

NCheck Bio Attendance



09-03-2023

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1 INTRODUCTION

NCheck Bio Attendance is a biometric time and attendance managements system. It is used to manage and control the employee attendance. NCheck Bio Attendance is easy and convenient attendance recording for employees and simplify the employee attendance management. Following features are available with NCheck Bio Attendance.

- Web based attendance system administration and configuration
- Running on Android, iOS and windows
- Use of devices available in the market (No special hardware)
- Face, Fingerprint and Iris biometric
- RFID, Barcode and manual ID
- Use of integrated camera for face recognition
- Configurable with IP camera
- Support many fingerprint scanning devices available in the market
- Configurable employee attendance authentication with ID, biometric or ID+Biometric
- Automatic or Manual In/Out selection
- Configurable day start time
- Work shift
- Work Rosters
- Configurable work time
- Configurable overtime
- In/Out time restriction
- Attendance location data collection
- Unidentified attempts
- Geo fencing
- Attendance location map
- Configurable report generation
- PDF and CSV reports
- Multilingual support
- Scheduling report generation and delivery
- Duplicate biometric detection
- Employee group
- Group administrators
- Read only administrators (Auditors)
- Admin operation logs
- CSV data import and export
- Employee self-service login
- Event administration
- Attendance device management
- In/out restriction
- Door lock/external events trigger
- Offline attendance (Attendance recording while no connection to the server)

2 GETTING STARTED

This getting started document guide you to setup your NCheck Bio Attendance system and perform the initial configuration of the attendance control system. You can follow below steps to setup and configure the system and start attendance recording.

1. [Planning your attendance management system](#)
2. [Start the attendance management system](#)
3. [Set up attendance management system](#)
4. [Launch web control panel](#)
5. [Set up client devices](#)

2.1 Planning your attendance management system

NCheck Bio Attendance can support employee time attendance of any organization from small office to large multi-site organizations. It is scalable from a single standalone device to thousands of devices distributed in multiple locations. Therefore, it provides following deployment options. Deployment option is differentiate based on the place attendance data storage.

Table 2.1 NCheck Bio Attendance deployment options

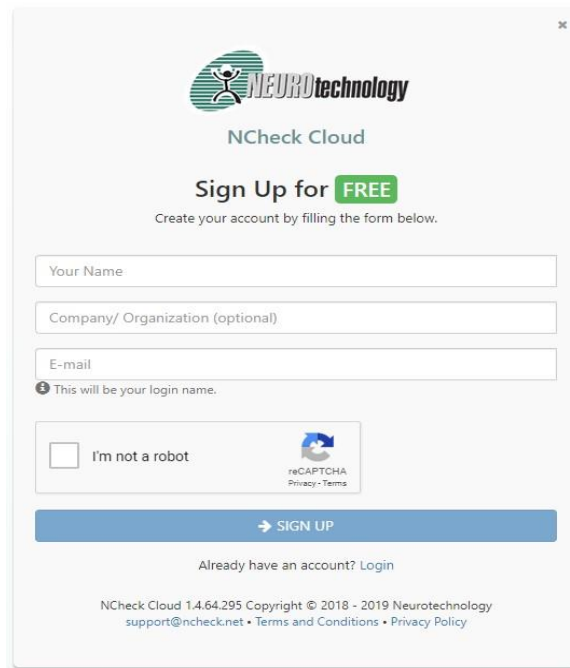
DEPLOYMENT OPTION	PLACE OF ATTENDANCE DATA	REMARKS
CLOUD SUBSCRIPTION	NCheck Bio Attendance cloud	IT Expertise are not needed
ON PREMISES	NCheck Bio Attendance on-premises server	Additional overhead on system maintenance
STANDALONE	NCheck Bio Attendance Standard Application	Simple cost-effective solution for small office

2.2 Start the attendance management system

Starting a NCheck Bio Attendance biometric attendance management system prepares the attendance system database and the service to communicate with NCheck Bio Attendance clients. NCheck Bio Attendance database and the service can be set up

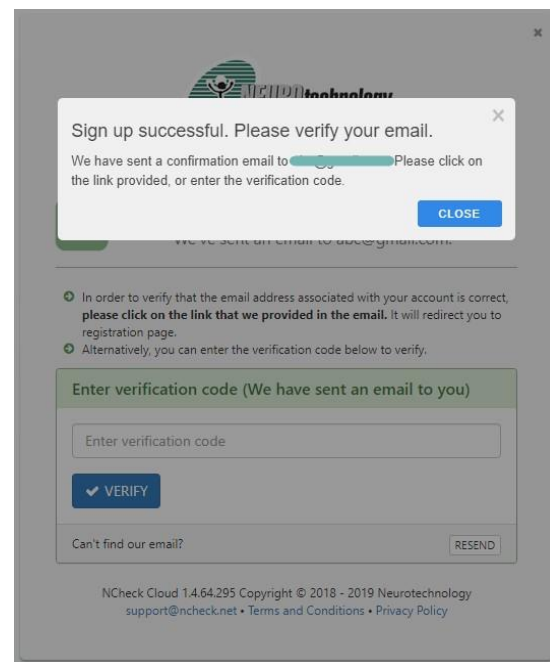
- Cloud - In NCheck Bio Attendance cloud service
- On-premises – NCheck Bio Attendance server installed in your place.
- Standalone – With the client application

2.2.1 Start an attendance management system with Cloud



The sign-up form for NCheck Cloud features the Neurotechnology logo at the top. Below the logo, it says "NCheck Cloud" and "Sign Up for FREE". A subtext reads "Create your account by filling the form below." The form includes three input fields: "Your Name", "Company/ Organization (optional)", and "E-mail". A note below the email field states "This will be your login name." There is a reCAPTCHA checkbox labeled "I'm not a robot" and a "SIGN UP" button. At the bottom, there is a link for "Already have an account? Login" and copyright information for NCheck Cloud 1.4.64.295, dated 2018-2019.

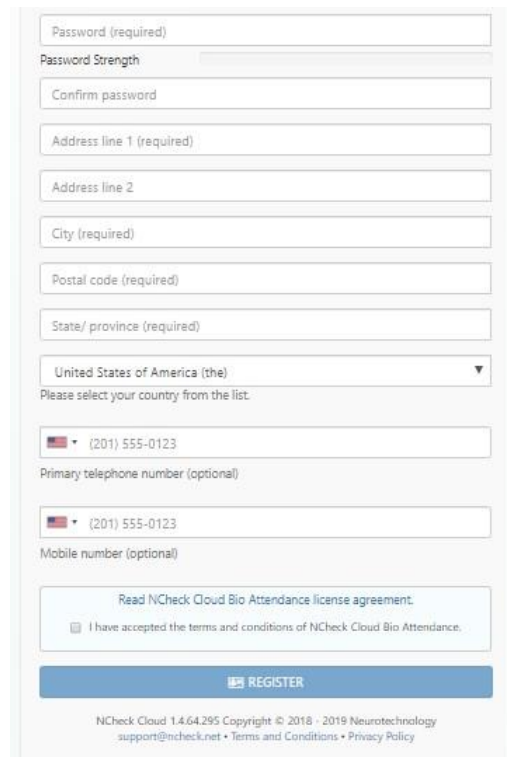
Figure 2.1 NCheck Bio Attendance sign up view



The completion view shows a success message: "Sign up successful. Please verify your email." It states that a confirmation email has been sent and provides instructions to click on a link or enter a verification code. A "CLOSE" button is present. Below this, there are two bullet points explaining the verification process. A section titled "Enter verification code (We have sent an email to you)" contains an input field for the code, a "VERIFY" button, and a "RESEND" button. The footer includes the same copyright information as Figure 2.1.

Figure 2.2 NCheck Bio Attendance Cloud sign up completion view

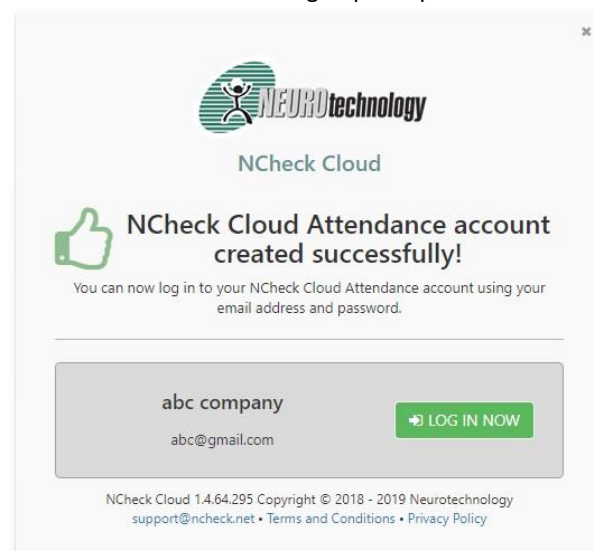
1. Go to NCheck Bio Attendance [web site](#).
2. Select Sign up button
3. In the signup page, include
 - your name
 - Your company/organization name
 - Email
 - Select signup button
4. In the next step, you will be asked to verify the email address. A verification code will be sent to the email address you have given above. Enter the verification number in the email and select verify button to verify the given email. Optionally, you can use the verification link in the email to verify your email.
5. After the email address is verified, enter additional details as below. Accept the terms and conditions and select register button to complete.



Password (required)
 Password Strength
 Confirm password
 Address line 1 (required)
 Address line 2
 City (required)
 Postal code (required)
 State/ province (required)
 United States of America (the)
 Please select your country from the list.
 (201) 555-0123
 Primary telephone number (optional)
 (201) 555-0123
 Mobile number (optional)
 Read NCheck Cloud Bio Attendance license agreement.
☐ I have accepted the terms and conditions of NCheck Cloud Bio Attendance.
 REGISTER
 NCheck Cloud 1.4.64.295 Copyright © 2018 - 2019 Neurotechnology
 support@ncheck.net • Terms and Conditions • Privacy Policy

Figure 2.2 NCheck Bio Attendance Cloud subscription email verification completion view

6. After successful registration, you will be asked to login to the NCheck Bio Attendance Cloud account shown as [Figure 2.3](#) NCheck Bio Attendance Cloud sign up completion view



NEUROtechnology
 NCheck Cloud
 NCheck Cloud Attendance account created successfully!
 You can now log in to your NCheck Cloud Attendance account using your email address and password.
 abc company
 abc@gmail.com
 LOG IN NOW
 NCheck Cloud 1.4.64.295 Copyright © 2018 - 2019 Neurotechnology
 support@ncheck.net • Terms and Conditions • Privacy Policy

Figure 2.3 NCheck Bio Attendance Cloud sign up completion view

Free plan will be assigned to your NCheck Bio Attendance Cloud subscription. You can change the plan of your subscription from administration control panel. Refer plans and pricing for more details about available subscriptions.

2.2.2 Start an attendance management system with the server

NCheck Bio Attendance can be setup in Windows and Linux platforms.

1. [Setup NCheck Bio Attendance server in Windows](#)
2. [Setup NCheck Bio Attendance server in Linux](#)

2.2.2.1 Setup NCheck Bio Attendance server in Windows

2.2.2.1.1 System requirements

1. Microsoft Windows 8 or higher operating system
2. 1GB of disk space
3. 4GB of RAM
4. [JAVA SE runtime environment 8](#)
5. One biometric capture device such as camera, fingerprint, or iris scanner. Android and iOS, inbuild camera, Windows integrated and USB web cams are used for face capture. For other supported IP cameras, fingerprint readers and iris scanners, visit [support devices at our web site](#)

2.2.2.1.2 Download and install

NCheck Bio Attendance can be downloaded from [product downloads](#) section of the web site

Important: Your windows user account should have administrative privileges to install NCheck Bio Attendance server.

Note: If the required Java runtime environment is not installed, Installer will ask to install Java runtime environment and stop NCheck Bio Attendance installation. In 64bit platforms, it needs to install both 64bit and 32bit java runtime environments.

- Run the installer package Select “NCheck Bio Attendance” option at component selection. NCheck Bio Attendance Standard client is always selected with the server.

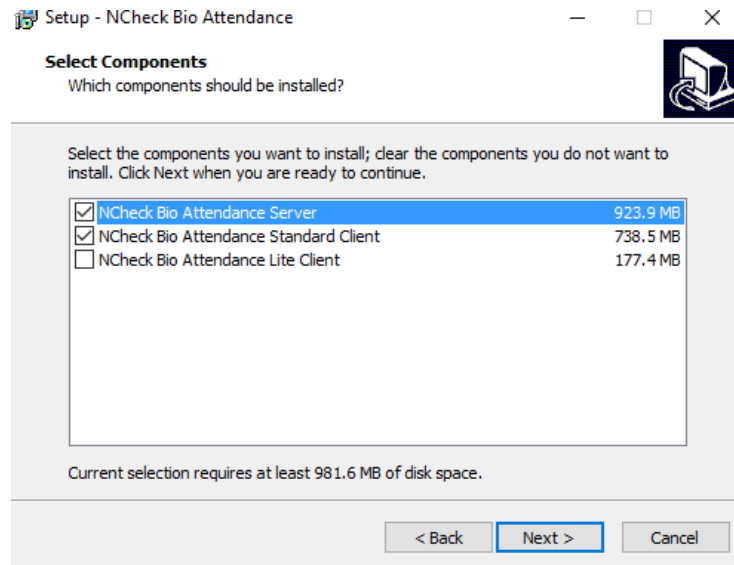


Figure 2.4 NCheck Bio Attendance setup view

- Activate NCheck Bio Attendance license

NCheck Bio Attendance installer will show the license activation window After the successful installation of the server.

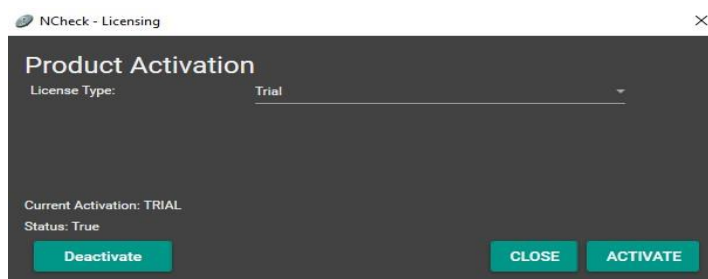


Figure 2.5 Licensing window for NCheck Bio Attendance Standard client for Windows

- Starting NCheck Bio Attendance server

NCheck Bio Attendance server will start automatically, and server icon will be displayed in the windows tray. When the server is ready, the icon will be shown in the Windows tray as [Figure 2.6](#) NCheck Bio Attendance tray icon view when the server is ready.

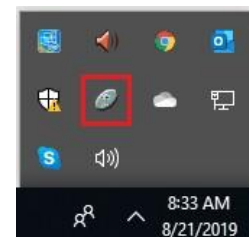


Figure 2.6 NCheck Bio Attendance tray icon view when the server is ready

- **Finish** installation
Optionally, you can choose to launch Server Configuration window, NCheck Bio Attendance Standard client and User's guide. Completion dialog also shows the NCheck Bio Attendance server status and TCP port of the server.

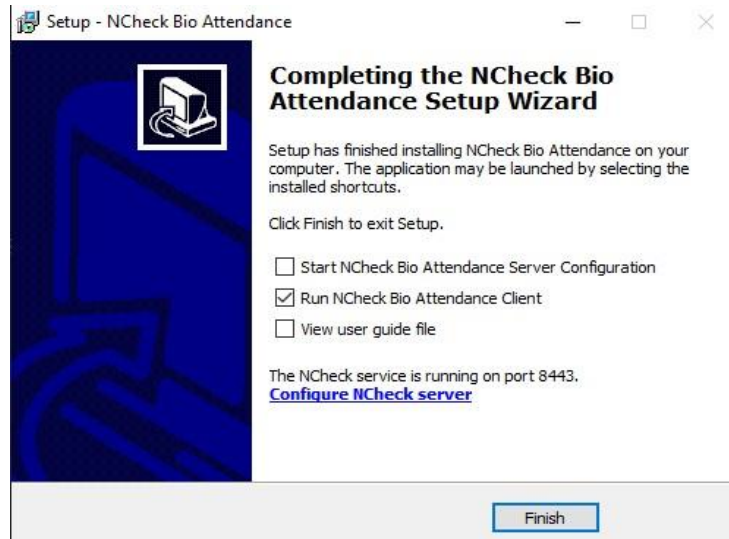


Figure 2.7 NCheck Bio Attendance installation completion dialogue for Windows

Refer [Install for windows](#) section for more details about install NCheck Bio Attendance server in Windows.

You can activate the trial for evaluation purpose. Trial activation requires permanent internet connectivity. See license activation section for more details.

2.2.2.2 Setup NCheck Bio Attendance server in Linux

Refer [this link](#) to setup Docker image for Linux. Refer [Install On-premises server on Linux](#) section for more details.

2.3 Set up attendance management system

2.3.1 Launch web control panel

NCheck Bio Attendance administration and configuration application is NCheck Bio Attendance control panel application. This is a web-based application can be accessed using popular web browsers using following URL.

Table 2.2 Access NCheck Bio Attendance web control panel

	URL	REMARKS
CLOUD	https://cloud.ncheck.net	
ON PREMISES	https://server:port	<ul style="list-style-type: none"> • Server – Server name or IP address • Port – NCheck Bio Attendance service port configured on the server. Default port is 8443.
STANDALONE		Simple administration functions are provided in build with NCheck Bio Attendance application.

NCheck Bio Attendance control panel launcher application with extended data capture capabilities are available with the NCheck Bio Attendance Server and NCheck Bio Attendance Standard client installations. This application can be launched from

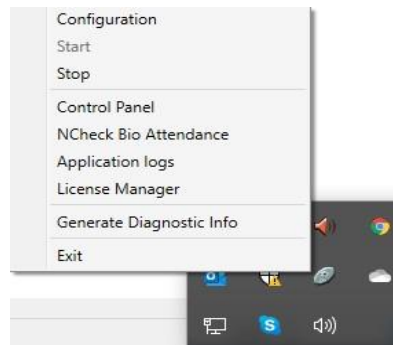


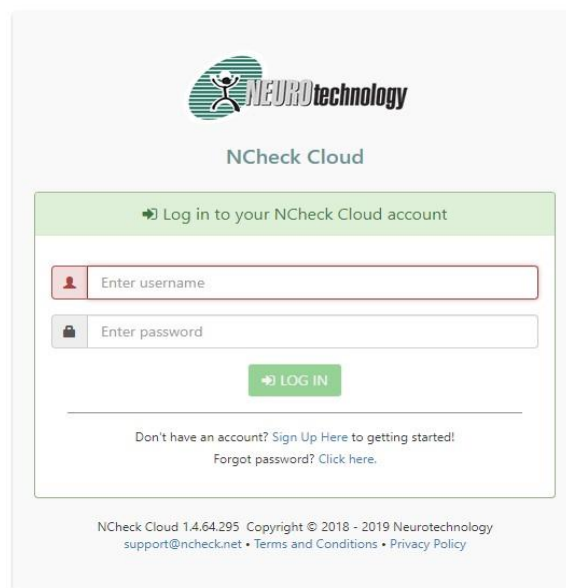
Figure 2.8 NCheck Bio Attendance system tray menu view

Table 2.3 Login to the NCheck Bio Attendance control panel

Server	Right click on the NCheck Bio Attendance server tray application icon and select "Control panel" menu item as shown in Figure 2.8 NCheck Bio Attendance system tray menu view.
Windows Standard client	Open the application menu and select control panel. Client should have registered and connected with a NCheck Bio Attendance server.
Android Standard Client	

NCheck Bio Attendance server interface will work with recent versions of Mozilla Firefox, Google Chrome, Microsoft Edge, Opera and most common web browsers. It does not work with Internet Explorer browser.

2.3.1.1 Sign in to web Control Panel



The login page features the Neurotechnology logo at the top. Below it, the text 'NCheck Cloud' is displayed. A green banner with a right-pointing arrow contains the text 'Log in to your NCheck Cloud account'. The login form consists of two input fields: 'Enter username' with a person icon and 'Enter password' with a lock icon. A green 'LOG IN' button with a right-pointing arrow is positioned below the password field. Below the login form, there is a link for 'Sign Up Here' and a link for 'Forgot password? Click here.'. At the bottom, the footer text reads: 'NCheck Cloud 1.4.64.295 Copyright © 2018 - 2019 Neurotechnology support@ncheck.net • Terms and Conditions • Privacy Policy'.

Figure 2.9 NCheck Bio Attendance login page

Enter the username and password in NCheck Bio Attendance control panel login page and sign in to NCheck Bio Attendance Control panel.

For NCheck Bio Attendance on-premises server, the default admin user name and password are "admin".

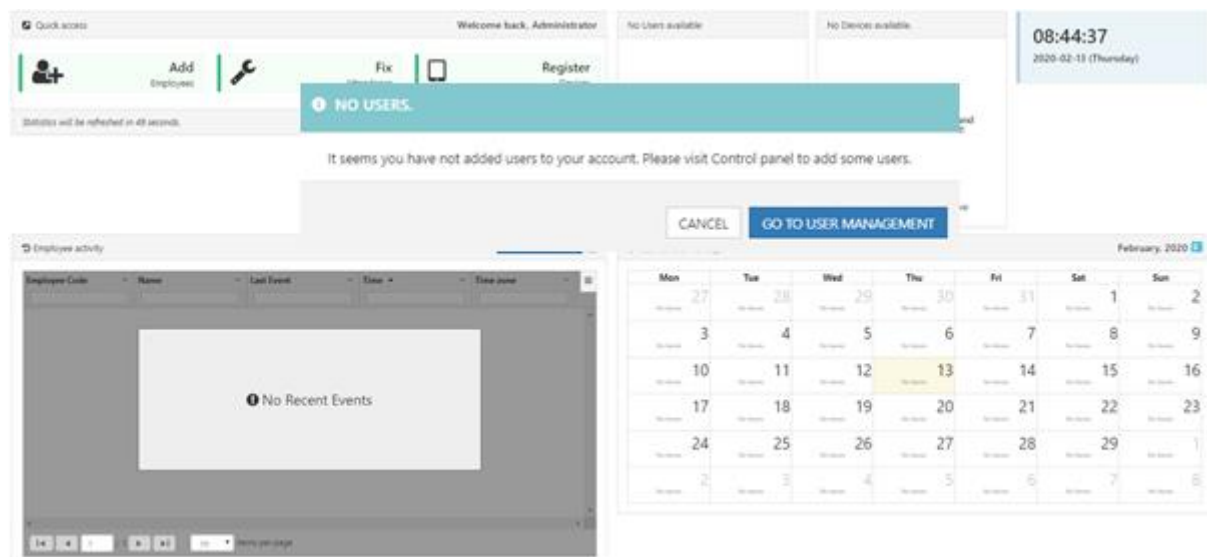


Figure 2.10 NCheck Bio Attendance control panel initial dashboard view

After signing in, you will be landed in the NCheck Bio Attendance Control Panel Dashboard as shown in [Figure 2.10](#) NCheck Bio Attendance control panel initial dashboard view

Refer [Sign in to web Control Panel](#) section for more details about sign in NCheck Bio Attendance control panel. When signing in second time onwards, you will be landed to the last time accessed page.

If the initial required data is not set up, it will be notified to perform the initial setting up. First the users should be enrolled as mentioned in [Enroll users](#) section.

2.3.2 Enroll users

User management section of the control panel is used to manage users.

2.3.3 Add new user

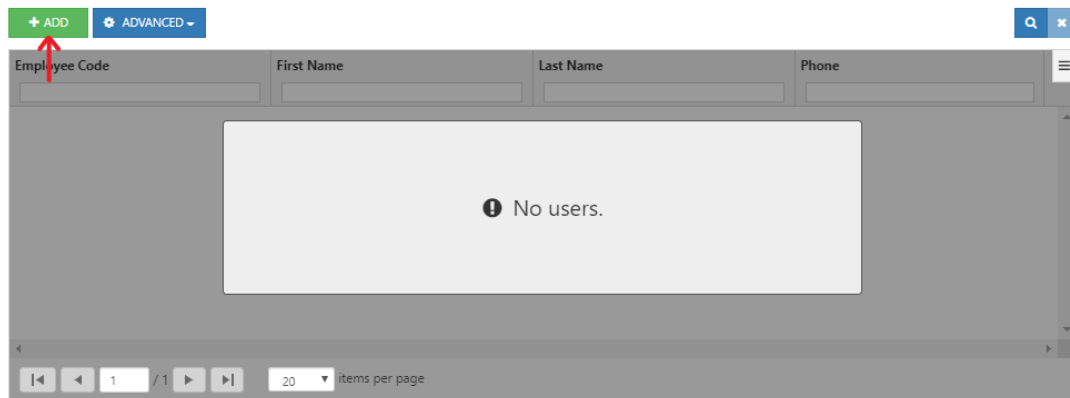


Figure 2.11 User management view of control panel

- Select Add button to create a new user.

Figure 2.12 NCheck Bio Attendance On-premises server add new user view

Refer [Add/Edit users](#) section for more details about add users. After adding users, refer [Enroll user biometrics](#) section to enroll user biometrics.

2.3.4 Enroll user biometrics

User biometric is used to authenticate users in attendance recording.

- Select User

- Select **Biometrics** button in the *User quick view*

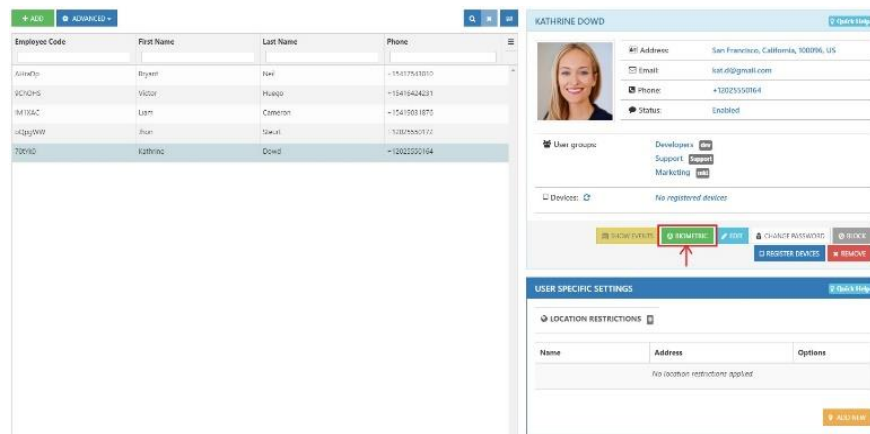


Figure 2.13 Launch enroll biometric for the selected user

User Biometric data dialogue can be used to manage user biometric. It allows adding biometrics

1. From event history
2. Capture from devices such as camera, fingerprint and iris scanners using NCheck Bio Attendance client applications.
3. From files

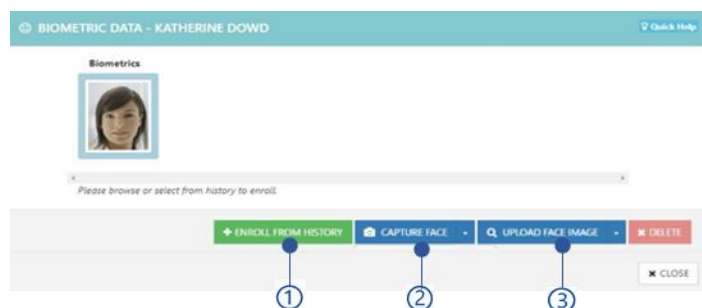


Figure 2.14 Biometric data dialogue

Refer *Change biometrics* section for more details about enroll biometrics.

After enrolled user biometrics, you are allowed to *Set up client* or either *Create user groups* (Optional) or *Create shifts and roster* as shown in Figure 2.15 proceed to setup clients flow.

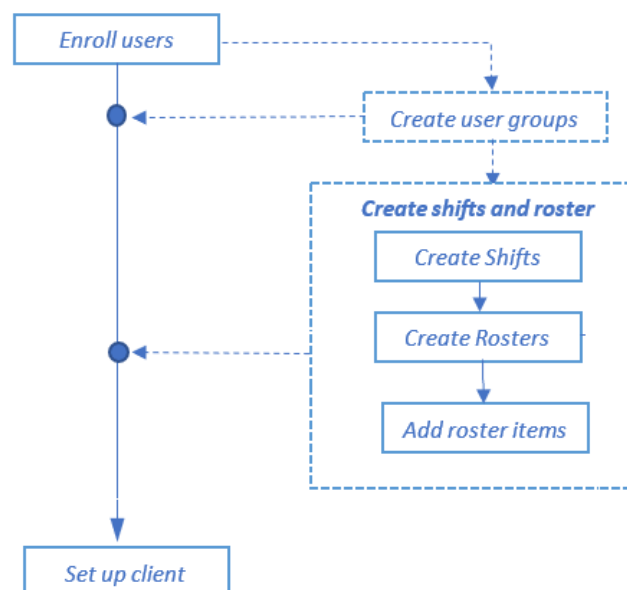


Figure 2.15 proceed to setup clients flow

2.3.5 Create user groups (Optional)

The screenshot displays the 'User group management view' interface. On the left, there's a table for 'All users' with columns for Group Code, Description, and a list of users. Below this is a table for 'ATTACHED USERS FOR' with columns for Employee Code, First Name, Last Name, and Email. The right section, titled 'MARKETING mkt', shows details for the 'mkt' group, including 'Users: 2', 'Devices: 1', and 'Group admins: 1'. It also includes a 'GROUP SPECIFIC SETTINGS' section with 'LOCATION RESTRICTIONS'.

Figure 2.16 User group management view

User group represents multiple users and all the settings applied to user group apply to each user representing the user group. To create the user group,

- Select User group management in the control panel.
- Select **Add** button

User group detail dialogue is shown in below.

The screenshot shows the 'ADD USER GROUP' dialog box. It features a title bar 'ADD USER GROUP' and a subtitle 'Required fields are marked in red *'. The form includes a 'Profile picture' section with a placeholder image and a 'BROWSE' button. Below this is a 'User group code *' field with a 'BROWSE' button. There is also a 'Description' field. At the bottom, there are '+ ADD' and 'X CANCEL' buttons.

Figure 2.17 Add user group dialogue

- Select **Edit** button
Select users for the user group.

Employee Code	First Name	Last Name	Email	Selected
uBT26C	Bryant	Neil	abcs@gmail.com	<input checked="" type="checkbox"/>
GvFOCP	Victor	Huego	richard@gmail.com	<input checked="" type="checkbox"/>
jjsj	Liam	Cameron	abcs@gmail.com	<input checked="" type="checkbox"/>
SkFJAV	John	Steurt	nimantha@gmail.com	<input type="checkbox"/>

Total Items: 4
1 - 4 of 4 items

UPDATE USER GROUP CANCEL

Figure 2.18 Select users for user group dialogue

Refer [Manage user Groups](#) section for more details about user group management.

2.3.6 Advance options

2.3.6.1 Create shifts and roster

Work schedule of the users/user groups in the organization can be managed in this section. To manage shifts and rosters,

- Select Shift and Roster in the control panel menu.

ROSTERS - TODAY [2019-07-29]

Name	Range	Ends on	Status
Second quarter	2019-07-29 - 2019-08-25 [a month]	No end date	Current

NEW ROSTER HOLIDAYS LEAVE MANAGEMENT

SHIFTS

Name	Start	End
Morning	05:00:00	14:00:00
Day	08:00:00	17:00:00
Night	18:00:00	03:00:00

ADD

2019-07-29

WEEK 1 WEEK 2 WEEK 3 WEEK 4

Monday (Today) Tuesday Wednesday Thursday Friday Saturday Sunday

05:00:00 - 14:00:00 Morning Support

08:00:00 - 17:00:00 Day dev mkt Support

18:00:00 - 03:00:00 Night Support

Figure 2.19 Shift and Roster management view

This view allows to,

- [Create Shifts](#)
- [Create Rosters](#)
- [Add roster items](#)

You can follow shift and roster management flow diagram as shown in [Figure 2.20](#) Shift and roster management flow in order to configure shift and rosters.

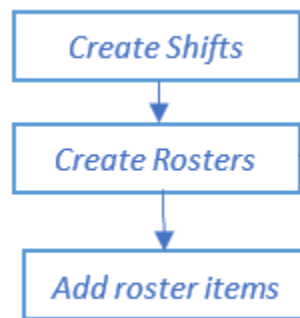


Figure 2.20 Shift and roster management flow

2.3.6.1.1 Create Shifts

Shifts can be created to plan users daily work schedule. To create a shift,

1. Select **Add** button under Shifts pane.

Figure 2.21 Add shift dialogue

Refer [Shift management view](#) section for more details about manage shifts.

2.3.6.1.2 Create Rosters

Rosters are specific duration in weeks to plan the organizational activities with shifts for certain time periods. To create rosters,

1. Select **New rosters** button in the Rosters pane.

Figure 2.22 Add roster dialogue

Refer [Roster management view](#) section for more details about manage rosters.

2.3.6.1.3 Add roster items

After configuring rosters and shifts, roster items can be added for specific dates with user/user groups assigning shifts.

To add a roster item,

- Select **Add** button
- Select **Roster item** button from the menu (optional – Select new button for a particular day in the week)

Figure 2.23 Add roster item dialogue

For more details, refer [Roster item management view](#) section.

2.4 Set up client devices

2.4.1 Install client application

Refer [Install client application](#) section for more details about install NCheck Bio Attendance client applications. Proceed to [Register client application](#) section to register the NCheck Bio Attendance client devices.

2.4.2 Register client application

The Client application is required to register with the server to perform attendance recording. To register a client application.

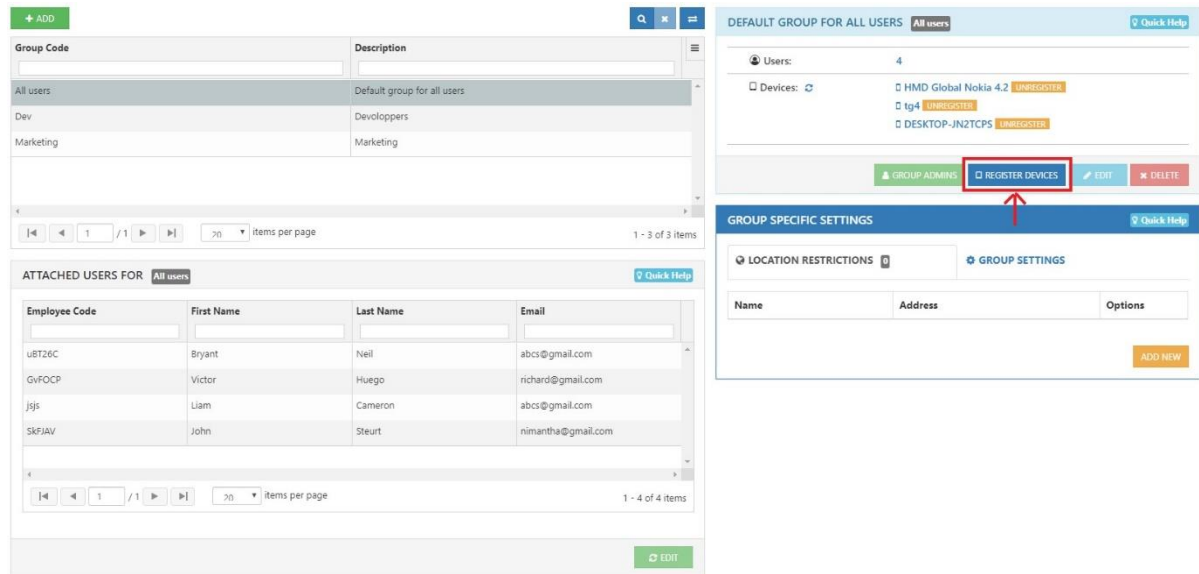


Figure 2.24 Register device button in the user group management view

1. Go to user group management in control panel
2. Select a user group
3. Select **Register devices** button

It will show the device registration dialogue shown in [Figure 2.25](#) Device registration view for the user group. To register the device,

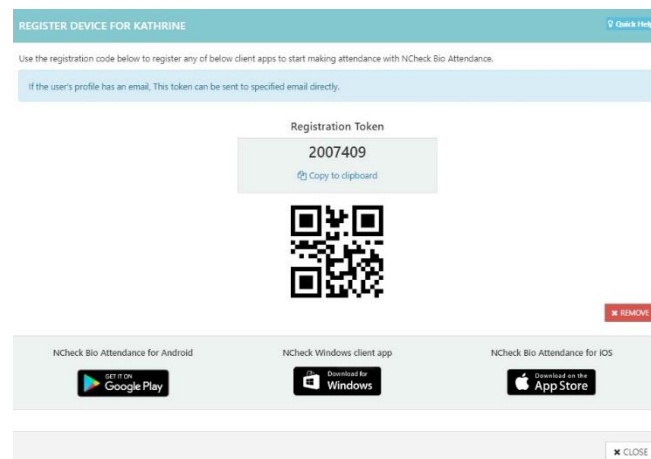


Figure 2.25 Device registration view

1. Launch NCheck Bio Attendance standard client
It should show the device registration window.
2. Select On-premises option
3. Enter registration token
4. Search or enter server user in <server:<port> format. When the server is running in the same computer, it can use localhost:<port>. Default port number is 8443.
5. Select the Connect button to register.
6. After Successful registration, the client application is ready for attendance recording

Refer [Client registering view](#) section for more details.

2.5 Record Attendances

- NCheck Bio Attendance Lite for Windows, Android and IOS
 - Attach a camera compatible with the NCheck Bio Attendance as mentioned in the [website](#), if it is not available.
 - Face to the camera directly and select the capture button when the preview is available with the device.
- NCheck Bio Attendance Standard for Windows and Android
 - Attach a compatible biometric device (face, fingerprint or iris) with the NCheck Bio Attendance as mentioned in the [website](#), if it is not available with the device.
- View recorded attendances

Select *Manage Event logs* to view all recorded events.

3 INSTALLING AND ACTIVATION

NCheck Bio Attendance software is available for following platforms

- Windows
- Linux
- Android
- iOS

Table 3.1 NCheck Bio Attendance software supportable platforms

	Server	Standard Client	Lite Client	Source
Windows	✓	✓	✓	64bit and 32Bit Windows installer
Windows	✓	✗	✗	Windows docker image
Linux	✓	✗	✗	Linux docker image
Android	✗	✓	✓	Google Paly Store and APK download
iOS	✗	✗	✓	Apple App Store

3.1 Install for windows

Download 64-bit version or 32-bit version of windows installer from <https://www.ncheck.net> web site.

This installer has following components

- NCheck Bio Attendance Server
- NCheck Bio Attendance Standard Client
- NCheck Bio Attendance Lite client

NCheck Bio Attendance Server installation also install NCheck Bio Attendance Standard client. NCheck Bio Attendance Lite client and Standard client cannot be installed together. Administrator privilege is required to install NCheck Bio Attendance on windows.

Before install NCheck Bio Attendance for Windows, make sure that you have installed latest Windows updates in your computer.

To proceed with the installation, execute the downloaded installation file. It will proceed you through following screens.

1. Accept NCheck Bio Attendance license and agreement
2. Select **Next** button

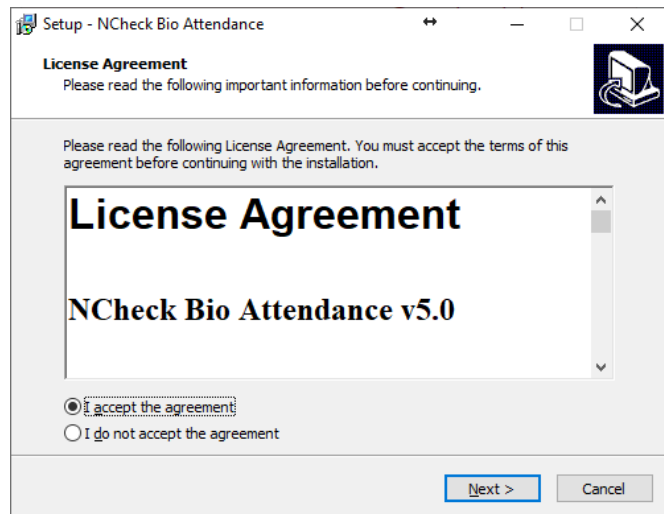


Figure 3.1 License agreement dialogue

3. Select the installing location. The default installation location for 32bit installer is *C:\Program Files (x86)\Neurotechnology\NCheck Bio Attendance* and for 64bit installer is *C:\Program Files\Neurotechnology\NCheck Bio Attendance*
4. Select **Next** button

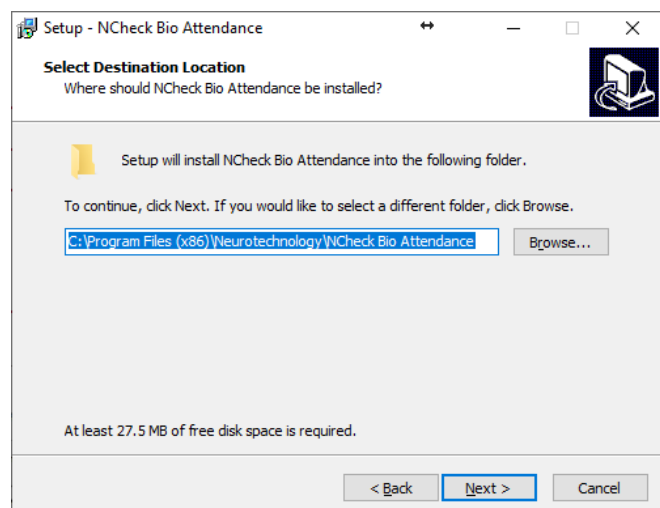


Figure 3.2 Select destination folder dialogue

5. Select the components need to be installed. NCheck Bio Attendance server and NCheck Bio Attendance client can be installed together or separately. NCheck Bio Attendance lite client can be installed separately from other components
6. Select **Next** button

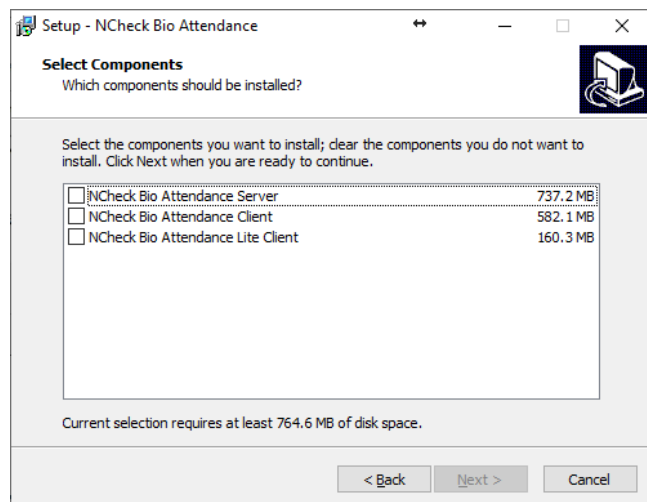


Figure 3.3 Select components dialogue

7. Select *Create a desktop shortcut* option to create a shortcut to open NCheck Bio Attendance client application if installed
8. Select **Next** button

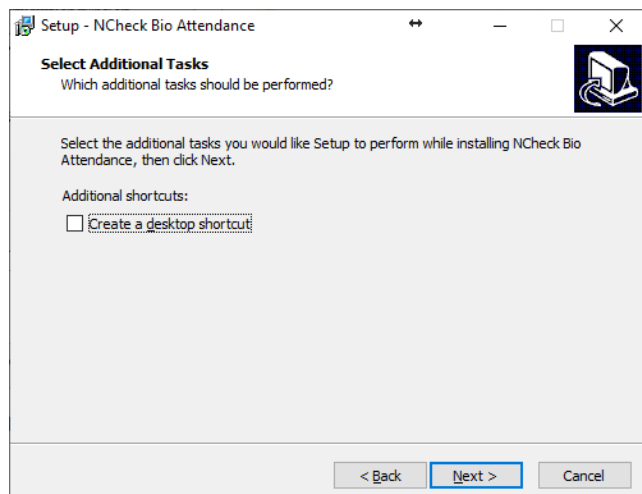


Figure 3.4 Select additional tasks

9. Review the install configuration before install the NCheck Bio Attendance.
10. Select **Install** button to install application

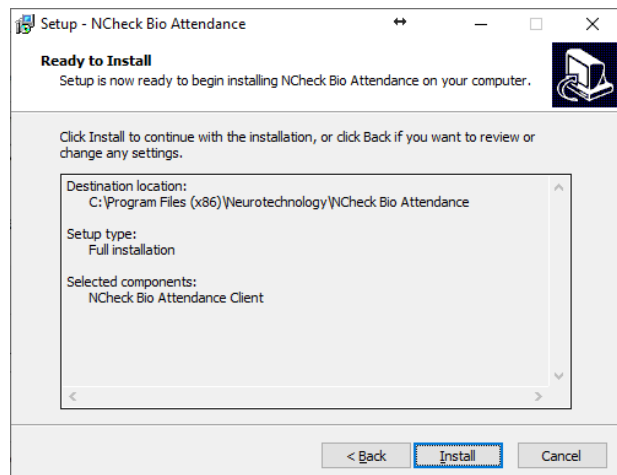


Figure 3.5 Ready to install dialogue

11. In the completion dialogue, you will be asked to
 - Start NCheck Bio Attendance Server configuration
 - Run NCheck Bio Attendance client
 - View the User's Guide
12. Select **Finish** button

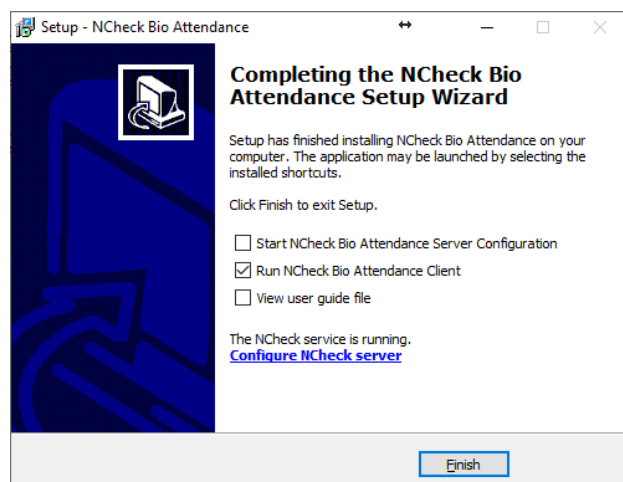


Figure 3.6 Completed dialogue

3.1.1 Install server for Windows

To install NCheck Bio Attendance server

1. Follow the [Install for windows](#) section above.
2. Select "NCheck Bio Attendance Server" component as showing in [Figure 3.3](#) Select components dialogue. It will also allow to select NCheck Bio Attendance Standard Client component.

3. If this installation is an update of existing installation it may ask to stop running tasks.

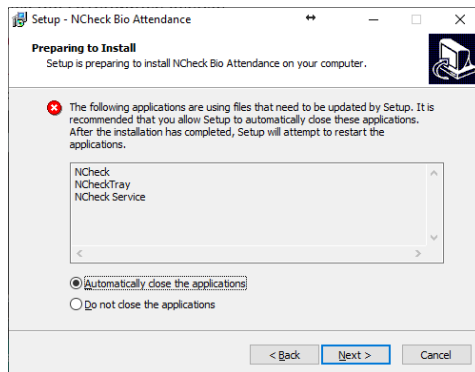


Figure 3.8 Server setup dialogue

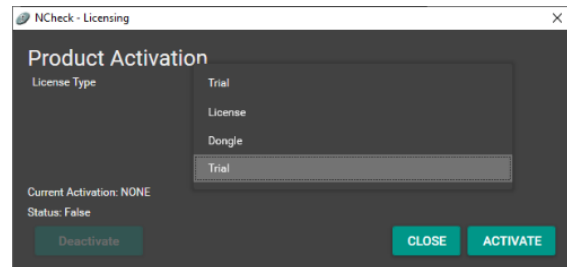


Figure 3.7 Server licensing dialogue

4. In the completion of the installation it will guide you to activate a license as showing in [Figure 3.8](#) Server setup dialogue..Please refer “[License Activation](#)” section for more details.
5. In installation completion, it will show the server installation completion dialog as shown in [Figure 3.6](#) Completed dialogue
6. In successful completion, Server will be installed, and server icon will be appearing in the Windows system tray as shown in [Figure 3.9](#) Tray icon.

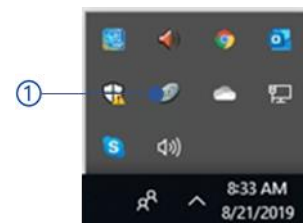


Figure 3.9 Tray icon

3.1.2 Install client For Windows

To install NCheck Bio Attendance Standard client

1. Follow the [Install for windows](#) section above
2. Select “NCheck Bio Attendance client” or “NCheck Bio Attendance Lite client” component in component selection
 1. NCheck Bio Attendance tray icon
3. If this installation is an update of existing installation it may ask to stop running tasks

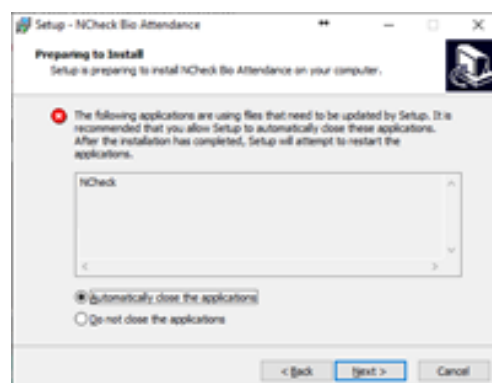


Figure 3.10 Client setup dialogue

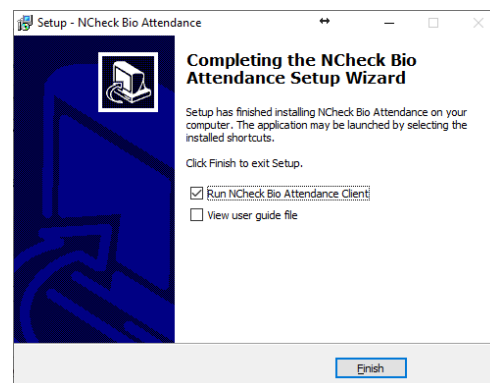


Figure 3.11 Client setup completed dialogue

4. In installation completion, it will show the client installation completion dialogue as shown in [Figure 3.11](#) Client setup completed dialogue in the completion window, You have following options
 1. Run NCheck Bio Attendance client
 2. View the User's Guide

3.2 Install for Linux

Follow [this link](#) to setup docker image for Linux. Refer [Install On-premises server on Linux](#) section for more details.

3.3 Install client for Android

Download and install NCheck Bio Attendance Standard or NCheck Bio Attendance Lite client from Google play store or APK download from <https://www.ncheck.net/free-trials/>.

3.4 Install NCheck Bio Attendance Lite client for iOS

Install NCheck Bio Attendance Lite client from Apple App Store.

3.5 Activation

NCheck Bio Attendance Software licenses and Cloud subscription plan for different components are shown below.

Table 3.2 licenses and Cloud subscription plan for different components

COMPONENT		LICENSE/PLAN
SERVER	Cloud	Monthly Subscription for a Plan
	On-Premises	License for no of users
CLIENT	Lite	Free
	Standard	License

3.5.1 Cloud plans

After signing up for NCheck Bio Attendance Cloud server account, user will be offered a free subscription. Account administrator can be changed it to below plan. For user count over 100 can be ordered by contacting us.

Table 3.3 NCheck Bio Attendance Cloud server subscription plans

PLAN NAME	NUMBER OF USERS
FREE	5
PLAN20	20

PLAN50	50
PLAN100	100

To activate NCheck Bio Attendance Standard clients, you can purchase client license as follows.

1. Purchase license from NCheck Bio Attendance cloud
You can purchase Internet license to activate NCheck Bio Attendance Standard clients as mentioned in [License statistics](#) section. To enable cloud device license, make sure that the [Enable licensing](#) setting is enabled first. To activate the Standard client application with the Cloud,
 - a. Make sure that the application has not been activated
If you have activated the Internet license, remove the license folder in the NCheck5 folder. If you are using Serial number, deactivate the license as mentioned in [License deactivation](#) section.
 - b. Restart the application
2. Purchase NCheck Bio Attendance Internet or serial license
Refer [License activation/deactivation](#) section for more details.

3.5.2 On-premises server and Standard client licenses

New installation of NCheck Bio Attendance on-premises server and standard client can be used for one-month trial period. After the expiration of trial period, a valid license should be activated.

Licenses can be purchased for user counts in 100 user slabs up to 1000 users online form <https://www.ncheck.net> web site. For custom user count licenses can be ordered by contacting us.

NCheck Bio Attendance Standard clients' needs 100 user licenses to work with server with any number of users. If client needs to work offline with more than 100 users, client must use a license with appropriate user count.

Refer [License activation/deactivation](#) section for more details.

3.5.2.1 License activation/deactivation

3.5.2.1.1 License Manager

License manager option is used to activate licenses. License manager can be launch as below

1. NCheck Bio Attendance on-premises server as shown in [Figure 3.14](#) Licensing manager option of the on-premises server
2. NCheck Bio Attendance clients for Windows as shown in [Figure 3.15](#) License Manager view in Windows Standard client
 1. NCheck Bio Attendance Standard client for Windows
 2. NCheck Bio Attendance Surveillance client for Windows
3. NCheck Bio Attendance Android clients as shown in [Figure 3.16](#) License Manager view in Android standard client

1. NCheck Bio Attendance Standard client for Android
2. NCheck Bio Attendance Guard client for Android

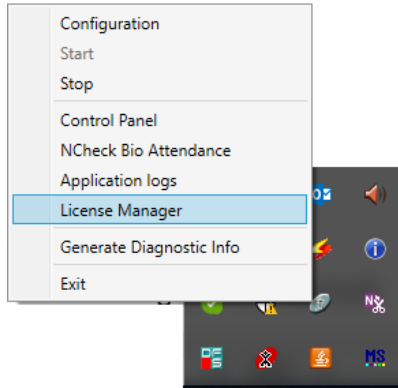


Figure 3.14 Licensing manager option of the on-premises server

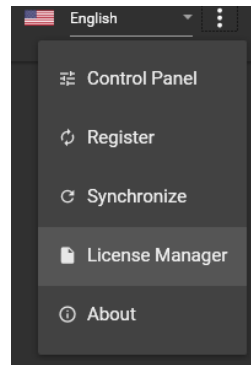


Figure 3.13 Licensing manager option of the Windows clients

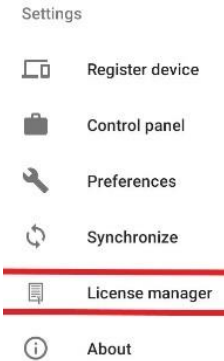


Figure 3.12 Licensing manager option of the Android clients

License Manager views are shown below

Table 3.4 License manage views

Windows clients	<p>Figure 3.15 License Manager view in Windows Standard client</p>
Android clients	<p>Figure 3.16 License Manager view in Android standard client</p>

1. License type

Refer [License types](#) section for more details.

