

Floorsense Administration Guide (Full)
Version 3.0
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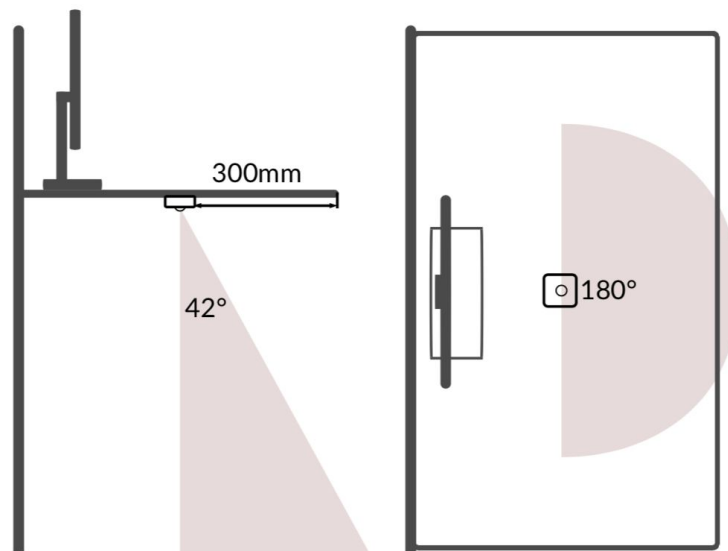
1.0 Introduction

Floorsense is an advanced desk monitoring system designed for use in agile office workplaces. This document describes the general operation of the Floorsense system, its components and then an operational guide for running an installed system aimed at administrators.

This guide does not cover the initial installation of the Floorsense system. System installation including wiring Floorsense sensors to the Floorsight module, radio setup, and optionally controllers to an IP network along with the initial configuration and mapping of Floorsense units, are performed by a Floorsense trained installer and reseller.

1.1 Floorsense Sensor

The Floorsense sensor acts as a proximity sensor to determine if a person is sitting at a workstation. These sensors are typically placed below a desk, in which the area covered will typically be a person's legs, or if the desk is at a standing height will detect lower legs and foot presence. An intelligent algorithm is used to distinguish between transient movement and actual presence.



This is illustrated in the diagram above, which shows the side and top views of the sensor placement. The floorsense sensor communicates the occupancy state with a slave controller via a low frequency resilient mesh radio network built by the floorsense installers.

These sensors are typically paired (without their radio antennas) with the Floorsight modules via an Auxiliary cable, but they can be installed without them for the sole purpose of occupancy detection. This is particularly useful for places such as meeting rooms where 2 or more people gather in one large desk.

1.2 Floorsight Module

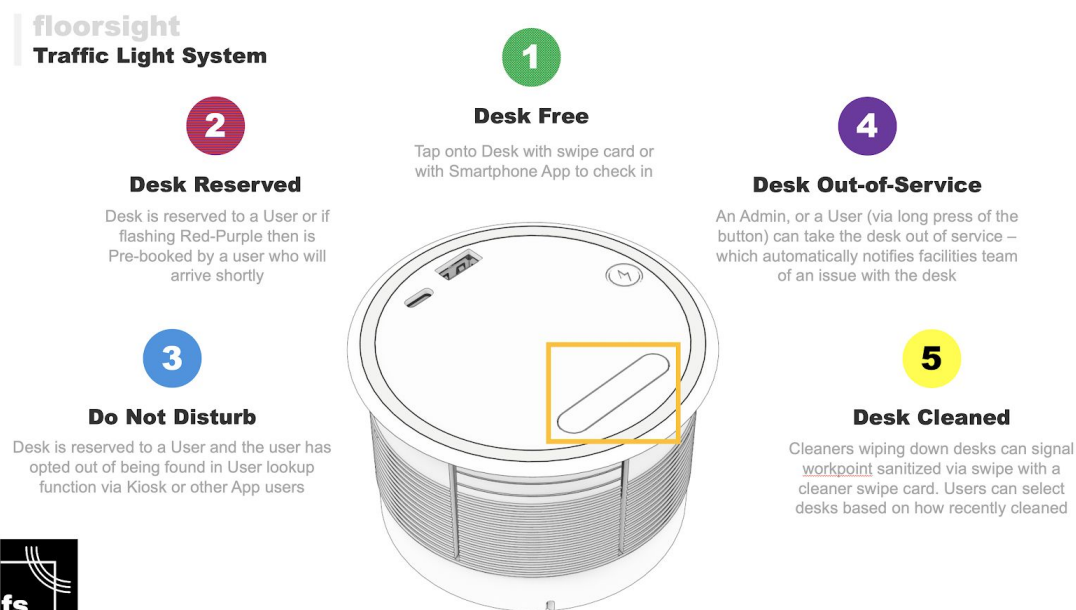
The Floorsight module acts as an interface for the user (in terms of desk reservations and device charging), as well as relaying sensor readings from the Floorsense sensors. There is an LED indicator that cycles between four colors; Green, Yellow, Red, and Blue to indicate the occupancy status of the desk.

NOTE: These are valid for the older versions of Floorsight with pre-Covid features.

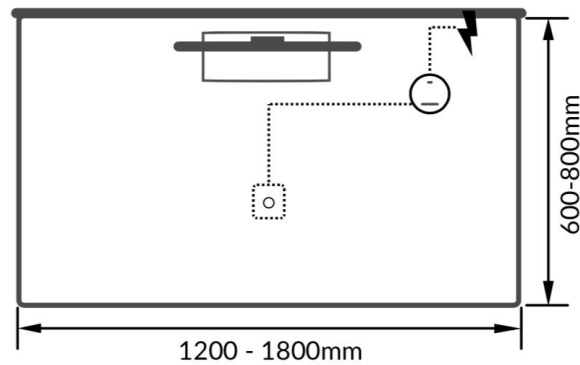


For newer versions of the Floorsight module, the following changes has been made;

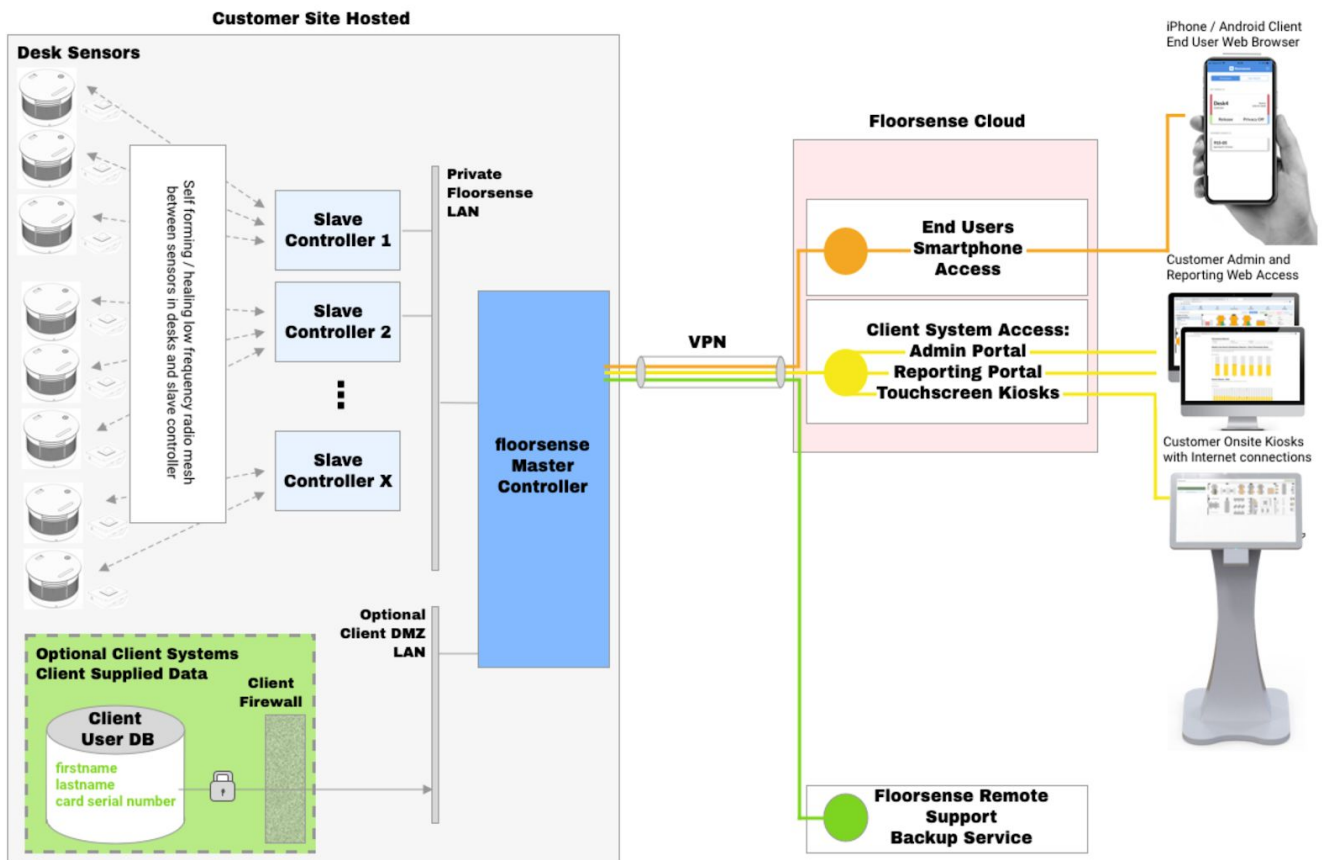
- Yellow now symbolises that a cleaner has cleaned a desk, replacing the “Occupied” status.
- In addition to red symbolising ‘Reserved’, a flashing red followed by purple indicates that the desk has been ‘Pre-Booked’ by another user.
- A solid purple now indicates that the desk has been marked out of service.



These modules are accompanied by a Floorsense sensor, connected via an audio cable. The following shows a typical placement of the module on a desk, along with a Floorsense occupancy sensor. The sensor used with floorsight differs from the floorsense version in that the floorsight sensor does not have a radio circuit board installed, because the radio is installed inside the main floorsight module.



1.3 Floorsense System Architecture Overview



The Floorsense system comprises a Master/Slave topology, in which a slave controller manages multiple Floorsight modules, and one master controller manages multiple slave controllers. Both controllers are small appliances, however a master controller is typically installed in a customer's comms/computer room.

The master controller allows the administrator to manage the Floorsense system in terms of Floorsight module mapping to desks on a floorplan, database management, and reservation management through a web browser.

The features the a Master/Slave topology include:

- Single simple web interface to manage thousands of Floorsight modules and thousands of users. The modules can even be distributed between different buildings in different cities.
- Centralized, synchronized user, module and swipe card database shared between master and slave controllers.
- Realtime system analytics
- Automated backups of all slave and master databases to Floorsense cloud secure storage (optional - IT security documentation available on request)
- Integration with other Smartlock products such as Smartlock Lockers.

1.4 Floorsense Terminology

There are some terminologies used within the Floorsense system which is explained below:

- **Adhoc Reservation:** When this reservation is made, typically through swiping on the Floorsight Module or via the Web Interface, it indicates a short term reservation typically less than a day. The reservation expires in 8 hours by default, unless specified in which the desk reservation will be released.
- **Fixed Reservation:** This indicates a long term reservation, often more than a day. This type of reservation cannot be made by the user, and can only be made through the Web Interface by the administrator.
- **CSN:** Card Serial Number. A string of numbers and letters unique to a swipe card. These are often more than 8 characters long. The CSN is the unencrypted number stored at block 0 of Mifare based swipe cards.
- **Desk Zones:** An area consisting of clusters of desks with Floorsense and Floorsight devices. Usually used when the quantity of desks are large enough to divide them into multiple zones with their own Slave controllers. These zones are often labeled as colors (Blue zone, Green zone etc.)

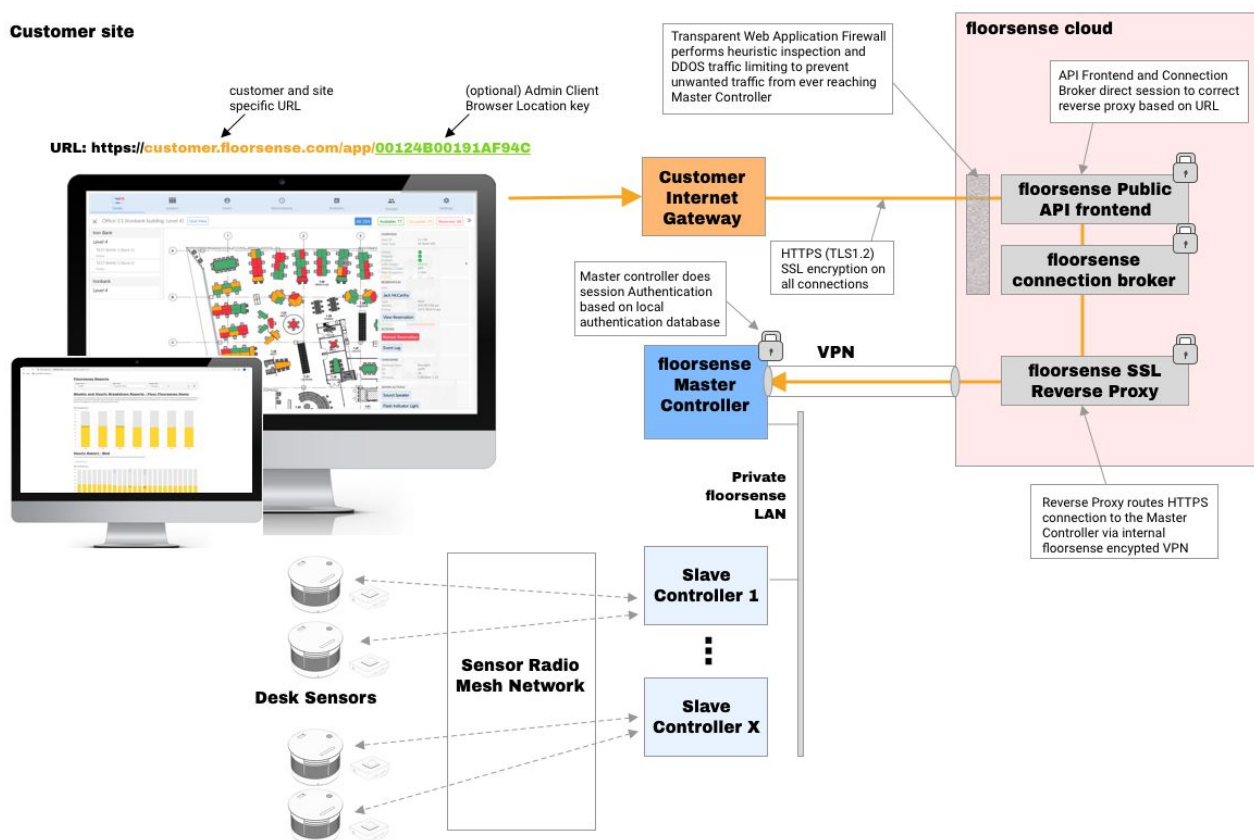
2.0 Master / Slave System Administration

This guide is for the Floorsense system administration via the web interface of the Floorsense Master controller. The Master controller generally has 2 methods for accessing its web interface

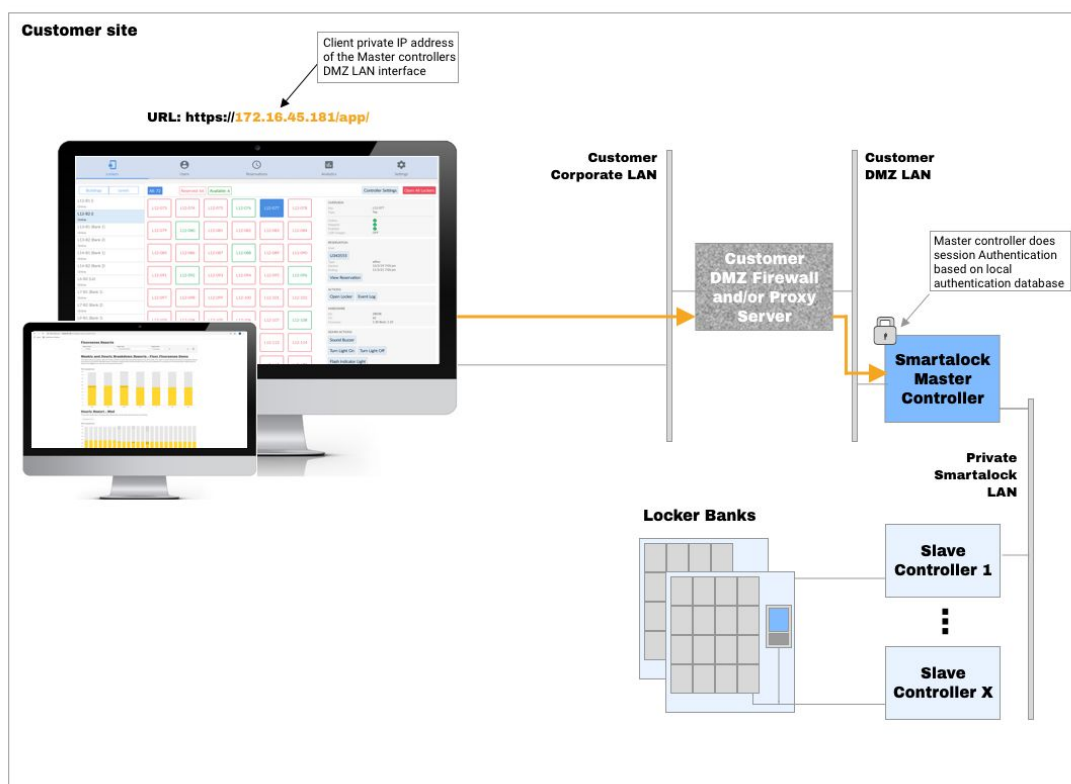
- 1) Via an external encrypted URL provided by Smartalock or the Smartalock reseller during commissioning - for example <https://customername.smartalock.com> or <https://customername.floorsense.co.nz> / com.au
- 2) Via an internal IP address of the Master controller if it has been allowed to connect to the customers DMZ / Building Management network.

