. Email and password: Only registered users can use the Tigermeeting admin application.
3. Log in to the system: The user can proceed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

There is no need for registration. Please, log in 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.

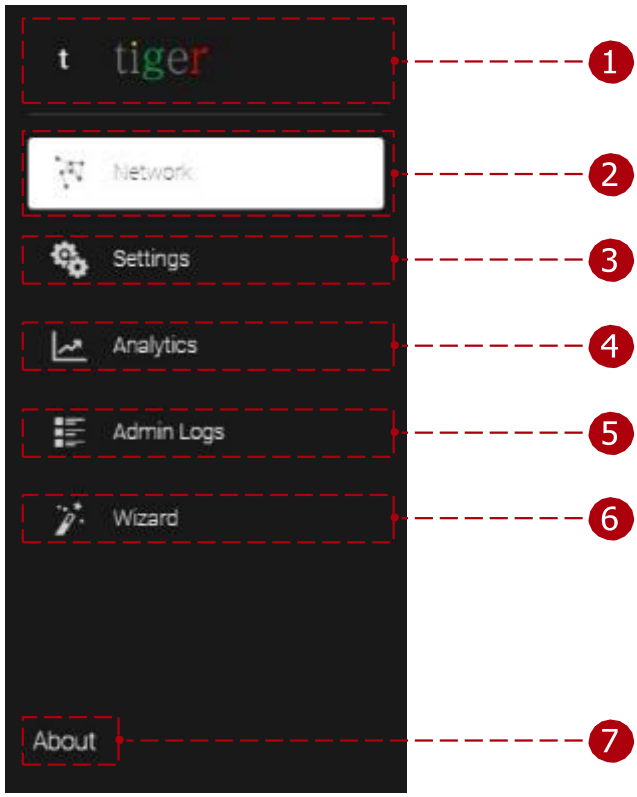


The registration form has three main components:

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.
3. 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.

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.
3. 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.

5. Admin logs: User events are recorded and displayed, like login, logout, device synchronization etc.

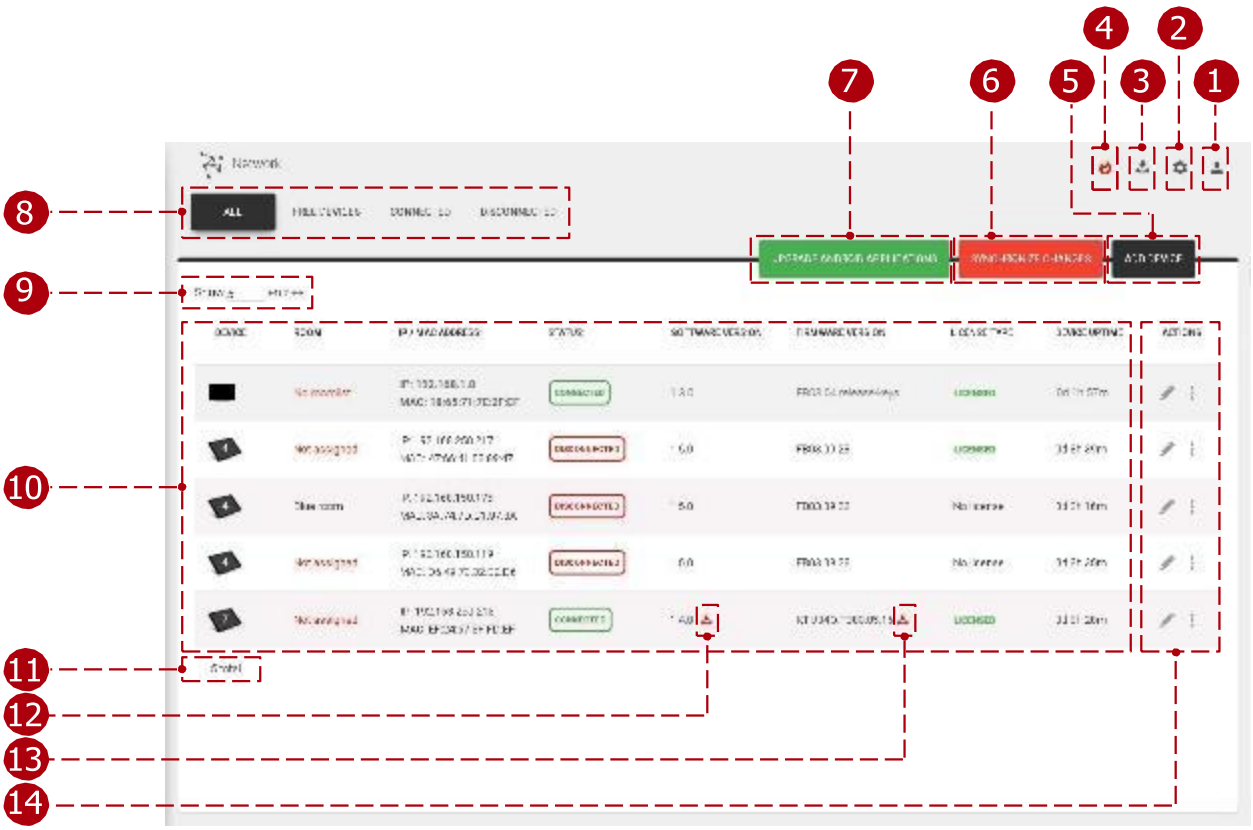
- Theme: Theme settings allow theme and background operations on all devices

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.

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. User settings:
   - Current user: Currently logged in to the 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 of inactivity.
2. System 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.
   - Download admin log: Export the Tigermeeting admin application's log. Used for error tracking.

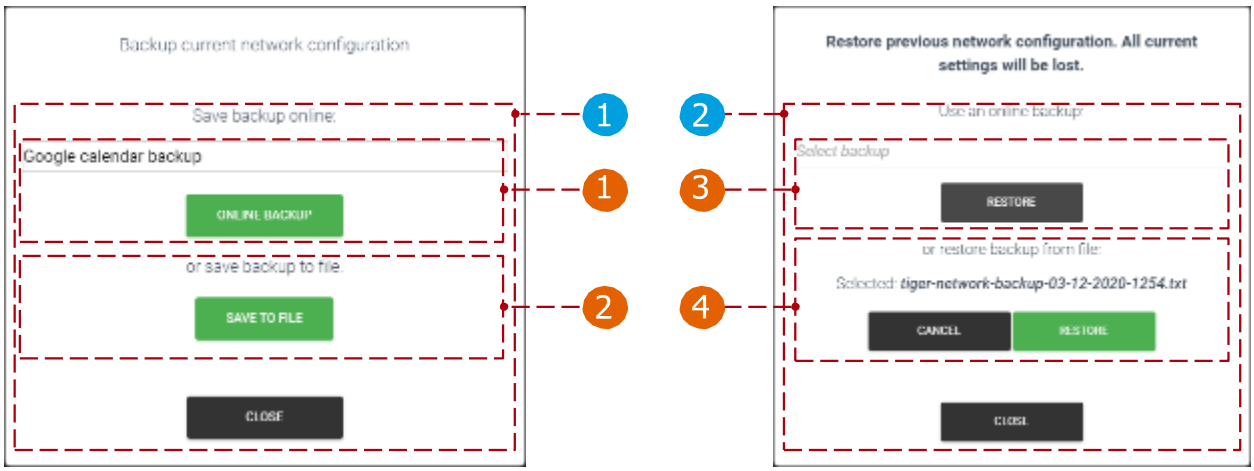
1 Reset network: Reset the admin application and all connected devices to the default settings. Calendar, rooms, room lists are detached device settings returned to default. (booking devices, overview devices, admin application) Backup network: Backup booking, overview devices (attached rooms, device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

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

1. Save backup online.
2. 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.).

3. Restore from online backup.
4. 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.
4. 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.

5. 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.
7. Update devices: Update all connected devices software version.
8. 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 on the network. The network is scanned every 30 seconds.
    - The number ( ) indicates the version of the Android operating system.
11. Total number of devices: Total number of devices filtered by device filter. (all, free, 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.
    - Maintenance mode: Sets the device in Maintenance mode.
    - Post command: Sends vendor specific API message to the device.

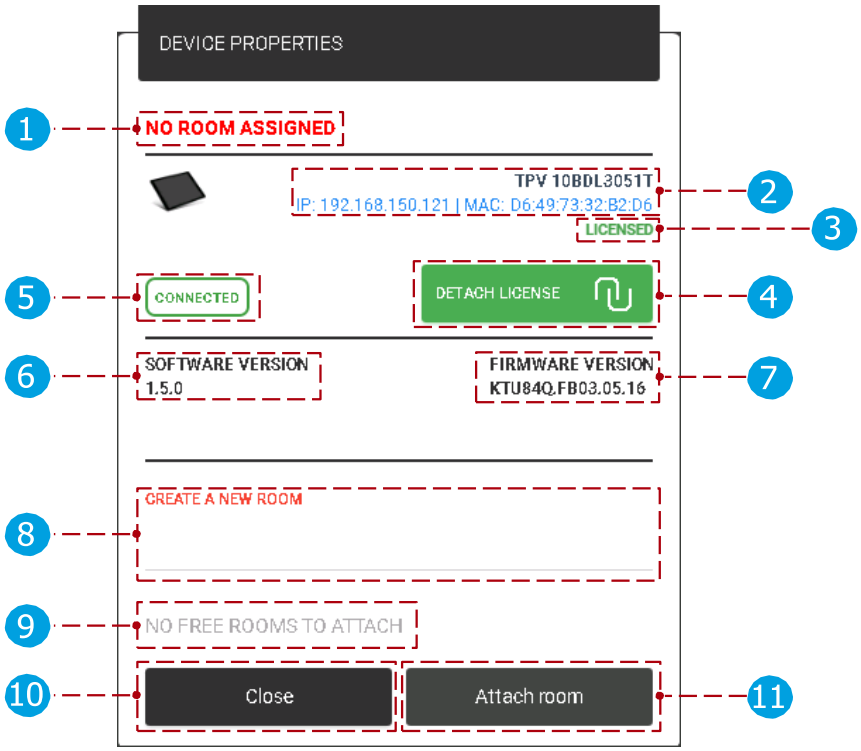
Tigermeeting is device agnostic and aims to support most of the Android devices, especially the widely recognized brands, therefore different screen icons may appear in the Network list that help to group and easily identify different device brands.

Device icon examples:

Hovering the mouse pointer over the icons will reveal the device model.

NOTE: As the Tigermeeting Admins spend most of their administration time in the Network view while configuring the devices - Tigermeeting is very keen on improving and customizing this functionality. Customer suggestions are warmly welcomed.

Booking device properties: Before room attachment



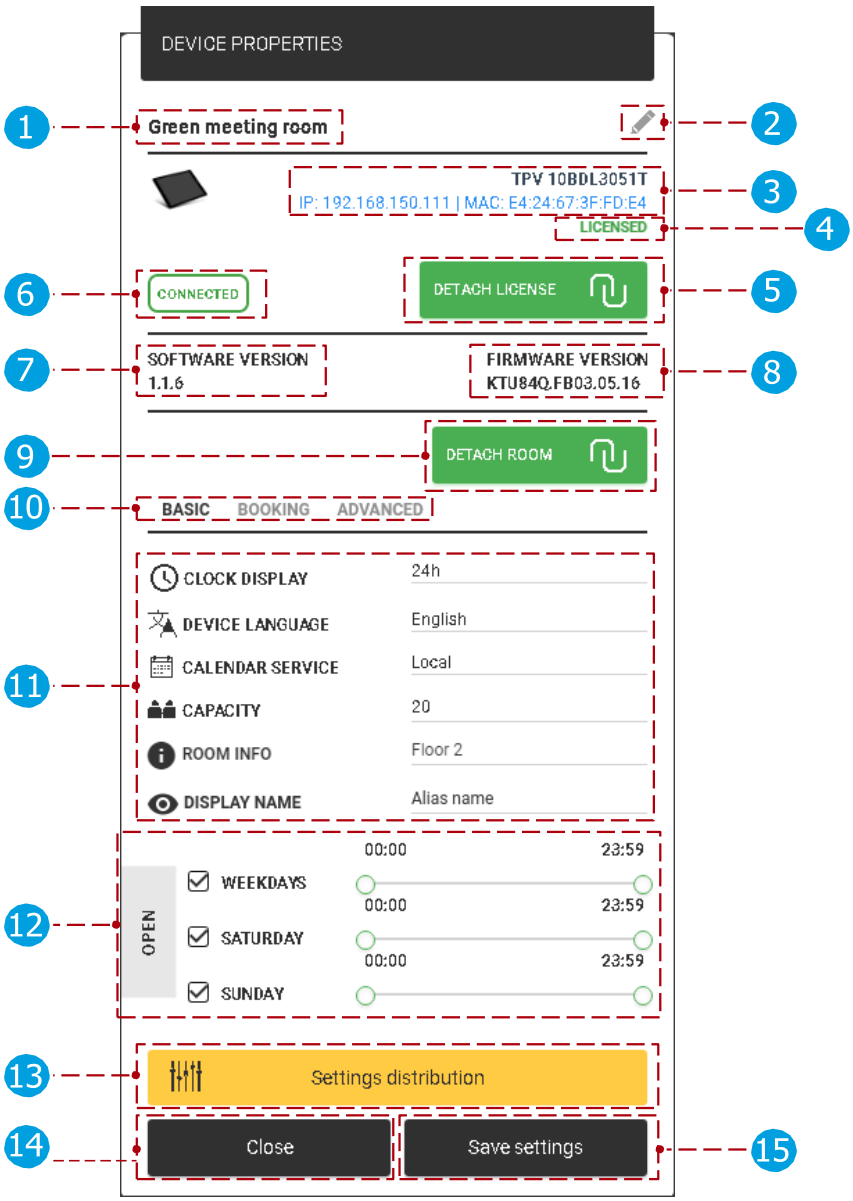
Device properties:

1. Device's room: Name of the currently attached room.
2. Booking device info: The selected device's IP and MAC address is displayed.
3. 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.
5. Device status: Status of the selected device. (connected or disconnected)
6. Software version: The selected device's current version is displayed.
7. Firmware version: The selected device's current firmware version is displayed.
8. 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, (11) the room 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.
10. Close: Cancel action, all parameters are reset to the previous state.
11. Attach room: Attach the room to the selected device.

Booking device properties: After room attachment

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

Basic properties



Basic properties:

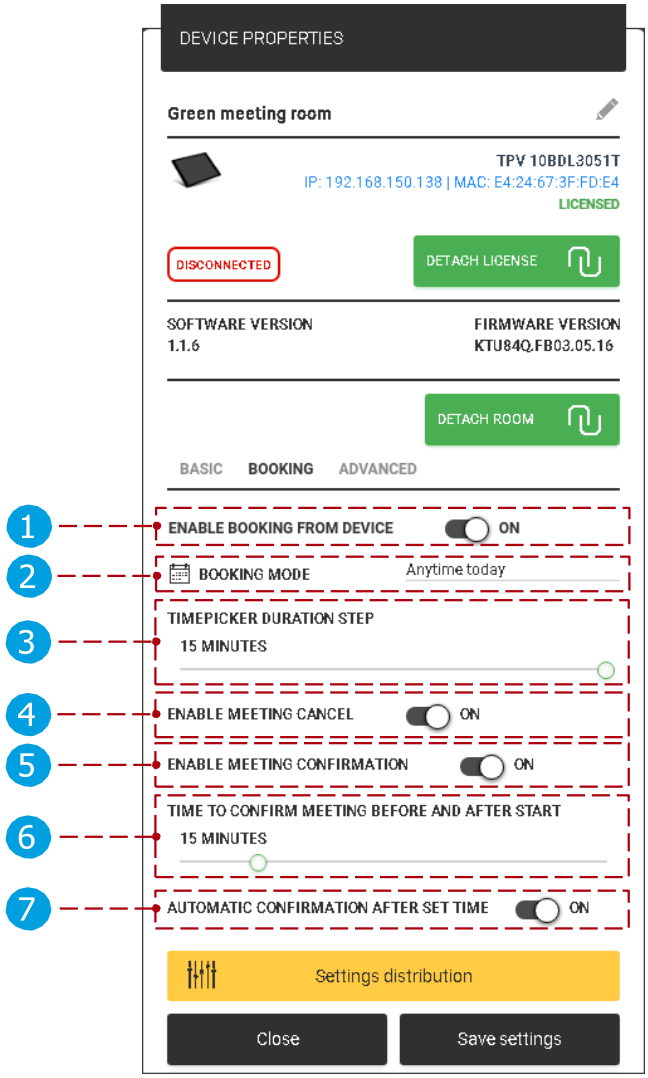
1 Device's room: Name of the currently attached room.
Original room name is displayed, when there is no room alias added under "Settings" menu, "Rooms" tab, edit room properties, "display name". When an alias is added, it is displayed instead of the original name.

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, iCalendar or 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.

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
6. Device status: Status of the selected device. (connected or disconnected)
7. Software version: The selected device's current version is displayed.
8. Firmware version: The selected device's current firmware version is displayed.
9. 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.
10. Basic, booking, and advanced properties: When selected, the basic, booking and advanced parameters are displayed.
11. Basic parameters:
    - Clock display: Change device's clock display. (24h or 12h format).
    - Device language: Text on device will be displayed in 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.
12. Open time:
    - Day: Device will take reservations for the selected days.
    - Time: Device will take reservation between the set time.
13. Setting distribution:
    - Set for all devices: The checked parameters will be saved for all devices.
14. Close: Cancel action, all parameters are reset to the previous state.
15. Save settings: Save the device's parameters and close the dialog.

Booking properties

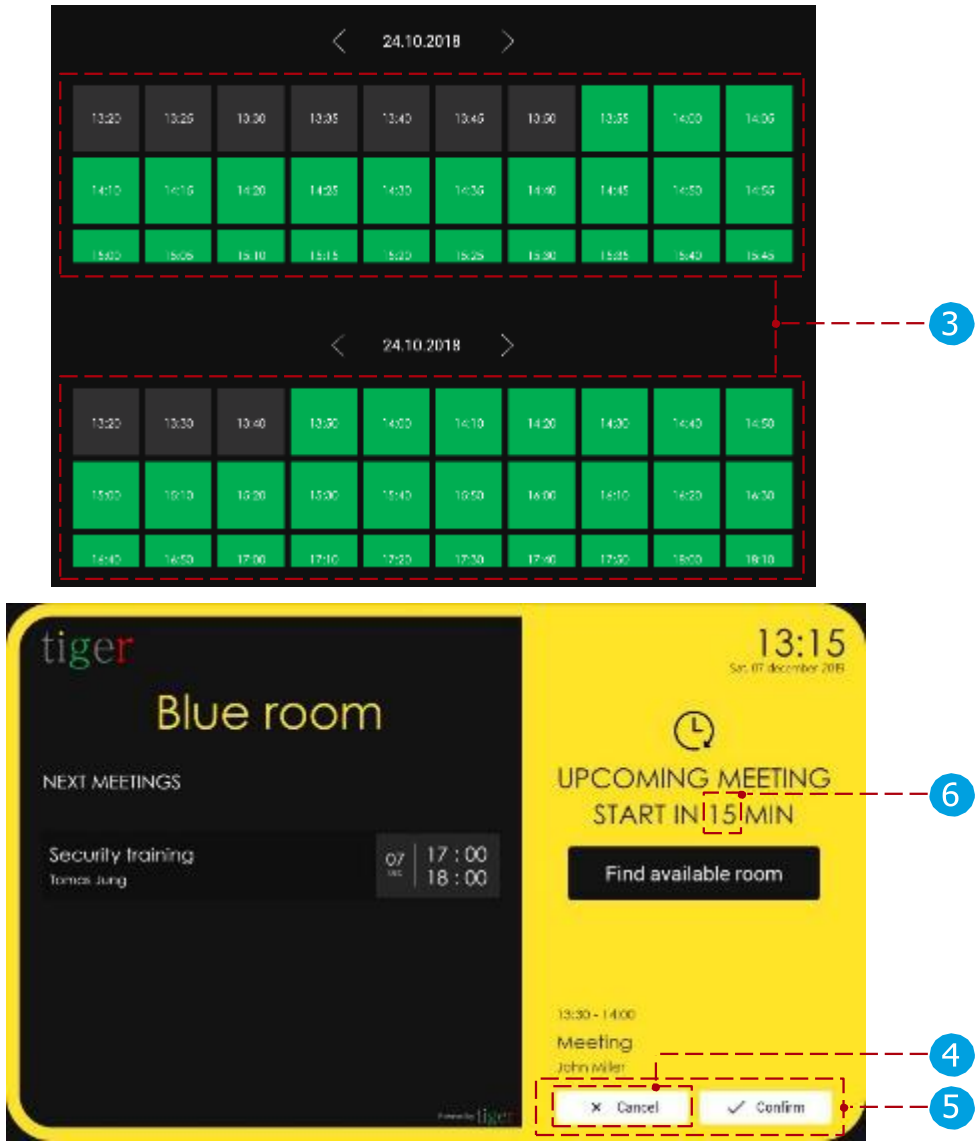


Booking properties:

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.
3. 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 and 20 minutes)
4. 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)).
6. Time to confirm meeting before and after start: When will the confirm controls displayed, before and after the meeting start time.

7 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 not displayed.

On an android device:



5 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:

The meeting can be canceled, and the meeting is not removed from the attached calendar room, only the meeting end time is changed to the time when the meeting is canceled.

2 Booking mode on device:

1 From this moment: Meeting can be reserved from the current time, only on the current day.

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

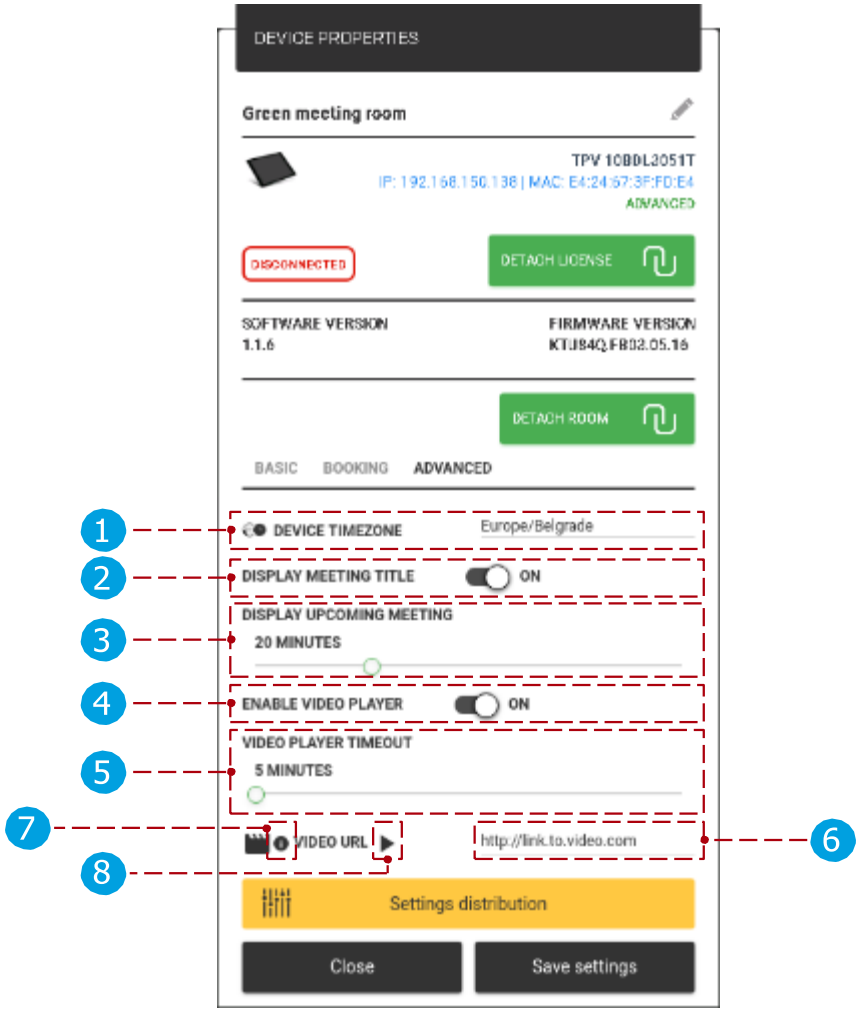
3 Anytime: Meeting can be reserved any time, any day in the future.

4 Booking type is displayed on the bottom of the time picker.

5 Cancel: Cancel and return to main screen.

6 Book now: Confirm the meeting to the selected room.

Advanced properties



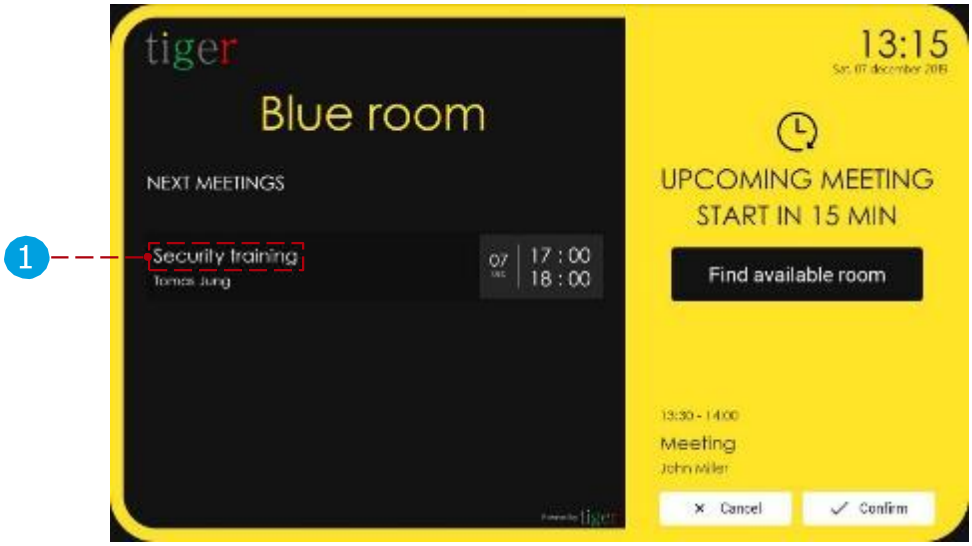
Advanced properties:

1. Device time zone: Selected device's time will be configured to the selected time zone, as well as the meetings reserved on the device.
2. 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.
   7. Video requirements: File type: MP4, maximum size: 200MB, Resolution:720p
   8. Test video: When the button is pressed the video is displayed in the admin application in a popup window, it is for testing purposes.

Sample video:
https://tigermeeting.app/uploads/videos/Tiger-Full-HD-Animation.mp4

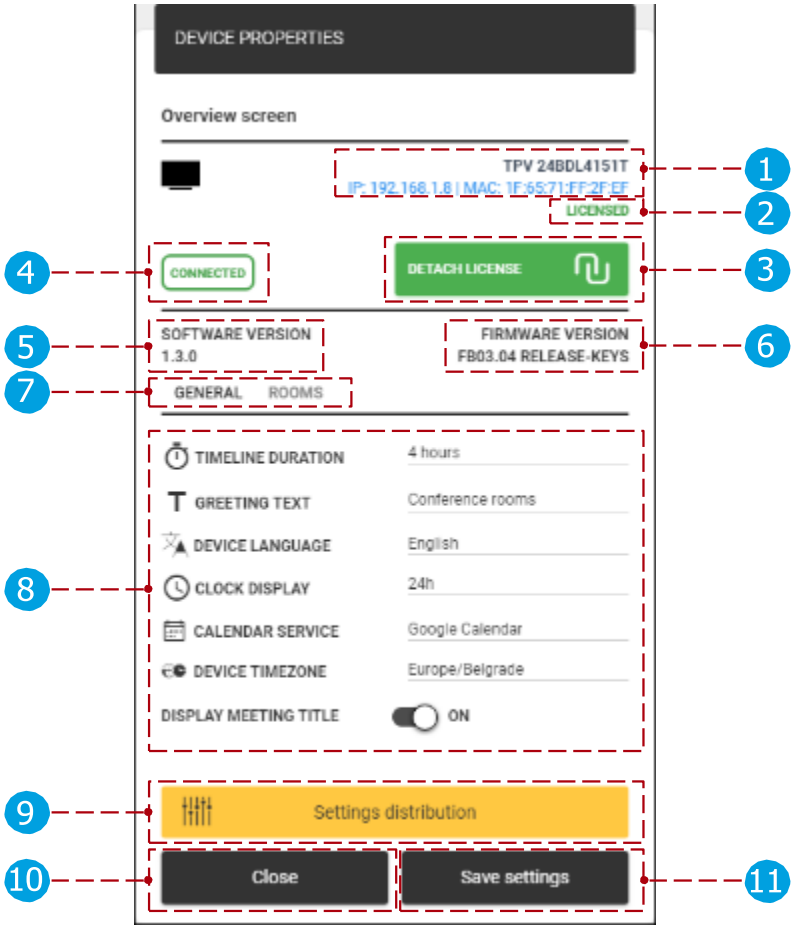
NOTE: while Tigermeeting support Android versions from 5 up to the most recent - access rights to the local files on the Android devices has been changed significantly between the versions.
If the video does not start after the timeout period, please make sure the media file, storage access is granted to the application. Please read the Android setup manual for details.

On android device:



Overview screen properties

General properties



General properties:

1. Overview screen device info: The selected device's IP and MAC address is displayed.
2. 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)
5. Software version: The selected device's current version is displayed.
6. Firmware version: The selected device's current firmware version is displayed.
7. General and rooms settings: When selected, the general or rooms parameters are displayed.
8. General parameters:
    1. Timeline duration: Timeline can be displayed in 4- or 8-hour sections. (For example, if it is set to 4-hour, timeline displays from 09:00-13:00)
    2. 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 a calendar is attached "rooms" settings are (7) shown
- 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 as 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".

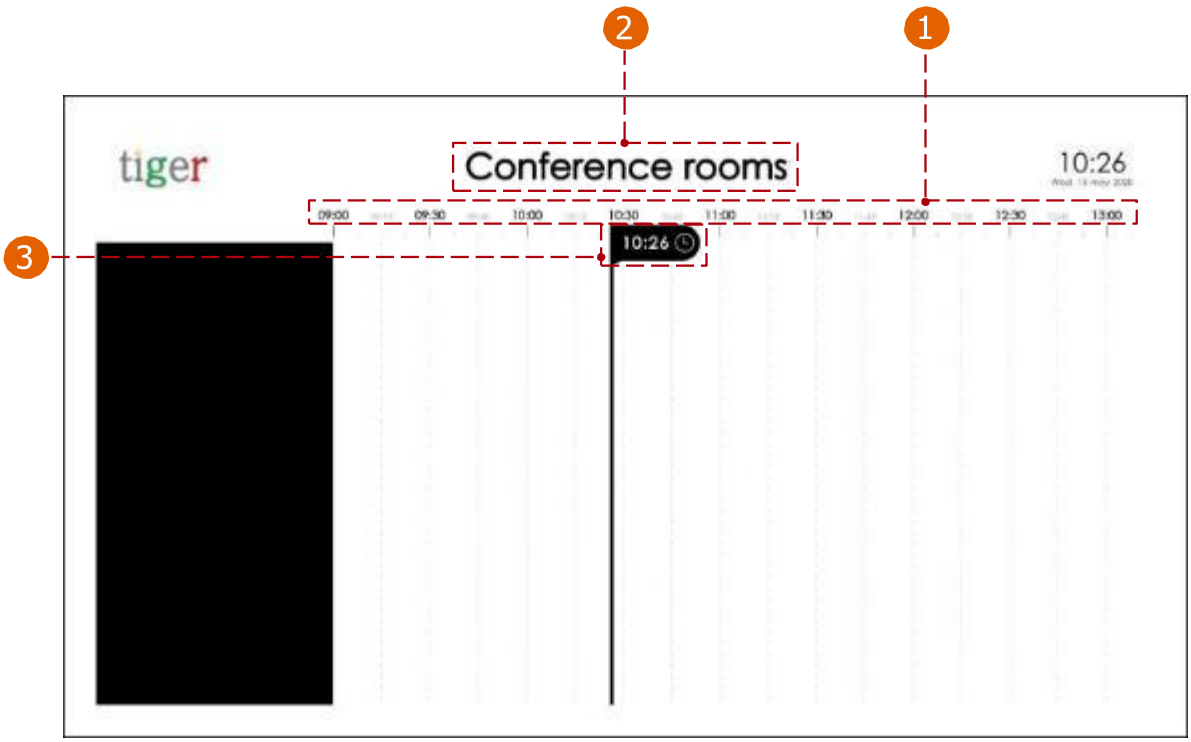
9 Setting distribution:

Set for all devices: The checked parameters will be saved for all devices.

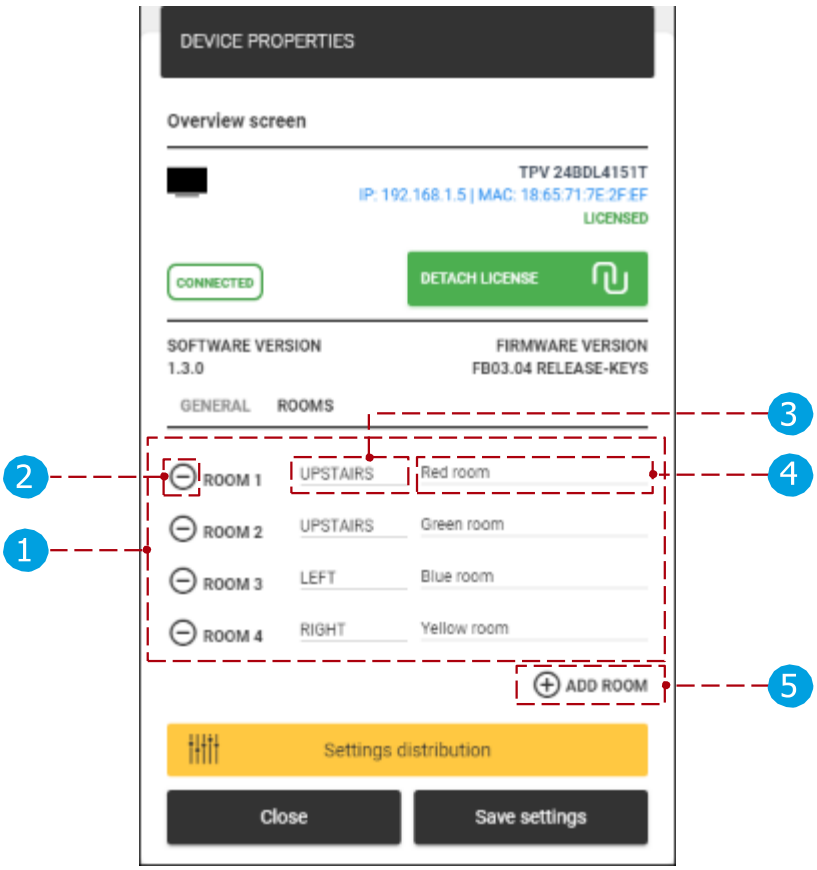
10 Close: Cancel action, all parameters are reset to the previous state.

11 Save settings: Save the device's parameters and close the dialog.

On the overview screen:



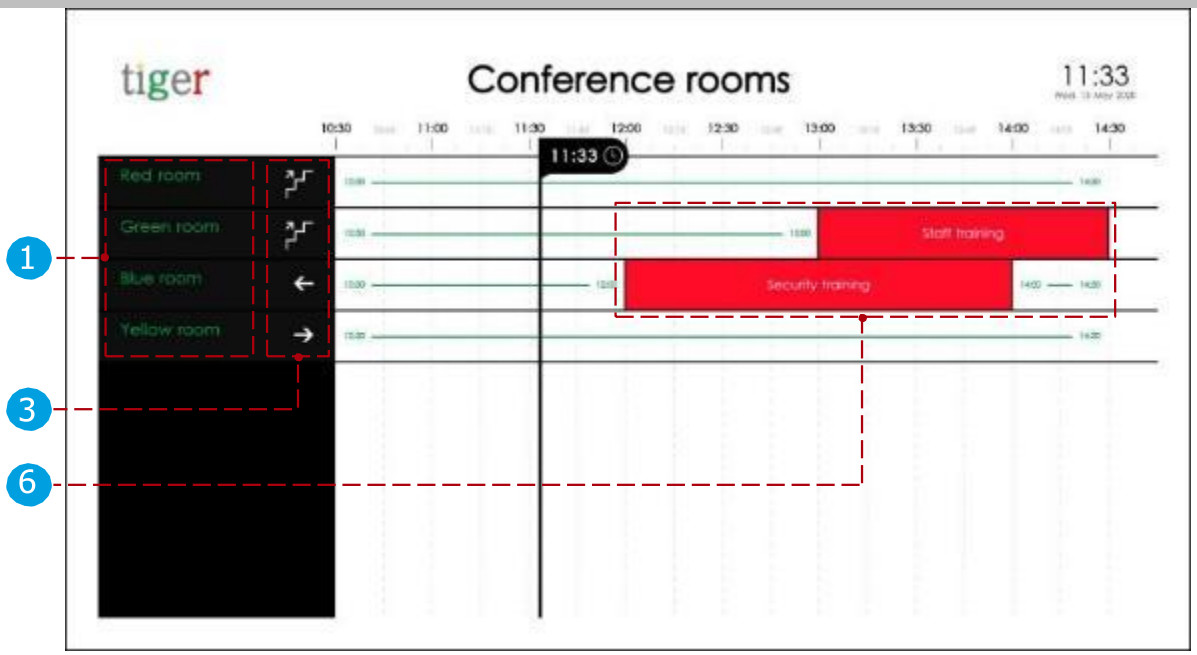
Room properties



Room properties:

1. Room list: Rooms are listed that are attached to the overview screen device.
2. Remove room: Selected room is removed from the room list.
3. Location info: Info icon (,,,)(upstairs, downstairs, left, right) about the device location.
4. Room: Previously created rooms (local or attached online calendar) can be attached to the room list.
5. Add room: Add a 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.

The APKs are available for download from the Admin app:

- APK that supports Android 4.1 devices (4.x)
- APK that supports devices from Android 5.0 – to latest Android version (5+)

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.

Tigermeeting is recognized and certified on other major app markets and application stores on phones and tablets for device manufacturers in China and India.

Accepted among OPPO developers therefore the Tigermeeting app is available in many far east countries for users of OPPO Store that provides download, and upgrade functionality.

The same is valid for VIVO devices where Tigermeeting is a member of VIVO developers community and it is approved on VIVO phones and tablets globally and with special

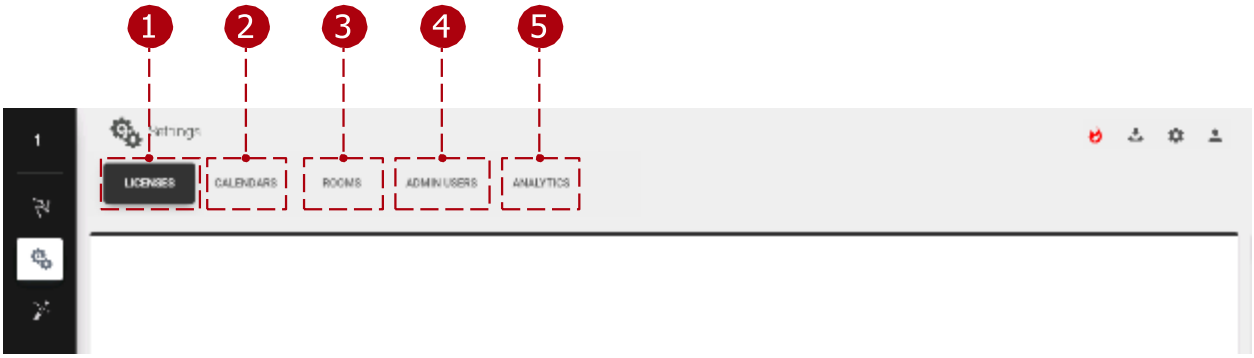
permission in Hong Kong, Taiwan, Province of China, Australia, Bangladesh, India, Nepal, Sri Lanka, Myanmar, Indonesia, Cambodia, Lao People's Democratic Republic, Malaysia, Philippines, Singapore, Thailand, Viet Nam, Ukraine, Pakistan, Saudi Arabia, Russian Federation, United Arab Emirates – and in other 175 countries.

Tigermeeting is also recognized and approved on Xiaomi devices available on Xiaomi Official GetApps market – likewise on Transsion Palmstore as Dlightek Developer.

The Android APK installation is elaborated in detail in the Android setup manual.
NOTE: The device is fully operational just when the green default theme appears.

Settings

The settings are divided into five sections:

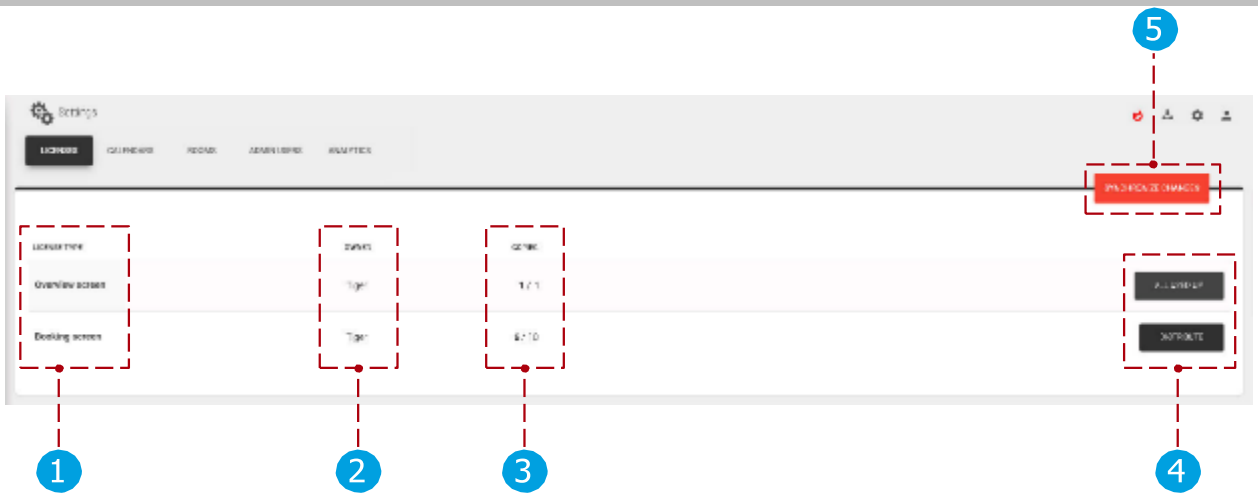


1. Licenses tab: Licenses can be assigned to devices.
2. Calendars tab: Online calendars can be attached or detached.
3. Rooms tab: Rooms can be created, removed, or edited.
4. Admin users tab: Registered users are displayed.
5. Analytics: The data collected will be used to present valuable information 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.

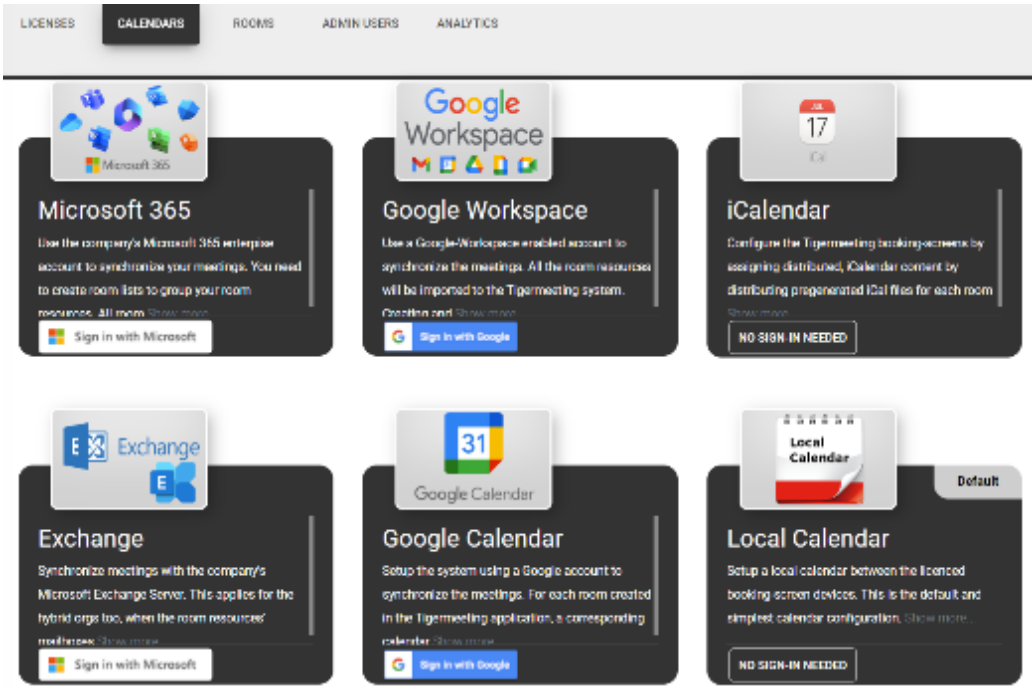


Licenses tab:

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.

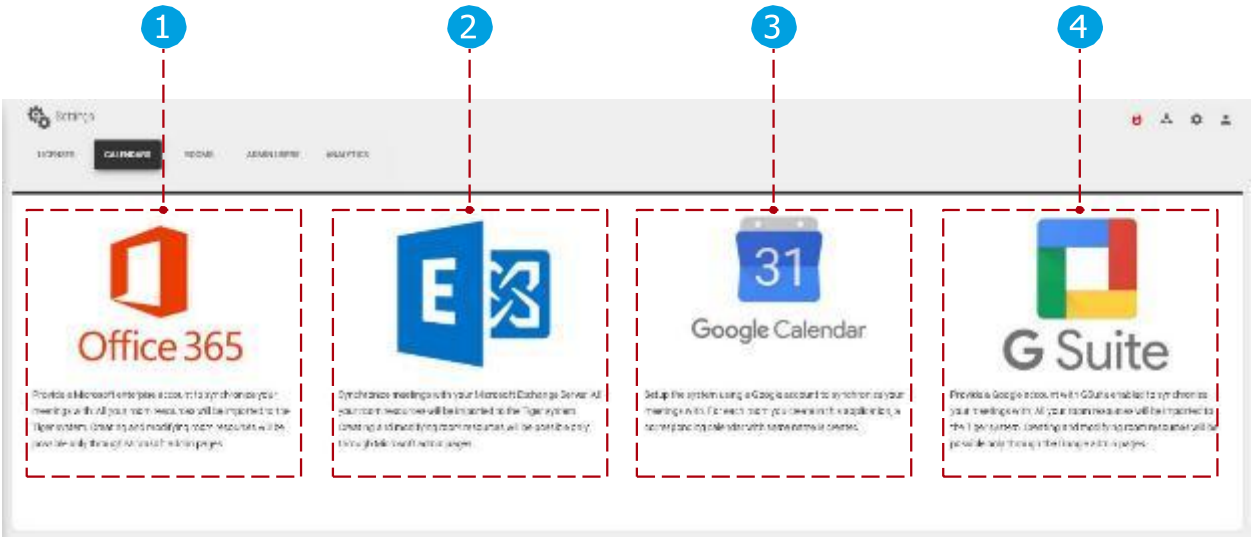
4. License distribution:
   1. Device selection: Selected devices for license distribution.
   2. Activate: Activate license for the selected devices.
   3. Close: Cancel and close distribution.

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, but the room resources are managed online.
2. **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.

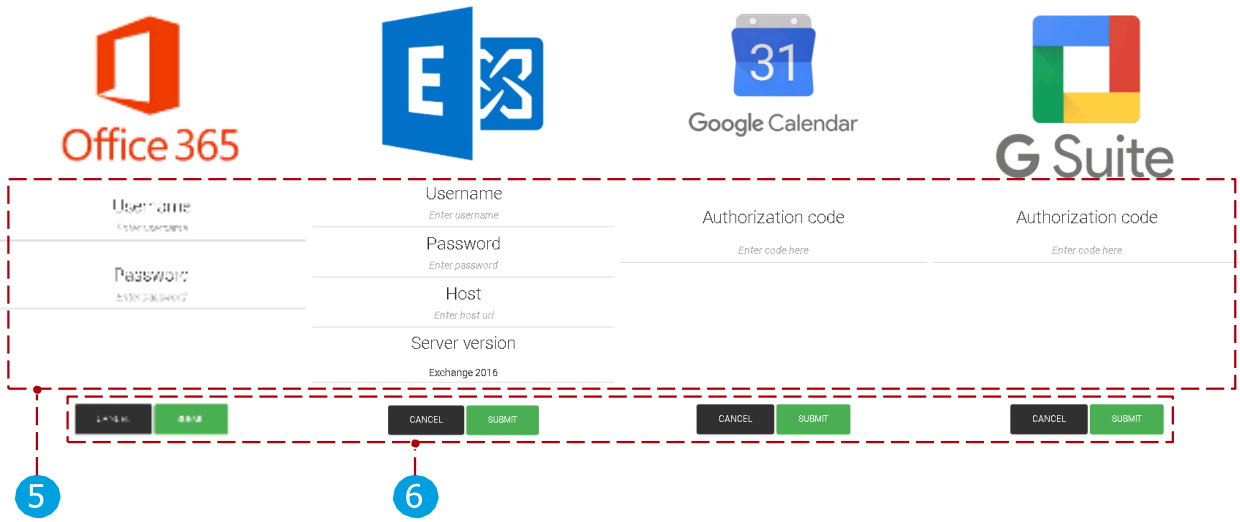


Besides the online calendars. Tigermeeting has support for iCalendar and Local Calendar.

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 used for DEMO purposes only.