2. Current activation

- NONE
If the application is not licensed
- TRIAL
The application has activated as trial.
- LICENSE
The application has activated using license file
- DONGLE
The application has activated using license dongle.

3. License status

Whether the application is successfully licensed or not.

4. **Deactivate** button

Refer [License deactivation](#) section for more details.

5. **Close** button6. **Activate** license

Select the **Activate** button to activate NCheck Bio Attendance server/clients. [Table 3.5](#) Error messages of the server and client lances activation is showing the error messages could be appeared on activation.

Table 3.5 Error messages of the server and client lances activation

Error code	Error message
2001	Trial license has expired.
2002	License cannot be obtained
2003	The license is already in use.
2004	The license limit has exceeded. Please contact administrator/ NCheck Bio Attendance support
2005	No valid NCheck Bio Attendance license has found.

Note: After activating NCheck Bio Attendance Android client license, the application should be restated after clear from the memory.

3.5.2.1.2 License types

Following license types are available to activate the Standard clients for Windows and Android, Windows Surveillance client and Android Guard client.

1. Trial

NCheck Bio Attendance can use for 30 days period in the trial mode. An internet connection is required to activate the license and constant internet connection required to maintain the activation. After the trial period, NCheck Bio Attendance should be activated with a valid license.

2. License

License can be NCheck Bio Attendance Serial number or internet license. It requires a internet connection to activate both license. After activation using serial number application can be used without internet. But if activation performed using internet license, application must be connected with internet in order to validate the license. Application can be activated either the selecting the license file or license text.

3. Dongle

NCheck Bio Attendance server and Windows client can be activated using activation dongle. Please contact NCheck Bio Attendance support team for more details.

3.5.2.1.3 License deactivation

NCheck Bio Attendance Internet and serial licenses work only in a specific device on which activation was carried out (unique hardware Id for this device is generated). But in some cases, a license should be stopped (deactivated) on this device and activated again. Deactivation is required in following cases

- When you need to transfer another device
- Device in which license was activated is malfunctioned
- Hardware components such as processor or hard disk have been changed.
- User changed a device (a computer).
- In Android 10 or later OS, it is strongly recommended to deactivate the serial number license, in case of re-install the application. Deactivate the license before uninstalling and activate again after re-install.
- Also, it is strongly recommended to deactivate a license before reinstalling an operating system or installing a different OS version.

Deactivation should be performed on the same device where it was activated. When you have internet connection, a license will be deactivated automatically. When a device is not connected to the internet, user will be asked a location within the device to save Deactivation ID, which can be used with the license file to deactivation uploading to the [Neurotechnology website](#).

To deactivate the license,

1. Select the Deactivate button
2. If the device is not connected to the internet, you will be asked to select a location in the device to save the deactivation id file
3. Upload the file with the serial number file to the [Neurotechnology web site](#). *Table 3.6* Error messages of NCheck Bio Attendance server and client license deactivation hows error messages that could be appeared for license deactivation.

Table 3.6 Error messages of NCheck Bio Attendance server and client license deactivation

Error code	Error message
2005	No valid NCheck Bio Attendance license has found.
2006	License deactivation has failed. The license has not activated.

4 SERVER

4.1 Cloud server setup

Refer [Start an attendance management system with Cloud](#) section for more details.

4.2 Install On-premises server on Linux

Refer [this document](#) to setup Docker for Linux.

Once setup the Docker, follow below sections to complete setup.

1. [Prepare the program data directory](#)
2. [Run the server](#)

4.2.1 Prepare the program data directory

To prepare the program data directory

1. Create a directory "ProgramData"
2. Copy following license files to "ProgramData/NCheck/License" directory.
 - a. license.lic
 - b. config.xml

4.2.2 Run the server

Use following commands.

1. Run the server
`docker run -d -p <port>:8443 -v <ProgramData>:/ProgramData --name ncheck ncheckadmin/bioattendance:<version>`
2. Stop the server
`docker stop ncheck`
3. Start the server
`docker start ncheck`
4. Configurations
Refer [Configurations](#) section for more details.

4.2.2.1 Configurations

Additional Arguments can be passed as Environment variables.

```
docker run -d -p <port>:8443 -v <ProgramData>:/ProgramData -e VARIABLE1='value1' -e VARIABLE2='value2' --name ncheck ncheckadmin/bioattendance:<version>
```

Following configurations can be used.

1. [Database type \(Optional\)](#)
2. [Keystore \(Optional\)](#)
3. [Restore \(Optional\)](#)
4. [NMatcher configuration\(optional\)](#)

4.2.2.1.1 Database type (Optional)

Database type can be selected to configure the database to connect to SQLite, MySQL, MSSQL, Oracle. If not specified SQLite will be used. For each database type (DB_TYPE) following configuration should be used

1. . SQLITE
 - a. DB_FILE
Database file name. Database will be stored in
"ProgramData/NCheck/databases/server/sqlite"
2. MYSQL, MSSQL or ORACLE
 - a. DB_URL
Database URL.
 - b. DB_USER_NAME
Database username
 - c. DB_PASSWORD
Database password
 - d. DB_MAX_CONNECTIONS
Maximum connections for the database. Default value for connection type is 30.

4.2.2.1.2 Keystore (Optional)

To setup SSL Certificate copy the keystore file (pfx) to "ProgramData"/NCheck/Keystore/<KeystoreFile>.

1. KEYSTORE
Keystore file name
2. KEYSTORE_ALIAS
Keystore Alias
3. KEYSTORE_PASSWORD
Keystore password

4.2.2.1.3 Restore (Optional)

Copy the Backup file to "ProgramData>/NCheck/databases/server"

1. DB_BACKUP_FILENAME
Backup filename
2. DB_BACKUP_PASSWORD
Backup file password

4.2.2.1.4 NMatcher configuration(optional)

1. NMATCHER_HOST
NMatcher name
2. NMACTHER_PORT
NMacther port

4.3 Install On-premises server for Windows

Refer [Install server for Windows](#) section for more details.

4.4 Monitoring and Managing On-premises server

NCheck Bio Attendance server monitoring and managing is done through the server tray.

4.4.1 On-premises server tray

NCheck Bio Attendance On-premises server tray provides following options to monitor and control NCheck Bio Attendance On-premises server.

- [Icon status](#)
- [Notifications](#)
- [Tray icon tooltip](#)
- [Tray icon menu](#)

4.4.1.1 Icon status

NCheck Bio Attendance On-premises server tray icon indicates the following status.

Table 4. Tray icon statuses



Server is running and ready



Server has stopped



Server has stopped with errors



Server is running with warnings

4.4.1.2 Notifications

NCheck Bio Attendance On-premises server notifications are showing when the status change. Sample notifications are as follows,

Notification	image
Server has started	 <p><i>Figure 4.1 Notification when server is started</i></p>

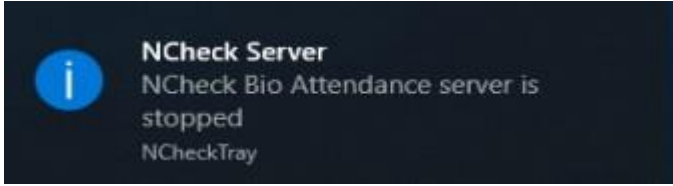
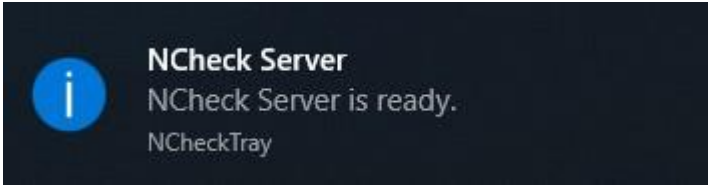
Server has stopped	 <p>Figure 4.2 Notification when server is stopped</p>
Server has ready	 <p>Figure 4.3 Notification when server is ready</p>

Table 4.1 Server tray notifications

4.4.1.3 Tray icon tooltip

Tray icon tooltip is showing the following information.

1. Status of the NCheck Bio Attendance service
2. Status of the NCheck Bio Attendance On-premises server
3. NCheck Bio Attendance On-premises server database path
4. NCheck Bio Attendance On-premises server port

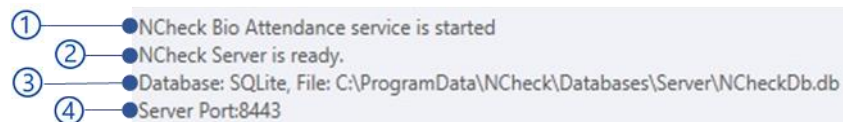


Figure 4.4 NCheck Bio Attendance tray icon tool tip

4.4.1.4 Tray icon menu

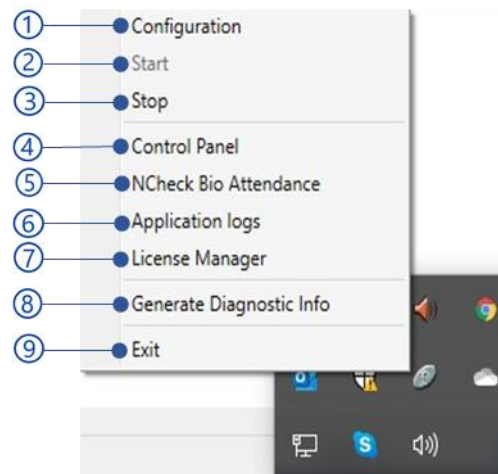


Figure 4.5 NCheck Bio Attendance tray icon menu

1. Configuration

Open NCheck Bio Attendance On-premises server configuration as mentioned in [On-premises server configuration](#) section.

2. Start

Start NCheck Bio Attendance On-premises server.

3. Stop

Stop NCheck Bio Attendance On-premises server.

4. Control panel

Open the NCheck Bio Attendance Control panel.

5. NCheck Bio Attendance

Open NCheck Bio Attendance client application for Windows.

6. Application logs

Open NCheck Bio Attendance logs files folder.

7. License manager

Open NCheck Bio Attendance licensing window.

8. Generate diagnostic info

D diagnostic info can be generated to keep track of existing problems and bugs in the NCheck Bio Attendance On-premises server or windows client application for NCheck Bio Attendance developers. The diagnostic file is generating in “C:/ProgramData/NCheck/Diagnostic” folder.

9. Exit

Exit NCheck Bio Attendance On-premises server tray icon.

4.4.2 On-premises server configuration

NCheck Bio Attendance On-premises server using the configuration can be applied using the NCheck Bio Attendance configuration window. It has the following configuration sections

1. [Server](#)
2. [Database](#)
3. [Restore database](#)
4. **Load default** button
Load default values to configuration dialogue.
5. **Save** button
Save the configuration and restart the server. The error messages could be appeared when saving configuration has shown in below.

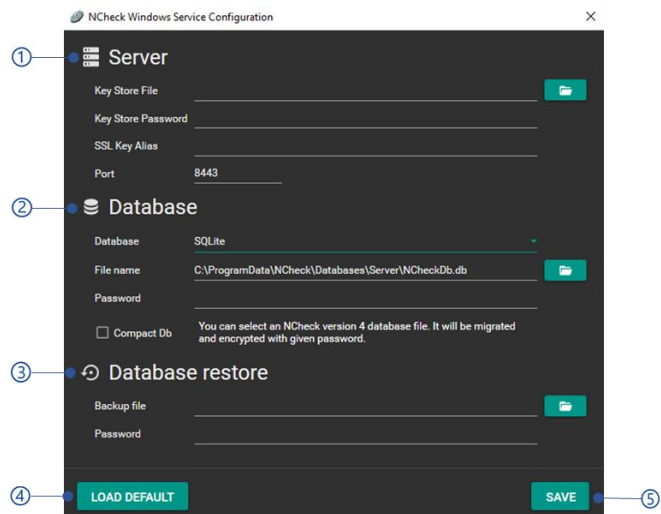


Figure 4.6 NCheck Bio Attendance Windows service configuration window

Table 4.2 Error messages of server configuration save

Error code	Description
1001	Could not connect with MYSQL/MSSQL {server url}: {port} server.
1002	Could not connect with the email server {host name}: {port}.
2006	Invalid SSL certificate file.
2007	Invalid key store password or SSL key alias.
2008	Invalid port number. Please select the valid port.
2009	Port is used by another application.
2010	Invalid SQLite database or password. Please recheck the database file or password.
2012	{database name} could not be found.
2013	Invalid MYSQL/MSSQL username and password.
1002	Could not connect with the email server {host name}: {port}.
2016	Could not connect with the email server {host}: {port}. Invalid user name or password.

4.4.2.1 Server

Server configuration section allows to add SSL certificate to the NCheck Bio Attendance On-premises server. SSL certificate is significance to,

1. Encrypt the data send across internet so that only the intended recipient can access it

2. Authentication to ensure that you are communicate with the right server

You are allowed to use self-signed certificate without purchasing a certificate. NCheck Bio Attendance server uses a self-signed certificate to enable SSL features.

The SSL configuration settings are,

1. Key store file
SSL certificate file path
2. Key store password
Password of the certificate file.
3. SSL key alias
4. Port
HTTPS port for NCheck Bio Attendance server. The default port is 8443.

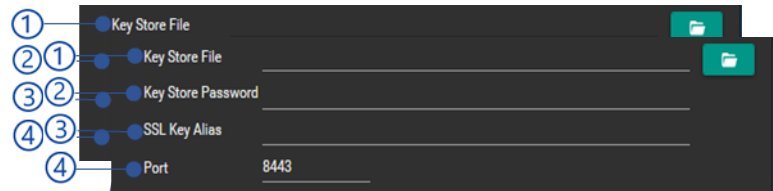


Figure 4.7 NCheck Bio Attendance Windows SSL configuration

4.4.2.2 Database

NCheck Bio Attendance server can be configured with following databases

- [SQLite](#)
- [MySQL](#)
- [MSSQL](#)
- [Oracle](#)

Proceed through the [Setup database](#) section to for more details.

4.4.2.2.1 Setup database

4.4.2.2.1.1 SQLite

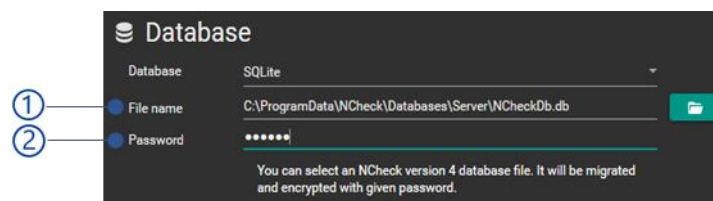


Figure 4.9 NCheck Bio Attendance Windows SQLite configuration

1. Provide the location of the SQLite database file. If the file is not existing, a new database will be created.
2. Provide the password of the database.
Password should be given to use with the NCheck Bio Attendance system. Once the password is given, it will be saved securely by the application.

If the provided SQLite database file is out of date, the database will be migrated to the new version automatically when the NCheck Bio Attendance server is starting. The status of the database migration will be shown in tray icon tooltip as shown in [Tray icon tooltip](#) section. The possible errors on database migration have shown in below.

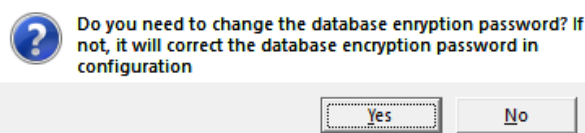


Figure 4.10 Confirmation dialogue on password encryption change

Table 4.3 Error messages of SQLite database migration

Error code	Description
2011	<p>SQLite database migration has failed with following errors.</p> <ol style="list-style-type: none"> Error 1 Error 2

4.4.2.2.1.2 MySql

NCheck Bio Attendance on-premises server compatible with MySql product version 5.6 onward.

Figure 4.11 NCheck Bio Attendance Windows MySql configuration

1. Provide MySql Server name or IP address
2. Provide the MySql server TCP port. This is 3306 by default
3. Provide existing database name in the server. Otherwise, you must create a database first
4. provide a username with all privileges on the database
5. Provide the password of the users

4.4.2.2.1.3 MSSQL

NCheck Bio Attendance on-premises server compatible with MSSql version 2014 onward.

Figure 4.12 NCheck Bio Attendance Windows MsSQL configuration

1. Provide MSSql Server name or IP address.
2. Provide the MSSql server TCP port. This is 1423 by default
3. Provide existing database name in the server. Otherwise, you must create a database first
4. provide a username with all privileges on the database
5. Provide the password of the users

NCheck Bio Attendance connect to MSSql server using TCP/IP protocol. TCP/IP protocol for the SQL server should have enabled in the SQL server Network configuration

4.4.2.2.1.4 Oracle

It is required to install and configure Oracle database as mentioned in [here](#). After installing Oracle database,

1. Create a full privileged user for the oracle db
2. Configure service and network as mentioned in [this link](#).

To configure Oracle database with NCheck Bio Attendance server,

Figure 4.13 NCheck Bio Attendance Windows Oracle configuration

1. Provide Oracle Server name or IP address.
2. Provide the Oracle server port. This is 1521 by default
3. Provide existing database name in the server. Otherwise, you must create a database first
4. provide a username with all privileges on the database
5. Provide the password of the users

4.4.2.3 Restore database

The database can be restored back to NCheck Bio Attendance server.

1. Backup file
Select the database backup (zip file format) to restore.
2. Password
Enter the database backup password

Figure 4.14 NCheck Bio Attendance Windows database restore configuration

Database restore status are showing in the tray icon tooltip as shown in [Tray icon tooltip](#) section. The possible error messages when restore database are shown in below.

Table 4.4 Error messages of restore database

Error code	Description
2015	Data restore has been failed. Could not decrypt the file with the given password.
2014	Data restore has been failed. Invalid backup file.
4002	Unidentified error occurred during data restore. Please contact administrator or NCheck Bio Attendance support for more details.

5 WEB CONTROL PANEL

NCheck Bio Attendance administration and configuration application is NCheck Bio Attendance control panel application. This is a web-based application can be accessed using popular web browsers using following URL.

5.1 Start web Control panel

Table 5.1 Launch NCheck Bio Attendance control panel from Browser

	URL	Remarks
Cloud	https://cloud.ncheck.net/login	
On Premises	https://server:port/login	<ul style="list-style-type: none"> • Server – Server name or IP address • Port – Service port configured on the server. Default port is 8443.
Standalone		Simple administration functions are provided in build with NCheck Bio Attendance Standard client application.

NCheck Bio Attendance control panel launcher application with extended data capture capabilities are available with the NCheck Bio Attendance Server and NCheck Bio Attendance Standard client installations. This application can be launched from

Table 5.2 Launch NCheck Bio Attendance control panel from server and clients

<i>Server</i>	<ol style="list-style-type: none"> 1. Right click on the NCheck Bio Attendance server tray application icon 2. select Control panel menu item as Figure 4.5 NCheck Bio Attendance tray icon menu
<i>Windows Standard client</i>	<ol style="list-style-type: none"> 1. Open the application menu 2. select control panel as shown in Figure 5.1 NCheck Bio Attendance Windows Standard client main menu.
<i>Android Standard Client</i>	<ol style="list-style-type: none"> 1. Open the side bar menu 2. Select control panel as shown in Figure 5.2 NCheck Bio Attendance Android Standard client main menu

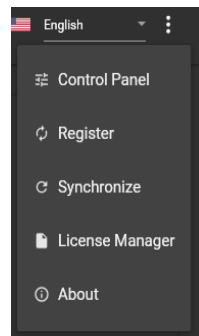


Figure 5.1 NCheck Bio Attendance Windows Standard client main menu

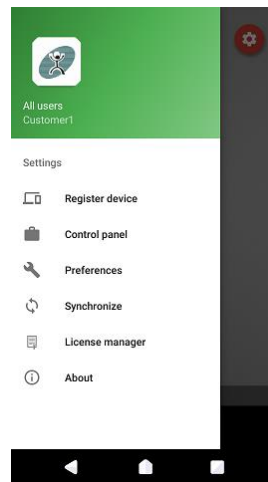


Figure 5.2 NCheck Bio Attendance Android Standard client main menu

NCheck Bio Attendance server interface will work with recent versions of Mozilla Firefox, Google Chrome, Microsoft Edge, Opera and most common web browsers. It does not work with Internet Explorer browser.

5.2 Sign in to web Control Panel

Once the NCheck Bio Attendance control panel sign in is triggered in on-premises mode, you may see browser warning as shown in [Figure 5.3](#) Browser warning without SSL certificate because it fails to validate the SSL certificate with trusted certificate authority. To prevent this warning

- You may use browser option to skip and proceed to the site.
- You may use valid SSL certificate as mentioned in the [On-premises server configuration](#) section.
- You may add your server to trusted server list.

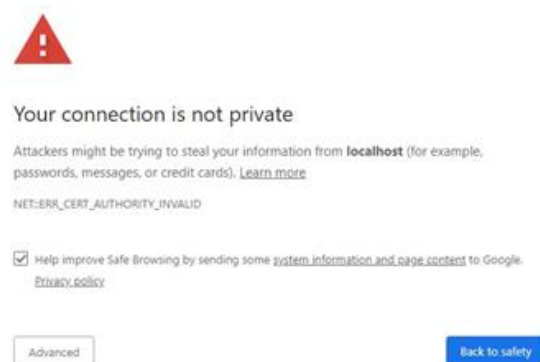


Figure 5.3 Browser warning without SSL certificate

Once the warning has resolved as mentioned above, user will be asked to login to NCheck Bio Attendance control panel as shown in [Figure 5.4](#) NCheck Bio Attendance control panel sign in.

1. Username
2. Password.
3. **Login** button

After successful login in, you will be landed in the NCheck Bio Attendance Control Panel Dashboard. The possible error messages after select login button are shown in [Table 5.3](#) Error messages of web control panel sign-in

4. Sign up link

This is available only on NCheck Bio Attendance Cloud. It loads the signup page for subscribing to NCheck Bio Attendance Cloud.

5. Forget password link

The forgot password view appears as shown in [Figure 5.5](#) Request password reset.

1. Email address
2. Security check for human
3. **Continuer** button

Password reset email will be sent to the email address if that is specified to a user in NCheck Bio Attendance. In on-premises mode Administrator allows to reset user password as mentioned in [Change password](#) section. The error message could be appeared as shown in [Table 5.4](#) Error messages when reset password

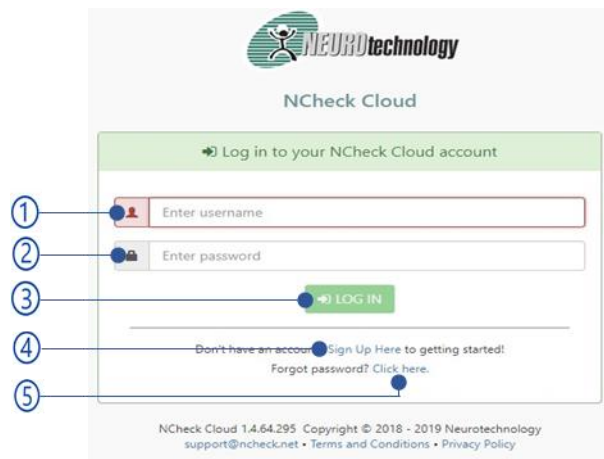


Figure 5.4 NCheck Bio Attendance control panel sign in

For NCheck Bio Attendance on-premises server, the default admin username and password are “admin”.

Table 5.3 Error messages of web control panel sign-in

Error code	Error message
2018	Invalid username or password.

Table 5.4 Error messages when reset password

Error code	Error message
2019	Could not find the user associated with {email address} email address.

After signing in, those who have administrator privileges will be landed in the NCheck Bio Attendance Control Panel Dashboard. If the initial required data is not set up, it will be notified to perform the initial setting up. Once the initial setting up has done, users will be able to access the NCheck Bio Attendance control panel as assigned roles mentioned in [WebControl Panel Roles](#) section.

Figure 5.5 Request password reset

5.3 WebControl Panel Roles

Current role of the control panel logged in user is shown in the login options. It can be

1. Account administrator
Account administrator is the owner of the account. He has full authority and can perform all administrative operations.
2. Administrator
System users can also be assigned administrative privileges. These administrators can do all the admin operations except subscription management and account detail editing.
3. Admin Auditor
Admin auditor can access all control panel data like administrator. But cannot change and save them.
4. Group Administrator
Group administrator is an Administrator who can manage an assigned group of users.
5. Group admin auditor
Group admin is also can access all the data which can accessed by a group administrator. But cannot change and save
6. Standard user
NCheck Bio Attendance Control Panel provides self service functions for standard users.

5.4 Web Control Panel View

NCheck Bio Attendance Control Panel has following components

1. Attendance system name and logo
2. Sign in user account options control
3. Notifications Launcher control
4. NCheck Bio Attendance Help launcher control
5. Menu
6. Content area
7. Neurotechnology company logo
8. Product name and version
9. Product copyright
10. Support email
11. Product Terms and conditions
12. Product privacy policy

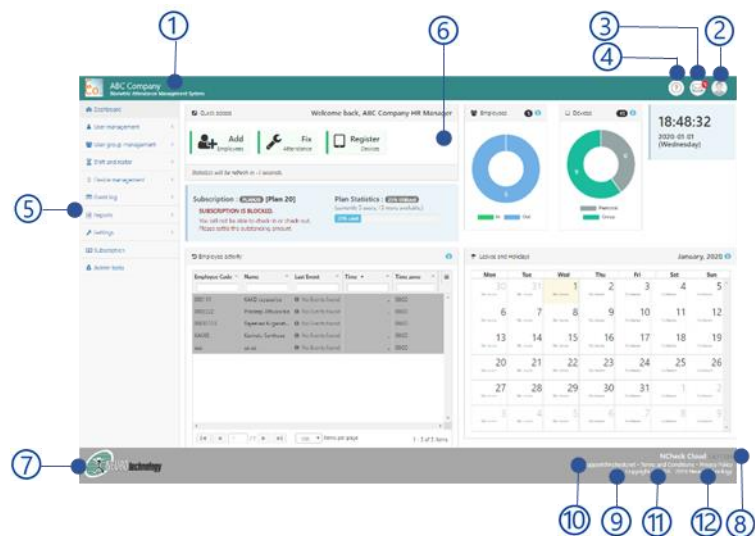


Figure 5.6 NCheck Bio Attendance control panel

5.5 Attendance system name and logo



Figure 5.7 NCheck Bio Attendance control panel name and logo

1. Company Logo
Administrator can change this by changing account settings.
2. Company name

5.6 Sign in user account options

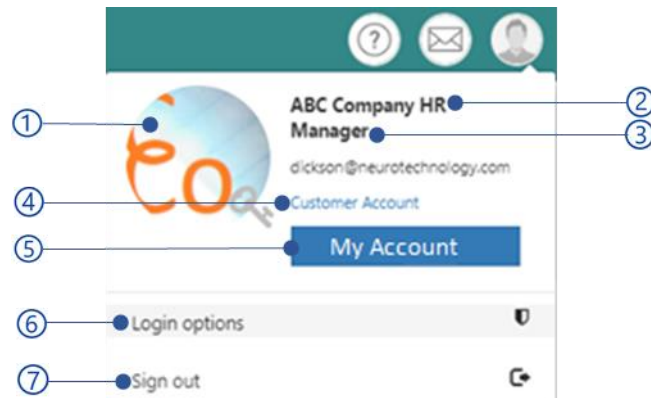


Figure 5.8 NCheck Bio Attendance sign in user account view

1. Profile picture of the account
2. Sign in username
3. Current role
One user can have different roles. Roles can be changed from the [Login options](#). Depend on the current role, NCheck Bio Attendance Control panel operations can be changed.
4. Signed in email
5. My Account
Button to view/edit your company details
6. [Login options](#)
7. Sign out

5.6.1 My Account

My Account button in sign in user account options can be used to edit your account details. Depend on the current role, this view is different.

For normal users, it will show his/her details.

If you are an account administrator, you will get the account details. For other administrators cannot access account details.

1. Profile picture
2. **Browse** button
Select the profile picture from the local file system.
3. Reset to default profile picture
Rest the profile picture to the NCheck Bio Attendance default profile picture as shown in [Figure 5.10](#) Default profile picture
4. Owner
Owner of the attendance system account
5. Company name
6. Comment
If any
7. Email
The email address of the owner
8. Address line 1
9. Address line 2
10. City
11. Country
12. State
13. Zip code
14. Mobile
15. Telephone
16. **Update** button
The update button will be disabled if the [Validation errors](#) exists. All error messages could be appeared are shown in Table 5.5 Error messages of my account view
17. **Close** button

The screenshot shows the 'MY ACCOUNT' form with the following fields and callouts:

- 1: Profile picture (current image: 'Eo.')
 - 2: BROWSE button
 - 3: Reset to default profile picture button
- 4: Owner (ABC Company HR Manager)
- 5: Company (ABC Company)
- 6: Comment (ABC Company)
- 7: Email (dickson@lab.neurotechnology.com)
- 8: Address line 1 (ABC Street)
- 9: Address line 2 (No ###)
- 10: City (ABC City)
- 11: Country (Lithuania)
- 12: State (rads)
- 13: Zip code (Zip or Postal code)
- 14: Mobile ((8-612) 34567)
- 15: Telephone ((8-612) 34567)
- 16: UPDATE button
- 17: CLOSE button

Figure 5.9 Edit account details



Figure 5.10 Default profile picture

Table 5.5 Error messages of my account view

Error code	Error message
3001	Mobile/telephone number is not valid for the selected country/region.
3002	Invalid email address.

5.6.2 Login options

Login options window allows doing the following operations.

1. *Role management*
2. *Change customer password*
3. *Change customer profile picture*
4. **Close** button

The screenshot displays the 'LOGIN OPTIONS' window for the user 'naveejr@gmail.com'. The window is divided into four main sections, each indicated by a numbered callout:

- 1. ADMINISTRATORS:** This section shows a list of user profiles. The first profile, 'NT Test Admin' (NT Lab Test), is highlighted with a red border. Below it are 'GROUP ADMINISTRATORS' (including 'export group') and 'GENERAL USERS' (including 'Rajeevan K'). A note at the bottom states: 'Current user profile is highlighted in red color. Select another profile (if any) to switch.' A 'SWITCH' button is located at the bottom right of this section.
- 2. CHANGE PASSWORD:** This section shows the 'Customer Account' (username: naveejr@gmail.com). It includes 'Password requirements' (at least 6 characters, at least one digit) and input fields for 'Password' (with a hint 'Leave empty if not updating'), 'Confirm password' (with a hint 'Retype new password'), and 'Password Strength'. An 'UPDATE' button is at the bottom right.
- 3. CHANGE PROFILE PICTURE:** This section shows the 'Profile picture' area with a placeholder image of 'Co.' and a 'BROWSE' button. An 'UPDATE' button is at the bottom right.
- 4. CLOSE:** A 'CLOSE' button is located at the bottom right of the window.

Figure 5.11 Login options

5.6.2.1 Role management

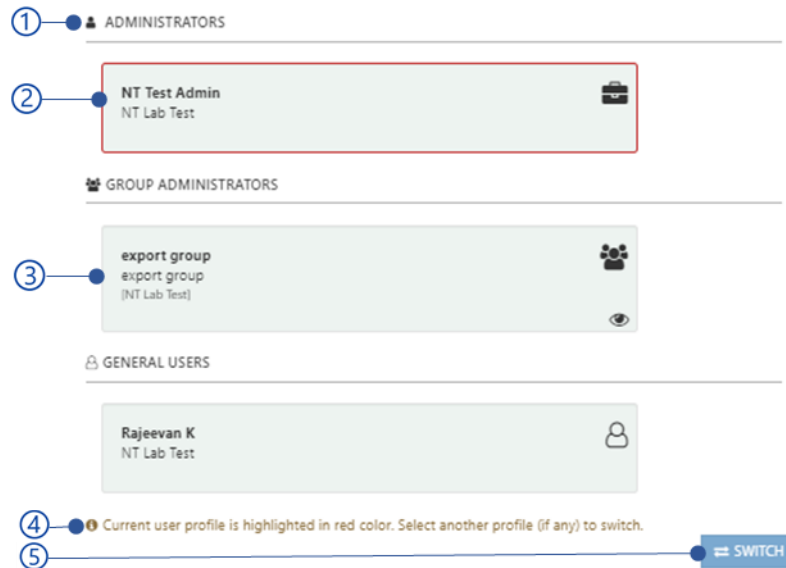


Figure 5.12 Role management view

1. Available roles for the user
2. Selected role
3. [Role view](#)
4. Hint for switch account
5. **Switch** button

Select the role and select switch button. The following error messages could be appeared when switch role.

5.6.2.1.1 Role view

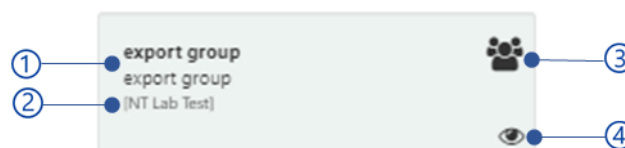


Figure 5.13 Role view

1. Role details
 - Admin name
 - Admin auditor name
 - Group code and name of the group admin/admin auditor
 - Username
2. Organization name
3. Role icon
4. Icon to indicate whether the auditor or not

5.6.2.2 Change customer password

The screenshot shows a web form for changing a customer password. It includes a header with the customer's name and email, a section for password requirements, input fields for the current password, a new password, and its confirmation, a password strength indicator, and an 'UPDATE' button. Numbered annotations point to the following elements:

- Customer Account (username : naveejr@gmail.com)
- Password requirements:
 - Have at least 6 characters
 - Include at least one digit
- Password (input field with placeholder 'Leave empty if not updating')
- Confirm password (input field with placeholder 'Retype new password')
- UPDATE button

Figure 5.14 Change customer password view

- Customer account details
- Hint to change password
- Password
The password must have at least 6 characters with one digit
- Confirm password
- Update** button
The update button will be disabled if data *Validation errors* exists. All error messages are shown in below table.

Table 5.6 Error messages of changes password in login options view

Error code	Description
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.

5.6.2.3 Change customer profile picture

The screenshot shows a web form for changing a customer's profile picture. It features a 'Profile picture' label, a preview image of a logo, a 'BROWSE' button, and an 'UPDATE' button. Numbered annotations point to the following elements:

- Selected profile picture
- BROWSE button
- UPDATE button

Figure 5.15 Change customer profile picture view

- Selected profile picture
- Browse** button
Browse the picture from the file system

3. Update button

The error messages could be shown when updating profile picture are shown in below.

Table 5.7 Error messages of updating customer profile picture in login options view

Error code	Description
2020	Selected file is not a valid image file.

5.7 Control panel notifications

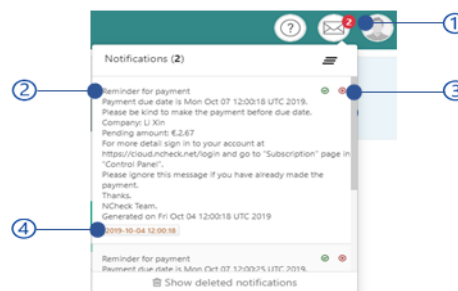


Figure 5.16 Notifications view

1. New notifications
2. Old Notification messages
3. Delete notification
4. Date and time of notification

5.8 Web Control Panel Menu

NCheck Bio Attendance web Control Panel Menu is used to access main functions of control panel. Control panel provides following functions through the menu.

1. Date and time
2. Dashboard
3. User Management
4. User Group management
5. Shift and Rosters
6. Leaves and holidays
7. Device Management
8. Event log
9. Reports
10. Settings
11. Subscription
12. Admin tasks

Based on the current role, available menu items may be different. Also, the functionality inside the menu item are also different.



Figure 5.17 Web control panel menu

Table 5.8 Web control panel menu availability for roles

Menu Item	Role					
	Account Admin	Admin	Admin Auditor	Group Admin	Group Admin Auditor	Standard User
<i>Dashboard</i>	✓	✓	✓	✓	✓	✓
<i>Manage Users</i>	✓	✓	✓	✓	✓	✓
<i>Manage user Groups</i>	✓	✓	✓	✓	✓	✓
<i>Manage Shifts and Rosters</i>	✓	✓	✓	✓	✓	✓
<i>Manage leaves and holidays</i>	✓	✓	✓	✓	✓	✓
<i>Manage devices</i>	✓	✓	✓	✓	✓	✓
<i>Manage Event logs</i>	✓	✓	✓	✓	✓	✓
<i>Reports</i>	✓	✓	✓	✓	✓	✓
<i>Admin Tasks</i>	✓	✓	✓	✓	✓	✓
<i>Settings</i>	✓	✓	✓	✓	✓	✓
<i>Subscription</i>	✓	✗	✗	✗	✗	✗

5.9 Dashboard

The dashboard provides a graphical summary of the customer account activities of the NCheck Bio Attendance account. Customer account administrator and users marked as administrators can access the Dashboard. Summary includes

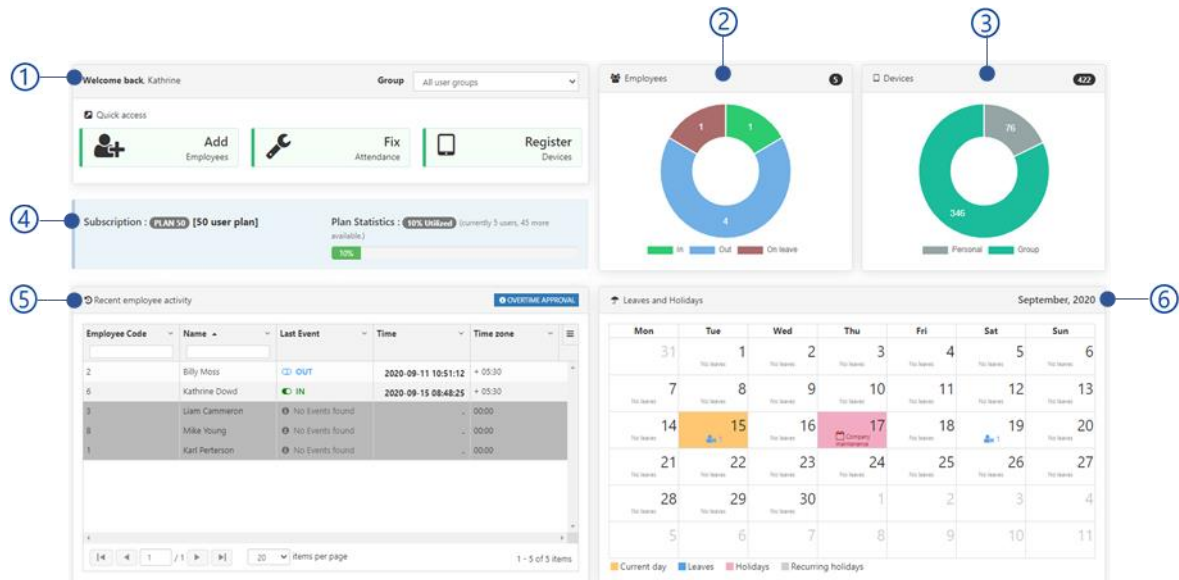


Figure 5.18 Web control panel dashboard

1. [Quick access](#)
2. [Employees Summary](#)
3. [Devices summary](#)
4. [Subscription summary](#) (NCheck Bio Attendance cloud only)
5. [Recent Employee activity](#)
6. [Leaves and holidays summary](#)

5.9.1 Quick access

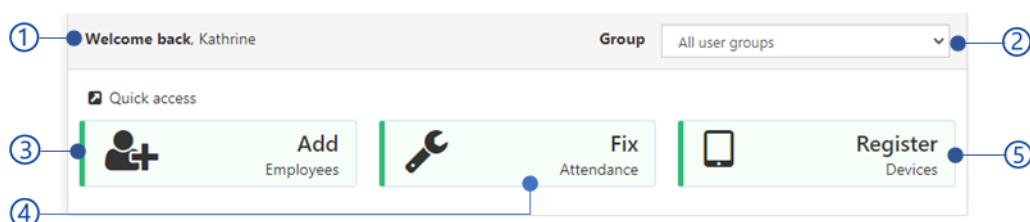


Figure 5.19 Quick access view of the Dashboard

1. Welcome note for the logged in user
2. Selected user group for the dashboard statics
3. Add user
Invoke Add new user function and open [Add/Edit](#) users user form
4. Fix attendance
Invoke event log function and apply error event filter to fix errors in attendance events.

5. Register device

Invoke user group function and open register device form to register a NCheck Bio Attendance client application for a user group.

5.9.2 Employees Summary

This is a real time graph present number of checked-in and checked-out employees

1. Total number of users
2. No. of users Checked-in
3. No. of users Checked-out
4. No. of users on leave

Check-in, check-out and on leave) users will be shown in a dialogue when clicking on each region.

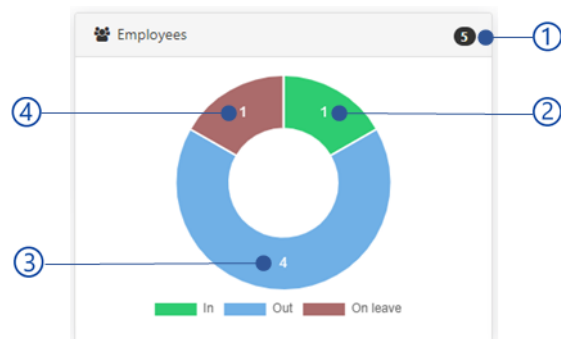


Figure 5.20 Employee summary view of the Dashboard

5.9.3 Devices summary

This graph presents number of devices registered with users and user group

1. No of connected client devices
2. No of devices registered to users
3. No of devices registered to user groups

User will be redirected to the [Manage devices](#) when click on a devices chart.

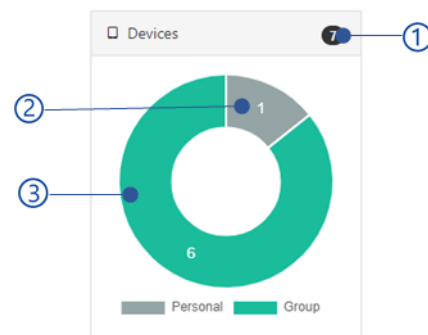


Figure 5.21 Device summary view of the Dashboard

5.9.4 Recent Employee activity

Recent user event list is shown ordered with latest event first. This is limited to 20 users maximum and 24 hours.

1. Overtime approval button
The user will be redirect to the [Overtime view](#)
2. Employee code
3. Name
4. Last event type
5. Data and time
6. Time zone
7. Table menu

Employee Code	Name	Last Event	Time	Time zone
2	Billy Moss	OUT	2020-09-11 10:51:12	+ 05:30
6	Kathrine Dowd	IN	2020-09-15 08:48:25	+ 05:30
3	Liam Cammeron	No Events found	-	00:00
8	Mike Young	No Events found	-	00:00
1	Karl Perterson	No Events found	-	00:00

Figure 5.22 Employee activity view of the Dashboard

8. Table paging options

5.9.5 Leaves and holidays summary

All employee leaves and holidays for the current month are shown.

1. Current month
2. Number of leaves for the day
3. Current date
4. Holiday
5. Recurring holiday
The holidays appears in recurring (weekly, monthly or annually) identified as recurring holiday

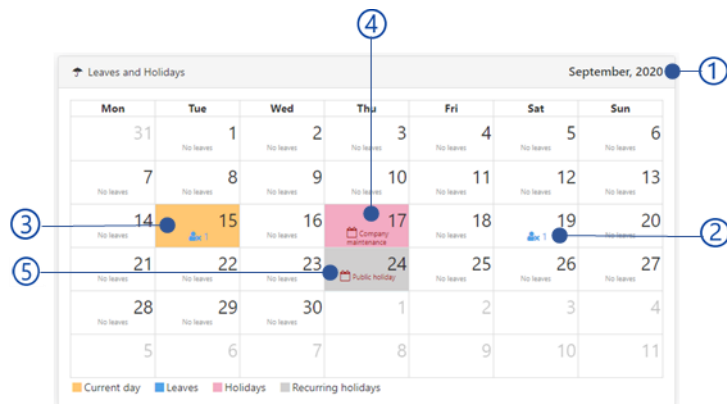


Figure 5.23 Laves and holidays summary view of the Dashboard

Mouse hover on each date in the calendar will show a summary of available holidays and leaves as mentioned in [Leaves and holidays summery view](#) section.

5.9.5.1 Leaves and holidays summery view

Leaves and holiday summery view is showing the available holidays and leaves for the day as follows.

1. Holidays
Name of all available holiday(s)
2. No leaves
User names and leave types
3. Click for more actions
Click on each date to more details about the events, leaves and holidays as mentioned in [Daily statistics view](#) section.

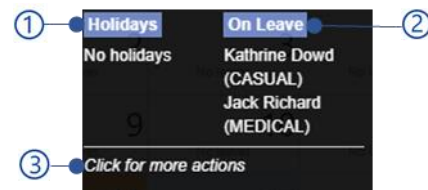


Figure 5.24 Leaves and holidays summery view

5.9.5.2 Daily statistics view

User will be shown a view to see events, leaves and holidays as follows when click on each day in th3e calendar view.

1. Selected date
2. Go to events
User will be redirected the [Manage Event logs](#) section to monitor all the events in the selected date.
3. Go to leaves and holidays
User will be redirected to the [Manage Leaves and holidays](#) section to monitor all leaves and holidays in the selected date.

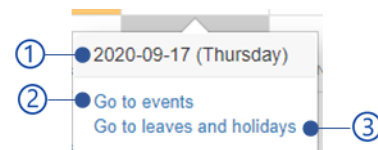


Figure 5.25Daily statistics view

5.9.6 Subscription summary

This view is not available for NCheck Bio Attendance cloud control panel

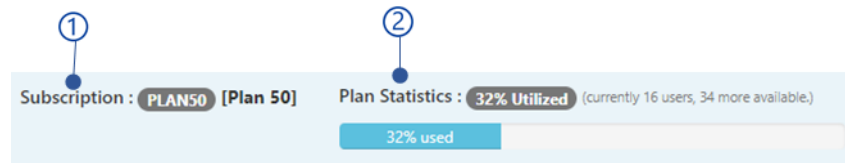


Figure 5.26 Subscription summary view of the Dashboard

1. Subscription details
 1. Plan code
 2. Plan name



Figure 5.27 Subscription details view of the subscription summary view

2. Plan statistics
 1. Percentage of the added users with respect to number of all users available for the plan
 2. Number of current users
 3. Number of users available to add
 4. Progress bar showing the utilized users

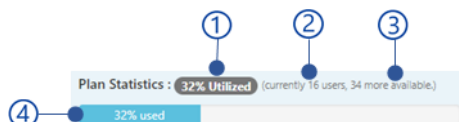


Figure 5.28 Plan statistics view of the subscription summary view

5.10 Manage Users

The following options are available in this view.

The screenshot shows the 'Manage Users' interface. On the left, a table lists users with columns: Employee Code, First Name, Last Name, and Phone. On the right, the details for 'KATHRINE DOWD' are shown, including a profile picture, address, email, phone, user group (Developers), and device status (HUAWEI P10-L29). Below the details are sections for 'USER SPECIFIC SETTINGS' and 'LEAVE ENTITLEMENTS'. Numbered callouts indicate key features: 1 (Add button), 2 (Search icon), 3 (Users list view), 4 (User details view), and 5 (Advanced button).

Figure 5.29 User management view of the web control panel

1. **Add** button
Refer [Add/Edit](#) users section for more details.
2. Search users
Filter user from the user table
3. [Users list view](#)
4. [User details view](#)
5. **Advanced** button
Refer [Advanced options](#) section for more details.

5.10.1 Add/Edit users

This view allows to add a new user to the NCheck Bio Attendance system or edit existing user

ADD NEW EMPLOYEE

Required fields are marked in red "**".

1. Profile picture (with BROWSE and UNIDENTIFIED IMAGES buttons)

2. First name *

3. Last name *

4. Employee code * (with GENERATE button)

5. Email

6. User name (with checkbox: Use email address as username. (You need to provide email for username when login.))

7. Barcode (with CAPTURE button)

8. RFID (with CAPTURE button)

9. Administrator rights (dropdown menu)

10. Address line 1

11. Address line 2

12. City

13. Country (dropdown menu)

14. State (dropdown menu)

15. Zip code (Zip or Postal code)

16. Telephone (with country code dropdown and number input)

17. Primary user group (Type to search from user groups)

18. + ADD button

19. X CLOSE button

Figure 5.30 Add user view

1. [User profile picture](#)
2. First name
3. Last name
4. [Employee code](#)
5. Email
6. Username
The username to allow to login users to the NCheck Bio Attendance control panel. Select **User email address as username** option to use the email address as the username.
7. [Capture barcode](#)
8. [Capture RFID](#)
9. Administrator right
Admin right as Employee (Standard user), Admin or Admin auditor as mentioned in [WebControl Panel Roles](#) section.
10. Address line 1
11. Address line 2
12. City
13. Country
14. State
15. Zip code
16. Telephone
17. Primary user group
Select the primary user group user belongs if the user is available in several user groups. Refer [Manage user Groups](#) section for more details.
18. **Add** button
The add button will be disabled if the mandatory data fields are empty or [Validation errors](#) exits. Refer [Table 5.9](#) Error message of add/edit user for all error messages could be appeared.
19. **Close** button

Table 5.9 Error message of add/edit user

Error code	Description
3001	Mobile/telephone number is not valid for the selected country/region.
3002	Invalid email address.

2020	Selected file is not a valid image file.
2021	Employee code already exists.
2022	Barcode ID is already available for different user
2023	RFID is already available for different user

5.10.1.1 Employee code

Unique ID to identify employees. Administrator allows to specify an employee code or generate code as shown in below.

1. Employee code field
2. **Generate** button
Select **Generate** button to generate code with 6 characters



Figure 5.31 Employee code view

5.10.1.2 User profile picture



Figure 5.32 Profile picture view

1. [Profile picture from the local file system](#)
2. [Profile image from unidentified image](#)

5.10.1.3 Profile picture from the local file system

Select the profile picture from the local file system. After select the image, crop view allows to crop the user image as shown in figure

1. Original image view
2. Cropping rectangle
User can change the margin of the rectangle to crop the image
3. Result image view after cropping



Figure 5.33 Profile picture crop view

5.10.1.4 Profile image from unidentified image

Face images failed to identify user when recording the attendances are known as unidentified images. User can select the user profile image from these unidentified images.

1. Date filter

Retrieve unidentified images between selected date range

2. Unidentified images list

3. **Close** button

4. **Select** button

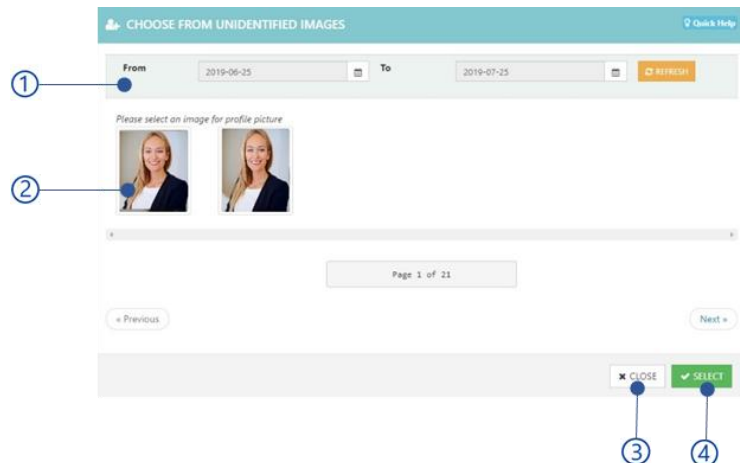


Figure 5.34 Select profile picture form unidentified image view

5.10.1.5 Capture barcode



Figure 5.35 User barcode ID view

1. Barcode text field

2. **Capture** button

Select **Capture** button to scan the barcode from the client application as mentioned in [Table 5.10](#)
Capturing barcode from Client applications

Table 5.10 Capturing barcode from Client applications

Android client	<ol style="list-style-type: none"> Main menu <ol style="list-style-type: none"> Switch camera Change resolution Barcode scan area <p>The Table 5.11 Error message of capture barcode is showing the error message could be appeared.</p>	<p>The screenshot shows an Android application interface for 'Barcode capture'. At the top, there's a header bar with a back arrow, the text 'Barcode capture', and a menu icon. Below the header, there's a large barcode being scanned. At the bottom of the barcode, the number '0 36000 29145 2' is displayed.</p>
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Figure 5.36 Barcode capture view of the Android client

Windows client	<ol style="list-style-type: none"> 1. Select the barcode text field 2. Scan the barcode from the connected barcode scanner <p>The Table 5.11 Error message of capture barcode is showing the error message could be appeared.</p>
----------------	---

Table 5.11 Error message of capture barcode

Error code	Description
3005	Barcode scanner could not be found.
2039	Could not capture barcode. The device has been blocked

5.10.1.6 Capture RFID



Figure 5.37 User RFID capture view

1. RFID text field
2. **Capture** button

Select **Capture** button to scan the RFID from the client application as mentioned in [Table 5.12](#) Capturing RFID from Client applications.

Table 5.12 Capturing RFID from Client applications

Android client	<ol style="list-style-type: none"> 1. RFID scan view appear as Figure 5.38 RFID capture view 2. Scan the RFID 3. RFID id will appear in the RFID ID field. <p>The Table 5.12 Capturing RFID from Client applications is showing the error message could be appeared.</p>	
Windows client	<ol style="list-style-type: none"> 1. Select the RFID text field 2. Scan the RFID from the connected RFID scanner 3. RFIC id will appeared in the RFID field. 	