These access methods are shown in the following diagrams:

Administration Portal via the Floorsense Cloud



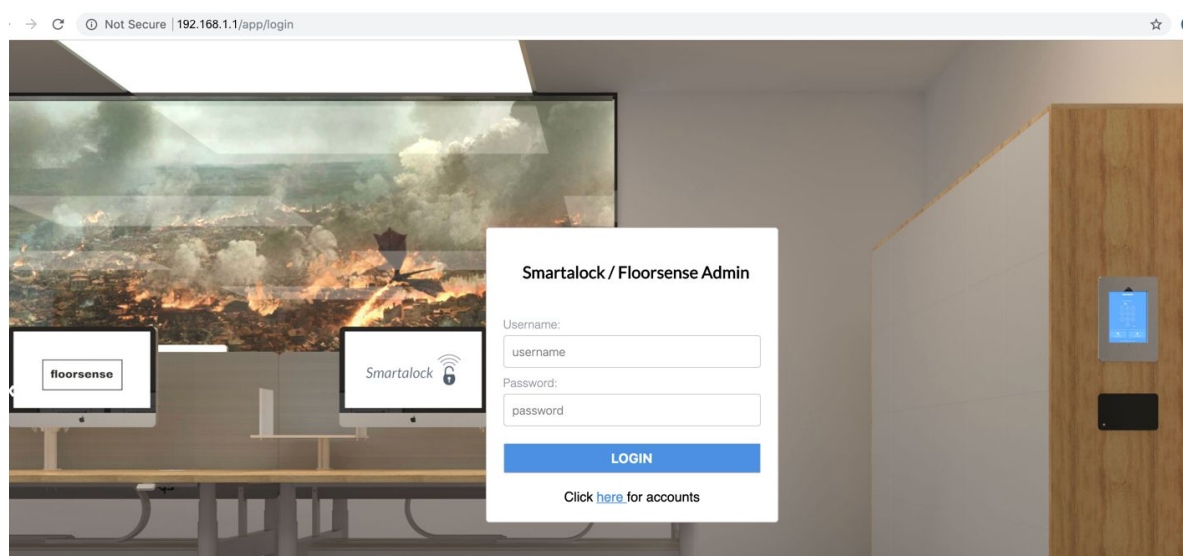
Administration Portal via the Internal IP Address of the Master Controller



2.1 Access to the Web Administration Interface

Floorsense requires **Google Chrome** for accessing the Web interface. Other browsers (especially Internet Explorer) may not work correctly. In the Chrome browser, type in the IP address of the Master controller interface or the external public URL depending on the access method.

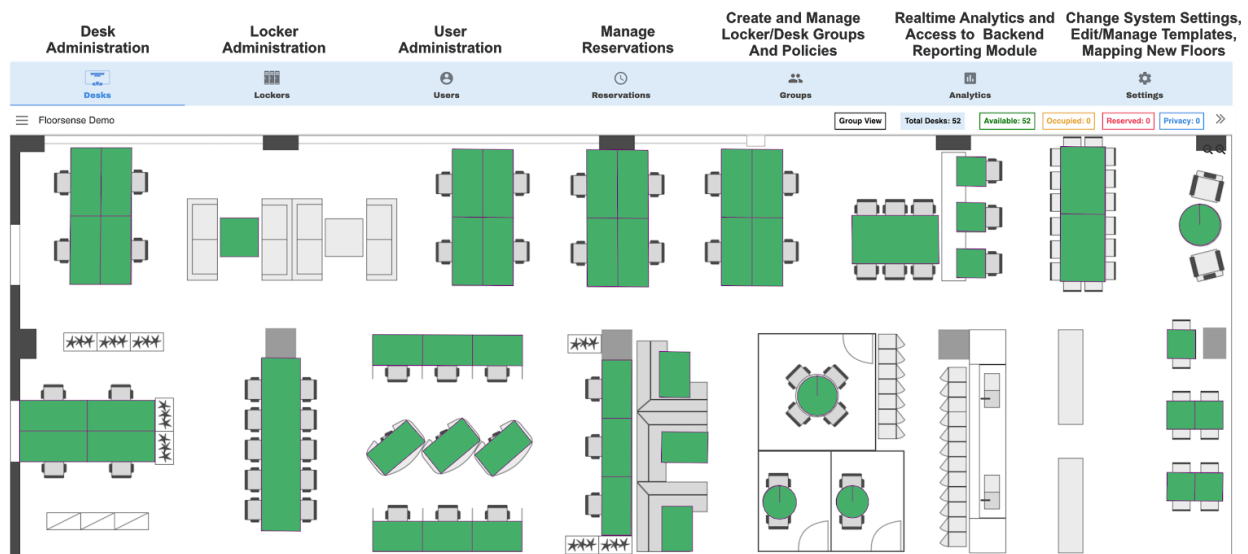
Enter the username and password. By default these are set to **admin**.



2.2 Web Interface Overview

The Web interface defaults to the Desk Administration tab. The left hand hamburger icon is for selecting the floor to administer. Tapping the Building / Level buttons filters by these areas to make identifying the required floorplan easier.

The top bar is used to navigate to other Admin functions.



The Desks tab can be used to view the occupancy status of each desk, create/release reservations, and remotely interact with the Floorsight modules.

Similar to the Desks tab, the Lockers tab has similar features as the Desks tab with the exception of the interface layout. The lockers tab will only have content if a Smartalock system is installed.

The User tab is used to add, remove or lookup users on the system along with performing tasks such as assigning a swipe card or changing their locker PIN number.

The Reservations tab is used to review desk (and/or locker) reservations for users, or to release existing reservations to make them available to a new user. The fastest way to create a new locker/desk reservation however is through their respective tabs.

The Groups tab allows for the creation of groups of desks or users within or across multiple desk floors and assign different policies for each group. For example identifying a group of desks that belongs to the Marketing neighbourhood.

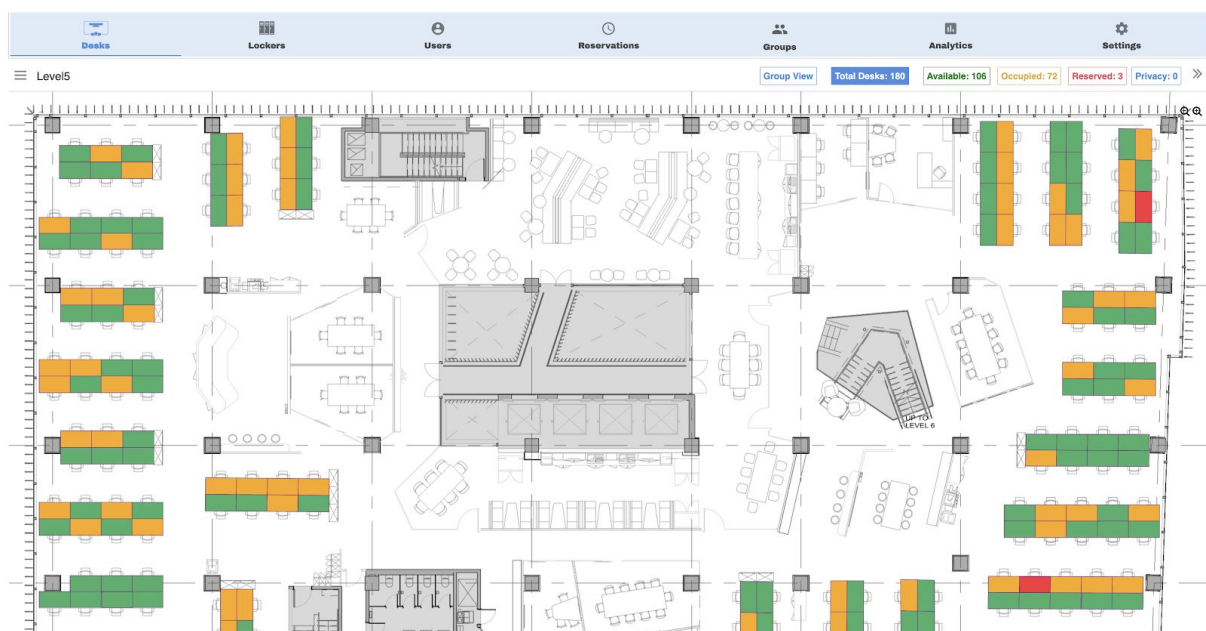
The Analytics tab links to a statistics dashboard showing which lockers/desks are heavily used, and which are free. It is useful to identify desk areas near capacity. This tab also links to the backend reporting module which requires a second authentication (use same

credentials by default). If the administrator account is granted reporting access the reporting backend pages will load

For systems that use dynamic allocation of lockers to users, the Analytics page will provide the average and peak duration of use which can help tune the default locker reservation length.

The Settings tab contains links to the backend system configuration (for example to create new administrator accounts, or to perform bulk imports of users and card numbers). This will require additional authentication to reach these pages. The tab may also link to the floorplan tools for systems that have those features enabled. Finally this tab contains the Administrator logout button.

2.3 Desk Administration



Clicking on the Desks tab brings up an interactive floor map of desks, in which the administrator can either create a booking, view the desk's event log, or perform other administrative actions.

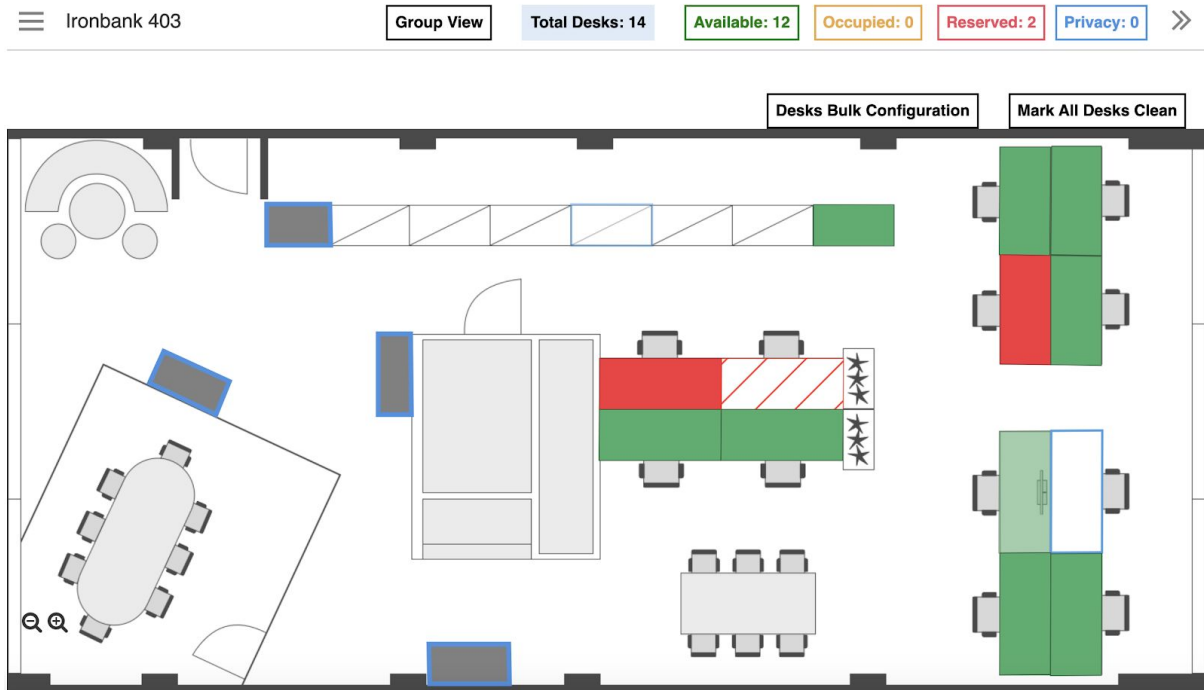
2.3.1 Desk Patterns

Each desk is highlighted with different colors, depending on their occupancy status:

- Green: Available
- Orange: Occupied, but not reserved.
- Red: Occupied and Reserved.
- Blue: Privacy mode.


- Faded Green: The desk is offline.

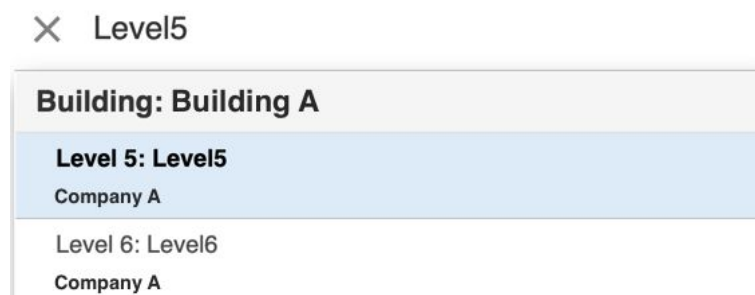
In addition to these, desks can also be made unreservable for cleaners to clean them, or made reservable again after they have been cleaned.



- White with Red Stripes: The desk is unavailable for reservation as it is being cleaned by the cleaner
- White with Blue Border: The desk has been cleaned and is available for reservation.

The administrator can reserve or release a desk on behalf of a user. The privacy mode however, can only be toggled by the user via the desk module's button if they have reserved the desk.

On the top left of the screen, clicking on the  hamburger button brings up the different levels in the building. Clicking on one brings up its corresponding floor map.



2.3.2 Desk Information

By clicking on a desk, a window pops up on the right in which the administrator can perform several actions.

The screenshot displays the 'Desk Information' interface. On the left is a desk map with a red box highlighting a specific desk. A red arrow points from this box to the 'OVERVIEW' section on the right. The 'OVERVIEW' section shows details for desk D403-01, including its type (Workstations), group (Software Developers), status (Reserved), and cleaning status (Used). Below this is the 'BOOKING' section, which shows the user (58857370), booking type (advance), and start/end times (14/8/20 11:07 am to 7:07 pm). The 'ACTIONS' section contains buttons for 'Release Booking' and 'Event Log'. The 'TAGS' section shows '111 x', 'stand x', and 'tested x'. On the far right, there is a 'DESK QR CODE' and a section for 'ADMIN ACTIONS' with buttons for 'Sound Speaker', 'Flash Indicator Light', 'Mark Out of Service', and 'Mark Desk Clean'.

In the **Booking** section, clicking on the “Quick Booking” button brings up a window in which the administrator can make a desk reservation remotely for a user. The administrator would firstly have to search for the user, then choose a start and finish time, and lastly click the submit button.

The screenshot shows the 'Create Booking for D403-12' window. It has a search bar for 'Choose a user for booking' with a search icon. Below the search bar is a 'Submit' button. To the right of the search bar, there is a section for 'To begin, select a start time which should be in the free time zone from the right schedule chart'. This section includes 'Start' and 'Finish' dropdown menus, with 'now' and 'End of Today' selected respectively. A 'Submit' button is at the bottom of this section. On the right side of the window is a calendar for 'D403-12' showing a grid of time slots from 11am to 11pm.

If the desk has already been reserved, the timeline on the right will consist of a red highlight, indicating the timeframe in which a user is booked onto the desk.

	D403-11
11am	
12pm	
1pm	
2pm	1:59 - 9:59 user: Brian Balanon
3pm	
4pm	
5pm	
6pm	
7pm	
8pm	
9pm	
10pm	
11pm	

Also in the **Booking** section, depending on whether the desk is reserved or non-reserved, the admin will either see the “View Booking” or “Advance Booking” button on the bottom right.

A reserved desk will have the “Bank Booking” button. This will lead the admin to the “Reservations” page, where they will be able to view a summary of the desk’s current reservation. This is further elaborated in section 2.5.

BOOKING

User:
Brian Balanon

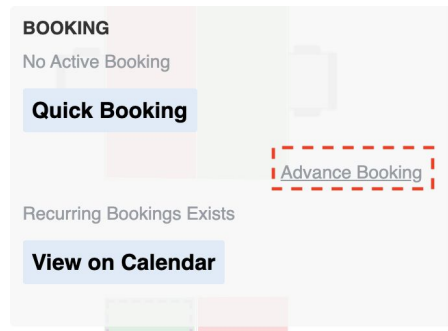
Booking Type: adhoc
Start: 9/12/19 9:23 am
Ending: 9/12/19 5:23 pm

Quick Booking

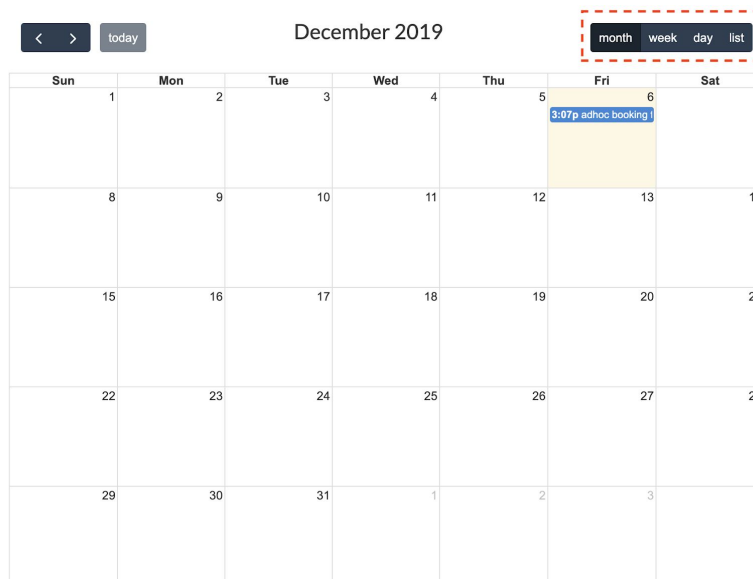
View on Calendar

View Booking

A non-reserved desk will have the “Advance Booking” button. This will lead the administrator to the “Create A New Desk Booking” page, which allows the user to create a new booking for the selected desk. This is also further explained in section 2.5.3.