Please use other calendars in production. (Google Calendar with a personal account would be the simplest)



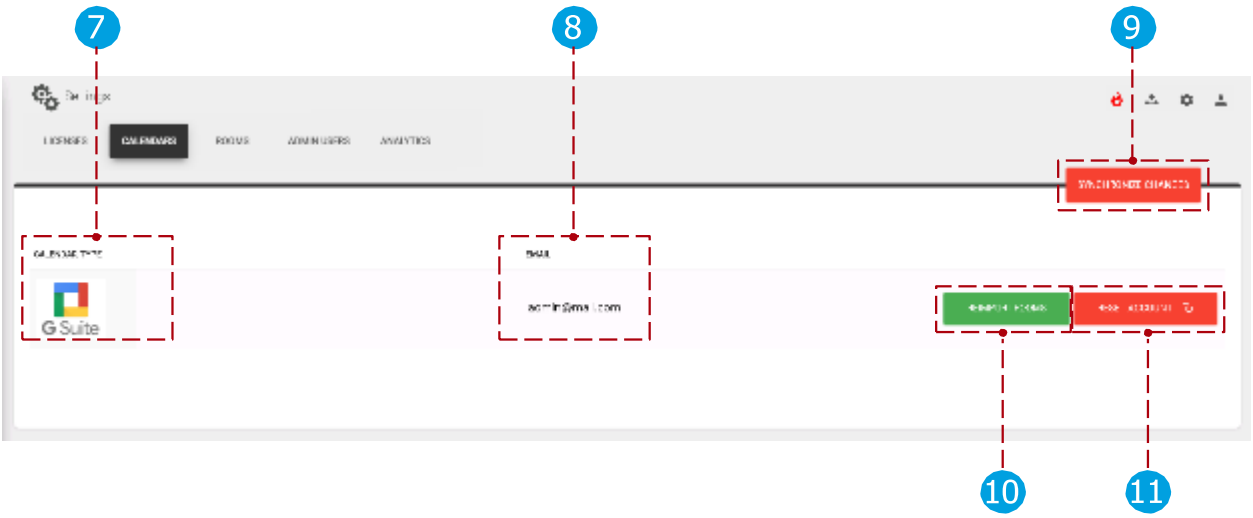
When a calendar is selected for attachment:

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.
- iCalendar does not require any authentication.
- Local Calendar does not require any authentication.

6 Confirm controls:
- Cancel: Cancel the attachment process.
- Submit: Finish the attachment process.

After calendar attachment:

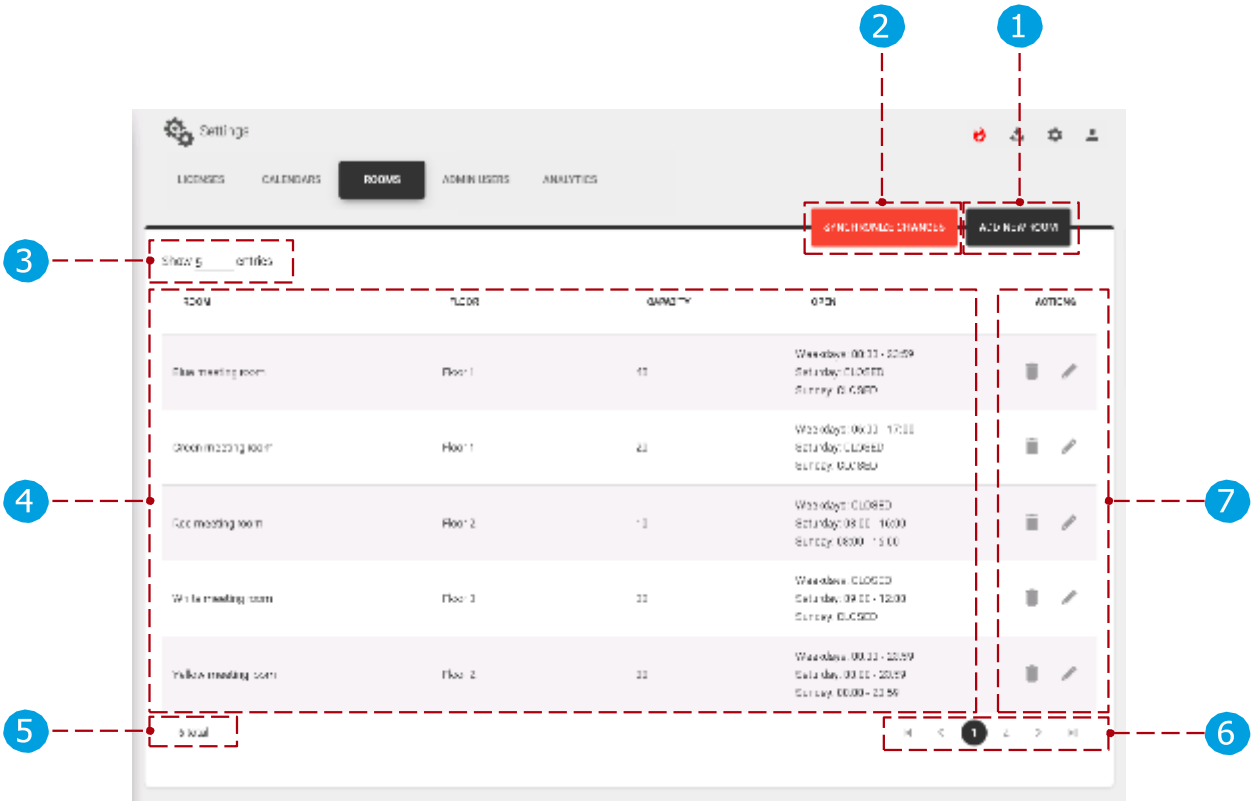
7. Calendar type: Type of the attached calendar.
8. Email: Email address of the attached calendars user.
9. Synchronize changes: After the attachment, the changes must be synchronized with the devices. When all devices are disconnected, synchronization is not allowed.
10. Reimport rooms: Rooms and their 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.
11. 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=j1cN9OaIDwU

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.
5. 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.
7. 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.

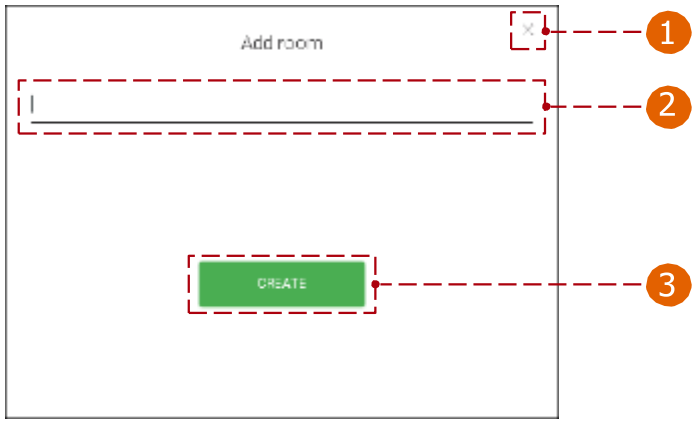
Room management, when Microsoft365, Exchange or Google Workspace calendars are attached:

- 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:

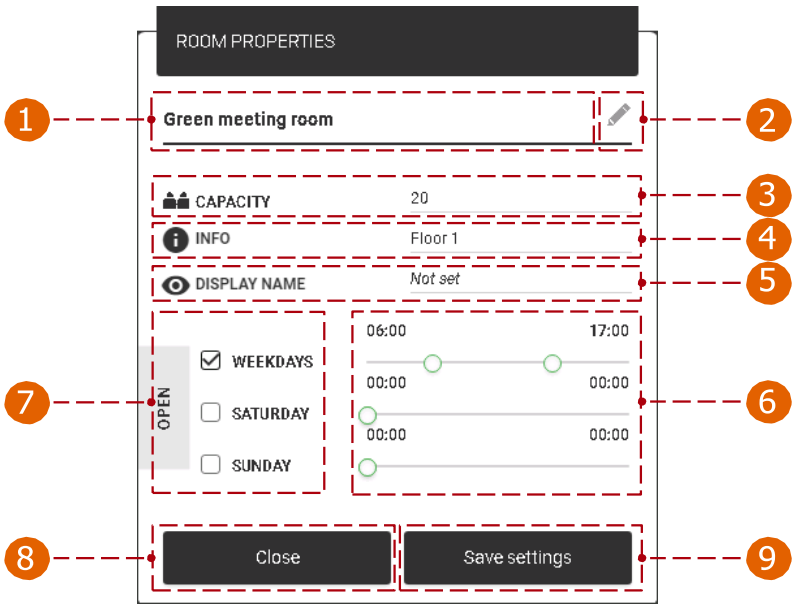
- Room's name: A room's name can be edited only when local or Google calendar is attached. The name of the imported rooms cannot be edited in the Tigermeeting admin application, (Microsoft365, Exchange, Google Workspace) only through the online calendar's admin panel.
- Capacity: Parameter is fetched 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.
   2. Name of the room: Name of the new room.
   3. Create: Create a new room. Rooms with the same names are not allowed.



7 Edit room properties:

1. Name of the room: Name of the selected room.
2. 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.
3. 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)
7. Days: Checked days are available and reservations can be made 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.
9. Save settings: Save room properties. After it is saved, it must be synchronized with the other devices.



On android device:

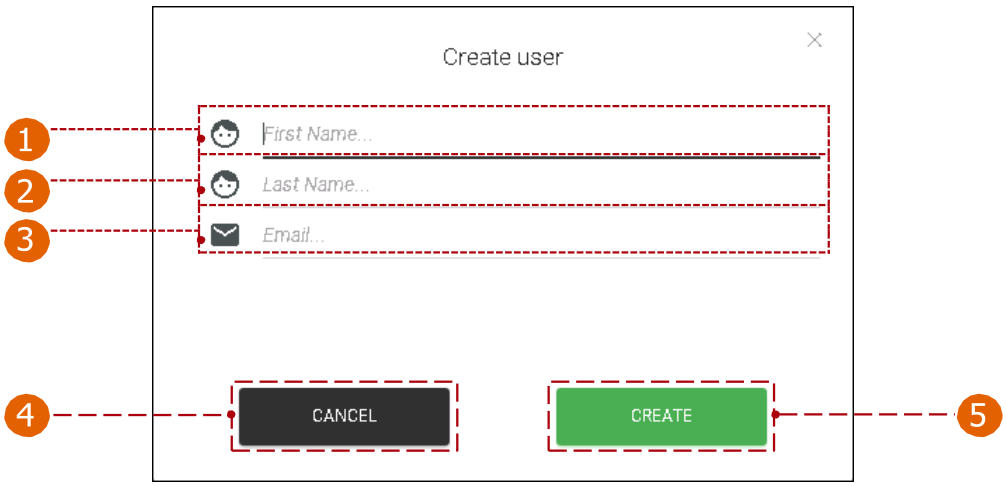
Admin users tab

All users of the Tigermeeting admin application are listed here.

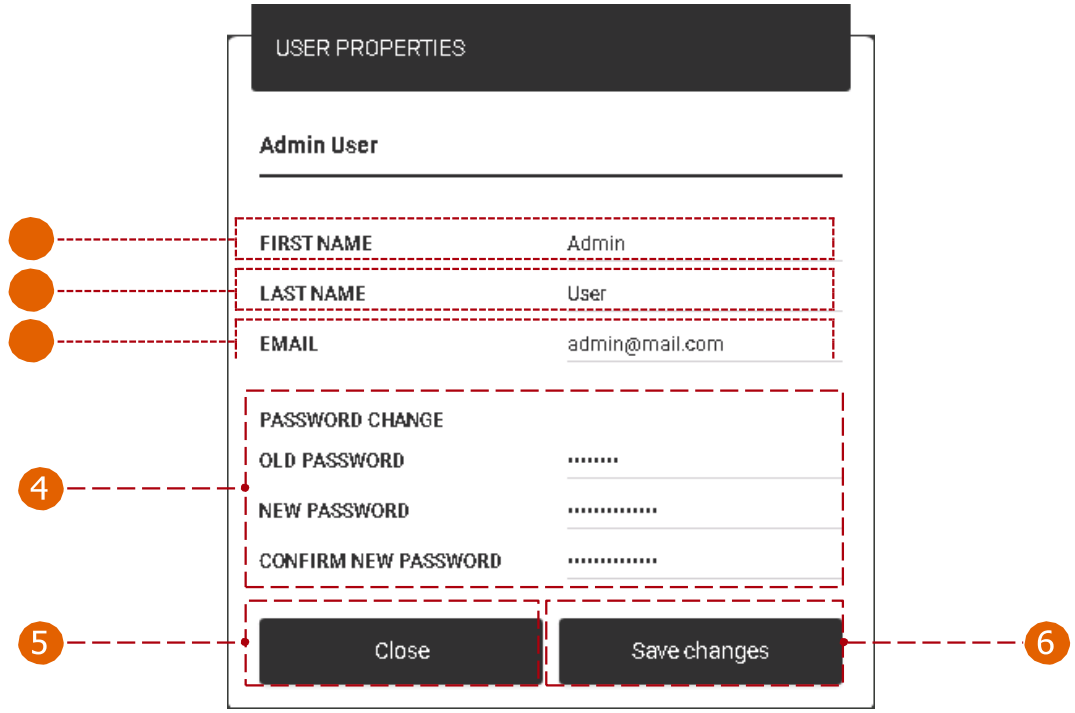
Admin users tab:

1. Create user: Create a new admin user.
2. Number of admins: The number of admins displayed per page.
3. 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.
5. Paging: If there are more admins, they are displayed on other pages.
6. 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.
   1. First name: First name of the admin user.
   2. Last name: Last name of the admin user.
   3. Email: Email address of the admin user.
   4. Cancel: Cancel action.
   5. Create: Create the user and send the activation email.

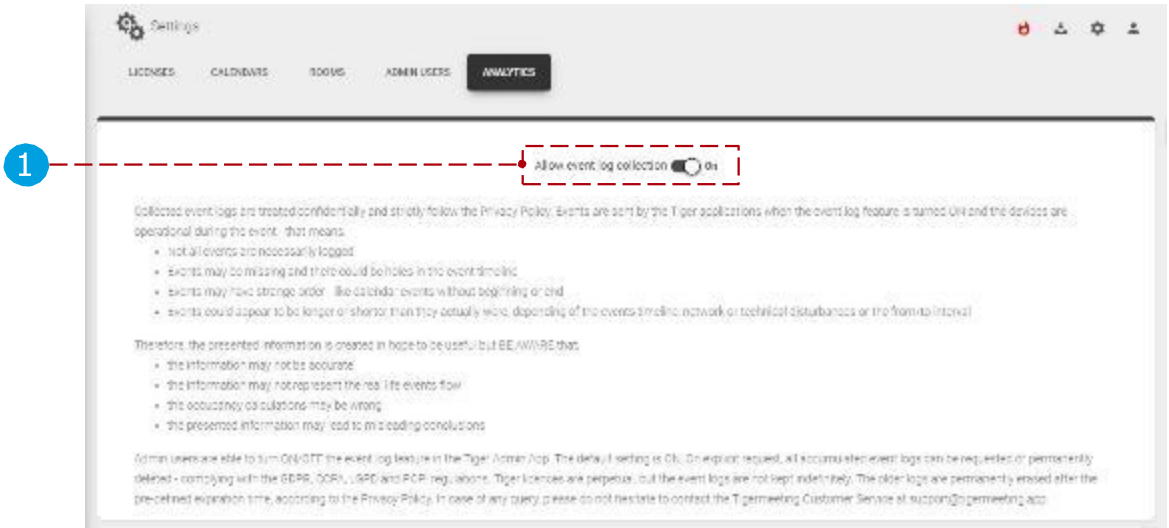


4. Edit current admin user:
   1. First name: First name of the admin user.
   2. Last name: Last name of the admin user.
   3. Email: Email address of the admin user.
   4. Password change:
      - Old password: Without the old password, a new password cannot be created.
      - New password: New password must contain a minimum of 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's 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.

Therefore, the presented information is created in hope of being useful but BE AWARE that:

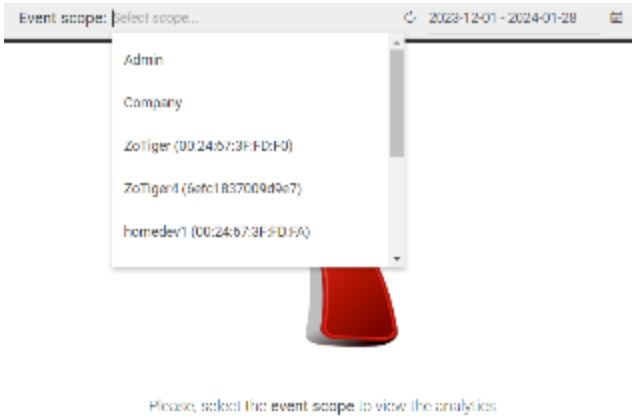
- the information may not be accurate.
- the information may not represent the real-life events flow the occupancy calculations may be wrong.
- the presented information may lead to misleading conclusions.

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

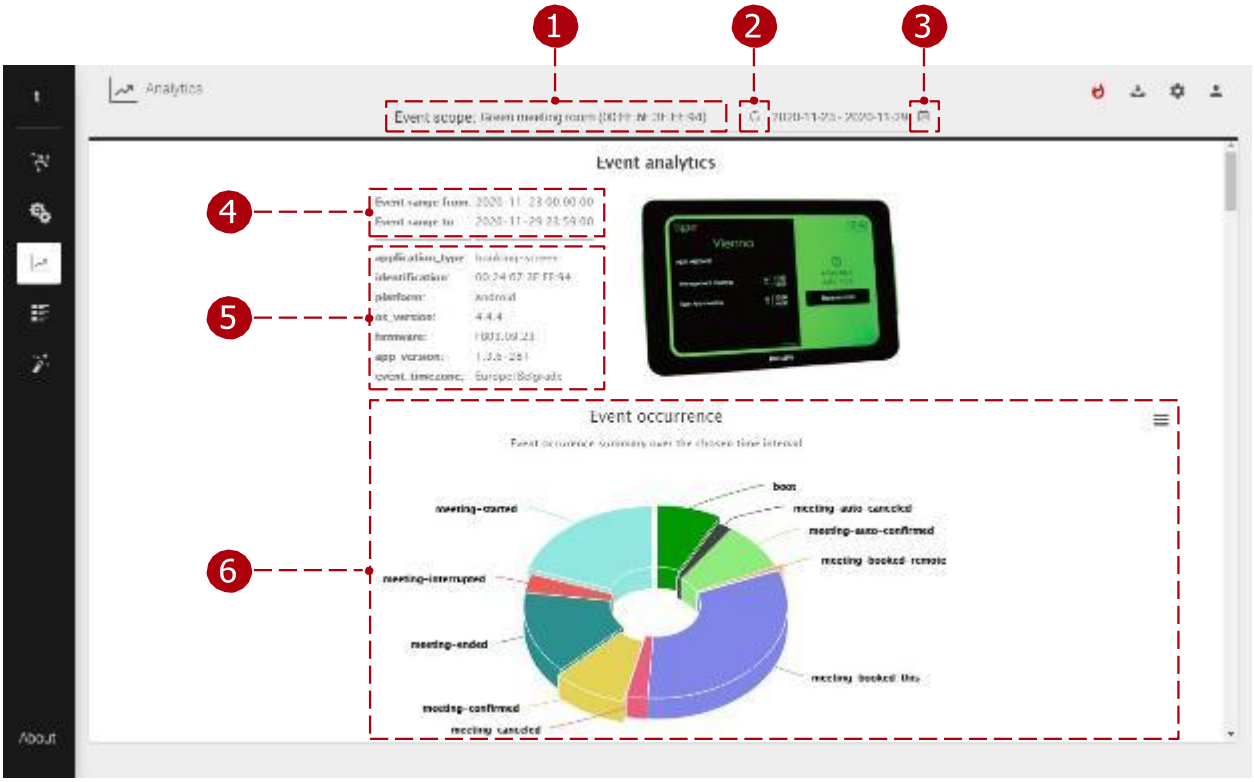
Analytics

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



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.
2. Reload analytics: Reload analytics data to the selected device.
3. Date pickers: Analytics will be generated between the set dates.
4. Event analytics date range.
5. Device info. (type, identification, platform, etc.)
6. Data of the analytics are represented in charts.



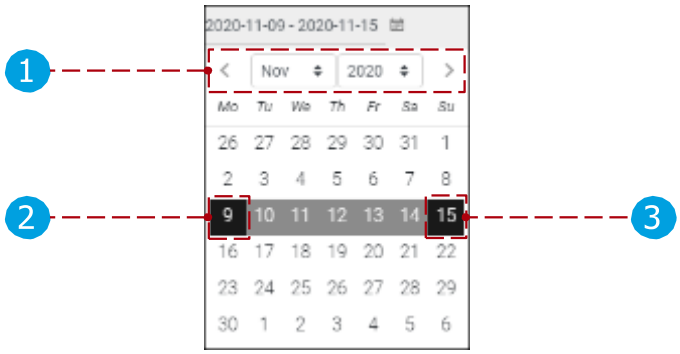
3 Date pickers:

1 Year and month pickers.

2 First, the start date must be selected.

3 Second, the stop date must be selected.

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



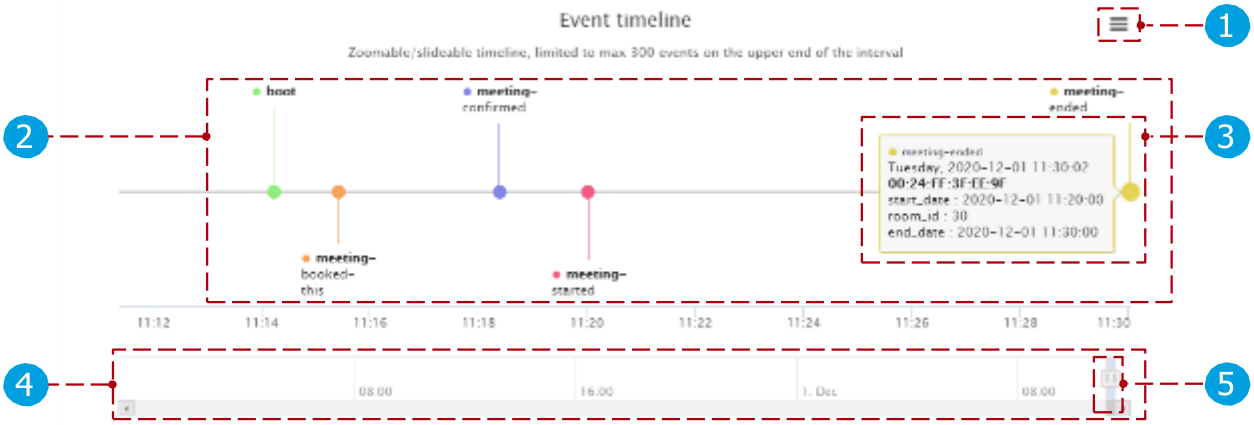
6 Charts:

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).

2 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.

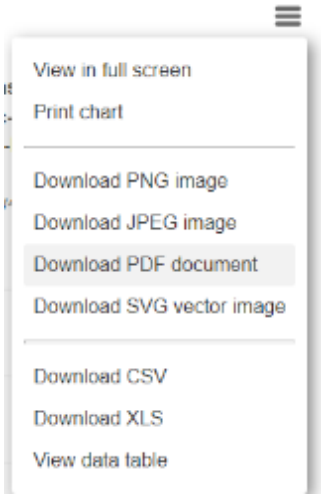
3 When hovered above the event, the event details are displayed.

4 Event timeline chart filter.
Event timeline filter. (chart zoom can be changed here)

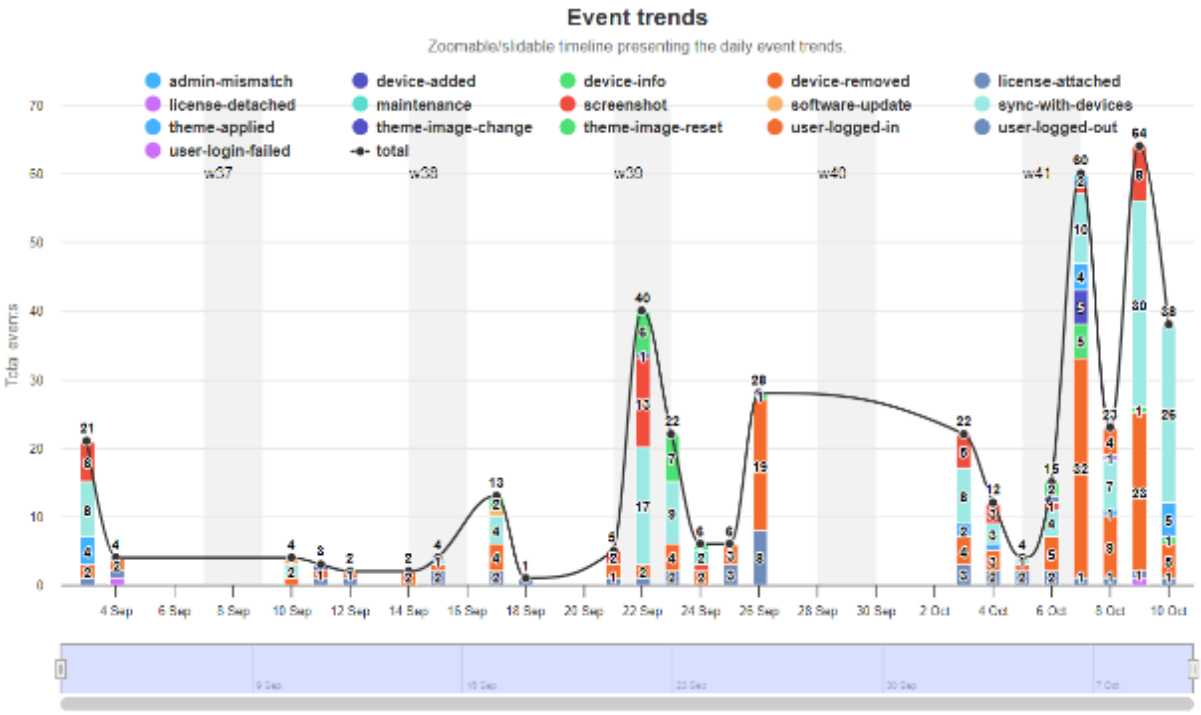


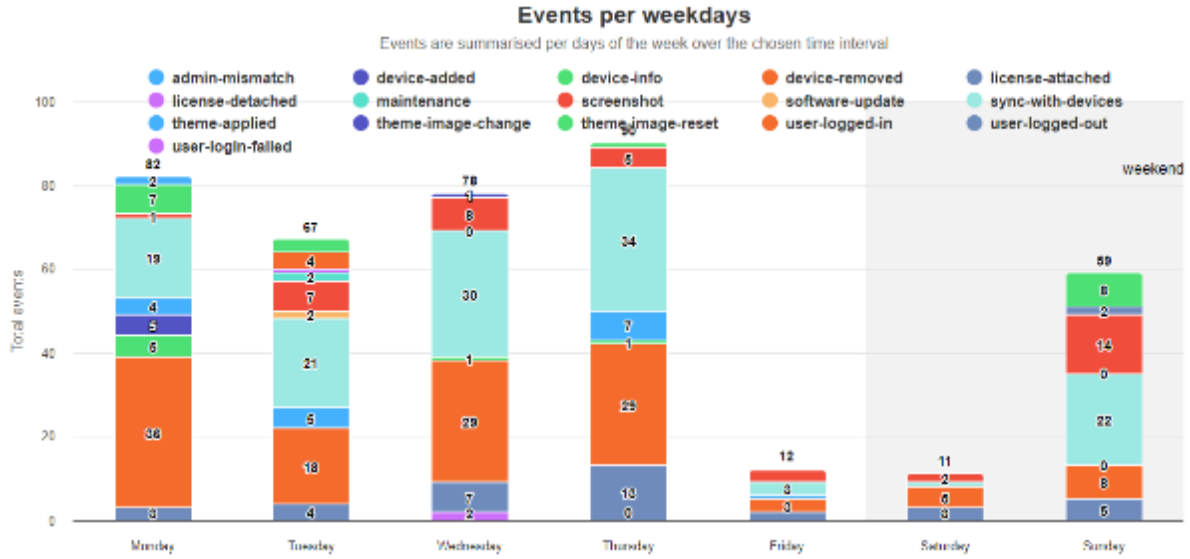
Charts and data visualization can be changed by later releases.

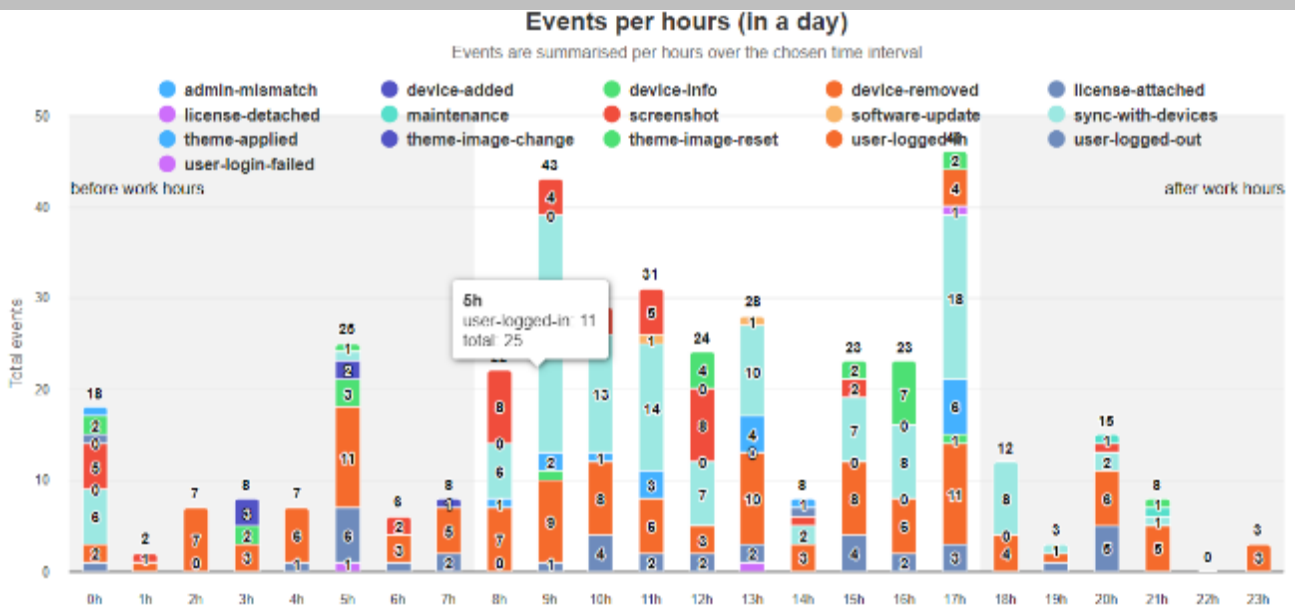
The data can be shown in the chart or exported to a BI tool using the Analytics export possibilities.



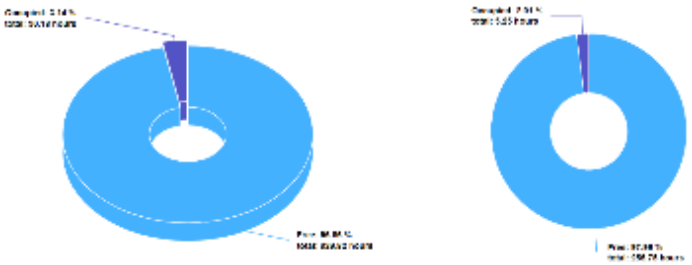
Event related graphs







Meeting related graphs



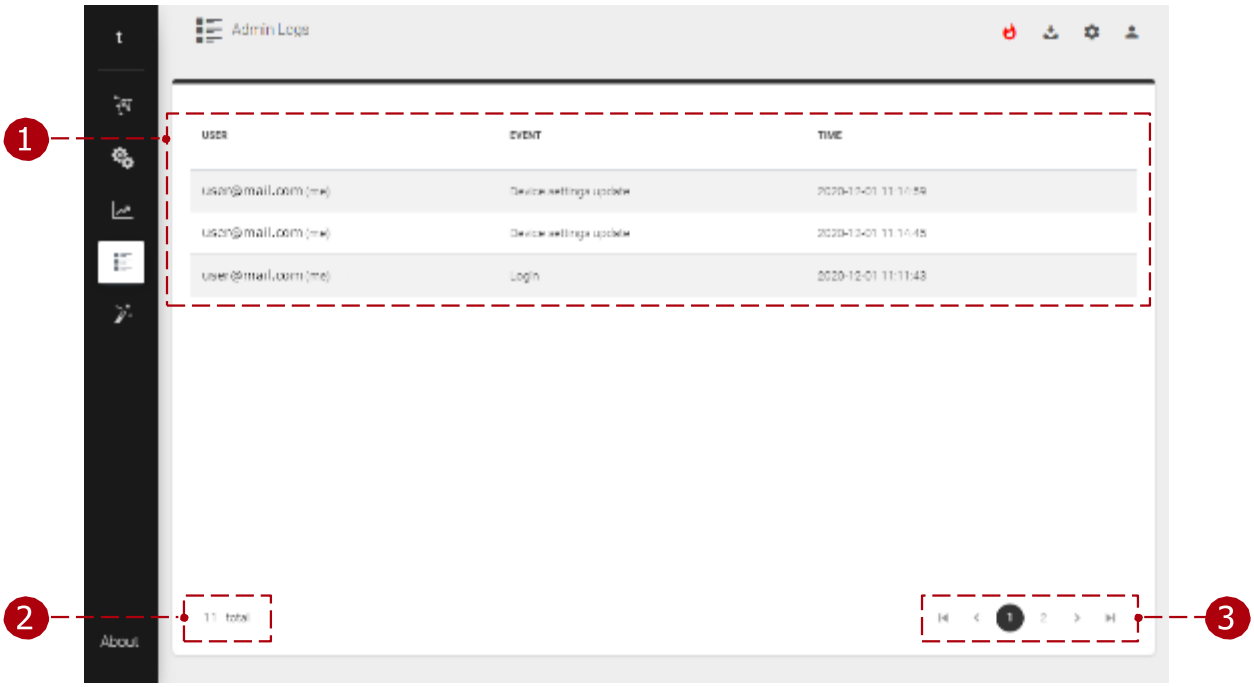
… and many other metrics.

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.
2. Total number of events.
3. Paging: Page through the events.



Important events are marked with red color to turn attention.

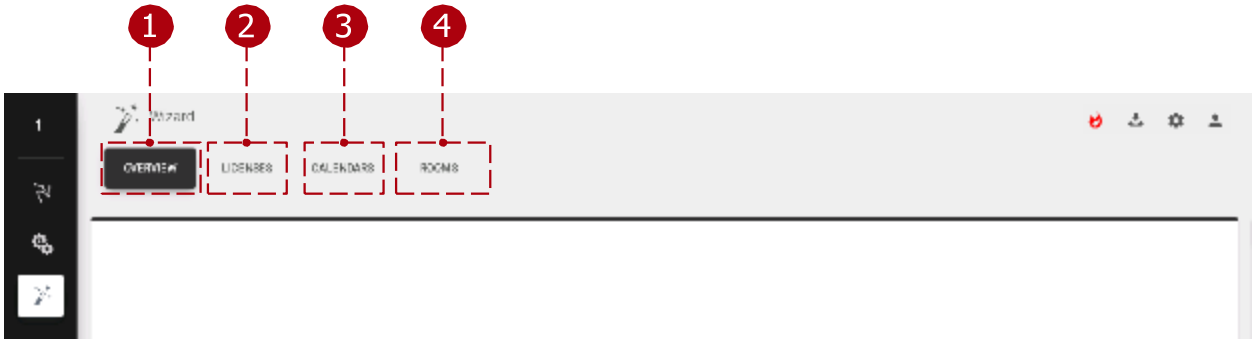
zoli@tigermeeting.app (me)	License attached (797259278f446f60)	2024-03-29 18:37:49	83.251.235.241	Windows (3.3.5)
zoli@tigermeeting.app (me)	Screenshot (797259278f446f60)	2024-03-29 18:18:08	83.251.235.241	Windows (3.3.5)
zoli@tigermeeting.app (me)	Device settings sync	2024-03-29 18:17:57	83.251.235.241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

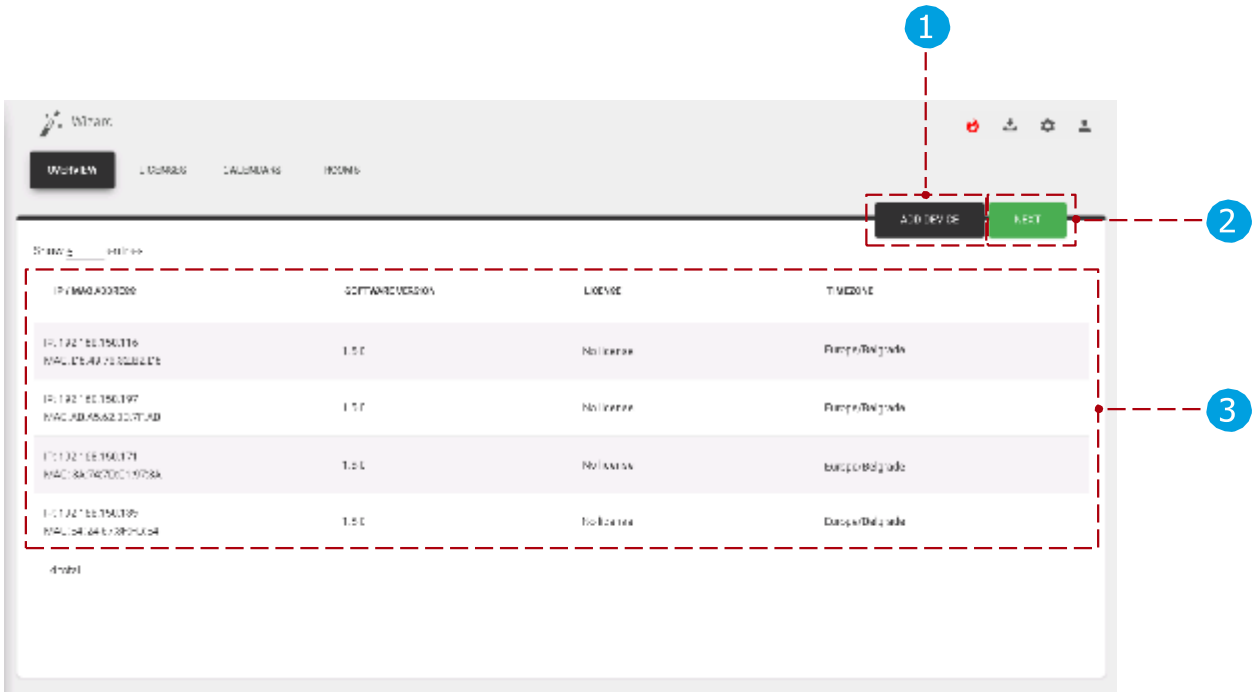


Wizard:

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

Overview

Basic overview of the available devices.

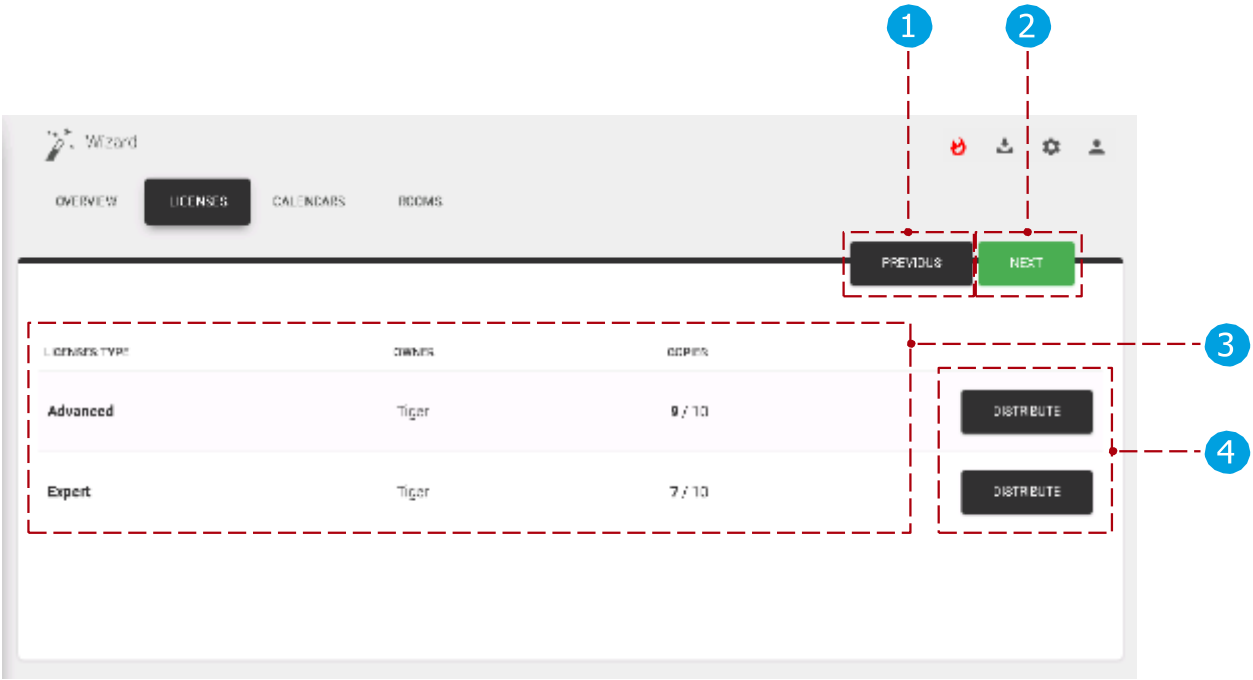


Overview:

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.

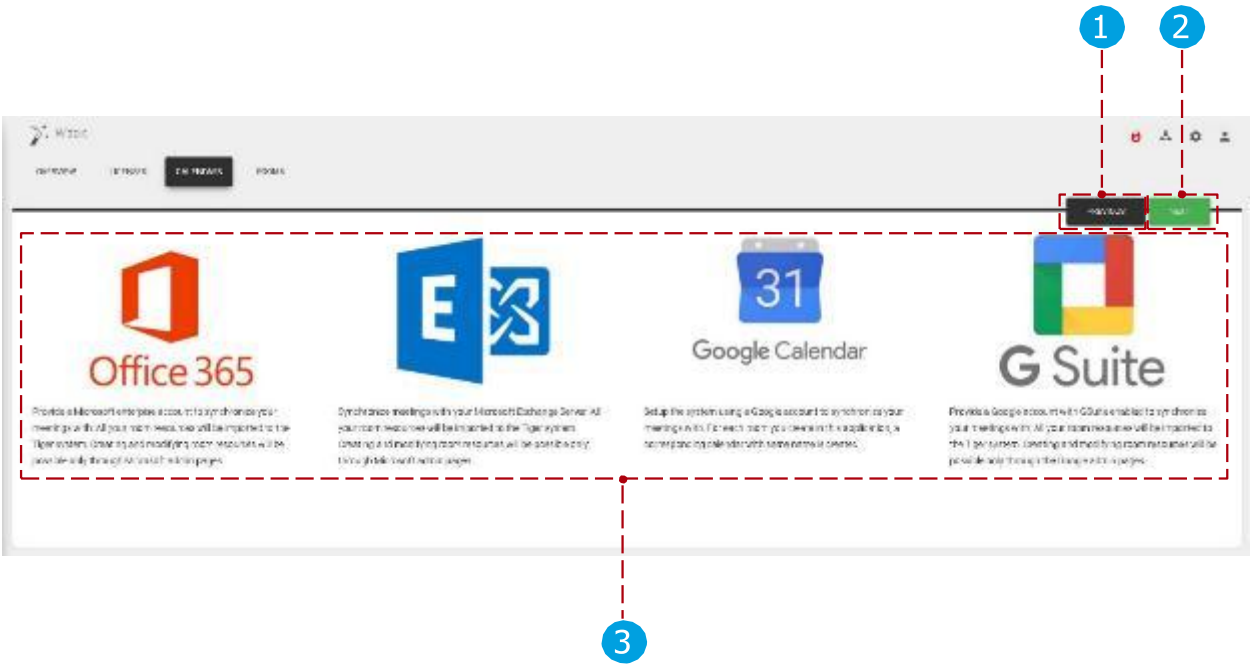


Licenses:

1. Previous: Go to previous setting, 'Overview'.
2. Next: Go to the next setting, 'Calendars'.
3. List of licenses: List of available licenses.
4. 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:

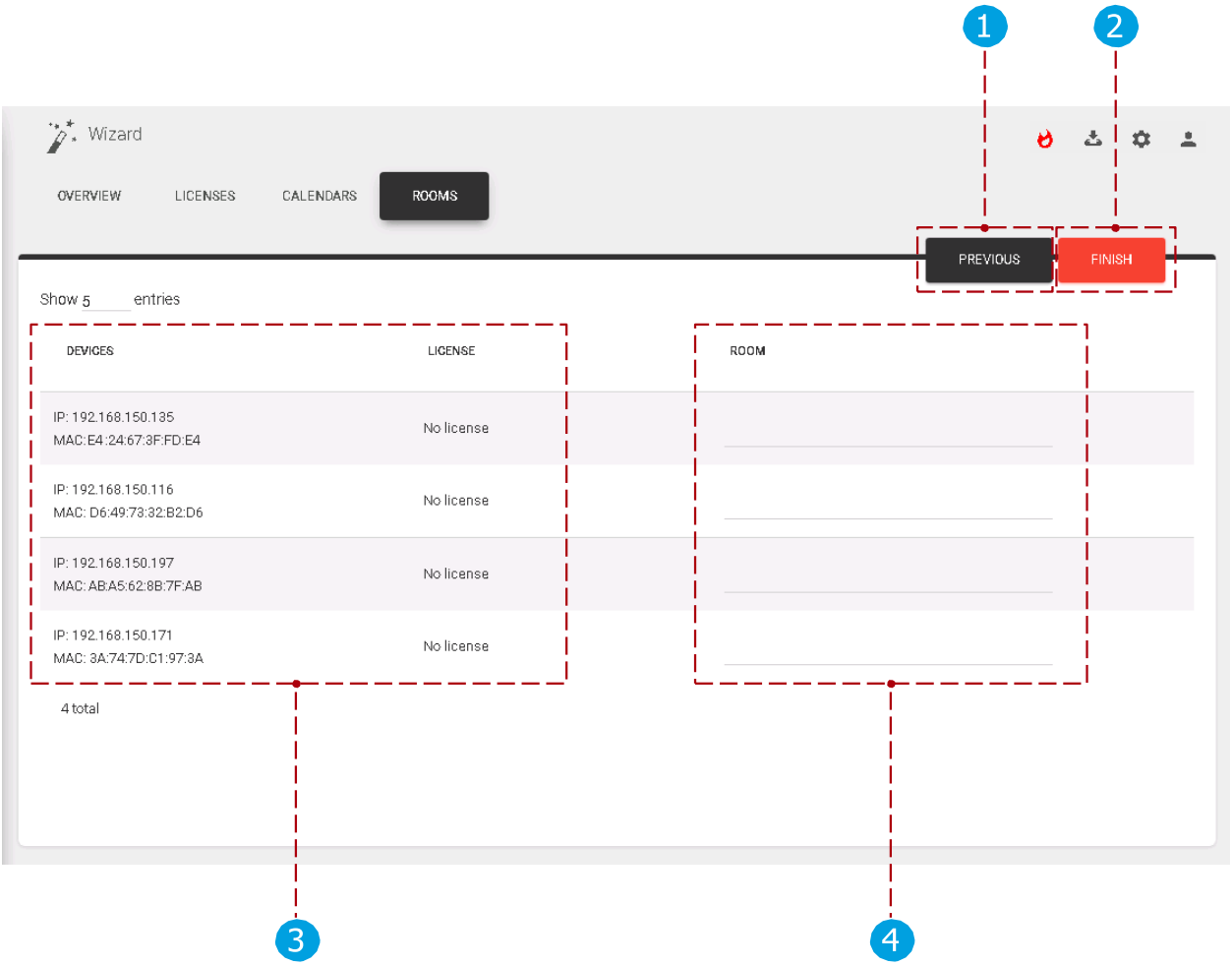
1. Previous: Go to previous setting, 'Licenses'.
2. Next: Go to the next setting, 'Rooms'.
3. List of calendars: List of attachable calendars. (Microsoft365, Exchange, Google, Google Workspace)

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. Intended for DEMO use.

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'.
2. 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.
4. 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.

Turn 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.

Start 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.

Run 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.

Configuring Microsoft365 calendar

This section is valid for all Microsoft Graph API based calendar systems – like Office, Office 365, Microsoft 365 and Exchange Online.

To use Microsoft365 calendar in the Tigermeeting admin application, it requires configuration prior attaching to the Tigermeeting.

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

REQUIREMENTS: -Admin user with at least an Office 365 E1 license
-defined room resources (resources do not need any license)

Please, use the very same Admin user for creating the room lists and for attaching the Microsoft 365 calendar in the Tigermeeting Admin application – in order to avoid permission issues when screens are communication with the calendar.