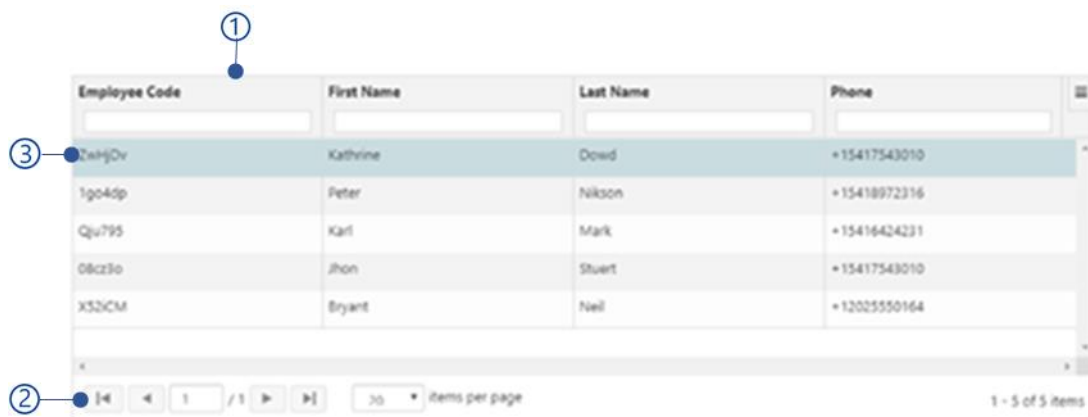
Figure 5.38 RFID capture view of the Android client

	The Table 5.12 Capturing RFID from Client applications is showing the error message could be appeared.
--	--

Table 5.13 Error message of capture RFID

Error code	Description
3006	RFID scanner could not be found
2040	Could not capture RFID. The device has been blocked

5.10.2 Users list view



Employee Code	First Name	Last Name	Phone
ZxHjDr	Kathrine	Dowd	+15417543010
1go4dp	Peter	Nikson	+15418972316
Qju795	Karl	Mark	+15416424231
08cz3o	Jhon	Stuart	+15417543010
X32iCM	Bryant	Neil	+12025550164

1 - 5 of 5 items

Figure 5.39 User table view of the user management

1. [Table header](#)
2. [Table paging options](#)
3. Selected user

The selected user details are shown in [User details view](#)

5.10.3 User details view

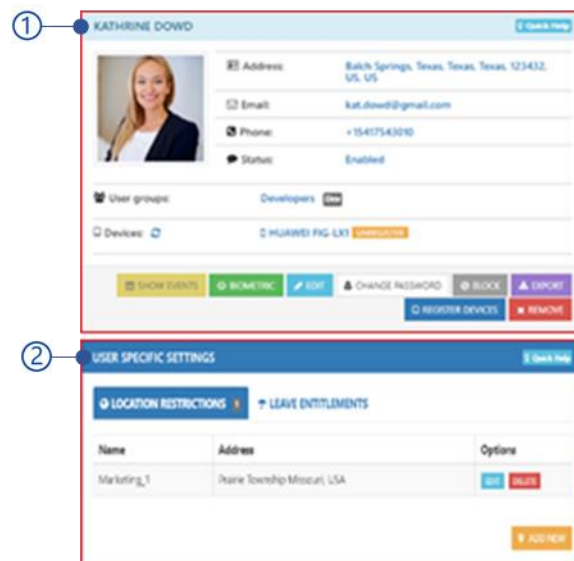


Figure 5.40 User details view of the user management

1. [User quick view](#)
2. [User specific settings](#)

5.10.4 User quick view

This section allows to control all user specific functions when recording attend

1. Username
2. User details
 - Address
 - Email
 - Phone
 - User status
3. User
Added user groups.
4. Devices
Registered devices.
Select **Unregister** button to unregister each device.
5. **Show events** button
Show all events of the user.
6. **Biometrics** button
Refer [Change biometrics](#) section for more details.
7. **Edit** button
Refer [Add/Edit](#) users section for more details.

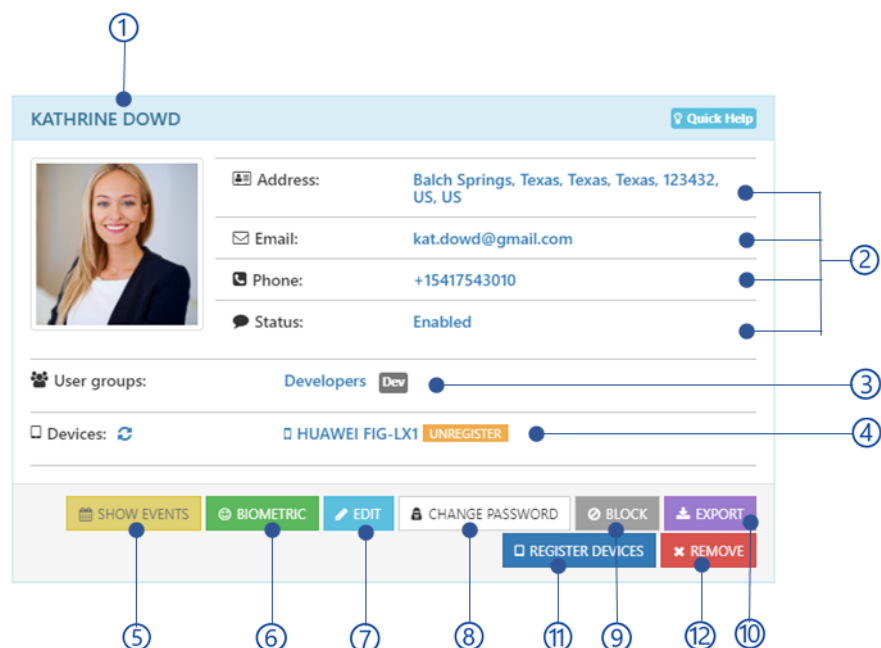


Figure 5.41 User management quick view

8. **Change password** button

Refer [Change password](#) section for more details.

9. **Block/Unblock** button

Refer section [Block/unblock users](#) for more details.

10. **Export** button

Export following details for selected user.

- [User profile information](#)
- [User/user group location](#) restrictions information

11. **Register** button

This option allows to generate registration token to register the device for the selected person. Once select the button, the [Client registering view](#) will be appeared.

12. **Remove** button

Refer [Remove users](#) section for more details.

5.10.4.1 Change password

After assigning a username as mentioned in [Add/Edit users](#) section, the password can be changed. Password must be consisted with one digit and 6 characters.

Figure 5.42 Change user password view

1. User name
2. Email
3. Password

Password must have atleast 6 characters and one digit.

4. **Generate** button
Generate a password.
5. **Change** button

Change button will be disabled if the [Validation errors](#) exits. Table 5.14 Error messages of change password is showing the error messages could be appeared.

6. **Close** button

Table 5.14 Error messages of change password

Error code	Description
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.

5.10.4.2 Change biometrics

In the Biometric data dialogue, new biometrics can be enrolled using the below options.

1. Enrolled biometrics
2. [Enroll from history](#)
3. Menu for [capture from client applications](#)
4. Menu for [Upload biometric image](#)
5. **Delete** button
6. **Close** button



Figure 5.43 Add biometrics view

5.10.4.2.1 Enroll from history

The face, fingerprint, and iris images, unable to identify the user while recording attendances, are kept in NCheck Bio Attendance server. These biometric images can be used to enroll users.

In the Select from history window,

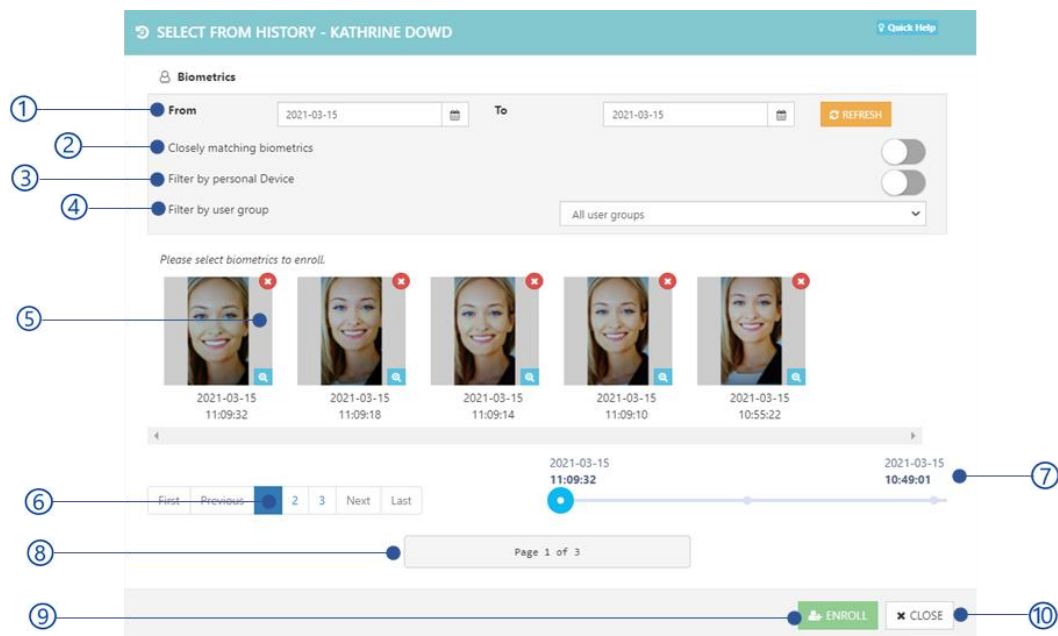


Figure 5.44 Select biometrics from history view

1. Date range
Biometrics will be retrieved within the selected date range.

2. Closely matching biometrics
NCheck Bio Attendance server will filter out the closely matching biometrics for the user from history.
3. Filter by device
Filter out the biometrics matching for the device.
4. Filter by user group
Biometrics used to enroll for the selected user group.
5. Biometric quick view as shown in [Figure 5.45](#) Biometric image view of select biometric from history

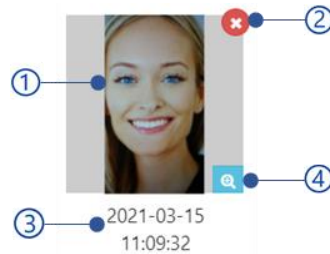


Figure 5.45 Biometric image view of select biometric from history view

view

1. Biometric thumbnail
2. **Delete** button
3. Date and time biometric captured
4. **View** button
To show the Biometric detail view.
6. Paging details
Functionalities to navigate through all face images in each page.
7. Time line
show the latest updated image date and time of each page between date time of recently updated image and first updated image.
8. **Next** button
Current page number of available pages.
9. **Enroll** button
Enroll button will be disabled if no biometric image has selected. The table is showing all error message could be appeared.
10. Close button

Table 5.15 Error message of select biometric from history

Error code	Description
2024	Could not enroll selected face/finger/iris image.

5.10.4.2.2 Biometric detail view

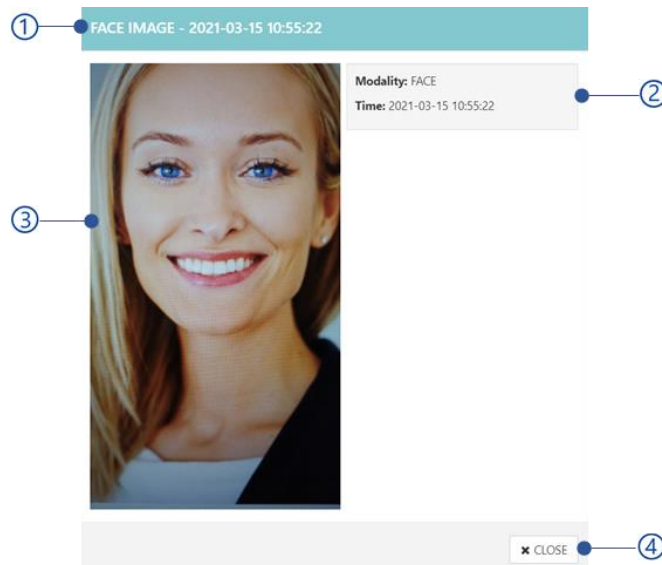


Figure 5.46 Biometric detail view

1. Biometric event date and time
2. Biometric details
 - Modality
Face, Fingerprint, or Iris
 - Time
The date and time of the event the biometric image had uploaded.
3. **Close** button

5.10.4.2.3 Capture from client applications

Biometrics can be enrolled through the NCheck Bio Attendance client applications such as NCheck Bio Attendance Lite for Windows and Android and NCheck Bio Attendance Standard for Windows and Android. To capture

1. Select biometric capture type form the list
 1. Capture face
 2. Capture fingerprint
 3. Capture iris
2. Capture the selected biometric when the capture view is appeared as mentioned in
 1. [Capture face from lite clients](#)
 2. [Capture face from standard clients](#)
 3. [Capture fingerprint from Standard clients](#)
 4. [Capture iris from Windows standard client](#)

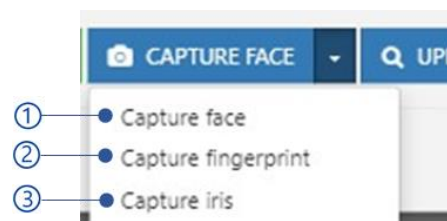


Figure 5.47 Menu for capture biometrics from client applications

The error messages could be appeared when capture biometric from clients are showing below.

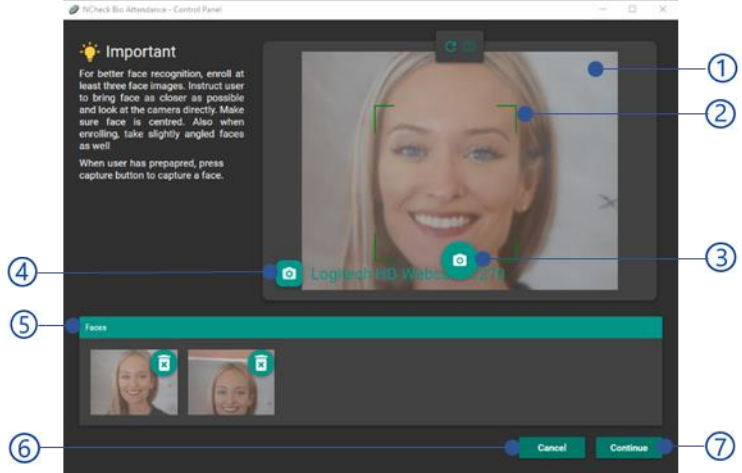

Table 5.16 Error messages when capture biometrics

Error code	Description
3007	Camera could not be found.

3008	Fingerprint scanner could not be found
3009	Iris scanner could not be found
2025	Capture face with enough lighting
2026	The biometric image has already enrolled for another user
2038	Could not enroll biometrics. The device has been blocked

5.10.4.2.4 Capture face from lite clients

Table 5.17 Face enroll views for lite client

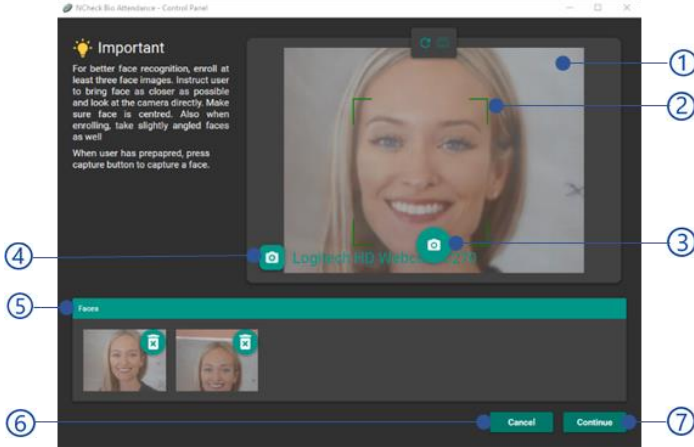
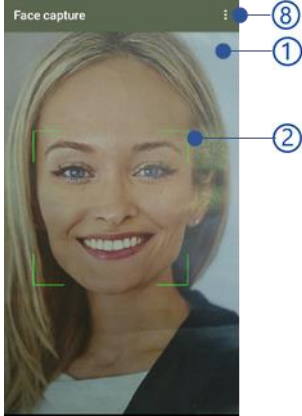
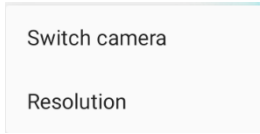
Windows lite client	 <p>Figure 5.48 Windows lite client face capture view</p>
Android lite client	 <p>Figure 5.50 Android lite client face capture view</p>

1. Camera preview
2. Face rectangle (Standard client only)
3. **Capture** button
Select capture button to capture face image in lite client. In Windows Standard, select capture button when the user has prepared to capture the face.
4. Camera name

5. Captured face list
Windows clients allows to capture multiple face images before upload. Android clients allows to capture a single image before upload.
6. **Cancel** button (Windows clients only)
7. **Continue** button
In windows clients, select continue button to upload captured face list to the server. In Android client captured image will automatically uploading to the server.
8. Android lite client resolution menu
9. Change front/back camera button

5.10.4.2.5 Capture face from standard clients

Table 5.18 Face enroll views for standard clients


Windows Standard client	 <p>Figure 5.51 Windows standard client face capture view</p>
Android Standard client	 <p>Figure 5.54 Android standard client face capture view</p>  <p>Figure 5.53 Menu of Android standard client face capture view</p>

1. Camera preview
2. Face rectangle (Standard client only)

3. **Capture** button
Select capture button to capture face image in lite client. In Windows Standard, select capture button when the user has prepared to capture the face.
4. Camera name
5. Captured face list
Windows clients allows to capture multiple face images before upload. Android clients allows to capture a single image before upload.
6. **Cancel** button (Windows clients only)
7. **Continue** button
In windows clients, select continue button to upload captured face list to the server. In Android client captured image will automatically uploading to the server.
8. Menu of Android standard client face capture view as shown in [Figure 5.53](#) Menu of Android standard client face capture view
 1. Switch camera
Change front/back camera
 2. Resolution
Camera resolutions dialogue

5.10.4.2.6 Capture fingerprint from Standard clients

Table 5.19 Fingerprint enroll views for standard clients

	Standard client
Windows	 <p>Figure 5.55 Windows standard client fingerprint capture view</p>



1. Fingerprint scanner name (Windows standard client only)
2. Fingerprint scanner status
 - Android Standard client is Showing “Fingerprint capturing” message if the scanner is available. Otherwise “Fingerprint reader not available”
 - Windows standard client is showing finger print icon as shown in [Figure 5.55](#) Windows standard client fingerprint capture view if the fingerprint scanner is available. Otherwise “Unable to detect the fingerprint scanner. Please verify the finger scanner is connected and functioning correctly.”.
3. Captured fingerprint images list
Windows standard client allows to capture multiple fingerprint images. Android standard client allows to capture only single fingerprint image before upload.
4. **Cancel** button (Windows client only)
5. **Continue** button
In Windows standard client, select continue button to upload captured fingerprint images. Android standard client will upload the fingerprint image automatically once it captured successfully.

5.10.4.2.7 Capture iris from Windows standard client

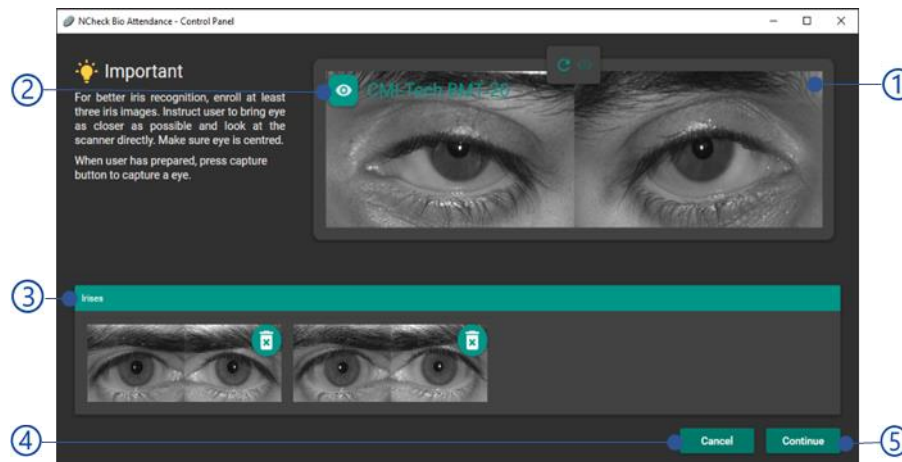


Figure 5.57 Windows standard client iris capture view

- | | |
|-----------------------------|--|
| 1. Iris preview | 4. Cancel button |
| 2. Iris scanner name | 5. Continue button |
| 3. Captured iris image list | Upload captured iris images to the server. |

5.10.4.2.8 Upload biometric image

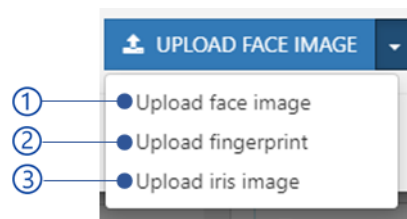


Figure 5.58 Menu for upload biometric images for user

1. Select biometric upload type from
 1. Upload face image
 2. Upload fingerprint
 3. Upload iris image
2. Select selection to upload the biometric image from your file system. The following errors could be occurred uploading selected biometrics

Table 5.20 Error messages of upload biometric images

Error code	Description
2020	Selected file is not a valid image file.

5.10.4.3 Block/unblock users

The selected user can be block/unblock using this option. Blocked users are not allowed to enroll biometrics or record attendances.

5.10.4.4 Remove users

Remove selected user from the users list.

5.10.5 User specific settings

User specific settings allows to

1. [Manage location restrictions for user](#)
2. [Leave entitlement](#)

5.10.5.1 Manage location restrictions for user

Refer [Location restrictions](#) section for more details.

5.10.5.2 Leave entitlement

This view is showing the number of leaves user has taken and number of remaining leaves from each Leave type. Also, user leave entitlement can be updated.

1. Leave type summary
2. Edit button



CASUAL	2 taken, 5 available.
MEDICAL	2 taken, 12 available.
VACATION	2 taken, 12 available.
MISSION	2 taken, 5 available.

Figure 5.59 Leave entitlement view

Refer [Edit leave entitlement](#) section for more details

5.10.5.3 Leave type summary



CASUAL	2 taken, 5 available.
--------	-----------------------

Figure 5.60 Leave type summary view

1. Leave type
Refer [Configure leave type](#) section for more details.
2. Number of leaves taken by the user
3. Number of available leaves

5.10.5.4 Edit leave entitlement

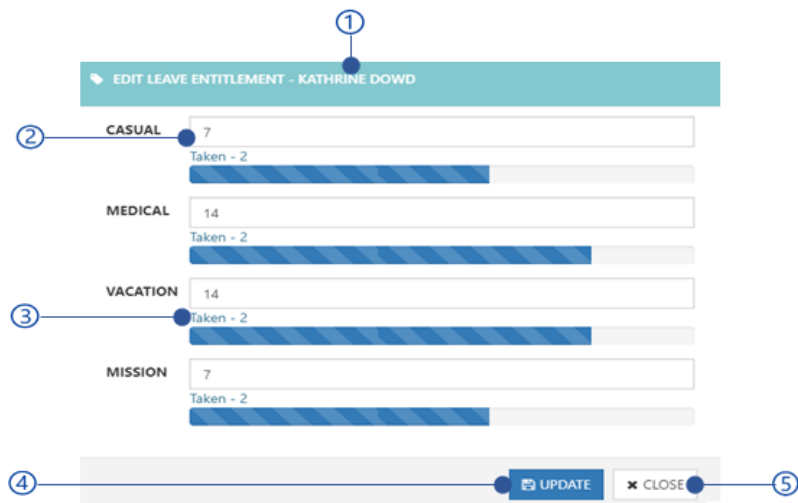


Figure 5.61 Edit leave entitlement view

1. Username
2. Number of leaves available for each user
3. Number of leaves user has already taken
4. **Update** button
5. **Close** button

5.10.6 Advanced options

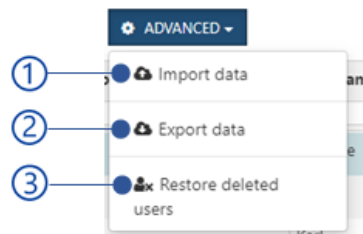


Figure 5.62 Advanced options of User management

1. [Import data](#)
2. [Export data](#)
3. [Restore deleted users](#)

5.10.6.1 Import data

This option allows to import all user data as mentioned in [Import and Export information](#) section. To import data,

1. Select information to be imported from the list

- [User profile information](#)
- [User/user group location](#) restrictions information
- [User biometrics](#) and template files

2. Select Import button to select the import location.

Refer [Select import location](#) section for more details.

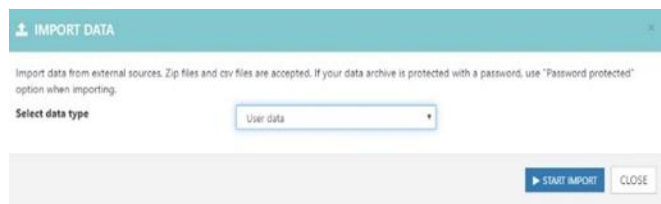


Figure 5.63 Import users data view

5.10.6.2 Export data

This option allows export all user data as password protected zip file as follows

1. Select information to be imported from the list

- [User profile information](#)
- [User/user group location](#) restrictions information

2. Select Export button to select the export location.

Refer [Select export location](#) for more details

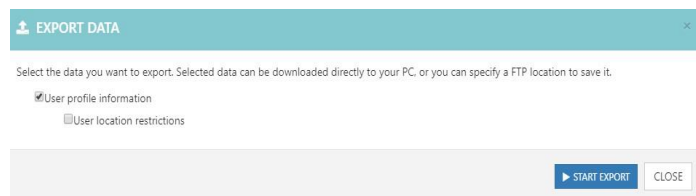


Figure 5.64 Export users data view

5.10.6.3 Restore deleted users

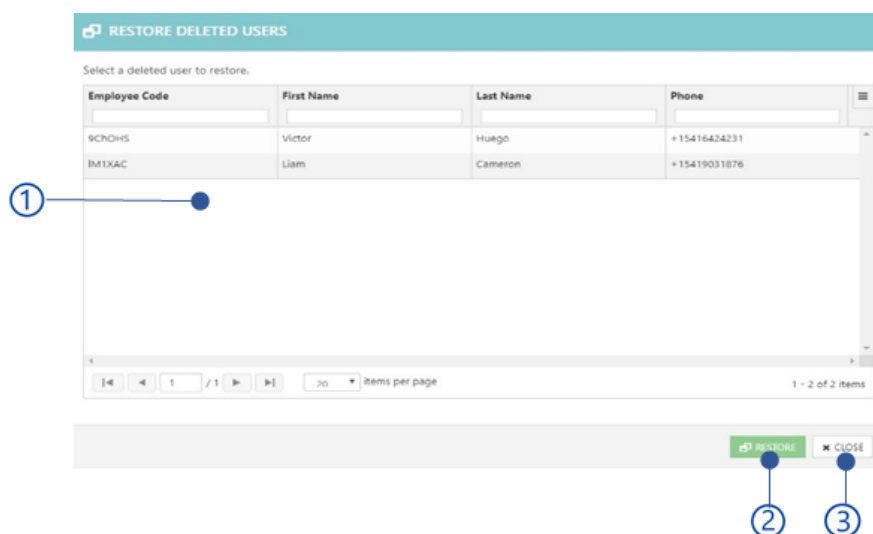


Figure 5.65 Restore deleted users view

1. Deleted user table
2. Restore button
3. **Close** button

To Restore deleted user,

1. Select the user from the table
2. Select Restore button
3. Change the user details in the Recover user dialogue if necessary
4. Select **Recover** button

5.11 Manage user Groups

Administrator and user group administrators allow managing users as user groups. All user group is the default user group including all users and it is accessible for administrator only. In the user group management dialogue.

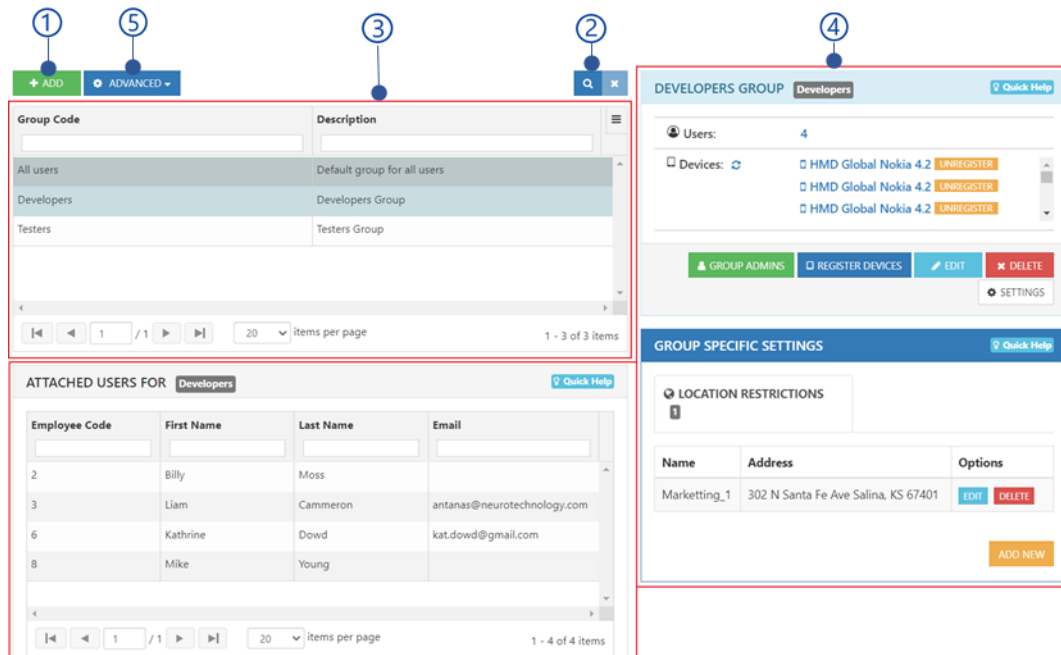


Figure 5.66 User group management view of web control panel

1. **Add** button
Refer [Add/Edit user](#) group section for more details.
2. Search
Search user group by group name
3. [User groups list view](#)
4. [User group details view](#)
5. **Advanced** button
Refer [Advanced options](#) section for more details.

5.11.1 Add/Edit user group

This view allows to add a new user group or edit existing user group.

1. Profile picture
2. User group code
Unique code to identify user group
3. Description
4. **Add** button
Add button will be disabled if the mandatory fields are empty or [Validation errors](#) exists.

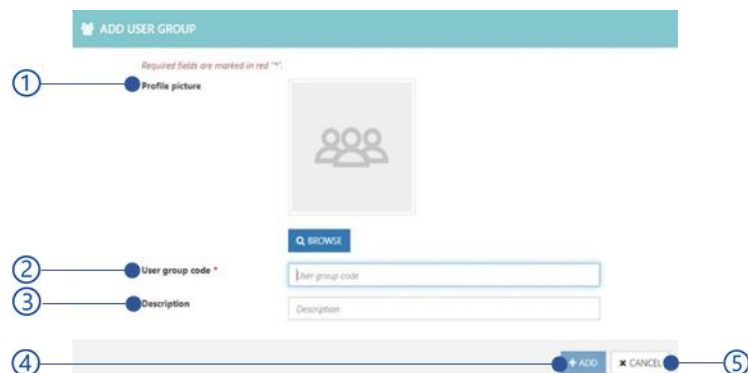


Figure 5.67 Add/edit user group view

Refer [Table 5.21](#) Error messages of add/edit user group for more details of error messages could be occurred.

5. **Cancel** button

All user group could not be edited.

Table 5.21 Error messages of add/edit user group

Error code	Description
2020	Selected file is not a valid image file.
2027	User group code has already existed.

5.11.1.1 Error messages of add/edit user

Table 5.22 Error messages of add/edit user

Error message	Description
User group code has already existed. Please try different group code.	User group could not be duplicated.

5.11.2 User groups list view

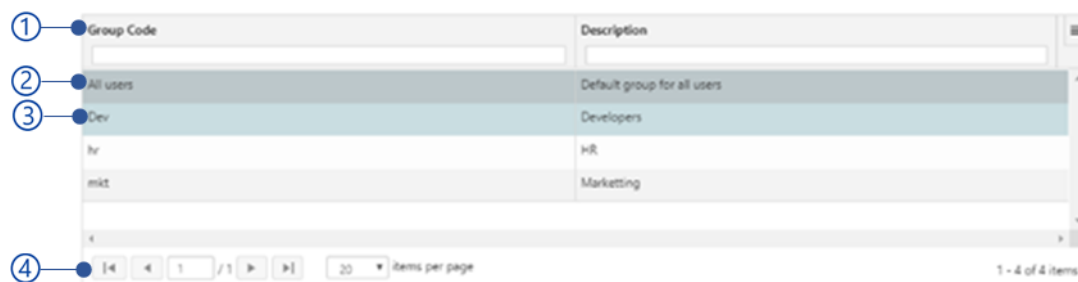


Figure 5.68 User groups list view

1. [Table header](#)
2. All user group
All user group is the default user group including all the users.
3. Selected user group
Selected user group details are shown in [User group details view](#).
4. [Table paging options](#)

5.11.3 User group details view

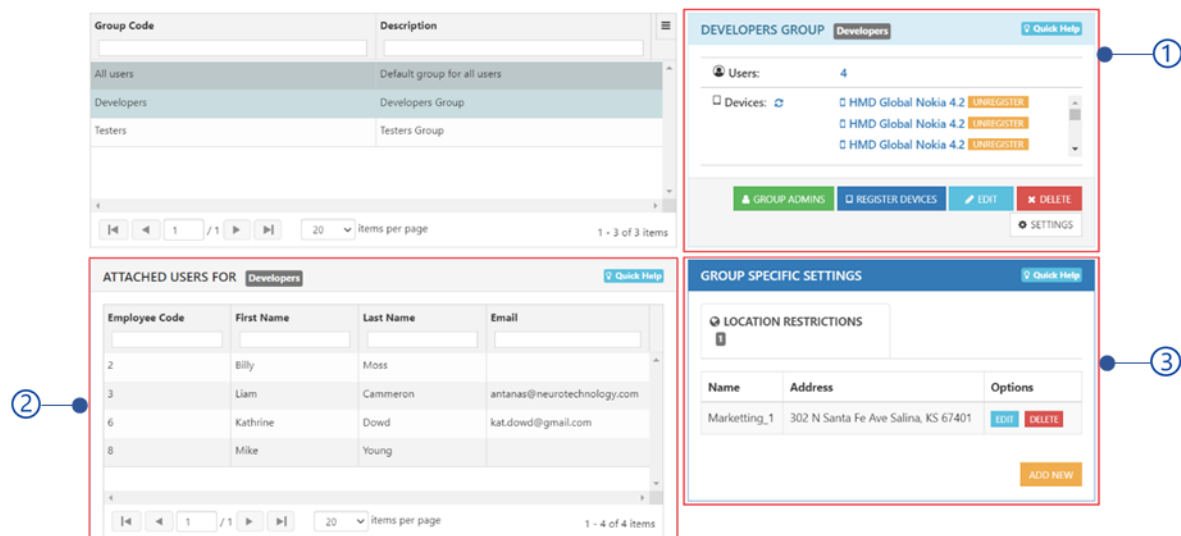


Figure 5.69 User group details view

1. [User group quick view](#)
2. [Attached users](#)
3. [User group specific settings](#)

5.11.4 User group quick view

This view is showing user group details and allow user to perform user group specific functions

1. Group name and code
2. Number of users
3. Devices registered to the group
Select **Unregister** button to un-register the device
4. **Group admins** button
Edit group admins of the user group. Refer Group admins section for more details

5. **Register device** button
Generate registration token to register a device for selected user group. Once select the button, the [Client registering view](#) will be appeared.

6. **Edit** button
Edit the user group. Refer [Add/Edit user](#) group section for more details.

7. **Delete** button
Delete the selected user group. **All user group** could not be deleted.

8. **Settings** button
User group specific settings. Refer [General settings](#) section for more details.



Figure 5.70 User group quick view

5.11.4.1 Delete user group

Delete selected user group from the user group list.

5.11.5 Group admins

User group admin allows to manage users in the user group according to the assign permission level.

1. User group name and code
2. [Table header](#)
3. Check box to add/remove group admin
4. Write permission
Refer [Group admin permission](#) section for more details.
5. [Table paging options](#)
6. Close button

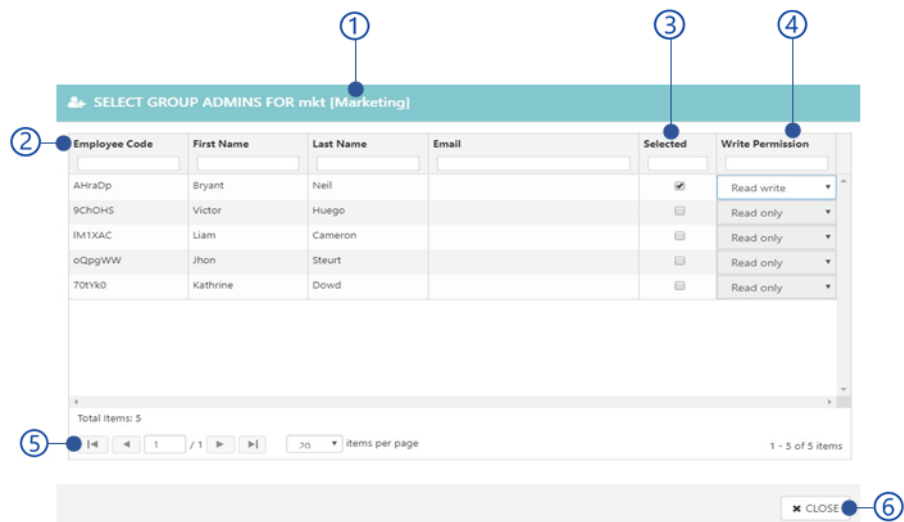


Figure 5.71 User group admins view

*Group admins are not available for the **All users** group.*

5.11.5.1 Group admin permission

Group admins can be created with following permissions.

1. Read Write
Group admins can manage users assigned to group.
2. Read only
Group admins can review users assigned to particular group.

5.11.5.2 Attached users

All users attached to the selected user group are showing in this view as follows.

1. Selected user group code
2. [Table header](#)
3. [Table paging options](#)
4. **Edit** button
Select **edit** button
Refer [Edit attached users](#) section for more details.

Employee code	First name	Last name	Email
6m9IXU	Liam	Cameron	liam.cameron@abcgrou.com
byxcEm	Eva	Nicholls	eva.nicole@abcgrou.com
hUAiR	John	Stewart	
wMJiwT	James	Newman	jamesnewman@abcgrou.co...
4mNV5u	Gordon	Knox	

1 - 10 of 10 items

EDIT

Figure 5.72 Attached users view

5.11.5.3 Edit attached users

This view allows to add/remove users from the user group

1. User group code
2. [Table header](#)
3. Checkbox to add/remove user
4. [Table paging options](#)
5. **Update user group** button
6. **Cancel** button

Employee code	First name	Last name	Email	Selected
6m9IXU	Liam	Cameron	liam.cameron@abcgrou.com	<input type="checkbox"/>
byxcEm	Eva	Nicholls	eva.nicole@abcgrou.com	<input type="checkbox"/>
zxWbSF	Katherine	Dowd	katy.d@abcgrou.com	<input checked="" type="checkbox"/>
hUAiR	John	Stewart		<input type="checkbox"/>
wMJiwT	James	Newman	jamesnewman@abcgrou.co...	<input type="checkbox"/>
4mNV5u	Gordon	Knox		<input checked="" type="checkbox"/>
J382f8	Evan	Hodges		<input type="checkbox"/>
dnuUKd	Steven	Miller		<input checked="" type="checkbox"/>
aImxZZ	Joanne	Edmunds		<input type="checkbox"/>
anAnoQ	Rarhal	Clarkson		<input type="checkbox"/>

Total Items: 11

1 - 11 of 11 items

UPDATE USER GROUP **CANCEL**

Figure 5.73 Edit attached users view

5.11.6 User group specific settings

5.11.6.1 General settings

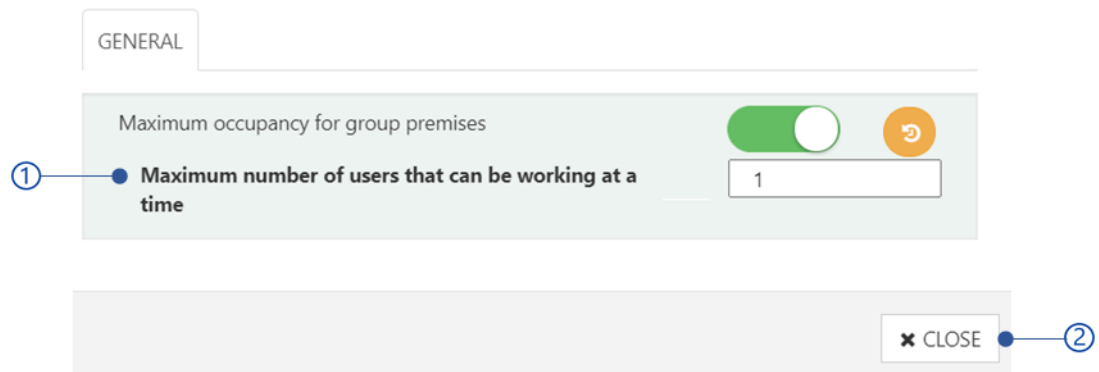


Figure 5.74 General settings of the user group

1. *Maximum occupancy for group premises*

5.11.6.1.1 Maximum occupancy for group premises

Administrator/user group administrator allows to limit the number of employees/users of the user group in the premises. To limit users, enable this setting and add the number of allowed users. The users who are entitle to the user group as the primary user group will be count when check-in to the premises. If the check-in count is greater than the maximum occupancy for group premises, the check-ins will be restricted. Refer [Add/Edit users](#) section to change the primary user group of the users.

5.11.6.2 Manage location restrictions for user group

Refer [Location restrictions](#) section for more details.

5.11.7 Advanced options of user group view

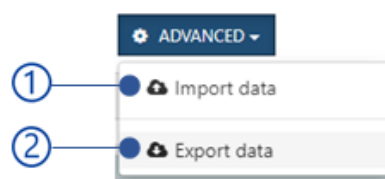


Figure 5.75 User group management advanced options

1. *Import user group data*
2. *Export user group data*

5.11.7.1 Import user group data

Import all user group data as mentioned in [Import and Export information](#) section, To import,

1. Select data from the list to be imported

- [User group information](#)
- [User group memberships information](#)
- [User/user group location restrictions information](#)

2. Select start import button

Refer the [Select import location](#) section for more details

Figure 5.76 Import user groups data view

5.11.7.2 Export user group data

Export all user group data as a password protected zip file as follows,

1. Select data from the list to be exported

- [User group information](#)
- [User group memberships information](#)
- [User group location restrictions information](#)

2. Select start export button

Refer [Select export location](#) for more details

Figure 5.77 Export user group data view

5.12 Manage Shifts and Rosters

Work schedule of the users/user groups in the organization can be managed in this section.

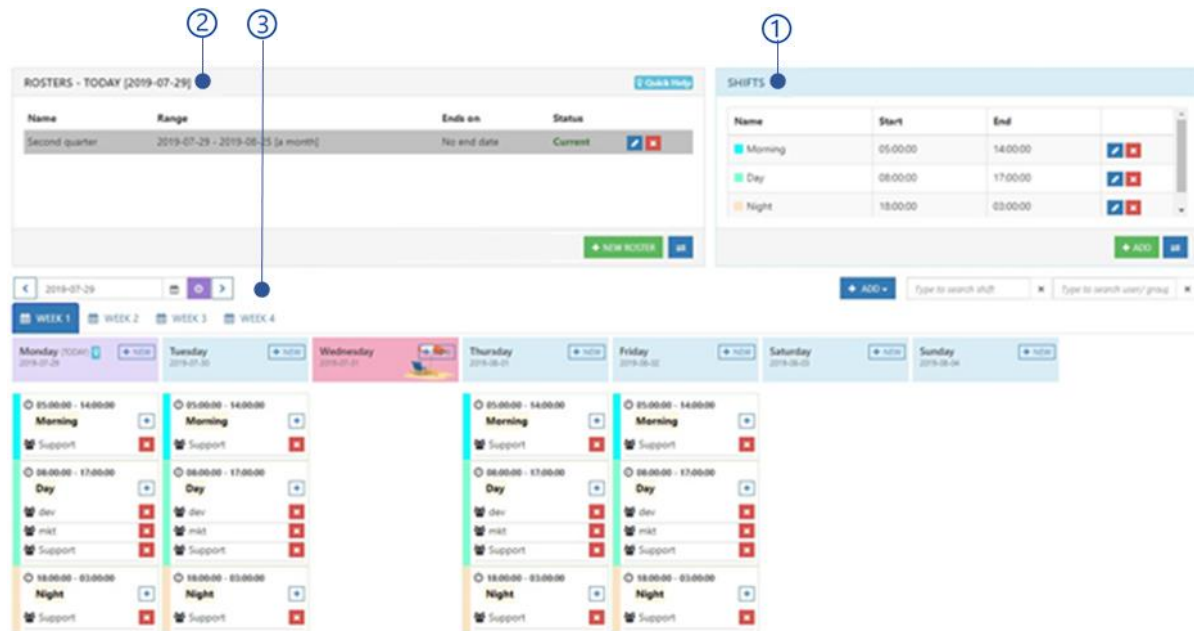


Figure 5.78 Shift and rosters management view

1. [Shift management view](#)
2. [Roster management view](#)
3. [Roster item management view](#)

5.12.1 Shift management view

Daily work schedule can be created with shifts. Shift can be created with specific start time and end time with restrictions such as work hours should be covered, check-in, check-out, and OT hours.

Shift management view as follows

1. Shift name
2. Shift start time
3. Shift end time
4. **Edit** button

Edit the shift. Refer [Add/Edit](#) shifts section for more details.

5. **Delete** button
- Delete the shift.

6. **Add** button

Refer [Add/Edit](#) shifts section for more details.

7. [Import/export shifts](#)

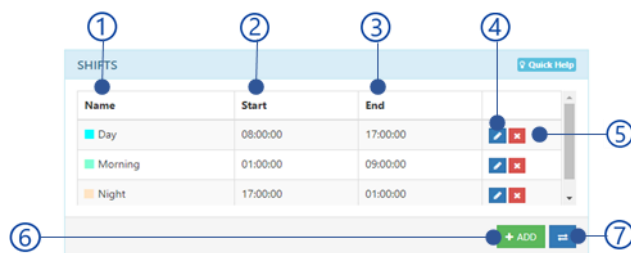


Figure 5.79 Shift management view

5.12.1.1 Add/Edit shifts

This view allows to add new shift or edit existing shift details

1. Shift name
2. Description
3. Shift start and end time
4. Work hours
5. Select checkbox to add time duration to restrict check-ins
6. Select checkbox to add time duration to restrict check-outs
7. Select checkbox to add time duration to restrict overtime hours
8. Select checkbox to add maximum overtime hours allowed
9. **Add** button
Add button will be disabled if the mandatory fields are empty or *Validation errors* exists. Refer [Table 5.23](#) Error messages of add/edit shift for more details about error messages could be occurred.
10. **Close** button

The screenshot shows the 'ADD SHIFT' form with the following elements:

- 1**: Shift name (required field, marked with a red asterisk)
- 2**: Description (required field, marked with a red asterisk)
- 3**: SPECIFY SHIFT START AND END (Start and End time pickers)
- 4**: SPECIFY WORK HOURS A USER SHOULD COVER (Work hours picker)
- 5**: Restrict check-in in the below interval (checkbox)
- 6**: Restrict check-out in the below interval (checkbox)
- 7**: Restrict overtime hours (checkbox)
- 8**: Maximum OT hours allowed (checkbox)
- 9**: + ADD button
- 10**: X CLOSE button

Figure 5.80 Add/edit shifts view

Table 5.23 Error messages of add/edit shift

Error code	Error message
2028	The shift name has already existed.

5.12.1.2 Import/export shifts

5.12.1.2.1 Import shifts

The screenshot shows the 'IMPORT DATA' form with the following elements:

- IMPORT DATA** header
- Import data from external sources. Zip files and csv files are accepted. If your data archive is protected with a password, use "Password protected" option when importing.
- Select data type: Shifts (dropdown menu)
- START IMPORT button
- CLOSE button

Figure 5.81 Import shifts view

Shift information can be imported as mentioned in [Import and Export information](#) section. To import,

1. Select the Shift to import [Shifts information](#)
2. Start Import button to select the import location.
Refer [Select import location](#) section for more details.

5.12.1.2.2 Export shifts

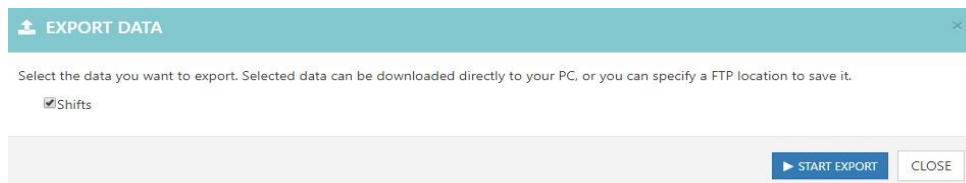


Figure 5.82 Export shift view

Shift information can be exported as a password protected zip file as follows.

1. Select Shifts to export [Shifts information](#)
2. Start Export button to select export location.
Refer [Select export location](#) for more details.

5.12.2 Roster management view

Rosters are specific duration in weeks to plan the organizational activities with shifts for certain time periods.

Manage rosters view allows to,

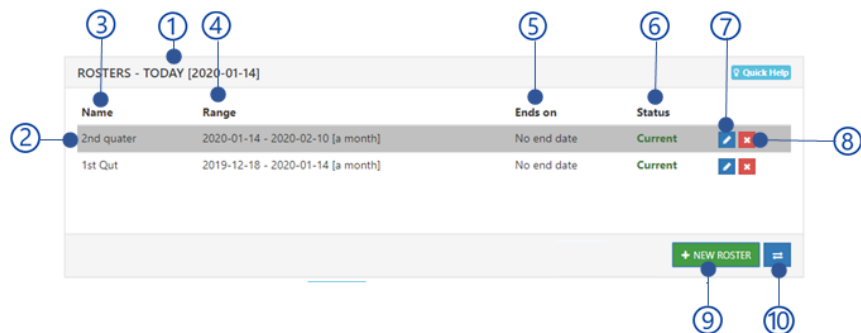


Figure 5.83 Roster management view

1. Current date
2. Selected roster
3. Roster name
4. Roster range
5. Ends on
Roster end date if specified. Otherwise “no end date” will be shown
6. Status
Whether the roster is currently in user or not.
7. **Edit** button
Refer [Add roster](#) section for more details.
8. **Delete** button
Delete selected roster.
9. **New roster** button
Refer [Add roster](#) section for more details.
10. [Import/export rosters](#)

5.12.2.1 Add roster

This view allows to add new roster.

1. Roster name
2. Repetition
How many weeks the roster should span - Default is 1 week. Maximum 4 weeks.
3. Start date of the roster
You may select any day, but the starting day will be Monday of the selected day's week by default.
4. End of repetition
If no end date specified, the roster will iterate infinitely. If you specified the end date, the roster would end on the specified date and thereafter you will not be able to add roster items to it.
5. **Continue** button
Continue button will be disabled if the mandatory fields are disabled or [Validation errors](#) exists. Refer [Table 5.24](#) Error messages for add roster for more details about error messages could be occurred.
6. **Close** button

Figure 5.84 Add roster view

Table 5.24 Error messages for add roster

Error code	Error message
2029	The roster name has already existed.

5.12.2.2 Import/export rosters

5.12.2.2.1 Import rosters

Figure 5.85 Import rosters view

Roster information can be imported as mentioned in [Import and Export information](#) section. Tip import,

1. Select data from the list to import
 1. [Rosters information](#)
 2. [Roster items information](#)
2. Select Start Import button to select the import location

Refer the [Select import location](#) section for more details.

5.12.2.2 Export rosters

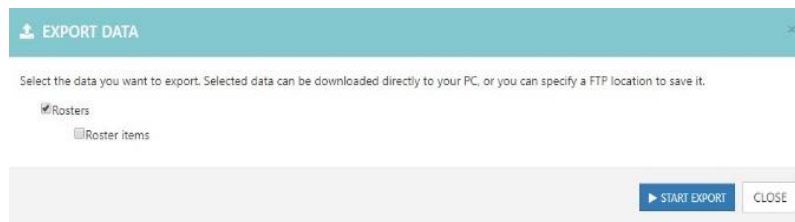


Figure 5.86 Export rosters view

Roster information can be exported as password protected zip file as follows.

1. Select data from the list to export

- [Rosters information](#)
- [Roster items information](#)

2. Select Start Export button to select the export location

Refer the [Import and Export information](#) section for more details

5.12.3 Roster item management view

After configuring rosters and shifts, roster items can be added for specific dates with user/user groups assigning shifts as follows.



Figure 5.87 Shift and roster management roster item management view

1. Weeks
2. Calendar view
3. Roster item
4. [Add menu](#)
5. Filter by Shift
Filter roster items by shift
6. Filter by user/user group
Filter roster items by user/user group
7. **New** button
Add roster item. Refer [Add roster item](#) section for more details

5.12.3.1 Roster item view

Following details and operation are available in the roster item view.

1. Shift name, start time and end time
2. Assigned user/user group list
3. Assigned user/user group
Refer [Add additional staff](#) section for more details
4. Delete user/user group

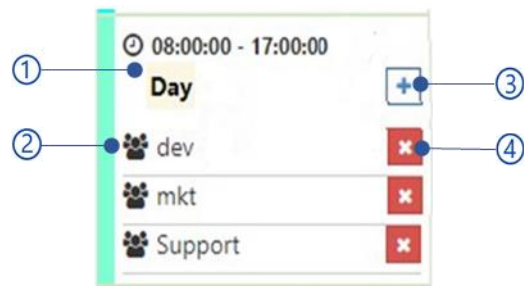


Figure 5.88 Roster item view

5.12.3.2 Add menu

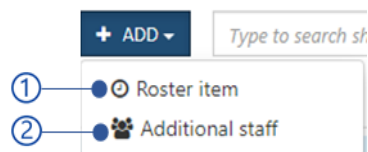


Figure 5.89 Add menu of roster items management view

1. [Add roster item](#)
2. [Add additional staff](#)

5.12.3.3 Add roster item

This view allows to add new roster item to the roster.

1. Date
2. Shift
3. User/user group
1. **Add** button

Add button will be disabled if the mandatory fields are empty or [Validation errors](#) exists. Refer [Table 5.25](#) Error message of add roster item for more details about error messages could be occurred.