Another button in the **Booking** section is the “View Calendar” button. It leads the admin to a page that displays a calendar showing the current and future bookings for the desk selected earlier. At the top right of the calendar, the admin can switch the way they view the booking periods of a desk selected; either monthly, weekly, or daily. An option to show the bookings as a list is available as well.



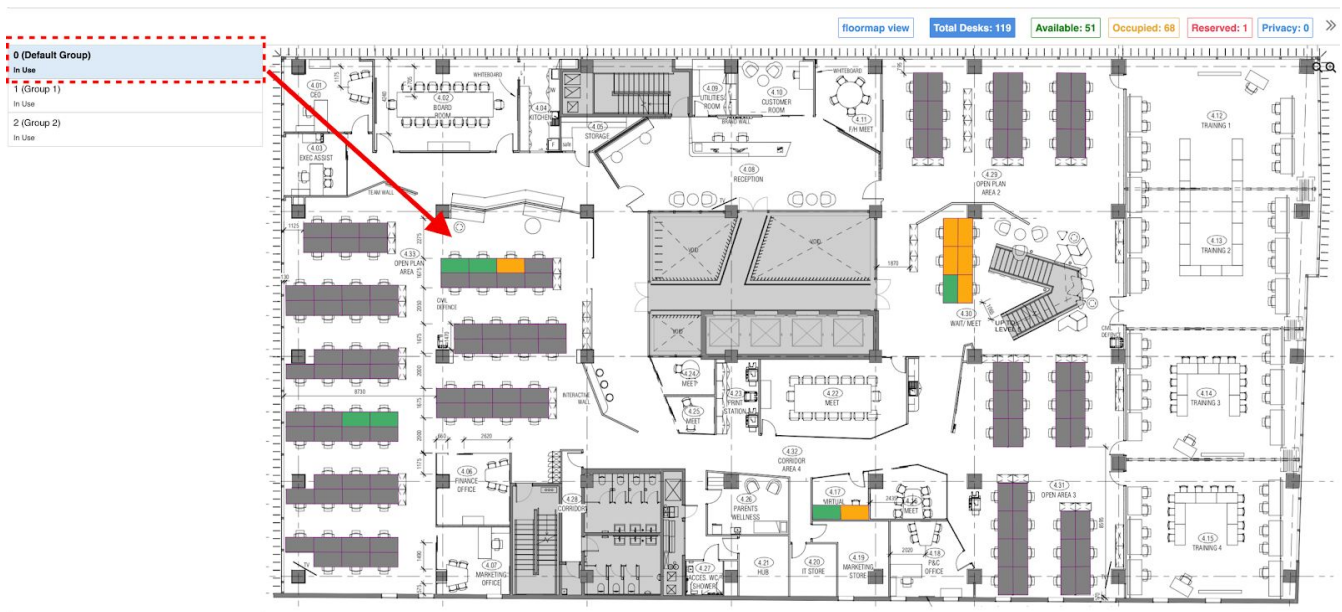
At the bottom of the page, a Floormap will be displayed showing the selected desk highlighted in blue. Beside the Floormap is a list of users that have Active Bookings, and their corresponding desks. Clicking on any of these users will lead the admin to their version of “Calendar View”, which displays their current and future bookings. A list of Future Bookings will also be displayed below the Active Bookings if there are any.

- Clicking on the Mark Out of Service button makes the desk unavailable for reservation, and marks it for service (or for cleaning). This causes the desk pattern on the Floor Plan to change to white with red stripes.
- Clicking on Mark Desk Clean brings an unavailable desk back to the reservation pool, however the desk pattern becomes white with a blue border.

On the top right of the screen, clicking on the “Mark All Desks Clean” button causes all desks to have the “White with Blue Border” pattern on them. This indicates that all desks have been cleaned by the cleaner.

2.3.4 Desk Group View

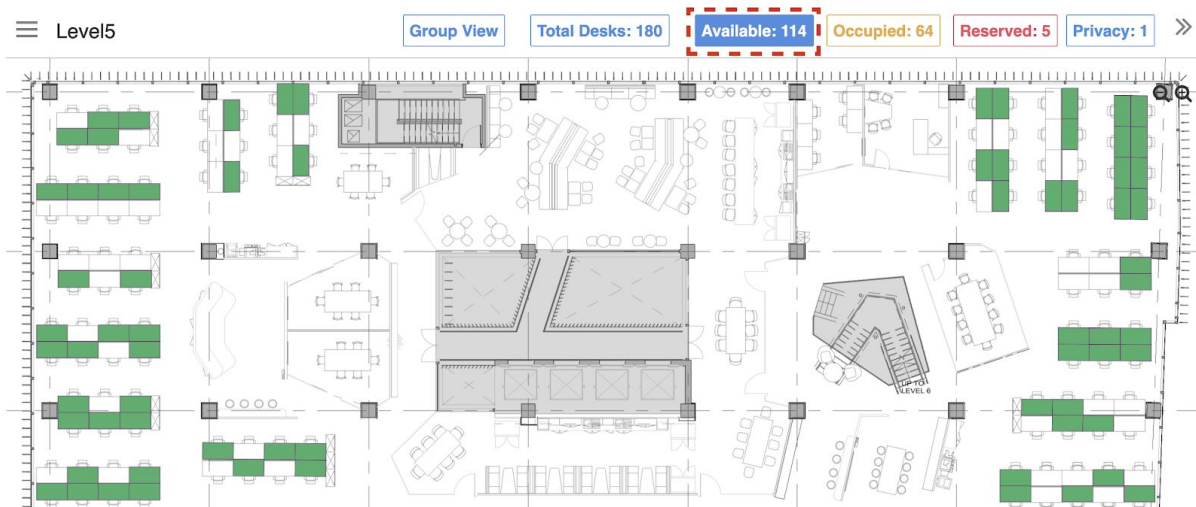
Clicking on “Group View” on the top right of the page brings up a window on the left of the screen showing a list of groups that currently exist. The “Group View” button also changes to “floorplan view” to allow the administrator to switch between the two types of views.



Clicking on any of the groups on the left will highlight the respective desks allocated to that group on the map. By default the “Default Group” group is highlighted on the left, and the desks that are allocated to this group are highlighted on the map according to their occupancy status. Initially all desks are assigned to this group by default, until they have been allocated to another group.

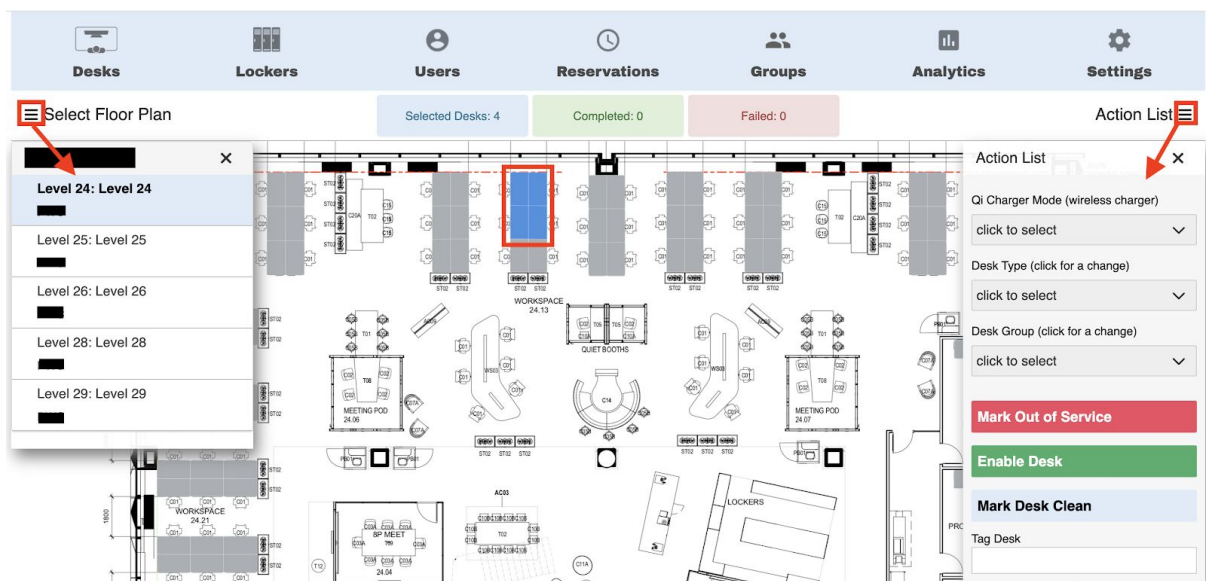
Beside the “Group View”/“floorplan view” button are the total number of desks, and the quantity of each reservation status; Available, Occupied, Reserved, and Privacy. These are also buttons that can be clicked by the administrator, and essentially highlights the desks based on which button is clicked.


For example, clicking on the “Available” button highlights the desks that are currently available for reservation.



2.3.5 Desk Bulk Configuration

Clicking on “Desks Bulk Configuration” on the top right leads the administrator to a page where they can interactively select desks, and configure the actions (refer to Section 2.3.2) for each desk by bulk.



This interactive page works from left to right. When first entering this page, a list of levels will appear on the left. Alternatively, clicking the ‘hamburger’ symbol  brings this up as well. Firstly the administrator selects a level, and its respective Floor Map will be brought up.

They can then select the desks that they would like to work with, these will be highlighted in blue upon clicking. By clicking the “Selected Desks” on the top panel, this will show a list of desks currently selected.

After the desks have been selected, clicking the ‘hamburger’ symbol on the top right beside ‘Action List’ brings up a list of actions that the admin can configure for each desk. For details on each action and their drop-down menu, refer to Section 2.3.2.

Once an action has been configured, the desks affected by the change will be reflected on the top panel under “Completed”. Clicking on it brings up a popup list of desks where the changes have been successfully made.

Completed Desks			
Building	Level	Floorplan Name	Desk Name
Iron Bank	Level 4	Ironbank 403	D403-11
Iron Bank	Level 4	Ironbank 403	D403-02

Close

Alternatively there were unsuccessful changes, clicking on “Failed” will bring up the list of desks, along with their respective error messages.

2.4 User Administration

The User tab allows the Admin to search for and administer existing users, along with creating new users individually or performing a bulk import of users from an external database.

Because the Master server may have tens of thousands of users, the initial User tab screen requires the Admin to enter some search terms such as a single letter to start finding users. Users can also be searched via their swipe card number.

Lockers

Users

Reservations

Groups

Analytics

Settings

Search User by Name or CSN (rfid card no.)

Add a New User

Visitor Quick Form

t

User Details Panel

UID	Name
39519355	Test User

Entering for example “t” will return all users with an “t” in their name. Note this is not case sensitive. The maximum results returned in a user search is 200, so more letters in the users name maybe required to find a user where the database is very large.

Searching by users building card number (CSN) requires the **full number to match** before any search results are returned.

Lockers

Users

Reservations

Groups

Analytics

Settings

Search User by Name or CSN (rfid card no.)

Add a New User

Visitor Quick Form

Q 32800

User Details Panel

UID	CSN
39519355	32800

Tapping on a users name or UID will return their current desk reservations and other details if available.

Desks

Lockers

Users

Reservations

Groups

Analytics

Settings

Search User by Name or CSN (rfid card no.)

Add a New User

Visitor Quick Form

Q Test10

UID	Name
44230736	Test10

OVERVIEW

Name: Test10

Pin: 2117

Reference:

LOCKER RESERVATIONS

Create Reservation

DESK BOOKINGS

Booking:

Desk D403-11

Create Desk Booking

ACTIONS

Edit User

Locker Event Log

APP

Delete User

The above example shows a user with an existing desk allocated. On the right panel, the Overview, Locker Reservations, Desk Bookings, and Actions tab can be seen. The Overview shows general details of the selected user such as their name, the allocated pin for their locker, and their designated reference card (CSN).

The Locker Reservations section essentially allows the administrator to manage the locker associated with the user selected.

Under the Desk Reservations section, the desk assigned to the user can be seen, in this case desk "D403-11". Clicking on this leads to the Desk Reservation page where the administrator can either release the reservation, or see its event log. Create Desk Booking will take the Admin to the Reservations tab with this user selected.

Under the Actions tab, clicking Edit User allows for changing the user's name, PIN, and associated card number. Clicking on the Locker Event Log leads to a page consisting of the time logs a user has opened or closed the lockers.

Clicking on the APP button leads to a page consisting of the QR code, Setup Code, and Activation Link of a specific locker which can be sent to the user by the Administrator. If Delete User is clicked, it will delete the user, along with any locker reservations they currently have.

2.4.1 Creating New Users

Tapping on Add a New User will bring up a modal window where a new user can be created. A new user just needs to have a name, however can also be allocated a PIN number and Swipe card at the same time.

The screenshot shows a web interface with a navigation bar at the top containing icons and labels for Desks, Lockers, Users, Reservations, Groups, Analytics, and Settings. The 'Users' tab is currently selected. Below the navigation bar, a modal window titled 'Create A New User' is displayed. This modal contains the following fields and controls:

- Name:** A text input field with a red asterisk indicating it is required.
- PIN:** A text input field with a red asterisk indicating it is required.
- Card Number:** A text input field with a red asterisk indicating it is required.
- Description (optional):** A text input field.
- Email (optional):** A text input field.
- Is Cleaner:** A checkbox.
- Buttons:** Two buttons at the bottom, 'CREATE' (blue) and 'CANCEL' (red).

The Card Number field can be populated by scanning the users card onto a card reader supplied by Smartalock/Floorsense. This card reader should be attached to the PC or Mac where the Administrator is accessing the web interface. The card reader behaves just like a keyboard in that when a card is presented, it “types” the card number wherever the cursor is located.

The USB card reader is provided by Smartalock/Floorsense and will have been pre-tuned to return the same number format as would be returned by the Kiosk integrated card readers. It is important to not use any other card reader as the number format will most likely not match.

The Description and Email fields are also optional to add for each user. If an Email address is added it allows for the user to be sent an App activation code from the user record tab.

The “Is Cleaner” tickbox is for Smartalock only - this denotes this user as a special type of user who does not have a locker themselves, however their swipe card can open ALL the lockers in any single locker bank. It provides no change in feature for floorsense/floorright use.

2.4.2 Bulk Importing Users into System

Users can be uploaded into the database in a bulk manner instead of creating each user individually via the process at 2.4.1. A full guide on this can be found in the following link: <http://support.smartalock.com/support/solutions/articles/5000746346-smartalock-integration-guide-for-3rd-party-card-systems>.

The process is the same for importing users into a Smartalock only, Floorsense only or a system that has both Floorsense and Smartalock.

This feature can be accessed by typing the IP address/URL of the master, followed by “config/userdb.html”. An example is as follows:

← → ↻ ⓘ Not Secure | 10.64.8.119/config/userdb.html

Services Remote Files WAN **Users** Banks Stats & Reports Email Alerts Cardax Integration

User Database Management

User Export

Options

Export Format Tab Separated Values (TSV) ▼

Export

Locker Export

Options

Export Format Tab Separated Values (TSV) ▼

Export

User Import

Options

Import Type Incremental Import (TSV/CSV) ▼

Import File Choose file No file chosen

Import

The following image shows the interface of the User Database Management page. The administrator will be able to access the following three tabs; User Export, Locker Export, and User Import.

The User Export section allows the administrator to export the current database, and only as a Tab-Separated Text File (.TSV). This TSV file can be edited manually and uploaded back into the database in the same file format, further explained later in the User Import section.

The Locker Export section is similar to the User Export, with the exception that it consists of the list of lockers, and the users currently assigned to them. This section however, can be ignored as it is irrelevant to the database management system.

Future releases will also contain a Desks Export consisting of a list of desks and their current reservation holder (if any). Again this export is irrelevant for importing new users into the system in bulk.

To import new users or update existing users in bulk, use the User Import section. Select a file from the local computer and then select the import type.

The two types of import can be chosen under Import Type:

- **Incremental Import:** New users are added onto the database without deleting existing ones, based on the TSV/CSV file's contents. This import type also can be used to make updates to an existing user record without deleting any other records. For example an admin can export the existing database, add new users into it, edit some existing ones and reupload the same file. They can also create a new CSV/TSV file with the same header format as the existing database, and upload it into the system.
- **Full Import:** This type of import completely replaces the existing database, with the one being imported. Any header formats or existing data will be overwritten.