The Microsoft certified Tigermeeting Azure app requires the following Admin user permissions:

API / Permissions name	Type	Description	Admin consent req...	Status
Microsoft Graph (8)				
Calendars.ReadWrite	Delegated	Have full access to user calendars	No	Granted for tigermeetin...
Calendars.ReadWrite.Share	Delegated	Read and write user and shared calendars	No	Granted for tigermeetin...
offline_access	Delegated	Maintain access to data you have given it access to	No	Granted for tigermeetin...
openid	Delegated	Sign users in	No	Granted for tigermeetin...
Place.Read.All	Delegated	Read all company places	Yes	Granted for tigermeetin...
Place.Read.All	Application	Read all company places	Yes	Granted for tigermeetin...
profile	Delegated	View users' basic profile	No	Granted for tigermeetin...
User.Read	Delegated	Sign in and read user profile	No	Granted for tigermeetin...
Office 365 Exchange Online (3)				
Calendars.ReadWrite.All	Delegated	Read and write user and shared calendars	No	Granted for tigermeetin...
Place.Read.All	Delegated	Read all company places	Yes	Granted for tigermeetin...
User.Read	Delegated	Read user profiles	No	Granted for tigermeetin...

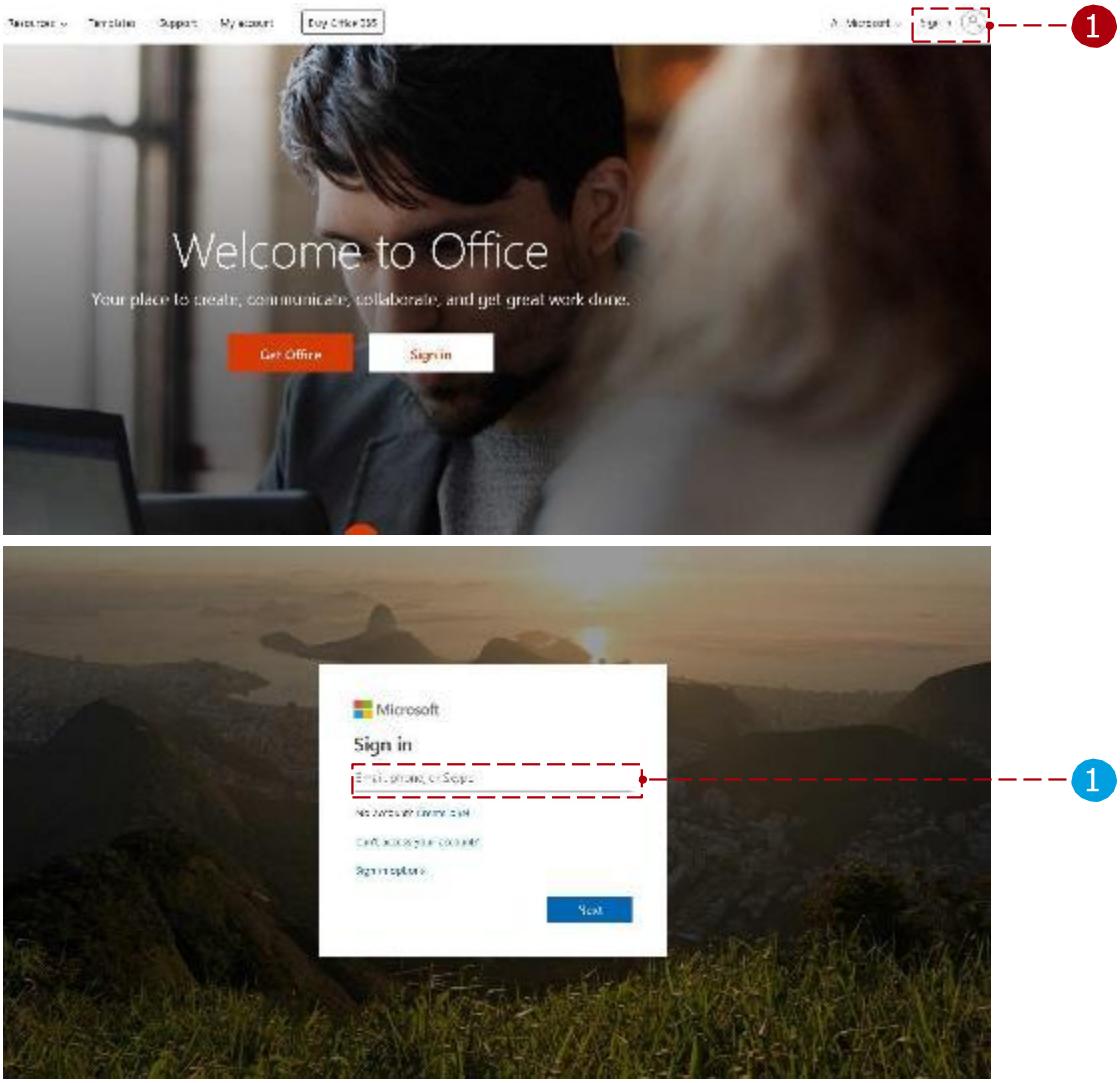
These permissions are accepted during Microsoft's secure admin user authentication process.

To accomplish the successful Microsoft 365 integration with Tigermeeting, follow the steps below:

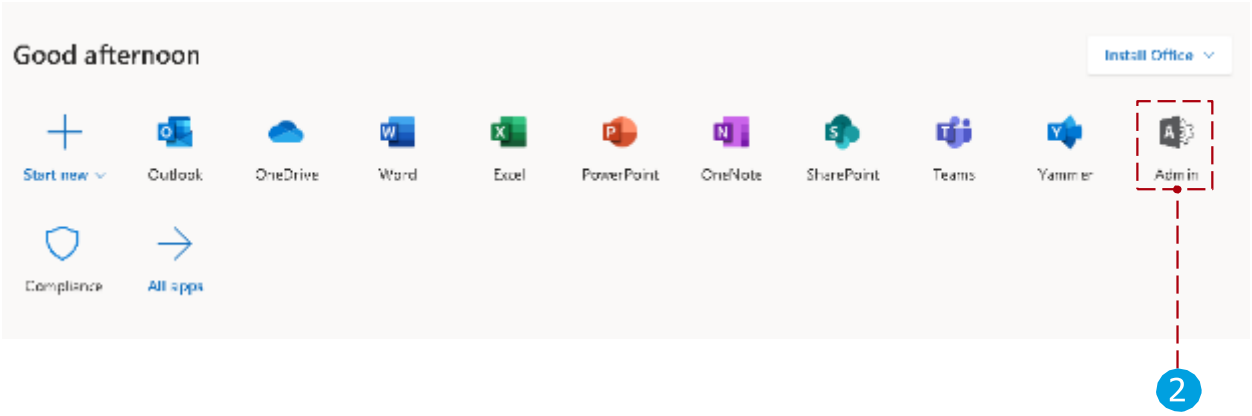
Microsoft365 admin panel

- Go to https://www.office.com or https://microsoftonline.com

1. Press the "Sign in" button.
    1. Enter username and password.
        Username: admin@company.onmicrosoft.com
        Password: **********



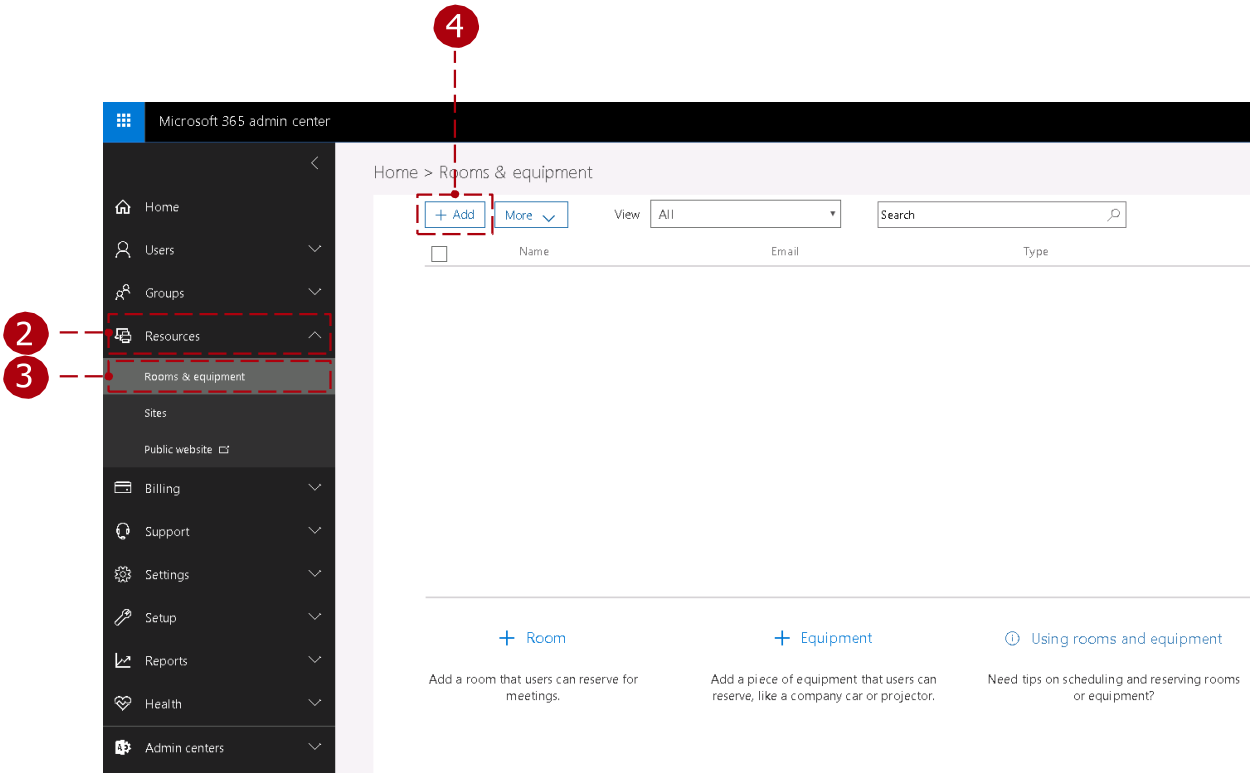
2 Select the admin center.



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:

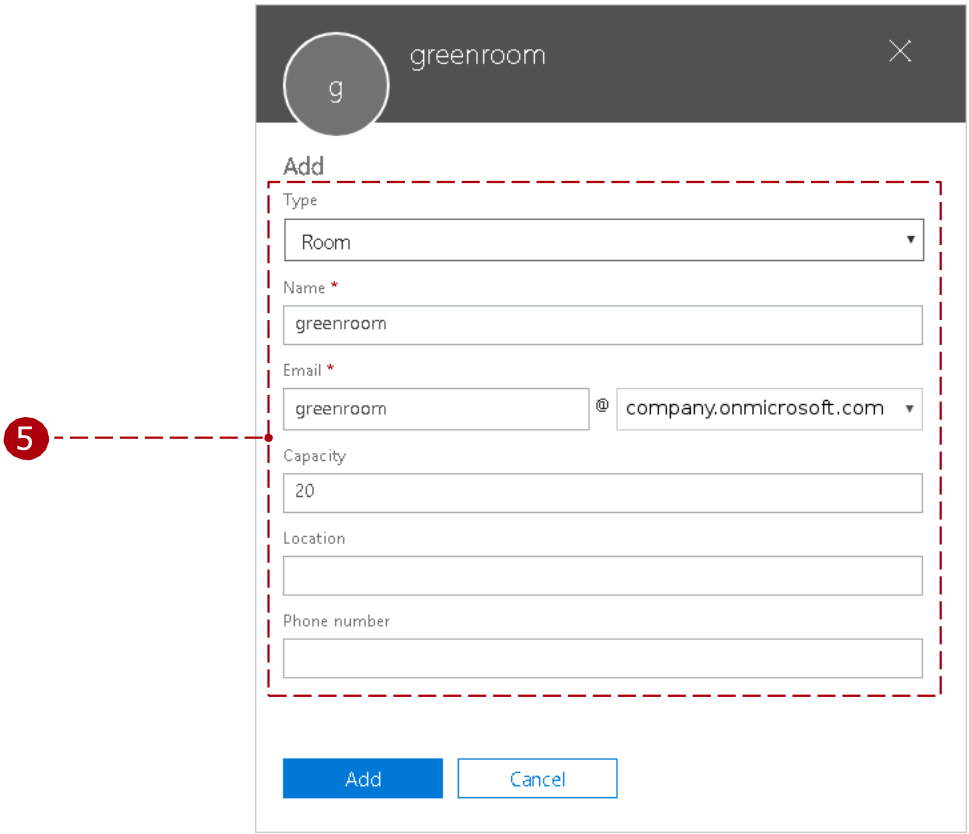
2 Select "Resources" menu.
3 Select "Rooms & equipment" submenu.
4 Create new room resources with the "+ Add" button.



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.

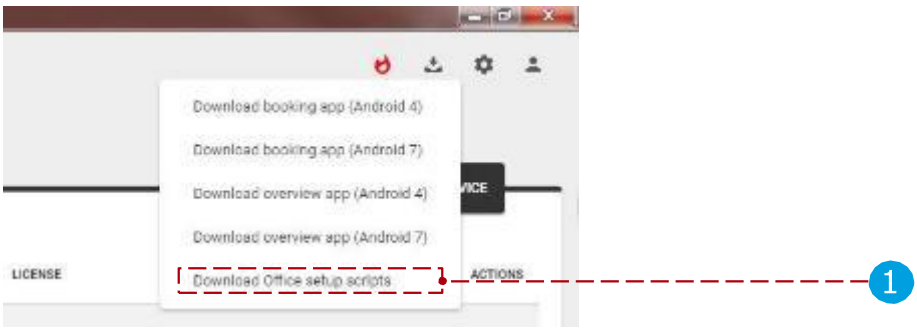
Or manually:

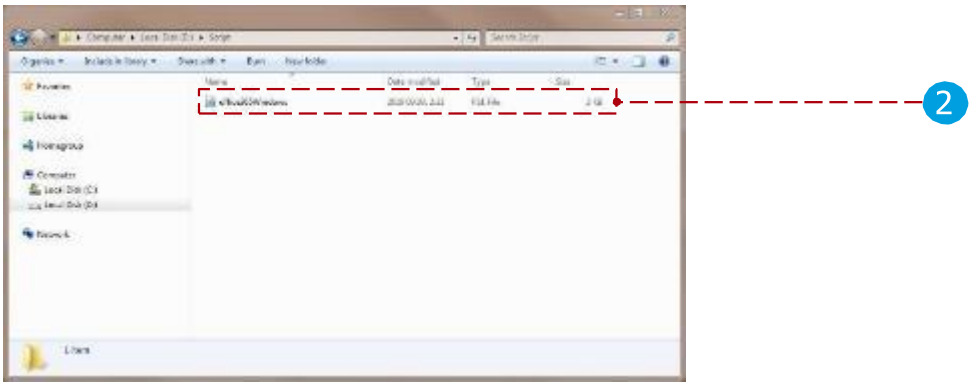
To configure the Microsoft365 calendar, follow the steps under "Manual configuration".

Configuration by using the Microsoft 365 setup helper script

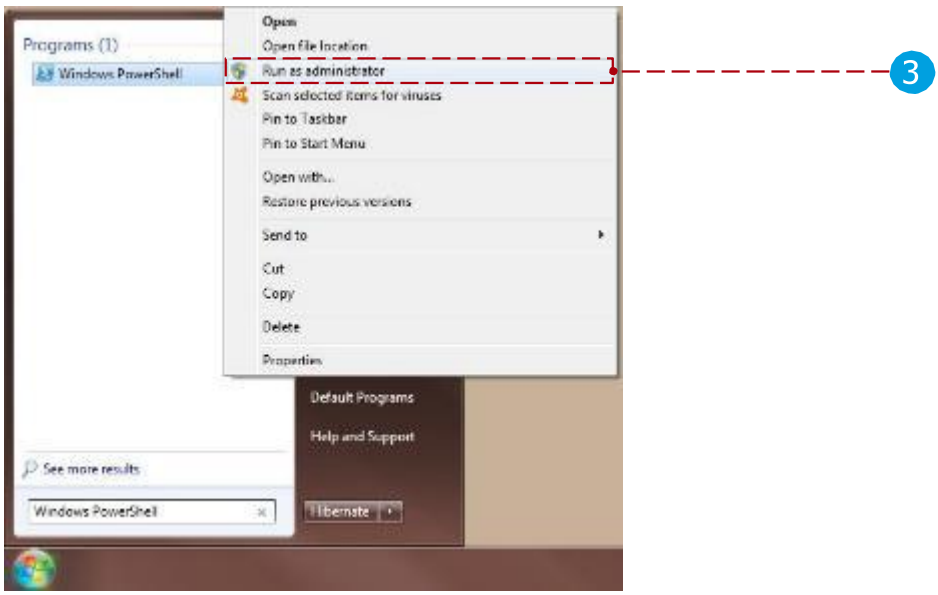
Follow these steps:

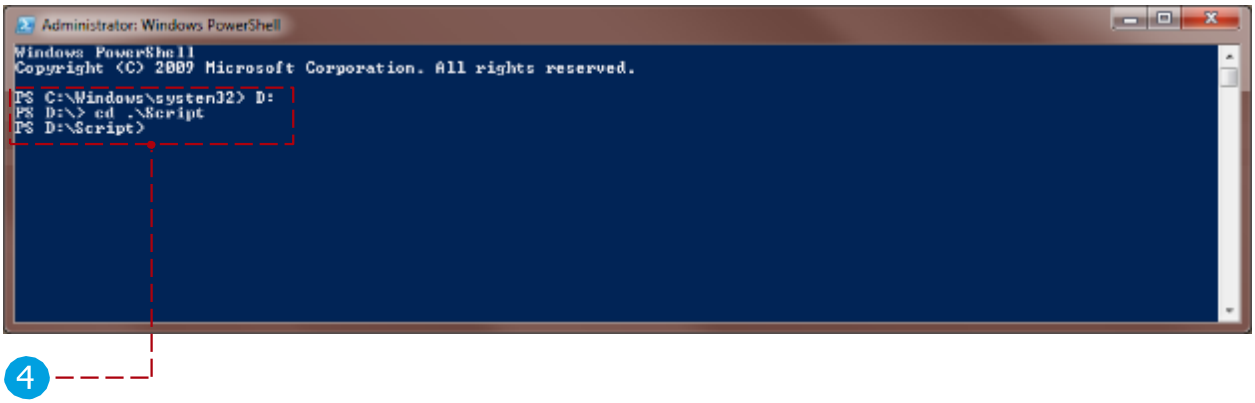
1. Download the setup script through the admin application. In the downloaded file, the script works with Microsoft365, Exchange Online and on premises Exchange Server configurations, used on Linux, MacOS, and Windows operating systems.
2. Extract downloaded file. (In this example Microsoft365 script will be used for Windows operating system)





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



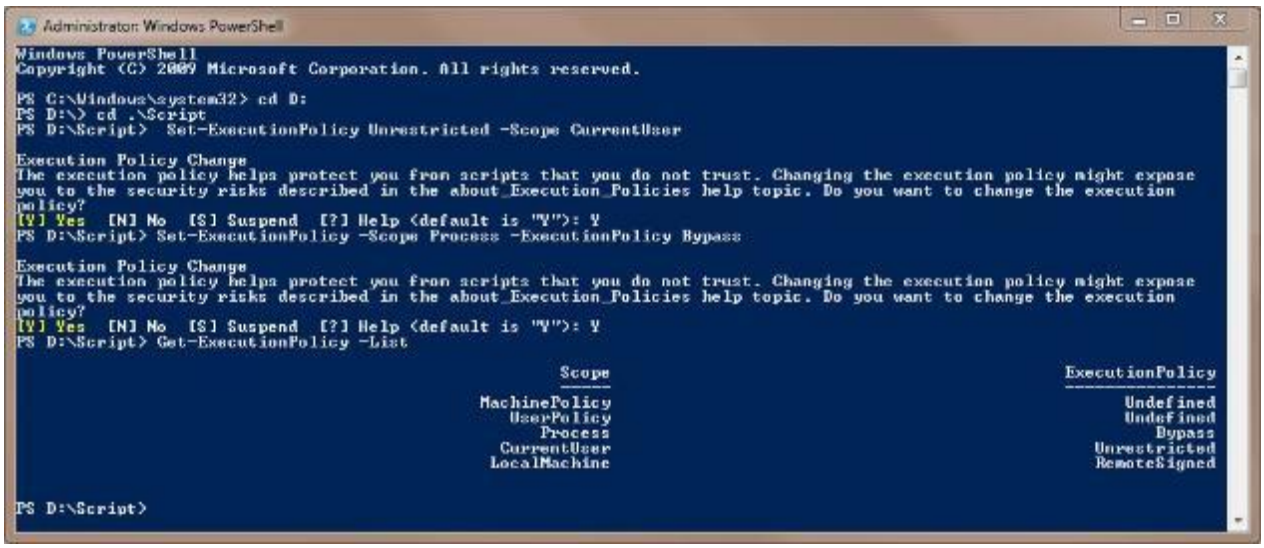


Use the following commands:

1. Change execution policy to run script:
   Set-ExecutionPolicy Unrestricted -Scope CurrentUser
   When asked to change policy type, type "Y" and press enter.

2. Set process "Bypass" policy:
   Set-ExecutionPolicy -Scope Process -ExecutionPolicy Bypass
   When asked to change policy type, type "Y" and press enter.

3. Display execution policy list: Get-ExecutionPolicy -List



Running the Microsoft365 helper script

NOTE: This is the recommended way of configuring the room lists. There is a whole chapter dedicated to the Microsoft 365 helper script, a few chapters below. Please, follow the more up to date instructions there.

Manual configuration

The manual configuration chapter has been removed to avoid confusion.
Please, use the Microsoft365 helper script for the RoomList configuration – see the dedicated chapter below for detailed instructions.

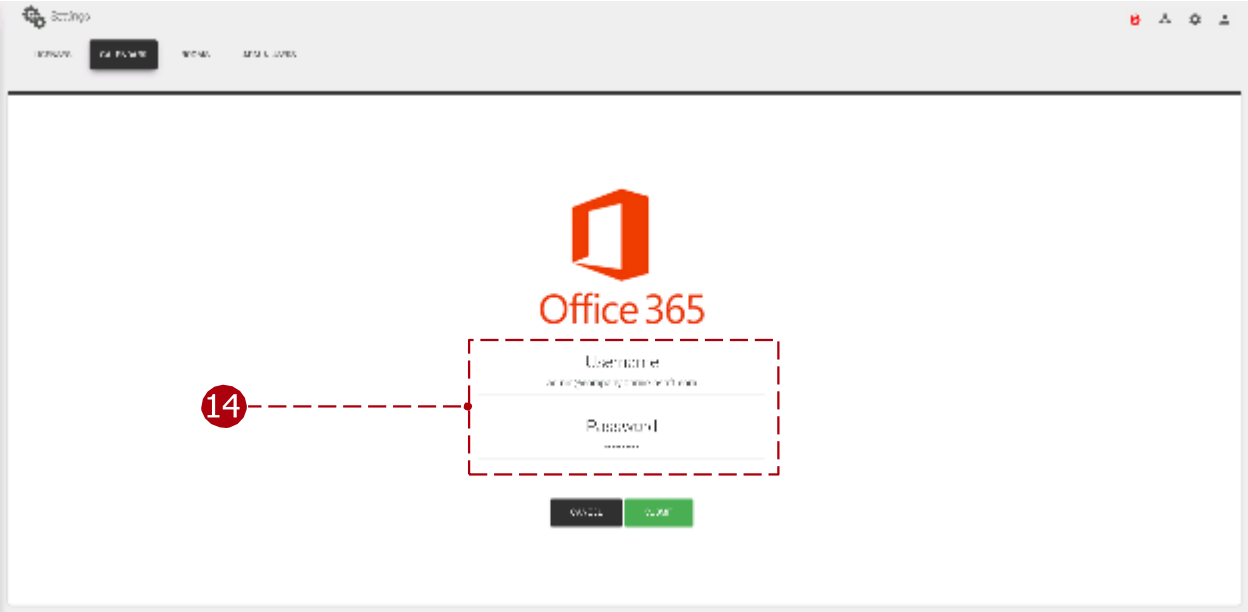
Instructional video:

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

Tigermeeting admin application

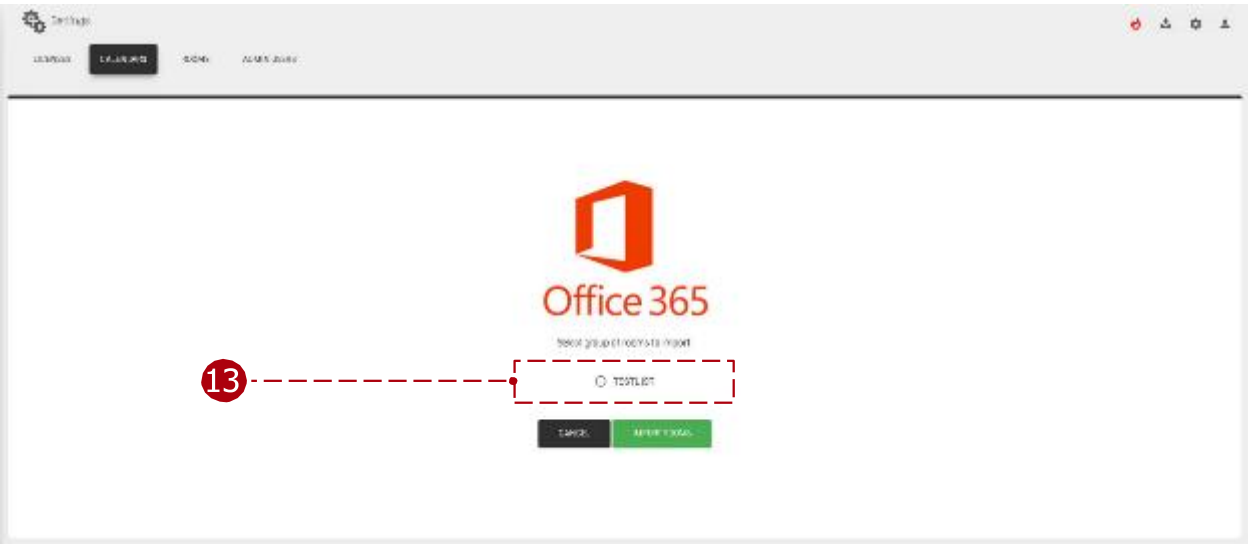
14 Attach Microsoft365 calendar with the following user parameters:

Username: admin@company.onmicrosoft.com
Password: **********



Choose the desired room list from the configured room lists.

Please note: if the roomlists are configured with PowerShell (like using the Microsoft 365 helper script) – it can take few hours even a day before the changes are available in Azure Apps.



Configuring Exchange calendar

Tigermeeting has full support for the on-premises Exchange Server calendar integration.

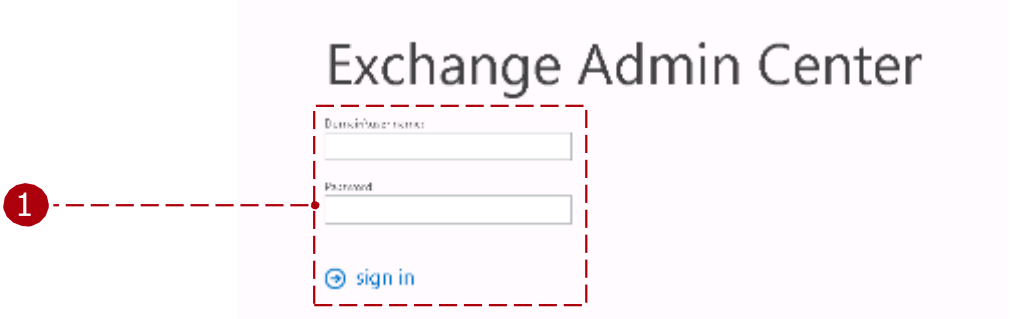
NOTE: Exchange Online is a different calendar product that uses Microsoft's Graph API – for the configuration steps, please follow the Microsoft 365 calendar related chapter.

To use the Exchange calendar (Microsoft Exchange Server – on premises) 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

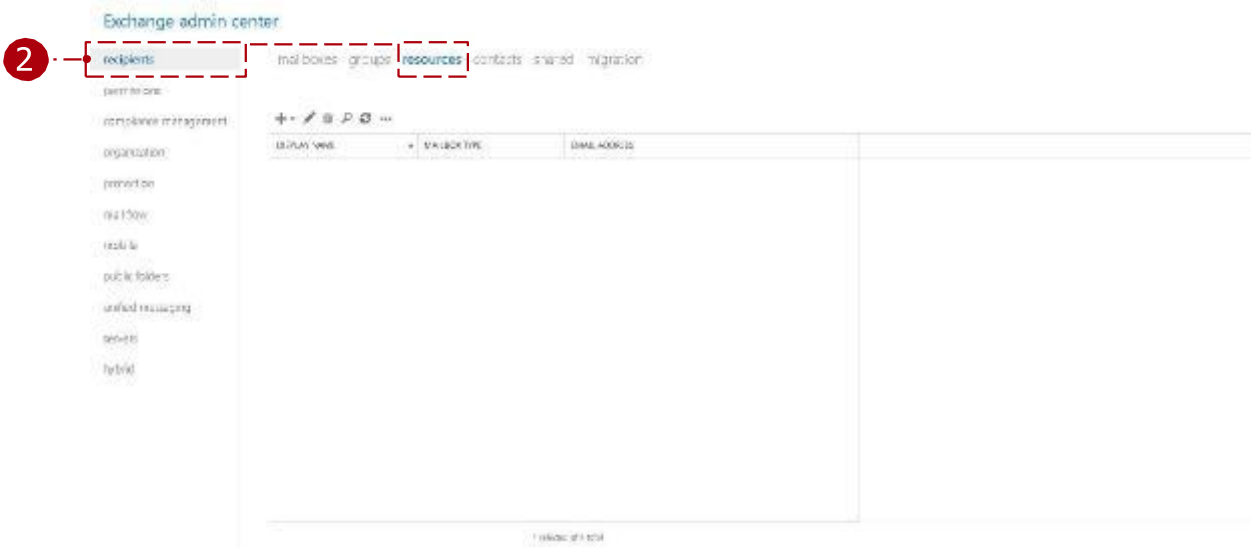
Go to a https://exchange/ecp .

1. Enter username and password.
   - Username: admin
   - Password: **********

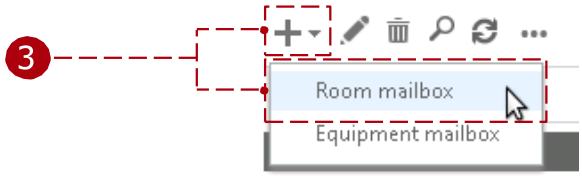


After login:

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.)



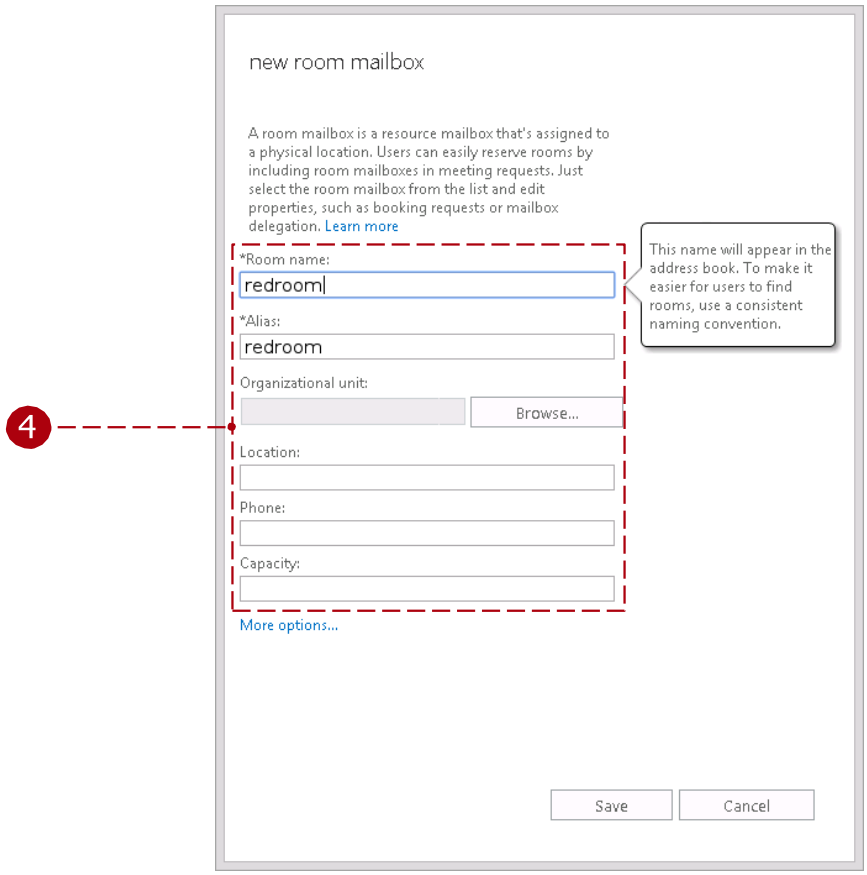
3 Press the New (Plus) icon, and from the dropdown list select "Room mailbox".



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.

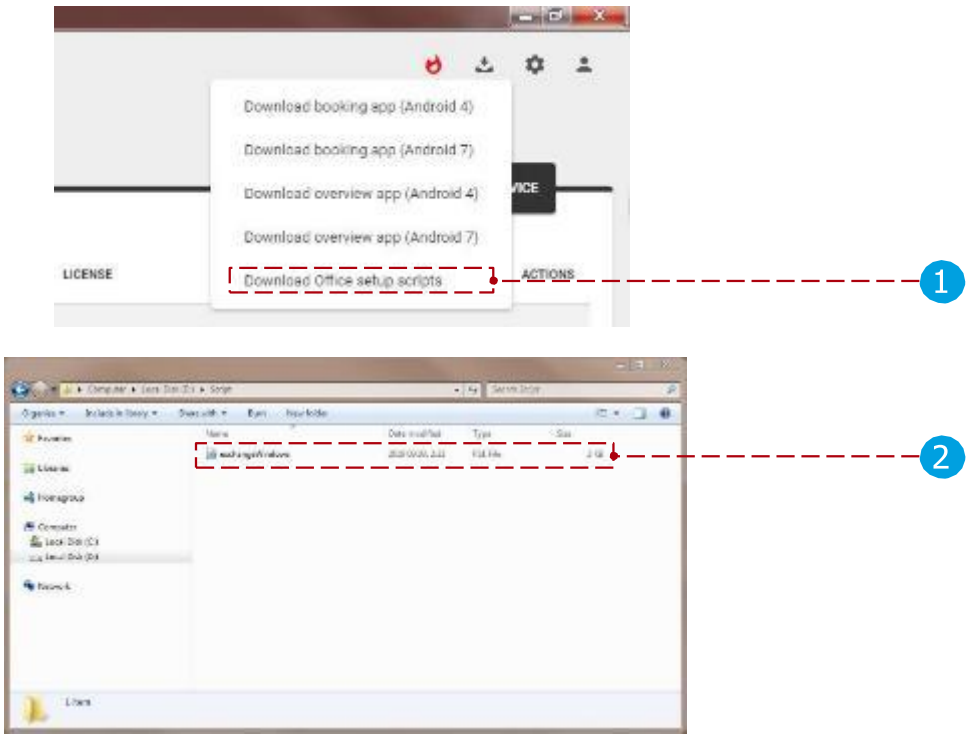
Or manually:

To configure the Microsoft Exchange calendar, follow the steps under "Manual configuration".

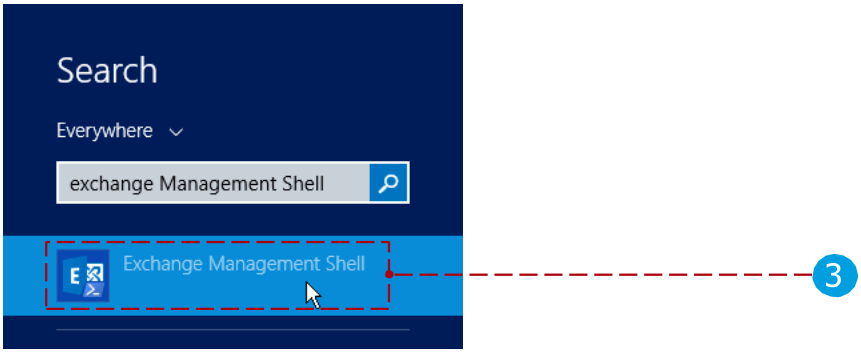
Configuration with the Microsoft helper script

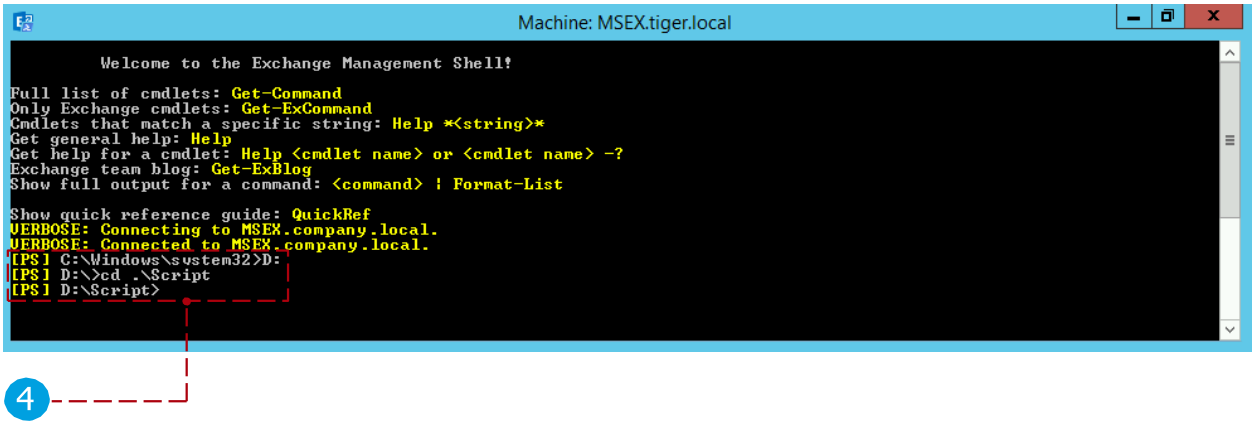
In order to download the Microsoft365 helper script follow these steps:

1. Download the setup script through the admin application. In the downloaded file, the scripts 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.





Running the Microsoft365 helper script

NOTE: This is the recommended way of configuring the room lists. There is a whole chapter dedicated to the Microsoft 365 helper script, a few chapters below. Please, follow the instructions there.

Manual configuration

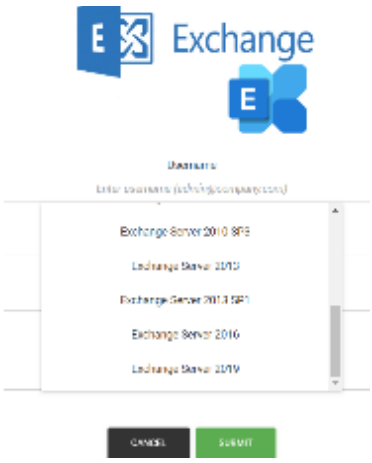
The manual configuration chapter has been removed to avoid confusion.
Please, use the Microsoft365 helper script for the RoomList configuration – see the dedicated chapter below for detailed instructions.

Tigermeeting admin application

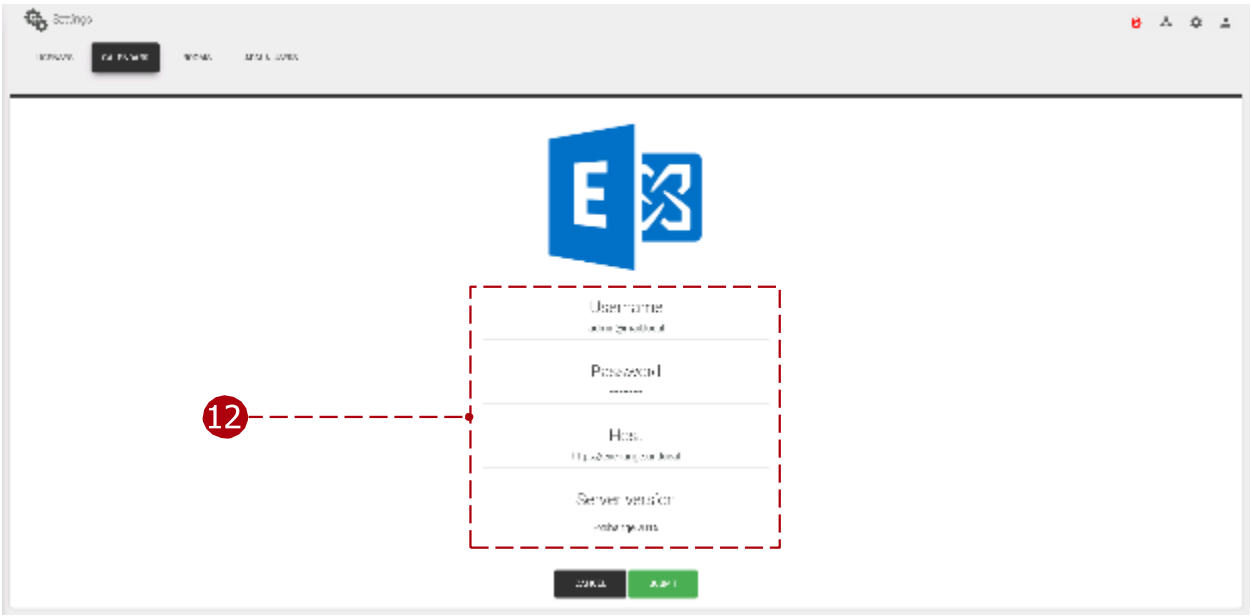
12 Attach exchange calendar with the following user parameters:

- Username: admin@mail.local (use full email address)
  Password: **********
- Host: https://exchange.url.local (If the server uses 'http' or 'https' protocol - use what the server expects)
- Server version: Example: “Exchange 2016”

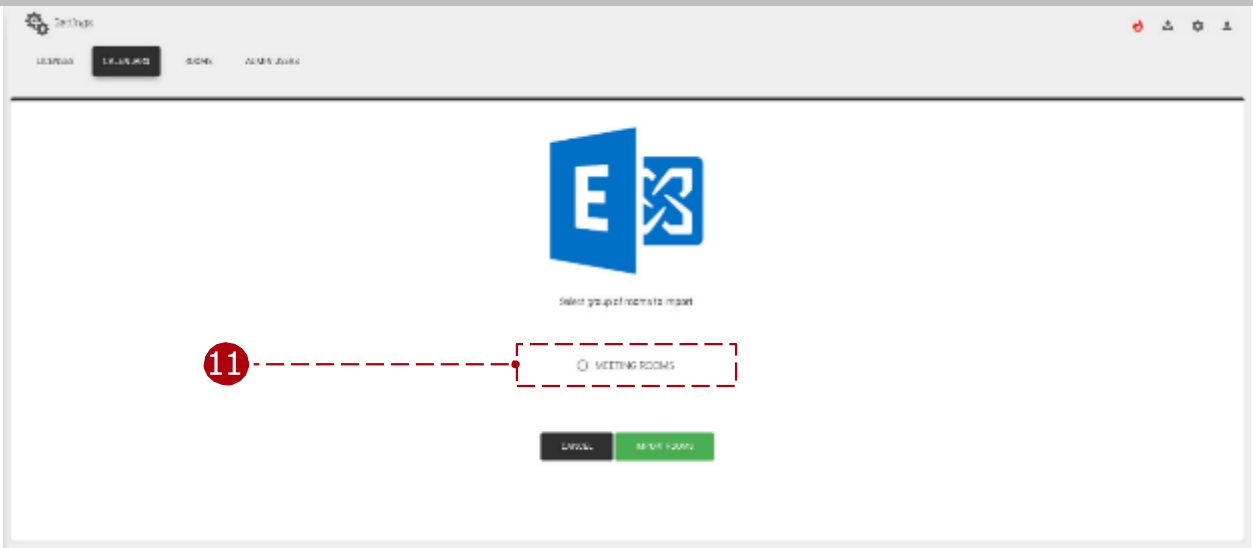
NOTE: Tigermeeting is compatible with Microsoft Exchange servers 2007 to 2019.
It is important to set the actually used Exchange server version as the API schemas are different, and they are server version dependent.



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.

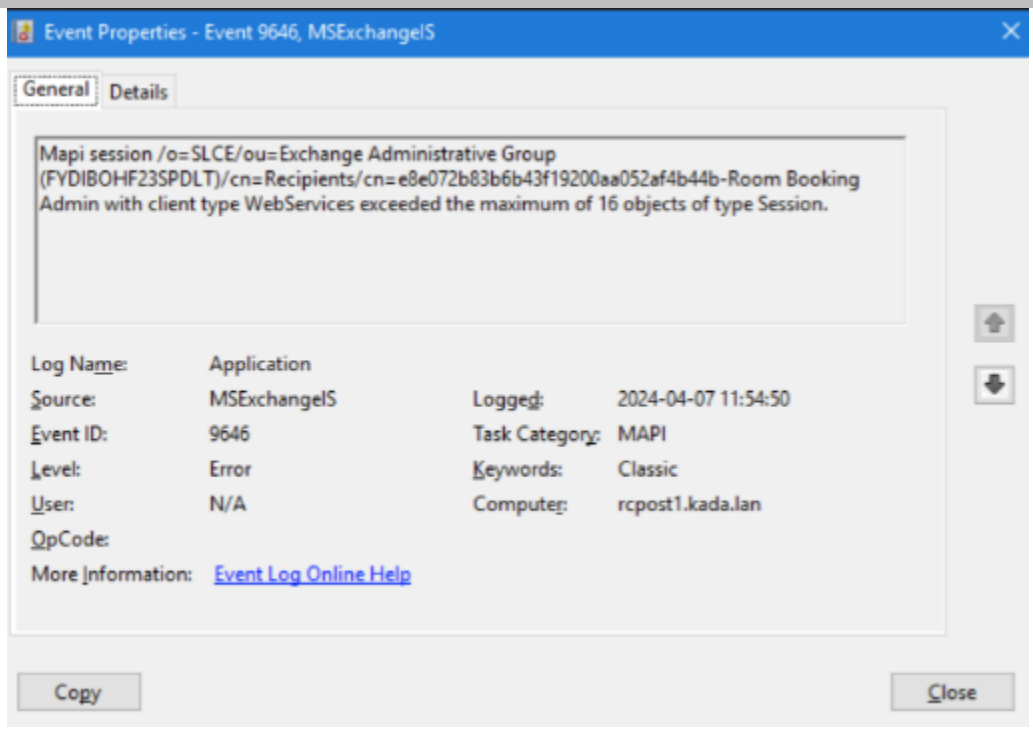
IMPORTANT NOTES

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 (MSExchangeIS) "**client type WebServices exceeded the maximum of 16 objects of the type "Session"** events will appear



The solution is to raise the limits on 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/MSExchangeIS/ParametersSystem]
"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 limits 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.

On-premises Exchange Server or Exchange

Please note that the Microsoft Exchange Server (on-premises Exchange) and Microsoft Exchange Online are different products even though they serve very similar purpose, but the underlaying technology stack is radically different.

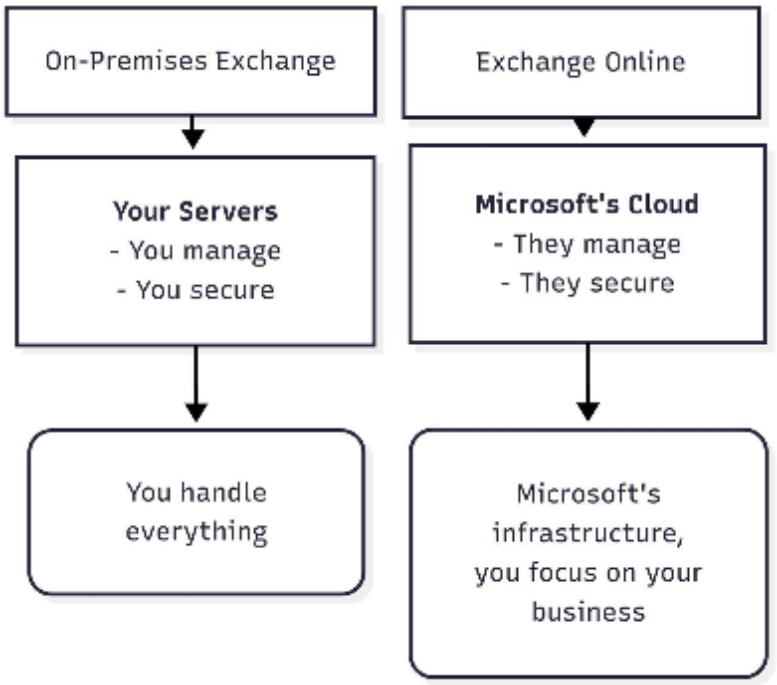
Exchange Online is Microsoft's cloud-based email and calendaring service that is part of the Microsoft 365 suite.

Also Exchange Online is using the Graph API, that is capable of building hybrid architecture with on-prem Exchange.

For configuring the calendar for Exchange Online, please use the setup guide for

Microsoft 365.

Please, look at the graphical comparison below:



Microsoft365 helper script

Introduction

Microsoft365, Exchange Online and the 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.