4. **Close** button



Figure 5.90 Add roster item view

Table 5.25 Error message of add roster item

Error code	Error message
2033	A roster item already existed on {date} with {shift name} shift and {user group name} user group.

5.12.3.4 Add additional staff

Additional staff view allows to add multiple user/user group for a roster item.

1. Date
2. Shift
3. Select user/user group
4. **Assign** button

Assign button will be disabled if the

mandatory fields are empty or *Validation errors* exists. [Table 5.26](#) Error messages of add additional staff is showing error message could be appeared when add additional staffs.

5. **Close** button

The screenshot shows the 'ASSIGN ADDITIONAL EMPLOYEES' form. It includes a header bar with the title and a 'Quick Help' link. The form has several sections: a 'Date' field (callout 1) with a calendar icon, a 'Shift' field (callout 2) with a search icon, an 'ADDITIONAL EMPLOYEE' section with a message 'No additional employees assigned.' and a search bar, and an 'ASSIGN ADDITIONAL EMPLOYEES' section with a search bar (callout 3). At the bottom, there are 'ASSIGN' (callout 4) and 'CLOSE' (callout 5) buttons. A red asterisk indicates required fields.

Figure 5.91 Add additional staff view

Table 5.26 Error messages of add additional staff

Error code	Error message
2033	A roster item already existed on {date} with {shift name} shift and {user group name} user group.

5.13 Manage Leaves and holidays

Leaves and holiday management of NCheck Bio Attendance web control panel allows to manage all user leaves and holidays. The Leaves and holiday management view as follows.

The screenshot displays the 'Leaves and holidays management view' with the following components:

- Buttons:** 'ADD LEAVE' (1) and 'ADD HOLIDAY' (2) at the top left.
- Tabs:** 'LEAVES' (4) and 'HOLIDAYS' (5) at the top center.
- Table View (6):** A table listing leave entries for Peter Moss and Karl Luis.
- Filters (7):** 'Select user group' (dropdown), 'Select user' (search), and 'Show rejected leaves' (checkbox).
- Date Selection (8):** '2020-07-15 Wednesday' with a 'SELECT TODAY' button.
- Summary View (9):** Details for Peter Moss's leave from 2020-07-14 to 2020-07-15 (2 days), marked as 'Approved'.
- Calendar View (10):** A calendar for July 2020 showing leave days with icons.

Name	Start Date	End Date	No. of .. days	Leave Type	Leave policy ...	Approval ...	Operation
Peter Moss	2020-07-14	2020-07-15	2	CASUAL	-	Approved	EDIT DELETE
Karl Luis	2020-07-13	2020-07-15	3	CASUAL	-	Rejected	EDIT DELETE

Figure 5.92 Leaves and holidays management view

1. [Add leave](#)
2. [Add holiday](#)
3. [Settings of leaves and holidays management](#)
4. [Leaves table view](#)
5. [Holiday table view](#)
6. [Table view of Leaves and holidays](#)
7. [Leave filters view](#)
8. [Selected date view](#)
9. [Summary view of the selected leave](#)
10. [Calendar view](#)

5.13.1 Add leave

This allows to add new leave for the selected employee.

1. Select user
Select the username who need to apply the leave.
2. Start date
Start date of the leave.
3. End date
End date of the leave
4. Leave type
The default leave types are Casual, Medical and Annual. Administrator allows to add custom leave types as mentioned in [Configure leave type](#) section.
5. Leave policy
There are two available leave policies.
 - Normal
This is the default leave policy. No restriction will be applied for the leave.
 - Restricted
Once the leave is approved, user will not able to check-in or check-out while on leave.
6. Request reason
The reason for the leaves.
7. Approve reason
The reason for leave approval.
8. Add button
Add leave
9. Cancel button
Cancel the leave dialogue.

The screenshot shows the 'ADD LEAVE' form with the following fields and callouts:

- 1 Select user ***: A text input field with a search icon and a close button.
- 2 Start date**: A date input field showing '2020-07-09'.
- 3 End date**: A date input field showing '2020-07-09'.
- 4 Leave type**: A dropdown menu showing 'CASUAL'.
- 5 Leave policy**: A dropdown menu showing 'Normal'.
- 6 Request reason ***: A text input field with placeholder text 'Reason for leave'.
- 7 Approve reason ***: A text input field with placeholder text 'Reason for approval'.
- 8**: A blue '+ ADD' button.
- 9**: A grey 'X CANCEL' button.

Additional text in the form includes: 'Required fields are marked in red **', 'You can add new leave types from "Setting icon" > "Configure leave types".', and a status bar at the bottom with 'ADD' and 'CANCEL' buttons.

Figure 5.93 Add leave view

5.13.2 Edit leave

Edit leave is required in following cases.

1. Edit leave details such as leave approved duration, leave type etc.
2. Once a user submits a leave request, the approval status must be changed as approved or rejected. When user submit a leave request administrator will be get notified as below.

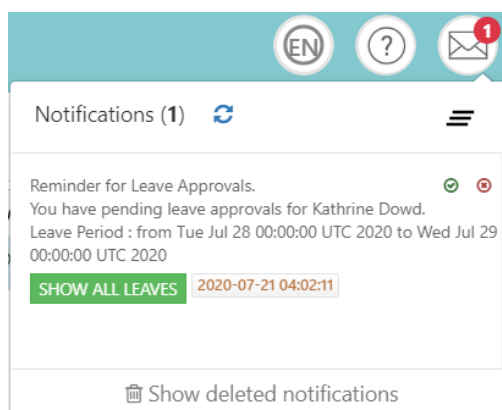


Figure 5.94 User leave request notification

Requested leaves can be edited as follows.

1. **Name**
Name of the user. This field is not editable
2. **Requested**
The leave requested period by user.
3. **Approved**
Approval period of the user leaves by the administrator. When administrator select update button only this period will be approved.
4. **Leave type**
The default leave types are Casual, Medical and Annual. Administrator allows to add custom leave types as mentioned in [Configure leave type](#) section.
5. **Leave policy**
There are two available leave policies.
 - Normal
This is the default leave policy. No restriction will be applied for the leave.
 - Restricted
Once the leave is approved, user will not able to check-in or check-out while on leave.
6. **Requested reason**
The reason for the leave
7. **Approve/reject reason**
Leave approval or rejection reason by the administrator.
8. **Approval status**
Leave approval reason as follows.
 - Requested
Once the user requested a leave, the approval status will be shown as requested.
 - Approved
To approve the leaves requested by users, set the approval status as approved. Once the leaves are approved, the user will be get notified.
 - Rejected
To reject the leaves requested by users, set the approval status as rejected. Once the leaves are rejected, the user will be get notified.
9. **Update button**
Update the changes.
10. **Cancel button**
Cancel the edit dialogue.

Required fields are marked in red **.

1. Name * Kathrine Dowd

2. Requested from 2020-07-01 to 2020-07-03

3. Approved from 2020-07-01 to 2020-07-03

4. Leave type MEDICAL

5. Leave policy Normal

6. Request reason * Medical checkup

7. Approve/Reject reason * Health issues

8. Approval status Approved

9. UPDATE CANCEL 10

Figure 5.95 Edit leave view

5.13.3 Approve leave

The requested leaves by the user can be approved or rejected by the administrator as shown in below.

1. Name
The name of the user
2. Leave days
The period leaves applied
3. Leave type
Leave type as Casual, Medical, Annual or custom leaves as mentioned in [Configure leave type](#) section.
4. Policy
The policy as
 - Normal
 - Restricted
 User are not allowed to check-in or check-out while on leave.
5. Reason
The reason for the leave.
6. Approve/reject comment
Comment for leave approval or rejection
7. Calendar
The calendar view shows periods the leaves are requested.
8. Accept button
Approved the leaves.
9. Decline button
Reject the leaves
10. Edit leave
Edit requested leave as mentioned in [Edit leave](#) section.
11. Cancel button
Cancel the approve leave dialogue.

APPROVE LEAVE?

Required fields are marked in red "**".

1. Name: Kathrine Dowd (Employee code: EY1ESJ)

2. Leave days: 2020-07-28 - 2020-07-29

3. Leave type: CASUAL

4. Policy: Normal

5. Reason: Personal reason

6. Approve/reject comment: Reason for approval or rejection

8. ACCEPT 9. DECLINE

10. Edit leave

11. CANCEL

Calendar: JULY 2020

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
27			01	02	03	04	05
28	06	07	08	09	10	11	12
29	13	14	15	16	17	18	19
30	20	21	22	23	24	25	26
31	27	28	29	30	31		
32							

Figure 5.96 Approve leave view

5.13.4 Add holiday

This allows to add a holiday for the selected date as below.

1. Normal holiday type
2. Recurring holiday type

5.13.4.1 Normal holiday type

The normal holiday type as follows.

1. Holiday type
Holiday type as Normal
2. Date
Holiday date
3. Description
4. Add button
Add holiday
5. Cancel button
Cancel add holiday dialogue

Figure 5.97 Add normal holiday view

5.13.4.2 Recurring holiday type

The recurring holiday can be added as follows.

1. Holiday type
Holiday type as recurring
2. Recurring type
Recurring type as
 - Weekly
Add the holiday for once every week
 - Monthly
Add the holiday for once every month
 - Yearly
Add the holiday for once a specified month in every year. A field will be appeared to select the specified month.

Figure 5.98 Add recurring holiday view

3. Day
Select the date to apply the holiday
4. Start
The start date of the recurring holiday. Select start from option and specify the start date if required.
5. End
The end date of the recurring holiday. Select ends on option and specify the end date if required.
6. Description
7. Add button
Add the recurring holiday.
8. Cancel button
Cancel the add holiday dialogue.

5.13.5 Leaves table view

Leaves table shows all user leaves for the selected leave in calendar view.

Name	Start Date	End Date	No. of days	Leave.Type	Leave policy	Approval...	Operation	
Peter Moss	2020-07-14	2020-07-15	2	CASUAL	-	Approved	EDIT / DELETE	
Karl Luis	2020-07-13	2020-07-15	3	CASUAL	-	Rejected	EDIT / DELETE	

Figure 5.99 Leaves table view

1. Name
2. Start date
Leave start date
3. End date
Leave end date
4. No of day
No of days leave applied
5. Leave type
Leave type as Casual, Medical, Annual or custom leave type as mentioned in [Configure leave type](#) section.
6. Leave policy
Leave policy as
 - Normal
 - Restricted
Users are not allowed to check-in or check-out while on leave.
7. Approval status
Approval status as Requested, Approved or Rejected.
8. Operation
 - Edit leave
Approved or rejected leaves can be edit as mentioned in [Edit leave](#) section. The requested leave can be approved as mentioned in [Approve leave](#) section.
 - Delete leave
Delete the leaves

9. Table options

5.13.6 Holiday table view

Holiday table view shows holidays for selected date in [Calendar view](#).

1. Date
Date of the holiday
2. Description
3. Operation
Delete the holiday
4. [Table options](#)

Date	Description	Operation	
2020-07-24	Company maintenance	DELETE	

Figure 5.100 Holiday table view

5.13.7 Leave filters view

This view allows to filter all leaves for selected date in the calendar view as follows.

1. Select user
Display all leaves for the selected user group
2. Select user
Display all leaves for the selected user
3. Show rejected leaves
Check this option to display the rejected leaves of users.

1. Select user group:

2. Select user:

3. ☒ Show rejected leaves

Figure 5.101 Filter view of leaves

5.13.8 Selected date view

The details of the date are shown as selected leave from the [Leaves table view](#) or holiday from the [Holiday table view](#).

1. Date
The date of the selected date from the [Calendar view](#) or date of the selected leave from the [Leaves table view](#) or date of the selected holiday from the [Holiday table view](#).
2. Day
3. Select today button
Select the current date from the [Calendar view](#)
4. Holiday name
This will appear if a holiday selected from the [Holiday table view](#).

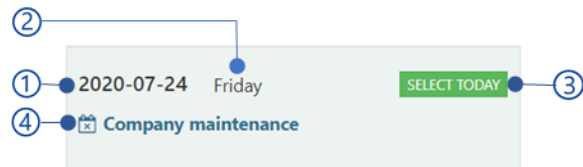


Figure 5.102 Selected date view

5.13.9 Summary view of the selected leave

This view is showing the leave summary of the selected leave from the [Leaves table view](#) as follows.

1. Username
Start and end date of the leave with number of days
2. Leave period
Approval status of the leave
Approval status as Requested, Approved or Rejected.
3. Approval status of the leave
4. Edit button
Approved or rejected leaves can be edit as mentioned in [Edit leave](#) section. The requested leave can be approved as mentioned in [Approve leave](#) section.

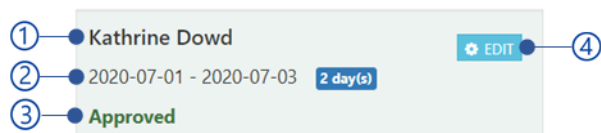


Figure 5.103 Summary view of the selected leave

5.13.10 Calendar view

Calendar view allow user to select the specific date from the selected month and it also represents details of the leaves and holidays across the selected month as showing below.

1. Button to navigate to previous month
2. Button to navigate the next month
3. Selected month
4. Selected date
5. Number of leaves of the day
6. Current date
7. Holiday

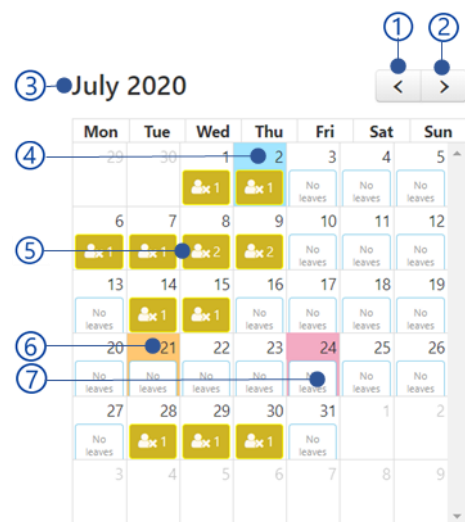


Figure 5.104 Calendar view of the Leaves and holiday management

5.13.11 Settings of leaves and holidays management

1. [Configure leave type](#)

2. [Import data](#)
3. [Export data](#)

5.13.11.1 Configure leave type

Instead of the default leave types (casual, medical, and annual), Administrator allows to add custom leave types as follows.

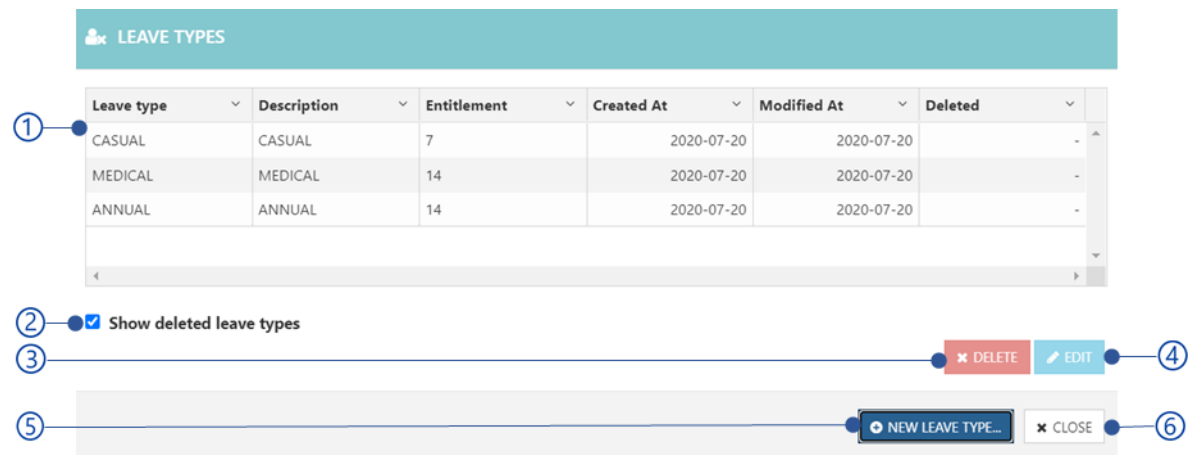


Figure 5.105 Leave type view

- | | |
|---|---|
| 1. Leave type table | 4. Add/edit leave type |
| 2. Show deleted leave type
Check this option to show deleted leave types | 5. New leave type button
Add new leave type. Refer Add/edit leave type section for more details. |
| 3. Delete button
Delete selected leave type from the table. | 6. Close button
Close leave type dialogue |

5.13.11.1.1 Add/edit leave type

Add a new leave type or edit existing leave types follows.

- | | | |
|---|------------------------|---|
| 1. Type name
Name of the leave type. This is not editable when editing the leave type. | ① ● Type name * | <input type="text" value="Leave type"/> |
| 2. Type description | ② ● Type description * | <input type="text" value="Leave type description"/> |
| 3. Entitlement
Number of leaves available for users. | ③ ● Entitlement * | <input type="text" value="1"/> |
| 4. Add button
Add leave. | ④ ● | <input type="button" value="+ ADD"/> |
| 5. Close button
Close Add leave type dialogue. | | <input type="button" value="X CLOSE"/> |

Figure 5.106 Add leave type dialogue view

5.13.11.1.2 Leave type table

① Leave type	② Description	③ Entitlement	④ Created At	⑤ Modified At	⑥ Deleted
CASUAL	CASUAL	7	2020-07-20	2020-07-20	-
MEDICAL	MEDICAL	14	2020-07-20	2020-07-20	-
ANNUAL	ANNUAL	14	2020-07-20	2020-07-20	-

Figure 5.107 Leave type table view

- | | |
|---|--|
| 1. Leave type | 4. Created at |
| 2. Description | Created date of the leave type |
| 3. Entitlement | 5. Modified at |
| Number of available leaves for the leave type | Modified date of the leave type |
| | 6. Deleted |
| | Deleted date of the leave type if deleted. |

5.13.11.2 Import data

This option allows to import leaves and holidays as mentioned in [Import and Export information](#) section. To import data,

1. Select information to be imported from the list

- [Leaves information](#)
- [Holidays information](#)

2. Select Start Import button to select the import location.

Refer [Select import location](#) section for more details.

IMPORT DATA

Import data from external sources. Zip files and csv files are accepted. If your data archive is protected with a password, use "Password protected" option when importing.

☒ Leaves
☒ Holidays

▶ START IMPORT
CLOSE

Figure 5.108 Import leaves and holiday data view

5.13.11.3 Export data

This option allows export all leaves and holidays as password protected zip file as follows

1. Select information to be imported from the list

- [Leaves information](#)
- [Holidays information](#)

2. Select Start export button to select the export location.

Refer [Select export location](#) for more details

EXPORT DATA

Select the data you want to export. Selected data can be downloaded directly to your PC, or you can specify a FTP location to save it.

☒ Leaves
☒ Holidays

▶ START EXPORT
CLOSE

Figure 5.109 Export leaves and holidays data view

5.14 Manage devices

Device management page allows managing all NCheck Bio Attendance client devices and API registered with the NCheck Bio Attendance NCheck Bio Attendance server.

The screenshot displays the 'Manage devices' page. On the left, a table lists registered devices. On the right, a detailed view for the selected device 'HUAWEI JKM-LX2' is shown, including its status, last seen time, and configuration details.

Description	Application	Assigned To
HUAWEI JKM-LX2	NCheck Bio Attendance Standard	All users group
Developer API	Third party API client	All users group
Xiaomi Redmi Note 8	NCheck Bio Attendance Lite	Group - Dev

Device Details: HUAWEI JKM-LX2

- Status: Unlocked
- Last Seen: 5 DAYS AGO
- Operating system: Android
- OS version: 28
- Device configuration: Identification / Any Event

PERIPHERALS

Name	Type	Status	Connection status...
RFID		✓ Enabled	Disconnected
Password		✓ Enabled	Connected
Iris		✓ Enabled	Disconnected
Finger		✓ Enabled	Disconnected
Employee ID		✓ Enabled	Connected

Figure 5.110 Device management view of web control panel

1. [Devices/APIs list view](#)
2. [Devices/APIs details view](#)
3. Search device by name
4. Generate API access

Refer [Generate API access credentials](#) section for more details

5.14.1 Devices/APIs list view

Description	Application	Assigned To
API	Third party API client	All users group
HMD Global Nokia 4.2	NCheck Bio Attendance Standard,	Group - Dev
HUAWEI JKM-LX2	NCheck Bio Attendance Standard,	User - Kathrine
DESKTOP-JN2TCPS	NCheck Bio Attendance Standard,	All users group
HUAWEI F10-LX1	NCheck Bio Attendance Standard,	Group - mkt

Figure 5.111 Devices/APIs table view

1. [Table header](#)
2. Selected device/API
Details of the selected device/API are shown in [Devices/APIs details view](#).
3. [Table paging options](#)

5.14.2 Devices/APIs details view

This view represents the selected device/API details.

1. [Device/API quick view](#)
2. [Peripherals view](#)

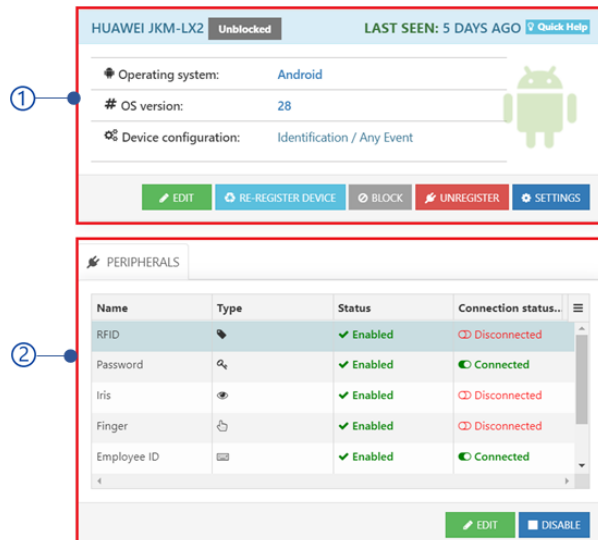


Figure 5.112 Device/API details view

5.14.3 Device/API quick view

This view shows available details and operations for the selected device/API.



Figure 5.113 device quick view

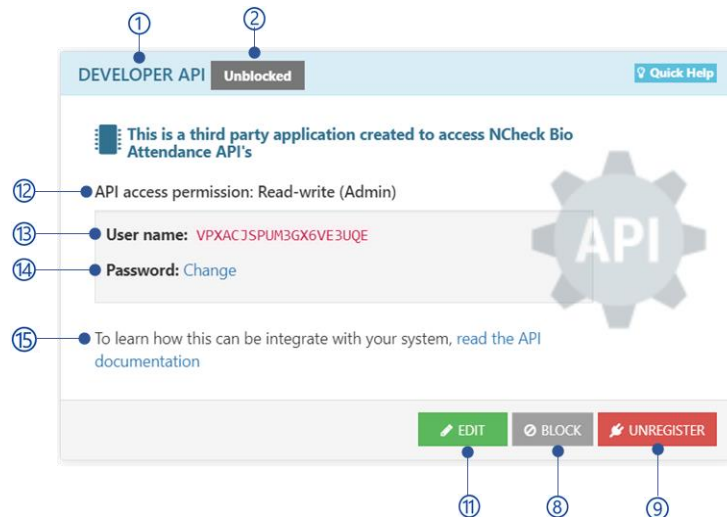


Figure 5.114 API quick view

1. Selected device/API description
2. Device/API block/unblock state
3. Last seen
Last seen date of the client application
4. Logo of the OS
5. Operating system
Operating system of the device, client application has installed.
6. **Edit** button
Refer [Edit device](#) section for more details.
7. **Re-register** button
Re-register device for user/user group. Refer [Re-register device](#) section for more details.
8. **Block/unblock** button
Refer [Block/unblock device/API](#) section for more details.
9. **Unregister** device
Refer [Unregister device](#) section for more details.
10. **Device settings** button
Refer [Device settings](#) section for more details.
11. Edit button
Refer [Edit API](#) section for more details
12. API access permission
 - Read-only
Read-only permissions to execute the GET APIs
 - Read-Write
Read-writer permission to execute all available APIs
13. Username for API access credential
14. Change the password of API access credentials
15. Link to open NCheck Bio Attendance API documentation.
16. OS version
version of the operating system
17. Device configuration
The device configuration as mentioned in section

5.14.3.1 Edit device

This view allows the edit the device details.

1. Device code
2. Device code
3. Device description
4. Device configuration
Refer [Device configuration](#) section for more details
5. **Save** button
Save button will be disabled if the mandatory fields are empty or [Validation errors](#) exists.
6. **Cancel** button

Figure 5.115 Device management edit device view

5.14.3.1.1 Device configuration

Device configuration view as follows.

1. [Authentication mode](#)
2. [Verification order](#)
3. [External executables](#)
4. Events
Event type as check-in, check-out, and any events.
5. Reset configuration

Figure 5.116 Device configuration view

5.14.3.1.2 Authentication mode

Authentication mode can be applied to authenticate user to identify or verify user. Available authentication modes are,

1. Identification

The identification is the default authentication mode. Identification is performed on biometric and user id data as mentioned below.

1. Biometric

User biometric data such as face, fingerprint and iris are comparing against the database with previously collected biometric samples depending on the [Recognition threshold](#). If the matching score is greater than the [Recognition threshold](#) value, user is considered as identified. Therefore, this mode may demand large processing time.

2. User id data

User id data such as user id, barcode and QR code are comparing against the database and giving the matching users.

2. Verification

The verification mode can be applied with a user id peripheral and a biometric peripheral to verify the user against the previously collected biometric sample. To get verified, matching score should be greater than [Verification threshold](#).



Figure 5.117 Device management verification mode combination

3. None

Attendances are not recording when the authentication mode is none.

5.14.3.1.3 Verification order

As mentioned in [Authentication mode](#) section, if the verification mode is selected, the verification order can be set as either the “id first” to enter the user id(employee code, barcode, RFID) first or the “Biometric first” to capture the biometric first.

5.14.3.1.4 External executables

System can be configured to run external programs (either from external executable or API) during user identification. For an example, an automatic door opening program can be executed upon successful user identification.

This view allows to add new external executable or edit existing external executable.

1. Add new external executable

2. Name

Unique name for the external executable.

3. Executable path

API URL or absolute path for the external executable

4. Trigger on

Trigger the external executable on,

- Check-ins
- Check-outs
- Any events
- Unidentified events

5. Parameters

Following parameters with values can be passed to the URL or executable.

- Event (EVENT)
Event type as CHECKIN, CHECKOUT or UNIDENTIFIED.
- Sequence id (SEQUENCE_ID)
Id of the event.
- Time stamp (TIMESTAMP)
Date and time of the event.
- User reference (USER_REF)
Employee code of the user.
- Username (USER_NAME)
First name and last name of the user event recorded.

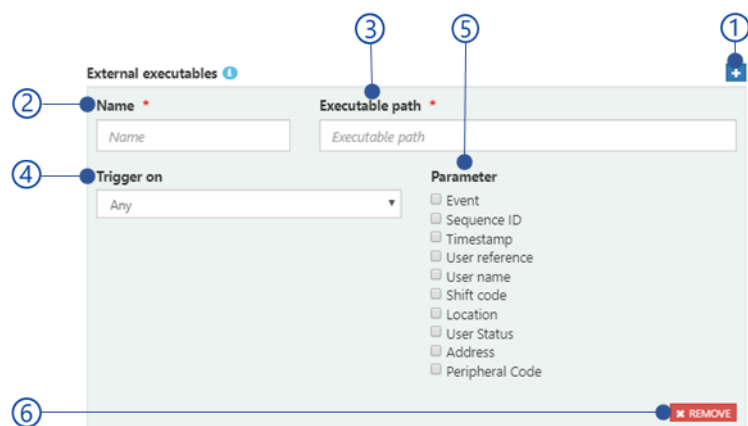


Figure 5.118 Device management add/edit external executable

- Shift code (SHIFT_CODE)
Shift code of the NCheck Bio Attendance Standard clients. In the standalone mode shift code is DEFAULT.
- Location (LOCATION)
Longitude and latitude of the event geo location. example: {Longitude, latitude}
- User status (USER STATUS)
User is blocked or not. Pass 0 if the user has blocked otherwise 1.
- Address (ADDRESS)
Address of the user.
- Peripheral code (PERIPHERAL_CODE)
Unique identified number of the peripheral.

6. **Remove** button

Remove external executable.

5.14.3.2 Edit API

This view allows to edit the API details.

1. API code
2. Description
3. Password
4. API access permission

5. **Save** button
Save button will be disabled if the mandatory fields are empty or *Validation errors* exists.
6. **Close** button

Figure 5.119 Device management edit API view

5.14.3.3 Re-register device

This view allows to re-register the selected device.

1. Device code
Employee/username or group name
2. **Generate** button
To generate registration code. Generate button will be disabled if the employee/group code has not selected.
3. Registration code and QR code
Use this code to register the NCheck Bio Attendance client device.
4. **Close** button

Figure 5.120 Device management re-register device view

5.14.3.4 Block/unblock device/API

Block/unblock selected device/API from the list. If the device/API has blocked

1. User could not be able to enroll biometrics or record attendances from the blocked devices.
2. User could not be able use APIs

5.14.3.5 Unregister device

Unregister the selected device/API from the list. Unregister devices should reregister to record attendances.

5.14.3.6 Device settings

This view allows to add client or biometric settings to the selected device from the device list.

1. [Client settings](#)
2. [Biometric settings](#)

5.14.3.6.1 Client settings

Client settings can be applied for the Lite/Standard client as below

Table 5.27 Client settings for selected device

Client setting	Lite client	Standard client
Result dialogue timeout	✓	✓
Enable licensing	✓	✗
Show work time on clients	✓	✓
Allow automatic peripheral enabling of new clients	✓	✓
Offline operation mode	✓	✗
Manual capture start	✓	✓
Automatically synchronize offline data	✓	✗
Offline data synchronize interval	✓	✗
Reset offline client password	✓	✗
Allow predefined location	✓	✓
Self-enroll templates	✗	✓
Hat detection feature	✓	✗
Hat detection threshold	✓	✗
Use in-built biometric verification on personal clients	✗	✓
Mask detection	✓	✗
Mask detection threshold	✓	✗

5.14.3.6.2 Biometric settings

Biometric settings for the selected device.

Table 5.28 Biometric settings for Lite/Standard client

Client setting	Lite client	Standard client
<i>Face liveness mode</i> for client application	✓	✗
<i>Face liveness threshold</i> for client application	✓	✗
<i>Allow without biometrics</i>	✗	✓
<i>Manual face selection</i>	✗	✓

5.14.4 Peripherals view

Peripheral view shows all available peripheral of the selected device.

1. [Peripheral table](#)
2. [Peripheral quick view](#)
3. Edit button
To Edit selected peripheral. Read [Edit peripheral](#) section for more details.
4. Disable button
Enable/disable selected peripheral.

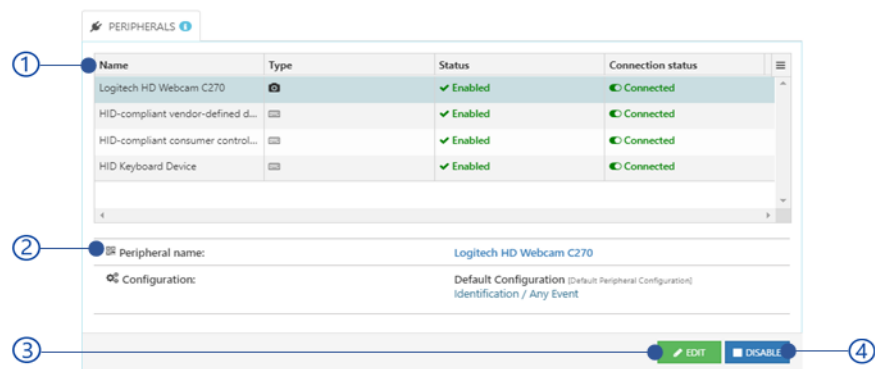


Figure 5.121 Device management manage peripheral view

5.14.4.1 Peripheral table

Peripheral table represents all detail of the available peripherals.

1. [Table header](#)
2. Name
Peripheral name
3. Type
 - Face
 - Fingerprint
 - Iris
 - User id
 - Barcode
 - RFID
4. Status
Enable/disable status of the peripheral.
5. Connection status

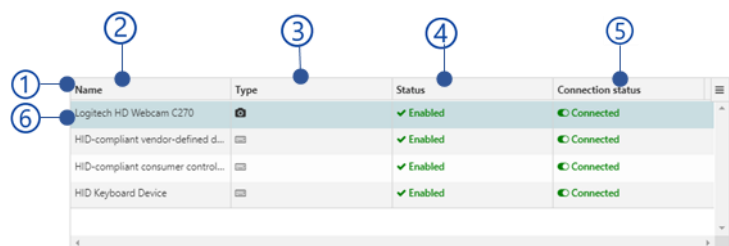


Figure 5.122 Peripheral table view

- Connected
When the peripheral is available with the device.
 - Disconnected
When the peripheral is not available with the device.
6. Table peripheral
Selected peripheral details are shown in [Peripheral quick view](#).

5.14.4.2 Peripheral quick view

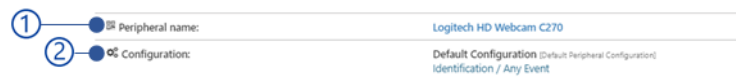


Figure 5.123 Peripheral quick view

1. Peripheral name
2. Peripheral configuration
The peripheral configuration applied to the peripheral.

5.14.4.3 Edit peripheral

Edit peripheral view allows to edit peripheral details.

1. Peripheral code
2. Name.
3. **Save** button
Save button will be disabled if the mandatory fields are empty.
4. **Close** button

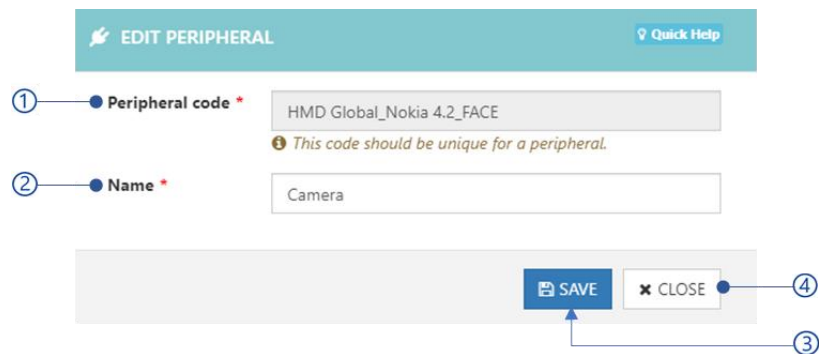


Figure 5.124 Edit peripheral view

5.14.5 Generate API access credinitals

NCheck Bio Attendance server has given the API access to access user, biometric, event data across given user group to use in third party applications.

1. Selected user group
The default is **All user group**
2. Description
3. API access
Assign permission to use API

- Read only (Auditor)
Assigned user group allows only to retrieve data from the API.
- Read-Writer (Admin)
Assigned user group has permission to retrieve and alter data.

4. **Create** button
Create button will be enabled if the API description has added. After create API, user name and password which is required for API access will appear as shown in [Figure 5.127](#) API access credentials view. For more details refer API Documentation section.

Figure 5.126 Device management API credentials view

Figure 5.125 Device management API credentials view

Figure 5.127 API access credentials view

The error messages could be appeared when creating API are showing below.

Table 5.29 Error messages of API credentials creation

Error code	Error message
2036	Peripheral configuration name has already existed.

5.15 Manage Event logs

Event logs can administrator to add, edit, delete and review all event logs recorded.

The screenshot shows the 'EVENTS' management interface. On the left, a sidebar contains several controls: a top bar with 'REFRESH DATA' (1), 'RE-EVALUATE' (2), and 'Quick Map' (5); a section with 'ADD' (3) and 'ADD FROM UNIDENTIFIED' buttons; a filter section with 'Select shift' (Default Shift), 'Select user group' (All user groups), and 'Select user' (Type to search user); a 'Show only error events' checkbox; a 'Group events' section with 'Event time' and 'Shift start time' radio buttons; a date selector for '2021-03-15 Monday' with a 'SELECT TODAY' button; a user selection section for 'Kathrine Dowd' at '12:07:17' with 'EDIT' and 'DELETE' buttons; and a calendar view for 'March 2021'. The main content area on the right displays a table of event logs with columns: Name, ID, Shift Name, Direction and Status, Time, Time Zone, Location, and Address. The table lists three events for Kathrine Dowd, showing 'IN' and 'OUT' statuses with corresponding times and locations. A 'Quick Map' button is also present in the top right of the sidebar.

Figure 5.128 Event log management view

1. Refresh data
2. **Re-evaluate** button
Evaluate all the event logs to fix events with missing check-ins/check-outs.
3. Add button
Add new event log. Refer [Add event log](#) section for more details
4. **Add from unidentified** button
5. [Import/export event logs](#)
6. [Event log detail view](#)

5.15.1 Add event log

This view allows to add new event log.

- 1. Username
- 2. Status
- 3. Check-in or Check-out
- 4. Selected date
- 5. Selected time
- 6. Time zone
- 7. Shift
- 8. Shift date
- 9. When an employee Check-in or Check-out not in the same date as the event date, (E.g. Working overtime or Shift spans for two days) shift date should be specified. Otherwise the event will belong to current day's shift.

ADD EVENT

1

User name *

2

Status

Check-in

3

Select Date

4

Select time

5

Time zone

+ 05:30

Timezone offset is 5.5 hours from UTC.

6

Shift

Default Shift

7

Shift date

☐ Use a different shift date

8

Location

Latitude

Longitude

Latitude, Longitude

9

Description

Description

10

+ ADD EVENT

✕ CLOSE

11

Figure 5.129 Add event log view

8. **Location**
The coordinates(Latitude and longitude)of the event location.
9. **Description**
10. **Add event** button
Add event button will be disabled if the user of the event has not been selected. [Table 5.30](#) Error messages of add event logs is showing the error messages could be appeared when add events.
11. **Close** button

Table 5.30 Error messages of add event logs

Error Code	Error message
2037	Could not record events. The device has been blocked
2042	Could not record events. The user has been blocked.
2043	Could not record event. Check-in time has restricted.
2044	Could not record event. Check-out time has restricted.

5.15.2 Add from unidentified

The events failed to identify users are called unidentified events. This feature allows to add events from unidentified events.

1. Date filter

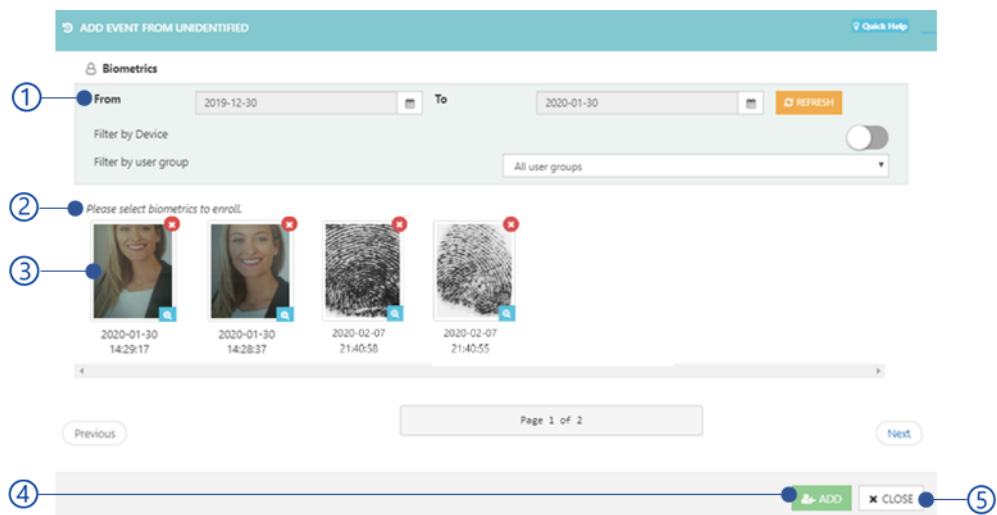


Figure 5.130 Add event from unidentified event view

2. Unidentified event list
3. [Unidentified event quick view](#)
4. **Add** button
Add button will be disabled if no biometric image will be selected from the list. [Add event log](#) view will be shown to give details of user after select the add button.
5. **Close** button

5.15.2.1 Unidentified event quick view

Biometric thumbnail image with the event timestamp are showing as follows.

1. Modality thumbnail
2. Delete unidentified event button
3. Unidentified event details button
Show *Unidentified event details view*
4. Event date and time

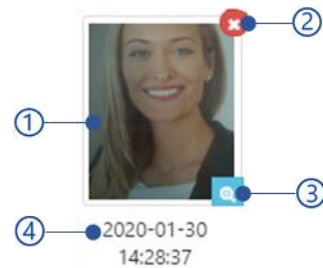


Figure 5.131 quick view of the unidentified event

5.15.2.2 Unidentified event details view

The detail view of the unidentified events.

1. The date and time of the event
2. Modality thumbnail
3. Modality type
 - Face
 - Fingerprint
 - iris
4. Event date and time
5. **Close** button

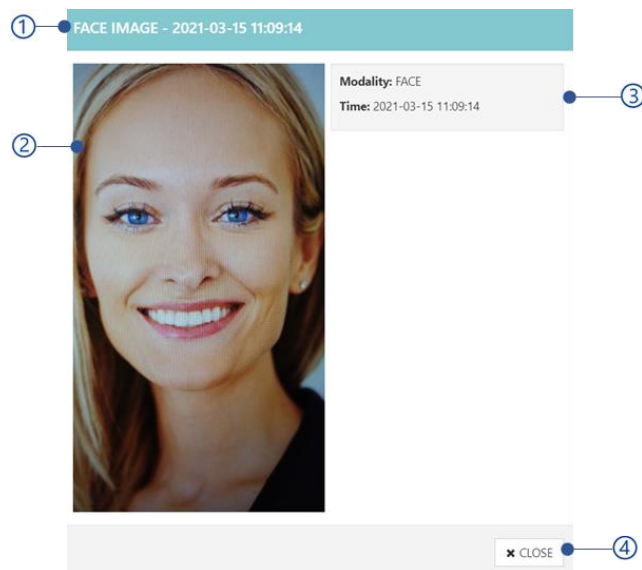


Figure 5.132 Unidentified event details view

5.15.3 Event log detail view

1. *Event/map view*
2. *Overtime view*
3. *Event image view*

5.15.4 Event/map view

Event view show all user event for the selected date.

① Select shift: All shifts
Select user group: All user groups
Select user: Type to search user
Show only error events
Group events: Event time, Shift start time

② 2020-01-30 Thursday
Day start time: 00:00:00 [Check time]

③ Kathrine Dowd 11:52:48
26 A Alwis Pl, Colombo, Sri Lanka

④ July 2019

⑤

Name	ID	Shift Name	Direction and Status	Time	Time Zone	Location	Address
Kathrine Dowd	ZwHgDv	Default	IN	11:52:48	+05:30	(6.91434, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	OUT	11:58:39	+05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	IN	11:58:43	+05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	OUT	11:58:48	+05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	IN	11:58:52	+05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	OUT	11:59:23	+05:30	(6.91435, 79.85355)	26 A Alwis Pl, Colombo, Sri Lanka
Kathrine Dowd	ZwHgDv	Default	IN (Checked In)	12:28:25	+05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka

Figure 5.133 Events view

① Select shift: All shifts
Select user group: All user groups
Select user: Type to search user
Show only error events
Group events: Event time, Shift start time

② 2020-01-30 Thursday
Day start time: 00:00:00 [Check time]

③ Kathrine Dowd 11:52:48
26 A Alwis Pl, Colombo, Sri Lanka

④ July 2019

⑥

Figure 5.134 Map view

1. Event filters view
2. Selected date view

3. [Selected event quick view](#)
4. [Event calendar view](#)
5. [Events table](#)
6. [Map view](#)

5.15.4.1 Event filters view

All events can be filtered as follows,

1. Select shifts
Filter events by shifts. Default shift is **All shifts**.
2. Select user groups
Filter events by user group. Default user group is **All user group**.
3. Select user
Filter events by selected user.
4. Show only error events
Filter check-ins without check-outs and check-outs without check-ins.
5. Group events
 - Event time: Events will be displayed according to the check-in/checkout time in the day.
 - Shift time: Events will be displayed based on the shift start time and shift end time.

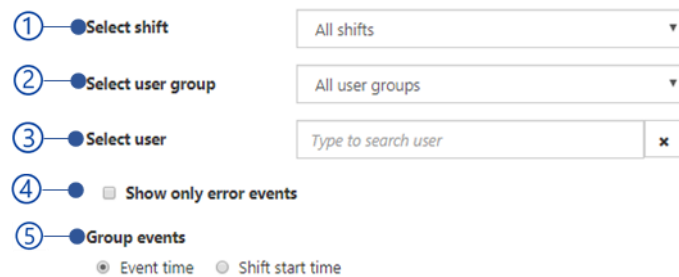


Figure 5.135 Event filters view of event/map view

5.15.4.2 Selected date view

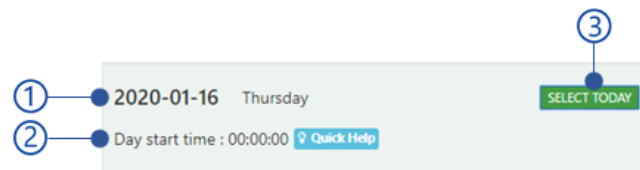


Figure 5.136 Selected date view of event/map view

1. Selected date
2. [Day start time](#)
3. **Select today** button
Select this button to select the current date from the calendar view.

5.15.4.3 Selected event quick view



Figure 5.137 Event log management selected event quick view

1. Event type

2. Username
3. Event time
4. Event location
5. **Edit** button
Refer [Edit event](#) section for more details.
6. **Delete** button

5.15.4.4 Event calendar view

Event calendar is representing following details.

1. Selected month
2. No. of missing check-outs
3. Events recorded with correct check-ins and check-outs sequence.
4. No. of missing check-ins
5. Current date
6. Calendar month navigation buttons

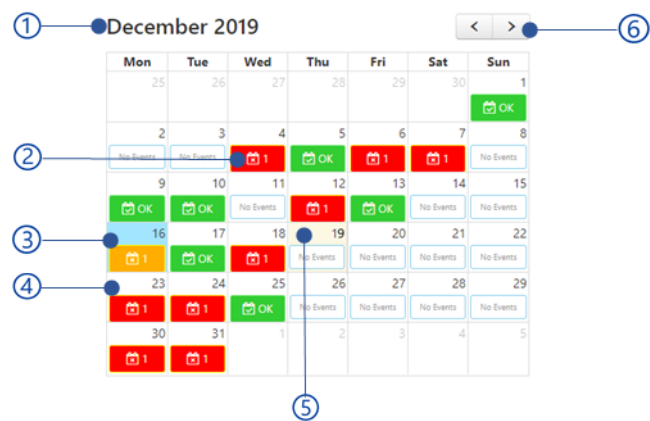


Figure 5.138 Calendar view of event/map view

5.15.4.5 Events table

1	2	3	4	5	6	7	8	9
Name	ID	Shift Name	Direction and Status	Time	Time Zone	Location	Address	
10 Karl Mark	Qju795	Day	IN	08:00:00	+ 05:30	Not available	Not available	
Jhon Stuert	08cz3o	Day	IN	08:00:00	+ 05:30	Not available	Not available	
Kathrine Dowd	ZwHjDv	Default	IN	08:00:00	+ 05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka	
Peter Nikson	1go4dp	Day	IN	08:30:00	+ 05:30	Not available	Not available	
Kathrine Dowd	ZwHjDv	Default	OUT	11:29:47	+ 05:30	(6.91436, 79.85354)	26 A Alwis Pl, Colombo, Sri Lanka	
Kathrine Dowd	ZwHjDv	Default	IN	11:29:57	+ 05:30	(6.91431, 79.85354)	26b Alwis Pl, Colombo 00300, Sri Lanka	
Karl Mark	Qju795	Day	OUT	17:00:00	+ 05:30	Not available	Not available	
Jhon Stuert	08cz3o	Day	OUT	17:00:00	+ 05:30	Not available	Not available	
Kathrine Dowd	ZwHjDv	Default	OUT	17:30:00	+ 05:30	(6.91431, 79.85355)	26b Alwis Pl, Colombo 00300, Sri Lanka	
Peter Nikson	1go4dp	Day	OUT	17:30:00	+ 05:30	Not available	Not available	

Figure 5.139 Event table view

1. *Table header*
2. Name
3. User ID
4. Shift name
5. Direction and status
Event type as check-in or check-out
6. Event time

7. Event time zone
8. Location
Longitude and latitude coordinates of the event location.
9. Address
Address of the event location
10. Selected event log
To edit event, double click on event log row. Refer [Edit event](#) for more details.
11. [Table paging options](#)

5.15.4.6 Edit event

EDIT EVENT

Kathrine Dowd

1. User name

2. Status

3. Select Date

4. Select time

5. Time zone

6. Shift

7. Shift date

8. Location

9. Show Location

10. Description

11. Authentication

13. SAVE CHANGES

14. CLOSE

Figure 5.140 Event log management edit event

1. name
2. Status
3. Event date
4. Event time
5. Event time zone
6. Shift
7. Shift date
8. Event location
9. **Show location** button
Show the event location on the google map.
10. Description
14. **Close** button
11. Authentication
Authentication as face, fingerprint, iris, barcode, RFID, or user id
12. Event record type
 - Event recorded by admin
Event added by admin
 - Online recorded event
Event recorded from NCheck Bio Attendance client application.
13. **Save changes** button
Following errors could be occurred when save changes of event logs.

Table 5.31 Error messages of edit device

Error Code	Error message
2037	Could not record events. The device has been blocked
2042	Could not record events. The user has been blocked.
2043	Could not record event. Check-in time has restricted.
2044	Could not record event. Check-out time has restricted.

5.15.4.7 Map view

The event map is showing the location of user's recent event for the selected date. All checkout events are shown in red color and check-in events are shown in green color. Selected event will be shown in yellow color.

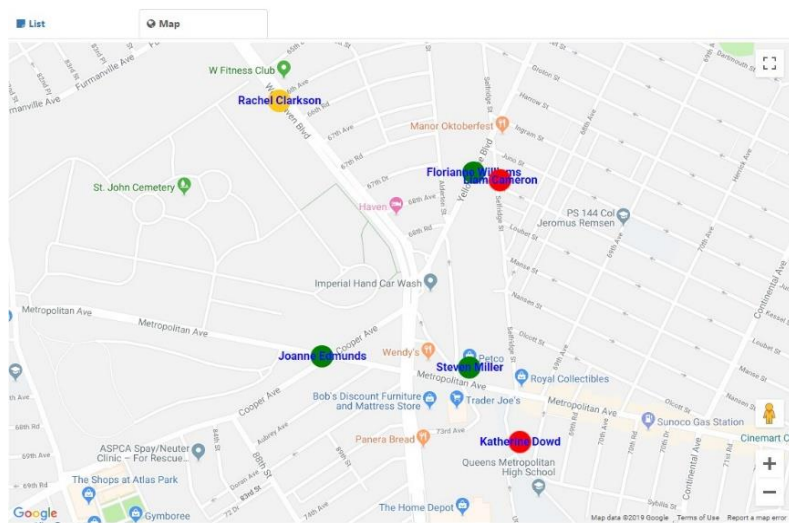
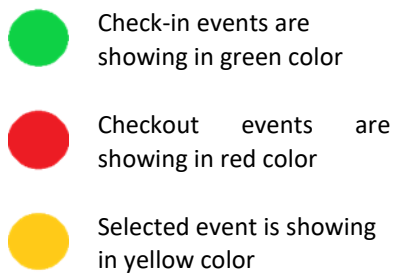


Figure 5.141 Event log management Map view

The map view can be configured as follows

1. The event log map can be configured using following map services
 - I. *Google map*
 - II. *Baidu map*
2. After obtain a map key, go to Settings > Web and select map provide from *Event log location map provider* setting and set the obtained API key for *Map API key* setting.

5.15.4.7.1 Google map

To configure google maps obtain a google map API key as mentioned [here](#).

If you can see “For development purposes only” water mark on the event log map once you have configured with Google map, you have to make sure that.

1. Billing has not been enabled on your account.
2. The provided billing method is invalid (for example an expired credit card).

3. API access daily limit has been reached

To remove the watermark, you need to log in to Google cloud services console (https://console.cloud.google.com/project/_/billing/enable) and check the status of particular project created for Map API access.

If the API key is correctly provided, you should see Google maps loaded properly. If it's still showing some error on top as follows, you need to check whether the API key is correct.

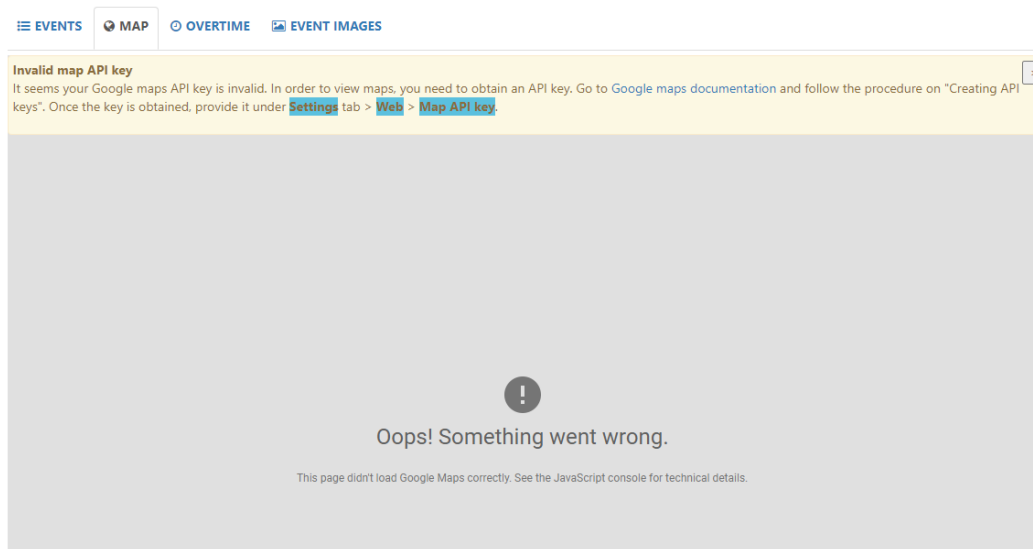


Figure 5.142 Eventlog map view for invalid google map API key

5.15.4.7.2 Baidu map

To configure Baidu map, obtain API key as follows,

1. Create an account at <https://passport.baidu.com/v2/?login>
2. Set up an developer account at <http://developer.baidu.com/user/reg>.
3. Go to <http://lbsyun.baidu.com/apiconsole/key>
4. Click the "I agree button"
5. Choose "Browser" as the application type

5.15.5 Overtime view

Figure 5.143 Overtime view

1. [Overtime filter view](#)
2. [User overtime quick view](#)
3. [Overtime calendar view](#)
4. [Overtime table](#)

5.15.5.1 Overtime filter view

Overtime filter view shows following filters

1. Select shifts
Filter events by shifts. Default shift is **All shifts**.
2. Select user groups
Filter events by user group. Default user group is **All user group**.
3. Select user
Filter events by selected user.