Regardless of the import type, either a Tab-Separated Text File (.TSV) or a Comma-Separated Text File (.CSV) is used to import into the database. By default, the system recognizes the following header formats for both CSV and TSV files:

usertype	name	firstname	lastname	default_pin	reference	mobilekey	expiry	cards	res_fixed	res_adhoc
----------	------	-----------	----------	-------------	-----------	-----------	--------	-------	-----------	-----------

If none of these headers are present, the system assumes that the database is in the above order for each line of users. If the headers are specified, only the "usertype", and one of the "name", "firstname", "lastname", "reference", or "cards" fields will be necessary to create a user, while the other fields can be left blank. The following describes the fields above:

Field	Required?	Description
usertype	Required if no header row specified	Must be present and value for all rows is "user"
name	Either name or firstname/lastname must be populated	contains the users full name (as displayed by Smartalock) [note: for systems that cannot export full name in a single column, use firstname/lastname]
firstname	Either name or firstname/lastname must be populated	Contains the users firstname(s)
lastname	Either name or firstname/lastname must be populated	Contains the users lastname
default_pin	Optional	the user's default PIN to be used for new reservations - if specified then this will reset any user reservations to use this PIN, if not specified and this is a new user, a PIN will be automatically generated. If not specified and this is existing user, then PIN will not change.

reference	Optional	a reference into the customer's system - e.g. an employee number. This field is optional but see below for how import rows are matched to existing user records.
mobilekey	Optional	a system generated UUID that links this user record to the user's mobile phone app. If this is an existing user and this field is blank, the existing user's mobile key is not altered
expiry	Optional	a user expiry date after which a user record and associated cards and reservations will be deleted. Currently not implemented in Master software, but will be in later versions.
cards	Optional	A pipe separated list of card serial numbers (CSNs) associated with this user. If populated will replace current CSNs. Use "-" to delete existing cards and leave blank to retain existing list of cards
res_fixed	Optional	a pipe separated list of lockers to permanently reserve for this user. The locker format is <slave>/<locker number> or simply <locker number> if the site uses unique locker numbering - e.g. "1/L12" (slave 1, locker labelled L12) or "L2-123" (locker labelled L2-123 as long as there is only one locker on site with this label). Use "-" to remove any existing reservations for this user. Leave blank to leave reservations unaltered
res_adhoc	Optional	as for "res_fixed" but create a temporary reservation for the default dynamic allocation duration (typically 1 day)

Example of a valid CSV file:

```
Test_Upload.csv
1 usertype,name,default_pin
2 user,Test07,2114
3 user,Test08,2115
4
```

Header

Different users and data corresponding to the header

Ensure comma separation between data

Text Editor version

Header

User Data

Example of a valid TSV file:

```
usertype name default_pin
1 user Test09 2116
2 user Test10 2117
```

Header

Different users and data corresponding to the header

Ensure 'tab' separation between data

Text Editor Version

Header

User data

Excel Version

It is recommended to export the existing database first as a backup before starting the process. If the administrator is ready to import their file, they can click the “Choose File” button to upload the database, followed by the “Import” button to start the importing process.

User Import



If an import was successful, the following message should appear:

Import result Import success Records: 2 Users: 2 new, 0 updated, 0 deleted Cards: 0 new, 0 updated, 0 deleted Reservations: 0 new, 0 updated, 0 deleted

To double check the changes, the new database can be exported.

Alternatively, the import process can be done using a Shell based command line from their terminal. This method is favourable if the customer plans on adding their own automated process which can upload a file on a predetermined schedule to keep the Master controller database in sync with an external source. The

<http://support.smartalock.com/support/solutions/articles/5000746346-smartalock-integration-guide-for-3rd-party-card-systems>. Document covers setting this up in more detail

1. Copy the CSV/TSV file into the master using the *scp* command:

```
scp FileName root@MasterIpAddress:
```

Replacing FileName with the full file name of your CSV/TSV file, and MasterIpAddress with the master's designated IP Address. Ensure the colon ":" is placed at the end of the command to ensure that the file's name remains the same when copied onto the master.

2. Next, log into the master using the *SSH* command:

```
ssh root@MasterIpAddress
```

Like in step 1, replace MasterIpAddress with the corresponding master's IP Address.

3. Lastly, run the *sladmin import* command to initiate the importing process using either:

```
sladmin import -f FileName
```

OR

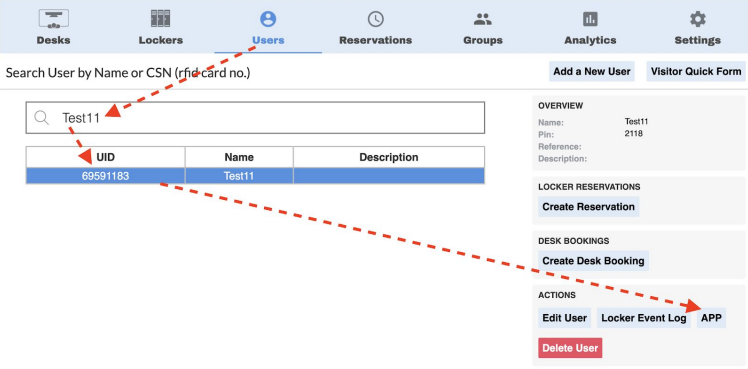
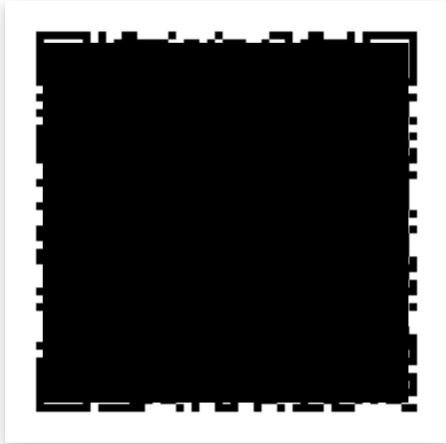
```
sladmin import -f FileName -l
```

Where FileName is replaced by the file's full name. The first command runs the Incremental Import, while the second command runs the Full Import.

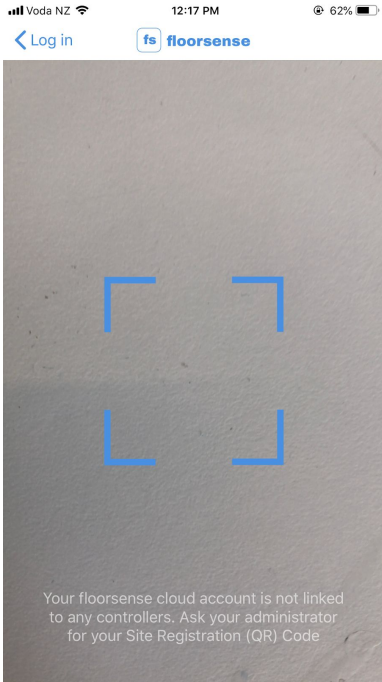
2.4.3 Smartphone App

The prerequisites for reserving a desk would be to have an account linked to the Floorsense app, having bluetooth enabled on the device, and the smartphone having an internet connection. Once these are met, a desk can be reserved by opening the app and placing the device on top of the Floorsight puck. Note that desks with floorsense occupancy sensor only are not reservable.

It is possible for a user created on the system, to link the Floorsense App to their user account. If a user already has a registered My Smartalock account with a site linked to them, they can use the same credentials to login to the Floorsense app. Otherwise the following steps enables a user to have access to the desks on site via their app:

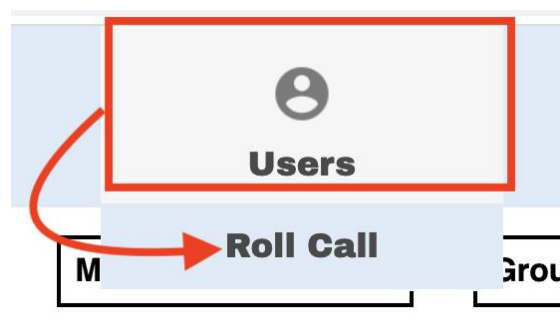
	<p>If the user isn't already in the system, the administrator can add them by following section 2.4.1. Otherwise navigate to the user and click the APP button.</p>
<p>Scan QR Code</p> 	<p>Once clicked, the administrator will be led to a page that contains the site's QR code for the user.</p> <p>The admin can then send the QR code to the user for use in the following steps, or alternatively send the URL link shown below the QR code to the end user.</p> <p>If the end user has an email address recorded in the system it is possible to email the end user the URL link directly to speed up enrolment.</p>

	<p>The user can then begin to register their account via the app, by clicking on the “register” button below the login credentials.</p>
	<p>Once clicked, the user can then enter the Name, Email, and Password that they would like to use for the app. Once the credentials have been filled, the user can then click on the “register” button.</p> <p>NOTE: The email and password used for this step can also be used to login to the My Smartalock portal.</p>

	<p>Once the registration is successful, the user will be prompted to allow access to their device's camera. This is necessary in order to capture the QR code that was assigned in the earlier steps.</p> <p>Once the camera is activated, point it to the QR code that was setup by the admin in order to bind the site to the newly created account.</p>
---	--

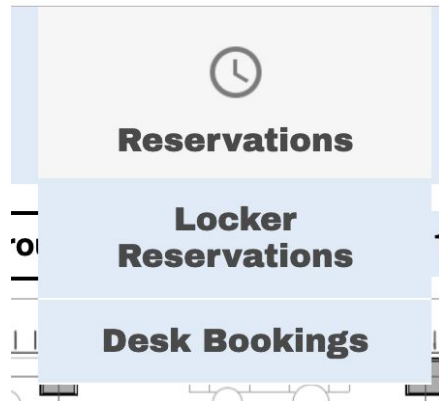
2.4.4 User Roll Call

Besides managing users, the administrator could also generate a list of users that are currently in the office and are reserved to a desk via the “Roll Call” function. By clicking the “Roll Call” Section while hovering over the ‘Users’ tab, a “.tsv” file will be downloaded. This will show a list of users, their respective desks, and their reservation duration.



2.5 Desk Reservations

When the mouse is hovered over the “Reservations” tab, the administrator can click on “Desk Bookings”. Selecting this will bring the administrator to the Desk Bookings page.



Starting with the top left corner of the screen, the administrator will be able to view or release reservations either through a floor plan view, or a user view.

Floorplans

Users

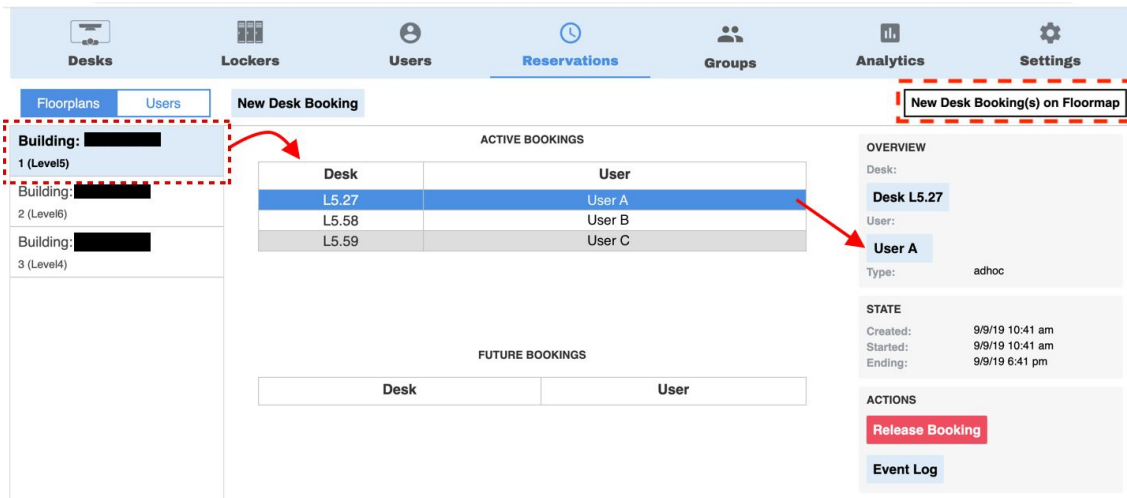
New Desk Booking

Building: [REDACTED] 1 (Level5)	
Building: [REDACTED] 2 (Level6)	
Building: [REDACTED] 3 (Level4)	

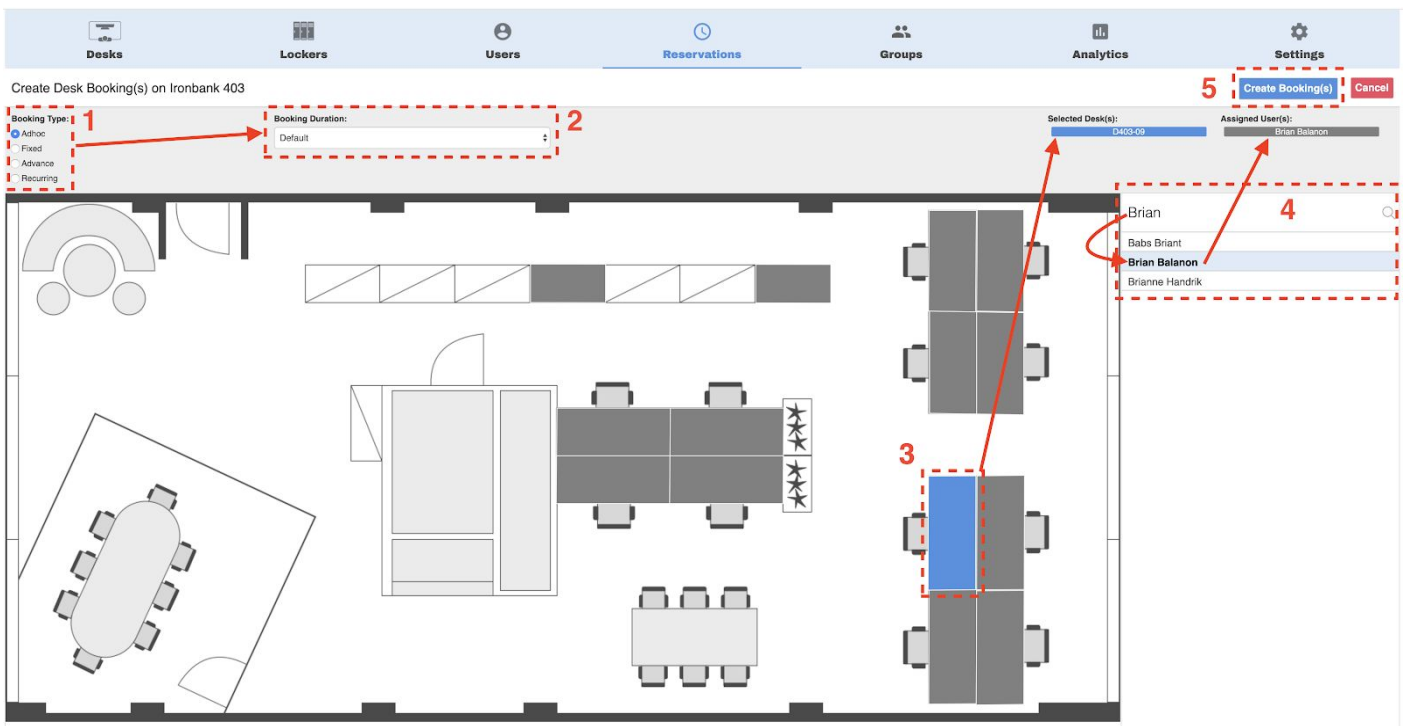
2.5.1 Viewing and Releasing Existing Reservations from Floor Plan Perspective

Clicking on the “Floorplans” tab brings up a list of floors where Floorsense modules are present. Clicking on one of the floors brings up a list of desks that are currently booked, and the user assigned to that desk.

When one of the rows is clicked, a window on the right will appear consisting of the desk’s name, the user assigned to it, the duration of the reservation, as well as the option to release the reservation or to view the desk module’s event log.



On the top right when the “New Desk Bookings on Floormap” is clicked, it leads the admin to a page where they can create a desk reservation interactively using the Floormap for the previously selected floor. The process of making a reservation uses a left to right topology starting from selecting a “Booking Type”, and ending by clicking the “Create Bookings” button.



1. **Booking Type:** The admin can choose between different types of booking. Adhoc allows a Booking Duration between 1 - 24 hours, Fixed allows a permanent Booking Duration OR a specified end date, and Advance allows booking ahead of time.

A special option of Recurring can be chosen. This essentially applies to desks that are used repetitively by a user each day.

2. **Booking Duration:** This section allows the user to choose the duration of the Booking Type selected. If the admin chooses “Recurring”, the following options are given.

Booking Type:

☐ Adhoc
☐ Fixed
☐ Advance
☒ Recurring

Starts: now
Ends: 17:00
Repeat: Every Day
End Repeat: Never
Requires Check in: Yes

The admin first chooses a reservation Start and End time. They can then choose whether they want it to occur everyday, or specific days (Every Week) via the “Repeat” dropdown menu. If the “Every Week” option is selected, the admin can choose specific days for the reservation to occur by highlighting the day(s) specified on the right in Gray.

Booking Type:

☐ Adhoc
☐ Fixed
☐ Advance
☒ Recurring

Starts: now
Ends: 17:00
Repeat: Every Week
End Repeat: Never
Requires Check in: Yes

Default: End of Today is at midnight

On: M T W T F S S

They can also choose how they would like to end the recursive booking via the “End Repeat” dropdown menu; either after a certain amount of times (After) or a specific date (On Date). After choosing this, they can then choose whether the user has to swipe their card to start the reservation via “Requires Check In”.