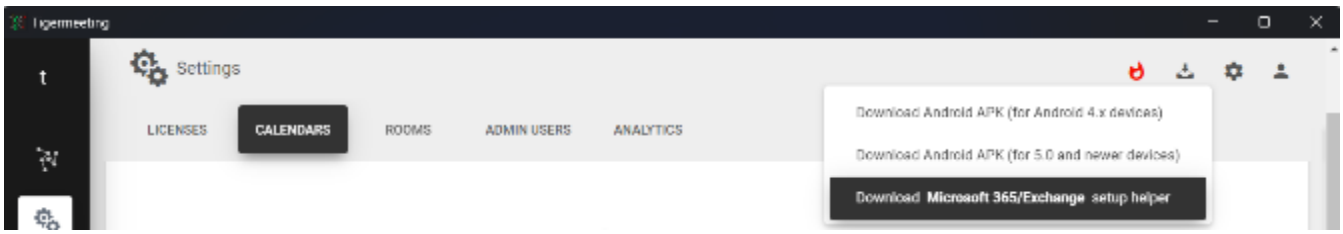
Room list management can be done in the Admin panel or using PowerShell commands – but Tigermeeting customers had troubles setting up themselves, therefore Tigermeeting developers have created a simple, menu based tool that help with the roomlist management.

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

Start->Windows 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 or Exchange Online

- 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

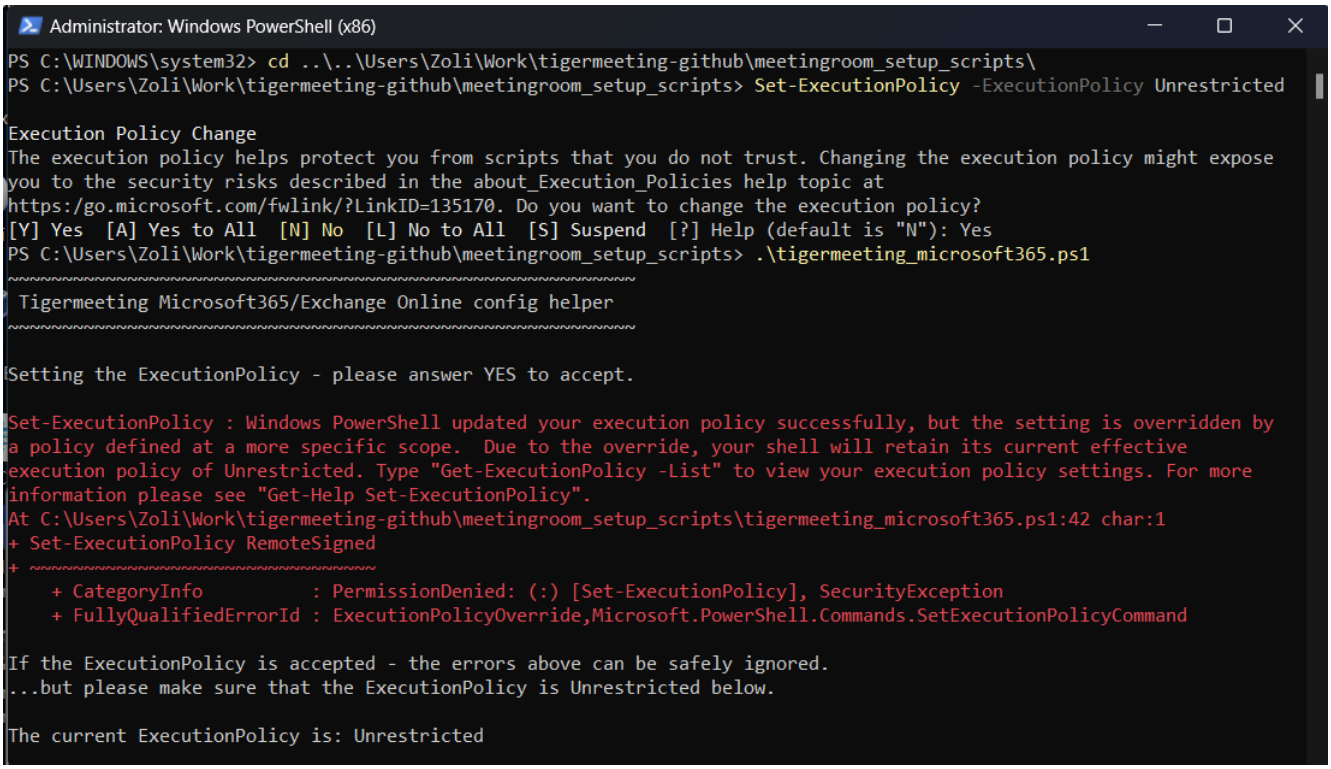
- Login to your Exchange admin center
- On the left menu: recipients -> resources
- add, delete and edit the room resources

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)

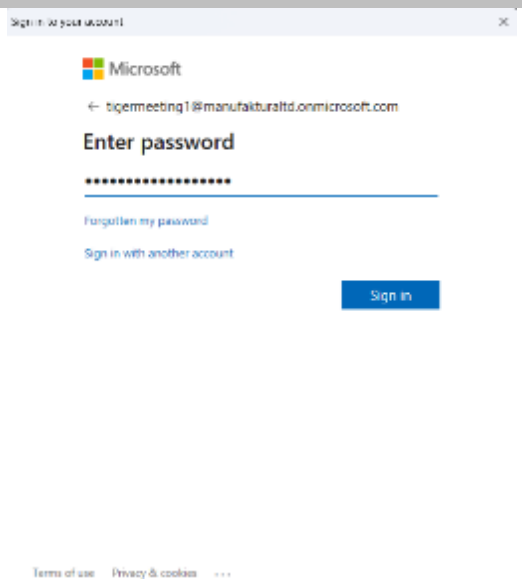
1. Start PowerShell as an Administrator
2. Change to the directory where the script is:
   cd Tigermeeting-Microsoft-helper

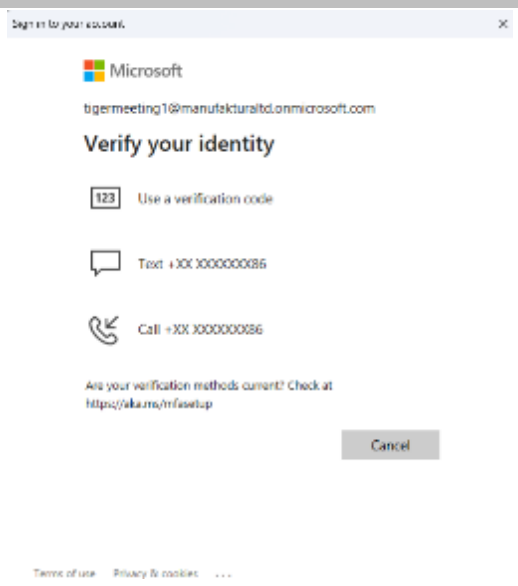
The execution policy MUST be set before running the script:
Set-ExecutionPolicy -ExecutionPolicy Unrestricted



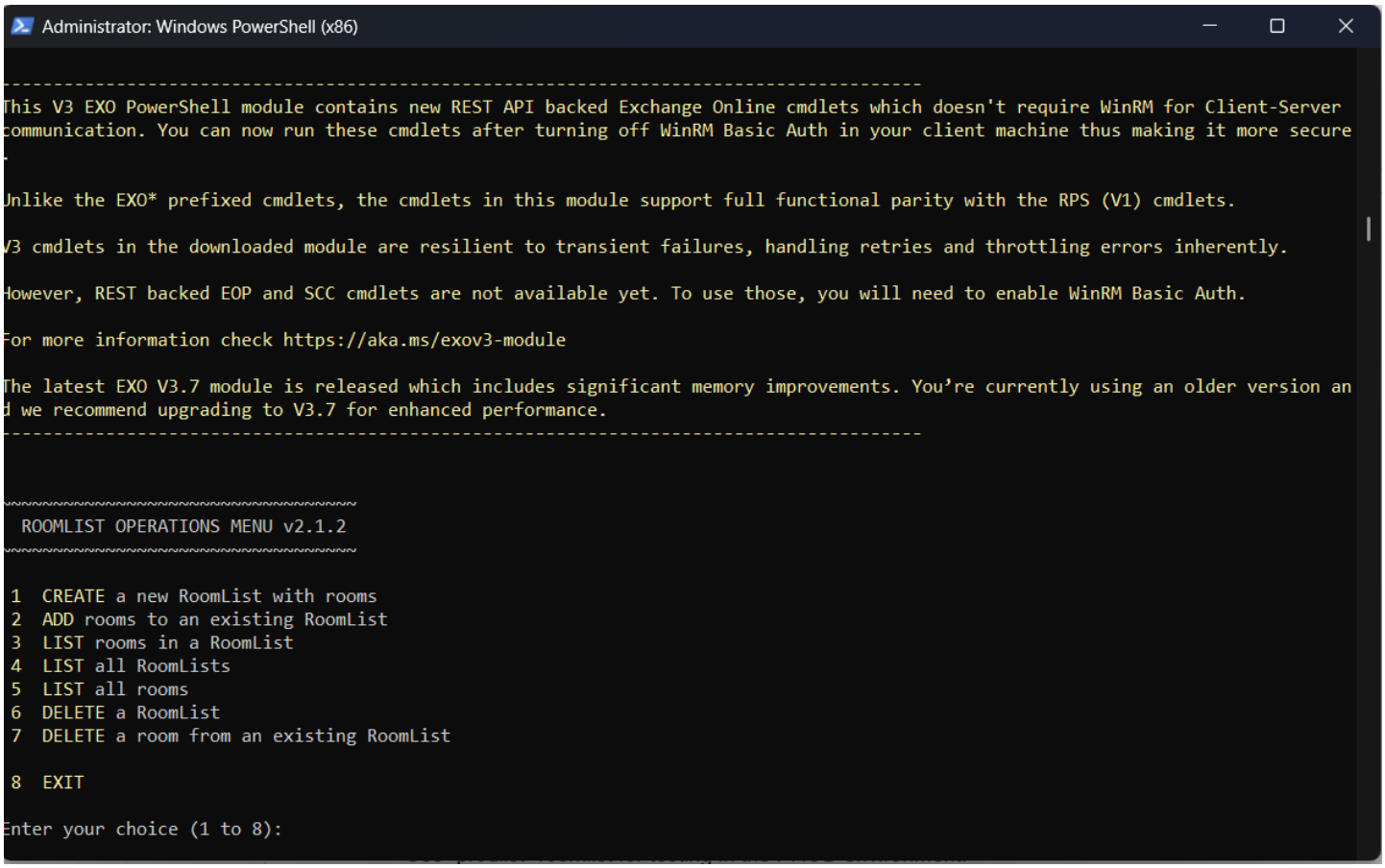
Authenticate the Administrator. To make sure that the roomlists are accessible for the Admin user that will be used to the Authentication and calendar operations, the best practice is to use the same Admin credentials.

NOTE: The authentication supports MFA – Multi Factor Authentication too.





After 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

Important usage notes

Please note:

- This script deals just with roomlists: creates, lists, deletes.
- One room/room resource can be part of several roomlists.
- Deleting a roomlist do not delete the room resources
- The rooms are not affected by any RoomList related operation.

IMPORTANT: the changes are permanent and made directly in the Azure/Exchange repository. **THERE IS NO ROLLBACK OPTION AVAILABLE**

Please, keep in mind that RoomList and room identities are email addresses in the Microsoft365/Azure/Exchange repositories, while the display names can be whatever – without any limitations.

This script will operate well if RoomList identities are one word, without special and unicode characters suitable for email identities, otherwise Microsoft will create an email from your Room List name that might not be unique or is hard to identify."

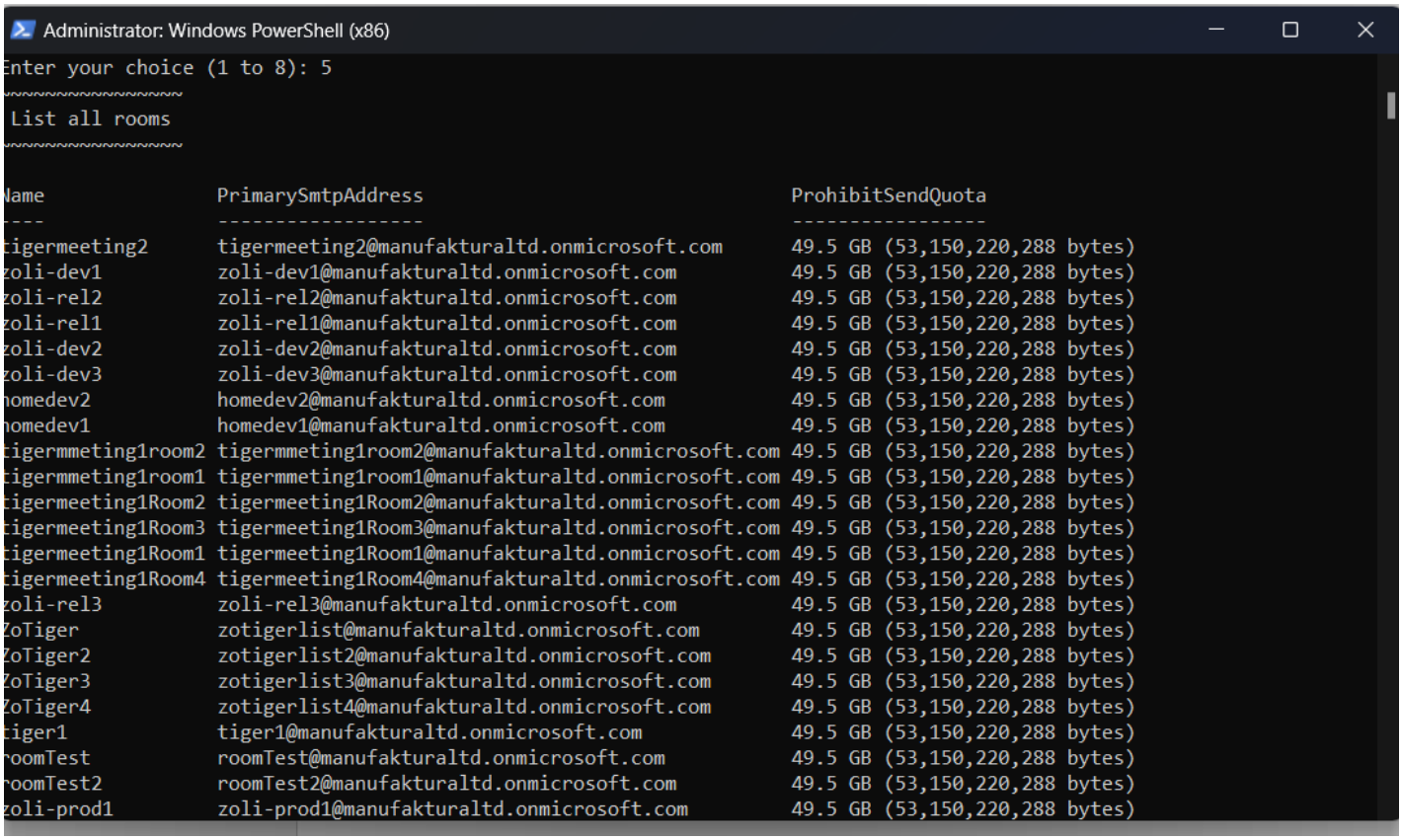
For room and RoomList identification, please use the “user” part of the PrimarySmtpAddress

Name	PrimarySmtpAddress
p_Stockholm	p_Stockholm@manufakturaltd.onmicrosoft.com
p_Berlin	p_Berlin@manufakturaltd.onmicrosoft.com
p_กรุงเทพฯ	p_Bangkok@manufakturaltd.onmicrosoft.com
p_上海	p_Shanghai@manufakturaltd.onmicrosoft.com
SE-Conf-VHG Kylskåpet (Room 4p) - Väderholmens Gård	kylskap@manufakturaltd.onmicrosoft.com

In this example using room identifiers p_กรุงเทพฯ or p_上海 will not be identified as room resources. **P_Bangkok** and **p_Shanghai** need to be used.
The same is valid for “SE-Conf-VHG Kylskåpet (Room 4p) – Väderholmens Gård” or kylskap@manufakturaltd.onmicrosoft.com. The correct identification for this room resource is **kylskap**

Common use case

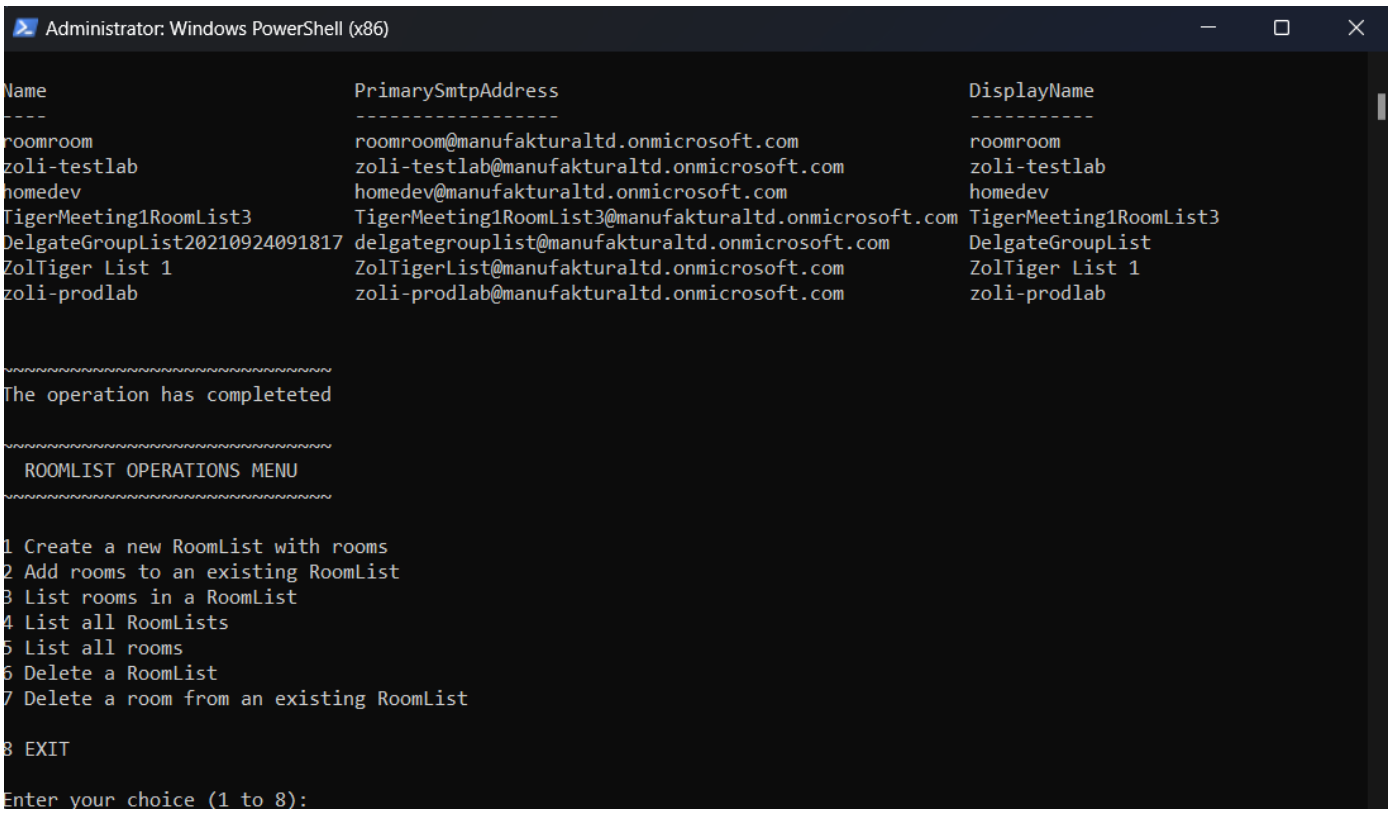
Verify if all the required room resources are created in the Microsoft365/Exchange Admin panel
press 5



The listed rooms can be bundled into room lists.

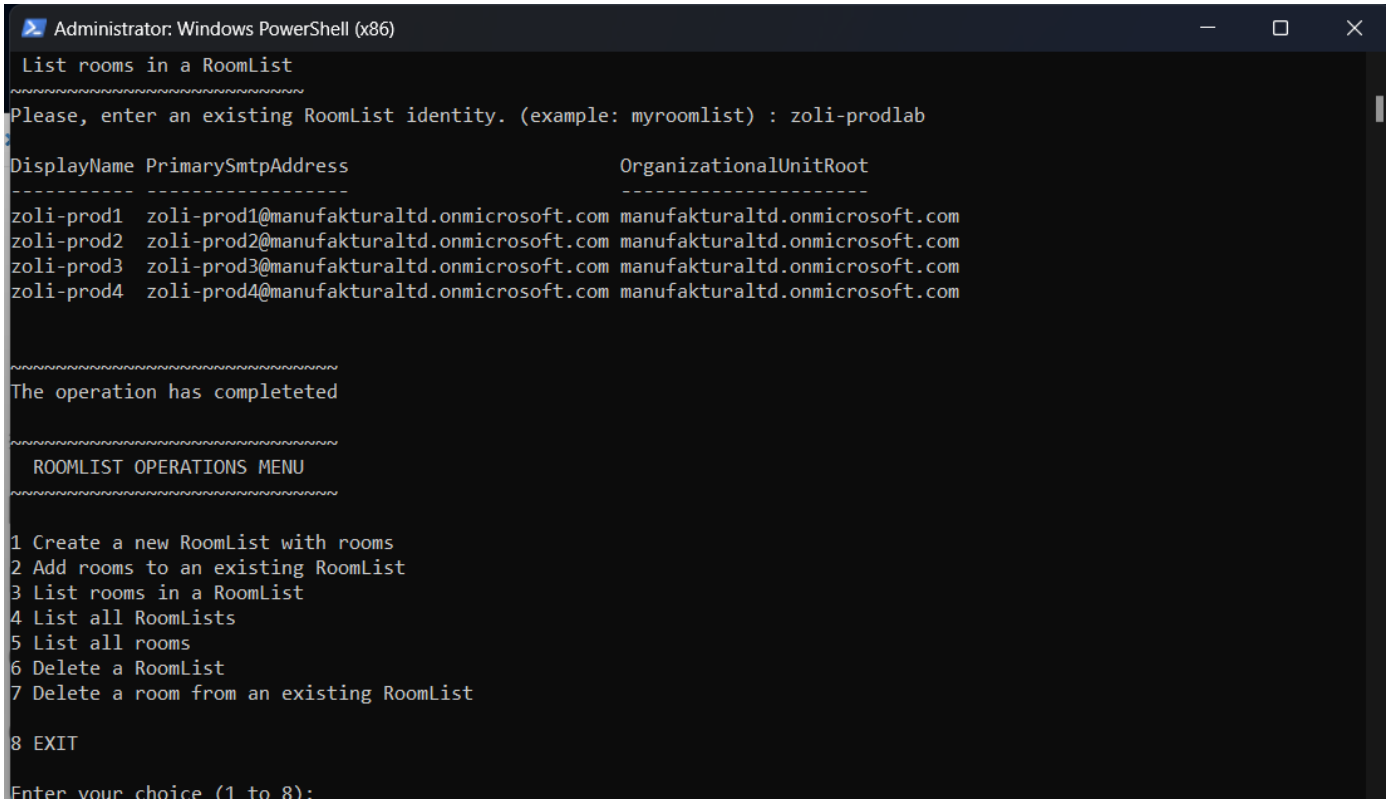
You can copy paste room names later when needed.

List currently defined roomlists: **press 4**



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**



For deleting a room from a RoomList, **press 7**
In this case the room resource's full e-mail/PrimarySmtpAddress is needed for the identification – like: kylskap@manufakturaltd.onmicrosoft.com (see below the example)