Figure 5.144 Filter view of the Overtime view

5.15.5.2 User overtime quick view

Overtime quick view shows following details.

1. Username
2. [Max overtime status](#)
3. Overtime hours
4. **Edit** button

Figure 5.145 User overtime quick view

5.15.5.3 Overtime calendar view

Overtime calendar shows following information for each day.

1. Selected month
2. Number of overtime entries submitted to approval or rejection
3. Calendar month navigation

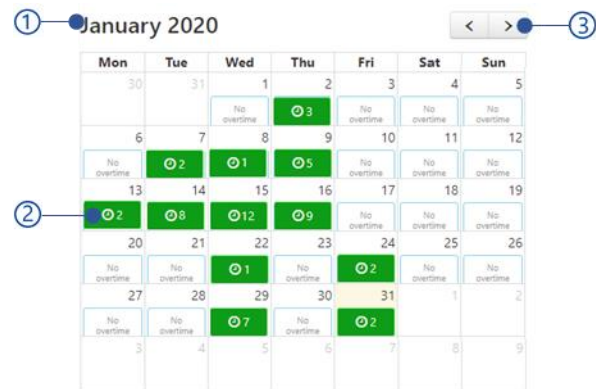


Figure 5.146 Overtime calendar view

5.15.5.4 Overtime table

1	2	3	4	5	6	7	8
Name	ID	First Checked-in	Last Checked-out	Max OT status	Overtime Work Hours...	Max OT	
9 Kathrine Dowd	dwlfive	2020-01-31 07:57:57	2020-01-31 20:23:12	None	3:00:00	8:00:00	
Peter Nikson	wefewr	2020-01-31 07:43:21	2020-01-31 19:12:20	None	3:00:00	8:00:00	

10 < 1 / 1 > 100 items per page 1 - 2 of 2 items

Figure 5.147 Overtime table view

1. [Table header](#)
2. Username
3. employee code
4. First checked-in date and time
5. Last checked-out date and time
6. [Max overtime status](#)
7. Number of overtime work hours user has worked
8. Number of Max OT hours allowed for the shift
9. Selected overtime
Selected overtime details are shown in [User overtime quick view](#)
10. [Table paging options](#)

5.15.5.5 Edit overtime

This view allows to edit overt time details.

1. Username
Username cannot be adapted.
2. Check-in date
Check-in date cannot be adapted.
3. Overtime hours
Number of overtime hours user has worked.
This entry cannot be updated.
4. Max OT
Number of maximum overtime hours allocated for user.
5. *Max overtime status*
6. Shift
Shift cannot be updated
7. **Save changes** button
Save changes button will be disabled if the Validation errors exists. [Table 5.32](#) Error message of edit overtime shows all error messages.
8. **Cancel** button

The screenshot shows the 'EDIT OVERTIME' form. At the top, a teal header bar contains a pencil icon and the text 'EDIT OVERTIME'. Below the header, a red note states 'Required fields are marked in red **'. The form fields are as follows:

- 1. Name:** A text input field containing 'Kathrine Dowd'. Below it, 'Employee Code: dwfwe' is displayed.
- 2. Check-in date:** A date picker field showing '2020-01-31'.
- 3. Overtime:** A time input field showing '03:00:00'.
- 4. Max OT:** A time input field showing '08:00:00'.
- 5. Max OT status:** A dropdown menu currently set to 'None'.
- 6. Shift:** A dropdown menu currently set to 'Day'.
- 7. SAVE CHANGES:** A blue button with a checkmark icon.
- 8. CANCEL:** A button with an 'x' icon.

Figure 5.148 Edit overtime view

Table 5.32 Error message of edit overtime

Error code	Error message
3010	Could not record overtime. Overtime should not be greater than the max overtime hours.

5.15.5.6 Max overtime status

1. None
Once user completed the events for the day, approval status will be none if the overtime hours exist. Administrator will mark the overtime as approved or rejected.
2. Approved
Accepted overtime by administrator.
3. Rejected
The rejected overtime by administrator.

5.15.6 Event image view

Event image view is showing all event images for the selected date in [Event calendar view](#).

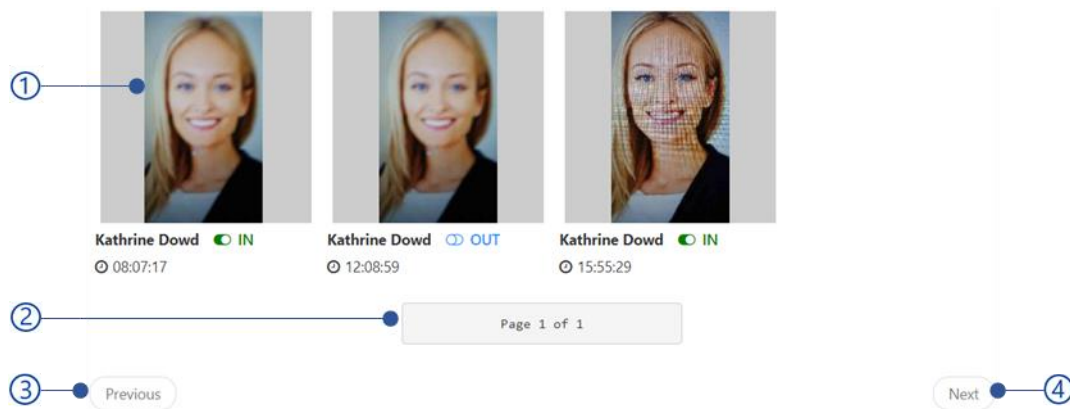


Figure 5.149 Event image view

1. Event image thumbnail
Select the thumbnail to edit event as mentioned in [Edit event](#) section.
2. Current page of available page
3. Previous button to navigate previous page
4. Next button to navigate next page

5.15.7 Import/export event logs

5.15.7.1 Import event logs

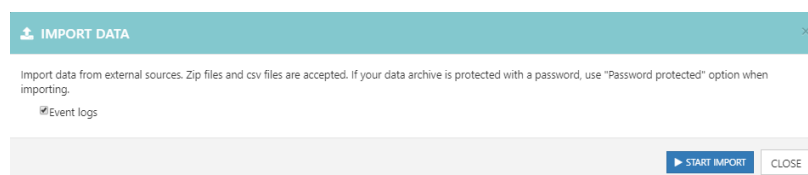


Figure 5.150 Import event logs view

Import event logs information can be imported as mentioned in [Import and Export information](#) section. To import event logs,

1. Select event logs
2. Select **Start import** button
Select Start import button to select event logs file. Refer [Select import location](#) for more details.

5.15.7.2 Export event logs

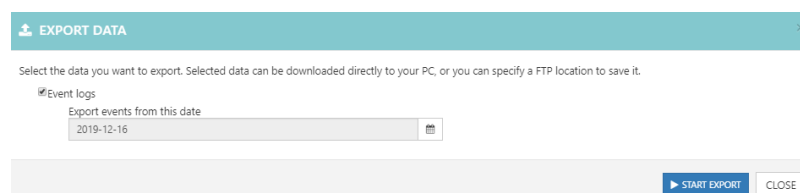


Figure 5.151 Export event logs view

Event log details can be exported as password protected zip file as below.

1. Export event log information for selected date.
2. **Start export** button
3. Select start export button to select the event log export location.
Refer [Select export location](#) for more details.

5.16 Reports

Report page provides a set of standard reports on employee time attendance. Report view as follows,

The screenshot shows the 'Report view' of the Web control panel. It features a top navigation bar with six report types: Total work hours report (1), Work hour summary report (2), Productivity report (6), User details report (7), Event details report (8), and Arrival and Departure report (3). Below this is a settings section with 'Sum by' (radio buttons for Daily, Weekly, Monthly, Custom), 'Start date' and 'End date' (calendars), and 'Show time' (radio buttons for Hours and minutes, Hours). To the right are buttons for 'EXPORT' (4), 'SCHEDULE' (5), and 'VIEW SCHEDULES'. Below the settings is a 'FILTER BY' section with 'Shift' (dropdown), 'User group' (dropdown), and 'User name' (search input). The main area is a table with columns: From, To, First Name, Last Name, Employee Code, Productive Work Hours, and Overtime Work Hours. A modal dialog in the center says 'Report parameters changed.' with a 'RELOAD' button. The bottom of the page shows pagination controls and '1 - 5 of 5 items'.

Figure 5.152 Report view of Web control panel

1. [Report types](#)
2. [Report settings](#)

3. Export menu
Refer [Export report data](#) section for more details.
4. Schedule menu
Refer [Schedule reports](#) section for more details.
5. [View schedules](#)
6. [Report filters](#)
7. Report area
8. Reload page

5.16.1 Report types

The available reports are,

- | | |
|---|---|
| 1. Total work hour report | 4. User detail report |
| 2. Work hour summary report | 5. Event details |
| 3. Productivity report | 6. Arrival and Departure report |

5.16.1.1 Total work hour report

The Total work hours report provides work hours details for a selected date range. That details can be calculated by daily, weekly, monthly basis. The important parameters are

- | | |
|--|---|
| 1. From
Date range start | 7. Overtime hours |
| 2. To
Date range end | 8. First check-in |
| 3. First name | 9. Last check-out |
| 4. Last name | 10. In-out hours |
| 5. Employee code | 11. Productive hours (HP) |
| 6. Productive work hours (HPS) | 12. Shift work hours (HS) |
| | 13. Work hours |

5.16.1.2 Work hour summary report

This report provides the details as follows for users/employees.

- | | |
|-----------------------------------|--|
| 1. Name | 5. Shift hours |
| 2. Employee code | 6. Shift work hours (HS) |
| 3. Work hours | 7. Productive hours (HP) |
| 4. Overtime hours | 8. Productive work hours (HPS) |

5.16.1.3 Productivity report

Productivity report is generated for a selected time period with user/employee productivity parameters as follows.

- | | |
|---------------|------------------|
| 1. First name | 3. Employee code |
| 2. Last name | |

- | | |
|-----------------------------|----------------------------------|
| 4. From
Date range start | 9. <i>Late arrival</i> |
| 5. To
Date range end | 10. <i>Late departure</i> |
| 6. <i>First check-in</i> | 11. <i>Early arrival</i> |
| 7. <i>Last check-out</i> | 12. <i>Early departure</i> |
| 8. <i>Work hours</i> | 13. <i>Overtime hours</i> |
| | 14. <i>Productive hours (HP)</i> |
| | 15. <i>Unproductive hours</i> |

5.16.1.4 User detail report

The user details report provides a list of user's information. The available details are

- | | |
|---|---------------------|
| 1. User code | 7. City |
| 2. First name | 8. Email |
| 3. Last name | 9. Country |
| 4. Deleted
Whether the user has deleted or not | 10. Zip/postal code |
| 5. Active
Whether the user is blocked or not | 11. State |
| 6. Address | 12. phone number |

5.16.1.5 Event details

Event details represent all users/employees event details information as follows.

- | | |
|---|---|
| 1. Name | 6. Time
Event time |
| 2. ID | 7. Time zone
Time zone difference in hours with
respective to UTC. |
| 3. Shift name | 8. Location
Longitude and Latitude coordinates of the
event location. |
| 4. Shift starts
Start time of the shift. | |
| 5. Direction and status
Event type as check-in or check-out. | |

5.16.1.6 Arrival and Departure report

Arrival and departure report contain all arrival, departure, and absentee data. It also includes information about Roster items, Additional staff adding, Replacements, Holidays and Leaves for all employees. Using this report, you can track, • Shift details for the employee (Shift name, start and end time)

- | | |
|-------------------------------------|--|
| 1. Date | 6. Shift name |
| 2. First name | 7. Shift start |
| 3. Last name | 8. Shift end |
| 4. Employee code | 9. First checked-in
First checked-in time |
| 5. Availability
Preset or absent | 10. <i>Early arrival</i> |

11. [Late arrival](#)
12. Last checked-out
Last checked-out time
13. [Early departure](#)
14. [Late departure](#)
15. [Event logs count](#)
16. [Roster item count](#)
17. Additional
Additional staff
18. [Replacements](#)
19. [Number of holidays](#)
20. [Number of Leaves](#)
21. Leave policy
Leave policy as normal or restricted.

5.16.2 Report settings

Figure 5.153 Report settings

1. Report calculation strategy

Change the calculation based on Daily, Weekly and Monthly basis.

2. Date range

Date range can be changed daily, weekly, and monthly according to the report calculation strategy selected above.

3. Show

This setting allows to add following columns to the Workhour report

- [Work hours](#)
- [Overtime hours](#)
- Shift hours
- [Shift work hours \(HS\)](#)
- [Productive hours \(HP\)](#)
- [Productive work hours \(HPS\)](#)

4. Show time

Show report time wither in hours and reports or hours.

5.16.3 Report filters

Figure 5.154 Report filters view

- 1 Shifts filter
Filter report by shift.
- 2 User groups filter
Filter report by user group.
- 3 Username filter
Filter report by user.

5.16.4 Export report data

Before export report, make sure to hide columns from the report view those are not needed in the exported report. This can be done using the table menu as mentioned in [Table menu](#) section. Report can be exported as follows

1. [PDF format](#)
2. [CSV format](#)

5.16.4.1 PDF format

Download the selected report in PDF format. When select PDF format, it will ask the font size of the pdf as follows.

1. Report font size
Set the font size of the PDF report between 9 and 15.
2. Generate button
Generate report
3. Close button



Figure 5.155 Configure PDF font size in the report

5.16.4.2 CSV format

Download the selected report in CSV format.

5.16.5 Schedule reports

Schedule report feature is not available for work hour summery report.

Schedule export option allows to

- Send reports in CSV format for the selected users daily weekly or monthly basis
- Backup CSV report in FTP daily, weekly, or monthly

Schedule report configurations are showing below.

1. Report configuration
This view is showing the specific configurations applied from [Report settings](#) and [Report filters](#) to the selected report

2. [Sending options](#)

3. Send date
Report sending date

4. Send time from
The time report must be sent

5. Frequency

- Every day
Send the report on every day at the schedule time
- Every week
Send the report once a week in above scheduled date time
- Every month
Send the report once per month based on the scheduled date and time

Checking at advanced option allow to configure the period in days to send the report at once.

6. Schedule end

- No end date
Report will send continuously
- Have end date
Specify the date to stop receiving the report

7. Save changes button

[Table 5.33](#) Error messages of schedule reports shows error messages after select save changes button.

8. Close button

Figure 5.156 Schedule reports view

Table 5.33 Error messages of schedule reports

Error code	Error message
1003	Unable to connect with the FTP server {server name}
2045	Could not email reports for the recipients.
2046	Invalid FTP file path
2047	Invalid FTP username or password

5.16.5.1 Sending options

Following sending option(s) can be selected

1. [Email](#)
2. [FTP configuration](#)
3. [Local folder](#)

5.16.5.1.1 Email

The report will be emailed to the selected recipients

1. Enter recipients' email(s) separated by commas
2. Find recipients from employee using the name
3. Find recipients using the user group

① Enter recipient email(s) separated by commas.

OR

② Find recipients from employees

③ Find recipients from groups

Figure 5.157 Email configuration of the schedule report view

5.16.5.1.2 FTP configuration

The report will be saved in the FTP location.

1. FTP URL
2. Check this if the FTP access credentials is required
3. FTP Username
4. FTP password

① URL: ftp://example.com/filepath

② ☒ Need username and password to access FTP location

③ User name: User name

Password: Password

④

Figure 5.158 FTP configuration of the schedule report view

5.16.5.1.3 Local folder

The report will be downloaded into the given file path in the local file system.

5.16.6 View schedules

This feature allows to view/edit all report schedules as follows.

1. Report schedule table
2. Edit button
3. Delete selected report schedule
4. Close button

Report Type	Emails (Accepted)	Users	Groups	Sum By..	Schedule runs..	Next Schedule date
Work hour report		Kathrine Dowdhj.	-	Daily	Weekly	2020-C
Work hour report	jhonson@abc.com;jack@abc.c...	-	-	Daily	Monthly	2020-C
Work hour report		-	Developer [Developer].	Daily	Daily	2020-C

①

②

③ EDIT DELETE

④ CLOSE

Figure 5.159 View report schedules

5.16.6.1 Report schedule

Report scheduled table is showing following information.

1. Report type
Type of the scheduled report
2. Emails
Email(s) of the recipients

3. Users
Username(s) of the recipients
4. Groups
Group names to send the reports for all users in the groups
5. Sum by
Report frequency daily, weekly, or monthly
6. Next schedule date
7. Next schedule time
8. Ends on
Report end date if specified
9. Send time base
10. FTP export
11. Created time
Created time of the report schedule

5.17 Settings

NCheck Bio Attendance server control panel settings are

- [General settings view](#)
- [Client settings view](#)
- [Biometric settings view](#)
- [Web interface settings view](#)
- [Notifications](#)

5.17.1 General settings view

1. Default shift start time: 00:00:00

2. Default shift end time: 23:59:59

3. Day start time: 00:00:00

4. Week start date: Monday

5. Month start day: 1

6. Date format: yyyy MM dd
Example date: 2019-01-01

7. Time format: HH:mm:ss
Example time: 13:30:00

8. Default shift selection behaviour: Allow when other shifts available

9. Auto checkout at the end of the shift: ☐

10. Notify check-in attempts on restricted leave: ☐

11. Unidentified eventlog count to keep: -1
(Enter number of unidentified eventlogs to keep in system. When unidentified eventlog count exceeds this limit, older unidentified events will be deleted. Set a -1 to disable this setting.)

12. External resource URL: http://example.com/resources
(If the emails sent to your inbox doesn't show images properly, you can keep those images in a publicly accessible location and specify URL for those images here. To refer default resources, keep URL as "https://<server-ip>:")

Figure 5.160 General settings view of Settings

1. *Default shift start time*
2. *Default shift end time*
3. *Day start time*
4. *Week start date*
5. *Month start date*
6. *Date format*
7. *Time format*
8. *Default shift selection behavior*
9. *Auto checkout at the end of the shift*
10. *Notify check-in attempts on restricted leave*
11. *Unidentified event log count to keep*
12. *External resource URL*

5.17.2 Client settings view

1 Result dialog timeout 5 ✓ G

2 Enable licensing ✓

3 Show work hours in clients ✓

4 Offline operations ✓

5 Manual capture start ✓

6 Automatically synchronize offline data ✓

7 Offline data synchronization interval (in minutes) 5 min ✓ G

8 Allow automatic peripheral enabling of new clients ✓

9 Reset offline client password New password ✓ G

10 Duplicate event timeout 3 ✓ G

11 Eventlog image size Medium ✓ G

12 Kiosk mode operation (For Microsoft Windows clients) ✓

13 Allow predefined location Always use GPS ✓ G

14 Self enroll templates ✓

15 Hat detection feature ✓

16 Hat detection threshold 48 ✓ G

17 Use in-built biometric verification on personal clients ✓

18 Guard application support ✓

19 Hide user list on windows clients ✓

20 Mask detection Do not detect ✓ G

21 Mask detection threshold 50 ✓ G

Figure 5.161 Client settings view of Settings

1. *Result dialogue timeout*
2. *Enable licensing*
3. *Show work time on clients*
4. *Offline operation mode*
5. *Manual capture start*
6. *Automatically synchronize offline data*
7. *Offline data synchronize interval*
8. *Allow automatic peripheral enabling of new clients*
9. *Reset offline client password*
10. *Duplicate event timeout*
11. *Event log image size*
12. *KIOSK mode operation (For Microsoft Windows clients)*
13. *Allow predefined location*
14. *Self-enroll templates*
15. *Hat detection feature*
16. *Hat detection threshold*
17. *Use in-built biometric verification on personal clients*
18. *Guard application support*
19. *Hide user list on windows client*
20. *Mask detection*
21. *Mask detection threshold*

5.17.3 Biometric settings view

The screenshot displays the 'Biometric settings view' of the NCheck Bio Attendance system. It features a list of 17 settings, each with a numbered callout (1-17) on the left. The settings are as follows:

- 1. Allow without biometrics: Toggle switch (off).
- 2. Manual face selection: Toggle switch (on).
- 3. Face liveness mode for client applications: Dropdown menu (None), with green checkmark and red refresh icons.
- 4. Face liveness threshold for client applications: Input field (50), with green checkmark and red refresh icons.
- 5. Server side face liveness checking: Toggle switch (off).
- 6. Server face liveness confidence threshold: Input field (50), with green checkmark and red refresh icons.
- 7. Recognition threshold: Input field (48), with green checkmark and red refresh icons.
- 8. Verification threshold: Input field (36), with green checkmark and red refresh icons.
- 9. Enrollment threshold: Input field (48), with green checkmark and red refresh icons.
- 10. Face confidence: Input field (30), with green checkmark and red refresh icons.
- 11. Face Quality: Input field (30), with green checkmark and red refresh icons. Below it is a checkbox 'Detect faces with mask' (unchecked).
- 12. Maximum face yaw: Input field (90), with green checkmark and red refresh icons.
- 13. Fingerprint Quality: Input field (50), with green checkmark and red refresh icons.
- 14. Iris quality: Input field (30), with green checkmark and red refresh icons.
- 15. Enrollment: A section containing four rows of settings:

Face confidence	30	✓	↺
Face Quality	48	✓	↺
Fingerprint Quality	50	✓	↺
Iris quality	50	✓	↺
- 16. High-speed face detection: Toggle switch (off).
- 17. Disable Duplicate checking: Toggle switch (off).

Figure 5.162 Biometric settings view of settings

1. Allow without biometrics
2. Manual face selection

3. *Face liveness mode for client applications*
4. *Face liveness threshold for client application*
5. *Server-side face liveness checking*
6. *Server face liveness confidence threshold*
7. *Recognition threshold*
8. *Verification threshold*
9. *Enrollment threshold*
10. *Face confidence*
11. *Face quality*
 1. *Detect faces with mask*
12. *Fingerprint quality*
13. *Iris quality*
14. Enrollment

①	Face confidence	30	✓	G
②	Face Quality	48	✓	G
③	Fingerprint Quality	50	✓	G
④	Iris quality	50	✓	G

Figure 5.163 Enrollment thresholds

1. *Face confidence for enrollment*
2. *Face quality for Enrollment*
3. *Finger quality for Enrollment*
4. *Iris quality for Enrollment*
15. *High-speed face detection*
16. *Disable duplicate checking*

5.17.4 Web interface settings view

The screenshot displays five settings in a list:

- ① **Dashboard refresh interval (in minutes)**: A dropdown menu set to '2'. It includes an information icon, a green checkmark, and a red refresh icon.
- ② **Show meridian in time selector**: A toggle switch that is currently turned off. It includes an information icon.
- ③ **Report export PDF font**: A dropdown menu set to 'Roboto (Latin) [Default]'. It includes an information icon, a green checkmark, and a red refresh icon.
- ④ **Event log location map provider**: A dropdown menu set to 'Google Maps'. It includes an information icon, a green checkmark, and a red refresh icon.
- ⑤ **Map API key**: An empty text input field. It includes an information icon, a green checkmark, and a red refresh icon.

Figure 5.164 Web settings view of Settings

1. *Dashboard refresh interval*
2. *Show meridian in time*
3. *Report export PDF font*
4. *Event log location map provider*
5. *Map API key*

5.17.5 Notifications

The screenshot displays two notification settings sections:

- ① **Email notifications**: A section with a green toggle switch. It contains fields for:
 - Host name ***: Text input with placeholder 'Host name'.
 - Port ***: Text input with value '0'.
 - Sender**: Text input with placeholder 'Name <email address>'.
 - SSL**: A checkbox labeled 'Disabled'.
 - Authentication**: A checked checkbox labeled 'Enabled'.
 - Username**: Text input with placeholder 'Username'.
 - Password**: Text input with placeholder 'Password'.
- ② **SMS Notifications**: A section with a green toggle switch. It contains fields for:
 - Host name ***: Text input with placeholder 'Host name'.
 - Port ***: Text input with value '0'.
 - Username**: Text input with placeholder 'Username'.
 - Password**: Text input with placeholder 'Password'.

At the bottom, there is a note: "Required fields are marked in red **". A blue **SAVE** button is located at the bottom right, labeled with ③.

Figure 5.165 Notification settings view of settings

1. [Email notification settings](#)
2. [SMS notification settings](#)
3. Save button
Save email and SMS notification settings changes.

5.17.5.1 Email notification settings

Email server can be configured with NCheck Bio Attendance On-premises server to receive notifications such as change login details, share device registration token, schedule reports. The following settings need be added to enable emails.

The screenshot shows a configuration form for email notifications. It includes the following fields and options:

- Host name ***: A text input field with the placeholder "Host name".
- Port ***: A text input field with the value "0".
- Sender**: A text input field with the placeholder "Name <email address>".
- SSL**: A checkbox labeled "Disabled".
- Authentication**: A checkbox labeled "Enabled" which is checked.
- Username**: A text input field with the placeholder "Username".
- Password**: A text input field with the placeholder "Password".

Numbered callouts (1-7) point to the following elements:

- Host name
- Port
- Sender
- SSL
- Authentication
- Username
- Password

Figure 5.166 Email notification settings

1. Host name
SMTP server to manage emails.
2. Port
SMTP Server port. The default port is 25.
3. [Sender](#)
4. SSL
Enable SSL2 configuration to ensure the safety and security of the emails
5. Authentication
Enable disable authentication for email server
6. Username
The Username of the host server. This is also the sending email address for all email notifications.
7. Password
The password of the host server

5.17.5.1.1 Sender

Sender should be configured in order to display the sender details of the receiving emails in the email client.

There are two formats can be used for sender

1. Name <Email address>
ex: Kathrine <Kathrine@abc.com>
2. Email address <Email address>
Kathrine@abc.com < Kathrine@abc.com >

5.17.5.2 SMS notification settings

SMS notification settings allows to add SMS gateway to receive SMS notification send registration token, leave and holiday notifications.

The screenshot shows a form for SMS notification settings. It has four fields: 'Host name' (callout 1), 'Username' (callout 2), 'Password' (callout 3), and 'Port' (callout 4). The 'Host name' field contains the text 'Host name', the 'Username' field contains 'Username', the 'Password' field contains 'Password', and the 'Port' field contains '0'.

Figure 5.167 SMS notification settings

1. Host name
Host name of the SMS gateway
2. Username
3. Password
4. Port

5.18 Admin Tasks

NCheck Bio Attendance admin tasks view as follows,

The screenshot shows the 'Bio Attendance admin tasks' panel. It contains six sections, each with a numbered callout:

- Data Back-up and restore**: Includes 'Backup' and 'Restore' tabs. The 'Backup' tab has 'START BACKUP' and 'SCHEDULE BACKUP' buttons. The 'Restore' tab has a 'Restore' button and a note that the restore option is provided from the 'Configuration' dialog.
- Re-extract templates**: Includes a 'RE-ENROLL' button and a checkbox for 'Show previous re-extraction jobs'.
- Delete old eventlogs**: Includes a 'Months to keep' dropdown (set to 3), a 'Delete' button, and radio buttons for 'Images only (keeps eventlog)' and 'Eventlog with image'.
- Data Export**: Includes a 'Select the data you want to export' section with checkboxes for 'User profile information', 'User location restrictions', 'User group information', 'User group memberships', 'User group location restrictions', 'Shifts', 'Rosters', 'Roster items', 'Leaves', 'Holidays', and 'Event logs'. It also has an 'Export events from this date' field and a 'START EXPORT' button.
- Data import**: Includes an 'Import data from external sources' section with checkboxes for 'User profile information', 'User location restrictions', 'Biometrics', 'User group information', 'User group memberships', 'User group location restrictions', 'Shifts', 'Rosters', 'Roster items', 'Leaves', 'Holidays', and 'Event logs'. It also has a 'START IMPORT' button.
- Admin operations log**: Includes a 'VIEW LOGS' button and a note that all operations done by administrators are logged into the system.

Figure 5.168 Bio Attendance admin tasks of Web control panel

1. [Data backup and restore](#)
2. [Re-extract template](#)
3. [Delete old eventlogs](#)
4. [Export data](#)
5. [Import data](#)

6. Admin operation logs

5.18.1 Data backup and restore

This feature is not available for NCheck Bio Attendance Cloud server

NCheck Bio Attendance server allows the administrator to backup/schedule backup all data in the specified location securely in JSON format.

5.18.1.1 Backup information

The backup file must contain following details

Table 5.34 Backup information

File name	details
AuthentcationData.json	
Customer.json	Organization details as given in My Account section
CustomerLeaveTypes.Json	Leave types as configured in Configure leave type section.
CustomerSettings.json	Customer settings as mentioned in Settings section
Device.json	Device/API details as mentioned in Devices/APIs details view,
FileData.json	
Holiday.json	Holiday details as mentioned in Manage Leaves and holidays section.
OAuth2User.json	
Peripheral.json	All peripheral details of each device as mentioned in Peripherals view section
PeripheralConfiguration.json	Peripheral configurations details
Person.json	User details
Roster.json	All roster details as mentioned in Roster management view section.
RosterItem.json	All roster item details as mentioned in Roster item management view section.
Task.json	All shift details as mention in Shift management view section.
UserGroup.json	All user group details as mentioned in Manage user Groups section.

UserGroupMembership.json	All users of user groups detail as mentioned in Attached users section.
--------------------------	---

It is strongly recommended to not alter backup files in order to restore data successfully.

5.18.1.2 Backup database

This view allows to backup NCheck Bio Attendance database.

1. **Start backup** button
Refer [Backup configuration](#) section for more details.
2. **Schedule backup** button
Refer [Schedule backup](#) section for more details.
3. View schedules
Refer [View schedules](#) section for more details.
4. Show previous backup

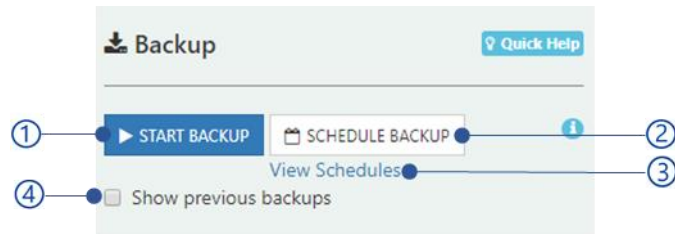


Figure 5.169 Database backup view

5.18.1.3 Backup configuration

Database can be backed up in different locations as follows,

1. Save backup in local folder
2. Save backup in FTP location

Figure 5.170 Backup database view

1. Save backup either in **FTP** or **local** folder. Refer
 1. [Local folder configuration](#)

2. *FTP folder configuration*
2. File password
The Password must have at least 6 characters with one digit.
3. Confirm password
4. Backup event logs
Check this option to backup all event logs
5. Backup event logs from
If the **Backup event log** option is checked, select the date from which date event logs must be included.
6. **Execute** button to start
Execute button will be disabled if the mandatory fields are empty or Validation errors exist. [Table 5.35](#)
Error messages of backup database Following errors could be occurred.
7. **Close** button

Table 5.35 Error messages of backup database

Error code	Error message
1003	Unable to connect with the FTP server {server name}
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.
2045	Could not email reports for the recipients.
2046	Invalid FTP file path
2047	Invalid FTP username or password
4001	Unidentified error occurred during data restore. Please contact administrator or NCheck Bio Attendance support for more details.

5.18.1.4 Schedule backup

This feature can be used to automate database backup as daily, weekly, and monthly in following locations.

1. Schedule backup in local folder
2. Schedule backup in FTP location
3. Schedule backup in local folder
4. Schedule backup in FTP location

SCHEDULE BACKUPS

1. **Save backup in** ☒ Local folder ☐ FTP location

2. **File path**

3. **File password**

Password requirements:

- Have at least 6 characters
- Include at least one digit

Password Strength:

4. **Confirm password**

5. **Backup eventlogs?** ☐

6. **Backup eventlogs from**

7. **Scheduled date**

8. **Backup frequency**

9. **SCHEDULE BACKUP** **CLOSE**

Figure 5.171 Schedule backup in local folder view

- Saving backup in either **local** or **FTP** folder. Refer
 - [Local folder configuration](#)
 - [FTP folder configuration](#)
- File password
Password must have at least 6 characters with one digit.
- Confirm password
- Backup event log
Check this option to backup all event logs
- Backup event log from
If the **Backup event log** option is checked, select the date from which date event logs must be included.
- Schedule date
- Backup frequency
Backup frequency as daily, weekly or monthly.
- Schedule backup** button
Execute button will be disabled if the mandatory fields are empty or Validation errors exist. [Table 5.36](#)
Error messages of schedule database backup is showing the errors could be occurred.
- Close** button

Table 5.36 Error messages of schedule database backup

Error code	Error message
1003	Unable to connect with the FTP server {server name}
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.
2045	Could not email reports for the recipients.

2046	Invalid FTP file path
2047	Invalid FTP username or password

5.18.1.5 View schedules

This view shows the existing email schedules and operations as follows.

1. Date
Schedule date
2. Frequency
3. Directory
Local or FTP
directory path
4. **Remove** button
Remove scheduled backup
5. **Close** button

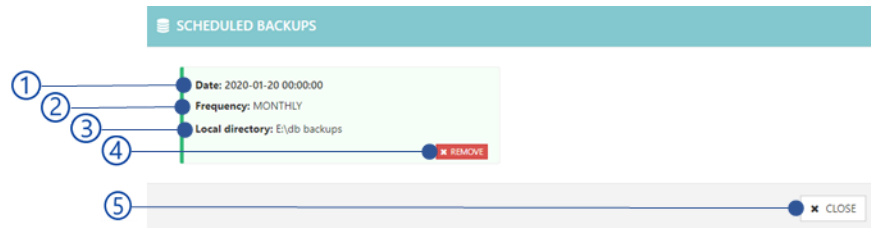


Figure 5.172 View schedules view

5.18.1.6 Local folder configuration

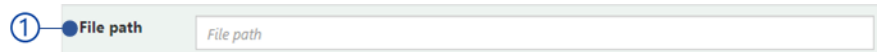


Figure 5.173 Local folder configuration view

1. File path
File path to the local folder

5.18.1.7 FTP folder configuration

Following details are required to enable FTP configuration.

1. FTP host address
2. File path in the file system
3. Check this if the FTP access credentials is required
4. FTP Username
5. FTP password

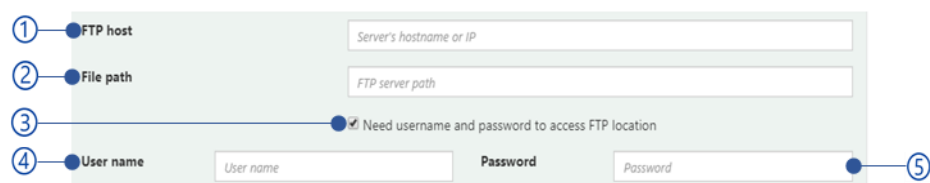


Figure 5.174 FTP details view of the schedule report view

5.18.1.8 Restore server databases

Refer [Restore database](#) section for more details.

5.18.2 Re-extract template

This feature is not available for NCheck Bio Attendance Cloud server

Re-extract users biometric templates from biometric engine and re-enroll to improve recognition accuracy.



Figure 5.175 R-extract templates view

1. Re-enroll button
Refer [Re-enroll templates](#) section for more details.
2. Show previous extraction jobs

5.18.2.1 Re-enroll templates

Re-enroll template is a long running task depending on the number of biometric templates templates to re-enroll. But you are allowed to work as it runs on the background. You will be asked a confirmation dialog before proceed as shown in the Figure.

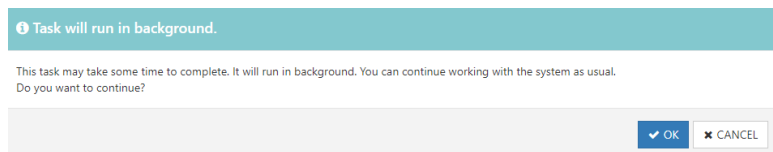


Figure 5.176 Re-extract template confirmation window

Table 5.37 Error messages for enroll templates

Error code	Error message
2002	License cannot be obtained
2048	Biometric re-extraction has failed on following images.

5.18.3 Delete old eventlogs

NCheck Bio Attendance Server keeps daily eventlogs of each user in the database and its causes to increase the database size with the time. Delete event logs feature can be used to manage unwanted eventlogs details in the database as follows.

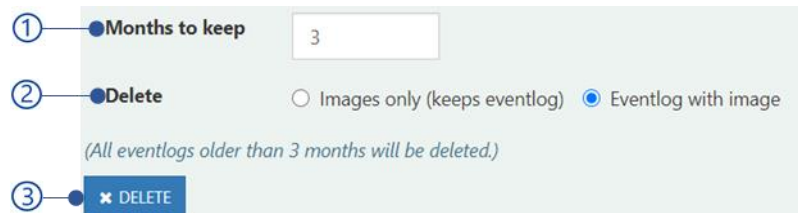


Figure 5.177 Delete old eventlogs view

1. Months to keep
Number of months to keep eventlogs in the database
2. Delete
Delete image log either with image or delete the eventlog image.
3. Delete button

5.18.4 Import data

Following information can be imported as a zip with the file hierarchy as mentioned in [Import and Export information](#) section.

1. [User group information](#)
2. [User/user group location restrictions information](#)
3. [User biometrics and template files](#)
4. [User group information](#)
5. [User group memberships information](#)
6. [User/user group location restrictions information](#)
7. [Shifts information](#)
8. [Roster items information](#)
9. [Leaves information](#)
10. [Holidays information](#)
11. [Event logs information](#)

Data import

Import data from external sources. Zip files and csv files are accepted. If your data archive is protected with a password, use "Password protected" option when importing.

- ☒ User profile information
 - ☐ User location restrictions
 - ☐ Biometrics
- ☒ User group information
 - ☒ User group memberships
 - ☐ User group location restrictions
- ☒ Shifts
 - ☐ Rosters
 - ☐ Roster items
- ☒ Leaves
- ☒ Holidays
- ☐ Event logs

▶ START IMPORT

Figure 5.178 Admin tasks import data view

To import,

1. Select information need to import
2. Select **Start import** button to select import location as mentioned in [Select import location](#) section.

5.18.5 Export data

You are allowed to export following information as password protected zip file.

1. [User group information](#)
2. [User/user group location restrictions information](#)
3. [User group information](#)
4. [User group memberships information](#)
5. [User/user group location restrictions information](#)
6. [Shifts information](#)
7. [Roster items information](#)
8. [Leaves information](#)
9. [Holidays information](#)
10. [Event logs information](#)

Select the date to export event log form the date

To export,

1. Select information need to export
2. Select the Start export button to select export location as mentioned in [Select export location](#) section

5.18.6 Admin operation logs

Administrator operation logs in the NCheck Bio Attendance On-premises server control panel such as login, logout, add event logs, modify event logs, delete event logs, add person, modify person, delete person can be seen from this feature.

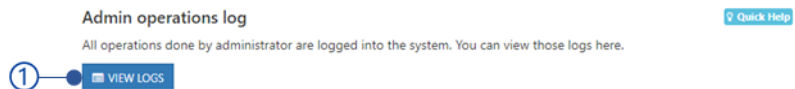


Figure 5.179 Admin tasks admin operations logs

1. **View logs button**
Refer [View logs](#) section for more details.

5.18.6.1 View logs

1. Filters
Select date range.
2. [Admin logs table](#)
3. Admin log quick view

ADMIN LOGS

From: 2019-12-20 To: 2020-01-20 REFRESH

Owner	User name	Action	Time
Administrator	admin	Edit Event log	2020-01-16 08:26:06
Administrator	admin	Add Event log	2020-01-16 08:25:55
Administrator	admin	Add Event log	2020-01-16 08:25:33
Administrator	admin	Edit Event log	2020-01-16 08:24:47
Administrator	admin	Edit Event log	2020-01-16 08:24:30
Administrator	admin	Edit Event log	2020-01-16 08:23:30
Administrator	admin	Edit Event log	2020-01-16 08:23:21
Administrator	admin	Add Event log	2020-01-16 08:23:13
Administrator	admin	Delete Event log	2020-01-16 08:22:47

1 - 20 of 20 items

SELECTED EVENTLOG

[Person ID : 2]

Before editing

Event Id:
Time: 2019-12-27 17:30:00 (Local time)
Time zone: 00:00
Type: CHECKIN
Shift: Day
Shift date: 2019-12-27

After editing

Event Id:
Time: 2019-12-27 17:30:00 (Local time)
Time zone: 00:00
Type: CHECKOUT
Shift: Day
Shift date: 2019-12-27

CLOSE

Figure 5.180 Admin logs view logs view

5.18.6.2 Admin logs table

Admin logs table presents all available admin logs as follows.

1. [Table header](#)
2. Owner
The role name who performed the admin operations.
3. Username
Name of the administrator.
4. Action
 - Login
 - Logout
 - Add event log
 - Modify event log
 - Delete event log
 - Add user
 - Edit user
 - Delete user
5. Date and time
6. Selected admin log
Selected admin log detail are shown in admin log quick view.
7. [Table paging options](#)

1	2	3	4	5
Owner	User name	Action	Time	
6	Administrator	admin	Edit Event log	2020-01-16 08:26:06
	Administrator	admin	Add Event log	2020-01-16 08:25:55
	Administrator	admin	Add Event log	2020-01-16 08:25:33
	Administrator	admin	Edit Event log	2020-01-16 08:24:47
	Administrator	admin	Edit Event log	2020-01-16 08:24:30
	Administrator	admin	Edit Event log	2020-01-16 08:23:30
	Administrator	admin	Edit Event log	2020-01-16 08:23:21
	Administrator	admin	Add Event log	2020-01-16 08:23:13
	Administrator	admin	Delete Event log	2020-01-16 08:22:47

7

1 / 1 20 Items per page 1 - 20 of 20 items

Figure 5.181 Admin logs admin logs table view

5.19 Subscription

Subscription is not available on NCheck Bio Attendance On-premises server.

PLAN50 ⓘ

Since 2019-08-13 Rate: € 43.50 User limit: 50 Credit period: 7 days Paid to: 2020-01-22 Remaining usage: 22 days Due date: 2020-02-20

Balance: € 31.00 [CHANGE PLAN](#) [PLAN HISTORY](#)

License Statistics
(currently 0 devices, 4 more available)
License rate: € 0.00 Maximum licenses: 4 ☒

0% used

OUTSTANDING SUMMARY Plan: (€ 0.00) License: (€ 0.00) ON 2020-01-22

License/Plans	Start at	Expire at	Paid to	Usage	Total
PLAN50 (€ 43.50)	2019-08-13	-	2020-02-13	(22days) (€ 31.90)	

[VIEW AND PAY BILL](#) [SCHEDULE PAYMENTS](#)

PAYMENTS

Payment Date	Billed date	Total amount	Status
2019-12-05	2019-12-05	€ 43.50	Completed
2019-12-05	2019-12-05	€ 0.00	Completed
2019-10-16	2019-10-16	€ 40.50	Completed
2018-12-06	2018-12-06	€ 322.67	Completed

1 - 4 of 4 items

PAID ON 2019-10-16

Billed Date: 2019-10-16
Received Date: 2019-10-16
Total: € 40.50
Transaction ID: test
Description: sdfdsdf

PLAN USAGE **LICENSE USAGE**

Item	From	To	Rate	Total
Plan 20	2019-12-26	2018-12-06	€ 20.00 (€ 253.33)	
Internal 1	2018-12-06	2018-12-06	€ 0.00	€ 0.00
Plan 20	2018-12-06	2019-08-13	€ 20.00	€ 163.33
Plan 50	2019-08-13	2019-11-13	€ 43.50	€ 130.50
Total plan usage				€ 40.50

[SHOW INVOICE](#) [DETAILED RECEIPT](#)

Figure 5.182 Cloud subscription view of web control panel

1. [Plan statistics](#)
2. [License statistics](#)
3. [Outstanding summary](#)
4. [Payments](#)

5.19.1 Plan statistics

PLAN50 ⓘ

Since 2019-08-13 Rate: € 43.50 User limit: 50 Credit period: 7 days Paid to: 2020-01-22 Remaining usage: 22 days Due date: 2020-02-20

Balance: € 31.00 [CHANGE PLAN](#) [PLAN HISTORY](#)

Figure 5.183 Subscription plan statistics

1. Plan code
2. Plan started date
3. Rate
Price per month in euros
4. User limit
Maximum number of user limits of the plan.
5. Credit period
Extension period to make the payment once the plan has expired. The account will be blocked automatically exceed the credit period.
6. Paid to
The plan has been purchased for this date.

7. Remaining usage
Remaining usage of the plan for the existing balance.

8. Due date
Expiration date of the plan after exceeding the Remaining usage and credit period.

9. Balance

Balance for the current date.

10. [5.18.1.1 Change plan](#)

11. [5.18.1.2 Plan details](#) history

5.19.1.1 5.18.1.1 Change plan

This view allows to change the NCheck Bio Attendance plan as follows.

1. Cloud plan list

Refer [Cloud plans](#)

section for more details about cloud plans. The available plans are

- Free plan
- Plan 20
- Plan 50
- Plan 100
- Plan 200

2. Plan statistics

3. **Proceed** button

Proceed button will be disabled with the errors are shown in [Table 5.38](#) Error messages of change plan.

4. **Close** button

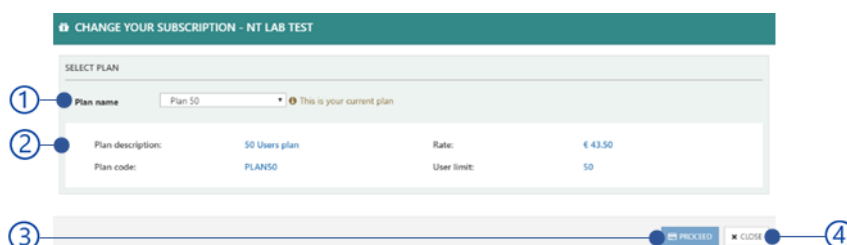


Figure 5.184 Change plan window

Table 5.38 Error messages of change plan

Error code	Error messages
2049	Your current subscription has blocked. Please settle the outstanding amount and try again.
2050	Customer has blocked. Please contact NCheck Bio Attendance support.

5.19.1.2 5.18.1.2 Plan details history

Plan history window shows following information.

1. *Plan history*
2. *License history*
3. *Blocked history*

Figure 5.185 Plan history window

Started At	Expired At	Code	Description	Rate
2019-08-13	-	PLAN50	50 Users plan	€ 43.50
2018-12-06	2018-12-06	INTERNAL1	Internal usage only	€ 0.00
2018-12-06	2019-08-13	PLAN20	20 Users plan	€ 20.00
2018-11-26	2018-12-06	PLAN20	20 Users plan	€ 20.00
2018-10-16	2018-10-16	PLAN20	20 Users plan	€ 20.00
2018-10-16	2018-11-26	FREE	Free plan will support up to 5 us...	€ 0.00
2018-10-04	2018-10-16	FREE	Free plan will support up to 5 us...	€ 0.00

5.19.1.3 Plan history

Plan history is showing all the plans used previously and the currently using plan.

1. *Table header*
2. *Stated at*
3. *Expired at*
4. *Plan code*
5. *Description*
6. *Plan rate*
7. *Table paging options*

Figure 5.186 Plan history view

Started At	Expired At	Code	Description	Rate
2019-08-13	-	PLAN50	50 Users plan	€ 43.50
2018-12-06	2018-12-06	INTERNAL1	Internal usage only	€ 0.00
2018-12-06	2019-08-13	PLAN20	20 Users plan	€ 20.00
2018-11-26	2018-12-06	PLAN20	20 Users plan	€ 20.00
2018-10-16	2018-10-16	PLAN20	20 Users plan	€ 20.00
2018-10-16	2018-11-26	FREE	Free plan will support up to 5 us...	€ 0.00
2018-10-04	2018-10-16	FREE	Free plan will support up to 5 us...	€ 0.00

Figure 5.186 Plan history view

5.19.1.4 License history

License history shows all licenses currently in used and used before with following information.

1. *Table header*
2. *Created at*
3. *Expired at*
4. *Plan code*
5. *Modified date*
6. *Table paging options*

Figure 5.187 License history view

Created At	Expired At	Code	Modified At
2019-02-20	2019-08-23	189	2019-08-23
2018-11-30	2018-12-17	132	2018-12-17

Figure 5.187 License history view

5.19.1.5 Blocked history

Plan block history shows plan block information as follows.

1. [Table header](#)
2. Blocked date
3. Blocked reason
4. Unblocked date
5. Unblocked reason
6. Plan name
7. [Table paging options](#)

Blocked At	Blocked Reason	Unblocked At	Unblocked Reason	Plan Name
2018-12-04 00:00:00	Credit period passed	2018-12-06 05:37:39	No pending payment	Plan 20
2018-12-14 00:00:00	Credit period passed	2018-12-15 12:00:13	No pending payment	Plan 20
2018-12-16 00:00:00	Credit period passed	2018-12-17 12:00:06	No pending payment	Plan 20
2019-11-28 00:00:00	Credit period passed	2019-12-05 06:53:02	No pending payment	Plan 50

Figure 5.188 Blocked history view

5.19.2 License statistics

NCheck Bio Attendance Internet license(s) can be purchased in order to use with NCheck Bio Attendance standard clients devices. Administrator allows to change Maximum number of licenses. The amount will be calculated to the maximum License count.

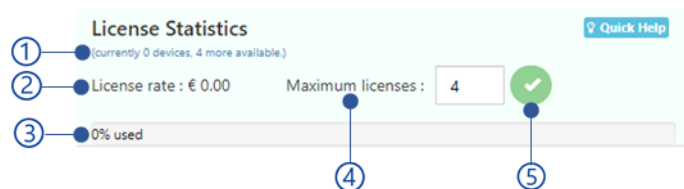


Figure 5.189 Subscription license statistics view

- 1 Number of used license(s) and available license(s)
- 2 License rate in Euros.
- 3 Maximum number of licenses
- 4 Percentage of the used licensees out of maximum number of licenses

5.19.3 Outstanding summary

Outstanding summary is a detail view of all available payments up to current date.

License/Plans	Start at	Expire at	Paid to	Usage	Total
PLAN20 (€ 253.33)	2018-11-26	2018-12-06	2019-12-26	(12months 20days) (€ 253.33)	
INTERNALLY (€ 0.00)	2018-12-06	2018-12-06	-	0days	€ 0.00
PLAN20 (€ 253.33)	2018-12-06	2019-08-13	-	8months 5days	€ 163.33
PLAN20 (€ 43.50)	2019-08-13	-	-	1months 13days	€ 62.35
+ License usage	2019-12-26	2019-09-26	2019-08-13	(8months 8days)	€ 0.00

Extension period is 7 days.

2. VIEW AND PAY BILL

3. SCHEDULE PAYMENTS

Figure 5.190 Outstanding summary of the Subscription

1. Summary table
2. **View and pay bill** button
Refer [View and pay bill](#) section for more details
3. **Schedule payments** button
Refer [Schedule payments](#) section for more details

5.19.3.1 Summery table

OUTSTANDING SUMMARY	Plan : (€ 0.00)	License : (€ 0.00)	Start at	Expire at	Paid to	Usage	Total
License/Plans							
PLAN20 (€ 20.00)			2018-11-26	2018-12-06	2019-12-26	(12months 20days) (€ 253.33)	
INTERNAL1 (€ 0.00)			2018-12-06	2018-12-06	-	0days	€ 0.00
PLAN20 (€ 20.00)			2018-12-06	2019-08-13	-	8months 5days	€ 163.33
PLAN30 (€ 43.50)			2019-08-13	-	-	1months 13days	€ 62.35
+ License usage			2019-12-26	2019-09-26	2019-08-13	(6months 8days)	€ 0.00

Figure 5.191 Outstanding Summery table

1. Outstanding plan amount
2. Outstanding license amount
3. Licenses/plans
NCheck Bio Attendance Cloud server plans and clients license names with rate.
4. Start at
Start date of the Licenses/plans.
5. Expire at
Expiring date of the Licenses/plans.
6. Paid to
Until which date administrator made the payment
Duration between plan start date and expired date/current date.
7. Total
Total amount for the usage.

5.19.3.2 View and pay bill

Draft bill of the NCheck Bio Attendance cloud subscription can be generated using this view.

The screenshot shows a web interface for viewing and paying a bill. It includes a header with the reference number and an export to PDF button. Below is the company logo and contact information. The main section displays the bill details, including customer information and a table of items. At the bottom, there are buttons for deleting, proceeding, and closing the bill, along with a status message.

1 Reference No - 24215K3M72 NT Lab Test **2** EXPORT TO PDF

3 UAB "Neurotechnology"
Laisves Av. 125A, Vilnius
Lithuania, 06118
Phone: +370 52 773 315
Fax: +370 52 773 316
Company ID: 120441850
VAT Number: LT 204418515

4 **REFERENCE NO 24215K3M72**
Generated on 2020-01-22

Customer Name: NT Lab Test
Email Address: naveejr@gmail.com
VAT Number: —
Address: NT Lab Test, 26A/1A, Alwis Place, Colombo 03, Sri Lanka, 94003

Item description	From	To	Rate	Total
NCheck Bio Attendance Cloud - Subscription Plan 50 (PLAN50)	2020-02-13	2020-03-13	€ 43.50	€ 43.50
Total plan usage				€ 43.50
VAT 0.0%				€ 0.00
Total (EUR)				€ 43.50

Pay only once. In case you have already paid this bill, don't pay again. It will take some time to update.
If you have any issues regarding payments, please contact us - support@ncheck.net

5 There is a not completed payment. You should pay it or delete it before paying for a new bill. **6** **7** **DELETE** **PROCEED** **CLOSE**

Figure 5.192 View and pay bill view

1. Reference number of the bill
2. Export to PDF
3. Neurotechnology company logo and contact information
4. Draft view of the bill
5. **Proceed** button
Once you select proceed button you will be directed to the detailed receipt. Refer [Proceed for payments](#) section for more details. Before proceeding make sure that you have not pay the bill before. Because it will take time to update billings after completed the payments.
6. **Close** button
7. **Delete** button
Delete the generated bill.