- After steps 1 and 2, the user can then click 1 or more of the desks to reserve. The selected desks will be highlighted in blue, and can be unselected by clicking on them again. The selected desks will be listed on the top right, also highlighted in blue.
- After selecting the desk(s), the admin can then search for the users to assign the desks to using the search bar. The admin has to click on a specific user under the search bar, in order for them to appear on the top right of the screen beside the list of desks in gray.

NOTE: For reservations of more than one desk, **it is recommended** to choose all the desks that are to be reserved first in step 3. This is because the selected desks will be sorted sequentially (ie Desk1, Desk2, Desk3 etc) no matter which desks were clicked first. After this, the users can then be selected for each desk.

- Once steps 1 - 4 have been achieved, the admin can then click on the Create Bookings button to start the reservation. They will be led back to the main Desk Reservations page which shows the current and future reservations.

2.5.2 Viewing and Releasing Existing Reservations from User Perspective

Clicking on the “Users” tab next to the “Floorplans” tab brings up a search bar where the administrator can search up users. A successful search will display the desk number that user is assigned to, and the floor they are located at. When the row is clicked, the same window from the previous section will appear.

The screenshot shows the 'New Desk Booking' interface. At the top, there are tabs for 'Floorplans' and 'Users', and a 'New Desk Booking' button. A search bar is visible next to the 'Users' tab. Below the search bar, a list of users is shown, with 'User D' selected. Red arrows indicate the flow: from the 'Users' tab to the search bar, then to the 'User D' entry, and finally to the 'ACTIVE BOOKINGS' table. The 'ACTIVE BOOKINGS' table has columns for 'Desk' and 'Floorplan', with 'L4.28' and 'Level4' respectively. Below this is the 'FUTURE BOOKINGS' section. On the right, there is an 'OVERVIEW' panel showing details for 'Desk L4.28' and 'User D', including the booking type 'adhoc', state 'Created: 9/9/19 9:10 am', and actions like 'Release Booking' and 'Event Log'.

2.5.3 Creating New Reservations

On either the “Floorplans” or “Users” tab, clicking the “New Desk Booking” button on the top left brings up the following window.

The screenshot shows the 'Create A New Desk Booking' form. At the top, there is a navigation bar with icons for 'Desks', 'Lockers', 'Users', 'Reservations' (active), 'Groups', 'Analytics', and 'Settings'. Below the navigation bar, the form has a 'Booking Type' section with radio buttons for 'Adhoc' (selected), 'Fixed', and 'Advance'. Next to it is a 'Booking Duration' dropdown menu set to 'Default'. To the right are 'Create Booking' and 'Cancel' buttons. Below this, there is a table with three rows, each representing a building and floor: 'Building: Sale Street 1 (Level5)', 'Building: Sale Street 2 (Level6)', and 'Building: Sale Street 3 (Level4)'. To the right of the table is a search bar labeled 'search user' with a clear button 'C'.

First select one of the floors on the left to bring up a list of desks, with their occupancy status displayed based on colors. A green desk should be selected, as this indicates a vacant desk. After selecting a desk, a user can be assigned to the selected desk by searching their name on the search bar on the right, and selecting them.

After a user has been assigned, the administrator can then begin to edit the Booking Type on the top left of the screen. A user that will only be temporarily assigned to the desk should be designated as an Adhoc type, while a permanent one should be assigned as Fixed.

The booking duration varies based on the Booking Type selected. An Adhoc type ranges from 1 - 24 hours, while a Fixed type would be permanent. If the booking type selected was Advance, a booking start and finish time can be chosen. Once this has been set, the administrator can click the “Create Booking” button to commence the booking. A visual representation of the process above is as follows:

Create A New Desk Booking

Booking Type:

☒ Adhoc ☐ Fixed ☐ Advance

Booking Duration:

24 Hour

Create Booking

Cancel

Building: [Redacted]

1 (Level5)

Building: [Redacted]

2 (Level6)

Building: [Redacted]

3 (Level4)

L5.1 L5.2 L5.3 L5.4 L5.101

L5.102 L5.5 L5.6 L5.7 L5.8

L5.9 L5.10 L5.11 L5.12 L5.13

User F

User F

2.6 Groups

2.6.1 Desk Groups

When the Groups tab is selected, the administrator can choose between Locker Groups, Desk Groups, or User Groups. For the purpose of this documentation, the focus will be on Desk Groups and User Groups. Clicking on Desk Groups brings up a list of current desk groups on the left. By default, only the Default Group will exist if no other group has been created.

Desks

Lockers

Users

Reservations

Groups

Analytics

Settings

Groups Policies

Desk Group(s)

0 (Default Group)
In Use

29 (Software Developers)
In Use

30 (Support)
In Use

31 (Leaders)
In Use

32 (Design & Modeling)
In Use

33 (Packing Team)
In Use

ADD A NEW GROUP

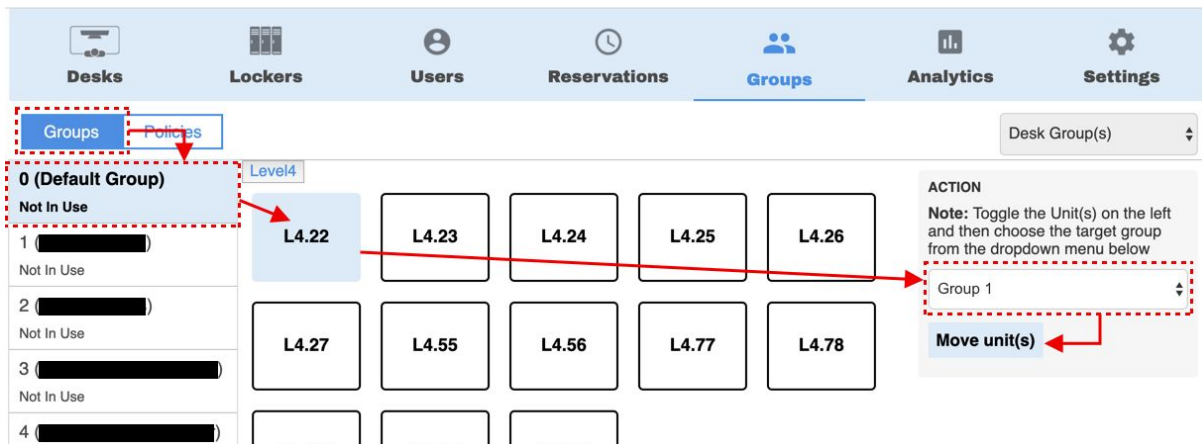
Name:

your new group name

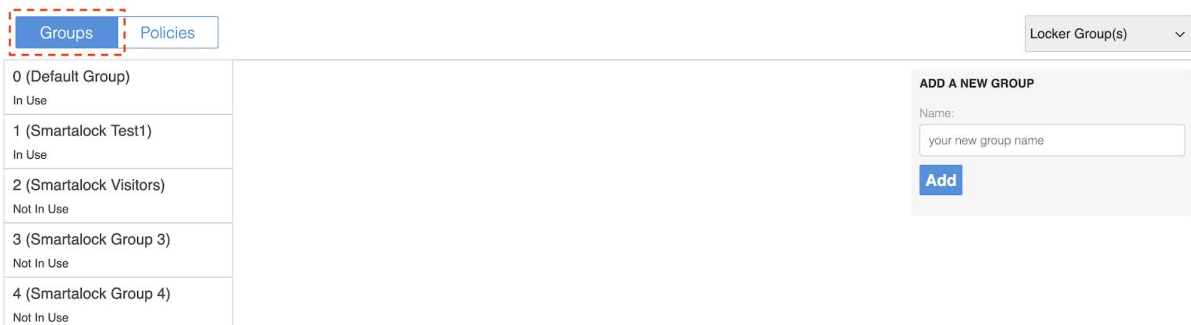
Add

By clicking on the Default Group, a list of desks will be displayed, and the administrator will be able to move specific desks into groups in an interactive manner.

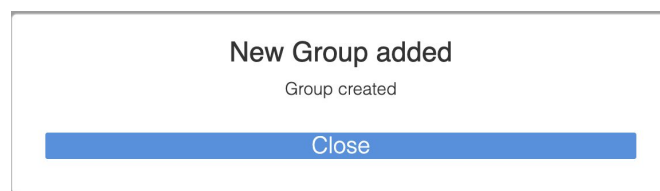
When a box is clicked, it gets highlighted in blue. This indicates that the associated desk is ready to be moved into another group. More than one desk can be moved to another group at any time. To unselect a desk, simply click on the box again to undo the highlight. After selecting the desks, the administrator can choose the target group from the drop-down menu, found in the “Action” window on the top right. When the target group has been selected, the desks can then be moved into the designated group by clicking the “Move unit(s)” button.



To create a new group, simply click on the Groups tab found in the top left corner. This leads the administrator back to the default Groups page.



On the top right corner, a small window called “Add A New Group” exists that allows an administrator to create a new type of group. When a new group has been added, the following message should appear.



When the close button is clicked, the administrator will be led to the Group Policies tab. In this tab, an administrator will be able to edit each group’s reservation settings such as reservation duration, the number of desks reservable by each user etc. Note that these settings will be applied to each desk assigned to that group.

GROUP NAME:

test group

GROUP BOOKING SETTINGS

Maximum Number of Desks per User:

1

Allow Adhoc Booking: ☒

Allow Adhoc Booking Auto Release: ☒

Booking Release Idle Time: (in minutes, 0 means this feature is turned off)

0

Allow Advance Booking: ☒

Default Advance Booking Confirmation Time (in minutes):

60

Default Booking Duration Type: Duration

Default Duration of Booking:

480 minutes ☒ hour(s) ☐ day(s) ☐ year(s) ☐

Default Day Start: 09:00

Default Day End: 18:00

Update **Delete**

Once the policies have been set, the administrator can click the “update” button. Alternatively, if the administrator wants a group deleted, simply click the “delete” button to delete both the policy, and the entire group. Desks assigned to the group deleted will revert to the Default Group.

2.6.2 User Groups

Also under the Groups tab is the ‘User Groups’. Clicking on this section brings up a list of user groups available (upon first use, only Default will be available), as well as its respective Locker and Desk policies.

Navigation: Desks, Lockers, Users, Reservations, **Groups**, Analytics, Settings

User Groups

- Default Group** (131 users)
- Bulk Reservations (do not use) (18 users)
- Dual lockers (do not use) (3 users)
- Locker (813 users)
- Bag (276 users)

CREATE NEW USER GROUP

Name: new group name

Add

User Group Policy

Locker Settings

Setting	Default Value	Setting Option	Override Value
Allow Adhoc Reservations	true	Inherit Default	
Max Lockers	2 lockers	Inherit Default	
Max Lockers Override	false	Inherit Default	
Default Duration	1440 minutes	Inherit Default	

Desk Settings

If no User Groups are available, the administrator can create a new group via the “Create New User Group” box on the bottom left. Once added, its policy settings will be immediately shown on the right.

The user group works on a left to right basis; the administrator clicks on a user group to edit (this will be highlighted in light blue), after which they can edit the locker or desk policy settings and by clicking the “Save” button at the bottom of the screen. For this documentation, the Desk Policy Settings will be focused on.

Desk Settings

Setting	Default Value	Setting Option	Override Value
Allow Adhoc Bookings	true	Override Default ▾	True ▾
Autorelease Adhoc Bookings	true	Inherit Default ▾	
Allow Advance Bookings	true	Inherit Default ▾	
Advance Booking Checkin Time	60 minutes	Override Default ▾	60 minutes
Release if inactive	0 minutes (0 to disable feature)	Override Default ▾	0 minutes (0 to disable feature)
Privacy Mode	Do not disturb	Override Default ▾	Do not disturb ▾
Max Desks	1 desks	Override Default ▾	1 desks
Max Desks Override	false	Inherit Default ▾	

Save

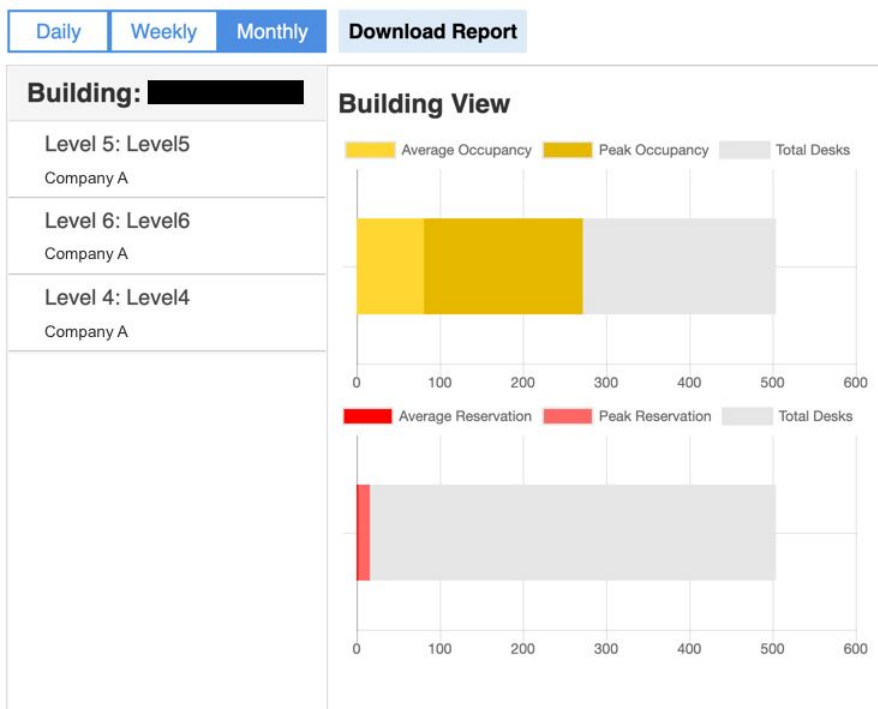
By default, “Setting Option” will be set to “Inherit Default” which corresponds to the “Default Value” on the left. The administrator can choose to override the default settings by clicking the drop-down menu, and selecting “Override Default”.

- **Allow Adhoc Bookings:** Determines if a user on site can simply reserve a desk upon card swipe/App (Adhoc reservation). If users are to be assigned a specific desk at all times, set the “Override Value” to FALSE to disable this feature.
- **Autorelease Adhoc Bookings:** If this feature is enabled, the user will be automatically signed out of the desk they have reserved once their Adhoc reservation period expires.
- **Allow Advance Bookings:** This determines whether a user will be able to pre-book a desk via their Floorsense app.

- **Advance Booking Check-In Time:** Determines the timeframe in which the user would have to sign in to the desk physically (either by their phone App or swipe card) before their pre-booking expires. The default time is 60 minutes, but can be changed accordingly via the “Override Default” option.
- **Release if Inactive:** If this feature is enabled, a user with a desk reserved will be signed out if the system detects that their desk is unoccupied after a set duration (in minutes).
- **Privacy Mode:**
- **Max Desks:** Sets the maximum number of desks a user can reserve at the same time. This would typically be for users with dynamic movement around the office, but have a specific desk assigned to them.
- **Max Desks Override:** If this feature is enabled, this would override the maximum number of desks according to the Desk Groups’ policy instead.

2.7 Desk Analytics

When the Desk Analytics section is selected, a chart view of the occupancy and reservation of desks is displayed. By default, the chart displayed will be based on readings from the entire month, and for all the desks in the building.

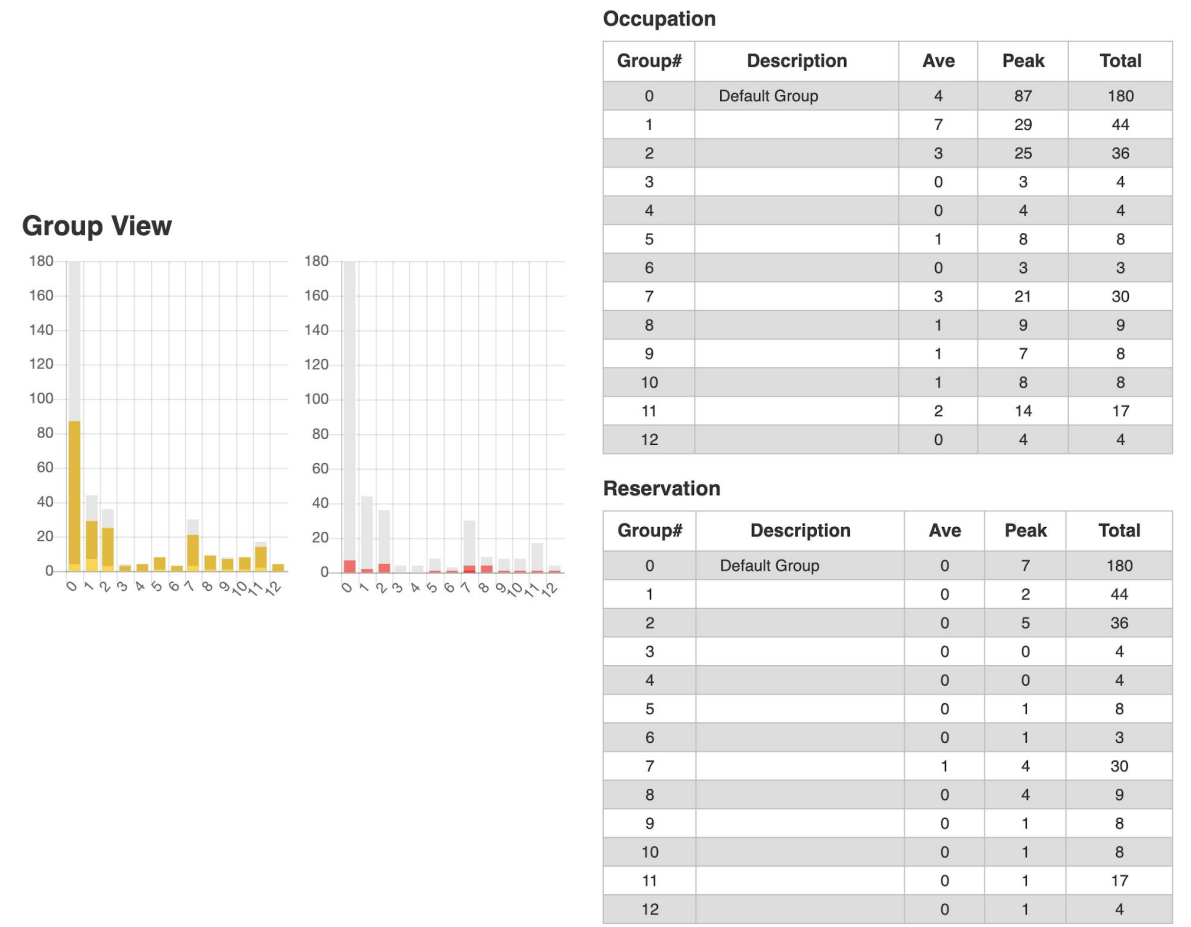


To view the data for each floor, simply select one of the floors listed on the left. Once selected, all the types of views will be filled up. By default, they will be based on a month’s worth of data. The administrator can change this to either a Daily, Weekly, or Monthly basis

by clicking on the tabs on the top left. The following is an example for a single floor, monthly based dataset.