Also confirmation is needed.
Please answer [Y] Yes or [A] All to confirm the operation

```
~~~
```

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 apps used for interfacing towards the Azure app consumers – like the Tigermeeting Admin app - do not see the updates immediately.

The experienced delay with the Azure app in reflecting changes made via PowerShell is likely due to the caching mechanisms within Azure services. When changes are made through PowerShell, they are directly applied and visible when queried from the same interface. However, Azure apps may have different synchronization intervals or cache refresh rates, which can lead to a delay in reflecting these changes.

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 workaround is to try to import the roomlists to the Tigermeeting Admin App a few hours or even one day later.

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

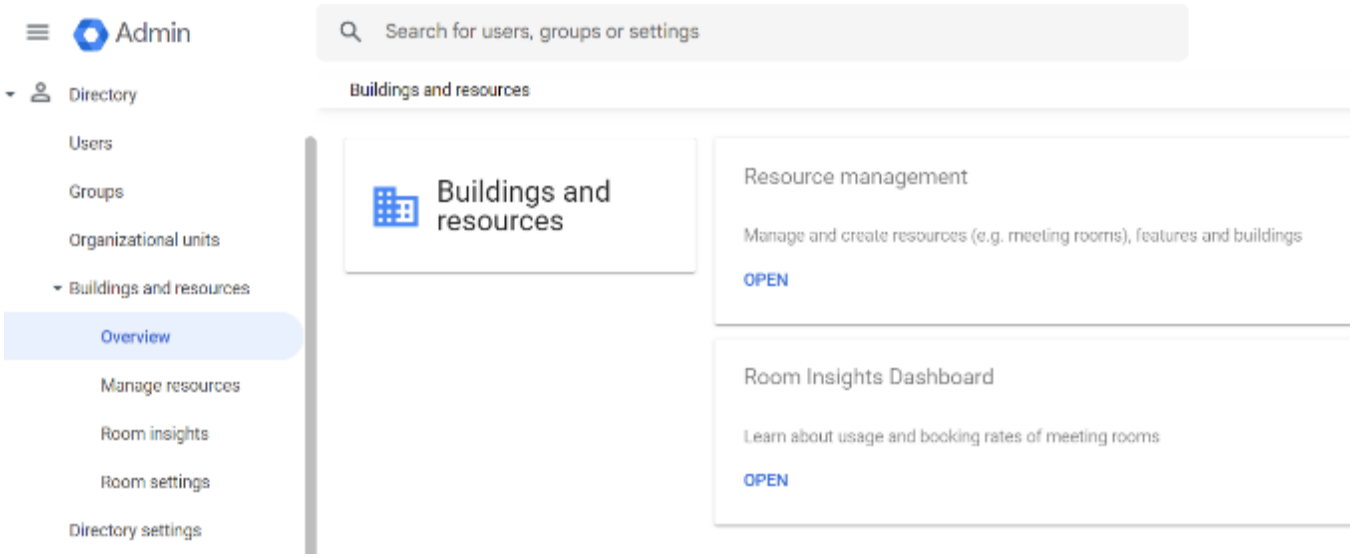
Configuring Google Workspace

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

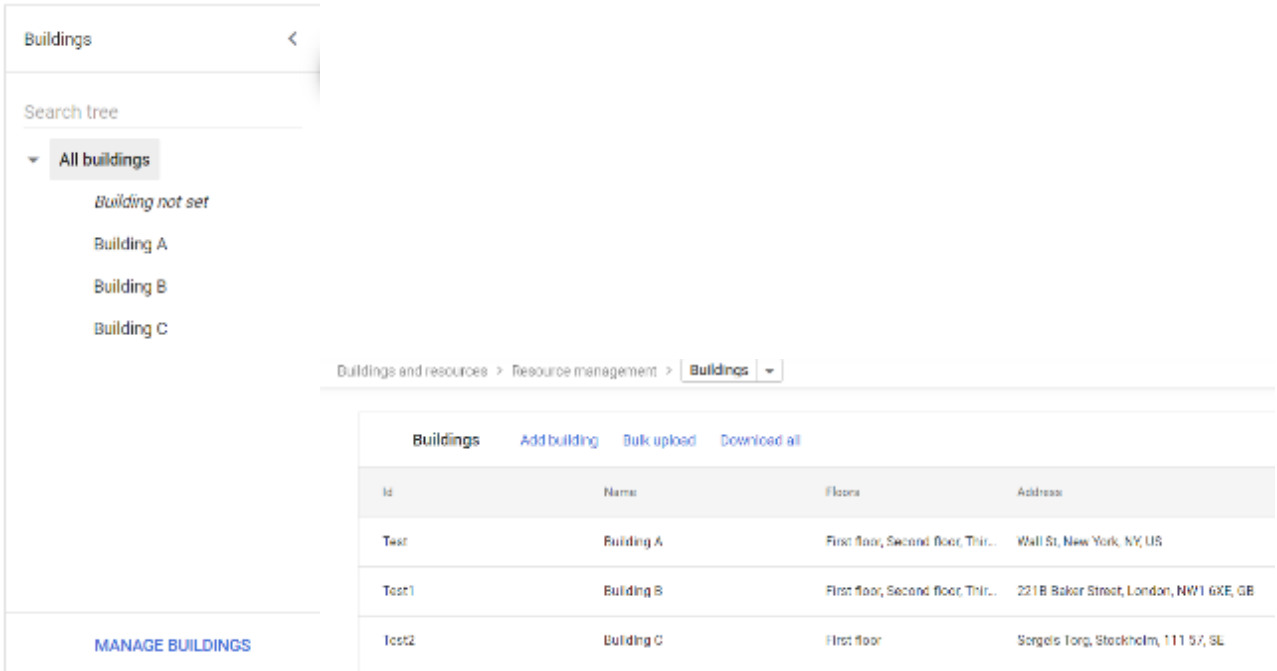
Creating and modifying room resources will be possible only through the Google-Workspace admin pages. Tigermeeting, does not modify room resources, therefore the “room info” and the “capacity” are not editable in the Admin Application.

Navigate your browser to https://admin.google.com/u/2/ac/calendarresources/resources

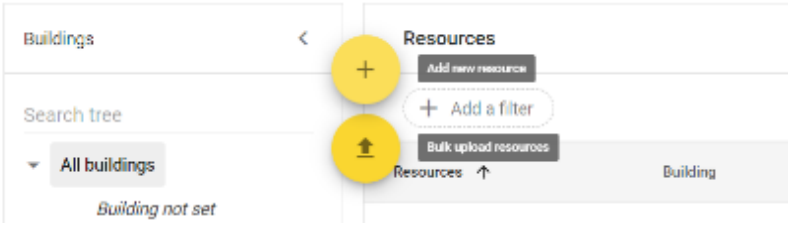
Open Resource management

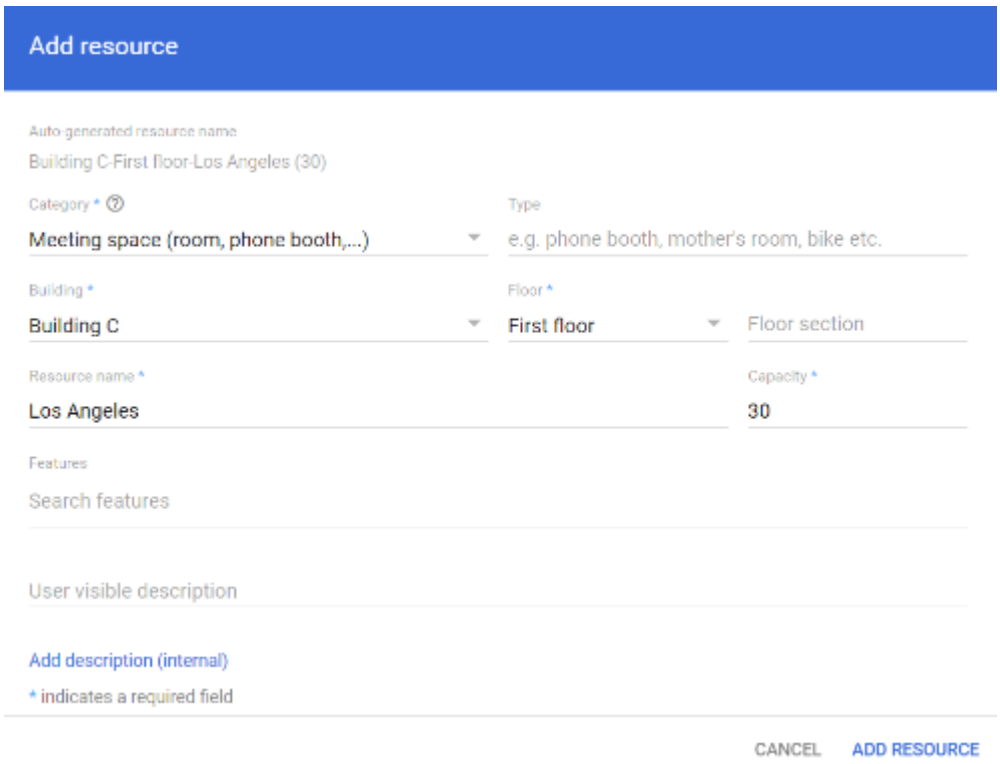


Edit and Manage Buildings where the room resources are located.

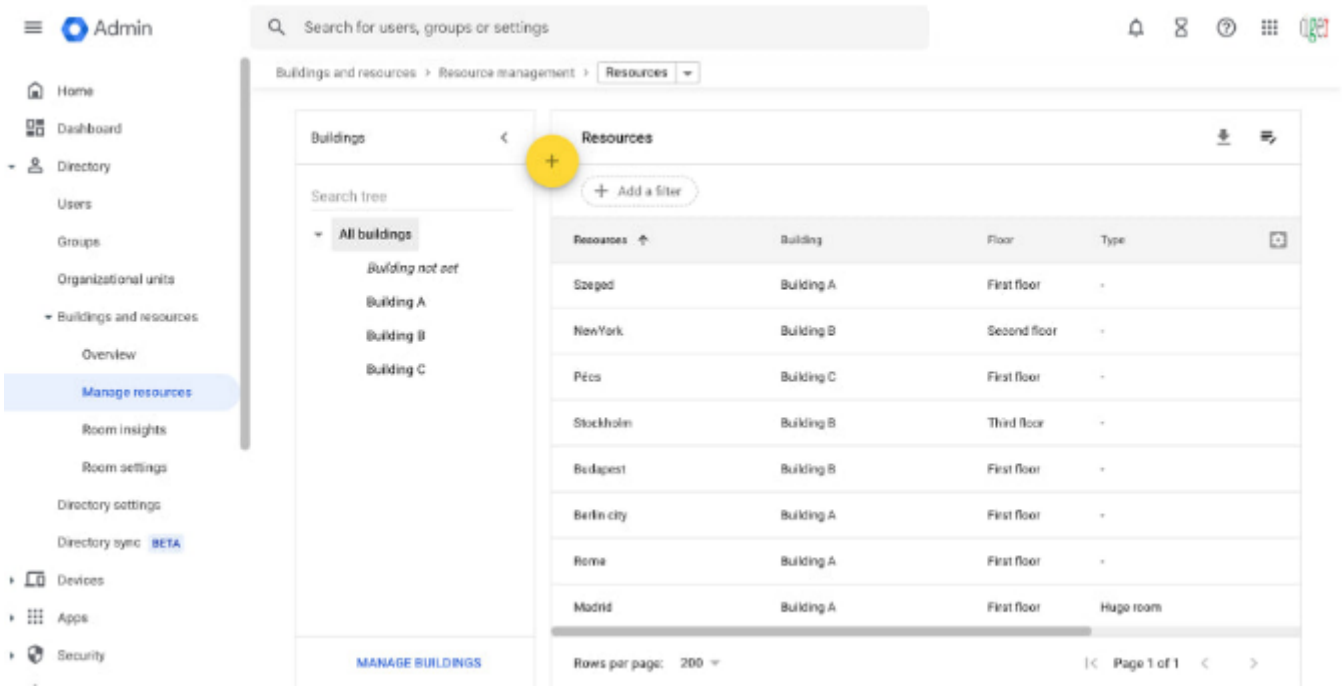


Add new room resources





After adding all room resources, the list should be populated.

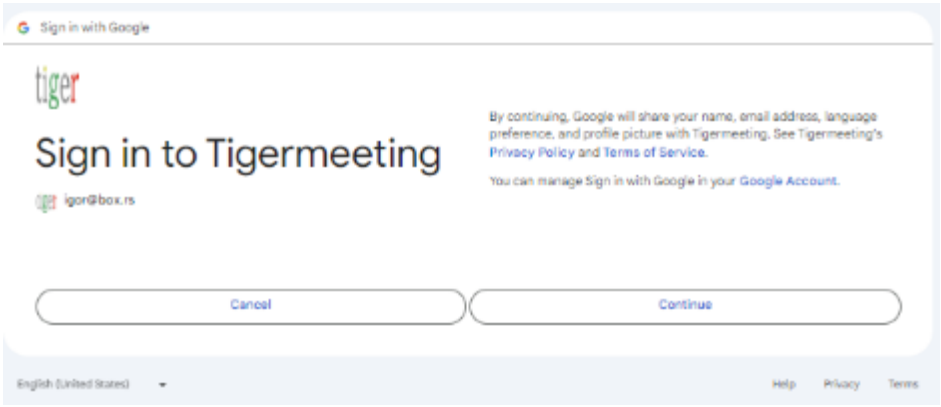


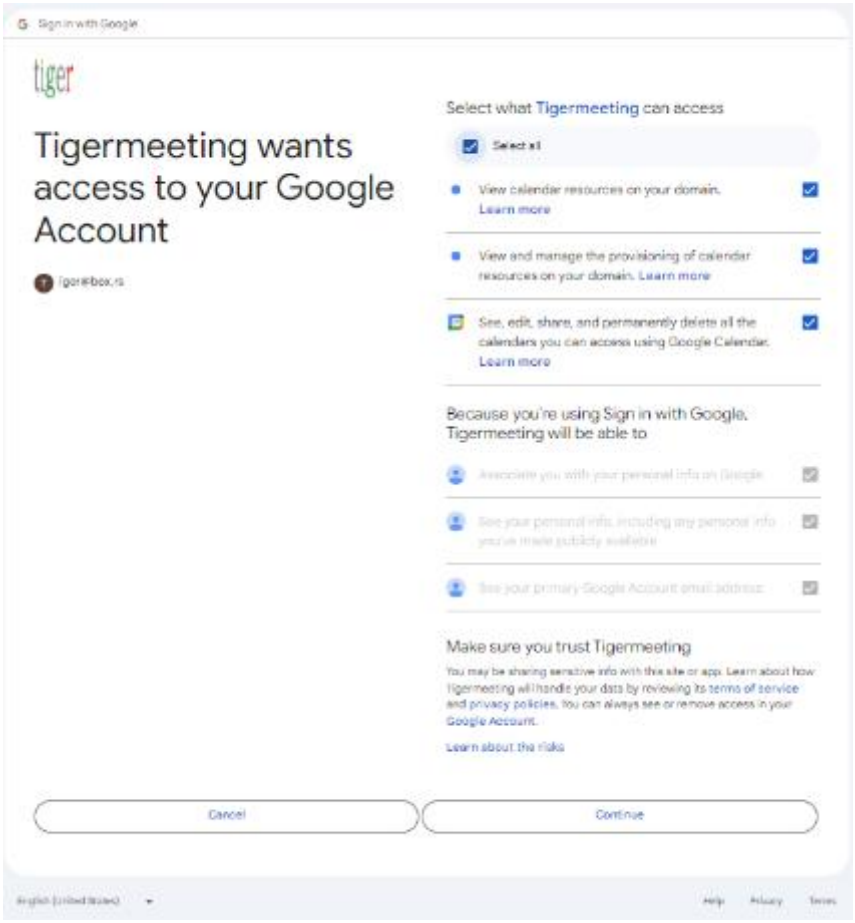
When the calendar is attached in the Admin app - all room resources will be imported to the Tigermeeting system and will be available for attaching to a licenced screen device.

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.

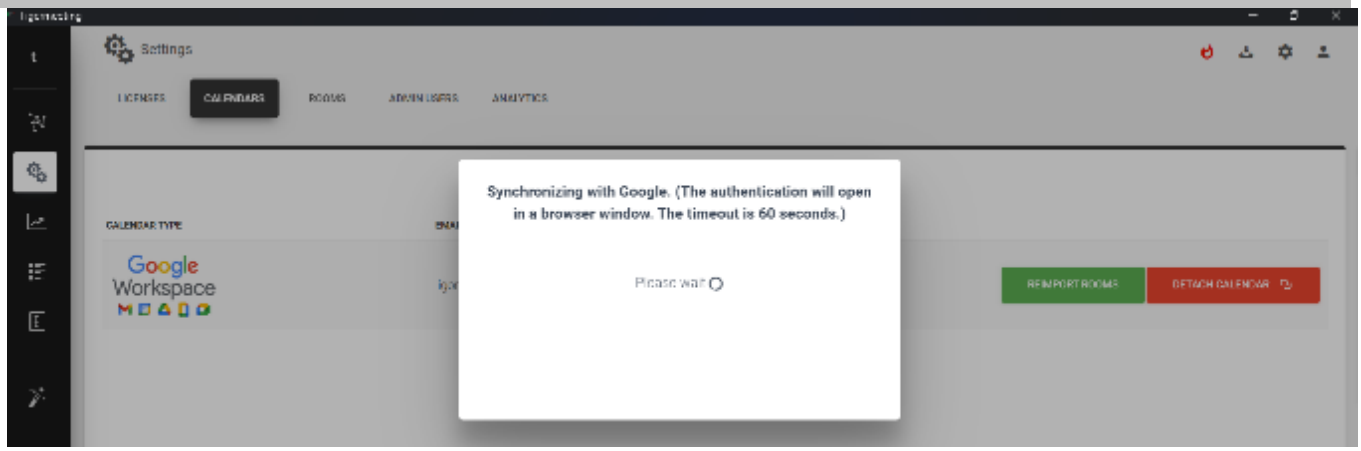
NOTE: for the authentication a calendar enabled Admin account needs to be used with admin permissions to handle read/write/delete calendar related operations

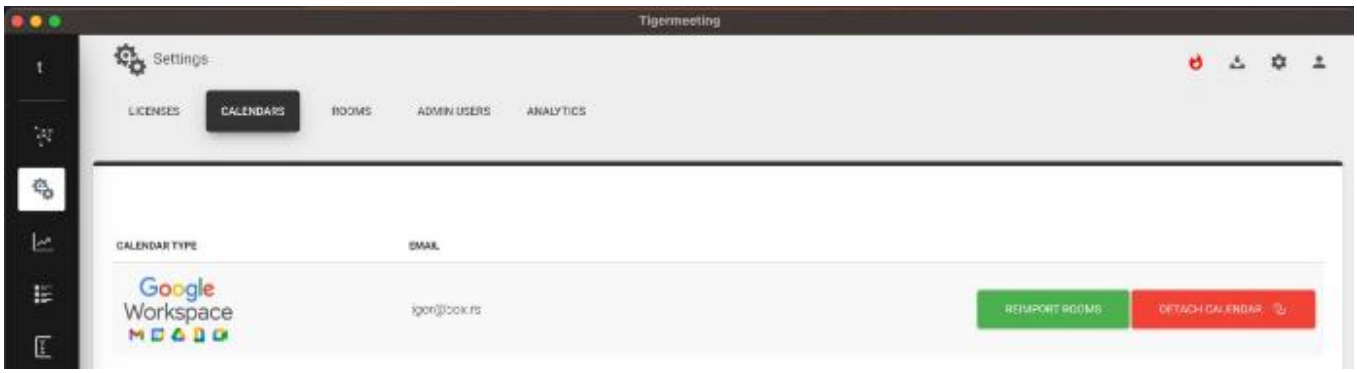
Authentication: Please **select all** options and accept in order to grant needed permissions for Tigermeeting application for normal operation.



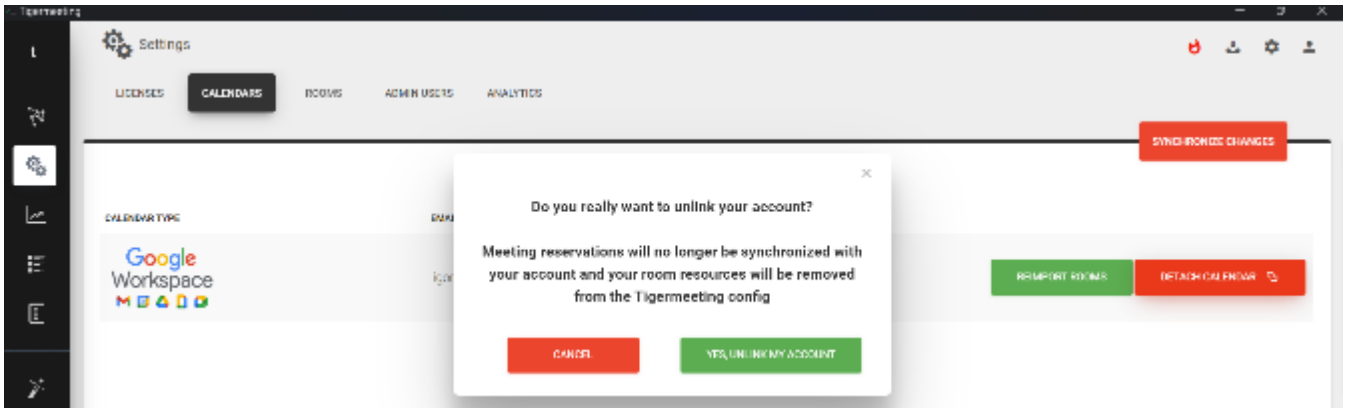


The authentication needs to be performed under 60 seconds.





When detaching the calendar – all room settings configured in the Tiger Admin app will be lost – however the restore of a previous backup is able to retrieve the room settings.



IMPORTANT NOTE

1. All permissions need to be granted during the authentication. (see the figure at Google Calendar -> Authentication on the next page)
2. There are 60 seconds granted for the authentication process – after that time the authentication process will expire and needs to be repeated.

Instructional video

https://www.youtube.com/watch?v=j1cN9OaIDwU

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.

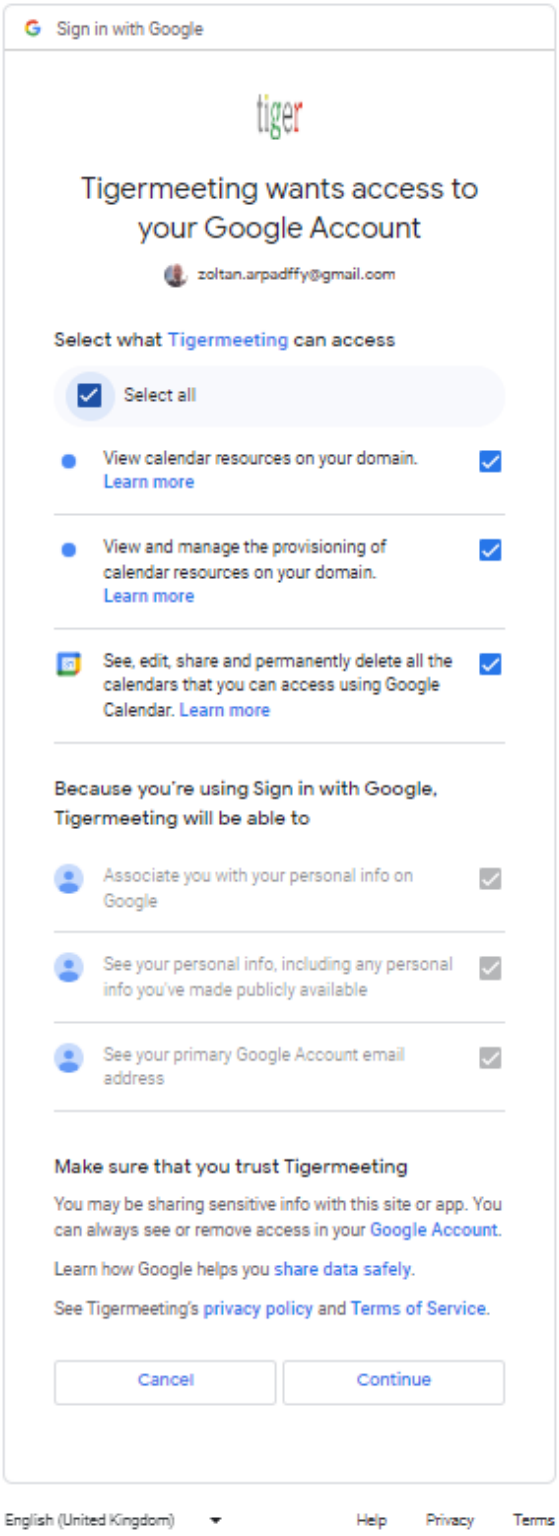
In case the Google Calendar is detached - Admin will have a choice to keep or delete the calendar resources created by the Tigermeeting Admin app.

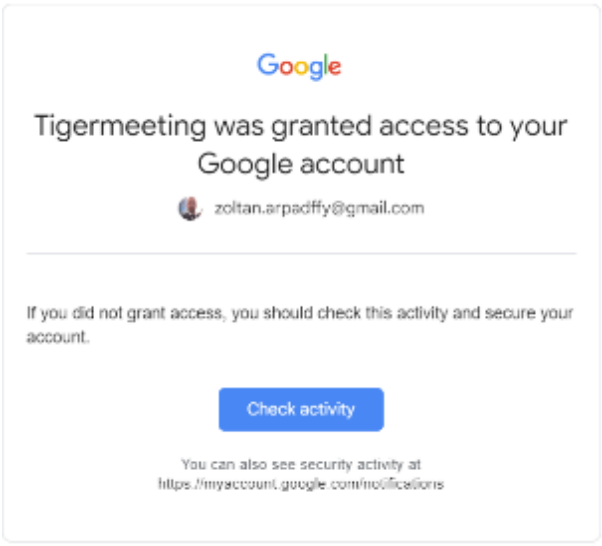
Authentication

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

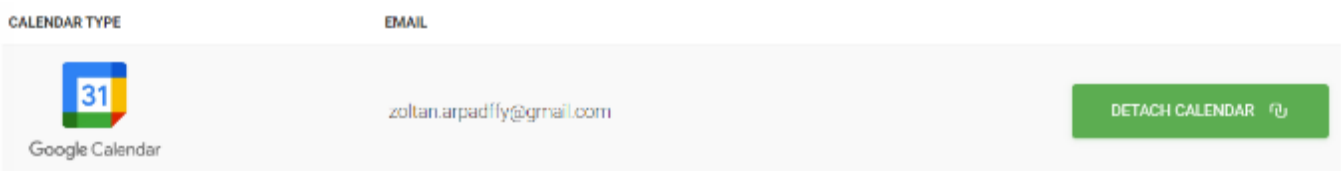
Tigermeeting Google authentication app - used for the authentication uses the absolute minimum right that are needed for the calendar operations. It supports natively the multi factor authentication according to the Google specification.

Tigermeeting's Google application has passed Google's rigorous verification process, therefore selecting all options and trusting Tigermeeting is considered to be a safe choice.

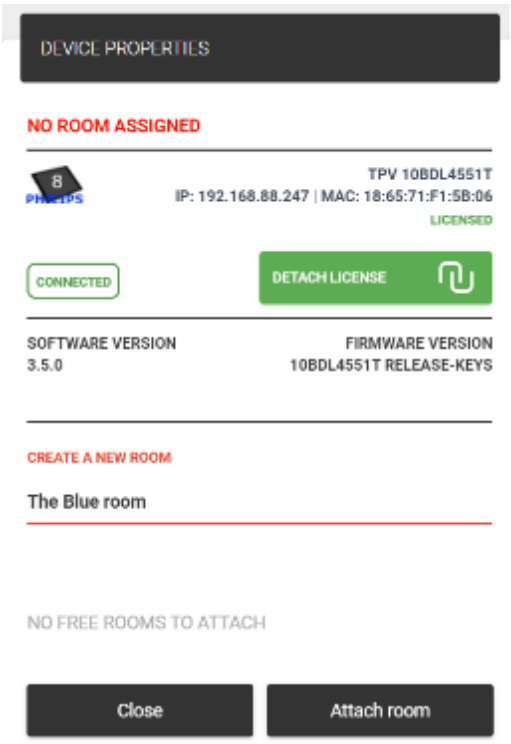


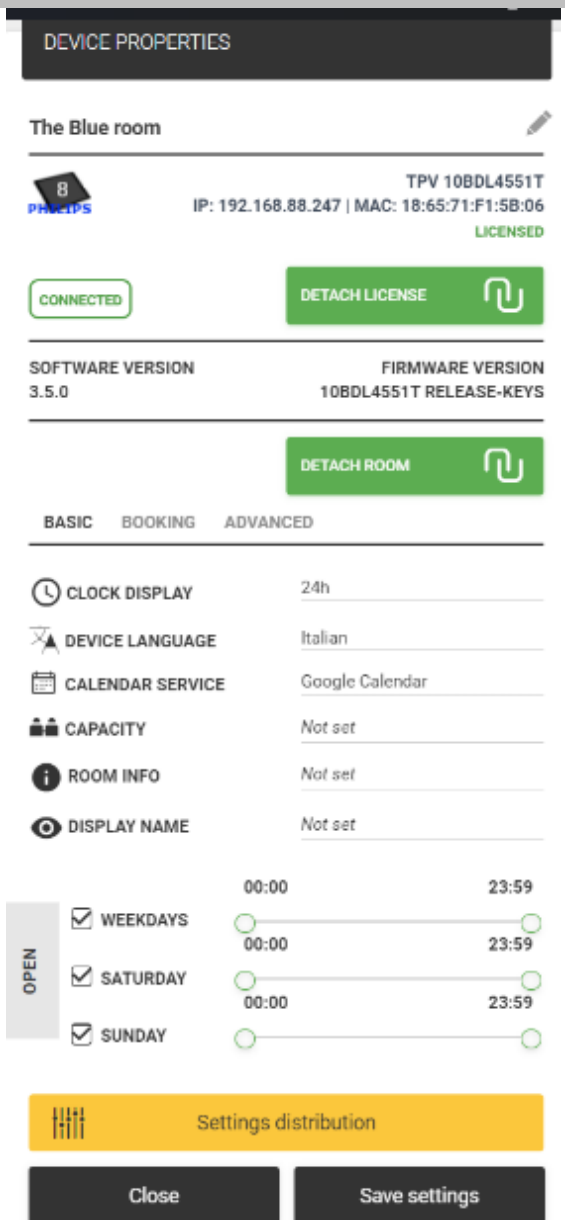


Once the Google Calendar is attached – the room management will be possible.



Create a new room simply by editing the device properties:

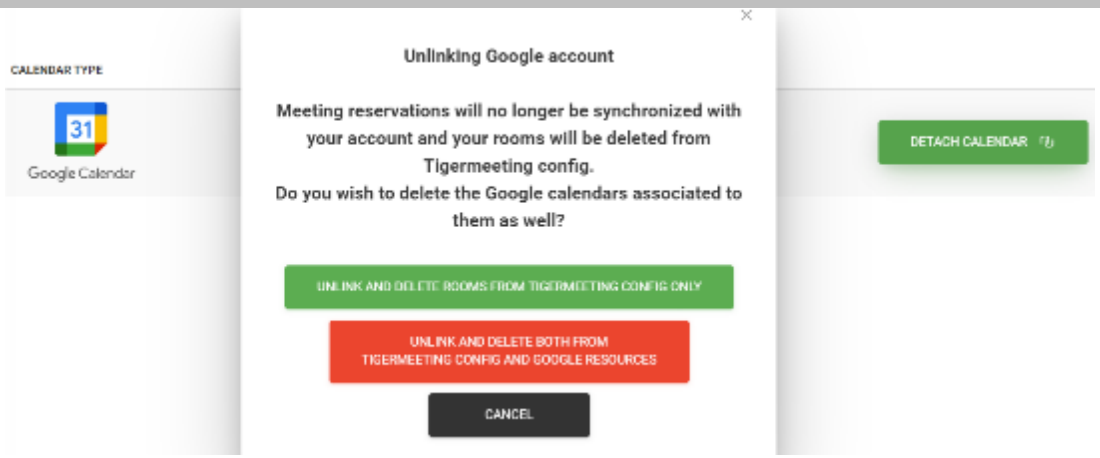




The calendars are immediately created in Google Calendar

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 its 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.



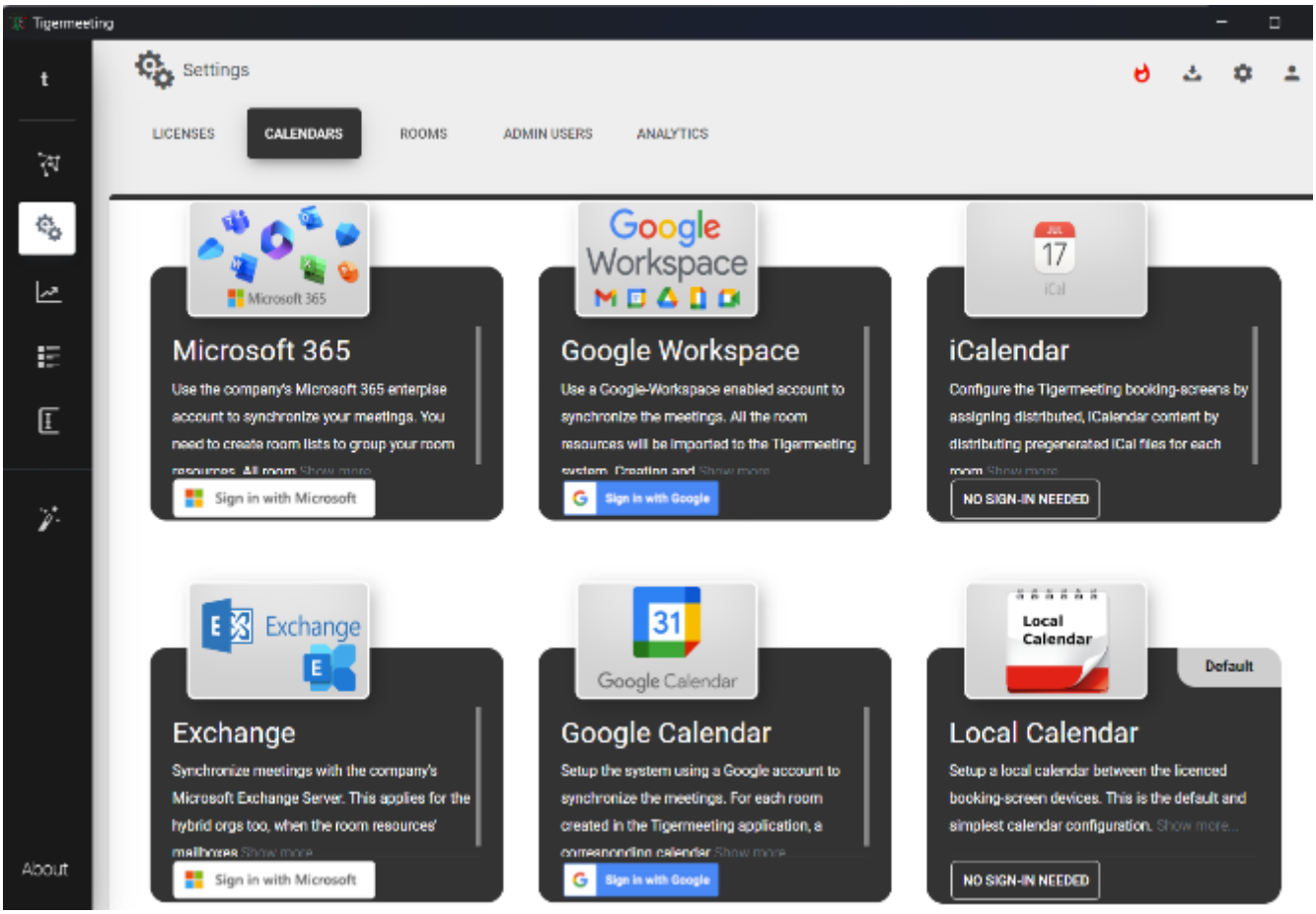
The options are:

- Unlink and delete rooms from Tigermeeting config only (**green color**) – will not perform any changes in the user's Google calendar. Just the calendar in detached and the Tigermeeting configuration is removed.
- In the other case (**red color**) – the Admin app will clean up and delete all calendars from the user's Google Calendar - the calendars that were created by the "create room" process. All other calendars will be left untouched. (this option is more "violent" as calendar removal is involved – but this is a safe operation as the Admin App removes juts those calendars that we created by the Admin app cleaning up the user's calendar – in order to avoid duplicate room names and other confusions)
- Cancel – do nothing, cancel the calendar detaching operation.

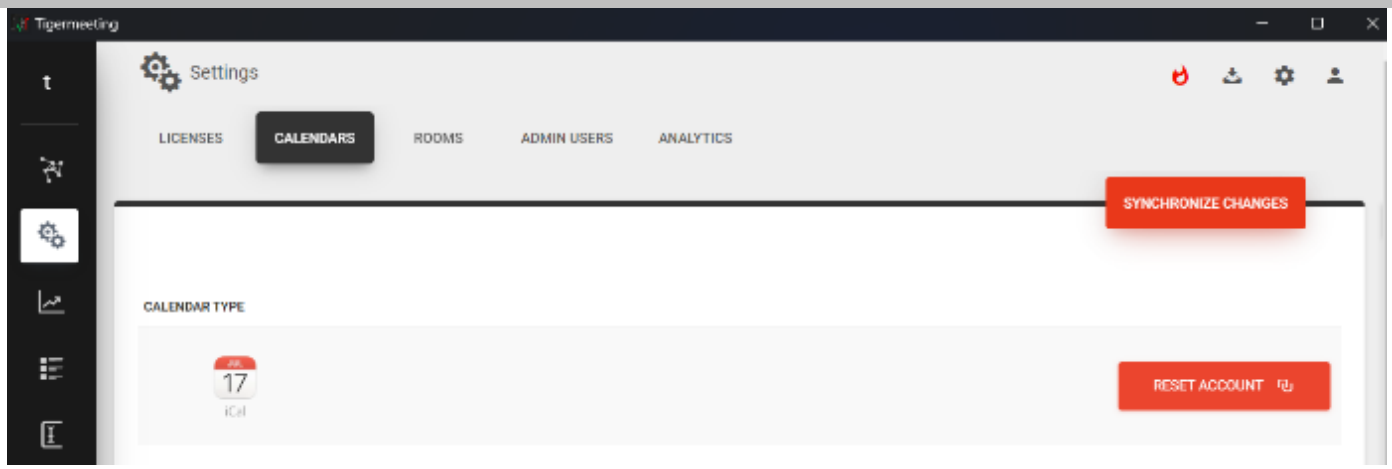
Configuring iCalendar calendar

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.

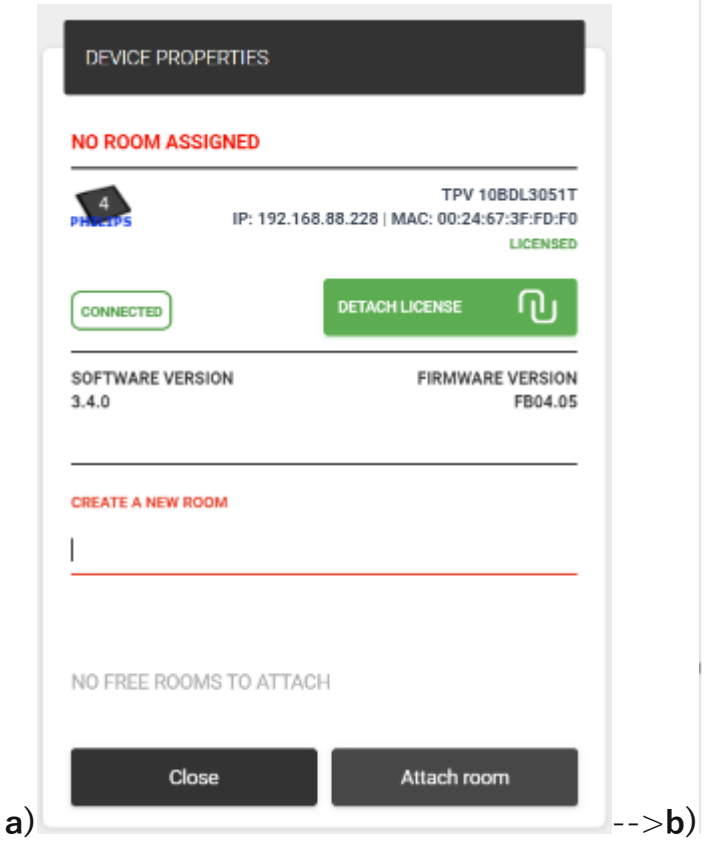
iCalendar files are most often created by one of the widely available iCalendar generator programs. Tigermeeting's flexible design allows replacing and updating the iCal files. As long as the URL pointing to the file does not change, the room configuration does not need to be updated.
This feature opens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



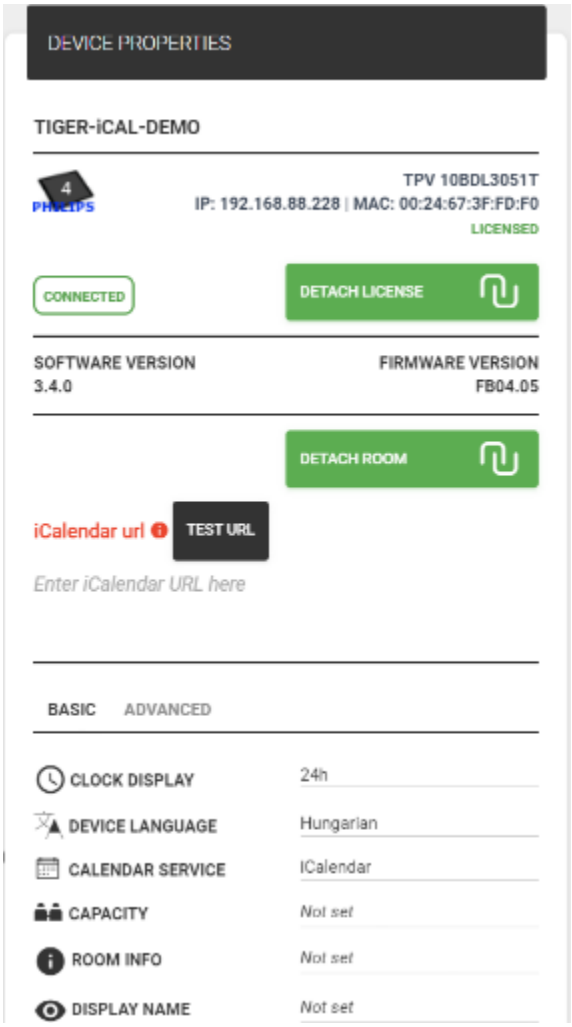
Choose iCalendar and synchronize the changes.



In the Network menu choose a device and edit the properties



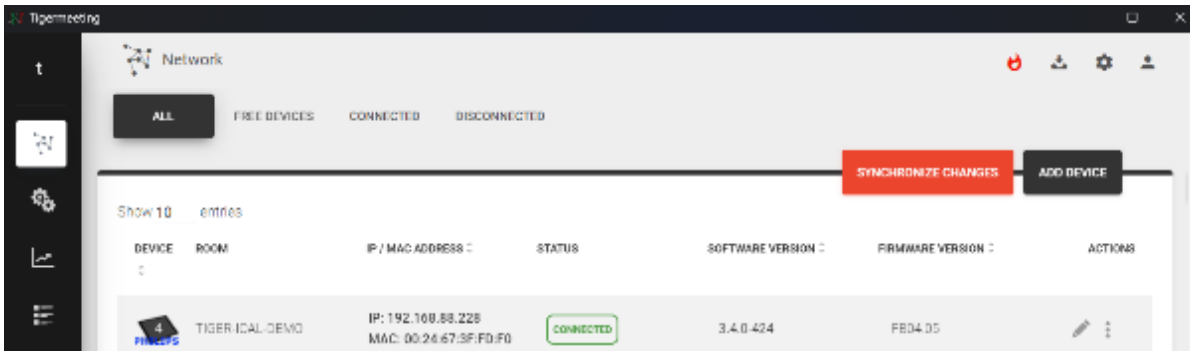
a) -->b)



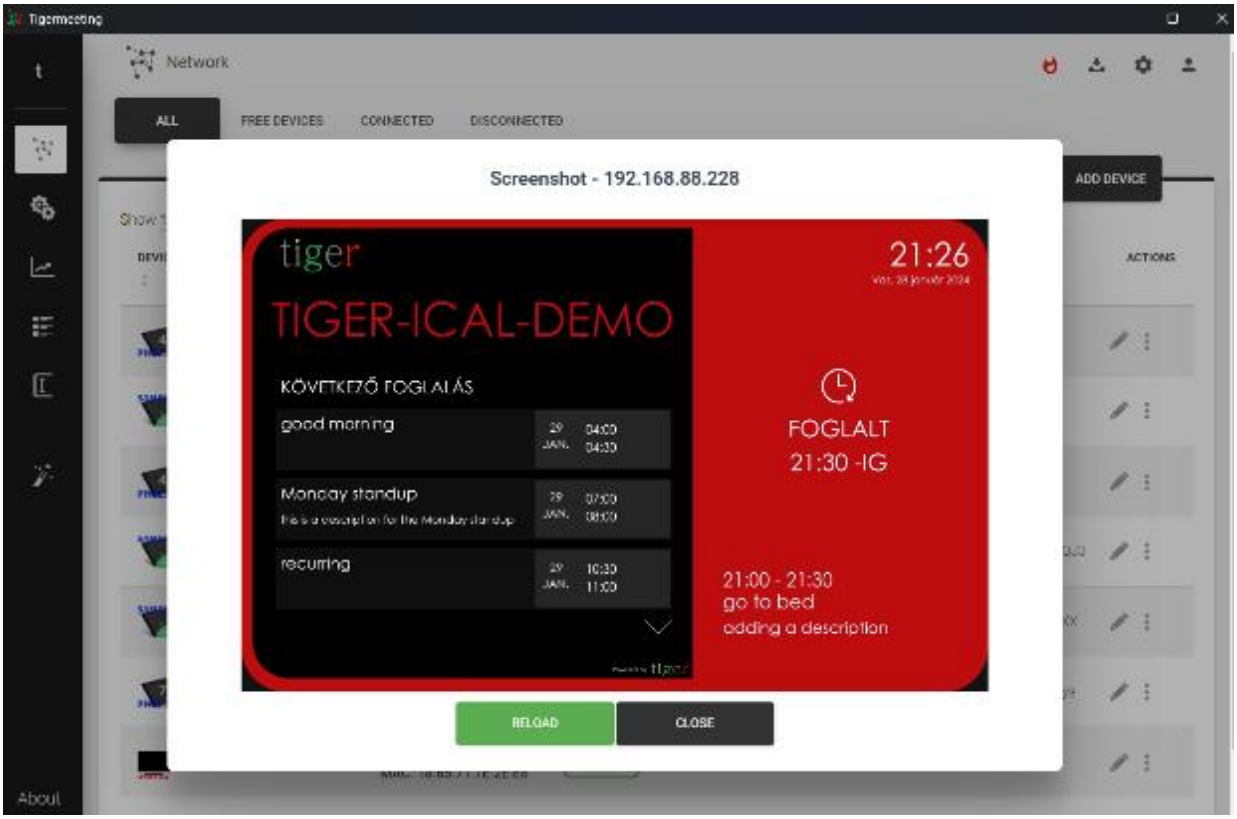
a) Create a new room by entering the name of the room.

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)



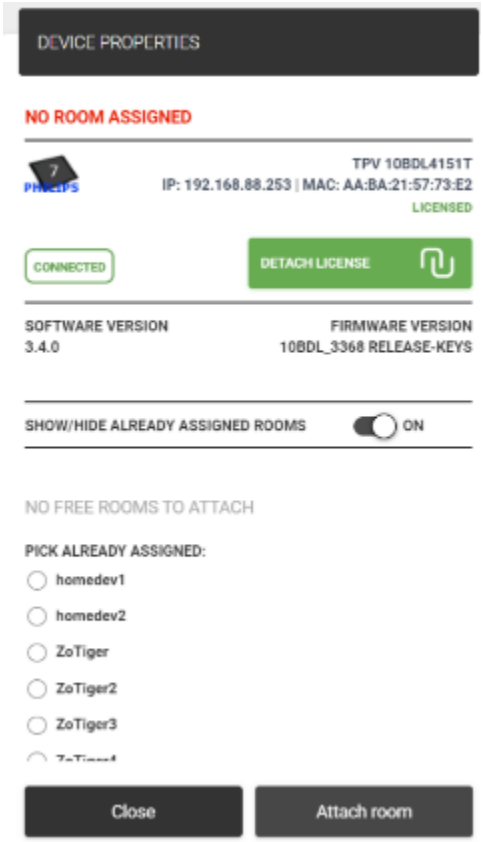
Common calendar functionalities

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)



As a result of attaching multiple devices to a same calendar resource: all devices show the same status, next meetings etc
NOTE: a cancelled or not confirmed meeting on either devices will cancel/end the meeting the on all devices, including the corporate calendar.

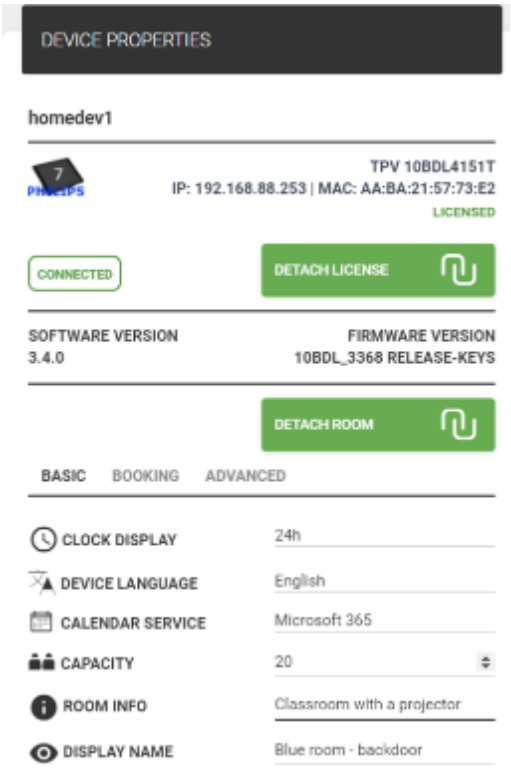
Room's "Display Name"

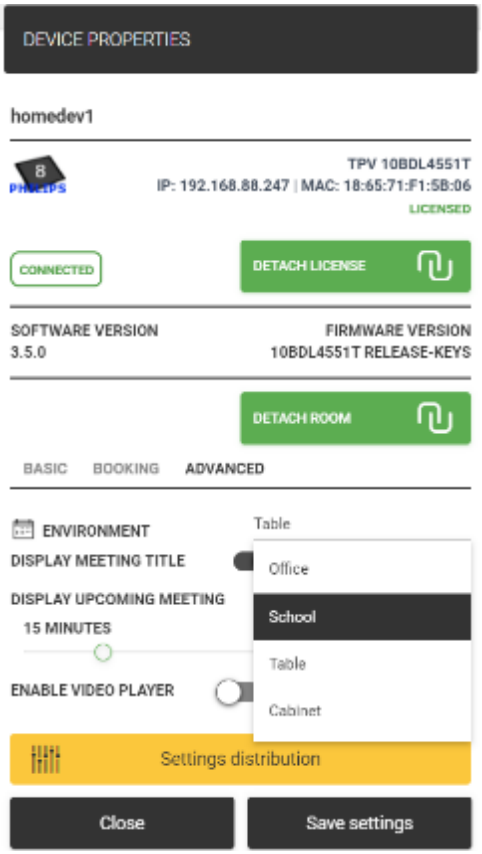
Calendar resource names can be very cryptic and generic organization wise following the organization's LDAP or Directory service naming conventions.

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

Use 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 – for example.

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, ALLNET and Qbic technology 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).

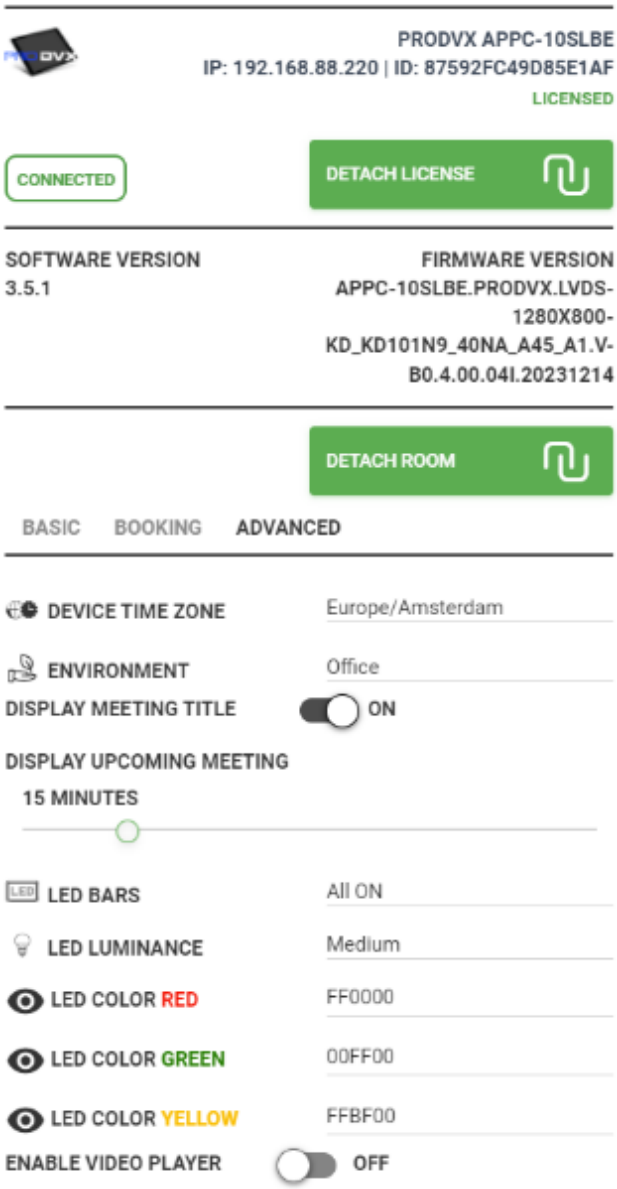
Red indicates that the meeting room is now busy and cannot be booked. However – on each booking screen the user can find the list of other available rooms and on an easy way book a meeting remotely.

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

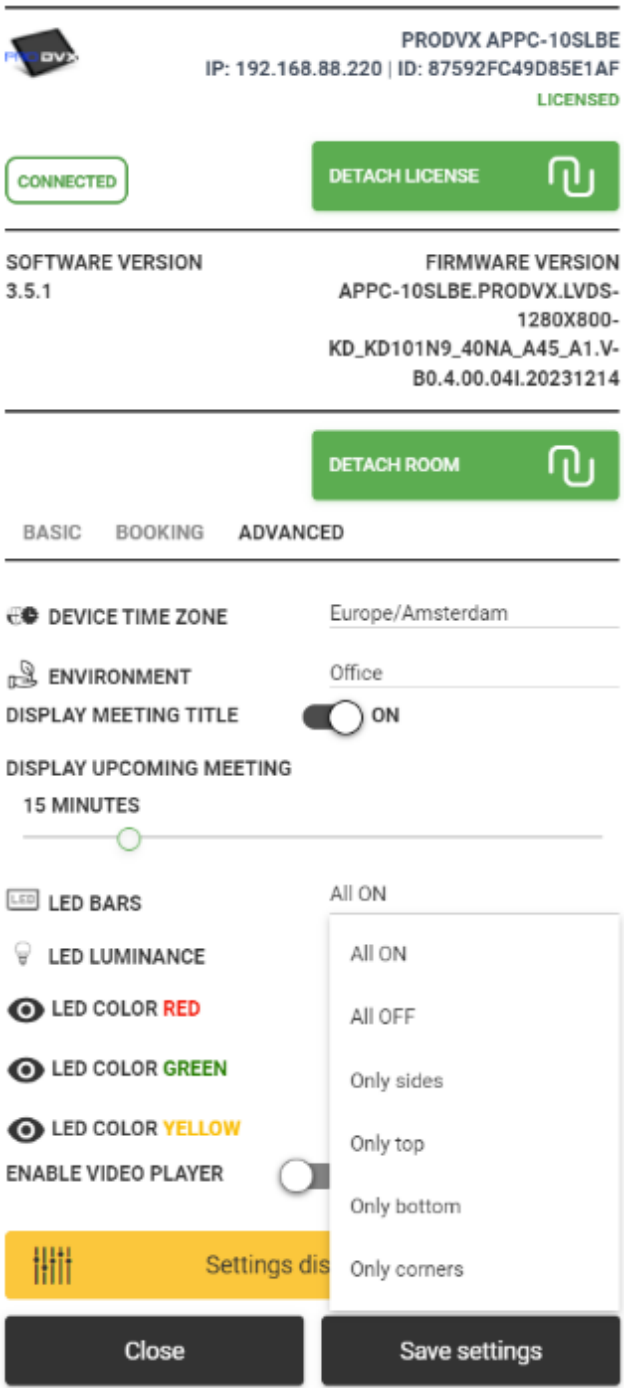
The LED bars luminance/brightness can be set between Low, Medium, and High.

Led light positions

Tigermeeting supports the following Led light positions:

- All OFF – all LEDs are turned off
- All ON – all available LEDS are turned on
- Only sides – only the LEDs on the screen left and right sides are lit
- Only top – only the LED stripe on the screen's top is used
- Only front - only front LED stripes/buttons on the screen (like on QBic or IAdea)
- 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 all these LED states – a good examples are the ProDVX APPC-10SLBE, S-series and newer ProDVX screens.



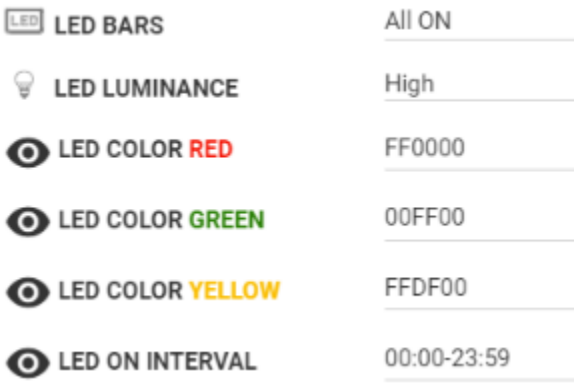
IMPORTANT NOTE: If the devices do not have all the requested LED bars, or do not support dividing the LED bars to regions – the devices' LED bars might not behave as expected. In that case, please use All ON as a safe fall back.

Led ON interval

It is possible to choose an interval when the LEDS are ON – outside of this interval the LED lights will be switched off.

There might not be needed that the LED lights are ON during the whole night when the

office is empty.
To save energy, please consider lowering the luminance or to switch off during the day when it is not used.



This is not a scheduler, but a daily interval chooser.
Outside of this interval the LED lights will be switched off.

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

Please consult the Tigermeeting Customer Support making sure the LED lights are supported on your devices.

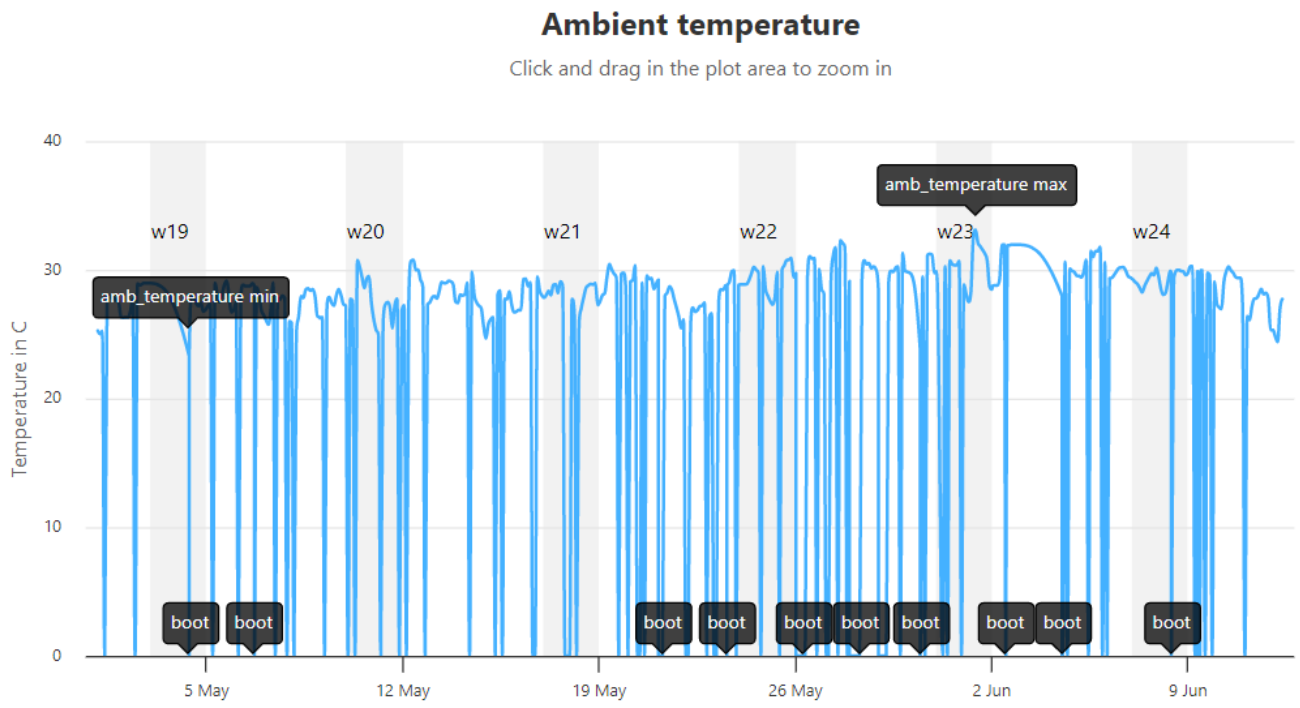
Screen ON interval

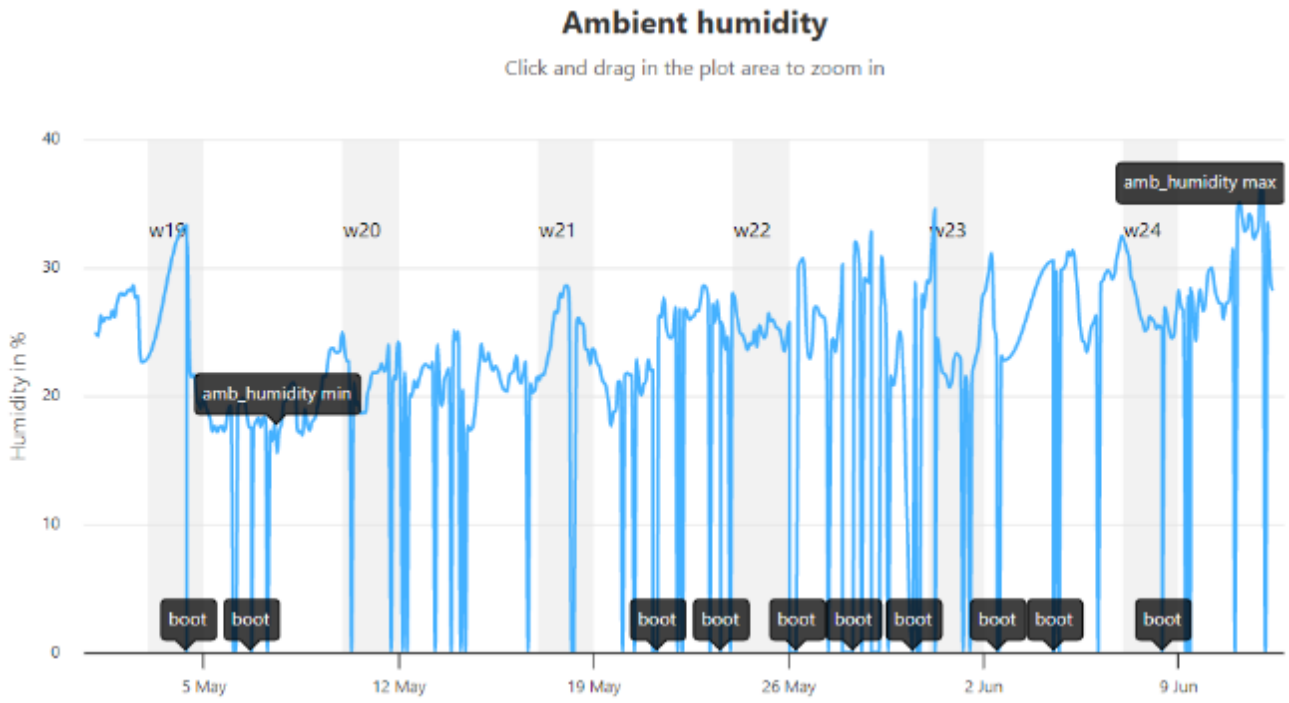
The screen ON interval specifies the normal operation time frame.
Outside of the screen ON interval the screen will turn off.

NOTE: any meeting related event or touch on the screen will wake up the screen for a short time.
This functionality is fully independent from the Led-ON interval - making possible for eventual overlapping, - like LEDs are on, the screen is off etc.
This is not a scheduler functionality but a daily interval-based ON/OFF service.

Ambient temperature and humidity

On devices that support ambient temperature, humidity and other sensors, Tiger application is capable of reading, presenting and collecting this data for presentation or analytical purposes.



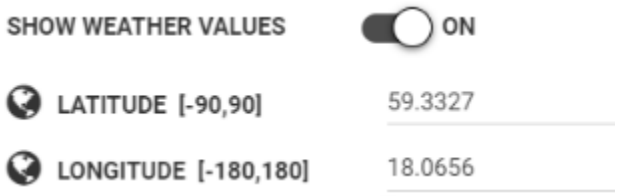


Weather information

While the ambient temperature feature is limited to devices that have ambient sensors, the weather information is available to all devices.
This feature requires access to the Tigermeeting cloud – but no other external resources

are used.

By enabling the “show weather values” option, it is possible to set the latitude and longitude positing for a device (or for the entire distribution)



Please, note that latitude and longitude coordinates help us pinpoint any location on Earth using numbers.
Latitude measures how far north or south you are from the equator (which is 0° latitude).

- Positive numbers (like +45°) mean you're in the Northern Hemisphere.
- Negative numbers (like -30°) place you in the Southern Hemisphere.

Longitude measures how far east or west you are from the Prime Meridian (which is 0° longitude).

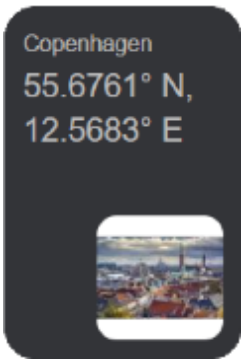
- Positive numbers (like +120°) put you in the Eastern Hemisphere.
- Negative numbers (like -75°) place you in the Western Hemisphere.

So instead of writing “45° N, 75° W,” simply write 45, -75.

Examples:

Lat: **41.8781**
Lon:**-87.6298**

Lat: **51.5072**
Lon:**-0.1276**



Lat: **55.6761**
Lon:**12.5683**

Lat: **-35.6037**
Lon:**-58.3821**

Lat: **-37.8136**
Lon:**144.9631**

Temperature – in chosen temperature unit- and relative humidity – in percentage- are presented on the devices, independently of the theme usage.

Presentation mode supports major temperature units (basic settings):

On the screen the temperature and humidity icons will appear. Every theme is supported.

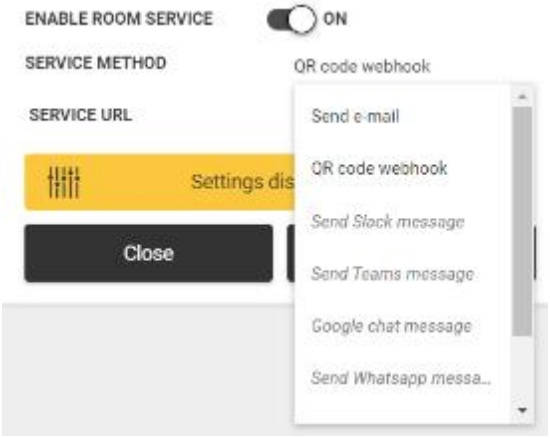
NOTE: The weather service is a cached online service that needs internet connection. The cache validity is about 15 minutes, therefore the weather values as well as the temperature unit change – like from Celsius to Fahrenheit or Kelvin - will take about that time to get updated on the screen.

Room Service configuration

There are use cases when meeting rooms, desks or classrooms need maintenance, room service or any other type of attention.
Tigermeeting room service fulfils this requirement by enabling integrations with company communication channels where appropriate actions can be taken.

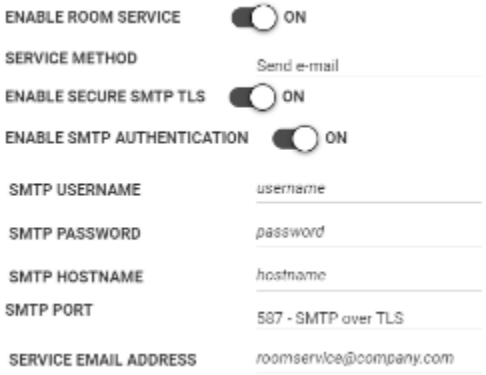
Currently supported communication channels are the following:

- Send email
- Scan QR code
- Slack message (not integrated yet)
- Teams message (not integrated yet)
- Google chat message (not integrated yet)
- Whatsapp message (not integrated yet)
- Telegram message (not integrated yet)
- WeChat message (not integrated yet)

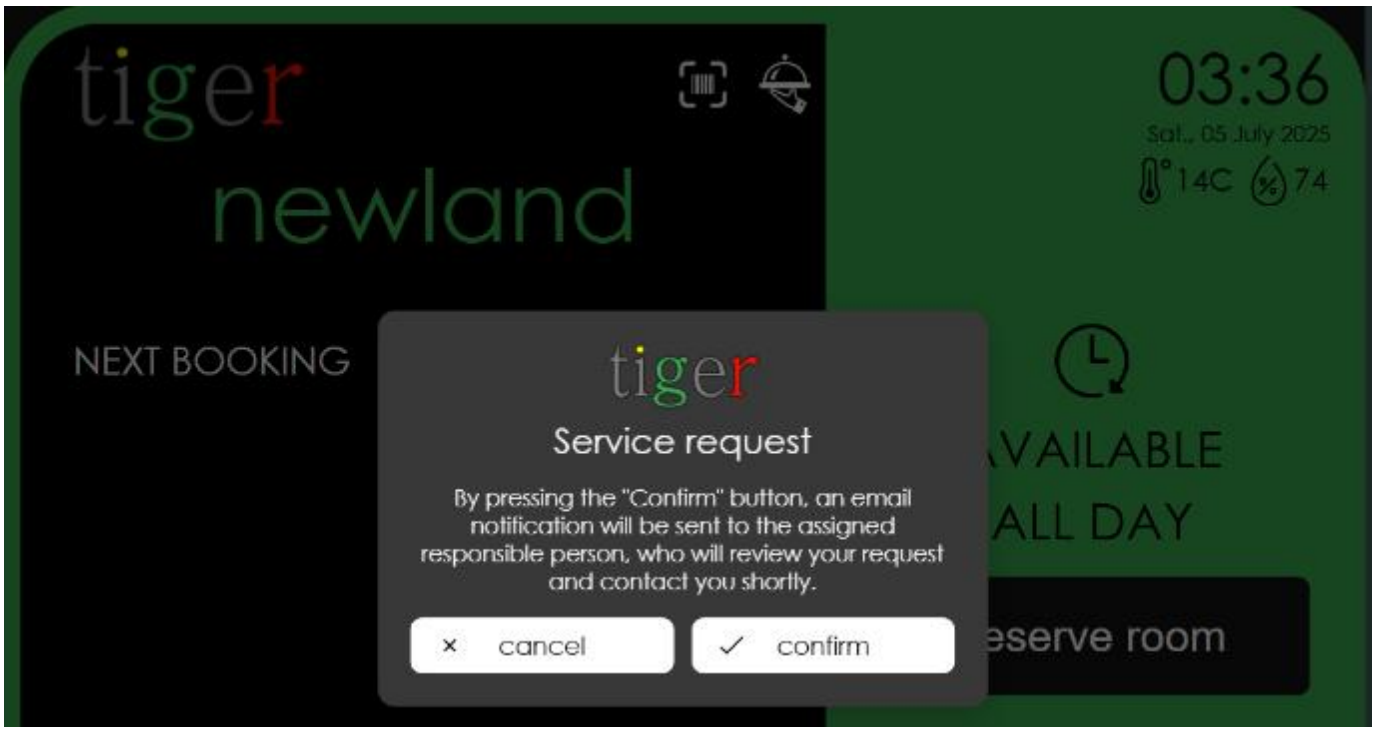


Send-email

Sending e-mail from the calendar resource (room, classroom, desk) to a configured e-mail address.
This service requires configuring the SMTP server parameters.



On the screen by pressing the “room service” icon a dialog will appear.



The room service functionality can be tied to the NFC-SERVICE-AUTH and NFC-SCANNER-AUTH authentication parameters to avoid service abuse.

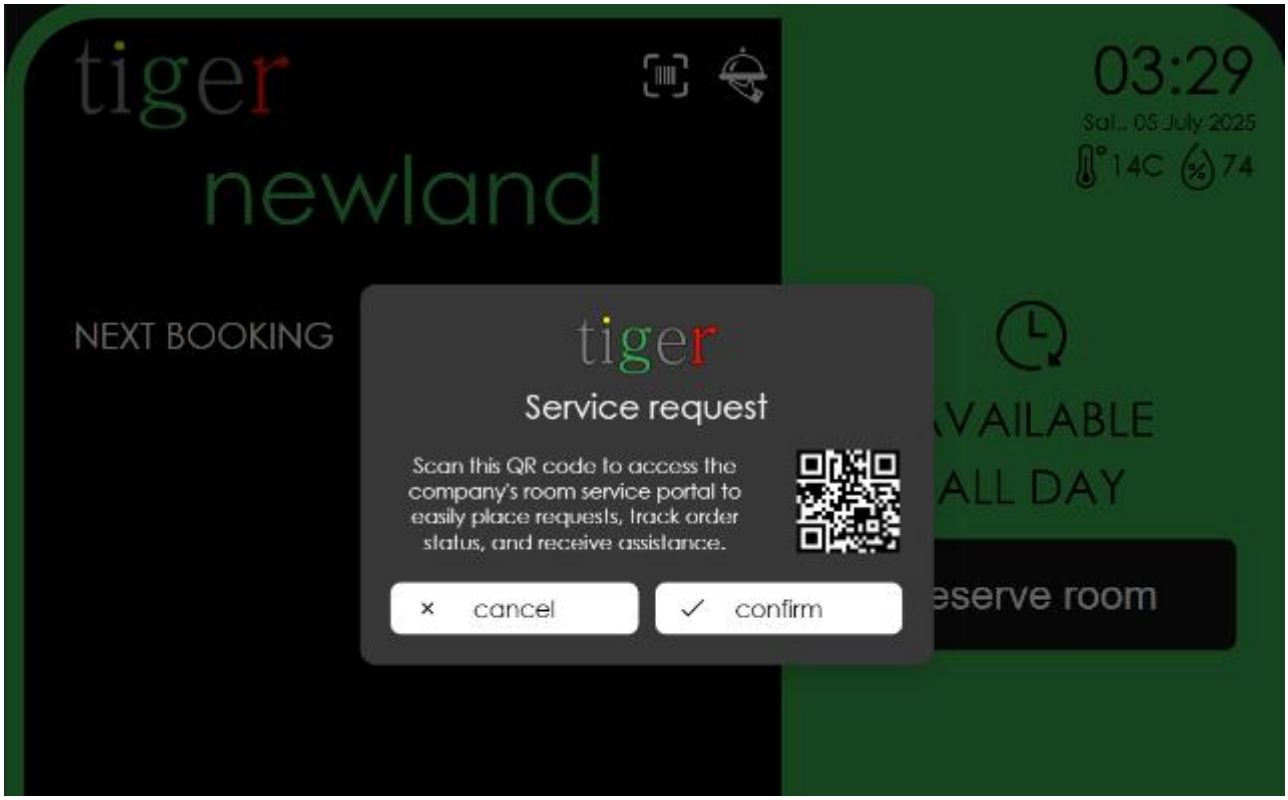
QR code webhook

Presenting a QR code on the screen that contains an URL pointing to the company webhook resource.
This is the preferred why of the room service functionality – as the company portal can properly handle user authentication, service offering related to each resource.

NOTE: Tigermeeting adds the calendar resource identification as a parameter to the company specific service URL.

Example: https://company.com/roomservice/?resource=”STHLM-P-Jupiter”

On the screen by pressing the “room service” icon a dialog will appear with an instruction.



NFC

NFC, or Near Field Communication, is a short-range wireless technology that allows two devices to exchange data when they're very close—typically within 4 centimeters.

NFC technology is widely used, like:

- Contactless payments (like Apple Pay, Google Pay, or Samsung Pay)
- Tapping your phone to pair with headphones or speakers
- Scanning transit cards or access badges
- Reading smart tags in posters, packaging, or museum exhibits

NFC works by using electromagnetic fields to enable communication between a powered device (like a phone) and another NFC-enabled device or passive tag. NFC is based on the same tech as RFID but is more secure and interactive.

Tigermeeting implementation of NFC authentication

On devices that have NFC reader, and the NFC functionality is tuned on/allowed in the device settings, the Tiger application will filter and read the following technology tags:

- **Ndef**: This is the standard protocol for exchanging NFC Data Exchange Format (NDEF) messages. Most off-the-shelf NFC tags are preformatted as NDEF tags, making them very common in many applications.
- **NfcA** (ISO/IEC 14443 Type A): A widely used technology for contactless communication, found in many public transport cards, access control badges, and payment systems. Most MIFARE tags (like Mifare Classic or Mifare Ultralight) are built on top of this technology.
- **IsoDep** (ISO/IEC 14443-4): Often used in card emulation and secure transactions, IsoDep provides higher-level communication protocols on top of NfcA or NfcB. It's common in secure payment applications and many secure identity documents.
- **MifareClassic** and **MifareUltralight**: These are proprietary implementations (from NXP) commonly used for access control, loyalty cards, and public transportation. They usually operate under the NfcA umbrella but offer additional functionality such as memory segmentation and security features.
- **NfcF** (FeliCa): Predominantly used in regions like Japan, NfcF supports FeliCa-based systems. It's common in transit and payment systems in certain markets.
- **NfcB** (ISO/IEC 14443 Type B): Although less frequently encountered compared to

NfcA in many applications, NfcB is used in various contactless card systems and can be added if you expect tags adhering to this standard.

NFC usage

NFC can be used in many different ways.

The following list contains the most common use cases:

- Open the (meeting room) door for an authenticated person
- Authenticate the meeting organizer
- Authenticate before room service order
- Log attendance
- Allow administrator maintenance

Please note that NFC authentication is not intuitive and does not happen automatically. This functionality requires customer side configuration and tighter integration to Tigermeeting backend services.

NFC validation service

Tigermeeting is an on-premises service and for normal calendar operation does not require external access – however NFC authentication requires integration towards an authentication service that can be on-premises or in the cloud.

Tigermeeting has a multitenant validation service hosted in the Tiger cloud that is able to sync with the corporate authentication resources like:

- active directory
- LDAP service
- CSV file
- Customer's own API REST validation service

If the validation service is hosted in the Tiger cloud – initial setup needs to be performed, and devices need to have access to the Tiger cloud.

In some cases, customers chose to host the Tigermeeting NFC validation service on their own network. There are no limitations to do that – as the validation service is a lightweight service that can be run either in a secure container or as a service on any web server.

NOTE: NFC tags, values and card IDs are read in natural order and hexadecimal format. Some screens allow configuring the NFC reader to deliver numbers in decimal format or to reverse the string character order. In these cases, the validation strings need to contain strings exactly in that format. Tag validation is always a string comparison operation.

Instructions for Active Directory/LDAP integration

To enable synchronization between the organization's Active Directory / LDAP service and Tigermeeting validation system, please follow the setup steps below and provide us with the requested information.
This process allows Tigermeeting validation service system to securely read user, tag, and permission data directly from the customer's directory.

Step 1: Create a Read-Only Service Account
For security, we require a dedicated service account in your AD/LDAP with read-only access. This account will be used exclusively to perform the synchronization. It does not require any write permissions.

Step 2: Define Permission Groups
The Tigermeeting system uses AD/LDAP group memberships to manage user permissions for NFC/RFID actions. You will need to create specific security groups with names that follow a precise format.

Group Naming Convention: The name of each group must follow this structure:

prefix-Context_Name-ACTION_NAME

- Prefix: A unique prefix you choose to identify groups related to this service (e.g., nfc-access-).
- Context Name: The name of the location or device (e.g., Main_Entrance, Server_Room). Use underscores _ instead of spaces.
- Action Name: The specific action being granted (e.g., UNLOCK_DOOR, LOG_ATTENDANCE).

Examples:

permission_prefix	LDAP Group Name	Parsed Context	Parsed Action
nfc-access-	nfc-access-Main_Entrance-UNLOCK_DOOR	"Main Entrance"	"UNLOCK_DOOR"
nfc-access-	nfc-access-Server_Room-UNLOCK_DOOR	"Server Room"	"UNLOCK_DOOR"
room-perms-	room-perms-Meeting_A-LOG_ATTENDANCE	"Meeting A"	"LOG_ATTENDANCE"

To grant a user a permission, simply add them as a member to the corresponding group in your directory.

Step 3: Provide Configuration Information
Please gather the following details and provide them to Tigermeeting technical team to configure the sync connection.

Required Information Checklist:

- `ldap_host
- `ldap_port
- `bind_dn
- `bind_password - encrypted password
- `base_dn`,
- `tag_attribute` - LDAP attribute for the NFC/RFID tag UID
- `email_attribute`- LDAP attribute for the user's email
- `permission_attribute`- LDAP attribute for group membership, e.g., memberOf
- `permission_prefix` - Prefix for permission groups, e.g., “nfc-access-“

The Tigermeeting AD sync service will periodically sync the AD data with the verification database.

Instructions for CSV file integration

The sync can be performed with ordinary file transfer too.
The expected CSV file format is the following: (with header):

email,tag_uid,context,action
name@company.org,ABDD1234,”Meeting A”,UNLOCK_DOOR

The Tigermeeting CSV sync service will periodically try to fetch the file and import the data to the verification database.

Instructions for API REST integration

The organization can set up its own webhook and the devices will attempt to validate against that.

Define the validation service URL.
The screens will send the following JSON payload via POST API request to the defined validation URL:

```
{
        "tag_uid": "ABCD1234",
        "organization_id": 123456, (assigned by Tigermeeting)
        "email_address": "user@company.org",
        "context": "Meeting A",
        "action": "UNLOK_DOOR"
}
```

The expected response should have http response code: 200 and the payload needs to be in the following JSON format:

```
{
        “status”: “granted”    (or “failure”)
        “message”: “Action Denied” (optional)
}
```

This API is intentionally made very simple to make it easy for everybody to integrate with their own in-house authentication service – keeping Tigermeeting operation on-premises.

GPIO Control

This chapter introduces the General-Purpose Input/Output (GPIO) on the Android-based device. GPIO lets users attach simple electronics (LEDs, buttons, relays, sensors) and control or read them directly—no extra microcontroller needed.

What Is GPIO?

GPIO pins are configurable digital channels on the device's circuit board.

In output mode, the device drives the pin HIGH (voltage) or LOW (ground) to switch external components on/off.
In input mode, the pin reads an external logic signal (e.g., a button press or sensor output).

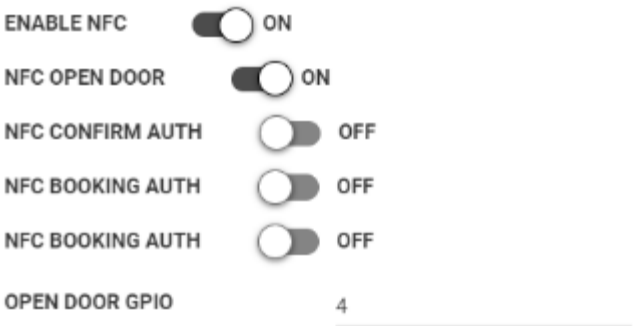
GPIO usage usecases

- Add status indicators (LEDs) to show connectivity or alerts
- Connect pushbuttons for custom controls
- Interface with simple sensors (motion, light, temperature)
- Switch relays to control higher-voltage devices
- Prototype new hardware features without extra boards
- Manage access – open doors etc

GPIO pins / ports

On most Android Things or custom Android boards, GPIOs are labelled on the side or bottom of the board. Refer to the hardware diagrams for pin assignments (e.g., "GPIO4", "Pin 7"). Please, contact your hardware supplier for the detailed wiring information.

Tiger application defaults to **GPIO4**, but it is easily changeable when configuring the scan or NFC open door functionality.



Door lock and access control systems

One for the most common usages of the GPIO control is the door lock access control system that is driven by the screen running Tigermeeting.
The GPIO control can be configured to be used with NFC or QR code scanner authentication functionality.

There can be numerous hardware configurations from different hardware suppliers.

Here is an example that is commonly used by Tigermeeting customers:

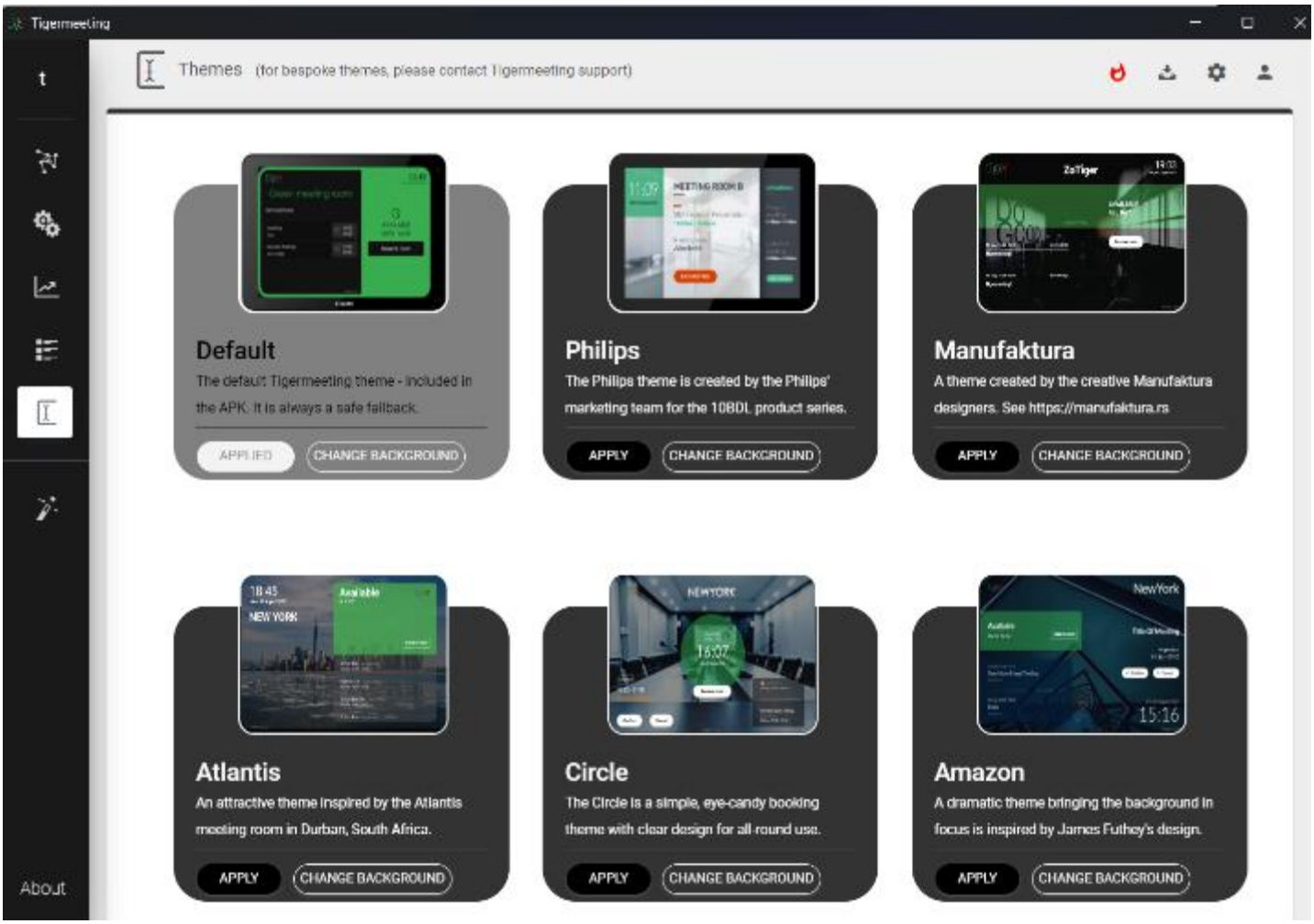
Theme configuration

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.



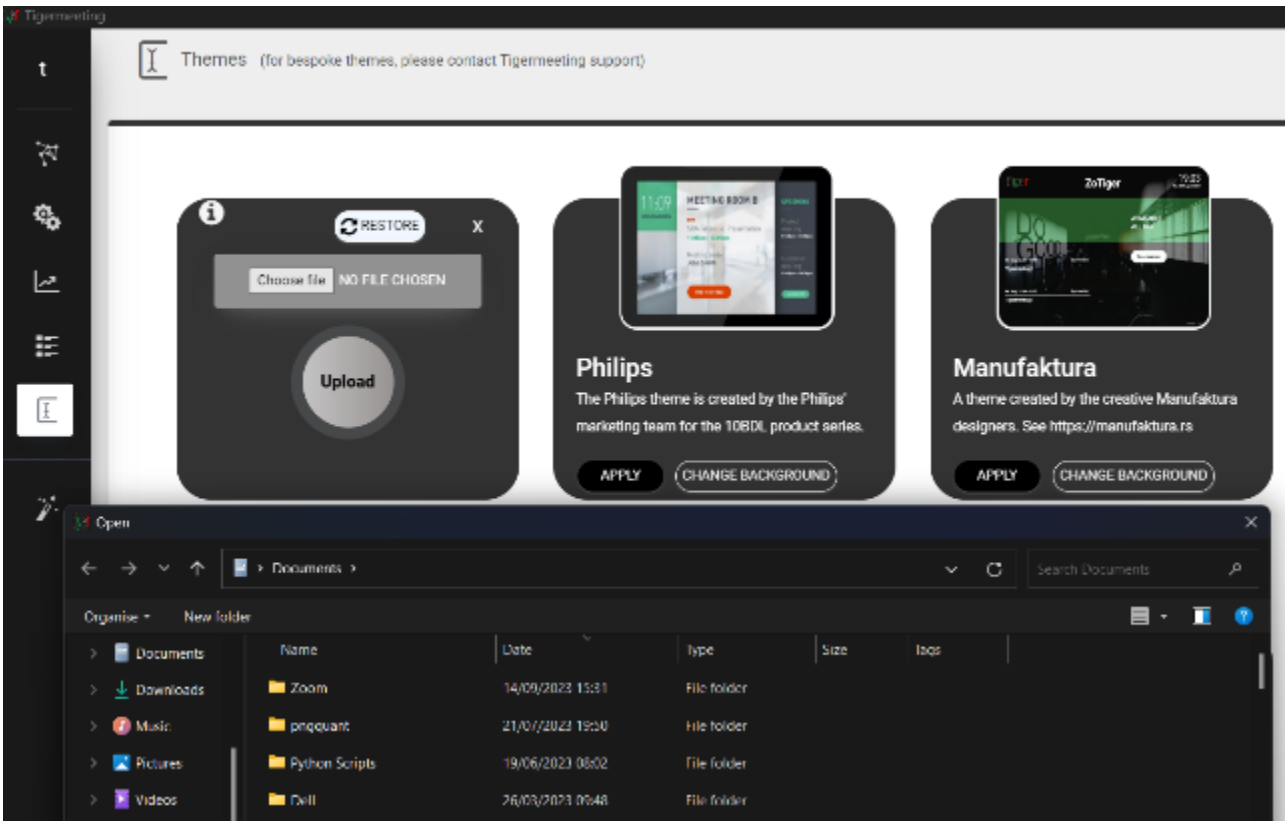
Theme background image configuration

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, IAdea and Qbic screens: ratio 16:9, size 1280 x 800 px is recommended.
For other Android devices, please consult the screen manual and choose an image that matches the screen's ratio and resolution.

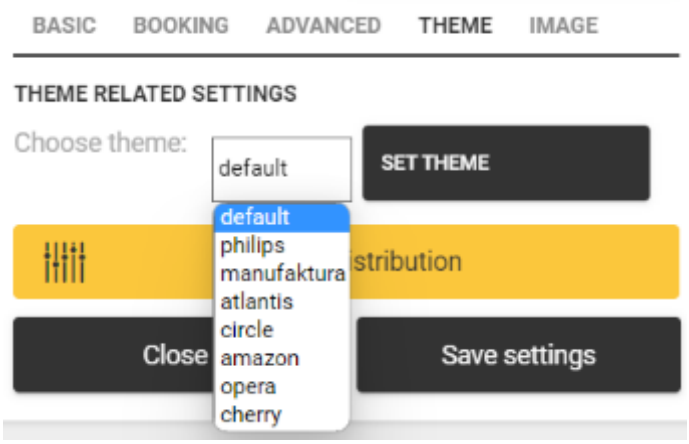


Every theme can have its own custom, customer specific background, but a new background upload to the theme will override the previous image for that theme.

Restore the theme's original, default background image using the **RESTORE** button.
Reset the themes' original background image for ALL devices using the **RESET** 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.

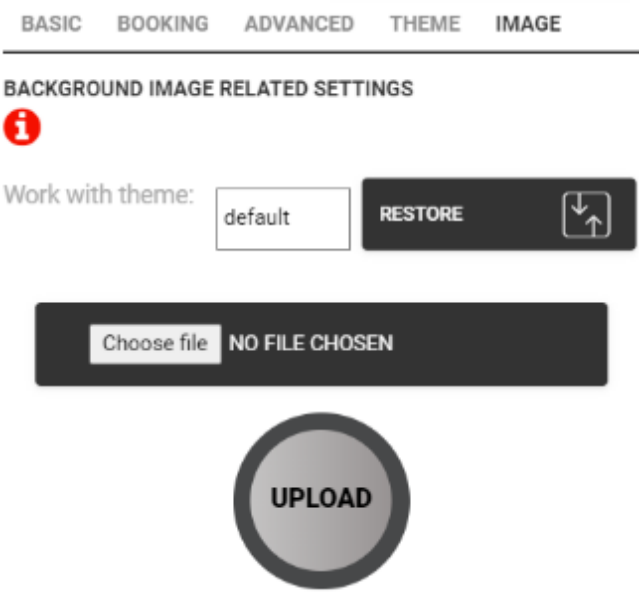
Theme configurations for each device

Every device can have their own theme or background configured while editing other device related parameters.
Check out the Theme and Image tabs



Choose the theme and press the SET THEME button.

The background image is changed under the IMAGE tab.



Choose a theme and upload the desired background image that will be applied just for that particular device.
Restore the themes default background image for this device with the **RESTORE** button.

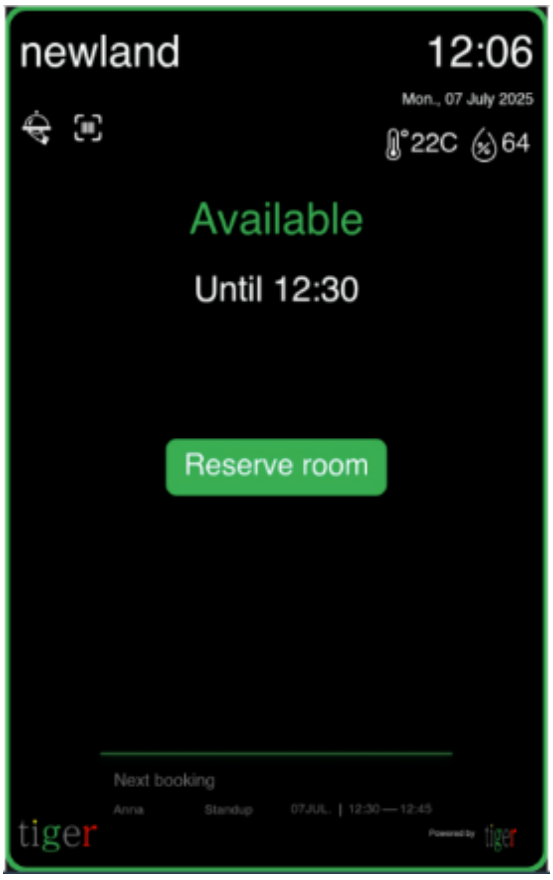
After the changes the SYNC with devices needs to be performed in order to apply the changes.

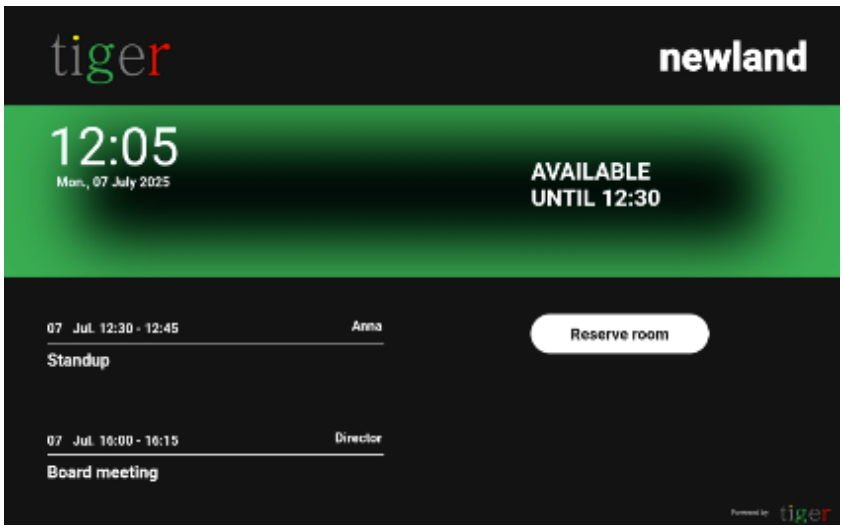
Portrait and Landscape orientation of the theme

Tigermeeting does not support screen orientation choice based on the device sensor.

Tiger has started supporting many other screens ranging from sizes 4" to 15" and from many manufacturers such as Philips, IAdea, ProDVX, Aurora, Qbit, Samsung, Huawei, Xiaomi, Asus, Oppo, and many others.
To accommodate all these different screen dimensions and resolutions with all Tiger features like theme changes, company logo, office/school/desk mode, etc., we had to make a strategic decision not to support portrait mode with all themes.

There are themes available with "_portrait" suffix that are designed to work in the portrait mode and the Tiger application will automatically adjust the screen orientation based on the chosen theme – but not based on the device sensor.





Most generic devices are supported – but there could be issues with certain Android versions or manufacturers' devices that use firmware level screen orientation settings.

Please read more about in the Troubleshooting section.

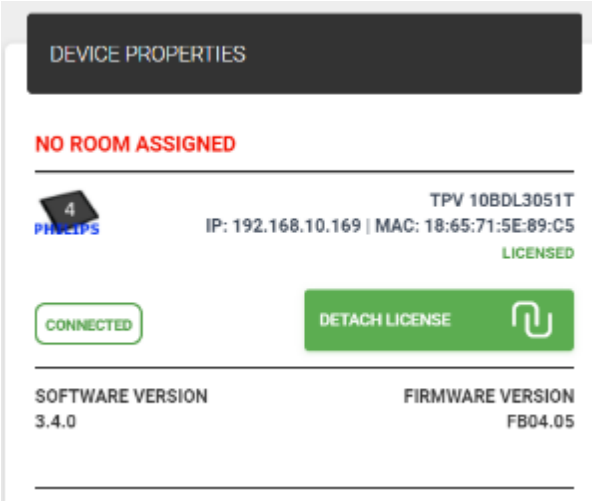
Device changes - replaces

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

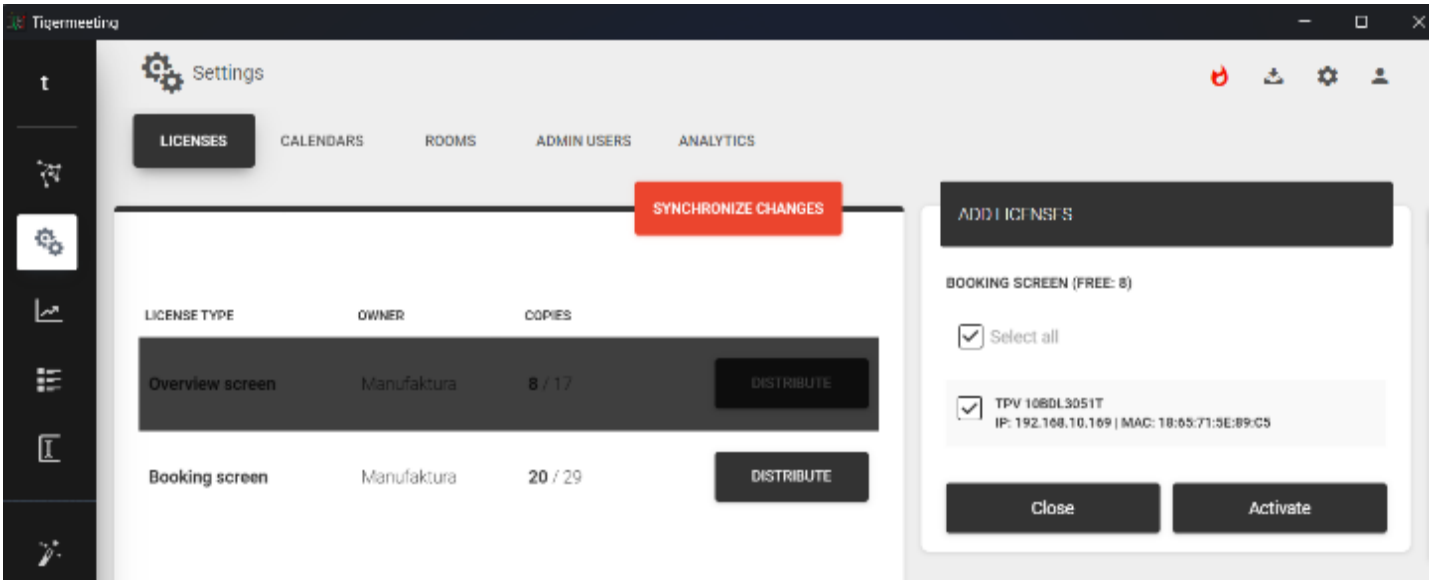
Tigermeeting licenses are perpetual, and they are tied to the devices' MAC addresses or Android IDs within an organization

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 into the new devices and let them appear in the Admin App
2. In the Network tab, edit the device properties and DETACH the license from the old devices – one 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.

Remove a device from the network

In certain cases, a device needs to be removed from the network.
These cases include:

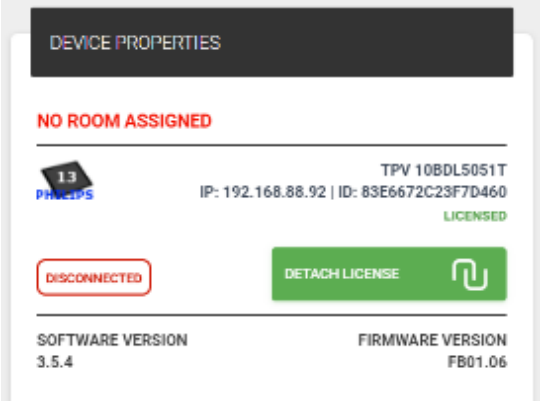
- device repair
- device replacement
- permanent removal
- device factory reset
- moving the device to another environment

In these cases, it is recommended to remove from the Tigermeeting network otherwise this device will constantly appear with disconnected status.

The Tigermeeting network identifies devices by the MAC address or the AndroidID.
The MAC address – used on the devices up to Android 8-is permanent.
The AndroidID – on devices running Android 9 and newer - is regenerated after every factory reset – therefore an installed device that was resetted will appear on the network as a new device without a license (in some cases with the same IP address).

Steps to remove the device from the Tigermeeting network:

1. Switch off the device or just turn off the network interfaces – make it “DISCONNECTED”
2. If the device is permanently removed, detach the license – to free up for using with other devices



3. Remove the device from the network

NOTE: after the reboot, the removed device will attempt to join the network again as a new, unknown device.

Move a device to another network segment

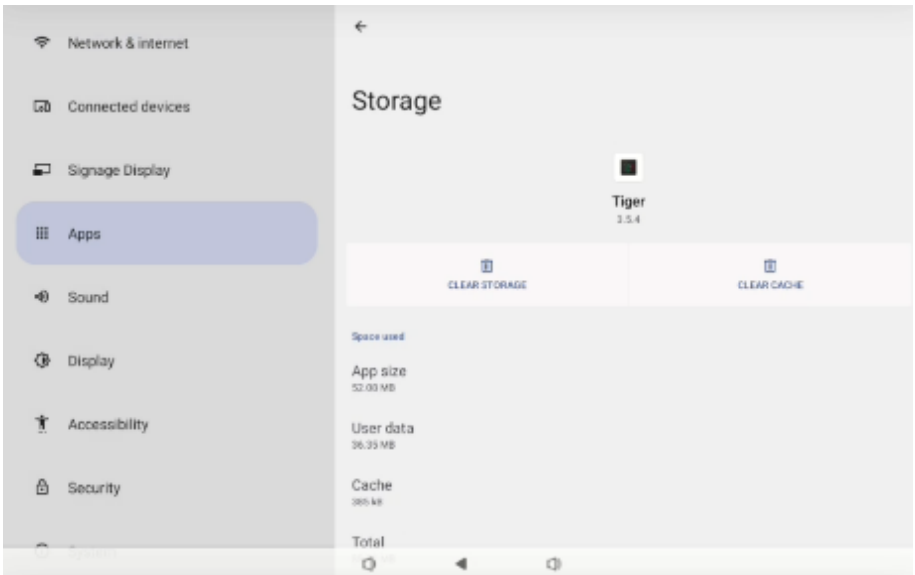
Tigermeeting -as an on-premises calendar solution – is heavily dependent on the communication on the network segments like VLANs and subnets.

Moving a Tigermeeting configured device from one network segment to another or to another organization could make troubles with the configuration.

The Tigermeeting application will start using the new network configuration, but the configuration database might not match with the new segment's configuration – especially if another Tigermeeting installation is already configured there. This will lead to the databases race condition – that **SHOULD (MUST) BE AVOIDED**

The solution and the recommended practice is:

1. Follow the steps above for **Remove a device from the network**
2. Set the device in maintenance mode in order to reach the Android setup menu
3. Turn off the network (both Wi-Fi and Ethernet)
4. Navigate to the App (Application) menu
5. Find the installed Tiger app
6. Navigate to Storage & Cache
7. **Clear storage and Clear Cache**



8. Move the device to the desired network segment
9. Enable and configure the network.

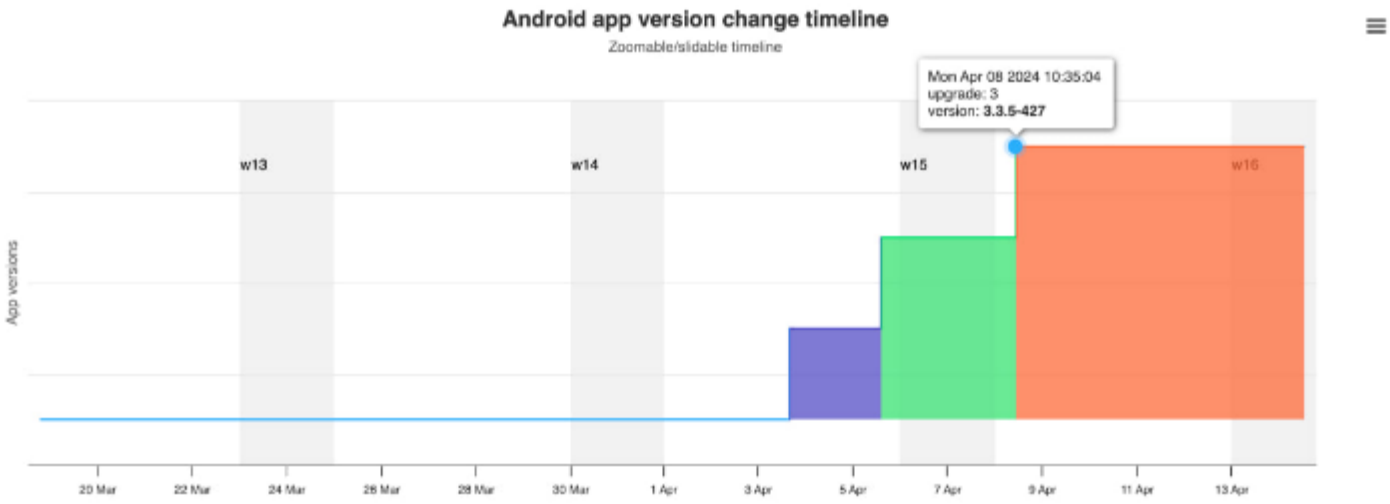
NOTE: if the new network segment contains configured Tigermeeting devices, the new device will adapt and become part of the network automatically. Configure with Admin App.

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.

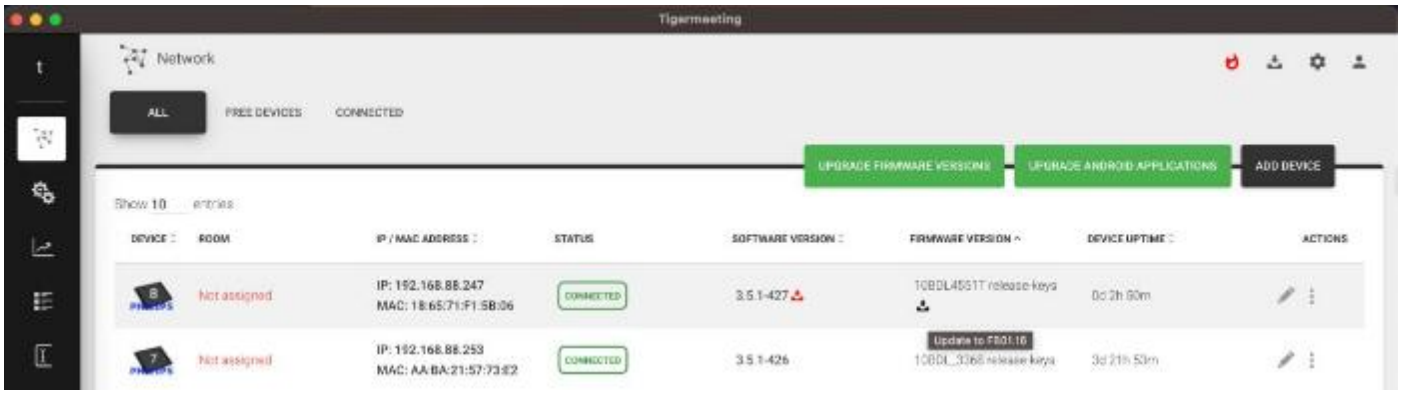
The software release notes are published in the Admin application under the About menu

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.

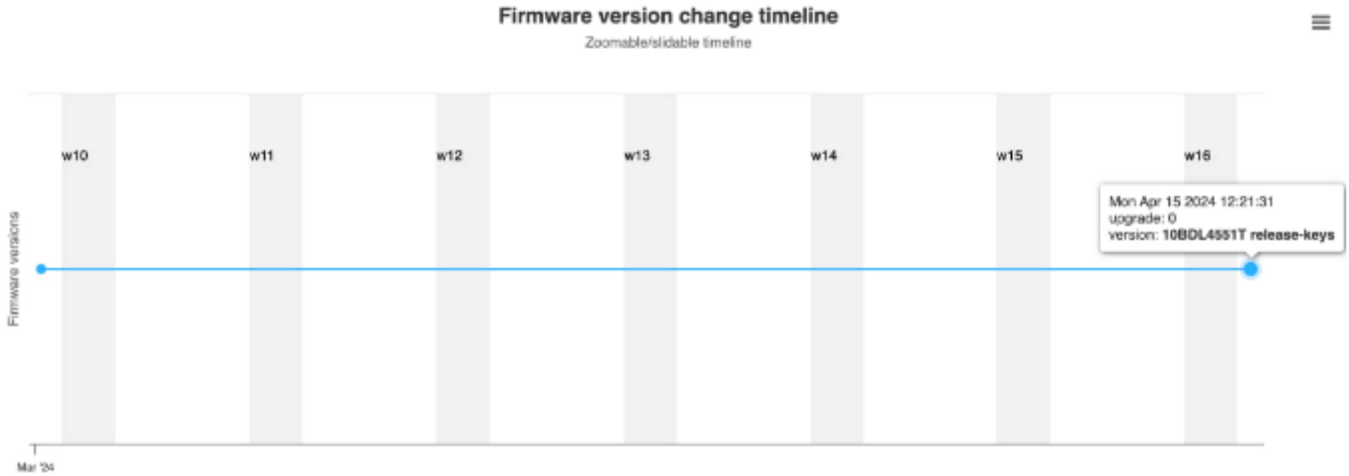
Firmware upgrade

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 shown up in the Admin App ->Network list and the Admin user has 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 hardware manufacturer.
Read more about in the Terms of Service document: https://tigermeeting.app/terms-of-service

Tigermeeting architectural concepts

Tigermeeting product architecture

Tigermeeting is a **serverless, on-premises, modular** and **scalable** meeting room management solution.
These attributes make Tigermeeting unique and outstanding in the competition in the otherwise very cloud-oriented meeting room management market.

- **Serverless:** Tigermeeting installation does not require a dedicated server for the calendar operations.
- **On-premises:** Tigermeeting basic calendar operation is fully functional without any cloud service or internet connection.
- **Modular:** Tigermeeting infrastructure consists of the devices running the Tiger APK and the Admin app that are logically loosely coupled over the network.
- **Scalable**: Utilizing the modular architecture – Tigermeeting is easily scalable by adding or removing the devices – operations that do not have any significance on the Tigermeeting or the network performance.

Tigermeeting utilizes the modern network design best practices and the best security infrastructure principles in order to achieve functionalities listed above.

The most important design patterns are the network segment and the broadcast messaging utilization.

Network segmentation

A network segment is a portion of a computer network that is separated from other parts of the network. This separation can be physical or logical, depending on the network's design and the devices used to interconnect the segments.

Here are some key points about network segments:
(read more at https://en.wikipedia.org/wiki/Network_segmentation)

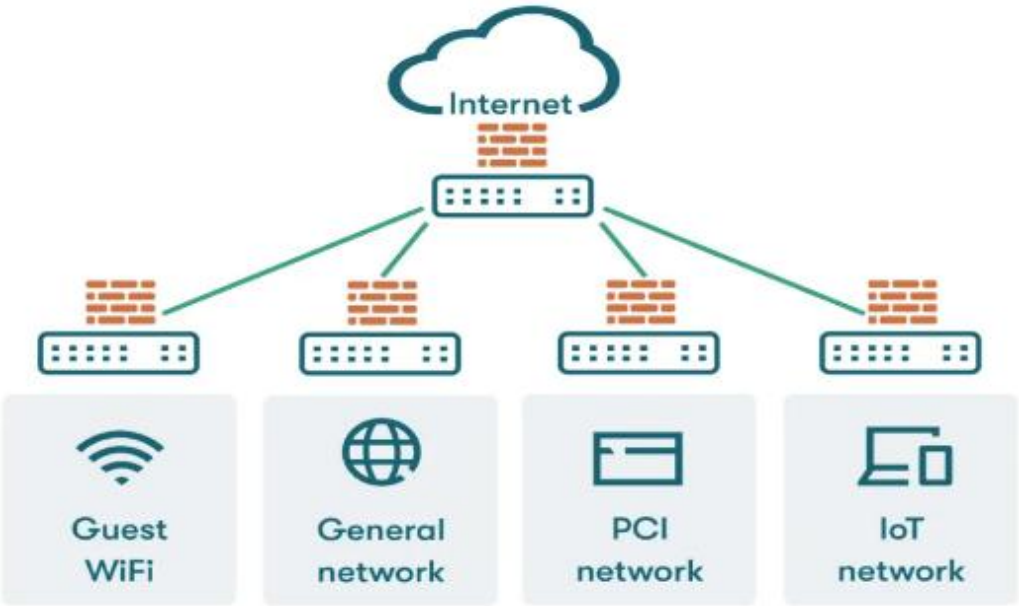
1. **Definition**: A network segment is a specific part of a network topology, often defined by the connection between two computers or network devices like routers or switches.
2. **Purpose:** Network segmentation is used to improve network performance and

security by dividing a larger network into smaller, more manageable parts. This can help reduce congestion, limit the spread of cyberattacks, and protect sensitive data.

3. **Methods:** Segmentation can be achieved through various means, such as using Virtual Local Area Networks (VLANs), firewalls, and software-defined networking (SDN) technologies.
4. **Benefits:**
    - Reduced Congestion: By limiting the number of devices on each segment, network traffic is reduced, leading to better performance.
    - Improved Security: Segmentation can contain broadcasts to local segments and reduce the attack surface, making it harder for attackers to move laterally within the network.
    - Enhanced Control: It allows for more granular control over network traffic and access, ensuring that only authorized devices and users can access certain parts of the.

Example 1: in a corporate environment, admins might want to segment the network to separate the finance department's sensitive data from the general office network, ensuring that only authorized personnel can access financial information.

Example 2: there are very good reasons logically to separate office spaces between different cities or between large buildings.



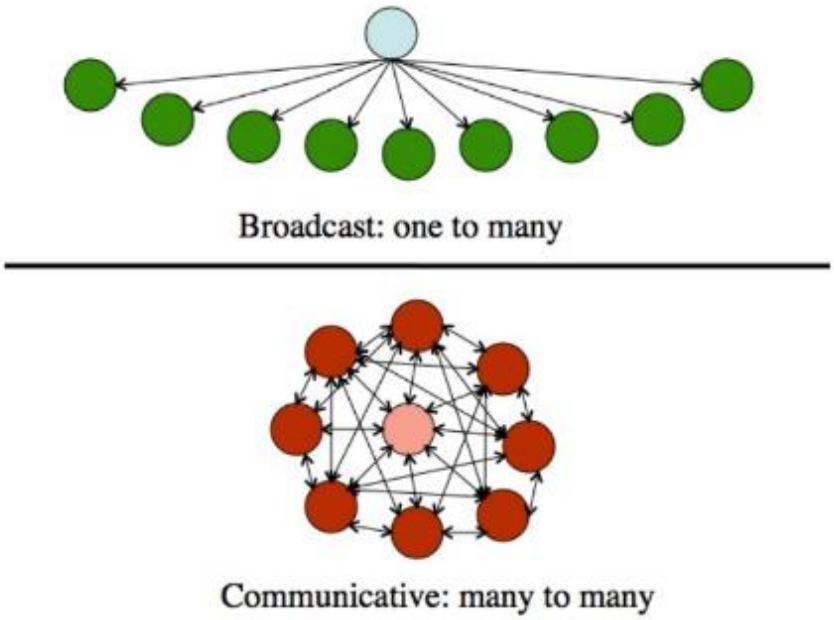
Broadcast communication

A broadcast communication on a network segment refers to the transmission of data packets to all devices within that segment simultaneously. This method ensures that every

device on the network segment receives the same information at the same time.

Here are some key points about broadcast communication:
(read more at https://en.wikipedia.org/wiki/Broadcasting_(networking))

1. **Definition:** Broadcasting is a method of sending a message from one sender to all possible recipients within a network segment. This is different from unicast (one-to-one) and multicast (one-to-many) communication methods.
2. **Broadcast address:** In IPv4 networks, a broadcast address typically ends with the network's highest IP address (like 255 for the network 192.168.1.0/24 e.g., 192.168.1.255), indicating that the packet should be delivered to all hosts on the network. In IPv6, broadcast communication is achieved through multicast addressing.
3. **Usage:** Broadcast packets are used for various network processes, such as Address Resolution Protocol (ARP) requests, network discovery, and sending network-wide alerts. For example, when a device needs to find the MAC address associated with an IP address, it sends an ARP request as a broadcast packet.
4. **Broadcast domain:** The scope of a broadcast is limited to a broadcast domain, which is typically defined by the boundaries of a local network segment. Devices within the same broadcast domain can receive broadcast packets from each other.
5. **Efficiency and limitations:** While broadcasting is efficient for certain tasks, it can also lead to network congestion if overused, as every device on the network segment processes the broadcast packets.



Broadcast communication is essential for certain network operations, but it's important to manage it properly to avoid potential issues like broadcast storms, which can overwhelm the network.

Tigermeeting on network segments

A Tigermeeting installation – a **Tigermeeting island**- lives on one network segment.

Devices running the Tiger APK communicate with each other using broadcast messages. As broadcast messages are usually limited to a network segment – or if this is not the case – there is a conscious decision to connect several network segments with broadcast

Based on the network segment architectural principles – benefits and limitations -, the following important facts apply:

- A Tigermeeting island's event horizon is the broadcast networks boundary.
- More than one Tigermeeting islands can coexist independently within an organization separated by network segments.
- Each Tigermeeting island needs to be managed individually.

As 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.

Summary of these requirements are described in the very first chapter – as many admin users do not want to dig deeper into the architectural concepts – however while dealing with complex network topics deeper understanding is highly recommended.

- **Broadcast requests need to be enabled** on the network segments (desired across the network segments as well if this is needed to fit into architectural network boundaries - 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** to be enabled between the devices 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.

TCP and UDP ports required for Tigermeeting infrastructure operations are documented. See https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers.

Tigermeeting cloud

Tigermeeting does not need any network access for normal calendar operation. However, adding some limited cloud functionality significantly improves the calendar usability, flexibility, customer desired use-cases, support for themes, background changes, analytics, hardware and meeting room metrics as well as software and device hardware upgrades.

Open communication towards the Tigermeeting Cloud - **tigermeeting.app** via **TCP port 443** is required for the following functionalities:

- Admin app: admin login
- Admin app: forgotten password reset
- Admin app: view analytics
- devices' periodic license 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
- weather service
- theme service (change theme, change background image)
- user authentication (NFC, scanner)

Please read more about the Tiger cloud and closed internet, on-premises operations in the "Tiger services on a closed on-premises environment" chapter.

NOTE: Tigermeeting offers dedicated site-to-site VPN connection setup towards the Tigermeeting cloud for improved security. Please, request this feature from your sales representative or Tigermeeting customer support.

Tigermeeting cloud – cluster - is located within the European Union.

Tigermeeting network usage

Tigermeeting network usage depends on the number of devices in the network segment.

Every device sends broadcast messages every 30 seconds. The size of the broadcast messages is between 20 bytes-to up to 1kb.

Database synchronizations occur when the devices are out of sync or the Admin app pushes out the new configuration. The typical size of the database (with encryption payload) is about 20kb – that can slightly vary based on the number of devices in the database.

Every device reaches out to the calendar individually to fetch the calendar reservations for up to next seven days (using sliding window). This payload depends on the organization's calendar type and meeting room bookings / usage.

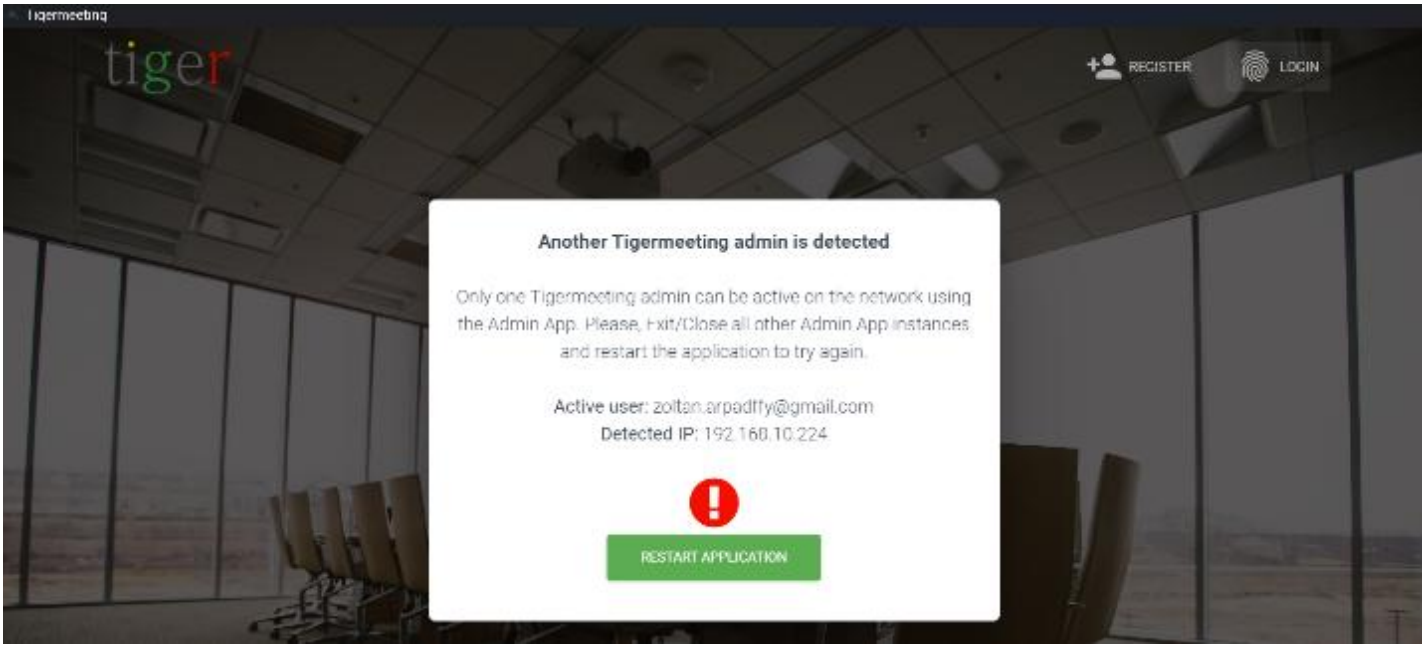
Tigermeeting administration

Tigermeeting application is based on a distributed database architecture and high watermark synchronization technology where the devices just share and obey the configuration held by the database.
When the configuration needs to be changed – an Administrator starts the Admin app on that segment. The Admin application becomes part of that particular Tigermeeting island, fetches the database shared by the devices and allows editing the configuration.

The Admin user pushes out the configuration with "SYNC WITH DEVICES" operation. The devices accept the new configuration and start to use the new config immediately.

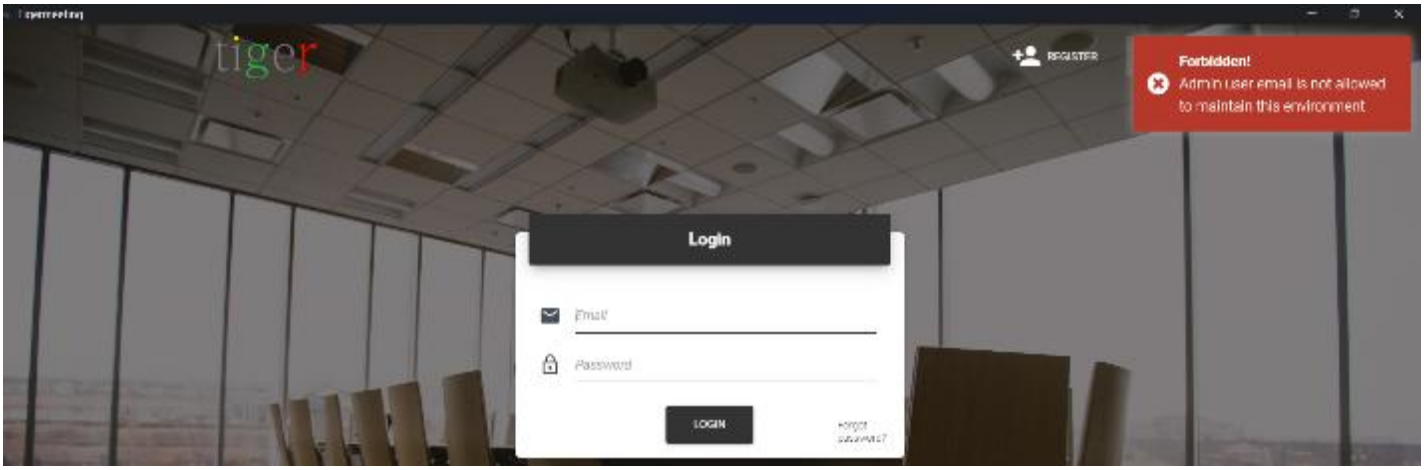
Limitations:

- based on the network and architectural concepts presented in this chapter, it is obvious, that if more than one Admin users would be allowed to change the network configuration at the same time, they would override each other's changes – this is the reason that the **Tigermeeting infrastructure does not allow more than one Admin app running on a network segment.**



- Tigermeeting administrators are limited to administrate their own environments – this is an obvious requirement – nothing strange with it. However, given the

Tigermeeting decentralized and loosely coupled architecture – even though the Admin app validates the admin user credentials during the admin login – the admin could be denied.
Because the Admin application – that does not have any preference or stored configuration – does not know in advance what Tigermeeting island is about to be managed after the login- therefore the check, if the logged in admin user has permission to administrate that particular Tiger segment or not is decided only when the Admin app first fetches the database from the devices.
If the – otherwise correctly authenticated - admin user does not belong to the organization that owns the particular Tigermeeting island licenses – the admin is logged out with the “FORBIDDEN” message.



NOTE: This event is logged in both organizations’ admin logs to avoid abuse.

Administration via VPN connection

The "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.

Network
ALL
FREE DEVICES
CONNECTED
DISCONNECTED
UPGRADE ANDROID APPLICATIONS
ADD DEVICE
Show 10 entries
DEVICE
ROOM
IP / MAC ADDRESS
VERSION
FIRMWARE VERSION
DEVICE UPTIME
ACTIONS
NewYork
Madrid
CONNECTED
Add device by IP address
ADD DEVICE

The virtual brands and the virtual networks concept

Tigermeeting introduced the virtual brand and virtual network concept in order to allow different Tigermeeting and its white-label brands to coexist on the very same network segments – also assigning virtual network to every network allows coexisting of different virtual networks of the very same virtual brand on the same network segment.

The virtual brand and the virtual network assignment happens automatically – and it is generated during the admin user login, that identifies the license holder organization and limits the Admin users' scope on a specific brand and virtual network.

This significantly expands the on-premises configuration ability, especially for huge organizations with complex network infrastructures – as with this concept helps that earlier limitations vanish allowing:

- Using different calendars on a same network segment
- Using different Tigermeeting white label brands on the same network
- Segment the devices in a customer specific way while the devices share the same network infrastructure
- Allow several independent organizations to manage their own Tigermeeting installations on a same network infrastructure – like in rented office spaces

LIMITATION: a Tigermeeting admin user identified with an e-mail address cannot belong to more than one organization with the same e-mail address.

Normal users are not affected by this limitation, however, service integrators, distributors who maintain several customers infrastructure and Tigermeeting installations as not allowed to use the same e-mail address for different customers (Tigermeeting installations).
A simple workaround is to create dedicated e-mail addresses for every customer.

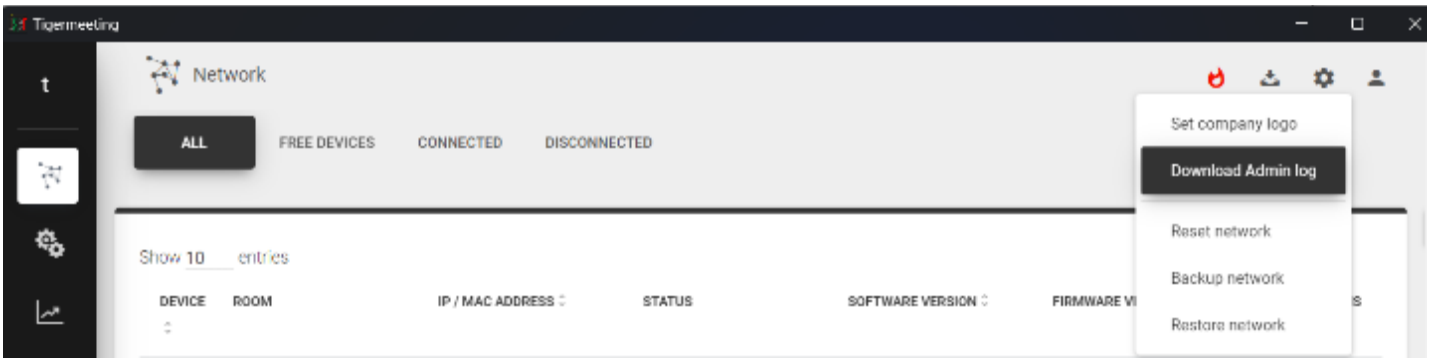
Please talk to Tigermeeting customer support if there are any questions about this behavior.

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

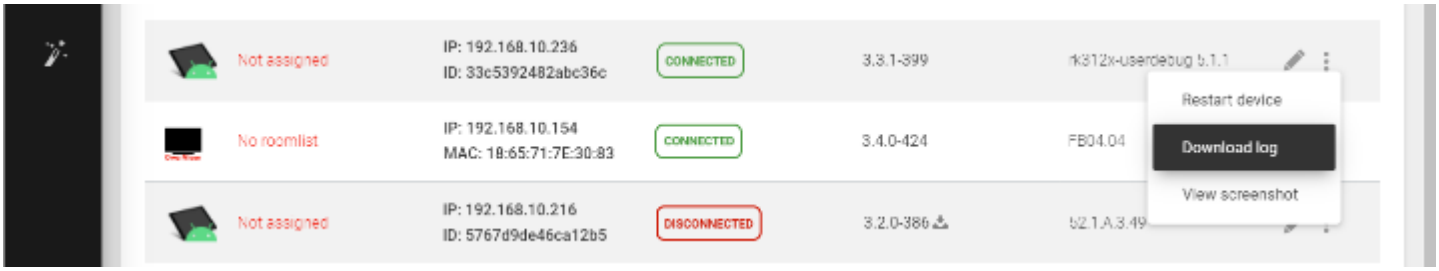
Download the Admin App logs from the settings menu (the gear symbol in the upper right corner)



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.

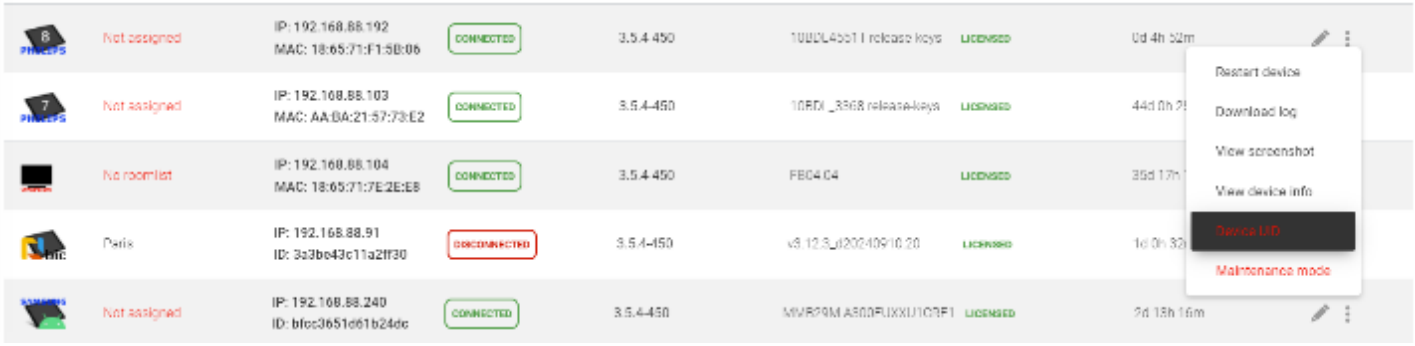


The downloaded log file has a descriptive filename like Tigermeeting-DeviceLog-(18-65-71-5E-89-C5)-29-02-2024-2345.log. Please do not rename or edit the file content.

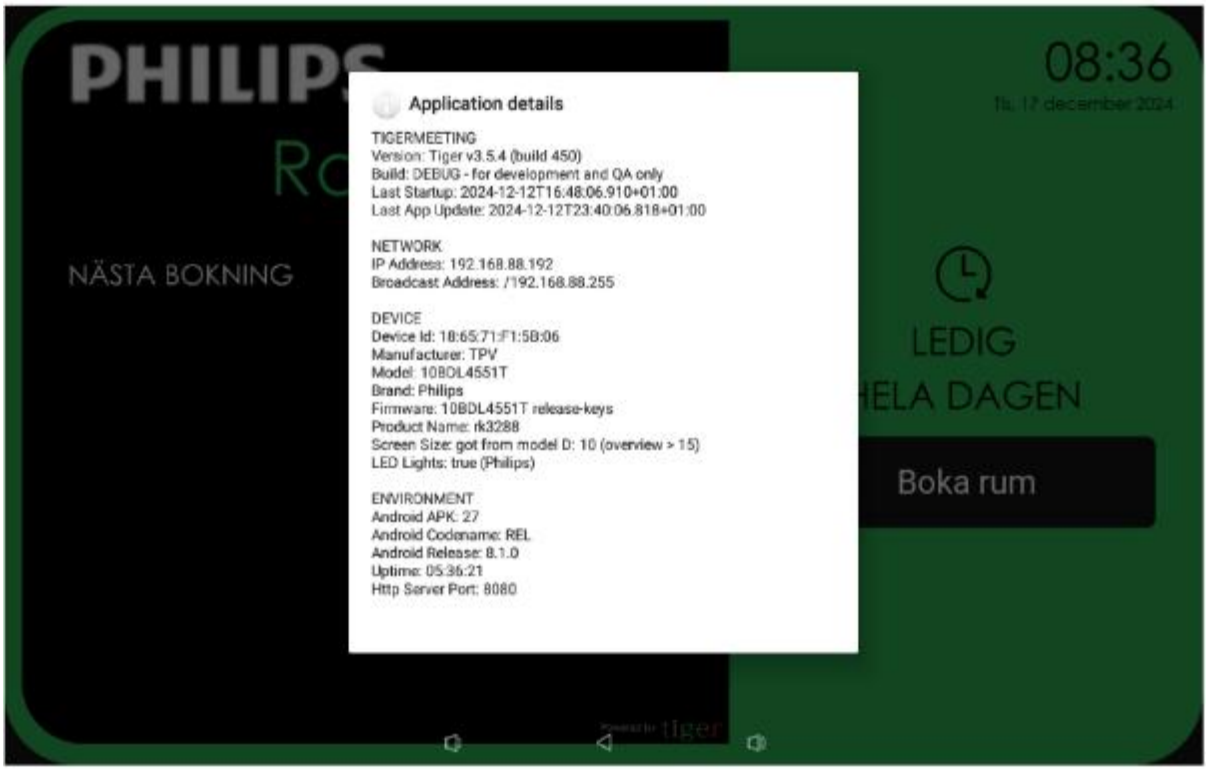
The logs are encrypted text files that are safe to send by email. Please, send them to the Tigermeeting Customer support when requested.

Device UID (Unit Identification)

In cases when a device needs to be identified by the administrator, the Device UID (Unit Identification) can be used to easily identify the particular device.
UID commonly used technology within the server infrastructure area – when pressing the button on the front of the server, it activates an LED light on both the front and back of the server, making it easier to identify the server in a rack.



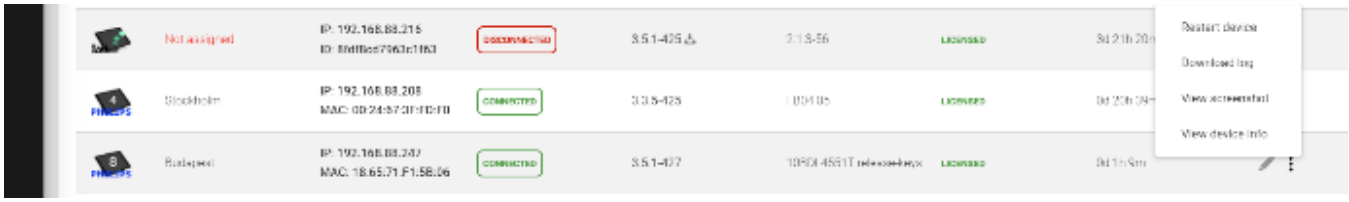
With using the Device UID request – the device shows a unit identification window over the screen.



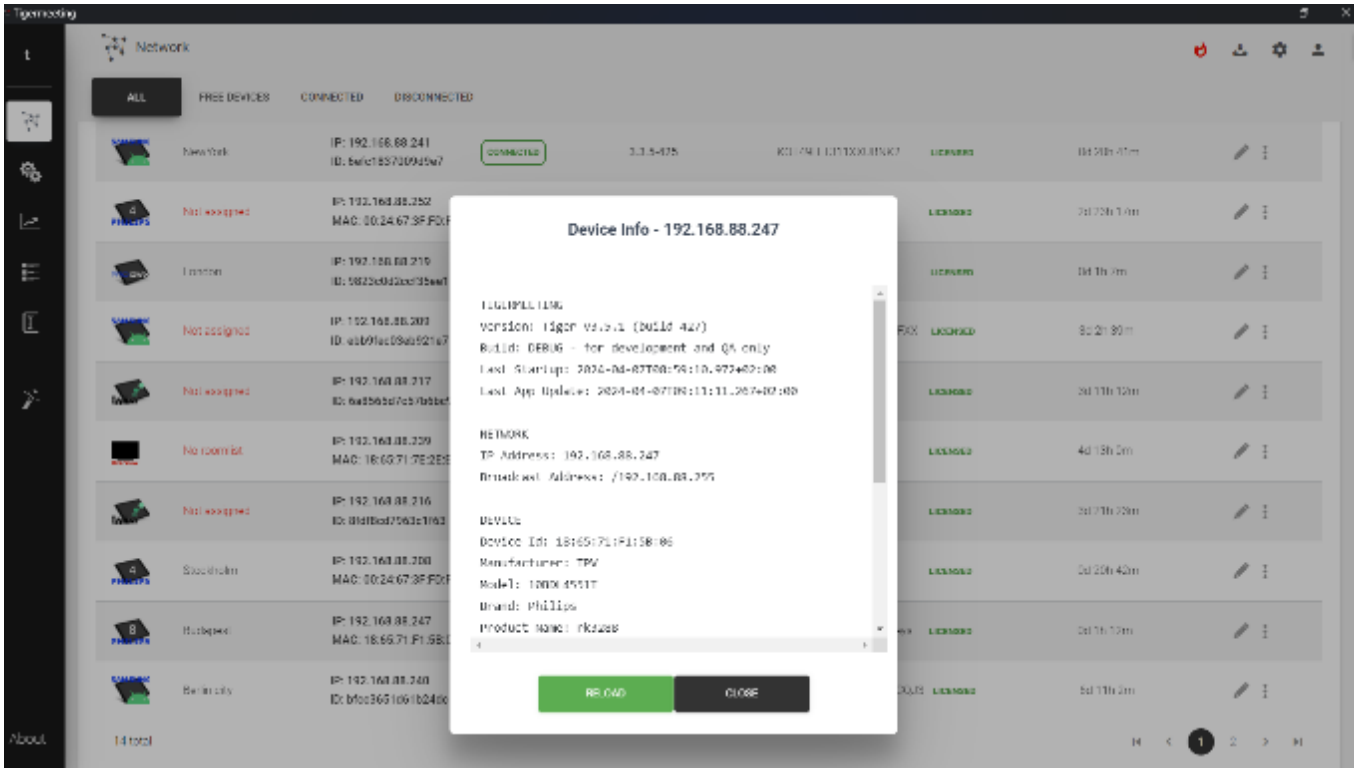
NOTE: the unit identification window stays covering the screen until the next restart or screen touch (if the device has on screen touch enabled).

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.
Example:

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

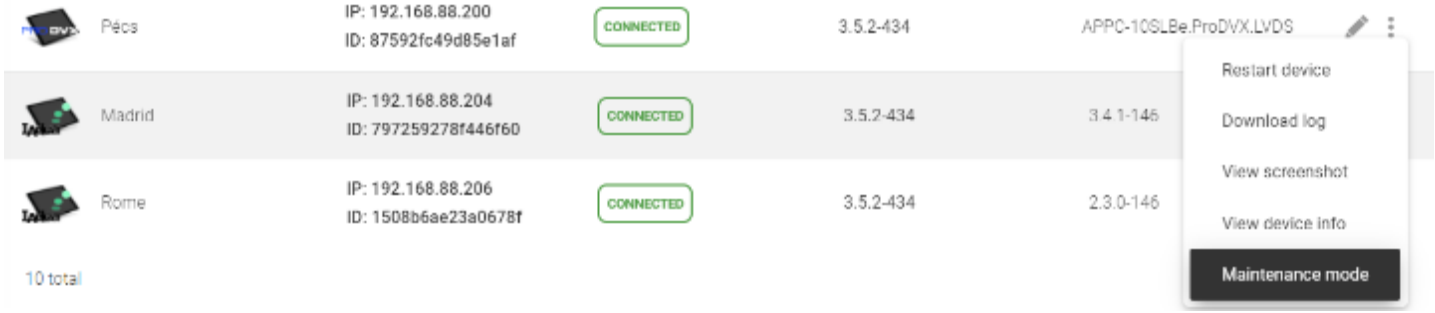
This information can be valuable when troubleshooting the system.
Please, share this information with Tigermeeting customer support if this information is asked.

Maintenance mode

Tigermeeting solution is most often used in public spaces – it is necessary to take security measures that prevent malicious attacks and screen abuse.
Therefore, Tigermeeting application uses standard Android technology to occupy the whole screen and disable access – like:

- SYSTEM_UI_FLAG_LOW_PROFILE: Status bar icons are dimmed.
- SYSTEM_UI_FLAG_HIDE_NAVIGATION: The navigation bar is hidden.
- SYSTEM_UI_FLAG_FULLSCREEN: The status bar is hidden.
- SYSTEM_UI_FLAG_LAYOUT_STABLE: Helps maintain a stable layout.
- SYSTEM_UI_FLAG_LAYOUT_HIDE_NAVIGATION: The navigation bar will overlay the app's content.
- SYSTEM_UI_FLAG_LAYOUT_FULLSCREEN: The status bar will overlay the app's content.
- SYSTEM_UI_FLAG_IMMERSIVE: The user can reveal the system bars with a swipe gesture, but they will be hidden again automatically.
- SYSTEM_UI_FLAG_IMMERSIVE_STICKY: Similar to SYSTEM_UI_FLAG_IMMERSIVE, but the system bars stay visible briefly.

In the same way if the device supplier provides an API interface for blocking unwanted screen access – they are also used.
The user may experience that the Tigermeeting occupies the whole device, and the device is inaccessible. In most cases this is not true. By studying the supplier's device manuals, it may reveal that there are some button combinations, password protected dialogs that can bring up the system bar and buttons to perform a device maintenance operation.
There are cases where the supplier API blocks the maintenance, and an API call is needed to unlock the screen. (ProDVX and Allnet devices are an example).

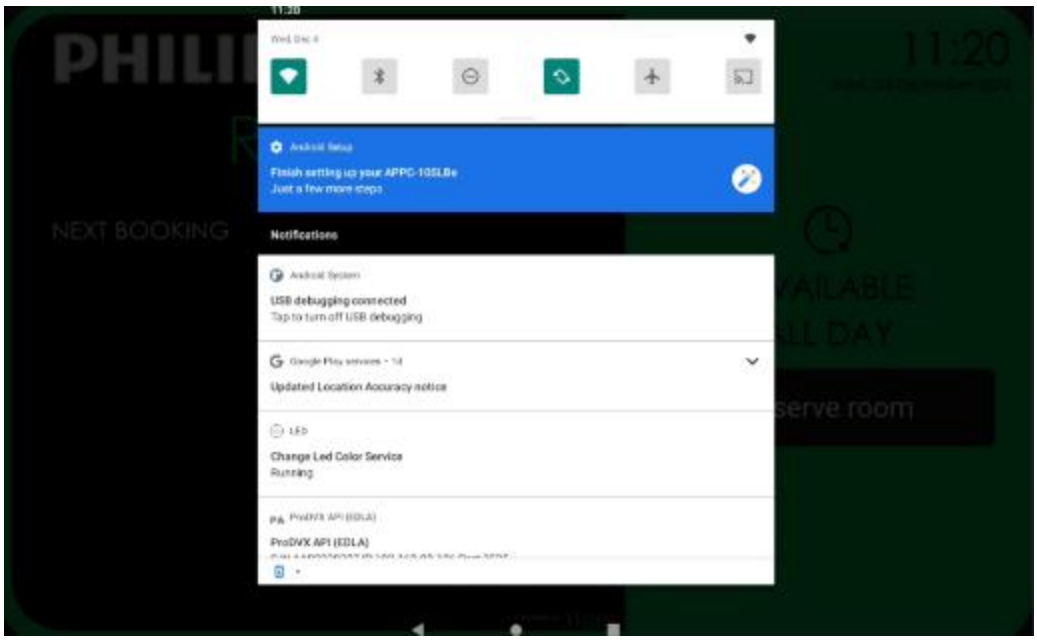


For supported devices a "Maintenance mode" is shown.

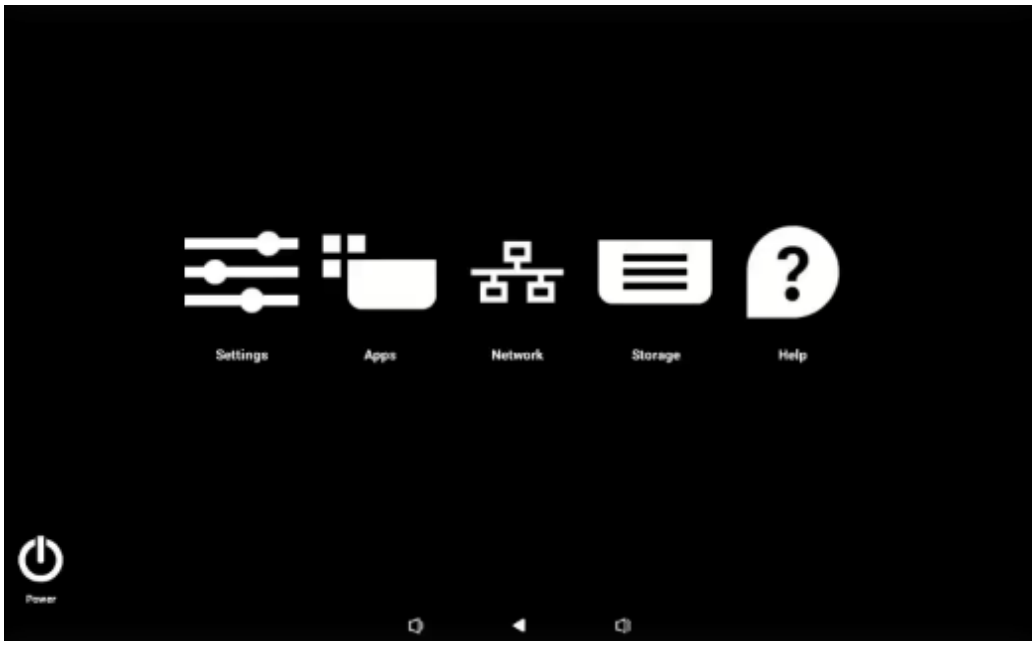