5.19.3.3 Bill view

1. Bill generated date
2. Customer name
3. Customer email address
4. VAT number
5. Customer address
6. Item description
7. From
8. To
9. Plan rate
10. Total
11. Total plan usage
12. Vat
13. Total amount for plan/license usage in Eur

Item description	From	To	Rate	Total
NCheck Bio Attendance Cloud - Subscription Plan 50 (PLAN50)	2020-02-13	2020-03-13	€ 43.50	€ 43.50
Total plan usage				€ 43.50
VAT 0.0%				€ 0.00
Total (EUR)				€ 43.50

Pay only once. In case you have already paid this bill, don't pay again. It will take some time to update.
If you have any issues regarding payments, please contact us - support@ncheck.net

Figure 5.193 Draft view of the bill

1. Bill generated date
2. Customer name
3. Customer email address
4. VAT number
5. Customer address
6. Item description
Plan/licenses name
7. From
The bill start date, total amount of the plan/license calculated from
8. To
The end date, total amount for the plan/license calculated to
9. Plan rate
10. Total
11. Total plan usage
12. Vat
13. Total amount for plan/license usage in Eur

5.19.3.4 Proceed for payments

Once select the proceed button, user will be directed to the detailed bill shown as [Figure 5.195](#) Detailed bill view.

Once select the **Pay bill** button, user will be asked a confirmation message as shown [Figure 5.194](#) Payment confirmation window before proceed to the PayPal payment gateway.

DETAILED RECEIPT [EXPORT TO PDF](#)

Neurotechnology

PAYMENT RECEIPT

Total amount € 43.50
 Description Not provided
 Payment Time -
 Received Time -
 Company NT Lab Test
 Email Address naveejr@gmail.com
 Reference Number 24215K3M72
 Payment Method PayPal
 Transaction ID -

Item	From	To	Rate	Total
NCheck Bio Attendance Cloud - Subscription Plan 50 (PLAN50)	2020-02-13	2020-03-13	€ 43.50	€ 43.50
Total plan usage				€ 43.50

If you need any clarification regarding payments, contact us on support@ncheck.net.
 © Neurotechnology, UAB.
 Lazdynų pr. 125A, Vilnius, LT-06118, Lithuania.

[EDIT PAY BILL](#) [X CLOSE](#)

Figure 5.195 Detailed bill view

CONFIRM YOUR PAYMENT

BILL DETAILS

Bill Number	24215K3M72
Company	NT Lab Test
Amount	€ 43.50
Email	naveejr@gmail.com
Payment Method	PayPal

After the payment is done from PayPal, you will be redirected to this page. **Please don't close your browser** after payment completion.

[X CLOSE](#) [✔ CONFIRM](#)

Figure 5.194 Payment confirmation window

5.19.3.5 Schedule payments

All the payments can be scheduled on selected date to pay cloud plan outstanding amount automatically using PayPal.

- Current subscription details
 - Plan rate
 - User limit
 - Number of licenses
 - Current plan
- Calendar view to select schedule payments
- Selected date
- subscribe and schedule** button
- Close** button

CREATE A PAYPAL SUBSCRIPTION

Current subscription details (Click to hide)

Plan name: Plan 50 (50 Users plan)
 Rate: € 43.50 /Month
 User limit: 50 Users
 No. of Licenses: 0

Select a date below for payment scheduling date. In every month, your account will be charged the monthly subscription amount with tax (€ 43.50) [€ 43.50 + € 0.00] on the selected date.

MARCH 2020						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

March 13th 2020
 You will be charged on 13th of every month.

[SUBSCRIBE AND SCHEDULE](#) [X CLOSE](#)

Figure 5.196 Confirm PayPal subscription window

After select subscribe and schedule button, user will be asked a confirmation messages as shown in [Figure 5.196 Confirm](#) PayPal subscription window. Select **OK** button to proceed PayPal to subscribe the monthly payments.

Confirm paypal subscription?

Are you sure you want to activate subscription payment via PayPal? You will be redirected to PayPal and there you will be asked to subscribe for monthly payment.

[✔ OK](#) [X CANCEL](#)

Figure 5.197 create PayPal subscription view

NCheck Bio Attendance will not save your PayPal username and password. Do not close the browser tab until you are redirecting to NCheck Bio Attendance after payment completed in PayPal.

5.19.4 Payments

All pending, completed, failed payments are showing in this view.

1. [Payments table](#)
2. [Payment quick view](#)

The screenshot shows the 'PAYMENTS' view. On the left is a table with columns: Payment Date, Billed date, Total amount, and Status. The first row is highlighted in blue and marked with a circled '1'. On the right is a sidebar titled 'PAYMENT INCOMPLETE' marked with a circled '2'. It contains fields for Billed Date (2020-01-22), Received Date, and Total (€ 43.50). Below this is a 'PLAN USAGE' section with a table showing item details and a total plan usage of € 43.50. At the bottom of the sidebar are buttons for 'DELETE' and 'COMPLETE PAYMENT'.

Payment Date	Billed date	Total amount	Status
2020-01-22	2020-01-22	€ 43.50	Pending
2019-12-05	2019-12-05	€ 43.50	Completed
2019-12-05	2019-12-05	€ 0.00	Completed
2019-10-16	2019-10-16	€ 40.50	Completed
2018-12-06	2018-12-06	€ 322.67	Completed

Figure 5.198 Payments view

5.19.4.1 Payments table

Payment table presents all failed, pending and completed payment details as follows.

1. [Table header](#)
2. Payment date
3. Billed date
4. Total amount
5. Status
 - Completed
 - Failed
 - Pending
6. Selected payment
Selected payment details are shown in [Payment quick view](#).
7. [Table paging options](#)

The screenshot shows the 'PAYMENTS' table with numbered callouts: 1 points to the table header, 2 to the Payment Date column, 3 to the Billed date column, 4 to the Total amount column, 5 to the Status column, 6 to the selected row (2020-01-22), and 7 to the table footer/paging options. The table data is as follows:

Payment Date	Billed date	Total amount	Status
2020-01-22	2020-01-22	€ 43.50	Pending
2019-12-05	2019-12-05	€ 43.50	Completed
2019-12-05	2019-12-05	€ 0.00	Completed
2019-10-16	2019-10-16	€ 40.50	Completed
2018-12-06	2018-12-06	€ 322.67	Completed

Figure 5.199 Payments table

5.19.4.2 Payment quick view

PAYMENT INCOMPLETE

Billed Date: 2020-01-22

Received Date: -

Total: € 43.50

PLAN USAGE

Item	From	To	Rate	Total
Plan 50	2020-02-13	2020-03-13	€ 43.50	€ 43.50

Total plan usage: € 43.50

DELETE COMPLETE PAYMENT

Figure 5.200 Payment incomplete view

PAID ON 2019-12-05

Billed Date: 2019-12-05

Received Date: 2019-12-05

Total: € 0.00

PLAN USAGE

Item	From	To	Rate	Total
Plan 50	2019-11-13	2020-01-13	€ 43.50	€ 0.00

Total plan usage: € 0.00

SHOW INVOICE DETAILED RECEIPT

Figure 5.201 Payment completed view

1. Payment status
 - Completed
paid date is appeared
 - Failed
 - Pending
2. Billed date
Bill created date
3. Received date
Payment received date
4. Total
5. Plan usage
 - Item
Plan name
 - From
 - To
 - Rate
 - Total
6. Total plan usage
7. **Show invoice** button
8. **Detailed receipt** button
9. **Delete** button
Delete pending payment
10. **Complete payment** button
User will be directed to the detailed receipt to proceed with the payment as mentioned in [Proceed for payments](#) section.

5.20 Users Service portal

NCheck Bio Attendance Cloud/On-premises server control panel for user allows reviewing user specific data for each user. Following operations are available for users

- [Manage user account](#)
- [User event logs](#)
- [Roster and schedules](#)
- [Leaves and holidays](#)
- [User reports](#)
- [User settings](#)

5.20.1 Manage user account

Select the user icon in the navigation bar.

1. Username
 2. User profile image
 3. User email address
 4. Account type
 5. **My account** button
- Refer [Manage user details](#) section for more details
6. [Login options](#)
 7. [Sign out](#)

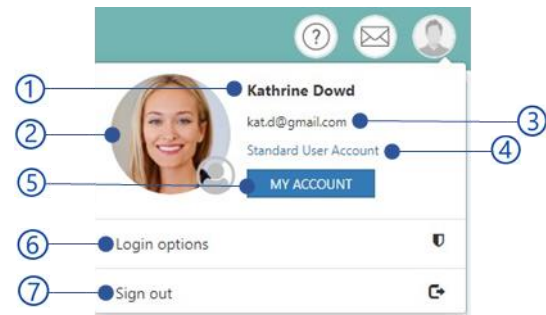


Figure 5.202 User management view

5.20.1.1 Manage user details

Figure 5.203 Manage user details

1. **Browse** button
Select the user image
2. First name
3. Last name
4. Employee code
5. Email
6. Username
7. Address line 1
8. Address line 2
9. City
10. Country
11. State
12. Zip code
13. Telephone
14. **Update** button
Update button will be disabled if the mandatory fields are empty or *Validation errors* exist. *Table 5.39* Error messages of manage user details is showing error messages could be occurred on updating user details.
15. **Close** button

Table 5.39 Error messages of manage user details

Error code	Error message
3001	Mobile/telephone number is not valid for the selected country/region.
3002	Invalid email address.

5.20.2 User event logs

Event logs allow monitoring user attendances. User event log view as follow.

The screenshot shows the 'User event logs' view. On the left sidebar, there are filters for 'Select shift' (All shifts), 'Show only error events', 'Group events' (Event time, Shift start time), and a calendar for 'December 2019'. The main area displays a table of event logs for user 'Kathrine Dowd'. The table has columns: Name, ID, Shift Name, Direction and Status, Time, Time Zone, Location, and Address. The events are: IN (08:00:00), OUT (11:29:47), IN (11:29:57), and OUT (17:30:00). A 'REVIEW' button is at the top right. Numbered callouts point to: 1. REFRESH DATA button, 2. Select shift dropdown, 3. Event time filter, 4. December 2019 calendar, 5. Event log table, and 6. REVIEW button.

Figure 5.204 User event logs view of web control panel

1. **Refresh data** button
2. [Event logs filters](#)
3. [Calendar date quick view](#)
4. [Calendar view](#)
5. [Event logs view](#)
6. [Event log quick view](#)

5.20.2.1 Event logs filters

Filter user event logs as follows.

1. Select shifts
Filter events by shifts. Default shift is **All shifts**.
2. Show only error events
Filter check-ins without check-outs and check-outs without check-ins.
3. Group events
 - Event time: Events will be displayed according to the check-in/checkout time in the day.
 - Shift time: Events will be displayed based on the shift start time and shift end time.

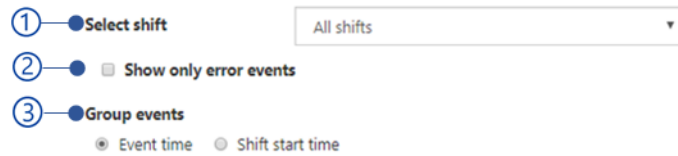


Figure 5.205 User event log filters view

5.20.2.2 Calendar view

Calendar view shows following details.

1. Selected month
2. No. of missing check-outs
3. Events recorded with correct check-ins and check-outs sequence.
4. Number. of missing check-ins
5. Current date

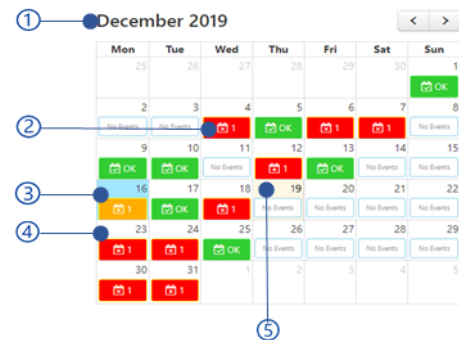


Figure 5.206 User calendar view

5.20.2.3 Calendar date quick view

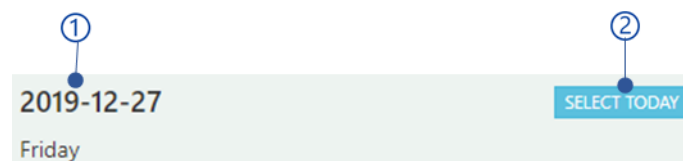


Figure 5.207 Calendar date quick view

1. Calendar selected date
2. **Select today** button
Select current date from the calendar

5.20.2.4 Event logs view

1	2	3	4	5	6	7	8	9	
Name	ID	Shift Name	Direction and Status	Time	Time Zone	Location	Address		
Kathrine Dowd	ZwHjDv	Default	IN	08:00:00	+ 05:30	(6.91436, 79.85354)	26 A Alwis Pl,		
Kathrine Dowd	ZwHjDv	Default	OUT	11:29:47	+ 05:30	(6.91436, 79.85354)	26 A Alwis Pl,		
Kathrine Dowd	ZwHjDv	Default	IN	11:29:57	+ 05:30	(6.91431, 79.85354)	26b Alwis Pl,		
10	Kathrine Dowd	ZwHjDv	OUT	17:30:00	+ 05:30	(6.91431, 79.85355)	26B Alwis Pl,		

11

1 / 3 20 items per page 1 - 20 of 48 items

Figure 5.208 User event logs list view

1. [Table header](#)
2. Name
3. User ID
4. Shift name
5. Direction and status
Event type as check-in or check-out
6. Event time
7. Event time zone
8. Location
Longitude and latitude coordinates of the event location.
9. Address
Address of the event location
10. Selected event log
Selected event log detail are shown in [Event log quick view](#)
11. [Table paging options](#)

5.20.2.5 Event log quick view

Quick view of the event detail.

1. Event type
 - Check-in
 - Check-out
2. Event location
3. Event time
4. **Review** button

View event log details. Refer [Event log review](#) section for more details.



Figure 5.209 User event log quick view

5.20.2.6 Event log review

This view present user event log detail view as follows.

1. Event biometric view
2. Username
3. Shift name
4. Status
 - Check-in
 - Check-out
5. Event date
6. Event time
7. Event time zone
8. Event location
9. Description
10. Authentication mode
 - Face
 - Iris
 - Fingerprint
11. Event recorded type as by admin or online
12. **Show location** button

REVIEW EVENT

1. Event biometric view (points to user photo)

2. Username: Kathrine Dowd

3. Shift: Default Shift

4. Status: ☒ Check-in

5. Select Date: 2019-12-27

6. Select time: 08:00:00

7. Time zone: + 05:30
Timezone offset is 5.5 hours from UTC.

8. Location: 26 A Alwis Pl, Colombo, Sri Lanka

9. Description: [No identification data]

10. Authentication mode: [No identification data]

11. Event recorded type as by admin or online (points to user icon)

12. **Show Location** button

13. **CLOSE** button

Figure 5.210 User review event window

5.20.3 Roster and schedules

The users able to monitor below details in the rosters and schedules.

ROSTERS - TODAY [2019-08-05]

Name	Range	Ends on	Status
Second quarter	2019-07-29 - 2019-08-25 (4 month)	No end date	Current

SHIFTS

Name	Start	End
Morning	05:00:00	14:00:00
Day	08:00:00	17:00:00
Night	18:00:00	03:00:00

Calendar View (2019-08-05 to 2019-08-11)

1. Shifts view (points to SHIFTS section)

2. Rosters view (points to ROSTERS - TODAY section)

3. Weekly calendar view (points to the calendar grid)

Figure 5.211 Shift and roster management view of user web control panel

1. *Shifts view*
2. *Rosters view*

3. [Roster items view](#)

5.20.3.1 Shifts view

Shift view shows available shifts for user.

1. Shift name
2. Shift start time
3. Shift end time

Name	Start	End
Day	08:00:00	17:00:00
Morning	01:00:00	09:00:00
Night	17:00:00	01:00:00

Figure 5.212 user Shift view

5.20.3.2 Rosters view

All available rosters are showing in this view as follows.

1. Roster name
2. Roster duration
3. End date
4. Status
5. **Holidays** button
Refer [View holidays](#) section for more details.
6. **Leaves** button
Refer [View leaves](#) section for more details.

Name	Range	Ends on	Status
2nd quarter	2020-01-14 - 2020-02-10 [a month]	No end date	Current
1st Qtr	2020-01-15 - 2020-02-11 [a month]	No end date	Current

Figure 5.213 User rosters view

5.20.3.3 View holidays

All holidays applicable for organization can be viewed here.

1. [Yearly view](#)
2. [Report view](#)
3. **Close** button

Date	Description
2020-03-22	Lailat al Miraj
2020-04-09	Laylat al Bara'at
2020-04-23	Begin of Ramadan
2020-12-25	Christmas Day
2020-10-31	Halloween
2020-04-10	Good friday

Figure 5.214 User holidays view

5.20.3.3.1 Yearly view

Yearly view of holidays as follows.

1. *Calendar view*
2. *Holiday table of user service portal*

2020

①

<	2001 - 2020					>
2001	2002	2003	2004	2005		
2006	2007	2008	2009	2010		
2011	2012	2013	2014	2015		
2016	2017	2018	2019	2020		

②

Date	Description
2020-03-22	Lailat al Miraj
2020-04-09	Laylat al Bara'at
2020-04-23	Begin of Ramadan
2020-12-25	Christmas Day
2020-10-31	Halloween
2020-04-10	Good friday

1 - 6 of 6 items

Figure 5.215 User holidays yearly view

5.20.3.3.2 Holiday table of user service portal

Holiday table presents all holiday details as follows.

1. *Table header*
2. *Date of holidays*
3. *Description*
4. *Table paging options*

①

②

③

Date	Description
2020-03-22	Lailat al Miraj
2020-04-09	Laylat al Bara'at
2020-04-23	Begin of Ramadan
2020-12-25	Christmas Day
2020-10-31	Halloween
2020-04-10	Good friday

④

1 / 1 items per page 1 - 6 of 6 items

Figure 5.216 Holiday table view

5.20.3.3.3 Report view

Report view of the holidays as follows

1. *Date filter*
2. *Holiday table of user service portal*

①

From 2020-01-22

②

To 2020-08-01

Date	Description
2020-03-22	Lailat al Miraj
2020-04-09	Laylat al Bara'at
2020-04-23	Begin of Ramadan
2020-04-10	Good friday

1 / 1 items per page 1 - 4 of 4 items

Figure 5.217 User holiday report view

5.20.3.4 View leaves

All leaves applied by the user can be seen here.

1. *Calendar view of user service portal*
2. *Report view of user service portal*
3. **Apply for a leave button**
Refer section for more details.
4. **Close button**

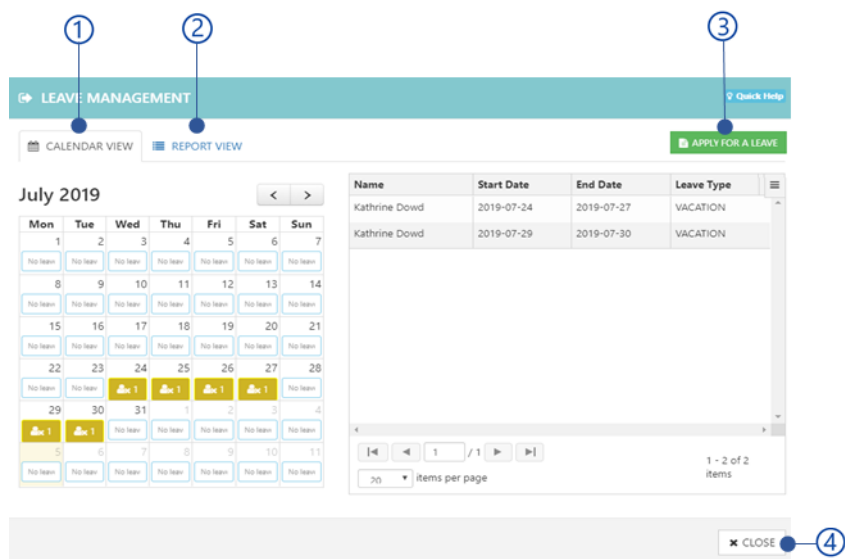


Figure 5.218 User leaves view

5.20.3.4.1 Calendar view of user service portal

Calendar view of the user leaves as follows.

1. Calendar
2. No. Of leaves applied by the user
3. *Leaves table of user service portal*

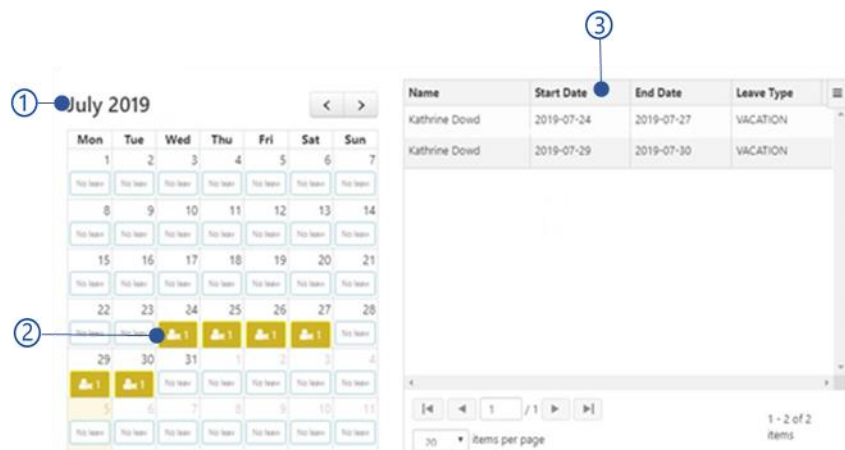


Figure 5.219 User holidays calendar view

5.20.3.4.2 Leaves table of user service portal

Leave table presents all user leaves details in a table as follows.

1. [Table header](#)
2. Username
3. Leave start date
4. Leave end date
5. Leave type
Refer [Configure leave type](#) section for more details
6. [Table paging options](#)

1	2	3	4	5
Name	Start Date	End Date	Leave Type	
Kathrine Dowd	2019-07-24	2019-07-27	VACATION	
Kathrine Dowd	2019-07-29	2019-07-30	VACATION	

6

1 - 2 of 2 items

items per page

Figure 5.220 Leaves table view

5.20.3.4.3 Report view of user service portal

Report view of leaves as follows.

1. Date filter
2. [Leaves table of user service portal](#)

1 From 2019-02-01 To 2019-10-22

2	Name	Start Date	End Date	Leave Type
	Kathrine Dowd	2019-07-24 00:00:00	2019-07-27 00:00:00	VACATION
	Kathrine Dowd	2019-07-29 00:00:00	2019-07-30 00:00:00	VACATION
	Kathrine Dowd	2019-05-09 00:00:00	2019-05-15 00:00:00	MEDICAL

1 - 3 of 3 items

Figure 5.221 User holidays report view

5.20.3.4.4 Request leaves

User can apply a leave request to get the approval from NCheck Bio Attendance administrator.

1. Leave start date
2. Leave end date
3. No. of days
Number of leaves should be applied between start date and end date deprecating holidays.
4. Leave type
Leave type from the configured leave types as mentioned in [Configure leave type](#) section.

REQUEST A LEAVE

Required fields are marked in red "*".

1 Start date 2019-12-30

2 End date 2019-12-30

3 No. of days 1

4 Leave type CASUAL

5 SEND REQUEST 6 CANCEL

Figure 5.222 Request leaves view

5. **Send request** button

[Table 5.40](#) Error messages of request leaves is showing error messages could be appeared.

6. **Close** button

Table 5.40 Error messages of request leaves

Error code	Error message
2031	You already have applied the leave(s) for start date – end date.
2032	Could not exceed the available number of leaves for {leave type name} leave type.

5.20.3.5 Roster items view



Figure 5.223 User roster items view

1. Current month
2. Weeks view
Filter roster items by shift
3. Week view
4. [Roster item view of user service portal](#)

5.20.3.5.1 Roster item view of user service portal

Roster item view is showing following details.

1. Shift details
 - Shift start time
 - Shift end time
 - Shift name
2. User group name

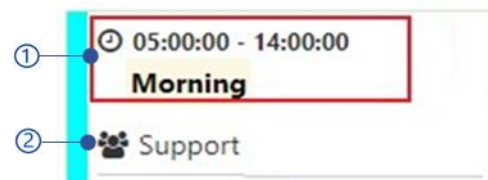


Figure 5.224 Roster item user view

5.20.4 Leaves and holidays

This view allows to view user leaves, holidays and apply leaves.

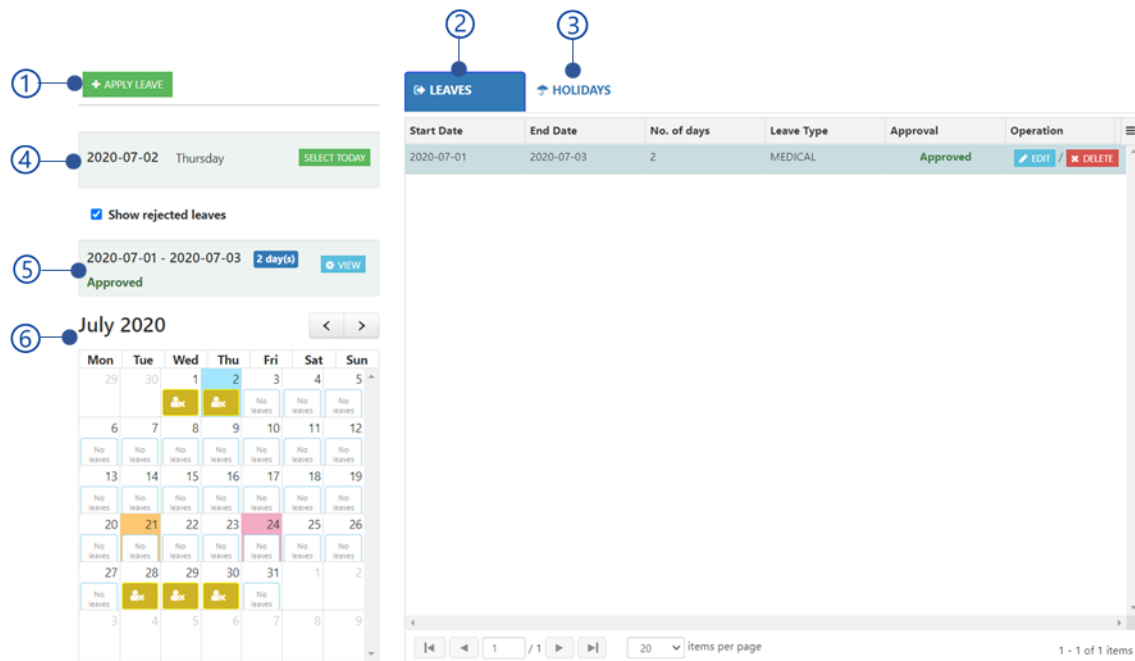


Figure 5.225 Leaves and holiday management view of user service portal

1. [Apply/edit leave](#)
2. [Leave table view](#)
3. [Holiday table view](#)
4. [Selected date view](#)
5. [Summary view of selected leave](#)
6. [Calendar view](#)

5.20.4.1 Apply/edit leave

User allow to apply for a leave as below.

1. Start date
Leave start date
2. End date
End date of the leave
3. Request reason
4. Leave type
Leave type as Casual, Medical, Annual or custom leave type defined by the administrator.
5. Send request button
Send the leave request for Approval. Once the leave is approved or rejected, user will be get notified as shown in
6. Cancel button
Cancel the Request a leave dialogue.

Request a leave

Required fields are marked in red "**".

1. Start date

2020-07-21
📅

2. End date

2020-07-21
📅

3. Request reason

Reason for leave

4. Leave type

CASUAL
▼

5.

📤
SEND REQUEST

6.

✖
CANCEL

Figure 5.226 Request a leave dialogue view

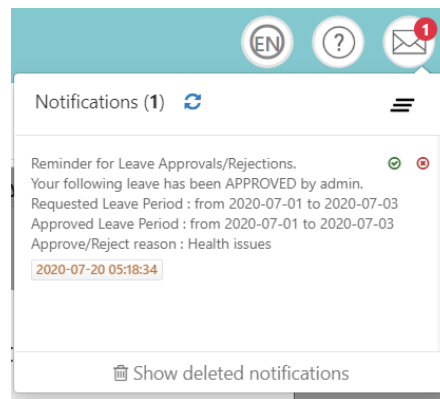


Figure 5.227 Leave approval notification

5.20.4.2 Leave table view

Leave table shows leaves applied by the user for the selected date in the [Calendar view](#).

1 Start Date	2 End Date	3 No. of days	4 Leave Type	5 Approval	6 Operation	7 Menu
2020-07-28	2020-07-30	3	CASUAL	Requested	EDIT / DELETE	

Figure 5.228 Leaves table view of user service portal

1. Start date
Leave start date
2. End date
Leave end date
3. No of day
No of days leave applied
4. Leave type
Leave type as Casual, Medical, Annual, or custom leave type created by the administrator.
5. Approval status
Approval status as Requested, Approved or Rejected.
6. Operation
 - Edit leave
Refer [Apply/edit](#) leave section for more details.
 - Delete leave
Delete the leaves
7. [Table options](#)

5.20.4.3 Holiday table view

Holiday table show holidays available for the selected date in the [Calendar view](#).

1. Date
2. Description
3. [Table options](#)

1 Date	2 Description	3 Menu
2020-07-24	Company maintenance	

Figure 5.229 Holiday table view of user service portal

5.20.4.4 Selected date view

The details of the date are shown as selected leave from the [Leave table view](#) or holiday from the [Holiday table view](#).

1. Date
The date of the selected date from the [Calendar view](#) or date of the selected leave from the [Leave table view](#) or date of the selected holiday from the [Holiday table view](#).
2. Day
3. Select today button
Select the current date from the [Calendar view](#)
4. Holiday name
This will appear if a holiday selected from the [Holiday table view](#).

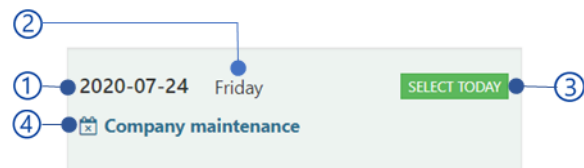


Figure 5.230 Selected date view

5.20.4.5 Summary view of selected leave

Selected holiday view shows the details of the selected leave from the [Leave table view](#) as follows.

1. Leave period
Start and end date of the leave with number of days
2. Approval status of the leave
Approval status as Requested, Approved or Rejected.
3. View button
Refer section for more details.

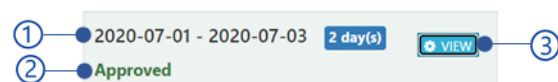


Figure 5.231 Summary view of selected leave

5.20.4.5.1 Leave details

Leave details view shows leave details as below.

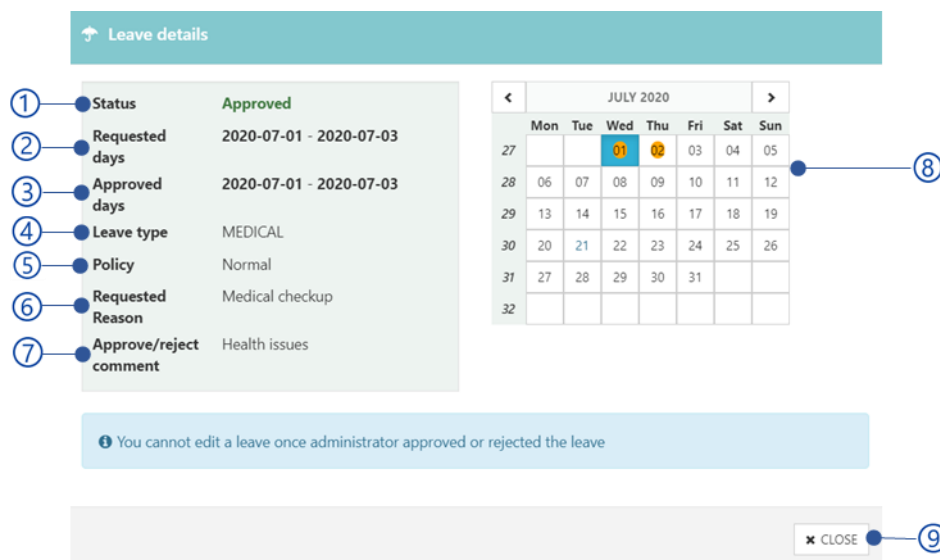


Figure 5.232 Leave details view

1. Status
 - Status as Approved or Rejected
2. Requested days
 - The period leaves requested.
3. Approved days
 - The period leaves approved.
4. Leave type
 - Leave type as Casual, Medical or Annual
5. Policy
 - Leave policy as
 - Normal
6. Requested reason
 - Restricted
 - User is now allowed to check-in or check-out while on leave
7. Approve/reject comment
 - Reason for the approval or rejection from the administrator
8. Calendar view shows approved leave period
9. Close button
 - Close Leave details dialogue view

5.20.4.6 Calendar view

Calendar view shows leave and holidays for the user as below.

1. Selected month
2. Navigate button to previous month
3. Navigate button to next month
4. User leave
5. Holiday
6. Current date
7. Selected date

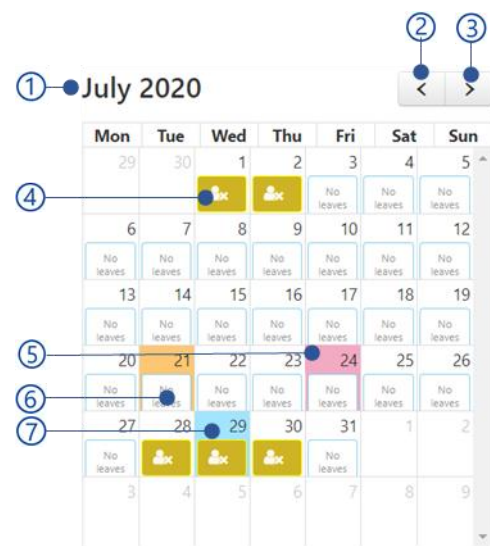
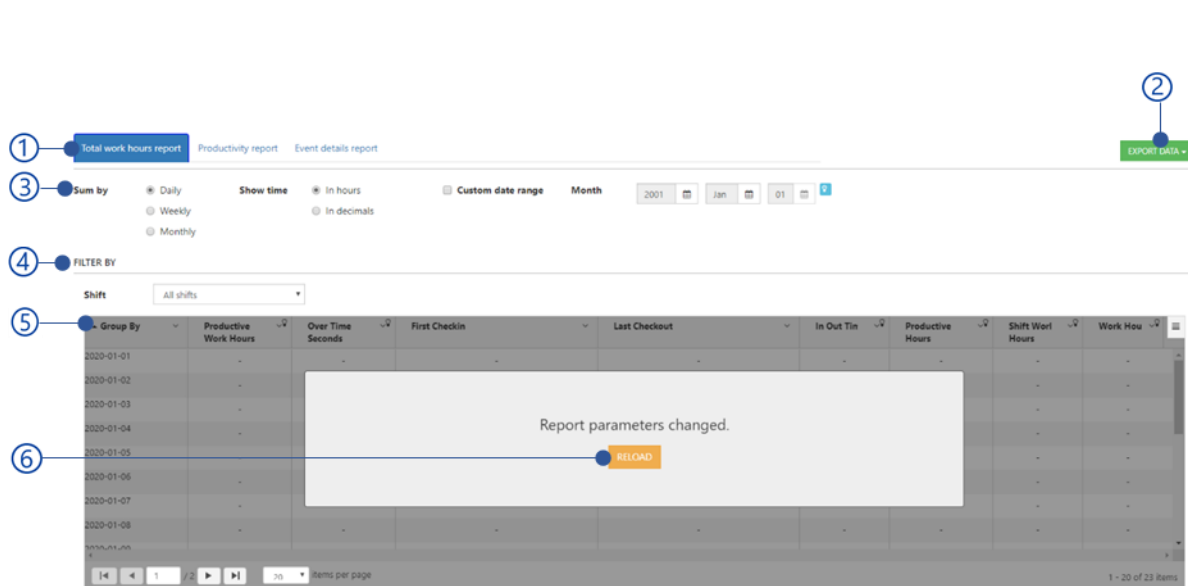


Figure 5.233 Calendar view

5.20.5 User reports



5.234 Users report view

1. Report type
 - [Total work hour report](#) of user service portal
 - [Productivity report](#) of user service portal
 - [Event detail report](#) of user service portal
2. Export user reports
3. Report settings of user service portal
4. Filter by shift
5. Report table
6. **Refresh** button
Refresh report after applying report settings.

5.20.5.1 Report types of user service portal

1. [Total work hour report](#) of user service portal
2. [Productivity report](#) of user service portal
3. [Event detail report](#) of user service portal

5.20.5.1.1 Total work hour report of user service portal

The Total work hours report provides work hours details for a selected date range. That details can be calculated by daily, weekly, monthly basis. The important parameters are

1. Date
2. Name
3. Employee code
4. [Productive work hours \(HPS\)](#)
5. [Overtime hours](#)
6. [First check-in](#)
7. [Last check-out](#)
8. [In-out hours](#)
9. [Shift work hours \(HS\)](#)
10. [Work hours](#)

5.20.5.1.2 Productivity report of user service portal

Productivity report is generated for a selected time period with user/employee productivity parameters as follows.

1. [First check-in](#)
2. [Last check-out](#)
3. [Work hours](#)
4. [Break hours](#)

- | | |
|---------------------------|----------------------------------|
| 5. <i>Late arrival</i> | 9. <i>Overtime hours</i> |
| 6. <i>Late departure</i> | 10. <i>Productive hours (HP)</i> |
| 7. <i>Early arrival</i> | 11. <i>Unproductive hours</i> |
| 8. <i>Early departure</i> | 12. <i>Efficiency</i> |

5.20.5.1.3 Event detail report of user service portal

Event details represent all users/employees event details information as follows.

- | | |
|---|---|
| 1. Name | 6. Time |
| 2. ID | 7. Event time |
| 3. Shift name | 8. Time zone |
| 4. Shift start
Start time of the shift. | Time zone difference in hours with
respective to UTC. |
| 5. Direction and status
Event type as check-in or check-out. | 9. Location
Longitude and Latitude coordinates of the
event location. |

5.20.5.2 Report settings of user service portal

The screenshot shows a settings bar with four numbered callouts:

- 1. **Sum by**: Radio buttons for Daily (selected), Weekly, and Monthly.
- 2. **Show time**: Radio buttons for In hours (selected) and In decimals.
- 3. **Custom date range**: A checkbox that is currently unchecked.
- 4. **Month**: A calendar icon.

 To the right of these settings, there is a date range selector showing '2001' and 'Jan' with a calendar icon, and a '01' with a calendar icon, followed by a blue button with a right arrow.

5.235 User report settings view

- Report calculation strategy
Change the calculation based on Daily, Weekly or Monthly basis.
- Time filter
Show time ranges in Hours format or Hours and minutes format.
- Date range
This filter is not available for user detail report. The date range is changing according to the Report calculate strategy filter.
 - Report calculate strategy as daily
The report can be generating in months. The custom range can be enabled in days selecting Custom date range setting.
 - Report calculate strategy as weekly
The report can be generated in weeks. The custom range can be in weeks enabled selecting Custom date range setting.
 - Report calculate strategy as monthly
The report can be generated in years. The custom range can be enabled in months selecting Custom date range setting.

5.20.5.3 Export user reports

Export data in PDF and CSV formats. Available options are,

- Export all data as PDF
Export complete report as a PDF.
- Export all data as CSV
Export complete report as a CSV.
- Export visible data as PDF
Export currently visible data in the report as a PDF.
- Export visible data as CSV
Export currently visible data in the report

5.20.6 User settings

5.20.6.1 Select display language for web

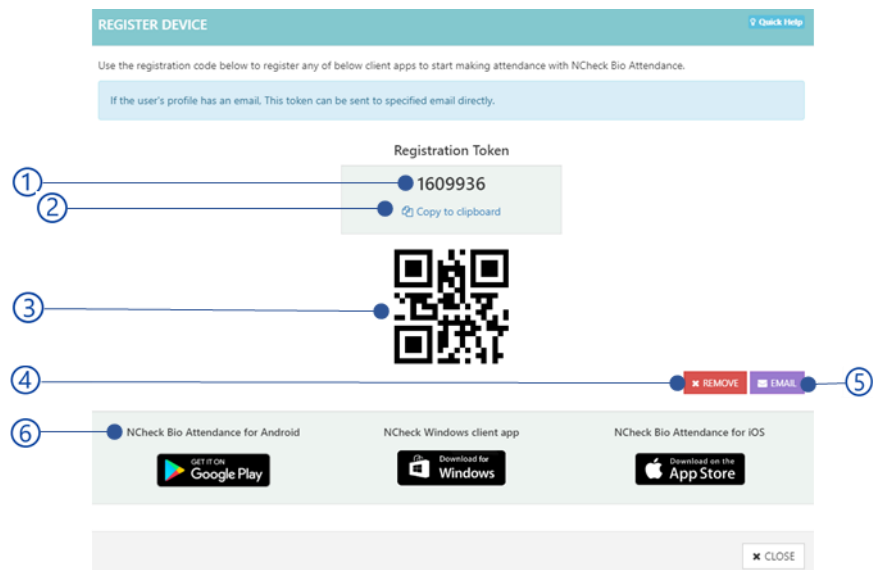
Available languages are English and Chinese.

5.21 Common functions

5.21.1 Client registering view

Before record attendances in NCheck Bio Attendance Clients for Windows, Android and IOS applications, applications should be registered with a user or user group in the NCheck Bio Attendance server using a registration code. The registration window as follow.

1. Device registration code
2. Copy to clipboard
Copy device registration code to clipboard



5.236 Device registration view

3. Device registration code as a QR code
Scan QR code from the client device.
4. **Remove** button
Remove current registration code to regenerate new code.
5. **Email** button
Email registration code to user/user group. [Table 5.41](#) Error messages of registration view is showing the possible error messages when email registration token.
6. Link to download NCheck Bio Attendance clients for Android, IOS and Windows

Table 5.41 Error messages of registration view

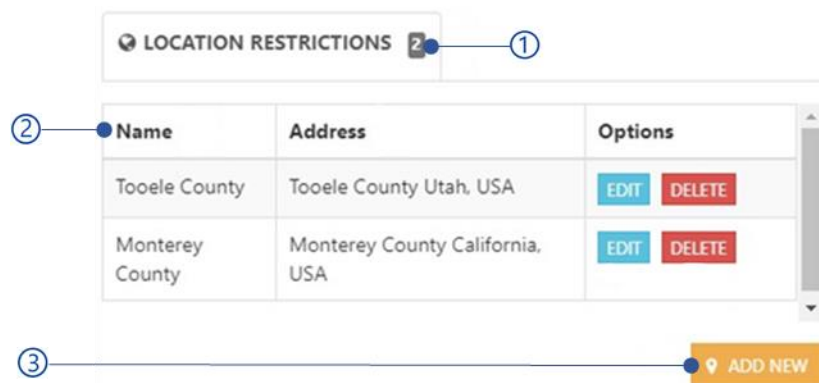
Error code	Error message
2035	Failed to email registration token.

5.21.2 Location restrictions

Location restrictions can be applied for selected user/user group in order to bound check-in/checkout events to area.

Location restrictions view as follows,

1. Number of location restrictions applied for user/user group
2. Location restrictions table
3. **Add new** button
Add location restriction.
Refer section for more details.



5.237 Location restriction view

5.21.2.1 Location restriction table

This view shows all location restrictions and operations as follows

1. Restriction name
2. Address where the restriction applied
3. Options
 - [Edit location restriction](#)
 - Delete location restriction

1	2	3
Name	Address	Options
Tooele County	Tooele County Utah, USA	EDIT DELETE
Monterey County	Monterey County California, USA	EDIT DELETE

5.238 Location restriction table

5.21.2.2 Edit location restriction

Edit existing location restriction as follows.

1. Restriction name
2. Description
3. Address where the restriction applies
4. Latitude only 5 decimal places are allowed.
5. Longitude only 5 decimal places are allowed.

5.239 Edit location restriction view

6. radius
7. Allow bypass
Check this option to allow user to bypass the location restriction as mentioned in section
8. **Update** button
Update button will be disabled if the mandatory fields are empty or [Validation errors](#) exit. [Table 5.42](#) Error messages of add new location restrictions showing error messages could be appeared when updating location restrictions.
9. **Cancel** button

Table 5.42 Error messages of add new location restrictions

Error code	Error message
3011	Only 5 decimal places are allowed in latitude and longitude values.

5.21.2.3 Add location restriction

New location restriction can be added as follow

1. Add from previously added restrictions
Deleted or applied location restrictions can be chosen in this view. Selected location restriction is allowed to edit in the location restriction form.
2. Add from location history
Users event locations can be selected as location restriction in this view. Selected location restriction is allowed to edit in the location restriction form.
3. Add new location restriction
Refer [Add location restriction](#) section for more details.

SELECT LOCATIONS FROM HISTORY

PREVIOUSLY ADDED LOCATION HISTORY

Previously added restricted locations will be displayed here. To add a new restriction, select from below list or just fill the form and add one.

Name	Description	Address
Alameda Co...	Outside from the working pl...	Alameda County California, L...
Tooele County	Outside the working area	Tooele County Utah, USA
Monterey C...	No client in the city	Monterey County California,

1 - 3 of 3 items

20 items per page

ADD SELECTED LOCATION

Name *
Name

Description
Location description

Address
Address

Latitude *
Latitude

Longitude *
Longitude

Radius (meters)
100

Allow bypass
☐ Not Allowed

5.240 Location restriction view

5.21.2.4 Add new location restriction

This view allows to add new location restriction as follows.

1. Restriction name
2. Description
3. Address where the restriction applies
4. Latitude
5. Longitude
6. radius
7. Allow bypass
Check this option to allow user to bypass the location restriction as mentioned in section
10. **Update** button
Update button will be disabled if the mandatory fields are empty or *Validation errors* exit. [Table 5.43](#) Error messages of add new location restriction shows error messages could be appeared when updating location restrictions
8. **Cancel** button

The screenshot shows a form for adding a new location restriction. It includes the following fields and controls, numbered 1 through 8:

- Name ***: A text input field with placeholder text "Name".
- Description**: A text input field with placeholder text "Location description".
- Address**: A text input field with placeholder text "Address".
- Latitude ***: A text input field with placeholder text "Latitude".
- Longitude ***: A text input field with placeholder text "Longitude".
- Radius (meters)**: A text input field with the value "100".
- Allow bypass**: A checkbox labeled "Not Allowed".
- ADD**: A blue button with a checkmark icon and the text "ADD".

Figure 5.241 Add new location restriction view

Table 5.43 Error messages of add new location restriction

Error code	Error message
3011	Only 5 decimal places are allowed in latitude and longitude values.

5.21.3 Import and Export information

NCheck Bio Attendance user information can be export as a zip file with selected information. The zip file hierarchy as showing in [Figure 5.242](#) Import/Export zip file folder hierarchy. User biometric data is not allowed to export

NCheck Bio Attendance allows to import all user information as zip file in the hierarchy as shown in [Figure 5.242](#) Import/Export zip file folder hierarchy. In addition to that it can import user information in CSV files.

All exporting information is encrypting using AES 256 encryption method with given password to enhance the security of the exported information. Windows default zip extractor is not supporting to extract exported zip file. You must use third party tool which supported AES 256 encryption method to extract exported zip file.

```

Zipfile/
|
|--Thumbnail/
|   |--Customer/
|   |   |--<customername>.jpg
|   |--Person/
|   |   |--<employeeecode>.jpg
|   |--UserGroup/
|   |   |--<groupcode>.jpg
|--Biometric/
|   |--Image/
|   |   |--<employeeecode>_<modality>_<dataid>.jpg
|   |   |--<employeeecode>_<modality>_<dataid>.png
|   |--Template/
|   |   |--<employeeecode>_<modality>_<dataid>.dat
|   |   |--<employeeecode>_<modality>_<dataid>.dat
|--Other information as CSV |--

```

Figure 5.242 Import/Export zip file folder hierarchy

Thumbnail and biometric cannot be exported.

1.Modality

1. Face
2. Finger
3. Iris

2.Data-id

Unique ID to add multiple biometric data in single modality

- emp0234_face_1.jpg, emp0213_face_2.jpg, emp0435_face_3.jpg
- emp0234_finger_1.jpg, emp0213_finger_2.jpg, emp0435_finger_3.jpg

3. Information as CSV

Table 5.44 Import/export csv files

Information	CSV file name
<i>User profile information</i>	PersonData.csv
<i>User/user group location restrictions information</i>	<ul style="list-style-type: none"> • PersonLocationRestrictionData.csv • GroupLocationRestrictionData.csv
<i>User group information</i>	GroupData.csv
<i>User group memberships information</i>	MembershipData.csv
<i>Shifts information</i>	TaskData.csv
<i>Rosters information</i>	RosterData.csv
<i>Roster items information</i>	RosterItemData.csv
<i>Holidays information</i>	HolidayData.csv
<i>Leaves information</i>	LeaveData.csv
<i>Event logs information</i>	EventLogData.csv

Following restrictions/limitations have been applied to import export data

4. Folders and images should follow the exact naming convention.
5. There can be only one image for customer profile in path 'Thumbnail/Customer/'.
6. For each person, there can be only one profile image in path 'Thumbnail/Person/'.
7. For each user group, there can be only one profile image in path 'Thumbnail/UserGroup/'.
8. Customer profile image should contain the customer name and each person or group profile image should contain the relevant employee code or group code.
9. Biometric images should be included in the path 'Biometric/Image' and templates should be included in the path 'Biometric/Template'.
10. Biometric image/template file name should be in '<employeecode>_<modality>_<dataid>' format.
11. Images can be in jpg or png format. Providing the extension is not mandatory.
12. Other import data files (CSV files) can also be included in the same zip file. All date time should be MM/dd/yyyy h:mm:ss a format and date format should be MM/dd/yyyy format.
13. The file naming conventions is mandatory when importing files.

5.21.3.1 User thumbnails

User thumbnails can be imported as jpg, png format in a zip file according to the file structure as shown in *Import and Export information* section. Unlike other information administrator are feels free to import all user thumbnails with any other file import.

User thumbnails cannot be exported.

5.21.3.2 User biometrics and template files

User biometrics and templates data can be imported as zip file as shown in [Import and Export information](#) section.

User biometrics cannot be exported.

5.21.3.3 User profile information

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
firstName	lastName	employeeCode	email	primaryTelephone	address1	address2	city	country	stateProvinceRegion	zipOrPostalCod	barCode	rfid	createdAt	
Bryant	Neil		1	15417543010				US				1259700208	321233	8/26/2019 6:17
Victor	Huego	9CHOHS		15416424231				US					321321	8/26/2019 6:17
Liam	Cameron	IM1XAC		15419031876				US					112321	8/26/2019 6:17
Jhon	Steurt	oQpgWW		12025550172				US					321321	8/26/2019 6:17
Kathrine	Dowd	70TYK0	kat.d@gmail.com	12025550164	San Francisco	California		US		100096			312331	8/26/2019 6:17

5.243 CSV template view of user profile information

- First name
This is mandatory information.
- Last name
This is mandatory information.
- Employee code
This is mandatory information.
- Email
- primary telephone
- Address1
Address line 1
- Address2
Address line 2
- City
- Country
- State province region
- Zip or postal code
- Created
MM/dd/yyyy h:mm:ss a format is required.

5.21.3.4 User group information

- Group code
This is a mandatory field. Group code should be unique.
- Description
- Created
MM/dd/yyyy h:mm:ss a format is required.

	A	B	C
1	groupCode	description	createdAt
2	SALES	Sales	1/11/2019 10:38
3	MT	Maintainers	2/11/2019 11:35

5.244 CSV template view of user group view

5.21.3.5 User/user group location restrictions information

	A	B	C	D	E	F	G	H	I	J	K
1	name	description	address	createdAt	allowBypass	employeeCode	groupCode	radius	latitude	longitude	
2	Sales 02	Sales in Hillcrest Queen	Hillcrest Queens, NY, USA	6/11/2019 5:45	FALSE	gWkikK		100	40.726913	-73.802164	
3	developments	Development team in Kansas city	707 E 16th St Kansas City, MO 64108	4/11/2019 1:22	TRUE	gWkikK		100	39.094325	-94.574969	
4											
5											

- Name *5.245 CSV template view of User/user group location restrictions*
This is mandatory information
- Description
- Address
- Created at
This is mandatory information. MM/dd/yyyy h:mm:ss a format should be applied.
- Allow bypass
- Employee code
This is mandatory information when importing users. Otherwise, this field should be empty.
- Group code
This is mandatory information when importing user groups. Otherwise, this field should be empty.
- Radius
- Latitude
This is mandatory information.
- Longitude
This is mandatory information.

5.21.3.6 User group memberships information

- Start date
MM/dd/yyyy h:mm:ss a format is required.
- End date
MM/dd/yyyy h:mm:ss a format is required.
- Created at
MM/dd/yyyy h:mm:ss a format is required.
- Group code
- Employee Code

	A	B	C	D	E	F	G	H
1	startDate	endDate	createdAt	groupCode	employeeCode			
2	6/11/2019 7:39		6/11/2019 7:39 ACC	1aPfGW				
3	6/11/2019 7:39		6/11/2019 7:39 ACC	2sWJ0C				
4	6/11/2019 7:39		6/11/2019 7:39 ACC	gWkikK				
5	6/11/2019 7:39		6/11/2019 7:39 ACC	TZRBG1				

5.246 CSV template view of the user group membership information

5.21.3.7 Shifts information

name	description	startTimeSeconds	checkinStart	checkinEnd	endTimeSeconds	checkoutStart	checkoutEnd	workHours	otStart	otEnd	restrictCheckin	restrictCheckout	restrictOT	limitOT	maxOT
Morning	Shift for morning	5:00:00	0:00:00	23:59:59	14:00:00	0:00:00	23:59:59	8:00:00	17:00:00	23:59:59	FALSE	FALSE	FALSE	FALSE	28800
Day	Shift for day	8:00:00	0:00:00	23:59:59	17:00:00	0:00:00	23:59:59	8:00:00	17:00:00	23:59:59	FALSE	FALSE	FALSE	FALSE	28800
Night	Shift for night	18:00:00	0:00:00	23:59:59	3:00:00	0:00:00	23:59:59	8:00:00	17:00:00	23:59:59	FALSE	FALSE	FALSE	FALSE	28800

5.247 CSV template view of Shifts information

- Name
Shift name.
- description
- Start time second
Shift start time
- Checkin start
The timestamp for the check-in start time to prevent early check-ins.
- Checkin end
The timestamp for the check-in end time to prevent late check-ins.
- End time second
The timestamp for shift end time
- Checkout starts
The timestamp for the checkout start time to prevent early checkouts.
- Checkout end
The timestamp for the checkout end time to prevent late checkouts.
- Work hours
The number of work hours user should cover in the shift.
- OT start
The timestamp for overtime start.
- OT end
The timestamp for overtime end.
- Restrict checkin
If this is true, checkin start and checkin end restrictions will be applied.
- Restrict checkouts
If this is true, checkout start and checkout end restrictions will be applied.
- Restrict OT
If this is true, OT start and OT end restrictions will be applied.
- Max OT
Maximum overtime overs permitted.