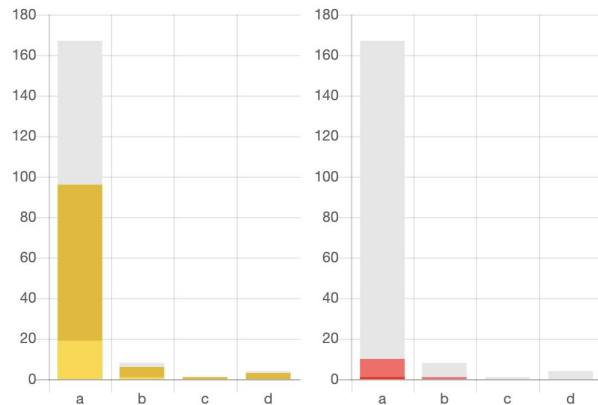


A chart based on existing groups for that level will also be displayed. It shows both the number of occupancies and reservations, with respect to the groups (displayed as indexes on the chart). The quantified version of the chart is also displayed as a table.



Similar to the Group View, the Type View will also be displayed as both a chart and a quantified table. The only difference will be that instead of groups, the different types of desks will be displayed for that particular level only. Furthermore, these different desk types are indexed as letters instead of numbers (a, b, c, etc).

Type View



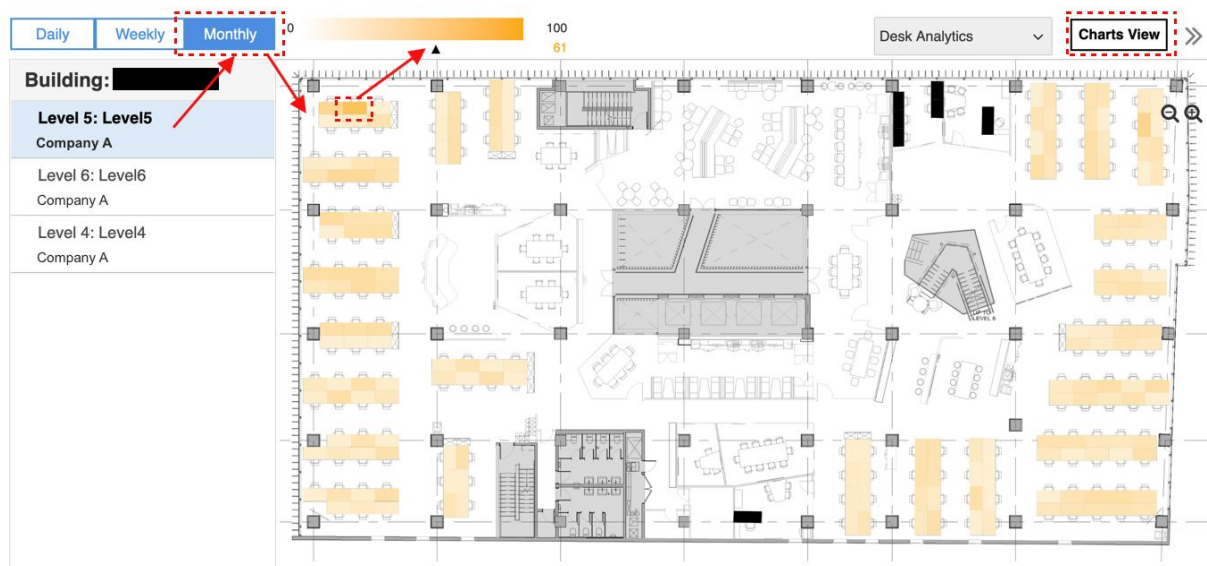
Occupation

Type	Description	Ave	Peak	Total
a	Workstations	19	96	167
b	Laptop Docking Station	1	6	8
c	Touchdown Desk	0	1	1
d	Touchdown Desk With Docking Station	0	3	4

Reservation

Type	Description	Ave	Peak	Total
a	Workstations	1	10	167
b	Laptop Docking Station	0	1	8
c	Touchdown Desk	0	0	1
d	Touchdown Desk With Docking Station	0	0	4

Alternatively, the administrator can view the statistics of each desk by switching to the “Floorplan View” via the toggle button on the top right corner. Like the “Charts View”, a floor has to be selected on the left of the screen. The period can be changed to either Daily, Weekly, or Monthly via the tabs on the top left.



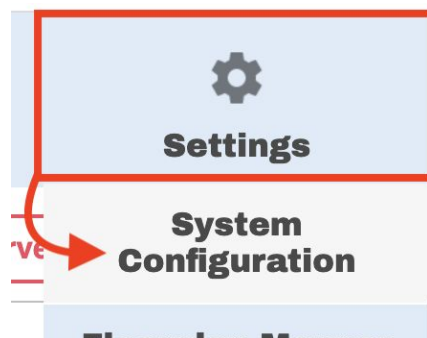
A heat map of the floor selected will be displayed, indicating the percentage of occupancy based on the color intensity of the desk. When the mouse is hovered over a desk, the indicator at the top of the heatmap changes. The occupancy percentage changes, as well as the color intensity with a darker color indicating high occupancy.

When a desk is clicked, the following window pops up which essentially provides the details about the Floorsense module. Furthermore a percentage of each reservation status is shown as well, based on the period previously selected (in this case, months).

DESK STATISTICS OVERVIEW	
Desk Key:	L5.7
Desk ID:	44
Controller ID:	13
Desk features:	
Hardware Type:	E-20
TX count:	235
RX count:	44666
firmware:	437
rloc16:	1C02
Inuse Ratio:	10%
Available Ratio:	90%
Occupied Ratio:	10%
Reserved Ratio:	0%
Unconfirmed Ratio:	0%

2.8 System Configuration

To access this page, hover the mouse over the “Settings” tab and click “Systems Configuration”.



Clicking on this tab brings the user to the Configuration page below. This can alternately be accessed by typing the master controller’s IP address, followed by a ‘/config’ in the address bar. Typically, only the **Users**, **Banks**, **Stats & Reports**, and **Bulk Email** sections are of interest for the administrator.

← → ↻
Not Secure
10.64.8.119/config/

Services
Remote
Files
WAN
Users ▾
Banks
Stats & Reports ▾
Email Alerts
Cardax Integration

Smartalock Configuration

Index page. Click the above categories.

About us

Smartalock is made by Agile Workspace Limited, a collaboration between experienced custom furniture manufacturers and successful Application / Hardware developers.

Link

[smartalock.com](#)
[support site](#)
[email us](#)

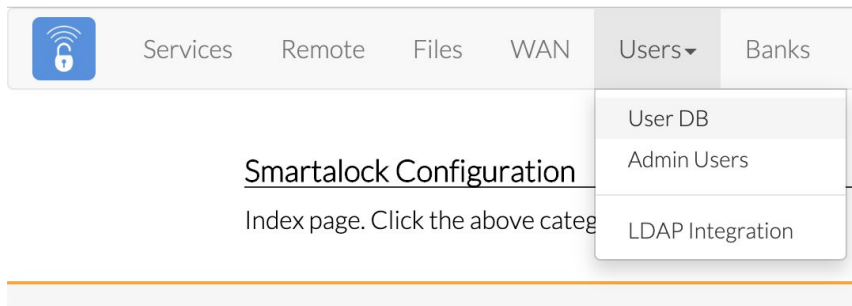
Contact us

Unit 403 Ironbark
150 Karangahape Road
Auckland 1010
sales@smartalock.com
+64 93200140

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2.8.1 Users

The **Users** tab displays three options: **User DB**, **Admin Users**, and **LDAP Integration**.



Clicking on User DB leads to the User Database Management, which essentially allows the user to do either a bulk import of the user database, or an export of either the user or locker database.

The screenshot displays the 'User Database Management' page. It is divided into three main sections: 'User Export', 'Locker Export', and 'User Import'. Each section has an 'Options' label and an 'Export Format' dropdown menu set to 'Tab Separated Values (TSV)'. The 'User Import' section includes an 'Import Type' dropdown set to 'Incremental Import (TSV/CSV)' and an 'Import File' section with a 'Choose file' button and the text 'No file chosen'. Each section also has an 'Export' or 'Import' button.

Clicking on Admin Users allows different users to be added as administrators to access either the Frontend (the default interactive webapp), and/or the Reports page.

The screenshot shows the 'Account Administration' page. It features a table titled 'Existing admin accounts' with columns for ID, Name, Frontend Access, Reports Access, and Delete User. Below the table is a button labeled 'Update Users permissions'. Under the 'Add new admin user' section, there are input fields for Username, Password, and Confirm Password, followed by checkboxes for Frontend Access and Reports Access, both of which are checked.

ID	Name	Frontend Access	Reports Access	Delete User
1	admin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-
2	test-app	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Delete User
3	test-conf	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Delete User

2.8.2 Banks

The **Banks** tab essentially displays the slave controllers that are present on site. An option to backup each bank is present, in case the respective controller fails and important data needs to be transferred to the replacement controller. While the system is under support and maintenance from Smartalock/Floorsense the backup process is handled automatically.

[vices](#) [Remote](#) [Files](#) [WAN](#) [Users](#) [Banks](#) [Stats & Reports](#) [Email Alerts](#) [Cardax Integration](#)

Locker Banks

CID	ID	Name	Status	Firmware	DB ver	Address	Mode	Backup
3	Floorsense-SL01	Lockers 001-007	online	2.99-2137	21	10.64.8.111	slave	Download
6	QOTOM-SL01	Qotom-SL01	online	2.99-2089	19	10.64.8.121	extension (3)	Download
9	Floorsense-Ryan		online	2.99-1922	17	10.64.4.66	slave	Download
14	CodieDemo		online	2.99-2064	18	10.64.91.154	slave	Download
15	SimonsHouse		online	2.99-2111	20	10.64.3.233	slave	Download
16	SL-AIRC-B1-SS1		online	2.82-sl-1985	18	10.64.8.122	extension (17)	Download
17	SL-AIRC-B1	Bank 1 (Airconsole)	online	2.82-sl-1985	18	10.64.8.120	slave	Download
1	FloorsenseSuitcase2		offline	-	0	-	slave	Download
2	front-bank	FrontBank	online	2.99-2118	20	10.64.8.52	slave	Download
4	Spare-Slave	Lockers 109-112	offline	-	0	-	slave	Download

Firmware Upgrade

Locker Bank:

Firmware:

Upgrade Firmware

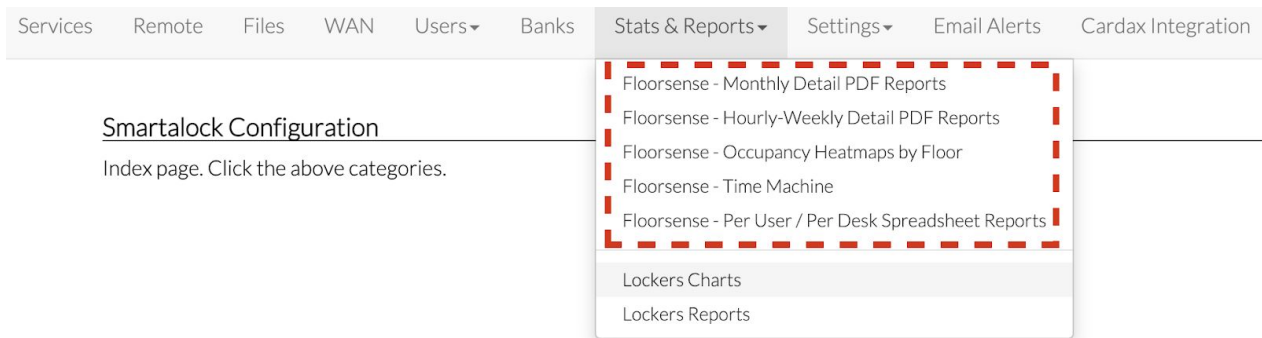
Floorsense-SL01 (Lockers 001 ▼)

airconsole-sl-2.82-web.bin ▼

2.8.3 Stats & Reports

Clicking on the **Stats & Reports** tab brings up a few sections regarding statistics for Floorsense units:

- Monthly Detail PDF Reports
- Hourly-Weekly Detail PDF Reports
- Occupancy Heatmaps by Floor
- Time Machine
- Per User / Per Desk Spreadsheet Reports



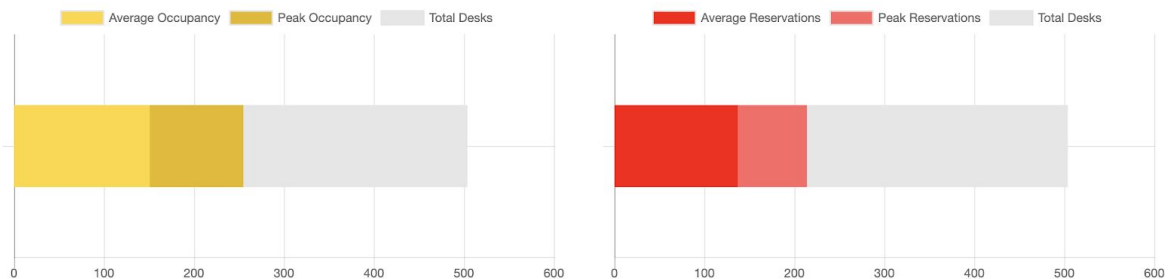
Clicking on **Monthly Detail PDF Reports** leads to a page with graphical views of the Floorsense statistics either by floor, or the entire building. By default, a Summary Report will be shown which shows the magnitude of average occupancy/reservations, peak occupancy/reservations, and total desks for the entire building as a chart.

Floorsense Reports

Start: 2019-10-21 16:19:00 End: 2019-11-20 16:19:00 Report Type: Full Report Go

Summary (Building Level) Report

This report breaks down the occupancy level and reservations for the entire site (all floors aggregated). The grey indicates the total number of workspaces, dark yellow is the high watermark occupancy seen for the selected time period and light yellow is the average over the selected period. The same high watermark and average reservations are shown in red. Where occupancy is higher than reservations it indicates people are using desks but not actively reserving them (or some workspaces are not reservable). Where reservation levels are higher than occupancy levels, it indicates people are actively reserving workspaces but then failing to actually use them. For further detail on per-floor breakdowns of occupancy and space reservation, see the Floor Reports.



At the top of the chart, the administrator can choose the start and end intervals by clicking on the calendar button. The type of report can also be chosen by clicking on the drop-down menu. The admin can choose between a Summary Report, a report on a specific floor of the building, or a Full Report which concatenates all the types of reports.

By clicking the download button the admin will be able to download a table of values used for the report. Clicking on the print button will bring the user to a printer-friendly format of the page.

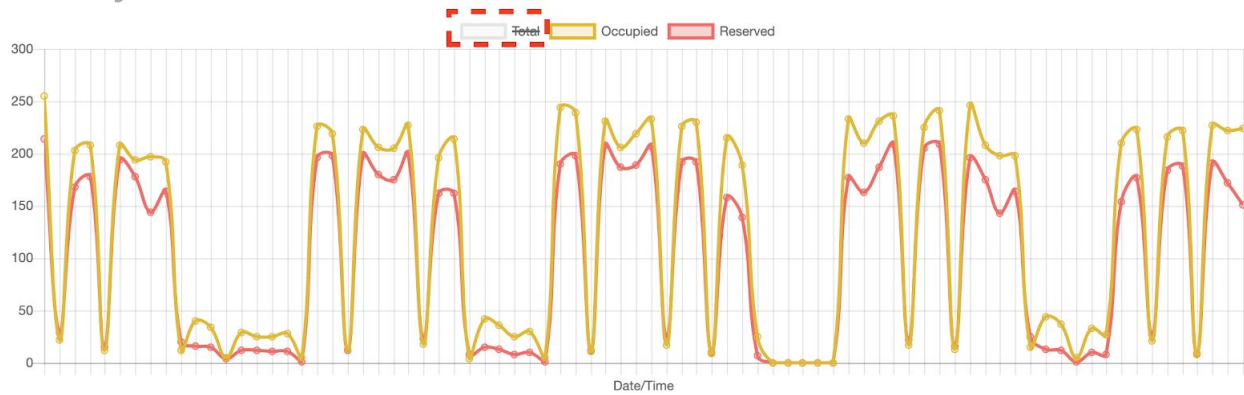
Below the charts is a line graph that compares the magnitude of either the occupancy, reservations and/or the total desks over a period (chosen by the administrator, or a month by default).