Have the device around – as on some devices the system bar will appear just briefly for a short time, or a swipe down from the top of the screen is needed for the system bar to appear. The Android Setup program is started on supported devices.

NOTE: for security reasons, never leave the devices unattended in active maintenance mode.

After swiping down from the top the system menu will appear on ProDVX screens:



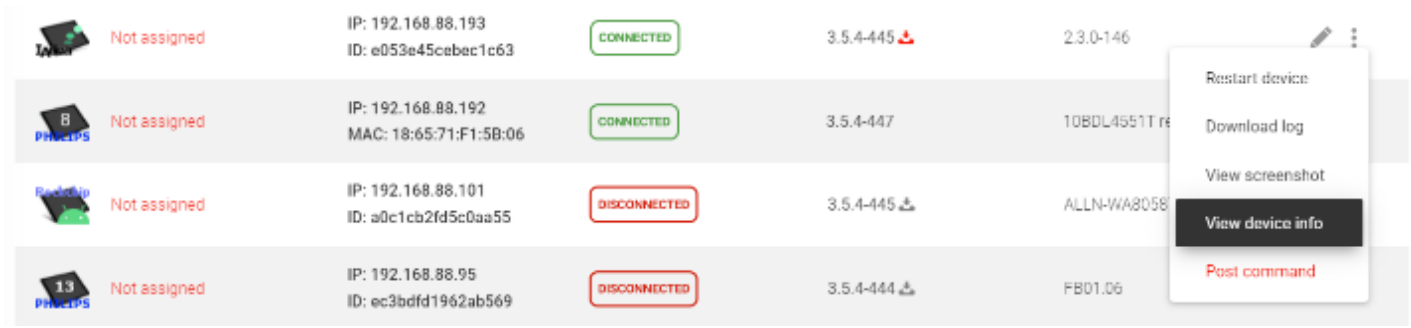
Philips (and other Android screens) will invoke the Setup app without any password protection



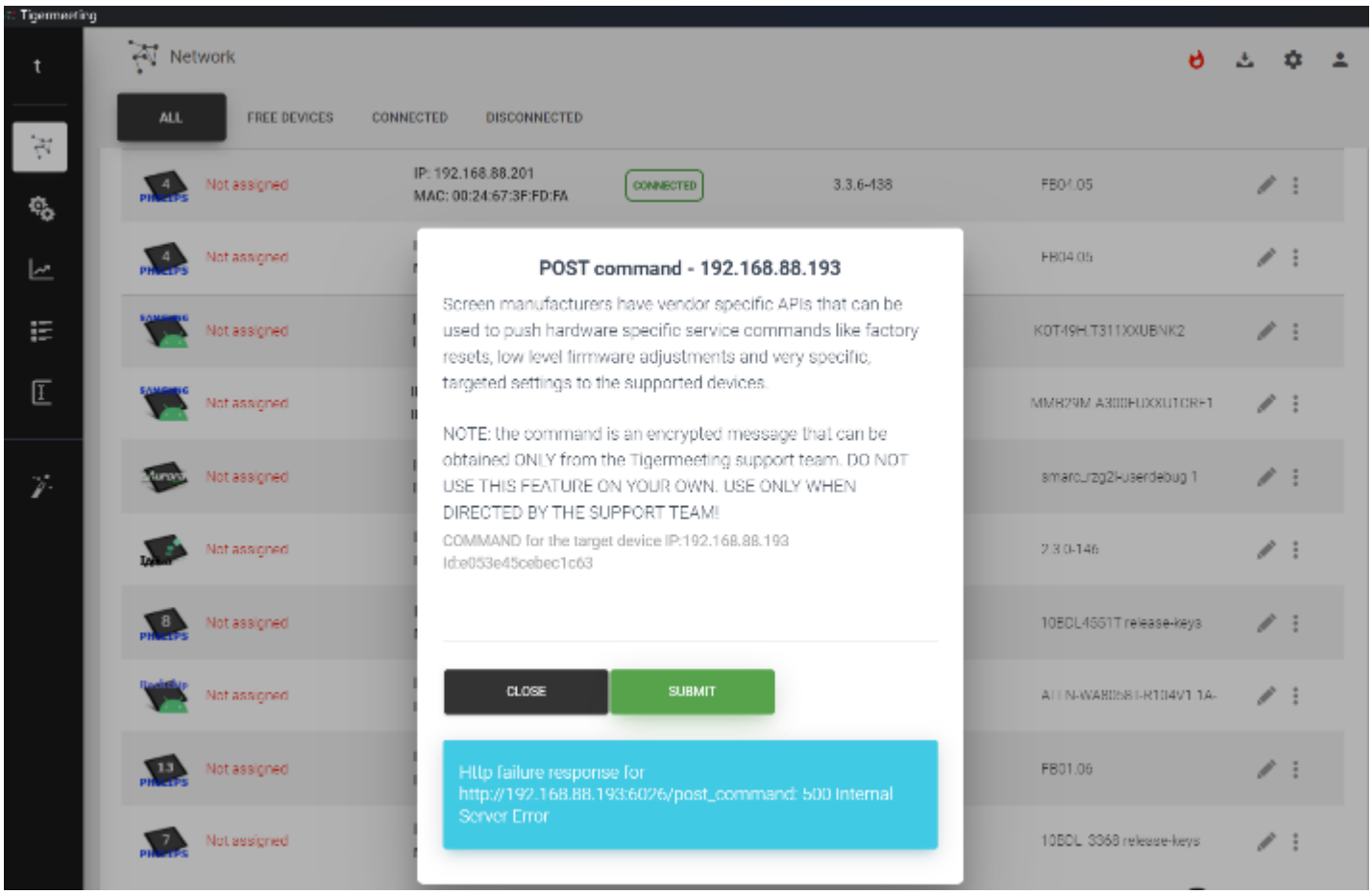
NOTE: after the maintenance, **the devices need to be rebooted** to restore protection. This is especially important when the devices are placed in public spaces where there is a high risk of abuse of exposed, unprotected devices.

POST command

The POST command is available for supported devices -like IAdea, Qbic and Aurora – where the vendor API allows very low level and even security operations on the devices. The APIs are not publicly available, but Tigermeeting allows a secure way to communicate with devices by pushing out an encrypted message that will be consumed by the device.



If the message is not encrypted with the Tigermeeting keys or the message is badly formatted – the screen will respond with an error message.

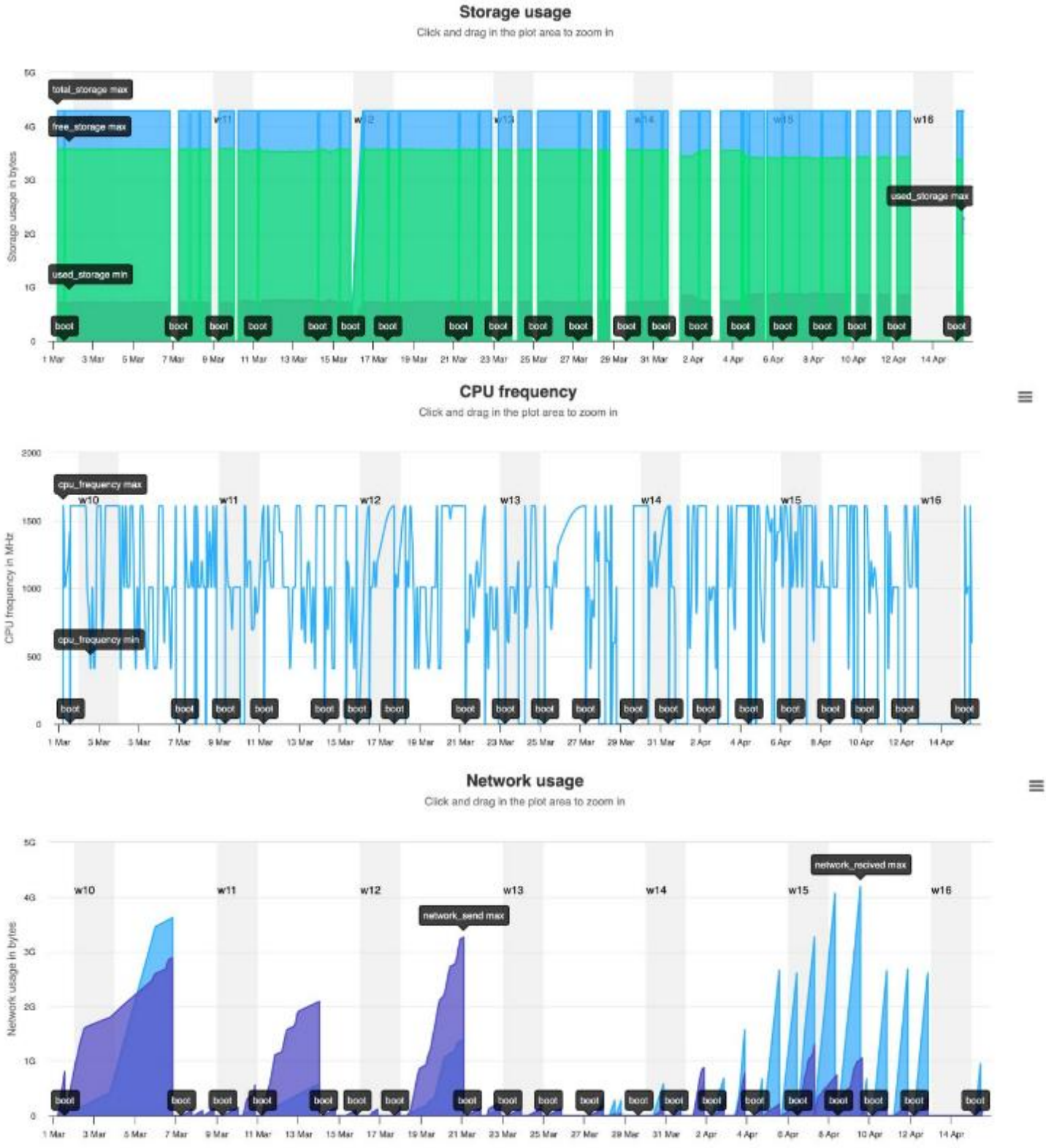


IMPORTANT NOTE: the command is an encrypted message that can be obtained ONLY from the Tigermeeting support team. **DO NOT USE THIS FEATURE ON YOUR OWN.**

USE ONLY WHEN DIRECTED BY THE SUPPORT TEAM!

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 Android ID

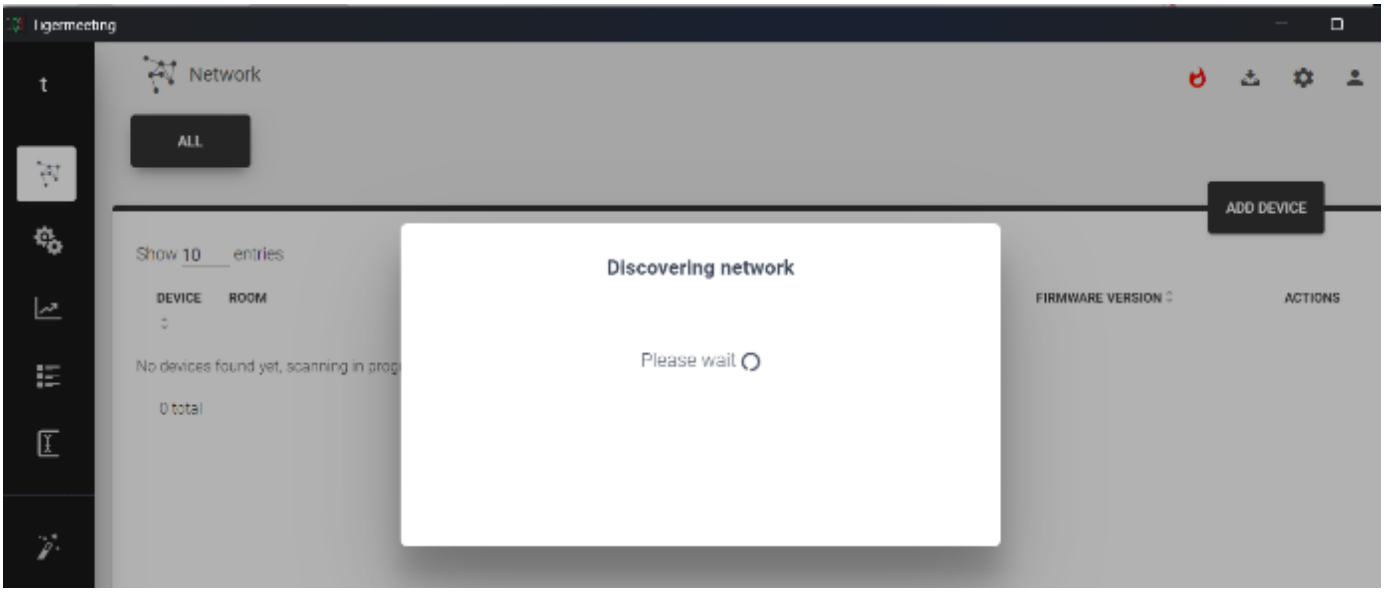


Please, read more details about in the privacy policy and the GDPR compliance page

https://tigermeeting.app/en/features/gdpr-compliance

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.

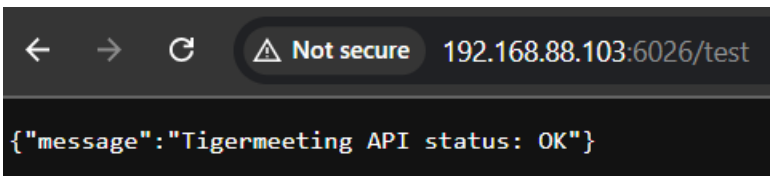


If no devices are discovered, perform the following tests:

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.

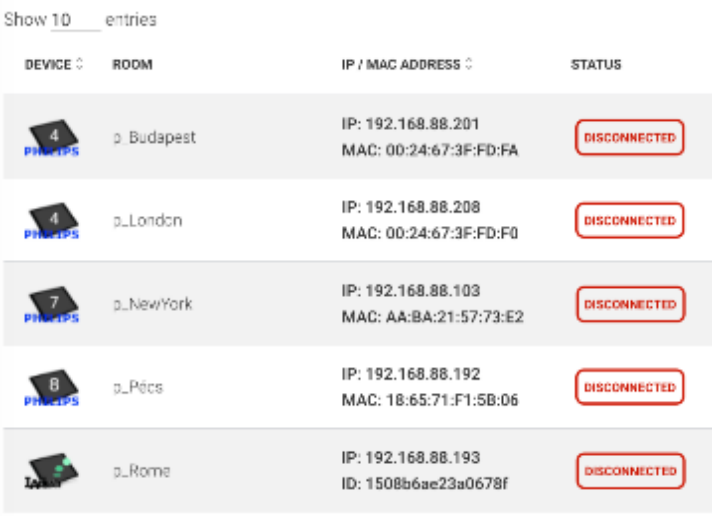
If the device IP is correct and Tiger APK is properly running on the device – and regardless the Admin app is not able to make contact with the device, please open a browser and enter the following URL**: http://device_IP_address:6026**. The expected response is in JSON format like:



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 Tigermeeting support for analysis.

NOTE: Early versions of MacOS Sequoia (version 15.x) have had issues with the device discovery showing all devices being offline:

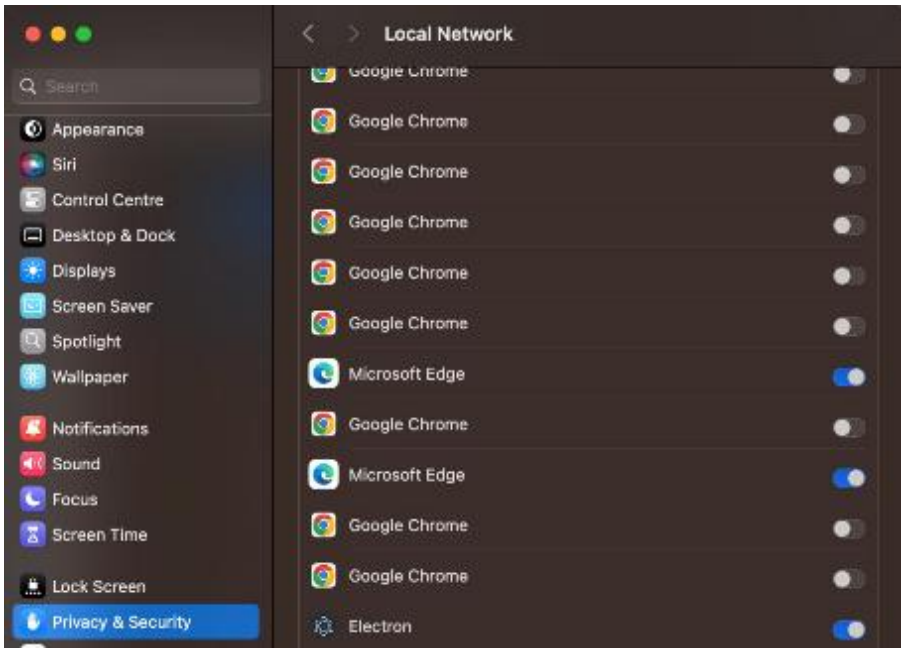


This issue is confirmed on versions from 15.0-until 15.1.x

From MacOS version 15.2 the issue vanished, and it is considered to be solved by the MacOS latest operating system updates.

Please note that, from MacOS Sequoia, the Tigermeeting Admin app – like every other application that require local network access – needs to have a **local network access** permission.

Either allow during the first start or allow the Local Network access permission later in the System Settings->Privacy & Security -> Local Network



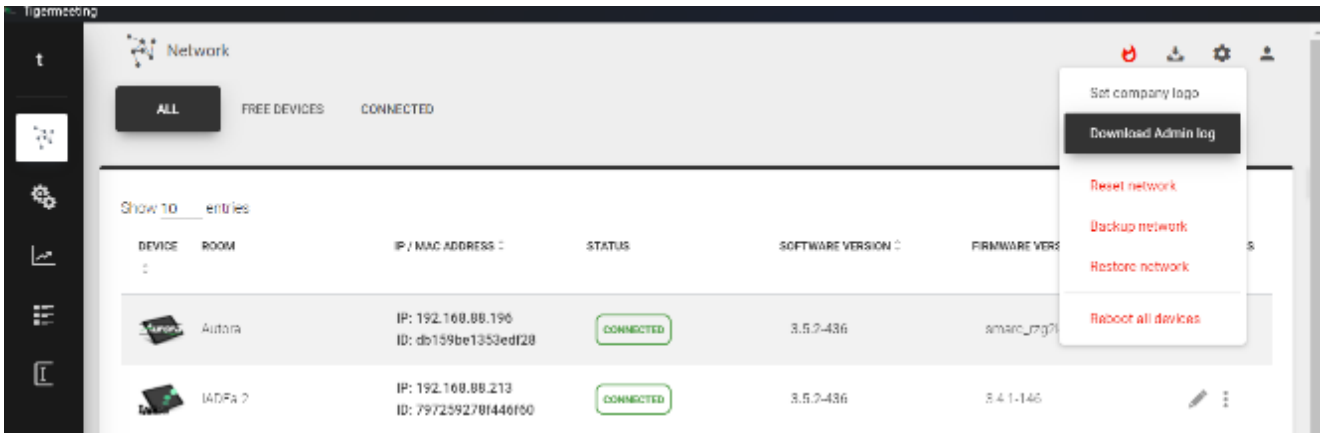
Application name may vary between: Tiger, Tigermeeting or Electron.

Network reboot

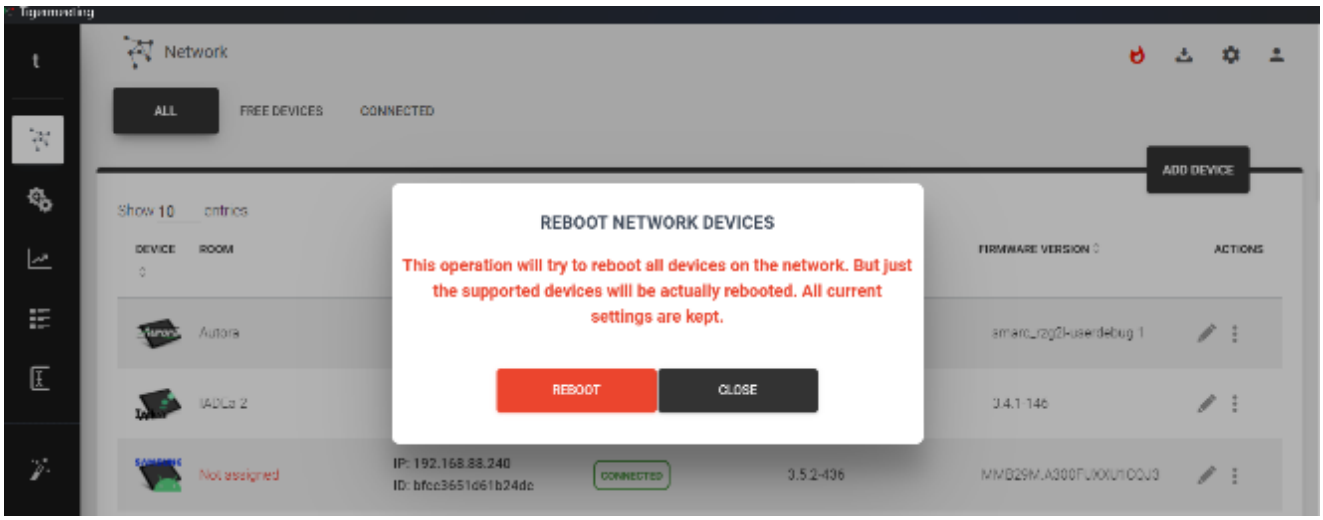
There are cases where the Admin wants to perform network wide operations on all devices.

These operations include:

- **Reset network** – reset the Tigermeeting the parameters on all devices to defaults.
- **Backup network** - perform a backup of the current configuration
- **Restore network** – restore the configuration from a previous backup.
- **Reboot all devices** – perform an instant reboot on all devices.



While the reset, backup and restore operations are intuitive, the reboot requires some explanation.



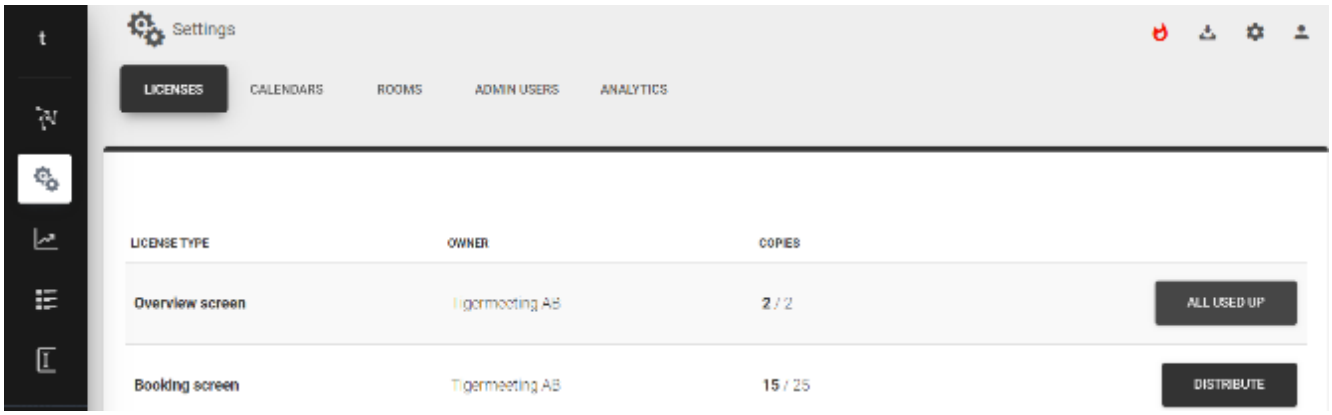
While the customer expectation is that the command will reboot all configured devices, the actual outcome will be that just the supported devices will perform the reboot.
The Tiger Android App is not a root application. It runs in the user space therefore it does not have permission to perform system operations on the devices where the vendor does not provide an interface for it.

Supported devices include all Philips, ProDVX, IAdea, Qbic, and Aurora screens

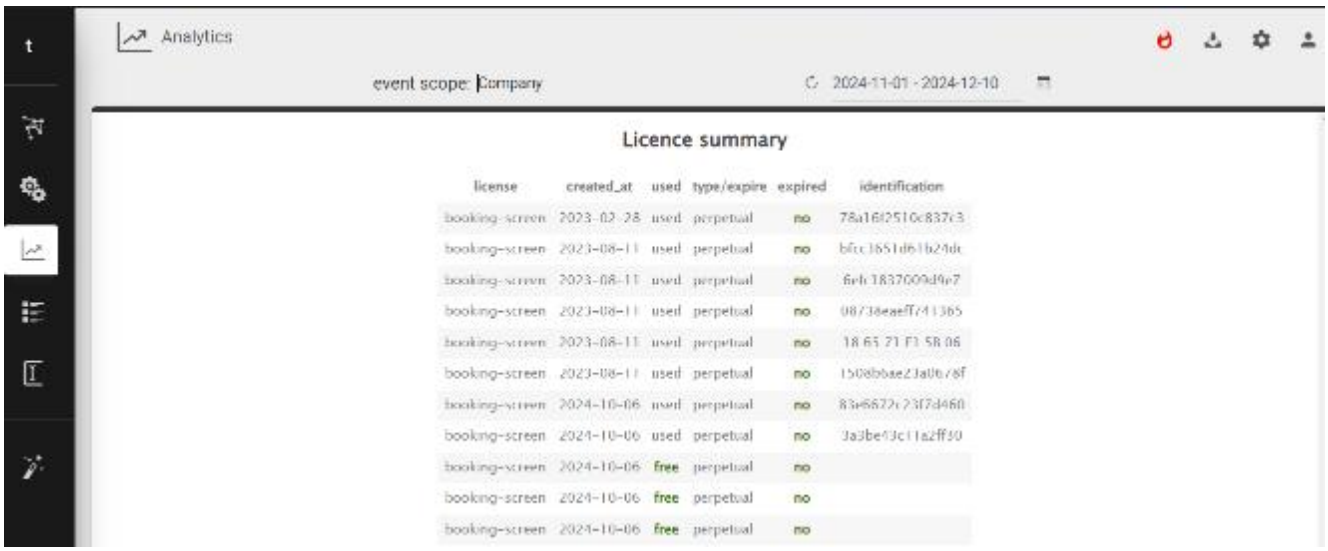
Missing licenses

Reminder from earlier chapters:
Licenses are managed in the Admin App.

Show, and assign licenses in **Settings->Licenses**



Show license types, expiration and assigned device identifications in **Analytics->Company**



In case a licensed device had been deleted from the network without prior detaching the license – the license is kept in “used” state attached to a non-exiting device.

To retrieve those orphan licenses, please contact Tigermeeting customer support asking for a retrieval of orphan licenses by providing the identification (MAC/AdID) of those devices.

Same device multiple times with different identifications

Tigermeeting uses the device's MAC address or Google Android ID to identify the device on the Tigermeeting network.
The MAC address and Android ID on Android devices serve different purposes and have distinct implications for privacy and functionality:

MAC Address:

- Definition: The MAC (Media Access Control) address is a unique identifier assigned to network interfaces for communications on the physical network segment. The MAC is the digital fingerprint of the device's network hardware.
- Usage: It's used for network management and communication within a LAN. A router uses the MAC address to identify and communicate with the devices.
- Privacy: Starting with Android 10, Google implemented MAC address randomization to enhance privacy. This means that devices use a different MAC address for each Wi-Fi network it connects to, making it harder for networks to track your

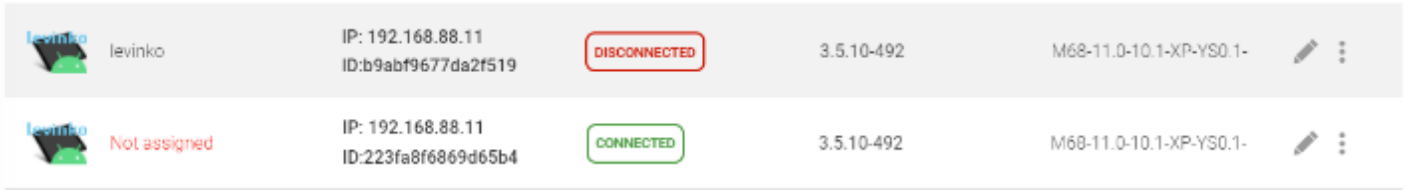
Android ID:

- Definition: The Settings.Secure.ANDROID_ID or SSAID is a unique identifier assigned to a device during its first setup. It is generated once and remains constant unless the device is factory reset.
- Usage: The ANDROID_ID is commonly used by app developers for identifying devices, enabling secure app installations, and managing user accounts across apps and services. Unlike the Advertising ID, the ANDROID_ID is not typically used for personalized advertising.
- Privacy: While the ANDROID_ID is not user-resettable, users can protect their privacy by managing app permissions and restricting access to sensitive device identifiers. Additionally, factory resetting the device generates a new ANDROID_ID

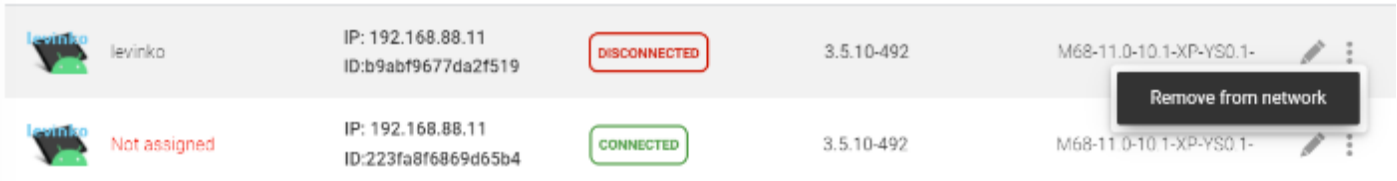
As the network always use devices MAC address – on Android 10+ devices the random MAC change is seemly handled by the Tiger APK.
Firmware factory reset or conscious Android ID reset can manifest that the network discovers the device with the new Android ID - the newly discovered devices do not have a license.

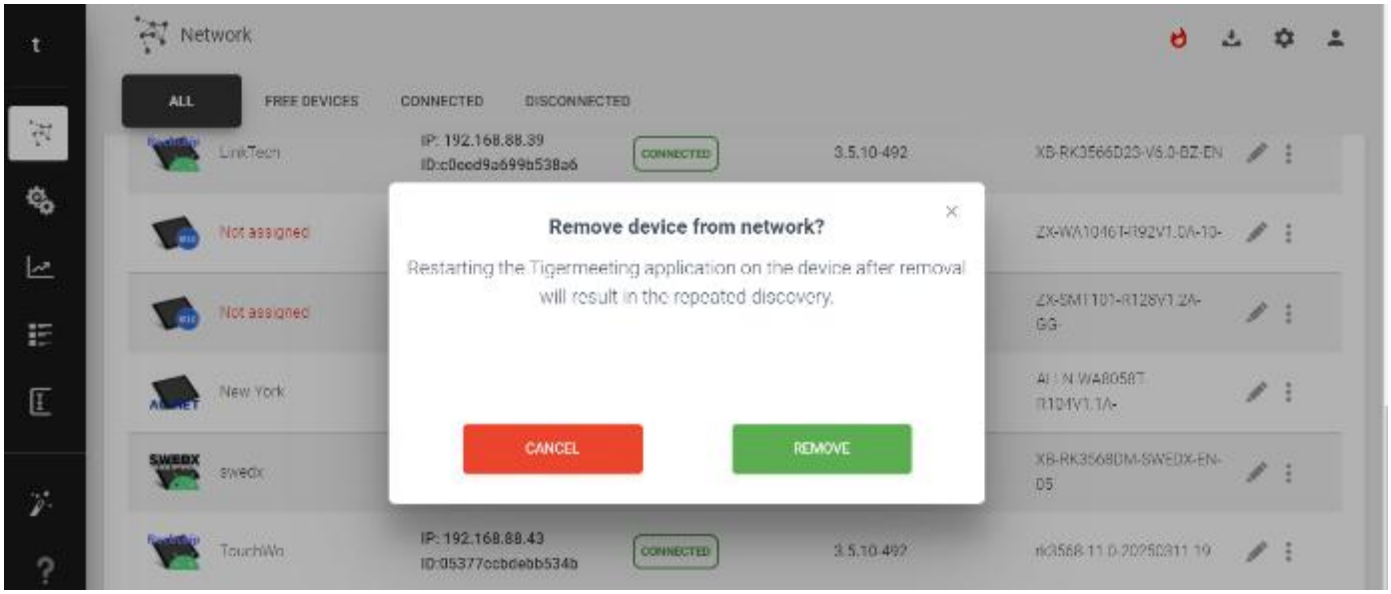
Resolve the issue within Admin App:

- Detach the license from the device with the old identification and delete it.
- Attach the license to the newly discovered device and configure it.



In the example case above – the disconnected device can be safely removed from the network





.

…in the admin log we can see that the license from the removed device has been detached and returned to the company's license pool.

USER	EVENT	TIME	IP	ADMIN
zoli@tigermeeting.app (me)	License detached (b9abf9677da2f519)	2025-07-07 08:25:07	83.251.225.184	Windows (3.4.0)
zoli@tigermeeting.app (me)	Device removed (b9abf9677da2f519 OK)	2025-07-07 08:25:07	83.251.225.184	Windows (3.4.0)

Please, attach a license to the newly discovered device following the standard procedure: **Settings ->Licences**

Please note that in some cases, the admin user needs to log out and log in again in order to the "lost" licences appear in the available licences pool.

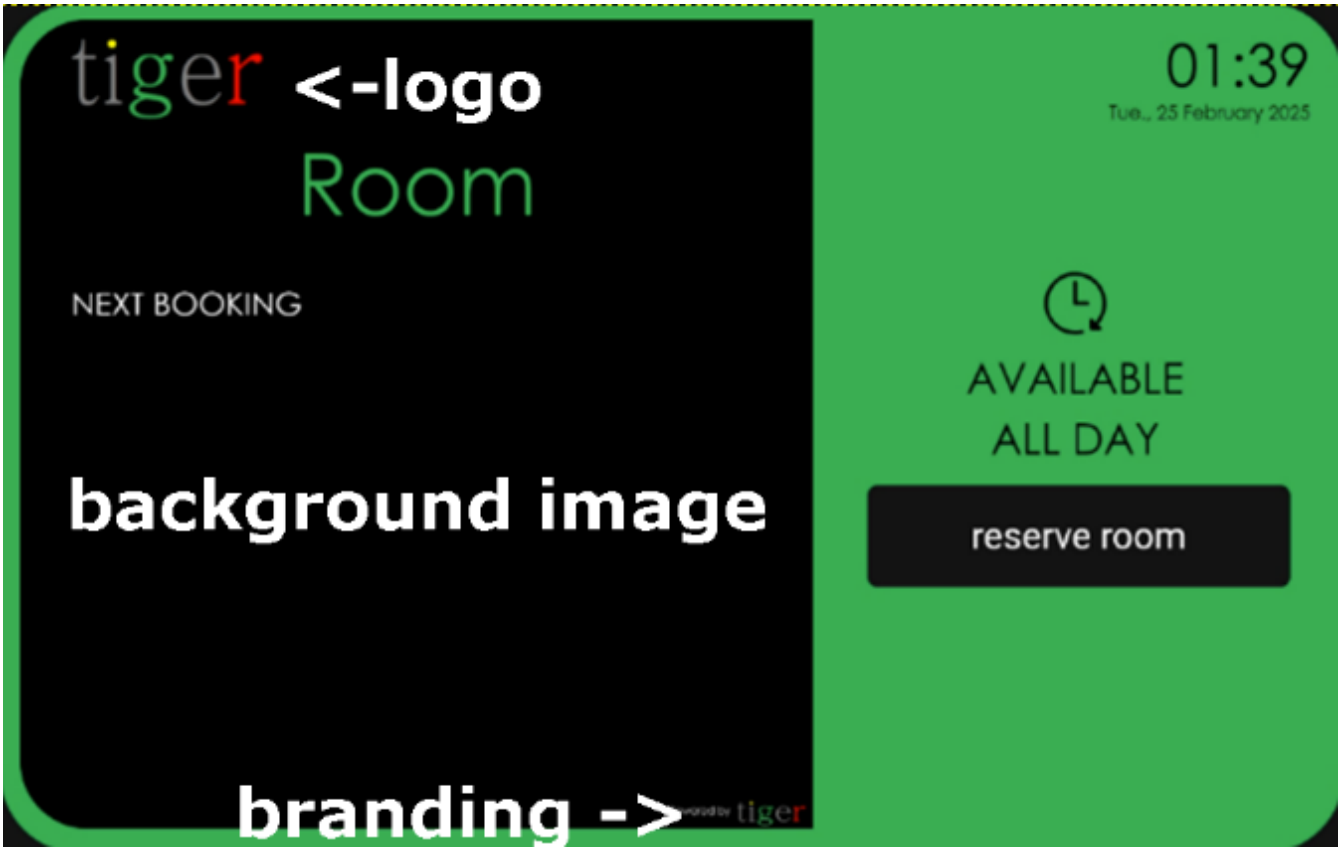
Company logo, background image and branding

On every booking-screen theme there are graphical elements that can be changed and adjusted.

- the company logo
- theme background image
- branding message (powered by Tiger).

Adjusting these elements is essential to make the booking screen fit into the company's office or school's environment.

This chapter summarizes these graphical elements related options that have been already described in detail in the respective menu point.



Company logo

- The company logo can be changed by pressing the settings (the gear on the top right corner)
-

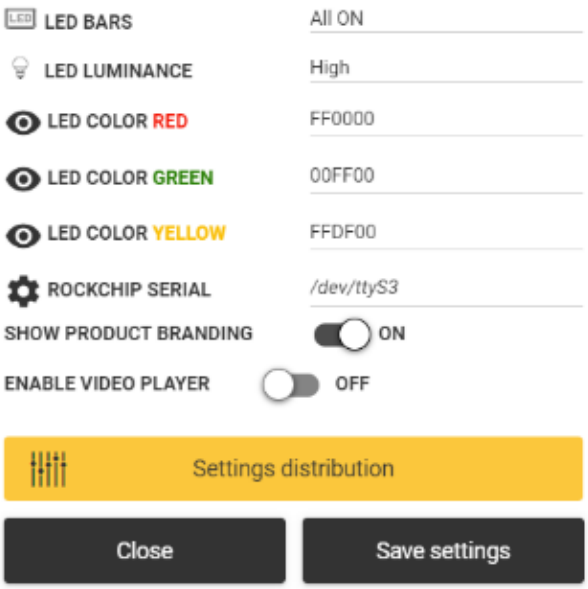
- Upload the logo in a 120x60px size, PNG image format. Transparent background is recommended. The company logo will be the same on all devices.
- In case the logo needs to be removed - an empty, transparent PNG image, size 120x60px will make it disappear.
- Sample NO LOGO image: https://tigermeeting.app/img/no-logo.png

Background image

- The background image can be changed in every theme – however the area where the background image is visible, the opacity of the image is theme dependent and vary with every theme.
- The background image MUST be in PNG format with max image size of 4Mb
- It is recommended that the background images are specially designed for each theme to consider the theme specific elements (room name, weather information, next meetings etc.)
- It is recommended that a background image has the booking-screens' size, ratio and resolution (most often ratio 16:9, size 1280 x 800px is used)
- On most of the themes, the smaller background images are tiled.
- Background images can be set globally for a theme or per device if needed – read more in the Theme configuration chapter.

Branding message

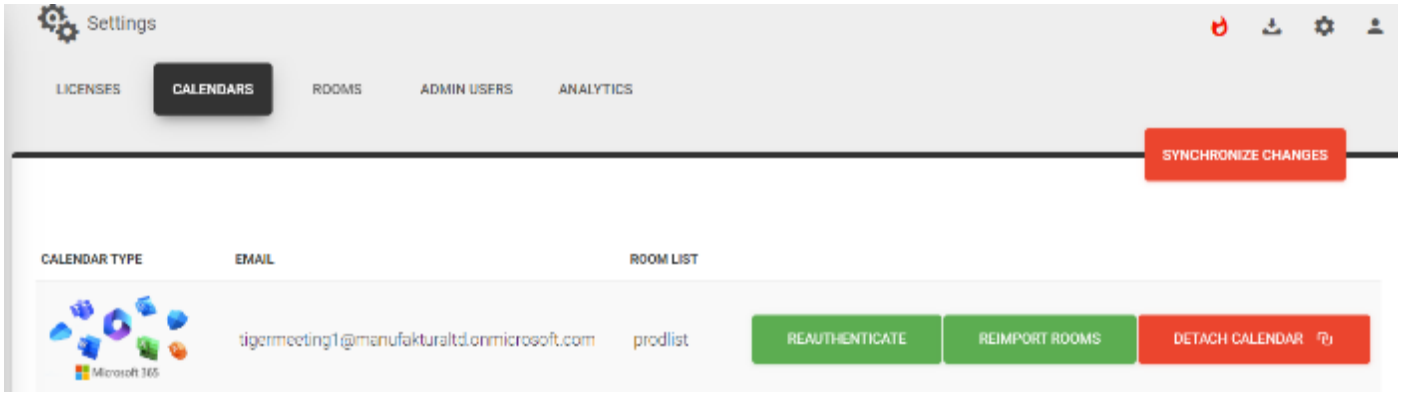
- The "powered by Tiger" branding message and the Tiger logo can be turned on or off per device (or for the whole distribution) from the admin app device advanced options.
- The "show product branding" on/off parameter will remove all branding related Tiger logos – like from the "room service" etc.



Microsoft / Google authentication token expires

Microsoft and Google authentication tokens have a certain lifetime before they expire. Sometimes it is a few months and sometimes just a few days, depending on the company's configuration.

Tigermeeting applications on the screens try to maintain these tokens by asking for a new token an hour before they expire.
Unfortunately, if the screens are not online at that time when the renewal is about to happen, the old token will expire and will not work in the future. A re-authentication resolves this issue.



... to avoid these situations, please do not switch off, disconnect from the network, put in sleep mode or pause all the devices every night or during the weekends.

It is enough just 1-2 devices to be online - they will do the token renewal and distribute among the other devices once they are online again.

Is the device's time correct?

Dealing with calendar – it is all about time.
Devices / screens in the Tigermeeting environment are all independent entities that collaborate with each other using time.

If the time is out of sync the commands, updates can be ignored, Calendars may refuse the SSL handshake leading to misfunction and misunderstandings – as the database exchange between the devices in the network as well as the modified configuration that Admin App sends out to the devices depends on the correct timestamp (date and time).

These errors are not exposed to the end-users (employees in the office, students in the universities or pupils in the schools), but analysing the logs would reveal these issues to the Tigermeeting infrastructure administrators.

However, the easiest way to detect potential inconsistency and avoid issues in the Tigermeeting environment is to make sure:

- The time zone used is correct
- The time is correctly set
- The device shows correct time

Using NTP, or local network time or explicitly set up time zone or time – does not make any difference from the Tigermeeting perspective as long the current date and time used by the devices is always correct.

The video player does not start

In case the video player does not start there are most often one of two basic requirements that are not satisfied and need to be checked:

The video file URL

The video file needs to be accessible via an URL. This URL cannot be a YouTube link, Google drive, SharePoint link or something similar as they do not expose the mp4 file directly. The video needs to be exposed via a web server and reachable via http or https protocol directly.
Any internal (like the company's intranet server) or external web server would do, but the requirement is that the URL points to the video file directly (without any redirects and/or JavaScript wrappers)

a) Bad examples: (valid videos, but the Android media player cannot play "wrapped files")
YouTube: https://www.youtube.com/shorts/T4lKFKSZvL8
Google drive: https://drive.google.com/file/d/1qP91wWHD9SjFDBb3a_BIOrOYq6Ft_OY1

b) Good examples: (the URL directly points to the video file)
https://examplefiles.org/files/video/mp4-example-video-download-hd-1280x720.mp4
https://onlinetestcase.com/wp-content/uploads/2023/06/4.06-MB.mp4

Android permissions

The Android's MediaPlayer is used to play the video content that is set up in Admin app – after some inactivity time.
MediaPlayer requires storage permission. Please make sure the Tiger app has all Storage permissions.
On different Android versions, the terminology/the wording differs, also the permission rights also differ, regardless… MediaPlayer that is started by the Tiger app needs to have access to the storage.

Please, make sure in **Settings->Apps (and Notifications) -> Tiger -> Permissions (or Storage permissions)** all permissions are allowed (like File and Media, Videos and Photos… and similar permissions).
After an upgrade – both firmware upgrade and Tiger APK upgrade, the permissions could be revoked.
This happens because of fundamental changes in how Android handles permissions, not because of a simple bug in the Tiger application.
Permissions granted to an older version of the app are typically revoked after an upgrade if you significantly increase the targetSdkVersion, especially when crossing major Android version thresholds.

Under normal circumstances, where the targetSdkVersion is already modern and Tiger is just pushing a feature update, granted permissions will persist. The revocation seen is a one-time event caused by the app telling the Android system it now supports a newer, more secure permission model.

Please, set the storage access permissions again, in order to the video player to continue to operate.
On some devices a reboot is needed in order the new permission settings to be consumed

Portrait theme in landscape mode

Tigermeeting application uses Android internal calls to manage the screen orientation based on the chosen theme.
This works very well in most of the cases, but on screens that have operating system level control over the screen orientation – there is no software that can override it. This can cause the symptom that even though a portrait theme has been chosen – and the Tiger app successfully changed to the portrait theme – the screen is still in the landscape mode.

This is most often seen on devices running Android 11 (API 30) – where this option has been introduced and later refined – therefore above Android 11, the orientation works well.

Also, Android 16 (API 34) has introduced several security options when the screen orientation cannot be overwritten.

In these cases, the screen orientation manually needs to be adjusted and Tigermeeting's built in, automatic orientation change cannot be used.

Please check the Android Settings options, most often under Settings->Display for screen orientation related settings.
Changing the screen rotation by 90 degrees, solves the problems in most of the cases.
However, please, ask your screen distributor for advice and hardware support.

Hardware specific settings

Tigermeeting uses the screens "Factory settings" whenever it is possible.

However, some settings change with the hardware model, or they are configured by the user in order to improve security or finetune the hardware behavior.

ProDVX token

ProDVX token provides the authentication layer and security for using the ProDVX API. The token is static (unlike Qbic or IAdea APIs') but it can be customer specific, that is set in the ProMGR – ProDVX Remote management tool. (Reed more at the ProDVX documentation)

In case the token is not the default – the LED bars and other functionality screen/manufacturer specific will not function as expected.

In this case, either factory reset the screen to use the default ProDVX token (in case the token is unknown) – or configure the required token in the Admin App – either per device or for the whole distribution.

Rockchip serial device

Depending of the model and series the serial device – that is used to control the LED lights and other screen features-may change. The default is **/dev/ttyS3**.
It is possible to change

ShiMeta serial device

See the Rockchip serial device.

Application Clear Data

This command is identical to the **Settings->Applications->Tiger->Storage->Clear Data / Clear Cache.**
It will delete all Tiger application-related data from the cache and from the storage.
The Tiger application will behave like right after the initial installation.

NOTE: USE THIS FEATURE ON YOUR OWN RESPONSIBILITY.
ALL APPLICATION DATA FROM THE SCREEN WILL BE ERASED.
THE ADMIN APP WILL RECOVER THE DEVICE AND THE DEVICE'S LICENCE IS ALSO KEPT.

Please read the Device Factory Reset also, in order to understand the differences between these operation.

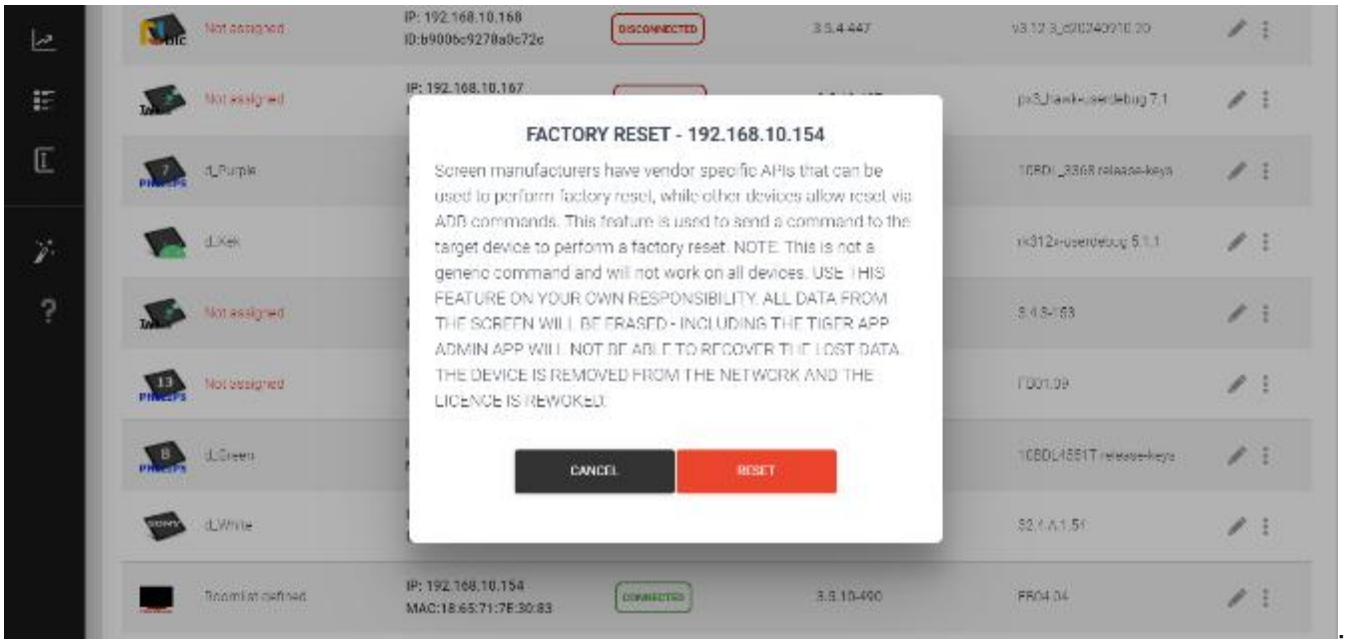
Device Factory Reset

Screen manufacturers have vendor specific APIs that can be used to perform factory reset,

while other devices allow reset via ADB commands.

This feature is used to send a command to the target device to perform a factory reset.
NOTE: This is not a generic command and will not work on all devices.
USE THIS FEATURE ON YOUR OWN RESPONSIBILITY. ALL DATA FROM THE SCREEN WILL BE ERASED - INCLUDING THE TIGER APP. ADMIN APP WILL NOT BE ABLE TO RECOVER THE LOST DATA.

As the factory reset will most probably change the device's Android ID the attached Tigermeeting license is detached, and the device is removed from the network



IMPORTANT NOTE: The FACTORY RESET is irreversible. It will restore the device's factory settings. Please, perform this operation when you are sure what you are doing and solely on your own responsibility.

Tiger services in a closed, on-premises environment

Tigermeeting screens are designed to work on-premises without access to the services provided in the Tigermeeting cloud, however many customers would like to enjoy benefits of the hybrid architecture getting the software and firmware upgrades, language updates, theme changes etc.

The simple solution is allowing the devices to access Tiger cloud:
https://tigermeeting.app (host: tigermeeting.app port 443).

Tiger software upgrade

Tigermeeting is a live product that is actively developed. Many updates do not need upgrading the Android application – like the translation corrections, language updates, old themes adjustments, new themes etc.
Android software updates that contain new features, security and bug fixes and improvements are released periodically - about 3-4 times per year.
New releases and they content are announced with an e-mail to all admin users and on the social media – the changes are published in the release notes (reachable from the Admin App-> About menu)

Those devices that have access to Tiger cloud will query the cloud services and pull the updates automatically and the upgrade availability is notified in the Admin App->Network list.

Closed, on-premises environments will not get update notifications – simply because the devices were not able to poll the Tiger cloud and fetch the available updates.

Solution: Opening Tiger cloud access for about two hours any time after the release note mail is sufficient time for the devices to fetch the latest updates from the Tiger cloud. Once the update availability is shown in the Admin App for all devices, Tiger cloud access can be turned off on the firewall again and the upgrade can be performed in a standard way.

NOTE:

- We encourage all the administrators to read the release notes and decide whether to upgrade to that release or not.
- Tigermeeting releases are cumulative. The next release will contain all previous features.
- The upgrades are always available just to the latest release. No previous releases are published.

Theme changes

All booking-screen themes, the default and customer specific background images are stored and served from the Tiger cloud.

The devices periodically query the Tiger cloud for the theme updates and adjustments, however the theme change happens just on explicit Admin order from the Admin App. In

case the screen does not have access to Tiger cloud (or does not have a valid license) the theme change will not happen.
However, if the theme is already downloaded to the device – the device will continue to use that theme.

Closed, on-premises environments cannot dynamically change the themes and configure background images.

Solution: Opening Tiger cloud access on the firewall for a short time while the Admin configures the themes and the theme settles on the devices (that can be done in minutes) fully on prem installations can enjoy the theme feature of the Tigermeeting infrastructure.

Weather service

The on-screen weather service uses the Tiger cloud weather service to provide the real time temperature and humidity values for a given location on the Earth.

The Tiger weather service use public service weather data – but this proxy is intentionally created to raise the security and protect the customers from any 3rd party exposures.

This is a fully cloud based service – it is not available without access to the Tiger cloud.

NFC / Scanner authentication service

Tigermeeting services can be configured to authenticate the user by reading the NFC / RFID tag or scan a QR code in order to authenticate the user and perform actions that require authentication.

If the authentication service is hosted in the Tiger cloud – the device needs to have access to the Tiger cloud services.

Tigermeeting offers a simple container or a script + a database that can be hosted by the customer on-premises to work around this requirement.

Analytics

Tigermeeting analytics provides valuable insights into the hardware health, equipment usage, meeting room status etc.

The analytics is based on anonymous data the screens periodically send. This feature can be turned on or off.

The Analytics data - exposed in the Admin Application – is runtime generated from the currently available data in the Tiger cloud.
This feature requires access to Tiger cloud and there is no way to work around it.

IMPORTANT STATEMENT

Tigermeeting infrastructure has fully modular and decentralized architecture.
Tigermeeting infrastructure has the following actors:

- **Booking screen (can be many)**
- **Overview screen (can be many)**
- **Admin application (only one allowed per managed infrastructure)**
- **Tiger cloud (only one)**

Every actor in this infrastructure communicates ONLY with the other members of the Tigermeeting infrastructure and with the Tiger cloud (if available)
No parts of the Tigermeeting infrastructure communicate with any other 3rd party, or external network service.

Tigermeeting infrastructure is self-contained and all required services to deliver all features and functionality are already included in these products.

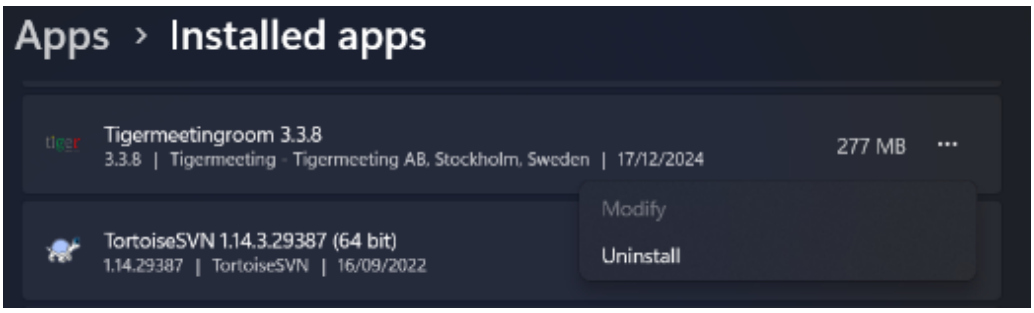
Tiger cloud has clustered architecture – but https://tigermeeting.app is the only entry point protected with a valid certificate.
Tiger cloud services are always queried or pulled. There is no way to reach the customers' deployed Tigermeeting on-premises infrastructure from the Tiger cloud.

Uninstall the Tigermeeting Admin App

There are use-cases when the Tigermeeting Admin App needs to be uninstalled.
Please follow the steps below depending on the operating system is used:

Windows operating system

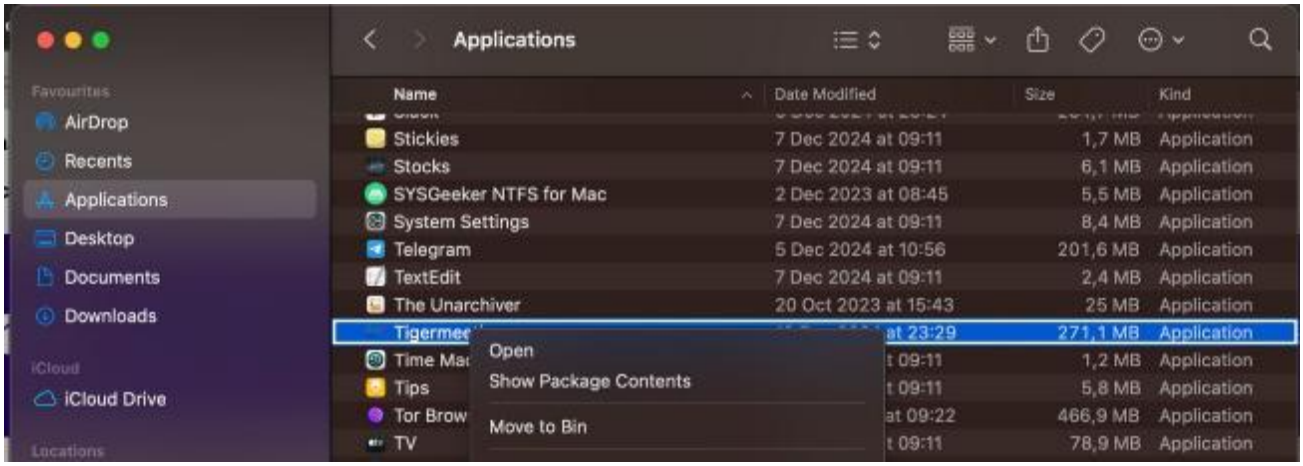
Navigate from Start to Apps->Installed apps and search for the Tigermeeting-admin or Tigermeetingroom (older releases) application with the Tiger logo
Press the tree dots (…) to see the options. Press Uninstall



MacOS operating system

Open the Finder -> Applications and search for the Tigermeeting-admin or Tigermeetingroom (older releases) application with the Tiger logo.

Left click on the Tigermeeting-admin application will open the options.
Press: Move to Bin



Linux operating system

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

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

RPM package

Open a terminal and execute the following command with superuser permission:

```
$sudo rpm -e Tigermeeting-admin
```

DEB package

Open a terminal and execute the following command with superuser permission:

```
$sudo dpkg -r Tigermeeting-admin
```

AppImage file

Open a terminal and navigate the location of the AppImage file.
Delete the executable with the rm ./Tigermeeting-admin*.AppImage command.

FAQ

FAQ can be found online at https://tigermeeting.app/faq

Q: How can I purchase more licences to expand the Tigermeeting suite installation?
A: Generally, please, contact your local Tigermeeting reseller/distributor.
In case this information is not available to you or there is no local distributor in your country, please send your query at https://tigermeeting.app/en/contact
We will help you purchasing new licences either pointing you to a local Tigermeeting dealer or in case a reseller is not available, selling licences directly to you.

Tigermeeting ships worldwide.

Q: How can I change the devices? Are the licences affected?
A: There are situations when some or all devices need to be replaced.
Tigermeeting licences are tied to the devices' MAC addresses or Android IDs within an organization.
The organization owns the licences; therefore, you can easily detach licences from the configured devices and attach the same licences to other, new devices as long the number of total/available licences are within the organization's purchased range.
The licence management is easily and intuitively done via the Tigermeeting Admin App.

Q: How much costs the Tigermeeting Admin app? Does it need a licence?
A: The Tigermeeting Admin app - the central management tool that configures and manages the Tigermeeting booking and overview screens - is a free product, and it is included in the Tigermeeting solution.
It is downloadable from https://tigermeeting.app/en/downloads page.
The customer needs to have at least one booking screen or one overview screen licence in order to use it.
The Tigermeeting Admin app runs on Windows, MacOS and Linux operating systems and it is compatible just with the Android devices running the Tigermeeting APK and cannot be used for other purposes.

Q: Does the Tigermeeting Admin app need to run all the time?
A: No, the Admin app is used just for changing the screens and the Tigermeeting infrastructure configuration. Once the change is committed. The Admin app can be

safely closed.
For more information see **What is the Admin App's purpose?** and **Tigermeeting architecture** sections.

Q: Does Tiger support portrait mode?
A: Tiger stopped supporting portrait mode in 2022, but reintroduced it in 2025.

The reason is, that Tiger has started supporting many other screens ranging from sizes 4" to 15" and from many manufacturers such as Philips, IAdea, ProDVX, Aurora, Qbic, Allnet, Samsung, Huawei, Xiaomi, Asus, Oppo, and many others.

To accommodate all these different screen dimensions and resolutions with all Tiger features like theme changes, company logo, office/school/desk mode, etc., we had to make a strategic decision not to support portrait mode – based on the Android sensor.

We said: If there is demand from the market, the product department may decide to arrange new development in the future. However, with a wide choice of screens and the ability for customers to choose screen size, and not least that they can mix different vendors and screen models in the same environment, it has not been a problem so far.

There was a customer demand, therefore, in 2025 we introduced the theme-based portrait and landscape mode. The sensor is still ignored, but by choosing a portrait theme the screen will operate in portrait mode. Please, check out the themes available in the Admin App.

Where to obtain compatible Android screens?

Tigermeeting is a global software provider for meeting room solutions - therefore the software, the licensing and the support are handled by Tigermeeting itself - while Tigermeeting does not deal with the hardware sales or distribution at all, because of the - often complicated - local regulations and hardware support / service obligations.

In some countries Tigermeeting has contracts with local hardware distributors that are able to provide turnkey Tigermeeting solutions: hardware + Tigermeeting licence bundles.

In the rest of the world, Tigermeeting does not sell hardware but cooperates with Philips and other hardware resellers/distributors.

Please, tell us more about your needs and requirements at https://tigermeeting.app/contact and we will help you find your local Philips, Samsung, Lenovo, Xiaomi, Oppo, Huawei, Amazon, Motorola, Asus, Aurora multimedia, Qbic, ALLNET, ProDVX or IAdea distributor/reseller/dealer to obtain the chosen hardware.

Tigermeeting cooperates with OEM hardware manufacturer company in Shenzhen, China who can produce Tiger compatible Android devices with your own hardware specification and brand.

Having support for ALL available Android devices in the World is simply impossible - but using advanced technology that allows support for different Android versions and most of the different screen sizes, opens up possibilities to use older Android phones, tablets and less expensive brands that would make the Tigermeeting solution even more affordable - aiming for the best TCO for a meeting room management product in the World.

Please, do not forget that Tigermeeting APK can run on almost any Android device that lays around in the office, but it is nearly impossible to have them tested all by the Tigermeeting QA team.

Tigermeeting hardware compatibility matrix

Tigermeeting aims to support all Android devices from version 4.1 and upwards on all common architectures: x86, x86_64, armeabi-v7a, arm64-v8a.

There are targeted products, specially designed for digital signage and meeting room management.
Hardware manufacturers often provide proprietary APIs and SDKs to communicate with the device and utilize those hardware specific features. – like LED lights etc.
Tigermeeting has integrated with some of the major digital signage manufacturer's devices. This integration is mostly dependent on the vendor APIs' capabilities; therefore, not all functionality is available on all devices.

NOTE: All - not hardware related – pure Tigermeeting application functionality is available on all devices – that include, all calendar booking functionality, theme and background change, on-premises management, analytics, logs, Admin app compatibility etc. (read more about Tigermeeting features in the Admin User manual)

1	Philips	IAdea	ProDVX	Qbic	Aurora	ALLNET	Others
LED lights	●	●	●	●	●	●	●
Reboot	●	●	●	●	●	●	●
Screenshot	●	●	●	●	●	●	●
Video player	●	●	●	●	●	●	●
Device info	●	●	●	●	●	●	●
NFC/RFID auth	●	●	●	●	●	●	●
Scanner read/auth	●	●	●	●	●	●	●
GPIO control	●	●	●	●	●	●	●
Post-command	● ~	●	●	●	●	●	●
SW/APK upgrade	●	●	● *-	●	● *	● *	● *-
FW-upgrade	●	● ^	● ^	●	●	●	●
HW-metrics	●	●	●	●	●	●	●
Immersive mode	●	●	●	●	●	● =	● =
Maintenance mode	●	● +	●	●	●	●	●
App-store support	●	●	●	●	●	●	●

2	AOpen	Allsee	ELC	AISpeech	ShiMeta	SWEDX	TouchWo
LED lights	●	●	●	●	●	●	●
Reboot	●	●	●	●	●	●	●
Screenshot	●	●	●	●	●	●	●
Video player	●	●	●	●	●	●	●
Device info	●	●	●	●	●	●	●
NFC/RFID auth	●	●	●	●	●	●	●
Scanner read/auth	●	●	●	●	●	●	●
GPIO control	●	●	●	●	●	●	●
Post-command	●	●	●	●	●	●	●
SW/APK upgrade	●*	●*	●	●	●	●	●*
FW-upgrade	●	●	●	●	●	●	●
HW-metrics	●	●	●	●	●	●	●
Immersive mode	●=	●=	●=	●=	●=	●=	●
Maintenance mode	●	●	●	●	●	●	●
App-store support	●	●	●	●	●	●	●

3	Google	Samsung	PlusOne	Huawei	Newland	iiyama	Rockchip
LED lights	●	●	●	●	●	●	●
Reboot	●	●	●	●	●	●	●
Screenshot	●	●	●	●	●	●	●
Video player	●	●	●	●	●	●	●
Device info	●	●	●	●	●	●	●
NFC/RFID auth	●	●	●	●	●	●	●
Scanner read/auth	●	●	●	●	●	●	●
GPIO control	●	●	●	●	●	●	●
Post-command	●	●	●	●	●	●	●
SW/APK upgrade	●*	●*	●	●	●	●	●*
FW-upgrade	●^	●^	●^	●^	●	●	●
HW-metrics	●	●	●	●	●	●	●
Immersive mode	●=	●=	●=	●=	●=	●=	●=
Maintenance mode	●	●	●	●	●	●	●
App-store support	●	●	●	●	●	●	●

Legend:

-OK – the functionality is supported
-NO – the vendor API allows the functionality, but it is not implemented by Tiger.
-n/a -Not applicable – there is no API or permissions to perform the operation.
* - the SW/APK upgrade can be triggered but on-screen approval is needed
- - Seamless SW/APK upgrade is available via the App-stores
^ - the hardware supplier pushes out the upgrade independently from Tigermeeting.
+ - after reboot interact with AppStart to pause the Play operation
~ - use Philips' more superior CMND technology instead. More at https://cmnd.io
= - using Screen pinning (read the device manual)

Compatibility matrix notes:

- The table numbers 1,2,3... are just for the reference – there is no priority, grouping or any particular order in the list.
- The **Others** column represent all other arbitrary Android devices. It means that you can take any Android tablet or mobile phone and expect those functionalities to work. These are generic devices - not explicitly designed and made for meeting room management purposes (like Sony, Asus, Xiaomi, Lenovo, Tecno, Oppo, Vivo, Itel...)
- The **Others** group includes also all other excellent digital signage manufacturers' devices that Tigermeeting has not finished the full hardware integration yet (like Kramer, Black Box, Yealink, Crestron, Harman, Neat, Cisco).
- **App-store support** means default or optional availability of Android application stores, like Google Play, Amazon appstore, HUAWEI AppGallery, SAMSUNG Galaxy Store, Xiaomi GetApp / Mi App Mall, VIVO V-Appstore, OPPO Store, Transsion Palmstore, Aptoide, ONE Store and similar application stores

NOTE:
If you have some excellent hardware, great screens with attractive features that Tigermeeting does not support yet.
Please, talk to us – **we are happy to integrate** – and add your device's icon to the Tigermeeting app

The integration would be - most probably - a piece of cake, as the Tigermeeting Android APK is very modular, built and designed with care, using excellent

software architecture patterns.

Not to mention the experience and technical knowledge that accumulated during the previous manufacturers' integrations.

For example: Tiger APK has full support for the wide range of Rockchip and ShiMeta chipsets and supports the most common LED controllers like the zigbee_reset, serial port, jnielc, yuxian API, adwdev socket... and many other proprietary APIs supporting on/off, 3 color, 7-color and full RGB color schemas.

In exact numbers, Tigermeeting application supports:

- 20 different Android APIs (versions 16..36)
- 16 different hardware vendor APIs
- 8 different integrated SDKs
- 8 different LED controllers
- 9 NFC/RFID technologies
- 4 hardware architectures
- 7 different GPIO APIs
- 8 different chipsets
- 1 scanner

Our strategic alliances with nearshore, offshore, and Far East branded and OEM manufacturers allow us to deliver quality, agility, and innovation on a global scale.

Let's shine up more meeting rooms, offices and school corridors together.

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 purposes 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 onto 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 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 Android 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 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.

Tigermeeting with its on-premises architecture, naturally satisfies the national autonomy of data and information systems compliance requirements such as:

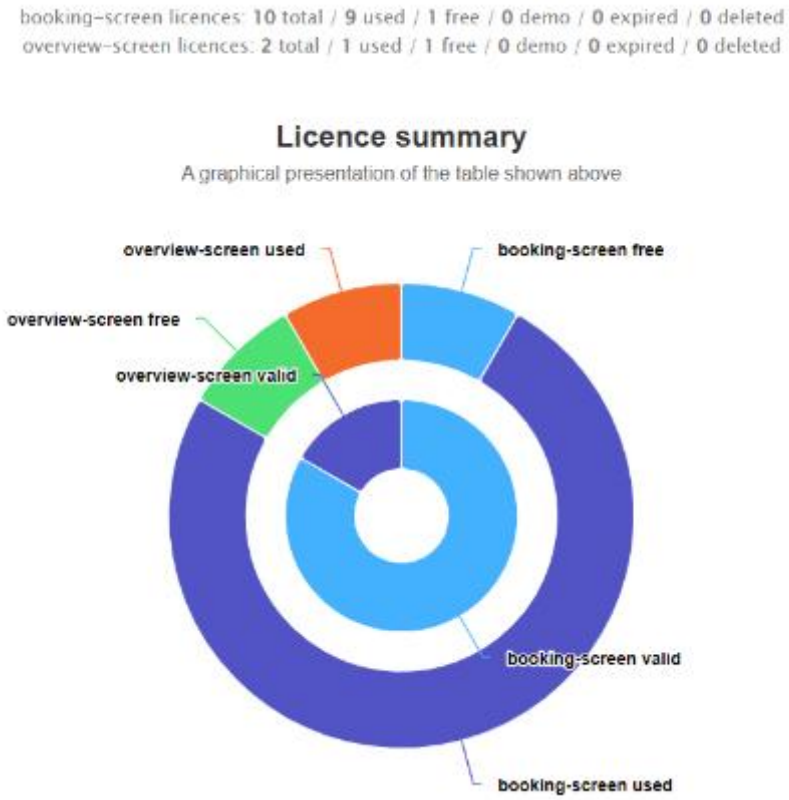
- China: Cybersecurity Law and Data Security Law, requiring certain types of data to be stored and processed within the country to maintain national security and autonomy
- India: Digital Personal Data Protection Bill, which includes provisions for data localization and aims to ensure that critical data remains within the country.

Ask for DEMO licenses

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 at 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.



Contact information

Email: info@tigermeeting.app
Web: https://tigermeeting.app/en/contact
Customer Support: support@tigermeeting.app

More information can be obtained under “About” menu point in the Admin Application.

Social media

Follow us on social media to get event updates on product news and new releases.

LinkedIn https://www.linkedin.com/company/tigermeeting/
Facebook https://www.facebook.com/tigermeeting/
Instagram https://www.instagram.com/tigermeeting
Reddit https://www.reddit.com/u/tigermeeting/
GitHub https://www.github.com/tigermeeting
X(Twitter) https://x.com/tigermeeting
YouTube https://youtube.com/@tigermeeting
Threads https://www.threads.net/@tigermeeting
Tik Tok https://www.tiktok.com/@tigermeeting
Telegram https://t.me/tigermeeting
Pinterest https://www.pinterest.com/tigermeetingroom/
WhatsApp
https://www.whatsapp.com/channel/0029VanwIDn6LwHgKMtMF90S

Weixin / WeChat

Tigermeeting is trademark of Tigermeeting AB, all other mentioned trademarks are owned by their respective companies.