5.21.3.8 Rosters information

	A	B	C	D	E	F	G	H
1	rosterName	startDate	endDate	deletedDate	createdAt	rosterType	repetition	
2	Second quarter	7/29/2019 0:00			7/29/2019 3:01	WEEKLY	4	
3								
4								
5								

5.248 CSV template view of the roster information

- Roster name
- Start date
Start date of the roster.
- End date
End date of the roster.
- Repetition
- Deleted date
This should be empty.
- Created date
Specify the date for the roster create.
- Roster type

5.21.3.9 Roster items information

	A	B	C	D	E	F	G	H
1	createdAt	deletedDate	dayNumber	employeeCode	groupCode	rosterName	name	
2	7/29/2019 3:26		0		dev	Second quarter	Day	
3	7/29/2019 3:27		0		mkt	Second quarter	Day	
4	7/29/2019 3:27		0		Support	Second quarter	Morning	
5	7/29/2019 3:27		0		Support	Second quarter	Day	
6	7/29/2019 3:28		0		Support	Second quarter	Night	

5.249 CSV template view of the roster items information

- Created at
Created date for the roster item
- Deleted date
- Day number
- Employee code
- Group code
- Roster name

- Name
Name of the shift

5.21.3.10 Holidays information

	A	B	C	D	E	F	G
1	description	date	createdAt				
2	Office maintenance	7/31/2019 0:00	7/29/2019 3:31				
3	Christmas	12/25/2019 0:00	7/29/2019 8:55				
4	Halloween	10/31/2019 0:00	7/29/2019 8:56				
5	Good friday	3/30/2019 0:00	7/29/2019 8:56				
6							

5.250 CSV template view of the holiday's information

- Description
Description of the holiday
- Date
Date of the holiday
- Created at
Created date in the server

5.21.3.11 Leaves information

	A	B	C	D	E	F	G	H	I
1	startDate	endDate	createdAt	leaveType	employeeCode				
2	7/2/2019 0:00	7/5/2019 0:00	7/29/2019 9:52	CASUAL	IM1XAC				
3	7/2/2019 0:00	7/3/2019 0:00	7/29/2019 9:52	MEDICAL	oQpgWW				
4	7/24/2019 0:00	7/27/2019 0:00	7/29/2019 9:53	VACATION	70tYk0				
5									

5.251 CSV template view of Leaves information

- Start Date
Leave start day
- End date
Leave end day

- Created at
Leave created date in the NCheck Bio Attendance server
- leave type
- Employee code

5.21.3.12 Event logs information

FileHomeInsertPage LayoutFormulasDataReviewViewHelpFont PDFTell me what you want to do																							
Clipboard		Font				Alignment				Number				Conditional Format as FormattingTable		Styles		Cells			Editing		
CutCopyFormat Painter		Calibri11A ⁺ A ⁻ BFIU□□□																					

5.252 CSV template view of the event logs information

- Checkin latitude
Latitude of the check-in location
- Checkin longitude
Latitude of the check-in location
- Checkin address
Address of the check-in location
- Checkout latitude
Latitude of the checkout location
- Checkout longitude
Latitude of the checkout location
- Checkout address
Address of the checkout location
- Checkout description
Description of the checkout
- Employee code
Shift name
- Task name
Shift name
- Checkin time
Date and time of the check-in time
- Checkout time
Date and time of the checkout time
- Shift start
Date and time of the Shift start
- OT start
- Shift span second
- OT span second
- OT enabled
- Limit OT
- Checkin time zone
Checkin time zone in seconds.
- Checkout time zone
Checkout time zone in seconds.
- Work hours
Work hours in seconds
- maxOT

5.21.3.13 Select import location

This view allows to browse files In the local file system for operations in NCheck Bio Attendance system.

5.253 Import data from local file system window

1. Select the import location file

- [Import from local file system](#)
- [Import from FTP](#)

2. Password protection

Select this check box to enter the password if the file is encrypted.

3. File password

Enter the encrypted password

4. **Execute** button

Execute button will be disabled if the mandatory fields are empty or [Validation errors](#) exist. [Table 5.45](#) Error messages of data import is showing error message could appeared when import files.

5. **Close** button

Table 5.45 Error messages of data import

Error code	Error message
1003	Unable to connect with the FTP server {server name}
2046	Invalid FTP file path
2047	Invalid FTP username or password
3013	Data import failed. Invalid password.
4003	Unidentified error occurred during data import. Please contact administrator or NCheck Bio Attendance support for more details.

5.21.3.13.1 Import from local file system

Choose the zip/csv file from the local file system

5.21.3.13.2 Import from FTP

This view allows to configure FTP location to import files for operations in NCheck Bio Attendance system.

Figure 5.254 FTP server location settings view

1. FTP host address
2. File path in the file system
3. Check this if the FTP access credentials is required
4. FTP Username
5. FTP password

5.21.3.14 Select export location

Encrypted files cannot be open via Microsoft Windows default extractor. You may use any third-party software which support encrypted files extraction.

5.255 Download exported date window

1. Export option
 - [Download exported files](#)
 - [Save to FTP location](#)
2. File password
The password must have at least 6 character and one digit/
3. Confirm password
4. **Execute** button
Execute button will be disabled if the mandatory fields are empty or [Validation errors](#) exist. [Table 5.46](#)
Error messages of export files is showing the error message could appeared on import files.
5. **Close** button

Table 5.46 Error messages of export files

Error code	Error message
------------	---------------

1003	Unable to connect with the FTP server {server name}
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.
2046	Invalid FTP file path
2047	Invalid FTP username or password
4004	Unidentified error occurred during data export. Please contact administrator or NCheck Bio Attendance support for more details.

5.21.3.14.1 Download exported files

Download file to the local file system.

5.21.3.15 Save to FTP location

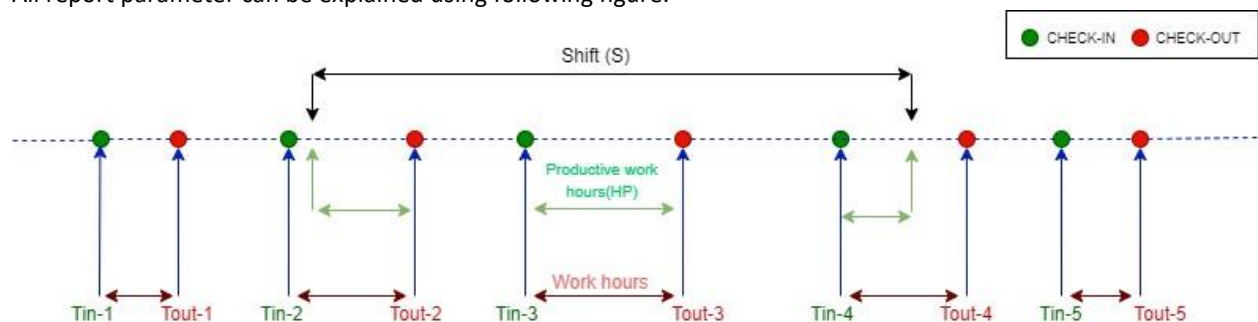
This view allows to set FTP location details for file save operations in NCheck Bio Attendance server

Figure 5.256 FTP server location configuration for save exported files

1. FTP host address
2. File path in the file system
3. Check this if the FTP access credentials is required
4. FTP Username
5. FTP password

5.21.4 Report parameters

All report parameter can be explained using following figure.



5.257 Report parameters view

5.21.4.1 First check-in

First check-in time within the shift

5.21.4.2 Last check-out

Last check in time within the shift

5.21.4.3 Work hours

Total summation of time differences between consecutive check-ins and check-outs.

5.21.4.4 In-out hours

Time difference between *First check-in* and *Last check-out*.

5.21.4.5 Productive hours (HP)

According to the figure, productive hours can be identified as

$$H_p = \text{Tout}_a - \max(S_{start}, \text{Tin}_a) + \sum_{i=a+1}^n (\text{Tout}_i - \text{Tin}_i) + \min(S_{end}, \text{Tout}_n) - \text{Tin}_n$$

According to the Figure this can be defined

$$H_p = (\text{Tout}_2 - S_{start}) + (\text{Tout}_3 - \text{Tin}_3) + (S_{end} - \text{Tin}_4)$$

5.21.4.6 Shift work hours (HS)

Minimum from *Work hours* and Shift hours.

$$H_s = \min(H_w, S_h)$$

5.21.4.7 Productive work hours (HPS)

Minimum from *Productive hours* (HP) and *Shift work hours* (HS)

5.21.4.8 Unproductive hours

$$T_{InOut} - H_p$$

5.21.4.9 Overtime hours

Overtime hours can be defined as

$$OT = H_w - S_H$$

5.21.4.10 Break hours

Total differences between check-in's and check-outs of consecutive events in hours.

$$\sum_{i=1}^n T_{in-(i+1)} - T_{out-i}$$

5.21.4.11 Late arrival

Time difference between shift start and the first check-in when first check-in occurs after the shift start time.

5.21.4.12 Late departure

Time difference between shift end and the last check-out when last check-out occurs after the shift end time.

5.21.4.13 Early arrival

Time difference between shift start and the first check-in when first check-in occurs before the shift start time.

5.21.4.14 Early departure

Time difference between shift end and the last check-out when last check-out occurs before the shift end time.

5.21.4.15 Efficiency

The ratio between *Productive hours* (HP) and work time defined for the particular shift.

5.21.4.16 Event logs count

Number of events for the particular user/employee for the selected date range.

5.21.4.17 Roster item count

Number of roster items assigned for the particular user/employee for the selected date range.

5.21.4.18 Number of Leaves

Number of leaves approved for particular user for the selected date range.

5.21.4.19 Number of holidays

Number of holidays of the organization in the selected date range.

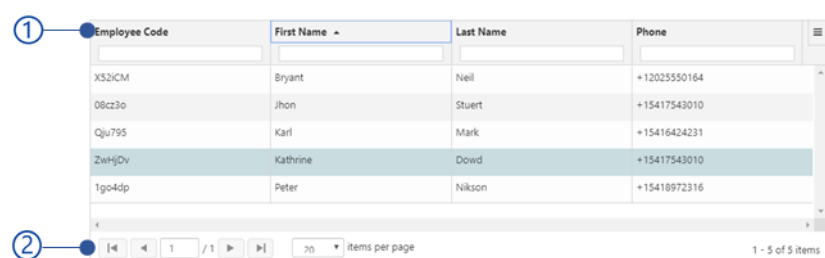
5.21.4.20 Replacements

Depending on the organization requirement such as handle the work load, manage absentees, additional employee(s) can be added to a specific roster item as mentioned in [Add additional staff](#) section. This parameter shows number of additional user(s)/employee(s) replaced for the user/employee in such cases.

5.21.5 Table options

The following options are available in tables using over the NCheck Bio Attendance control panel.

1. [Table header](#)
2. [Table paging options](#)



Employee Code	First Name	Last Name	Phone
X52iCM	Bryant	Neil	+12025550164
08cz3o	Jhon	Stuert	+15417543010
Qju795	Karl	Mark	+15416424231
ZwhjOv	Kathrine	Dowd	+15417543010
1go4dp	Peter	Nikson	+15418972316

1 - 5 of 5 items

Figure 5.258 Control panel table view

5.21.5.1 Table header

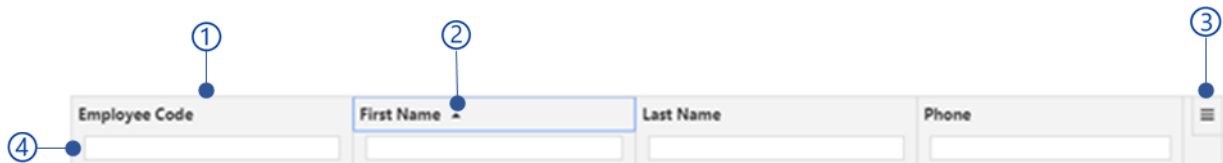




Figure 5.259 Table header column view

1. Table column
2. Column sorting order as mentioned in [Table 5.47](#) Table column sorting options
3. [Table menu](#)
4. Column search
This field is used to filter the column content.

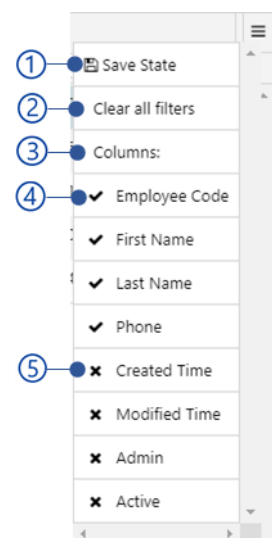
Table 5.47 Table column sorting options

Icon	Sorting order
None	No sorting will be applied for the particular column
	Columns will be sorted in ascending order
	Columns will be sorted in descending order

5.21.5.2 Table menu

Over the NCheck Bio Attendance control panel, list of data is representing using data tables. Following features are available in the data table.

1. Save state
Save the applied filters and columns in the browser cache.
2. Clear all filters
Clear applied filters from the browser cache.
3. Columns
All table columns.
4. Visible columns
5. Hidden columns



5.260 Table menu view

5.21.5.3 Table paging options

Table paging options allowed to prevent retrieving and loading large number of data to the table at once. These options are important to handle large data within the system without affecting the performance of the system.

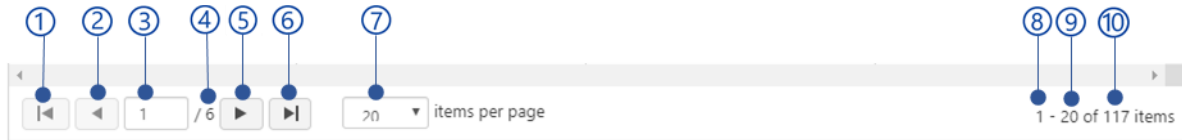


Figure 5.261 Table paging view

1. Go to the first page
2. Go to the previous page
3. Current page number
4. Number of pages
5. Go to the next page
6. Go to the last page
7. Number of items for a page
The available options are 20, 50 100.
8. Index of the first row in the page
9. Index of the last item in the page
10. Number of items in the page

5.21.6 Control panel settings

Administrator allows to configure below mentioned settings in the NCheck Bio Attendance Cloud/On-premises server.

- [General setting list](#)
- [Client settings list](#)
- [Biometric setting list](#)
- [Web interface setting list](#)

5.21.6.1 General setting list

5.21.6.1.1 Default shift start time

The start time of the for the default shift. Default is *00.00.00*.

5.21.6.1.2 Default shift end time

The end time of the default shift. Default is *23.59.59*.

5.21.6.1.3 Day start time

Time to start working/office hours. Default is *00.00.00*.

5.21.6.1.4 Week start date

Week start day of the organization. Default is *Monday*.

5.21.6.1.5 Month start date

Month start day of the organization. Default is 1st day of the month.

5.21.6.1.6 Date format

Date format for the control panel and reports. Default is *yyyy-MM-dd*.

5.21.6.1.7 Time format

The time format for the Control panel and reports. Default is *HH:mm:ss*.

5.21.6.1.8 Default shift selection behavior

This option control default shift selection. The default is *Allow when other shifts available*.

Available options are

- Don't allow
Not allowed to select default shift.
- Allow when no shifts available
Allow using default shift when custom shifts are not available.
- Allow when other shifts available
Allow using default shift when custom shifts available.

5.21.6.1.9 Auto checkout at the end of the shift

Enable this option to auto checkout user at the end of the shift automatically. This setting has disabled by default.

5.21.6.1.10 Notify check-in attempts on restricted leave

When this setting is applied, administrator gets email or control panel notification if a user who are on restricted (leave policy) leave tries to check-in.

5.21.6.1.11 Unidentified event log count to keep

Number of maximum unidentified event logs to keep in the system. Older event logs will be deleted if the maximum event log count is exceeded. Set -1 to disable this setting.

5.21.6.1.12 External resource URL

In NCheck Bio Attendance on-premises server, If the email sent to your inbox does not show images properly. You can keep those images in a publicly accessible location and specify URL for those images here. To refer default resource as "https://<server ip>:<port>/resources/ncheck.image?resource_name".

5.21.6.2 Client settings list**5.21.6.2.1 Result dialogue timeout**

Timeout for check-in/checkout result dialogue. The default value is *5 seconds*.

5.21.6.2.2 Enable licensing

In NCheck Bio Attendance cloud, enable this setting to activate Standard clients with the cloud subscription if there are available licenses as mentioned in License statics section of the Subscription..

5.21.6.2.3 Show work time on clients

The display worked time in result dialogue after check-in or check-out events. This setting has been enabled by default.

5.21.6.2.4 Offline operation mode

Enable to record attendance in NCheck Bio Attendance Standard clients when the internet service is not available. This setting has been disabled by default.

5.21.6.2.5 Manual capture start

Enabling this setting, user able to manually record the event (Standard clients) or record the event as either check-in or check-out.

Following capture start modes can be select once the manual capture start enabled.

1. Check-in check-out selection
Once this setting has selected, user able to manually select the event type as check-in or check-out.
2. Select start button
Standard clients capture face automatically once the face is detected. Enable this setting to capture button to capture manually.

5.21.6.2.6 Automatically synchronize offline data

Synchronize the offline data automatically with the NCheck Bio Attendance server when Enable offline mode setting is enabled. This setting has been enabled by default.

5.21.6.2.7 Offline data synchronize interval

Data synchronize interval when the Offline data synchronize interval setting is enabled. The default synchronize interval is *minutes*.

5.21.6.2.8 Allow automatic peripheral enabling of new clients

If this setting is enabled, the peripherals in the registered devices will be enabled automatically. This setting has been enabled by default.

5.21.6.2.9 Reset offline client password

Reset password for the control panel login in NCheck Bio Attendance Standard clients when the offline mode is enabled. Client password is empty by default.

5.21.6.2.10 Duplicate event timeout

The time interval between consecutive attendances record to prevent duplicate record in seconds. Default is 3 *seconds*.

5.21.6.2.11 Event log image size

Size of the biometric image when recording attendance. The biometric image is sending to the NCheck Bio Attendance server for user identification. Time took to record attendance can be depended on the size of the image. According to the selected size, image will be compressed without changing the aspect ratio. Default image size is *Medium*.

The available image sizes are

- Small
The images will be compressed to 224*224.
- Medium
The images will be compressed to 512*512.
- Original
The original image will be uploaded.

The recommended event log image size is Medium.

5.21.6.2.12 KIOSK mode operation (For Microsoft Windows clients)

Enable this to open NCheck Bio Attendance clients for Windows in the full-screen mode. This setting has been disabled by default.

5.21.6.2.13 KIOSK mode exit code

Exit code from the KIOSK mode for NCheck Bio Attendance Lite for Android can be given here. Exit code is empty by default.

5.21.6.2.14 Allow predefined location

This setting is used to configure the location source for the Android and IOS Lite clients need to be used when recording attendance events.

The available location options are.

1. Always use GPS
The location coordinate will be retrieved from the GPS facility available with the device.
2. Prefer GPS over predefined
If the GPS facility available, GPS coordinates will be used. Otherwise, predefined location will be used as *Predefined location* preference of Android and IOS Lite clients.
3. Always use predefined
The location coordinates will be taken from the predefined location as *Predefined location* preference of Android and IOS Lite clients.

5.21.6.2.15 Self-enroll templates

If this setting is enabled, NCheck Bio Attendance Lite for Android registered for a user allows to enroll face template during attendance recording if no template has enrolled for a user. Refer *Face capturing in lite client* section for more details.

5.21.6.2.16 Hat detection feature

This setting allows to record attendance events if the user wears a hat. If the hat detection feature is enabled, attendance events will be recorded when the hat detection score from the client is greater than the Hat detection threshold. Hat detection feature available for NCheck Bio Attendance Standard clients only.

5.21.6.2.17 Hat detection threshold

This setting is available in NCheck Bio Attendance Standard clients when the [Hat detection feature](#) setting has enabled. Administrator can set the hat detection threshold. Attendance event will be recorded if the hat detection score from the NCheck Bio Attendance Standard clients larger than hat detection threshold.

5.21.6.2.18 Use in-built biometric verification on personal clients

If this setting is enabled, attendance events can be recorded in Android and IOS Lite clients using the authentication utilities available with the device.

Available verification features are as follows for the devices.

1. Android
Either Finger or face authentication must be available with the Android device.
2.
Finger ID or Touch ID features must be available with the IOS device.

5.21.6.2.19 Guard application support

To enable guard application support, this this setting must be enabled first. Otherwise, Guard application registration and other functionalities will be restricted.

5.21.6.2.20 Hide user list on windows client

Enable this setting to hide the Windows user result views from the Windows Standard and Lite clients.

5.21.6.2.21 Mask detection

This setting can be used to detect user face with a mask. Before enable face mask detection, make sure that you have selected the “Detect face mask” setting under the “Face quality” setting in biometric setting. Once the mask detection is set, NCheck Bio Attendance clients will calculate the mask detection score to perform the operations based on “Mask detection threshold” according to the selected mask detection option as below.

The following settings are available for mask detection

1. Do not detect
Select this option to identify face without face mask.
2. Detect
Select this option to identify face with face mask. The detection will be indicated in the clients as follows

Table 5.48 Indicators for Detect mask detection option





	Indicator of Windows Standard client	Indicator of Android Standard client
Mask detection score \geq Mask detection threshold		

Mask detection score < Mask detection threshold		
---	---	---

3. Required

To record the event successfully, user must wear a mask. If the mask detection score is greater than the “Mask detection threshold”, attendance will be recorded successfully. The detection will be indicated in the clients as below

Table 5.49 Indicators for Required mask detection option

	Indicator of Windows Standard client	Indicator of Android Standard client
Mask detection score \geq Mask detection threshold		
Mask detection score < Mask detection threshold		

5.21.6.2.22 Mask detection threshold

Decrease the value, if a user face with a face mask is not identified as mentioned in “Mask detection” settings. Make sure that you have selected the “Detect face mask” setting under the “Face quality” setting in biometric setting

5.21.6.3 Biometric setting list

5.21.6.3.1 Allow without biometrics

This feature allows to record user attendance from NCheck Bio Attendance Lite clients simply selecting a button as mentioned in [Main view for non-biometrics capture](#) section. This setting has been disabled by default.

5.21.6.3.2 Manual face selection

This allows to select users for check-in/checkout when the multi-face capturing mode (Refer [Lite client](#) section for more details about multi face mode) is enabled in the NCheck Bio Attendance Lite client devices. This setting has been enabled by default.

5.21.6.3.3 Face liveness mode for client application

Liveness can be used to differentiate live faces from non-live faces to prevents buddy punching. Face liveness mode is *None* by default. When this is enable, user will be asked to follow set of instructions. If user follows the instruction correctly, event will be recorded.

Available options are

- Passive

In this mode, the user should hold his head still for a few seconds.

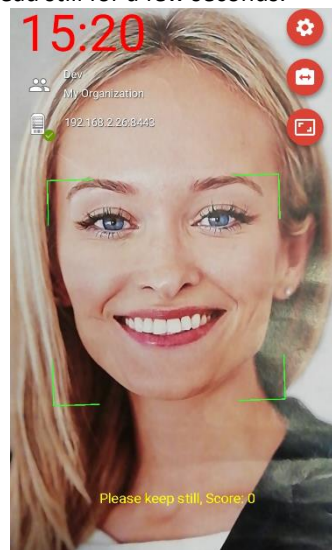


Figure 5.262 Android Standard client in passive liveness mode

- Active

In this mode, the user should follow the commands on the screen by moving his head or blinking eyes.

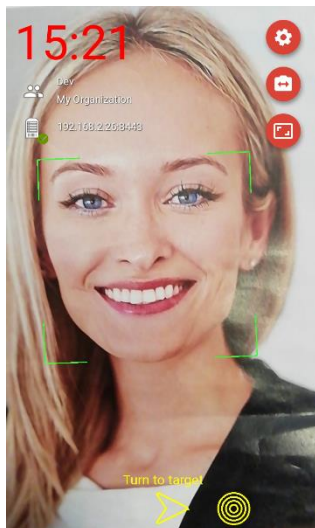


Figure 5.264 Android Standard client in active liveness mode

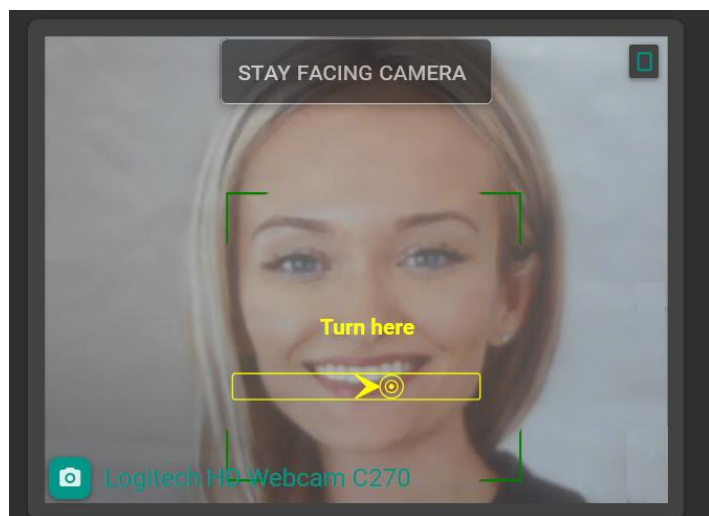


Figure 5.263 Windows Standard client in active liveness mode

- Passive and active

Both passive and active mode above is combined for better face recognition result.

- Simple

In this mode, the user should follow the commands on the screen and turn face time to time. It is simplified version of *Active* liveness recognition.

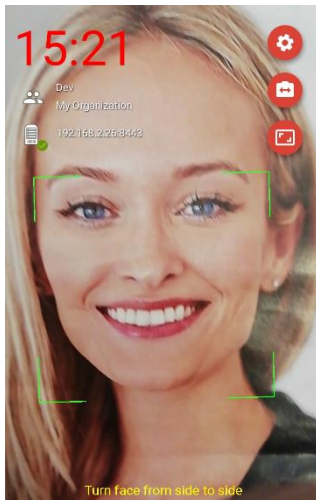


Figure 5.266 Android Standard client in simple liveness mode

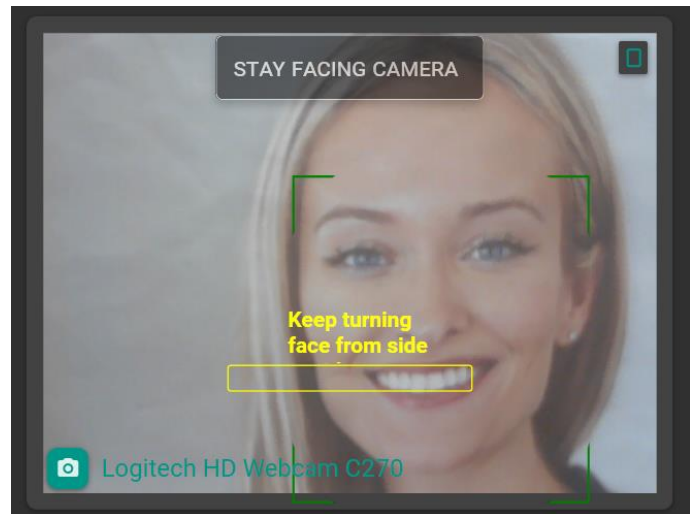


Figure 5.265 Windows Standard client in simple liveness mode

- Custom

In this mode, it is required to turn head to four directions (up, down, left, right) in a random order (follow up points are same as *Active* mode).

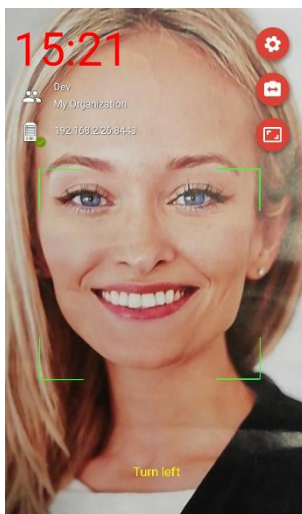


Figure 5.268 Android Standard client in custom liveness mode

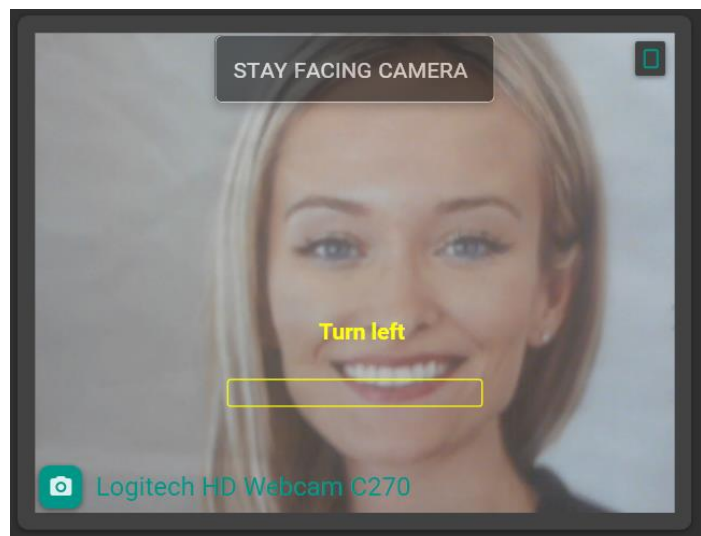


Figure 5.267 239 Windows Standard client in custom liveness mode

- None

In this mode, the face liveness check is not performed.

Refer [Face capturing in Standard client](#) section for more details about record attendances using liveness settings in NCheck Bio Attendance Standard clients.

5.21.6.3.4 Face liveness threshold for client application

The value which controls the requirements for client-side face liveness. The greater this value is the stricter rules are applied when deciding if the face is live. Default face liveness threshold value is 50.

5.21.6.3.5 Server-side face liveness checking

Enable this setting to differentiate live faces from non-live faces. Unlike client-side face liveness, here the server will detect the liveness of the captured face.

5.21.6.3.6 Server face liveness confidence threshold

The value which controls the requirements for server-side face liveness. The greater this value is the stricter rules are applied when deciding if the face is live. Default face liveness threshold value is 50.

5.21.6.3.7 Recognition threshold

Increase the value if same user identified differently time to time during identification. Note that good image quality is required for a higher recognition accuracy during face identification. Default recognition threshold value is 48.

5.21.6.3.8 Verification threshold

Increase the value if higher verification accuracy is required. Note that good image quality is required for a higher accuracy during face verification. Default verification threshold value is 36.

5.21.6.3.9 Enrollment threshold

Start with a higher enrollment accuracy if the system is intended to be used with a larger crowd. Default enrollment threshold value is 48.

5.21.6.3.10 Face confidence

Use higher face confidence for event image if good image quality is available. Default face confidence value is 40.

5.21.6.3.11 Face quality

Increase the value if the same user identified differently from time to time. By increasing the value, the system is forced to ignore low quality face images. Default face quality value is 40. **Detect faces with mask** sub setting has been introduced with face quality setting to enables face capturing wearing face masks. Refer [Detect faces with mask setting](#) for more details.

5.21.6.3.12 Maximum face yaw

The maximum angle of the face needs to be captured by the client. Maximum face yaw can be 0- 90 degrees.

5.21.6.3.13 Detect faces with mask

Neurotechnology Biometric algorithms can recognize faces even the person wearing a mask. In an environment where most people wear face masks (e. g.: Hospitals) this setting will easily identify employees

To enable this feature, check the checkbox "Detect faces with mask" under Face Quality setting.

By enabling this setting, face quality threshold is set to 0 and you cannot change it without disabling mask mode

5.21.6.3.14 Face confidence for enrollment

Use higher face confidence for enrolling image if good image quality is available. Default face confidence value is 30.

5.21.6.3.15 Face quality for Enrollment

Increase the value if the enrolling face image duplicates with enrolled face image of another user. By increasing this value, the system is forced to ignore low quality face images. Default value is 48.

5.21.6.3.16 Finger quality for Enrollment

Increase the value if the enrolling finger image duplicated with enrolled finger image of another user. By increasing the value, the system is forced to ignore low quality finger scans. Default fingerprint quality value is 40.

5.21.6.3.17 Iris quality for Enrollment

Increase the value if the enrolling iris image duplicates with the iris image of another user. By increasing the value, the system is forced to ignore low quality iris scans. Default fingerprint quality value is 50.

5.21.6.3.18 Fingerprint quality

Increase the value if the same user identified differently from time to time. By increasing the value, the system is forced to ignore low quality finger scans. Default fingerprint quality value is 40.

5.21.6.3.19 Iris quality

Increase the value if the same user identified differently from time to time. By increasing the value, the system is forced to ignore low quality iris scans. Default fingerprint quality value is 50.

5.21.6.3.20 High-speed face detection

High speed face detection when the face biometric is used. This setting has been disabled by default.

5.21.6.3.21 Disable duplicate checking

Enable this setting to enroll same biometric image for different users.

5.21.6.4 Web interface setting list**5.21.6.4.1 Dashboard refresh interval**

Dashboard refresh interval can be set in minutes to refresh the Dashboard to display recent attendance overview. The default refreshing interval is 2 *minutes*.

5.21.6.4.2 Show meridian in time

Enable the toggle button to show AM/PM with the time. This setting has been disabled by default.

5.21.6.4.3 Report export PDF font

User must select appropriate font from this setting to export report successfully according the selected control panel language.

The available fonts are

1. Roboto (Latin)
Default font to export pdf report. Select this language to export report in any western European language.
2. Simsun (Chinese, Latin)
Select this font to export report in Chinese language.
3. Ek Mukta (Hindi, Latin)
Select this font to export report in Hindi language.

5.21.6.4.4 Event log location map provider

Select map provider to check the map representation of users event logs as mentioned in [Map view](#) section.

Available map providers are

1. Google maps
2. Baidu maps

5.21.6.4.5 Map API key

Add map API key to enable map representation of users event logs according the selected map provider in [Event log location map provider](#) setting.

6 CLIENTS

NCheck Bio Attendance Client is used as a client application for NCheck Bio Attendance server. It is mainly used to record attendance. It also can be used as a standalone attendance device.

NCheck Bio Attendance client has two applications

1. NCheck Bio Attendance Lite client
NCheck Bio Attendance Lite client is a simple client application with minimal required functionality for Windows, Android and IOS.
2. NCheck Bio Attendance Standard client
NCheck Bio Attendance Standard client for Windows and Android includes client-side biometric extraction and matching which provides advanced functions like automatic face recognition, face capturing and offline operation. The Standard client requires a NCheck Bio Attendance license
3. NCheck Bio Attendance Surveillance client for Windows
NCheck Bio Attendance Surveillance client for Windows support all the features in NCheck Bio Attendance Standard client for Windows with guard functionality in which an authorized person can manually identify the person and record the event in the attendance system
4. NCheck Bio Attendance Guard client for Android
NCheck Bio Attendance Guard for Android application provide functionality which an authorized person can manually identify person and record event in the attendance system.

6.1 System requirement

Table 6.1 System requirements for clients applications

	Lite	Standard	Surveillance/Guard
Windows	<ul style="list-style-type: none"> • Microsoft Windows 8 or higher operating system • 1GB of disk space • 2GB of RAM • Supported Face peripheral 	<ul style="list-style-type: none"> • Microsoft Windows 8 or higher operating system • 1GB of disk space • 4GB of RAM • One supported peripheral as mentioned in the in Peripherals section 	<ul style="list-style-type: none"> • Microsoft Windows 8 or higher operating system • 1GB of disk space • 8GB of RAM • Supported Face peripheral

Android	<ul style="list-style-type: none"> • Android phone or tablet running Android 4.4 OS or later version • 1 GB Of RAM • Integrated camera 	<ul style="list-style-type: none"> • Android phone or tablet running Android 4.4 OS or later version • 2 GB of RAM • USB OTG (USB On the Go) feature if using peripherals as mentioned in the in Peripherals section 	<ul style="list-style-type: none"> • Android phone or tablet running Android 4.4 OS or later version • Integrated camera
IOS Client	Apple device running IOS 10.2 OS or later	Not available	Not available

6.1.1 Peripherals

NCheck Bio Attendance client applications supports following peripherals.

1. [Face](#)
2. [Fingerprint](#)
3. [Iris](#)
4. [Other](#)

NCheck Bio Attendance installer for Windows is installing all necessary drivers in order to enable face, fingerprint and iris scanners. But in case if you need additional drivers, you may need to install compatible drivers in the computer. You can download drivers for supportable camera, fingerprint and iris scanners from [scanner driver package](#).

6.1.1.1 Face

NCheck Bio Attendance Android and IOS clients are using cameras available with the device. NCheck Bio Attendance Windows clients support following camera types.

- [USB cameras](#)
- [IP cameras](#)

6.1.1.1.1 USB cameras

In general, USB cameras working in Windows OS are supported.

6.1.1.1.2 IP cameras

Refer [Neurotechnology guide for supported cameras](#) section for all supported IP cameras. Refer [Preferences](#) section for add IP cameras for NCheck Bio Attendance Standard for Windows.

6.1.1.2 Fingerprint

NCheck Bio Attendance clients support external or internal USB fingerprint scanners. Refer [Neurotechnology guide for supported fingerprint scanners and sensors](#) for Windows standard client.

6.1.1.3 Iris

NCheck Bio Attendance clients support external or internal USB iris scanners. Refer [Neurotechnology guide for supported iris scanners](#) for Windows standard client.

By default, iris scanners are disabled for Windows standard client. To enable, unzip necessary iris scanners from the IrisScanners folder in NCheck Bio Attendance installation folder (By default the installation folder is "C:\Program Files\Neurotechnology\ NCheck Bio Attendance")

6.1.1.4 Other

NCheck Bio Attendance supports capturing other authentication data. Data capture is performed by using the following hardware.

Table 6.2 Hardware requirements for non-biometric identification

	Lite	Standard
RFID	<ul style="list-style-type: none"> • External HID • External Serial 	NFC Support
Barcode	External HID	Using built-in camera

6.1.2 Access control

NCheck Bio Attendance Standard clients are able to trigger external executables with given parameters as mentioned in [External executables](#) section.

6.1.3 Supporting Locations

NCheck Bio Attendance uses operating system provided location services to capture the location of attendance events.

For enabling location service from the operating system, please refer location service configuration for the relevant operating system.

6.2 Install Client

6.2.1 Download client

NCheck Bio Attendance clients application download from [download page](#).

6.2.2 Install clients for Windows

Windows install includes all components of NCheck Bio Attendance. You need to select the required client (Lite or Standard) to install the client. Refer [Install client For Windows](#) section for more details

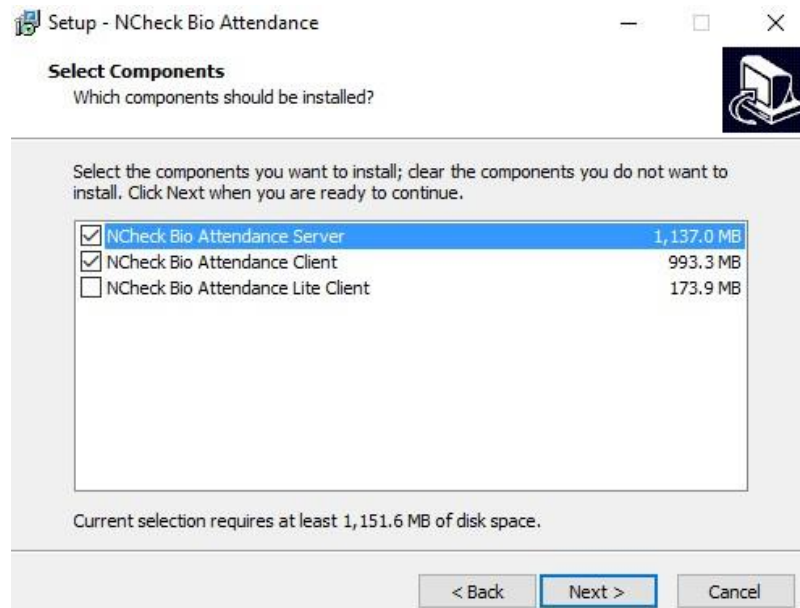


Figure 6.1 Select components of Windows installation

After successful installation you will be asked to activate license in NCheck Bio Attendance Standard clients, Surveillance client for Windows and Guard client for Android as mentioned in [License Activation](#) section. For NCheck Bio Attendance Lite client you will be asked to register the device as mentioned in [Register clients](#) section.

6.3 License Activation

[NCheck Bio Attendance](#) Client Standard needs to activate licenses. Please refer [Activat](#) section for more details.

NCheck Bio Attendance Lite clients are free and not required to activate licenses.

After successful license activation, you will be asked to register the client application as mentioned in [Register clients](#) section.

6.4 Register clients

NCheck Bio Attendance Clients can be used with following modes

- NCheck Bio Attendance Cloud
- NCheck Bio Attendance server installed on-premises
- Standalone (Standard clients and Surveillance client only)

Registration process configures the application to work with one of the above three modes. Accessing registration can be done as the following ways

- Application will prompt you the registration dialogue in case it is not registered
- User registration option from the application menu.

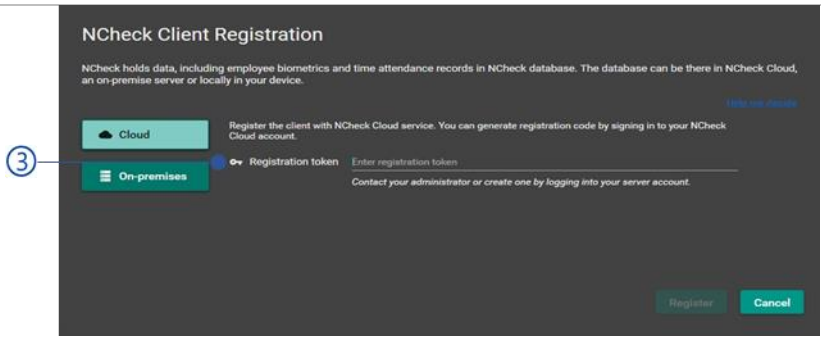
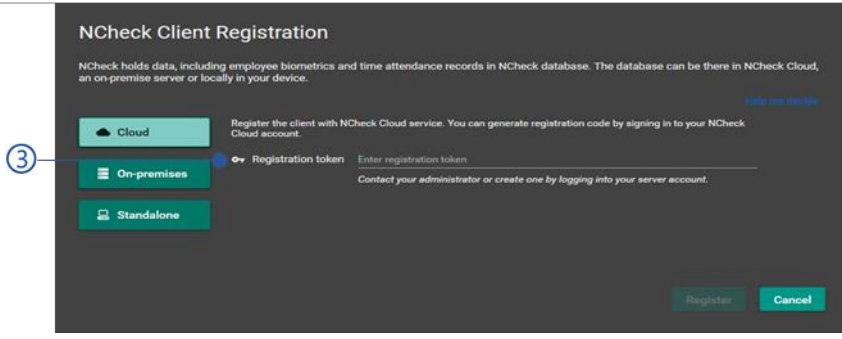
6.4.1 Registration screen

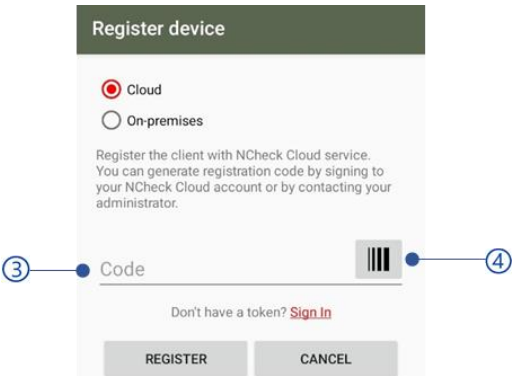
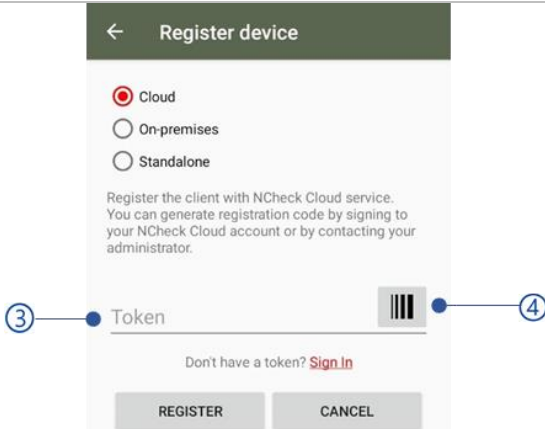
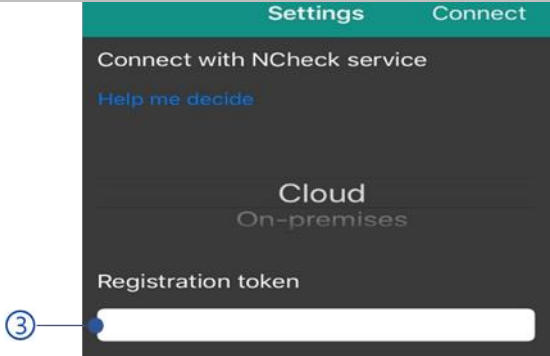
6.4.1.1 Mode of registration

1. Server URL
2. **Search server** button
Select this option to detect server URL.
This option works if the server and client work in same network.
3. *Registration Token*
4. **Scan barcode** button
Instead of entering registration token, users can scan barcode in Android client.

6.4.1.1.1 Cloud mode

Table 6.3 Registration views of cloud mode

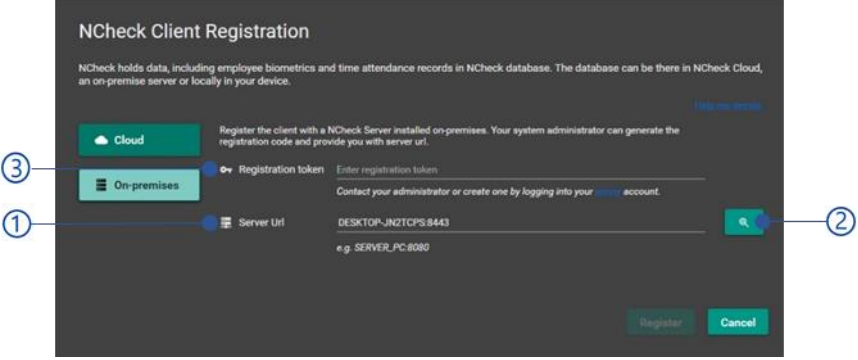
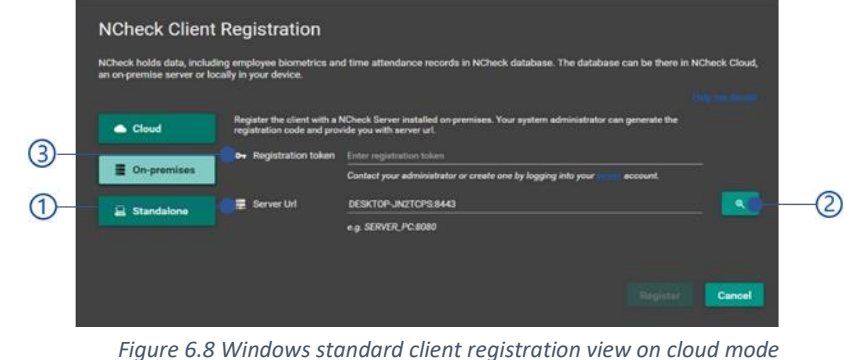
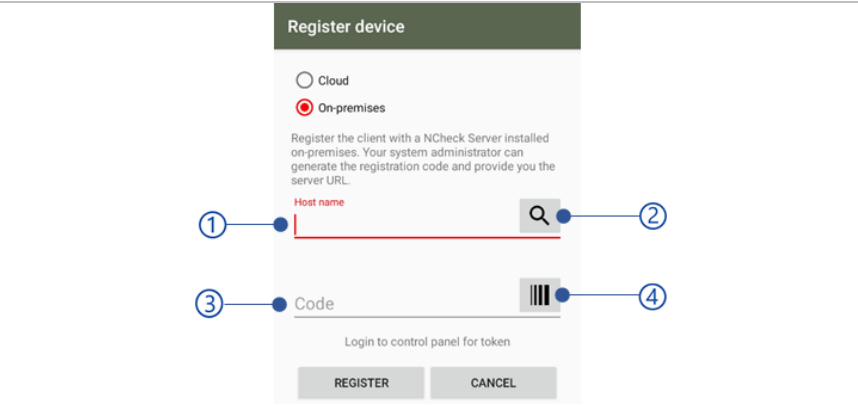
	Version	Cloud mode
Windows	Lite	 <p>Figure 6.2 Windows lite client registration view on cloud mode</p>
	Standard/ Surveillance	 <p>Figure 6.3 Windows standard client registration view on cloud mode</p>

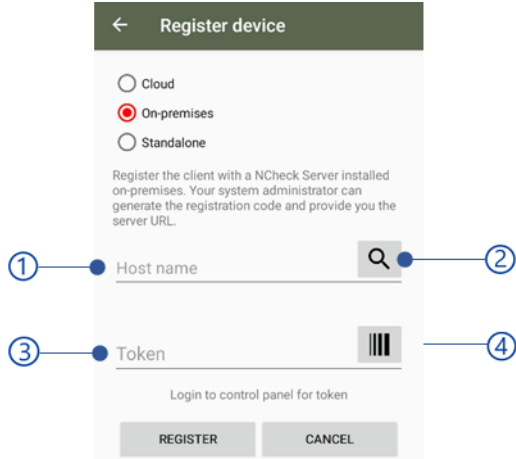
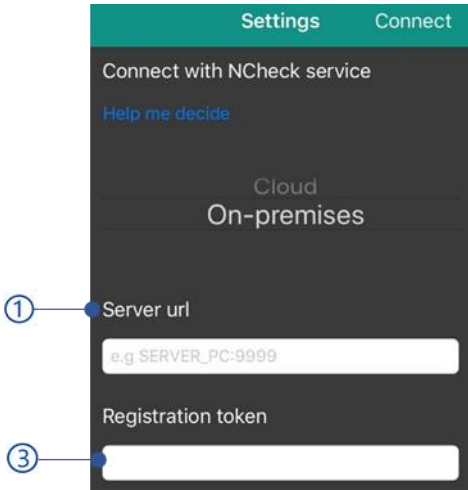
Android	Lite/Guad	 <p>Figure 6.4 Android lite client registration view on cloud mode</p>
	Standard	 <p>Figure 6.5 Android standard client registration view on cloud mode</p>
IOS	Lite	 <p>Figure 6.6 IOS lite client registration view on cloud mode</p>

6.4.1.1.2 On-premises mode

Table 6.4 Registration views of on-premises mode

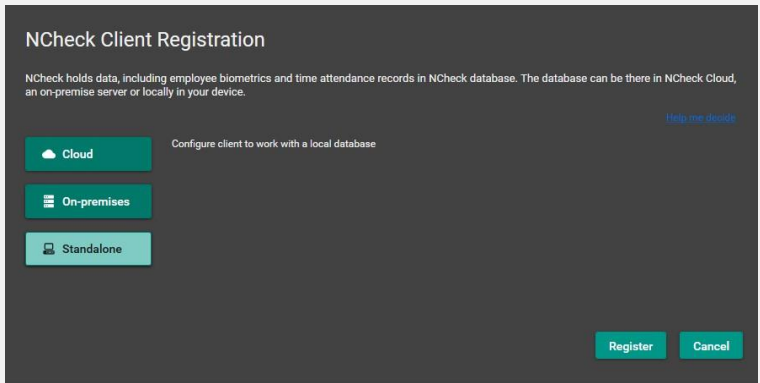
	Version	On-premises mode
--	---------	------------------

Windows	Lite	 <p>Figure 6.7 Windows lite client registration view on on-premises mode</p>
	Standard/ Surveillance	 <p>Figure 6.8 Windows standard client registration view on cloud mode</p>
Android	Lite/Guard	 <p>Figure 6.9 Android lite client registration view on on-premises mode</p>

	Standard	 <p>Figure 6.10 Android standard client registration view on on-premises mode</p>
IOS	Lite	 <p>Figure 6.11 IOS lite client registration view on on-premises mode</p>

6.4.1.1.3 Standalone mode

Table 6.5 Registration views of standalone mode

	Version	Standalone mode
Windows	Standard	 <p>Figure 6.12 Windows standard client registration view on standalone mode</p>

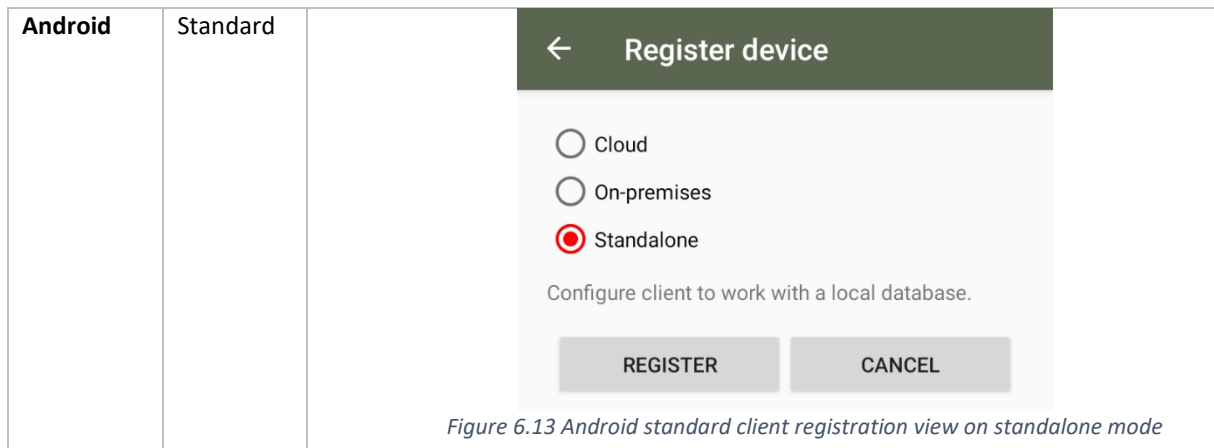


Figure 6.13 Android standard client registration view on standalone mode

6.4.2 Registration Token

To register the client application with cloud or on-premises server, a registration code is required. Registration code can be generated by an administrator. Depend on the registration code generation, the client application can be registered in the following two modes

- **Group**
Please refer [User group quick view](#) section for more details about registering device for group of users. Once the device is registered, the selected group of people can use the attendance terminal to check-in and check-out.
- **Personal**
Please refer [User quick view](#) section for more details about registering device for person. Once the device is registered as a personal device, the selected user only can perform check-in and check-out from the terminal.