Summary



By clicking on one of the legends, an admin can omit either of the 3 magnitudes if they only wish to see the values for Occupied and Reserved for example.

Summary



Actual values for the line graph can also be displayed as a table by clicking on the “Show Table” button at the bottom.



Desks Utilization

Date/Time	Total Desks	Occupied	Reserved	Available
	504	255	214	249
	504	22	29	482
	504	203	168	301
	504	208	178	296
	504	12	15	492
	504	208	194	296
	504	194	178	310
	504	197	144	307
	504	192	164	312
	504	12	20	492

Clicking on **Hourly-Weekly Detail PDF Reports** displays a bar chart consisting of the peak, average, and total values for either occupancy or reservations for each day of the week. Much like the Monthly Reports, the admin will be able to choose the report period, type, and an option to toggle the graphical display for Occupancy and/or Reservations. Clicking on the Download and Print buttons would also produce similar results as the previous section.

Floorsense Reports

Report Period
1 x Week

Report Type
Summary Report

Display Charts
Occupancy

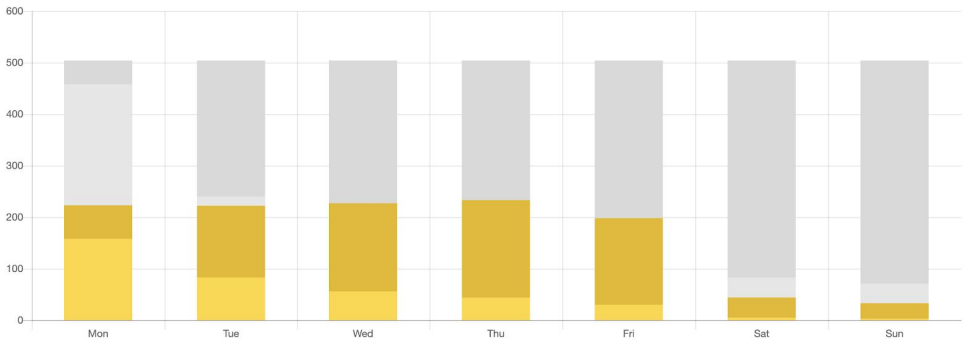
Go



Weekly and Hourly Breakdown Reports - Summary (Building Level)

This report shows occupation rates for the last number of weeks (selected above) based on day of the week. The report is used to identify the busiest and quietest days of the week for the whole building. Clicking on individual days will show/hide an hour-by-hour breakdown for occupancy for the selected day. Multiple days-of-week can be toggled on or off prior to printing out the report.

Occupancy

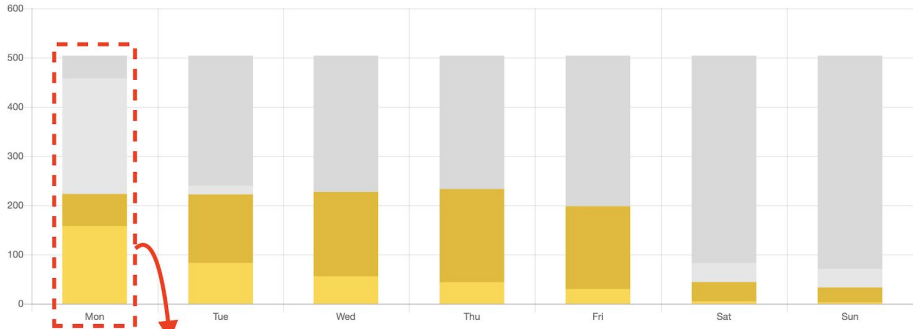


By clicking on a specific day, the hourly occupancy/reservation levels for that day will be displayed and clicking it again would hide it. The admin has the option to display the hourly rate of more than one day by simply clicking on the other days as well.

Weekly and Hourly Breakdown Reports - Summary (Building Level)

This report shows occupation rates for the last number of weeks (selected above) based on day of the week. The report is used to identify the busiest and quietest days of the week for the whole building. Clicking on individual days will show/hide an hour-by-hour breakdown for occupancy for the selected day. Multiple days-of-week can be toggled on or off prior to printing out the report.

Occupancy

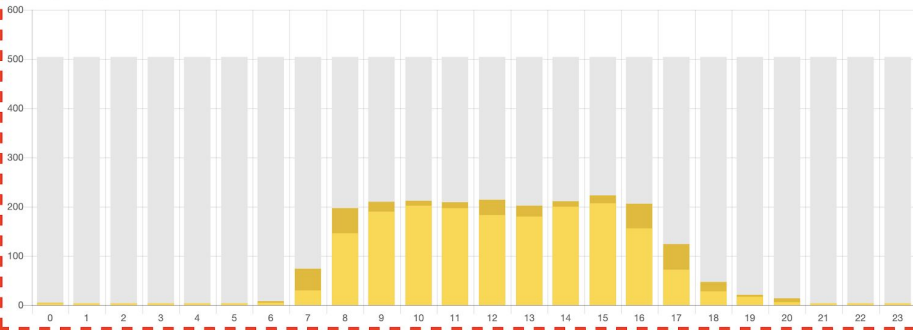


Hourly Report - Mon

This further breaks down the above day to show which are the quiet and busy hours for the whole building. If your organisation promotes working from home or flexible working hours it can help identify current occupancy patterns that can be further optimised via company policy.

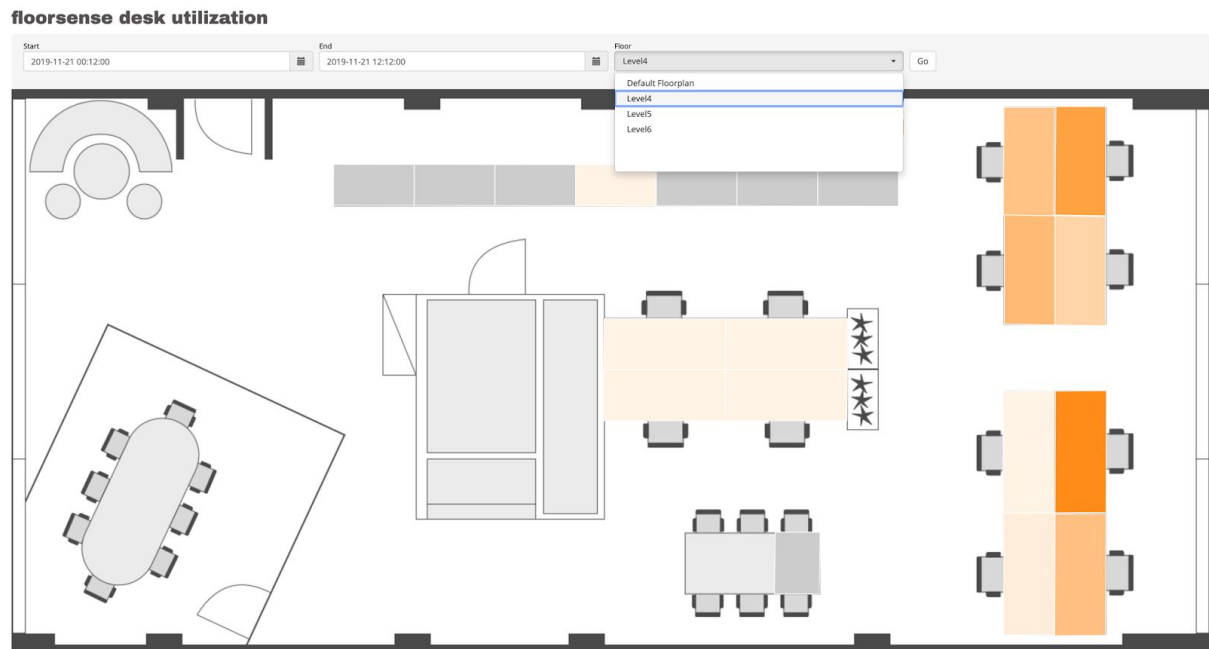
Hide Below Chart

Occupancy



Clicking on **Occupancy Heatmaps by Floor** would bring up a visual display of a Floorplan with each desk being colour coded. The admin would first have to choose the Start and End intervals by clicking on the calendar buttons, then choose a floor to analyse from the drop down menu. Once the admin clicks the “Go” button, the Floorplan for the floor selected will be displayed.

NOTE: For the start and end intervals, it is **HIGHLY RECOMMENDED** to keep it within a week, otherwise it will take longer to load the data for a larger amount of days.



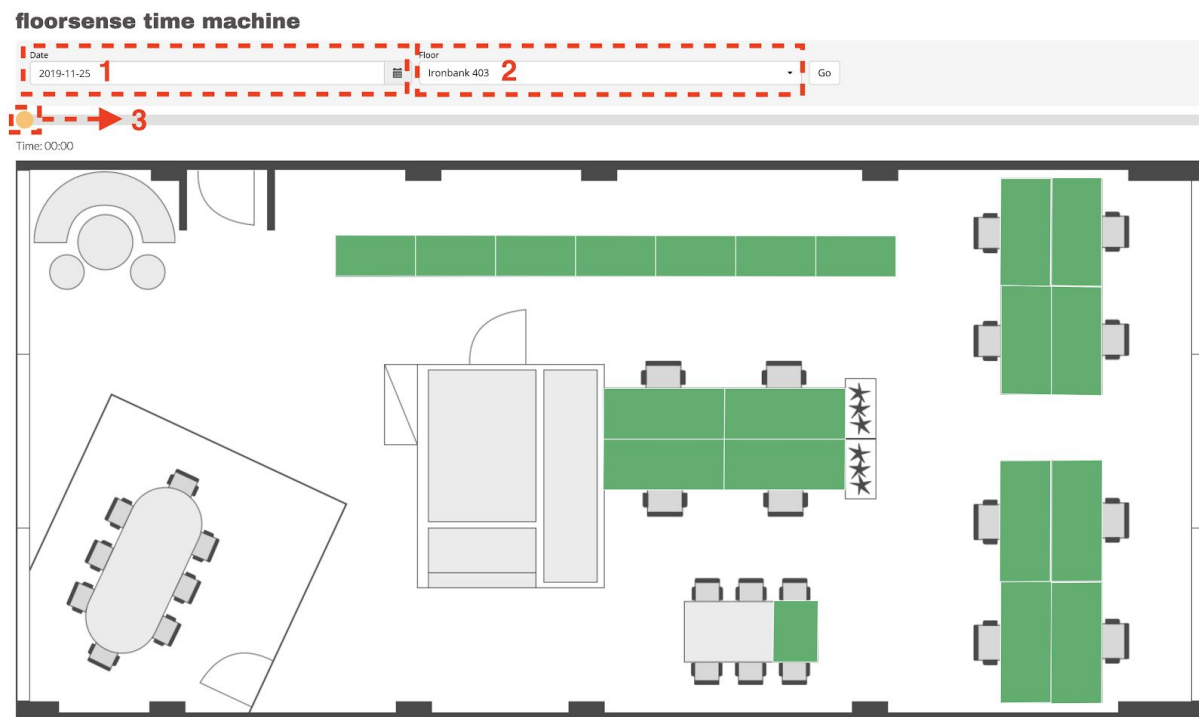
The heatmap essentially shows how often a desk is being used, with a darker colour indicating frequent use, and a lighter colour indicating otherwise. Hovering the mouse over a desk shows the percentage of use for the period selected, and clicking one would bring up a window showing the hours in which a desk is occupied and/or reserved.

L4.49 Occupancy/Reservation



If the start and end days are within 4 days apart, the graph will show an hourly interval. Subsequent 4-days would increase the intervals by 1 hour, starting with 3 hours (i.e. 5-8 days would have 3-hour intervals, and 9-12 days would have 4-hour intervals).

Clicking on the **Time Machine** would lead the administrator to a page consisting of a Floormap of one of the floors, and an interactive scroll bar to view the occupancy status of each desk in 30 minute intervals starting from midnight until the end of the day.



To use the time machine, the admin would have to firstly choose a day by clicking on the “calendar” button at the top. Then, a floor has to be chosen by clicking on the drop-down menu. After these have been selected, the “go” button can be clicked which generates the Floormap for the selected day. The admin can then slide the scroll bar in order to view the changes in occupancy for every 30 minute interval.

Clicking **Per User / Per Desk Spreadsheet Reports** leads to a page where the administrator can download csv files consisting of tables for the following:

- **Historical Reservations by User:** For a given period, the table displays desk reservation/occupation details of each user such as the desk number, the start and end booking times, as well as the booking and occupied durations in minutes. The administrator can choose to narrow down either the floors or groups displayed.

Historical Reservations by User

For the selected period, return a table that shows for each user all of the their desk reservations - ie Desk Number, Start Time, End Time, the calculated reservation length (end time - start time), and the actual occupied time. Use this report to identify which users have reserved which desks on what days, and if reserved, for how long the desk was actually occupied for throughout the reservation period.

Select period	<input type="text"/> to <input type="text"/>
Select floor (optional)	<input type="text" value="Nothing selected"/>
Select Group (optional)	<input type="text" value="Nothing selected"/>
<input type="button" value="Download"/>	

userid	username	desk_key	booking_id	group_name	booking_start	booking_end	booking_duration_minutes	occupied_duration_minutes
		D403-07	46272516	Support	14/11/19 9:42	14/11/19 17:42	480	371
		D403-06	48721444	Design & Modeling	14/11/19 9:04	14/11/19 17:04	480	321
		D403-11	21144439	Default Group	14/11/19 8:55	14/11/19 15:51	416	414
		D403-11	85241454	Default Group	14/11/19 15:59	14/11/19 16:07	8	8
		D403-07	36849799	Support	14/11/19 6:22	14/11/19 7:22	60	0
		D403-07	24212498	Support	14/11/19 7:27	14/11/19 8:26	59	0
		D403-12	6849341	Software Developers	14/11/19 10:11	14/11/19 10:22	11	12
		D403-05	41006477	Leaders	14/11/19 10:23	14/11/19 10:27	4	0
		D403-12	94063766	Software Developers	14/11/19 10:28	14/11/19 18:28	480	239
		D403-06	68439254	Design & Modeling	14/11/19 22:58	14/11/19 23:57	59	0

- Historical Reservations by Selected Users:** Similar to “Historical Reservations by User”, with the exception that the administrator can choose which user(s) are to be displayed on the table. In order for the download to be successful, the “period” and “user” fields would have to be filled.

Historical Reservations by Selected Users

For the selected period, return a table that shows for each selected user all of their desk reservations - ie Desk Number, Start Time, End Time, the calculated reservation length (end time - start time), and the actual occupied time. Use this report to identify which users have reserved which desks on what days, and if reserved, for how long the desk was actually occupied for throughout the reservation period.

Select period

 to

Select Users

Download

userid	username	desk_key	booking_id	group_name	booking_start	booking_end	booking_duration_minutes	occupied_duration_minutes
		D403-11	60442707	Default Group	4/11/19 15:27	4/11/19 23:27	480	251
		D403-11	14943440	Default Group	5/11/19 13:52	5/11/19 21:52	480	210
		D403-11	93253525	Default Group	8/11/19 8:58	8/11/19 16:58	480	359

- Unoccupied Desks Report:** This report displays the desks that are often vacant within the specified period. The table shows desks that have been occupied for less than 20 minutes; this identifies situations where the desk was only occupied for a brief period, and for the report to return meaningful data. For the download to be successful, a period has to be selected while the other fields are optional.

Unoccupied Desks Report

For the selected period and selected floor and/or desk group, return a table that finds desks that have been occupied for total period of less than 20 minutes. The reason for 20 minutes default threshold is to handle cleaner / inadvertent tripping of desk sensor when no meaningful occupation has actually taken place. Use this report to find persistently free workspaces - is there something wrong with them?

Select period

 to

Select floor (optional)

Select Group (optional)

Download

Once downloaded, the table will show the desk number, and its corresponding floor and group name. The duration of occupation (in minutes) will also be shown, either '0' which indicates a vacant desk, or a value of less than '20' to indicate a brief period of occupancy.

floor	group_name	desk	occ_in_min
Level5	Group 1	L5.1	0
Level5	Group 1	L5.3	0
Level5	Group 1	L5.4	0
Level5	Group 1	L5.13	0
Level5	Group 2	L5.24	0
Level5	Group 2	L5.27	0
Level5	Group 2	L5.39	0

- **Booked Unoccupied Desks Report:** Similar to the **Unoccupied Desks Report**, this shows the desks that have been reserved but was either left unoccupied, or was occupied for less than 20 minutes.

Booked Unoccupied Desks Report

For the selected period and selected floor and/or desk group, return a table that finds desks that have been booked but occupied for total period of less than 20 minutes. The reason for 20 minutes default threshold is to handle cleaner / inadvertent tripping of desk sensor when no meaningful occupation has actually taken place. Use this report to find persistently booked but not used workspaces

Select period

2019-11-11

to

2019-11-15

Select floor (optional)

Nothing selected

Select Group (optional)

Nothing selected

Download

Once downloaded, the table will show the desks that have been reserved but left vacant within the period chosen. If the desk was occupied for less than 20 minutes, the value will also be displayed under the "occupied_in_min" column for the corresponding desk.

There are additional reports relating to contact tracing, a list of clean desks, and working from home which will be explained in the following section.

2.8.4 COVID19 Reporting: Contact Tracing, Work From Home, Clean Desks

The following reports are also part of the "**Per User / Per Desk Spreadsheet Reports**" section, but they relate to the whereabouts of users during a certain period as well as listing desks that have been cleaned.

- **Contact Tracing Report:** For a chosen user and period, this report shows a list of users who have desks reserved within the user's proximity. It also shows the period of reservation for the user and neighbouring users.

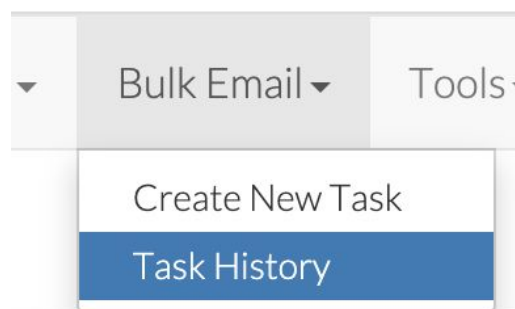
Much like the previous reports, the admin would have to firstly select a period, followed by 1 or more users to contact trace with.

- **Clean Desks Report:** This report generates a list of desks (as a .csv file) that are currently cleaned and ready to be reserved by users. It also shows the date and time that this desk has been cleaned.
- **Home VS Office by Selected Users:** For a chosen period and user, this report generates a summary of the desks that the user has reserved, as well as the periods that they have worked from home. It will show the reservation start and end times, as well as the reservation and occupancy durations.
- **Working From Home Summary Report:** This generates a report showing all the users and the number of days that they have worked from home, as well as the number of days they were present in the office.

The last two reports; **List All Desks** and **List All Desks (Including Unmapped)** are used to generate QR Codes for each desk for use in the Floorsense app. These reports are typically used by Floorsense installers, unless the customer decides to generate their own QR Codes using their preferred software.

2.8.5 Bulk Email

This section allows the administrator to send bulk emails to users based on an email template (explained later in Section 2.9). Clicking on the "Bulk Email" tab displays two sections; **Create New Task** and **Task History**.



- **Create New Task:** Clicking on this section brings up the following page.

Submit new bulk email app activation links task

Description (optional):

Test Email for Documentation

All Users

Selected Users

Email App Activation link to all users

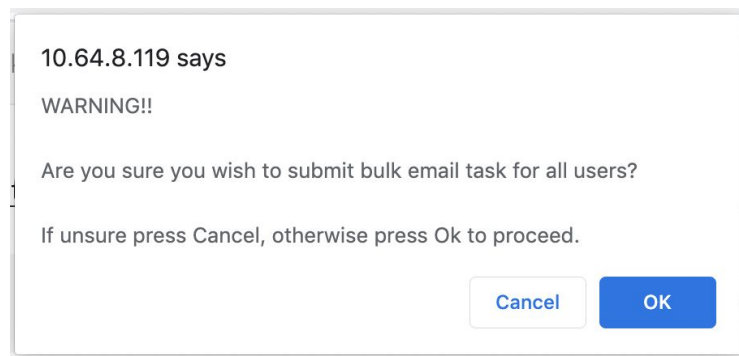
App Activation link will be emailed out to all users who have valid email address configured in their user profile. Press "Preview list of users" button to download the list of users.

Email App Activation Links

Preview list of users

The “Description” field can be left blank, however it helps identify the email task as explained later in “Task History”.

By default, the “All Users” tab will be selected. Clicking “Email App Activation Links” essentially sends the contents of the App Activation Link Template (explained in Section 2.9) to ALL users in the database with a valid email address. The following popup will appear and clicking ‘ok’ starts the bulk email task.



Clicking the “Preview List of Users” button generates a ‘.csv’ file consisting of users and their valid email address.

Alternatively the admin can send the same email to specific users by clicking “Selected Users”. Firstly the admin searches for the desired user in the search bar. If the user exists in the system and their email is valid, their name and email will appear in the results at the bottom.

Upon clicking their details in the results section, it will be highlighted in green and they will be added to the queue of recipients. The admin can choose to search another user and add them to the queue as well, this will be reflected under “Selected Users” next to the search bar.

Once all the desired users have been selected, the admin can then click “Send Email” to send the activation link immediately.

Description (optional):

[All Users](#) Selected Users

Select Users you want to email all activation link

Test [New Users](#) Send Email

[Redacted]
Test1234 [Redacted] (.com) User Test Description 1
Test12346 [Redacted] (.com) User Test Description 2
Test User (user@example.com)
[Redacted] (.com)

[Clear Search Result\(s\)](#) [Select All](#) [Deselect All](#)

Alternatively the administrator can click the “New Users” button which generates a search result of all the recently added users, and automatically selects them for the admin to send to.

- **Task History:** Clicking on the “Task History” section shows a history of the emails that were sent regardless of whether it was successfully sent or not.

Bulk email tasks history

taskid	requesttime	finishtime	status	total	sent	failed	description	info	templatekey	Task Actions
72	2020-08-19 10:09:23	2020-08-19 10:09:32	Pending	1	0	0	20200819100923 - Bulk email task (1 users)		appactlink	Cancel Task
71	2020-08-18 15:49:02	2020-08-18 15:50:08	Completed	1	1	0	20200818154902 - Bulk email task (1 users)		appactlink	-
70	2020-06-22 14:46:07	2020-06-22 14:50:09	Completed	1	1	0	20200622144607 - Bulk email task (1 users)		appactlink	-
69	2020-06-22 14:41:25	2020-06-22 14:45:08	Completed	1	1	0	20200622144125 - Bulk email task (1 users)		appactlink	-
68	2020-06-22 14:39:43	2020-06-22 14:40:08	Completed	1	1	0	20200622143943 - Bulk email task (1 users)		appactlink	-
67	2020-06-22 14:33:16	2020-06-22 14:40:00	Canceled	0	0	0	20200622143316 - Bulk email task (1 users)	Task was manually canceled by admin user	appactlink	Retry Task
66	2020-06-22 14:32:52	2020-06-22 14:39:59	Canceled	0	0	0	20200622143252 - Bulk email task (1 users)	Task was manually canceled by admin user	appactlink	Retry Task
65	2020-06-22 14:27:42	2020-06-22 14:39:57	Canceled	0	0	0	20200622142742 - Bulk email task (1 users)	Task was manually canceled by admin user	appactlink	Retry Task
64	2020-06-22	2020-06-22	Completed	0	0	0	20200622142734 - Bulk email task (1 users)	There is no record email in task	appactlink	

In this section, the user can choose to cancel an email task that is currently pending. This will cause the task’s status to turn from “Pending” to “Canceled”. Alternatively if the admin leaves the Pending task as it is, it will eventually turn to “Completed”.

Clicking on any of the tasks brings up a report of the first 20 recipients, and whether it was successfully sent to them. They can also choose to download a full report of the task by clicking the “Download Full Report” on the bottom right, which generates a “.csv” file displaying all the recipients of the email.

The first 20 users from the task displayed below. Click download button to get the full report.

Name	Email	Processing Date	Status	Info
		2020-07-27 21:45:04	Sent	
		2020-07-27 21:45:10	Sent	
		2020-07-27 21:45:15	Sent	
		2020-07-27 21:45:21	Sent	
		2020-07-27 21:45:26	Failed	Failed to send email.
		2020-07-27 21:45:32	Failed	Failed to send email.
		2020-07-27 21:45:37	Failed	Failed to send email.
		2020-07-27 21:45:42	Sent	
		2020-07-27 21:45:48	Sent	
		2020-07-27 21:45:53	Sent	
		2020-07-27 21:45:59	Sent	
		2020-07-27 21:46:04	Sent	
		2020-07-27 21:46:10	Sent	
		2020-07-27 21:46:16	Sent	
		2020-07-27 21:46:21	Sent	
		2020-07-27 21:46:27	Sent	
		2020-07-27 21:46:32	Sent	
		2020-07-27 21:46:38	Sent	
		2020-07-27 21:46:43	Sent	
		2020-07-27 21:46:49	Sent	

Download Full Report

2.85 Floorplan Mapper (Optional)

Clicking on this section allows the administrator to create new floor plans or edit existing ones, and map new desks onto the floor map via the Floorsight modules. By default, a table will be displayed showing the different floors, and their corresponding details such as the name of the site (Location 1) and number of desks (Desk Count).

Floorplan Mapper

Name	Location 1	Location 3	Floorplan Image	Desk Count	Mapped	Not Mapped	Orphaned	Valid		
Level4		Level 4		119	119	0	0	true	Map Desks	Edit Details
Level5		Level 5		187	180	7	0	false	Map Desks	Edit Details
Level6		Level 6		208	205	3	0	false	Map Desks	Edit Details

Add a New Floorplan

Map Desks

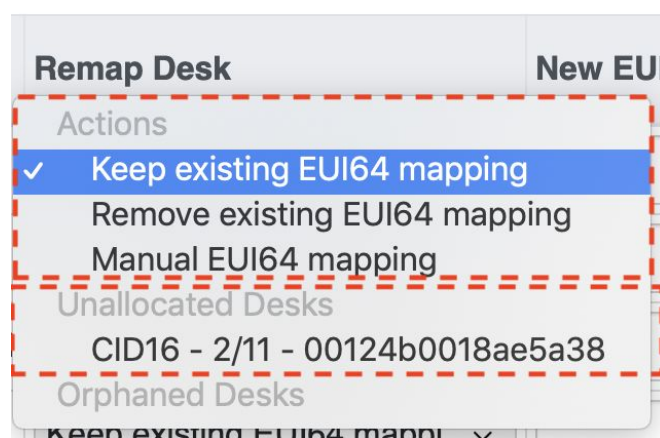
To map desks, simply click on “Map Desks” on the right column corresponding to the desired floor. This will lead the administrator to a page that lists details about the Floorsight modules available such as their serial number and their designated Desk Key, as well as the opportunity to replace current Floorsight modules.

Generally end users will not need to use the Floorplan Mapper as the system comes pre-mapped from the Floorsense reseller as part of the commissioning process. Any replacement desk sensors or pucks are re-mapped as part of the replacement process. The only time an end user administrator would need to use the Floorplan Mapper is if the system is no longer under warranty support and maintenance and they wish to do a large floorplan re-arrangement and moved desks and sensors between different floors.

Level4

Desk Key	Controller	EUI64	Remap Desk	New EUI64	Group	Type
L4.4	14 - Bank L5-Addon		Keep existing EUI64 mapping		Default Group	Workstations

- **Desk Key:** The assigned index number for the current Floorsight module. The format would usually be the floor number as a prefix, followed by the desk number. In the above example, this would be Level 4 Desk 4.
- **Controller:** The controller in which the current Floorsight module is connected to. As explained in section 1.3, Floorsight modules are connected to specific slave controllers wirelessly.
- **EUI64:** This is the serial number for the Floorsight module - printed on the side of each floorsense or floorsight device. It is also returned when a person scans the barcode of the module with a barcode reader.
- **Remap Desk:** A dropdown menu where the administrator can choose to either keep or remove the existing EUI64 number, or manually replace the existing one with a new EUI64 number. Alternatively if the slave controller is able to find an unmapped Floorsight module, it can be selected to replace the current one. This can be found under “Unallocated Desks”.



- **New EUI64:** This will essentially be the serial number of the replacement Floorsight module. If manual mapping is selected in “Remap Desk”, the new serial number would have to be input manually. If an unmapped module is selected instead, its

serial number would automatically be filled in.

- **Group:** The group that the replacement Floorsight module will be placed into. At the moment, only the “Default Group” can be chosen.
- **Type:** The type of desk that will be associated with the replacement module (Workstation, Touchdown etc). This will replace the desk type that was associated with the previous module.

Once the administrator has made all the changes, they can click on “Submit Desk Map” at the very bottom to apply the changes that have been made.

Creating/Editing Floor Plans

To create a new floor plan, simply click “Add a New Floorplan” on the bottom left. Creating a new floorplan essentially requires an image file (.png format), and a JSON file (a script that contains the desk coordinates) to be placed into the Master controller. This will lead the administrator to the following page:

New Floorplan Details

name	<input type="text"/> <small>Floorplan name</small>
location1	<input type="text"/> <small>Company name</small>
location2	<input type="text"/> <small>Building name</small>
location3	<input type="text"/> <small>Level name</small>
imgname	<input type="text"/> <small>FULL Image file name with its extension. Pls include '.png' or '.jpg' at the end</small>
deskloc	<input type="text"/> <small>Desk Locations JSON file name with its extension. Pls include '.json' at the end</small>
imgwidth	<input type="text"/> <small>Number of Integer, you can find it at the end part of the json file</small>
imgheight	<input type="text"/> <small>Number of Integer, you can find it at the end part of the json file</small>

Submit

The first 4 fields; **name** and **location 1 - 3** are self-explanatory where the administrator would just fill in the floor name, and the corresponding locations.

The next 4 fields; **imgname**, **deskloc**, **imgwidth**, and **imgheight** relate to the PNG and JSON files in the master controller.

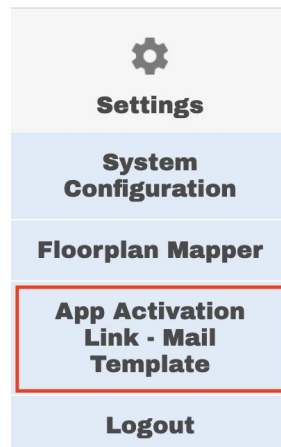
- **imgname**: The file name of the PNG image that is present in the master controller, corresponding to the floorplan.
- **deskloc**: The file name of the JSON file that is present in the master controller. Typically this has the same name as the PNG image.
- **imgwidth and imgheight**: The dimensions of the PNG image.

Once these fields are complete, simply click on the submit button to create the new floorplan.

Different Floorplans can be edited by clicking the “Edit Details” button in the Floorplan table where the fields above can be edited, or be deleted through the “Delete” button found at the bottom.

2.9 App Activation Link - Mail Template

By hovering the mouse over the “Settings” tab, the admin can click on the “App Activation Link - Mail Template” section to control the content of the app activation email as described in Section 2.8.5.



This will lead the administrator to a page where they can edit the app activation email that is to be sent to users in the database. There are three sections to the page; **Subject**, **Plain Text Body**, and **HTML Body**. Typically only Subject and HTML Body is edited as most email clients such as Outlook and Gmail support HTML formats.

Subject

Floorsense Mobile App Activation

Plain Text Body - recipient will see this if their email client does not support HTML email

Hi \$NAME, Before you can use the Smartalock/Floorsense mobile app you will need to create an account using the below link. This link is unique to you, so do not share it with others. You will be asked to create a password and activate your Smartalock/Floorsense account. This password will be used by you to sign in with the Floorsense App. \$APPAL

Thanks Floorsense/Smartalock Team

HTML Body - This is the message most recipients will see

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Paragraph

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Smartalock/Floorsense Mobile App Activation

Hi \$NAME,

Before you can use the Floorsense or Smartalock mobile app to scan into desks or open lockers you will need to create an account using the below link.

This link is unique to you, please do not share it with others, otherwise they will be able to potentially impersonate you and access your locker.

You will be asked to create a password which will then activate your Smartalock/Floorsense account. This password will be used by you to sign in with the Floorsense App.

Setup my Account

Thanks
Floorsense / Smartalock Activation Team

If you are having trouble with the button above, copy and paste the URL below into your web browser.
\$APPAL

If you have any questions you can contact us at sladmin@smartalock.com

DIV » CENTER » TABLE » TBODY » TR » TD » P

132 WORDS POWERED BY TINY

Save Template

Editing the HTML email template is similar to composing a typical email, however two elements should not be omitted; “\$NAME” and “\$APPAL”. This applies to both editing the HTML Body and Plain Text Body, as these are elements necessary for the back-end. Once the edits have been made, the admin can then save the template by clicking the “Save Template” button on the bottom left.

3.0 System Maintenance

This section describes how to test and replace any failed Floorsight module in the area.

3.1 Floorsight Module Hardware Test

Hardware testing is invoked on a per module basis. One such method would be the LED indicator. Besides the typical LED states in section 1.2, there are other states in which it indicates a fault.

- Flashing Blue:** If the indicator flashes blue for more than a minute, it indicates that the Floorsight module is having difficulty connecting to the controller. It might be possible that the controller is down, or that the module is of the wrong version.

- **Flashing Red:** This indicates that the module is not yet mapped to a desk on the floorplan. This can be done through the floor plan mapper as explained in section 2.8.2.

Other indicators for a faulty module include incorrect LED states (eg. When the LED indicates an occupied (yellow) state, when there is no one around). This would mostly involve replacing either the Floorsense sensor attached, or the cable that connects the Floorsight and Floorsense units.

3.2 Access to Slave Controller

The slave controller can also be accessed to assess the individual Floorsight modules. An in-depth detail of each module can be displayed under the Floorsense > “Console-Table View” section which shows information such as the module’s serial number, the current occupation state, its Hardware and Firmware versions, and the unique CSN number from the last card swiped.

3.3 Automatic Database Backups

The Floorsense Master server runs a database backup to the Floorsense cloud service once per day. These database records are encrypted and stored by Floorsense in case the Floorsense master hardware fails and needs to be replaced. It is therefore important that the Floorsense master continues to have access to the Internet in order to perform these automatic backups.

The Database backups can also be used by the customers Administrator in case of inadvertent deletion of many user accounts / reservations