6.4.3 Registration

Select the **Connect** button to proceed with registration.

If the server has signed with the untrusted certificate, you will be asked to accept self-signed certificate as mentioned in [SSL Certificate validation](#) section.

Successful registration will take you to [Main view](#). Register button will be disabled if the mandatory fields are empty or [Validation errors](#) exist. Following error messages could be appeared in the registration screen.

Table 6.6 Error messages of device registration

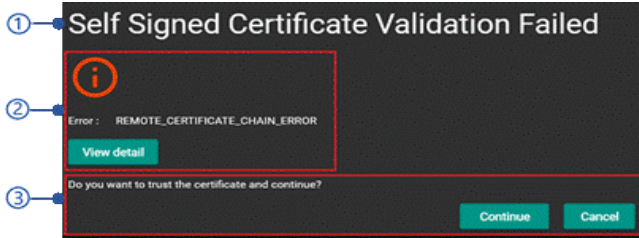

Error code	Error message
2051	Failed to register with the NCheck Bio Attendance server {server URL}
2052	Failed to register with the registration code
2053	The registration token has already been used. Please generate new registration code or contact administrator
2054	Could not discover the NCheck Bio Attendance server URL

6.5 SSL Certificate validation

To start the NCheck Bio Attendance server, a valid SSL certificate must be added as mentioned in [Server](#) section.

If any SSL certificate validation error occurred, you will be prompted the validation error as below.

Table 6.7 Certificate validation error dialogue

Client	Self-signed certificate prompt
Windows	 <p>Figure 6.14 Certificate validation error dialog for</p>
Android	 <p>Figure 6.15 Certificate validation error dialog for Android client</p>

1. Title of the SSL certificate validation error dialogue
2. Error message
3. Actions

6.6 Main view

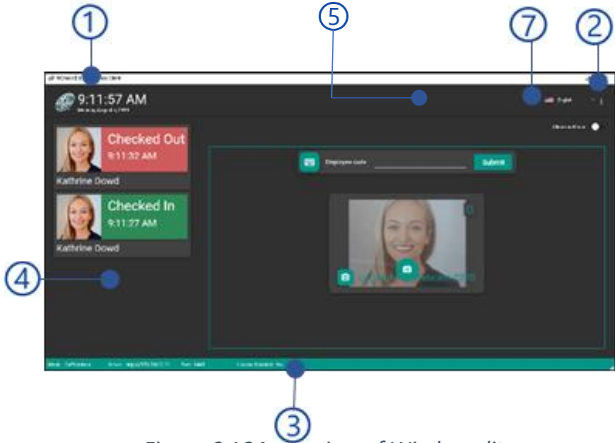
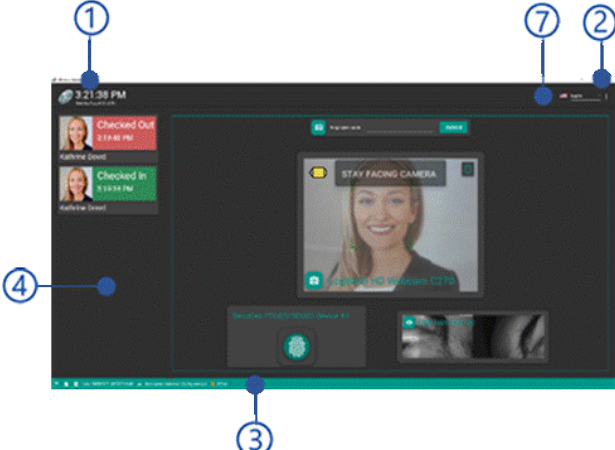

NCheck Bio Attendance client's main views as follows,

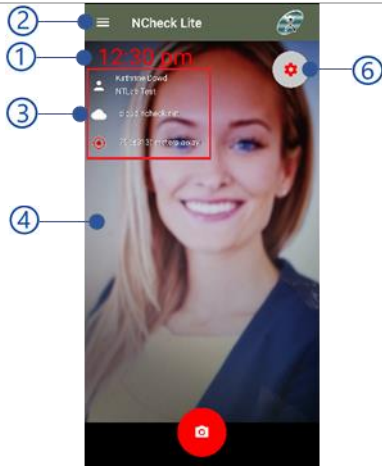

- [Main view for biometrics capture](#)
- [Main view for non-biometrics capture](#)

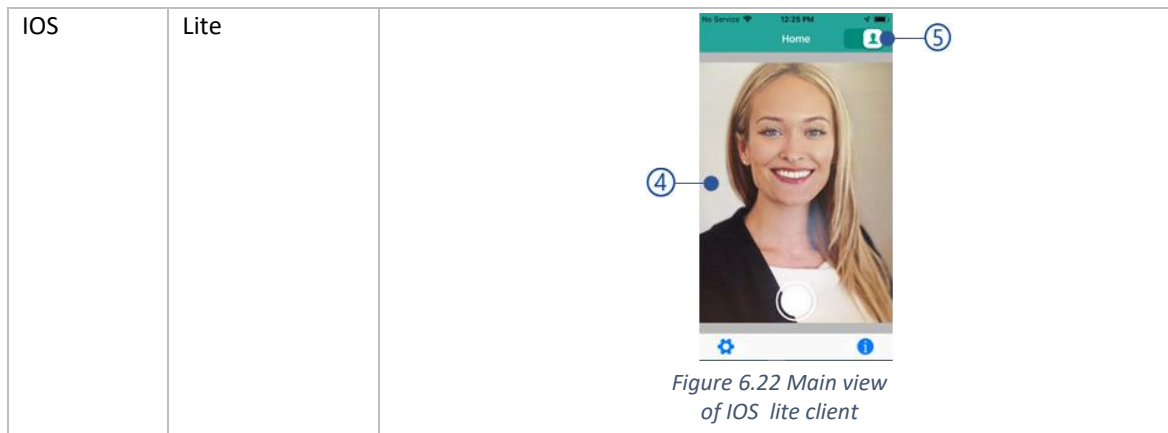
6.6.1 Main view for biometrics capture

Table 6.8 Main view of clients

	Version	Windows
--	---------	---------

Windows	Lite	 <p>Figure 6.16 Main view of Windows lite client</p>
	Standard	 <p>Figure 6.17 Main view of Windows standard client</p>
	Surveillance	 <p>Figure 6.18 Main view of Windows Surveillance client</p>

Android	Lite	 <p>Figure 6.19 Main view of Android lite client</p>
	Standard	 <p>Figure 6.20 Main view of Android standard client</p>
	Guard	 <p>Figure 6.21 Main view of Android Guard client</p>



1. Date and time
Show the Time and date
2. Menu button
Refer [Main menu](#) section for more details.
3. Status bar
Refer connection status section for more details.
4. [Attendance view](#)
5. Single/multi face mode button
6. Settings collapse button of Android clients
7. Language menu of Windows clients
Selected language will be applied to the application.
8. Mask detection indicator
Mask detection indicator is showing in the view according to the Mask detection setting and [Mask detection threshold](#) can be applied from either web control panel [Client settings view](#) or [Client settings](#)

6.6.1.1 Main menu

Table 6.9 Main menu of clients

Client	Windows	Android	IOS
Lite	<ul style="list-style-type: none"> • Register • Control panel • About 	<ul style="list-style-type: none"> • Register • Control panel • Preferences • About 	Not available

Standard – Cloud/On-premises	<ul style="list-style-type: none"> • Control panel • Register • Preferences • License manager • Synchronize • About 	<ul style="list-style-type: none"> • Register • Control panel • Preferences • Synchronize • License manager • About 	Not available
Standard - Standalone	<ul style="list-style-type: none"> • Login • Register • Preferences • License manager • About 	<ul style="list-style-type: none"> • Register • Control panel • License manager • Preferences • About 	Not available
Surveillance	•	Not available	Not available
Guard	Not available	<ul style="list-style-type: none"> • Register • License manager • preferences • About 	Not available

6.6.1.1.1 Control panel

This option allows to access NCheck Bio Attendance control panel from the client as follows.

- NCheck Bio Attendance control panel
Control panel allows to access NCheck Bio Attendance control panel if the NCheck Bio Attendance client is registered to the Cloud/On-premises modes.
- NCheck Bio Attendance Client control panel
Control panel allows to access NCheck Bio Attendance Client control panel if the NCheck Bio Attendance client is registered to the On-premises server modes or [Offline operation mode](#) is enabled in the Cloud/On-premises modes.

6.6.1.1.2 Login

Login to the standalone control panel

6.6.1.1.3 Register

Re-register the client application as mentioned in [Register](#) section.

6.6.1.1.4 Synchronize

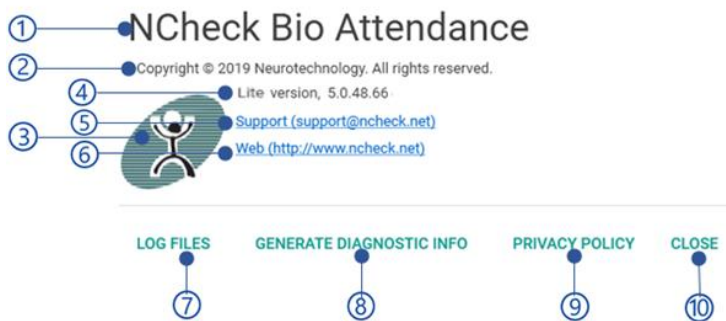
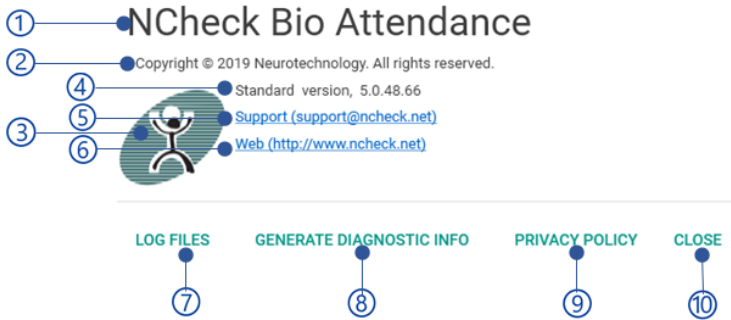
NCheck Bio Attendance Standard clients synchronize server-side data with the devices in the time intervals define in [Offline data synchronize interval](#) setting. If instant synchronize required, user can select Synchronize option.

6.6.1.1.5 License manager

Show the License activation window as mentioned in [Activat](#) section.

6.6.1.1.6 About

Table 6.10 About views of Clients

	Version	About window
Windows	Lite	 <p>Figure 6.23 About view of Windows lite client</p>
	Standard	 <p>Figure 6.24 About view of Windows standard client</p>

	Surveillance	<p>Figure 6.25 About view of Surveillance client</p>
Android	Lite	<p>Figure 6.26 About view of Android lite client</p>
	Standard	<p>Figure 6.27 About view of Android standard client</p>
	Guard	<p>Figure 6.28 About view of Guard client</p>
IOS	Lite	

- | | |
|--|---|
| 1. Product name | 7. Open NCheck Bio Attendance log folder |
| 2. Copyrights | 8. Generate NCheck Bio Attendance diagnostic info |
| 3. Neurotechnology logo | 9. Open NCheck Bio Attendance privacy policy |
| 4. Application type and version | 10. Close button |
| 5. NCheck Bio Attendance support email | |
| 6. NCheck Bio Attendance website | |

6.6.1.2 Preferences

Table 6.11 Preferences of clients

	Windows	Android	IOS
--	---------	---------	-----

Lite	Not available	<ul style="list-style-type: none"> • Capture sound • Crop face • Capture quality • Predefined location • Checkout notification • Enable logs 	<ul style="list-style-type: none"> • Capture sound • Crop face • Predefined location • Checkout notification
Standard	<ul style="list-style-type: none"> • Camera list 	<ul style="list-style-type: none"> • Device settings <ul style="list-style-type: none"> – Capture sound – Crop face – Extract on server – Low CPU support – Startup application – External scanner • Camera settings <ul style="list-style-type: none"> – Mirror preview – Enable app orientation – Rotation settings • Power saving mode <ul style="list-style-type: none"> – Enable power saving mode • Security <ul style="list-style-type: none"> – Encrypt the database • Debug mode <ul style="list-style-type: none"> – Enable logs • Diagnostic report 	Not available
Surveillance	<ul style="list-style-type: none"> • Camera list • Surveillance engine properties 	Not available	Not available
Guard	Not available	<ul style="list-style-type: none"> • Capture sound • Crop face • Enable auto capture • Capture quality • Enable logs 	Not available

6.6.1.2.1 Capture sound

Enable to play the capturing sound when the image is capturing.

6.6.1.2.2 Crop face

Enable to crop face to increase the matching accuracy.

6.6.1.2.3 Predefined location

This allows to set a default location for Android and IOS Lite clients. This predefined location will be used for the recording event according to the selected option in [Allow predefined location](#) client setting in the server.

The predefined location dialog as follows.

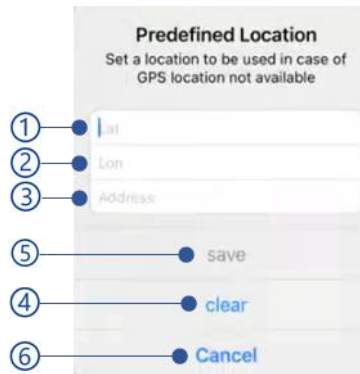


Figure 6.29 Predefined location dialog in IOS Lite client

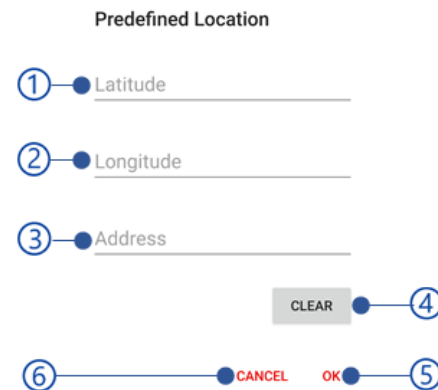


Figure 6.30 Predefined location dialog in Android Lite client

- | | |
|--------------------------------------|---------------------------------|
| 1. Latitude | 4. Clear button |
| Latitude coordinate of the location | Remove all location parameters. |
| 2. Longitude | 5. Ok button |
| Longitude coordinate of the location | Save location coordinates |
| 3. Address | 6. Cancel button |

6.6.1.2.4 Checkout notification

Check-out notifications are used to aware user to check-out before the check-out time. Checkout notifications are available in Android and IOS Lite clients registered as a personal device

6.6.1.2.5 Extract on server

Face details should be extracted to identify the faces in the captured image. Enable this setting to minimize the extraction delay on low performance devices.

6.6.1.2.6 Low CPU support

This setting has introduced for low CPU devices to lower the CPU usage when application in use. Enable this setting to preview captured face instead of showing the face rectangle (as mentioned in [Face capture view](#) section) with lower resolution preview.

6.6.1.2.7 Startup application

Enable this setting to start application on restart the device.

6.6.1.2.8 External scanner

NCheck Bio Attendance Standard can be used with external scanners in order to record attendances with extended user experiences. Currently NCheck Bio Attendance Standard supports below type of devices/scanners

1. TPS980

TPS980 is an Android Biometric Face recognition Terminal with infrared sensor and face recognition camera and fingerprint scanner. NCheck Bio Attendance Standard client can be installed to use with available sensors.

2. HF-7000

HF-7000 from HFSecurity is a fingerprint reader based on capacitive fingerprint sensor. The fingerprint scanner uses USB for communications with host PC or device. Refer [this link](#) for more information. To configure the NCheck Bio Attendance Standard

1. Select External scanner from the scanner list
2. Select **configure** button to configure the selected scanner.
3. Select the feedback type from the list
 - All events
Select this option to apply scanner configuration across all scanners.
 - External scanner events
Select this option to apply scanner configuration to external scanner events.
3. Select the Configure button to customize the selected scanner configuration above.

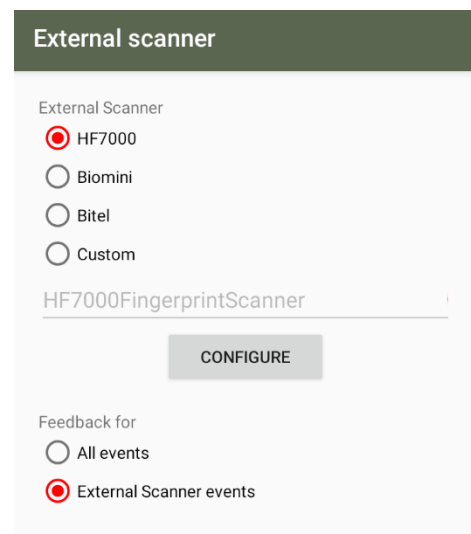


Figure 6.31 External scanners view of Android standard client

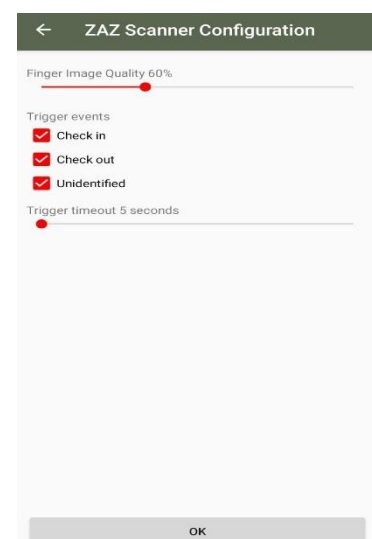


Figure 6.32 TPS980 scanner configuration view

6.6.1.2.9 Mirror preview

Enable this to fix the mirror effect of the camera preview.

6.6.1.2.10 Enable app orientation

Enable this to fix the application ore as 0, 90, 180, 270 degrees.

*This setting may not be compatible with the devices, designed for a fix orientation
Accelerometer and gyroscope sensors are not available*

6.6.1.2.11 Rotation settings

Custom rotation settings need to be configured in case of camera orientation and device rotation settings return from the Android API are not same as standard Android devices. This applicable for the devices,

- Designed for a specific orientation
- Accelerometer and gyroscope sensors are not available

Camera orientation and device rotation can be set as follows,

Camera orientation for a normal android device can be identified as follows.





Table 6.12 Camera orientation

Camera	Orientation
Front camera	270 degrees
Back camera	90 degrees

When the camera orientation has differences as mentioned above, this value can be set manually using these settings.

Device rotation for a normal device can be identified as follows,

Table 6.13 Custom device rotation

Device orientation	Device rotation
	0
	1
	2
	3

User can set matching value for device rotation in special devices depending on the device orientation as above table.

6.6.1.2.12 Enable power saving mode

Reduce the CPU usage when application is idle.

6.6.1.2.13 Power saving mode timeout

The timeout can be select to set the device idle when no attendance recording. Available timeouts are

- 10 minutes
- 20 minutes
- 30 minutes
- 1 hour

6.6.1.2.14 Encrypt the database

Encrypt the database of NCheck Bio Attendance Standard client by giving a password.

6.6.1.2.15 Enable logs

Log all events to a file for debugging.

6.6.1.2.16 Diagnostic report

Generate Diagnostic report and send to developers for debugging.

6.6.1.2.17 Capture quality

Select face capture quality to reduce the time when recording events

- Low
- Medium
- High
- very high

6.6.1.2.18 Camera list

This option allows to configure IP cameras with NCheck Bio Attendance Windows Standard client application.

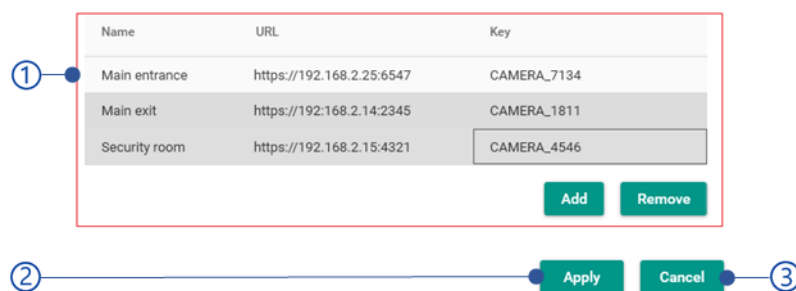


Figure 6.33 Camera list preference of Windows standard client

1. Camera list table

Camera list view as shown in [Figure 6.34](#)

Camera list view of camera list preference.

1. Name
2. URL
IP address of the camera
3. Key
4. **Add** button
Add new camera.
5. **Remove** button
Remove selected camera.
2. **Apply** button
Update all camera in the camera list
3. **Cancel** button

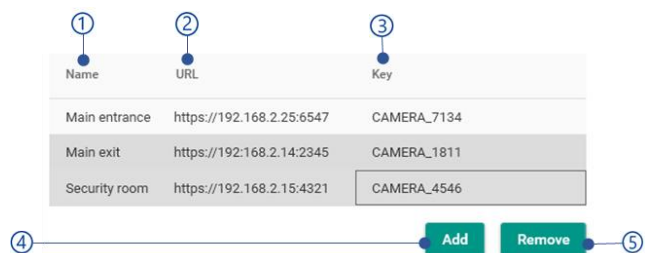


Figure 6.34 Camera list view of camera list preference

6.6.1.2.19 Surveillance engine properties

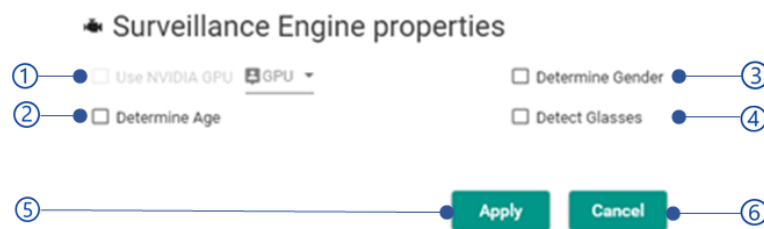


Figure 6.35 Surveillance engine properties of Surveillance client

1. Use NVIDIA GPU
Enable/disable running surveillance engine on GPU
2. Determine Age
This enable/disable showing the age on top of the face rectangle in the attendance view.
3. Determine gender
This enable/disable showing the gender on top of the face rectangle in the attendance view.
4. Determine Glasses
This enable/disable showing the availability of glasses (whether the user is wearing spectacles) on top of the face rectangle in the attendance view.
5. **Apply** button
6. **Cancel** button

6.6.1.2.20 Enable auto capture

The capture mode of the Guard client can be changed as following.



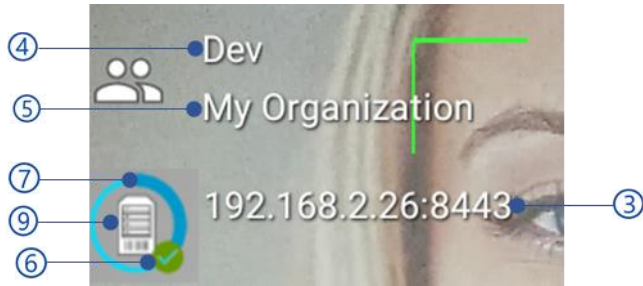

1. Manual capture
The fault capture mode of the Guard client. When this mode has enabled, the Guard must capture the face manually pressing the capture button. To enable this mode, disable enable auto capture mode setting from the preference menu.
2. Auto capture
To enable this feature, enable “Enable auto capture mode” from the Preference menu. When the auto capture mode has enabled, the Guard client will be automatically detect the face and then extract once faced to the camera.

6.6.1.3 Connection status

Table 6.14 Connection status view of clients


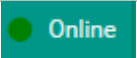
Connection status view		
Windows	Lite	

Figure 6.36 Status bar view of Windows lite client

	Standard/ Surveillance	 <p>Figure 6.37 Status bar view of Windows standard client</p>
Android	Lite	 <p>Figure 6.38 Registration details of Android Lite client</p>
	Standard	 <p>Figure 6.39 Registration details of the Android standard client</p>
	Guard	 <p>Figure 6.40 Status bar of Guard client</p>

1. Network availability
2. License status indicator
Shows the current license obtaining status as licensed, trial or expired.
3. Server and port
URL and port of the connected server in cloud, on-premises or standalone mode
4. Registered user/user group name
Registered user/user group name is showing in cloud or on-premises mode. In standalone mode, "All users" will be shown.
5. Organization name in the cloud or on-premises mode
6. Connectivity status with the server indicator in cloud and on-premises mode as shown in below.




Table 6.15 Online/Offline statuses of Standard clients

Status	Description	Android standard client	Windows standard client
Online	Connected with the server		

Offline	Cannot connected with the server		
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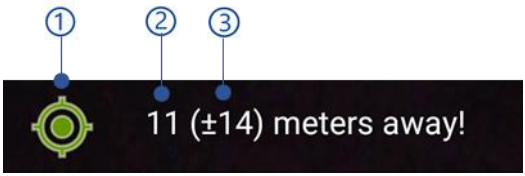
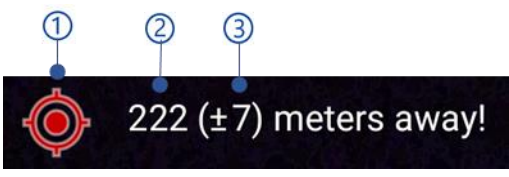
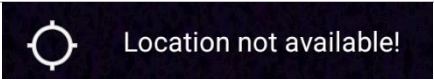
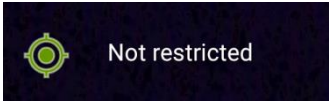
7. Synchronizing progress of the standard clients if the *Offline operation mode is enabled*.
8. Email address if the Lite client registered to the user and *Allow without biometrics* setting has enabled.
9. Server indicator for cloud, on-premises, and standalone mode.

Table 6.16 Server indicators for Clients

Mode	Indicator
Cloud	
On-premises	
Standalone	

10. Location restriction status

Location restriction status indicates how far from the location coordinates where the location restriction applied as mentioned in *Location restrictions* section. Android Lite client uses Google location services to find the device location. Location restriction status indicated following details.

Status	View
Location is restricted. But user is inside the permitted radius	 <p>Figure 6.41 User inside the permitted area</p>
Location is restricted. User is not inside the permitted radius.	 <p>Figure 6.42 User is not inside the permitted area</p>
Location services are not available. Location services of the device has disabled or not available in the area.	 <p>Figure 6.43 Location coordinates are not available</p>
Location has not restricted.	 <p>Figure 6.44 Location has not restricted</p>

1. Location restriction indicator
Indicator will be turned to red if the user is not inside the permitted radius from the location coordinates where the location restriction applied. Otherwise it will be shown in green color.
2. Distance
Distance from location coordinates where the location restriction has been applied.
3. Location accuracy
This parameter indicates the accuracy of the distance. As shown in [Figure 6.41](#) User inside the permitted area, the correct location can be anywhere between 11+ 14 meters and 11 - 14 meters.

The distance and location accuracy may not be accurate depending on the Google location service availability. Please refer this [Google maps help](#) for more details.

6.6.2 Main view for non-biometrics capture

This feature is currently available with NCheck Bio Attendance Lite for Android only.

In NCheck Bio Attendance Lite for Android, users are allowed to record the events without presenting face biometrics. In order to enable this feature, Users must enable the *Allow without biometrics* setting as mentioned in NCheck Bio Attendance control panel [Client settings view](#) or [Device settings](#) sections.

The view is changing according to the enable/disable status of the *Manual capture start* setting in the NCheck Bio Attendance [Client settings view](#) or [Block/unblock device/API](#)

Block/unblock selected device/API from the list. If the device/API has blocked

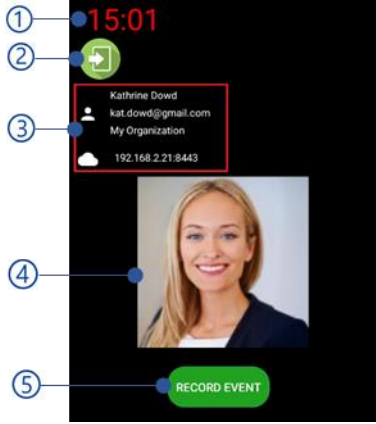
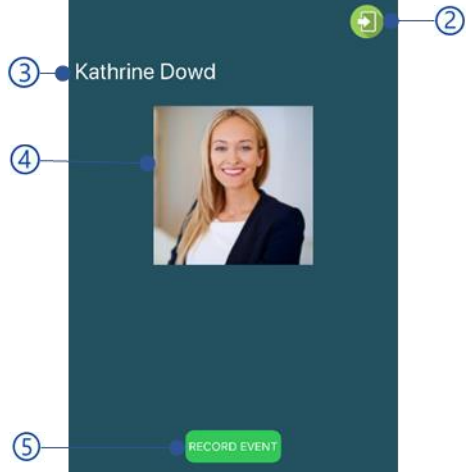
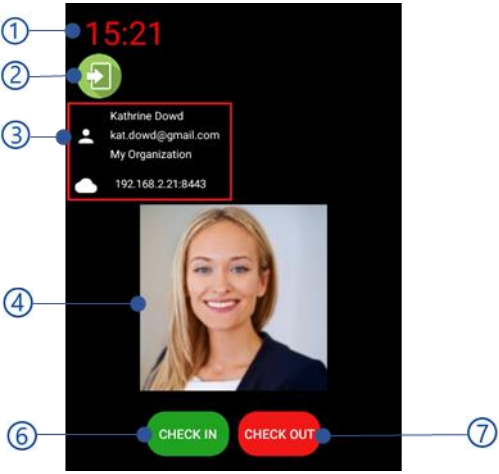
3. User could not be able to enroll biometrics or record attendances from the blocked devices.
4. User could not be able use APIs

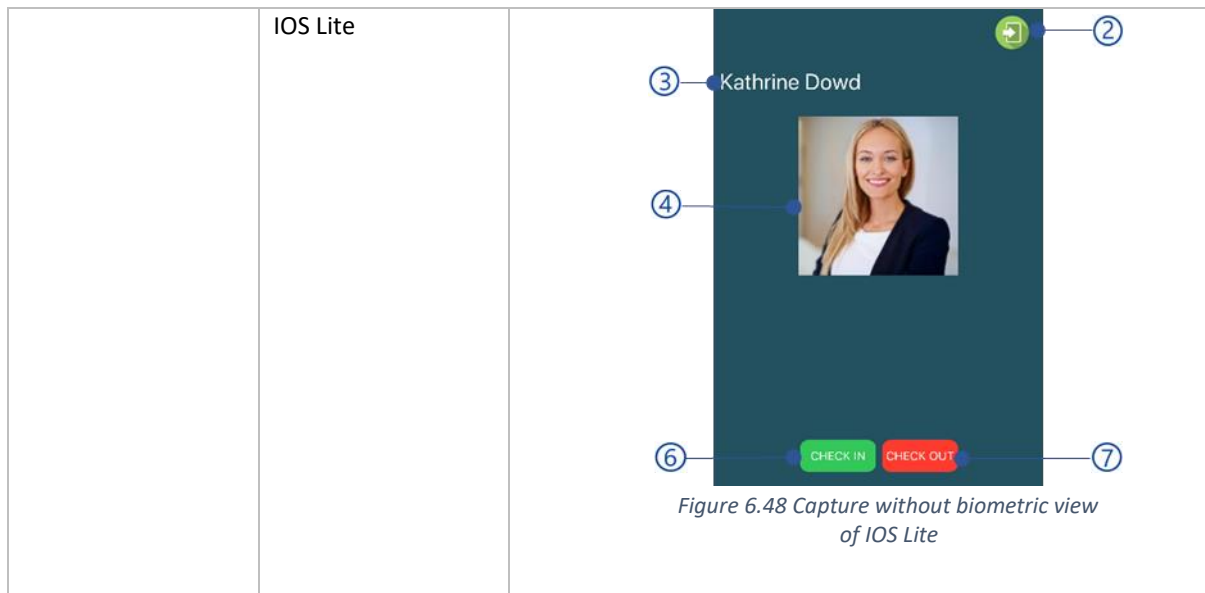
6.6.2.1 Unregister device

Unregister the selected device/API from the list. Unregister devices should reregister to record attendances.

Device settings as shown in [Table 6.17](#) Main views for non-biometric capture. When the *Manual capture start* is enabled, user can select the event as check-in or check-out before record.

Table 6.17 Main views for non-biometric capture

<p><i>Manual capture start</i> is disabled</p>	Android Lite	 <p>Figure 6.45 Capture without biometric view of Android lite client</p>
	IOS Lite	 <p>Figure 6.46 Capture without biometric view for IOS Lite client</p>
<p><i>Manual capture start</i> is enabled</p>	Android Lite	 <p>Figure 6.47 Capture without biometric view of Android lite client when manual capture start setting is enabled</p>



1. Time
2. Check-in/check-out icons
3. [Connection status](#)
4. User thumbnail
5. **Record event** button
Record the events
6. **Check-in** button
Record the check-in events
7. **Check-out** button
Record the check-out events

6.7 Attendance view

Attendance view shows attendance view screen. Attendance view Screen has the following components.

- [Capture view](#)
- [Manual event selection view](#)
- [Record event view](#)
- [Result view](#)
- [Recent events list](#)

Following error could be occurred during capture.

Table 6.18 Error messages of record attendances

Error code	Error message
2002	License cannot be obtained
2055	Device has not registered. Please register the device first.
2056	The location is restricted. You are not allowed record attendance from this location

2042	Could not record events. The user has been blocked
2037	Could not record events. The device has been blocked
2043	Could not record event. Check-in time has restricted
2044	Could not record event. Check-out time has restricted
2057	You have already checked-in/checked-out. Please try again in {number of seconds} seconds.
2058	Attendances time has restricted. Please contact administrator for more details.
2059	No match found. Please make sure that face/fingerprint/iris templates have been enrolled before record attendance.
2060	Failed to identify the face/fingerprint/iris. Please try again.
2064	Could not record attendances. Invalid user id input.
2065	Could not record attendances. Peripherals are not ready. Please try again.
2067	User not allowed to Check-in while on Restricted Leave!

6.7.1 Capture view

The default capture view of the NCheck Bio Attendance Standard and Lite clients. Capture view can have a one or more capture device views. Those are

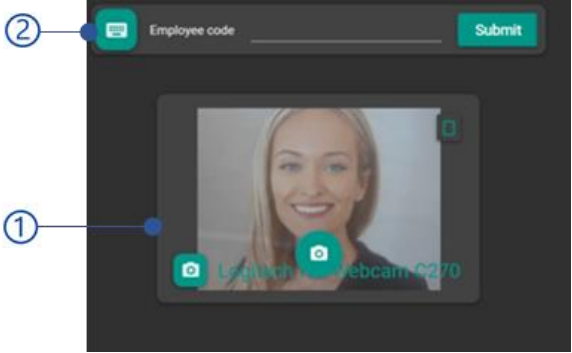
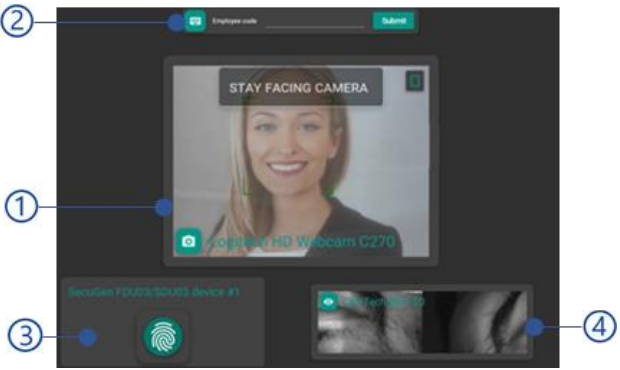
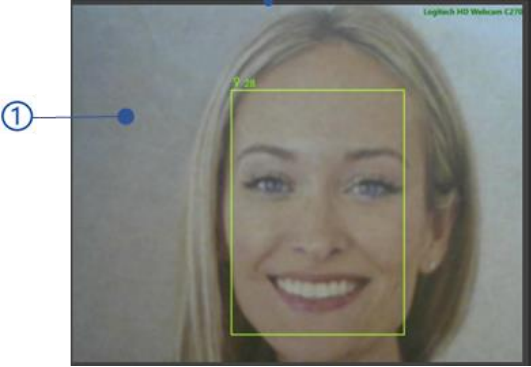
- [Face capture view](#)
- [User ID input](#)
- [Fingerprint Capture view](#)
- [Iris Capture view](#)

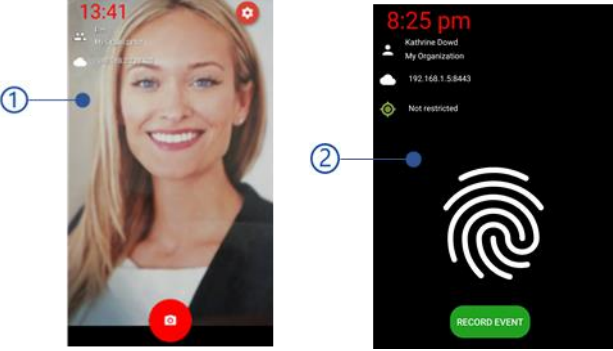
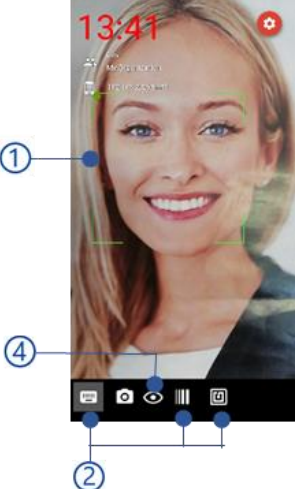

Capture view supportability in Lite and Standard can be identified as follows.

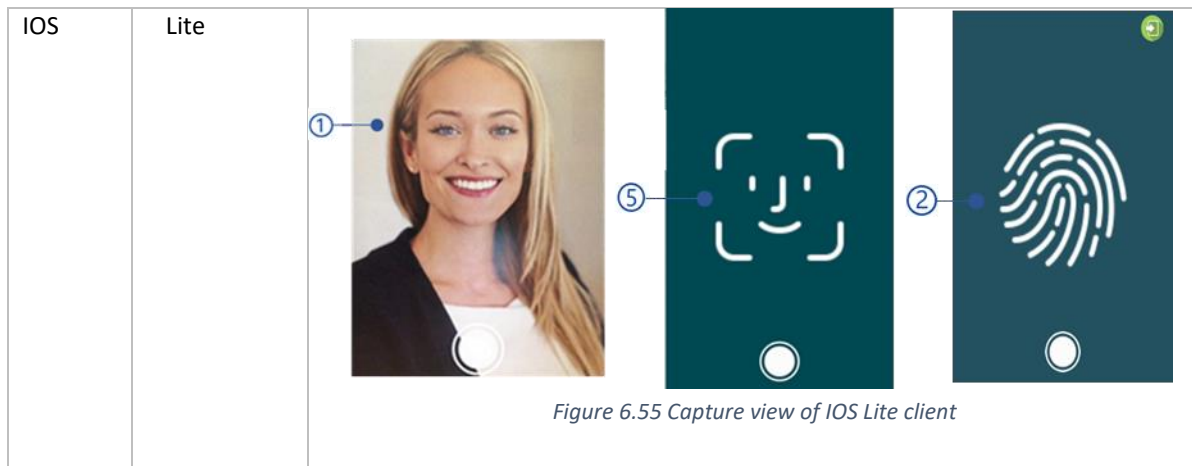
Table 6.19 Capture view supportability in clients

	Lite	Standard	Surveillance	Guard
Face capture	✓	✓	✓	✓
User id input	✗	✓	✗	✗
Fingerprint capture view	✓	✓	✗	✗
Iris capture view	✗	✓	✗	✗
RFID capture view	✗	✓	✗	✗
Barcode capture view	✗	✓	✗	✗

Table 6.20 Capture views of clients

	Version	Lite
Windows	Lite	 <p>Figure 6.49 Capture view of Windows lite client</p>
	Standard	 <p>Figure 6.50 Capture view of Windows standard client</p>
	Surveillance	 <p>Figure 6.51 Capture view of Surveillance client</p>

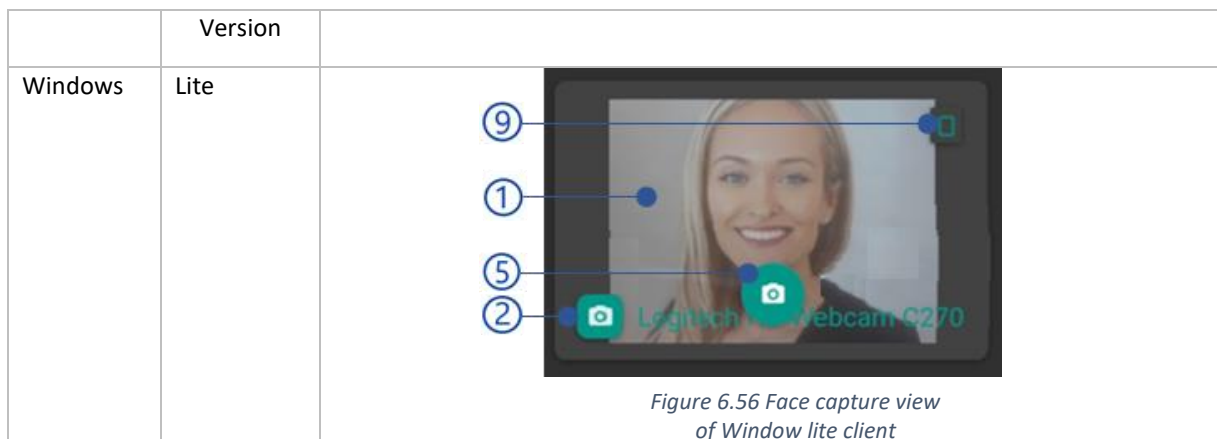
Android	Lite	 <p>Figure 6.52 Capture views of Android Lite client</p>
	Standard	 <p>Figure 6.53 Capture view of Android lite client</p>
	Guard	 <p>Figure 6.54 Capture view of Guard client</p>

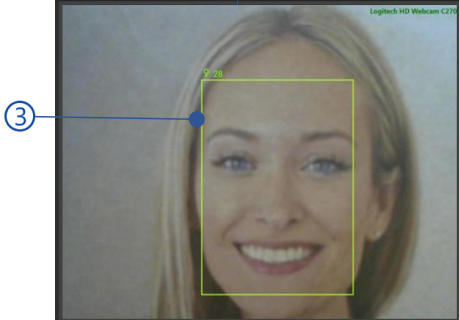


1. [Face capture view](#)
2. [Fingerprint Capture view](#)
3. [Iris Capture view](#)
4. [User ID input](#)
5. [Face ID view](#)

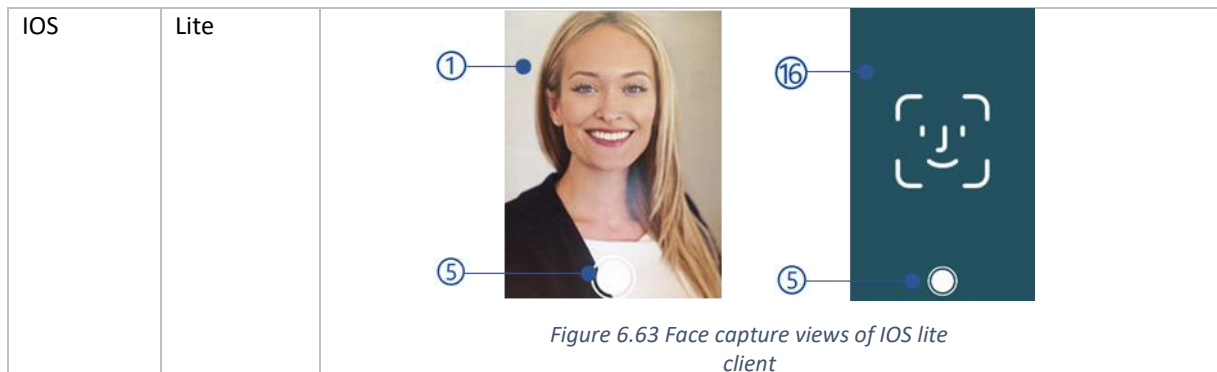
6.7.1.1 Face capture view

Table 6.21 : Face capture views of clients



	Standard	 <p>Figure 6.57 Face capture view of Window standard client</p>
	Surveillance	 <p>Figure 6.58 Face capture view of Surveillance client</p>
Android	Lite	 <p>Figure 6.59 Face capture view of Android lite client</p>

<p>Standard – <i>Low CPU support</i> is disabled.</p>	<p>Figure 6.60 Face capture view of Android standard client</p>
<p>Standard – <i>Low CPU support</i> is enabled</p>	<p>Figure 6.61 Face capture view when Low CPU mode is enabled in Standard client</p>
<p>Guard</p>	<p>Figure 6.62 Face capture view of Guard client</p>



1. Image preview
2. Camera name
3. Face rectangle
4. Face liveness guidance
Face liveness guidance in Standard clients if the Liveness setting has enabled.
5. **Capture** button
In Android Guard client, capture button will appear if Manual capture mode is turned on. Refer [Capturing faces](#) section for more details.
6. Instruction for face capture
7. Liveness Instruction
8. Settings of the face capture view
9. Resolution
10. Flashlight
11. Switch camera
12. **Multi face** button
Available in Lite clients. Refer [Single/multi face mode face capturing](#) for more details
13. Turn on auto capture/manual capture modes
14. Extracting image of the Android Standard client when [Low CPU support](#) has enabled
15. Status text
Status texts are available in NCheck Bio Attendance Standard client for Android when [Low CPU support](#) has enabled and Guard client
16. Face ID view of IOS Lite client

Table 6.22 Status texts of Android Standard and Guard clients

Description	Standard client - Low CPU support has enabled	Guard client
Face capturing in progress	Detecting..	Detecting..
Face extraction in progress	Extracting..	Extracting..

Face matching in progress in guard client		Performing matching..
--	--	-----------------------

17. Mask detection indicator

Mask detection indicator is showing in the view according to the Mask detection setting and [Mask detection threshold](#) can be applied from either web control panel [Client settings view](#) or [Client settings](#)

Proceed to [Capturing faces](#) section for more detail about capturing face in client applications.

6.7.1.2 Capturing faces

1. [Face capturing in Standard client](#)
2. [Face capturing in lite client](#)
3. [Face capturing using Face ID in Lite client](#)
4. [Multi face mode in Lite client](#)
5. [Face capturing in Surveillance client of Windows and Guard client of Android](#)

6.7.1.2.1 Face capturing in Standard client

Face capture for attendance recording is performed in the following steps.

1. Face capture instruction “Stay facing camera” is shown
2. The user faces to the camera
3. If the face liveness setting is enabled, users can see the liveness guidance in the screen as mentioned in [Face liveness mode](#) for client application [section](#). Otherwise Standard client shows face rectangle and captures face automatically.
4. The client performs attendance recording
5. The Client will validate the user according the [Authentication mode](#)

To enable face liveness, select face liveness mode from the Biometric settings view of NCheck Bio Attendance control panel.

6.7.1.2.2 Face capturing in lite client

o record attendance in the single face mode,

1. Face capture instruction “Stay facing camera” is shown
2. The user faces to the camera
3. Select **Capture** button
4. The client performs attendance recording
5. If no template enrolled for the user, NCheck Bio Attendance lite client registered to a user will be asked to enroll face if the [Self-enroll templates](#) is enabled in the server as shown in [Figure 6.64](#) Self enrollment in Android lite client
 1. **Enroll** button
Enroll the captured image as face template.
6. If templates exist, in successful event record, the Client will validate the user according the [Authentication mode](#).

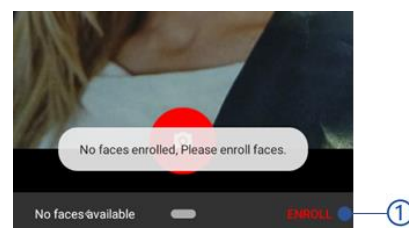


Figure 6.64 Self enrollment in Android lite client

6.7.1.2.3 Face capturing using Face ID in Lite client

For NCheck Bio Attendance Lite client for IOS, face ID authentication mode can be enabled from [Use in-built biometric verification on personal clients](#) setting. The Client will validate the user according the [Authentication mode](#) once the capture the face.

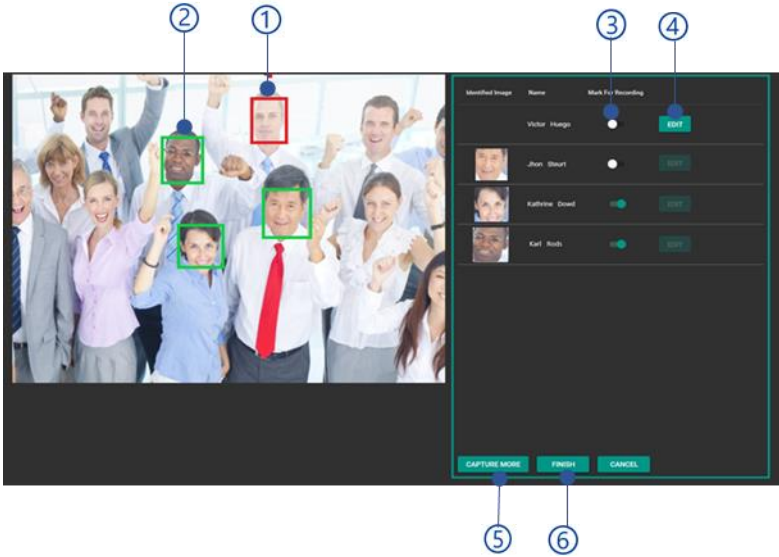
6.7.1.2.4 Multi face mode in Lite client

Multi face mode can be used to record attendances of the group of users from single capturing. This mode is available on NCheck Bio Attendance Lite clients registered with a user group and switched to the multi face mode.

To record attendance in the multi face mode,

1. Enable multi face mode in the [Face capture view](#)
2. Capture the face image of the users the multi-face view will be shown as [Table 6.23](#) Face captured views of the multi face mode

Table 6.23 Face captured views of the multi face mode

	Lite
Windows Client	 <p>Figure 6.65 Multi face captured view of Windows lite client</p>

Android Client

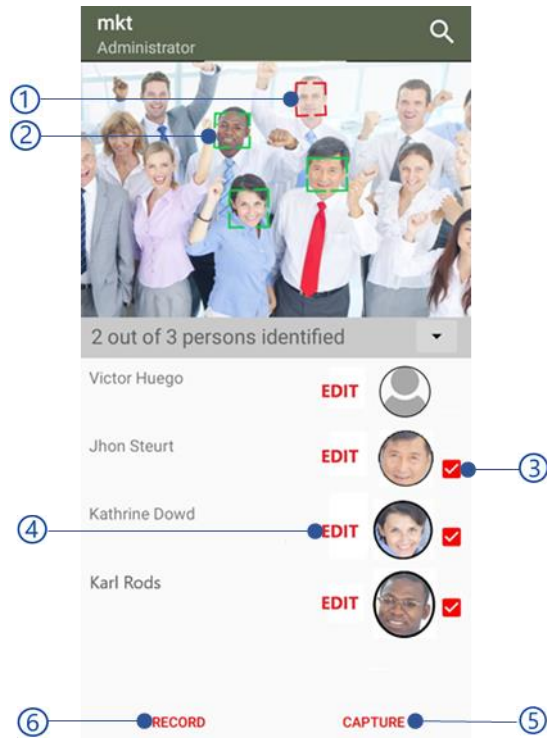


Figure 6.66 Multi face captured view of Android lite client

IOS client

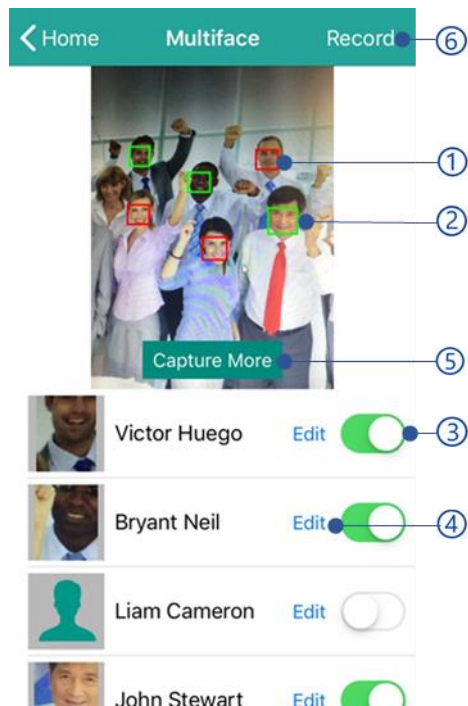
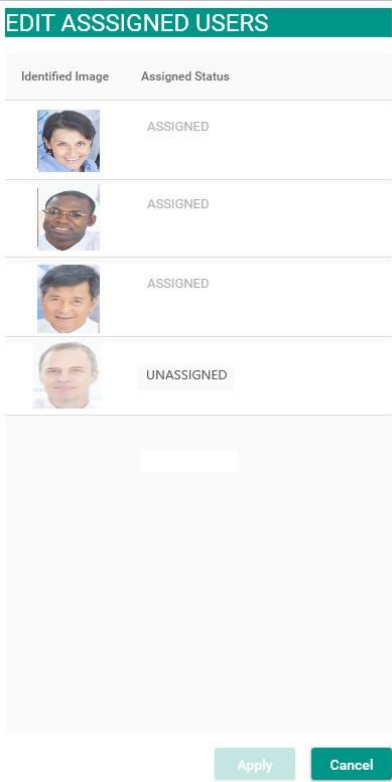



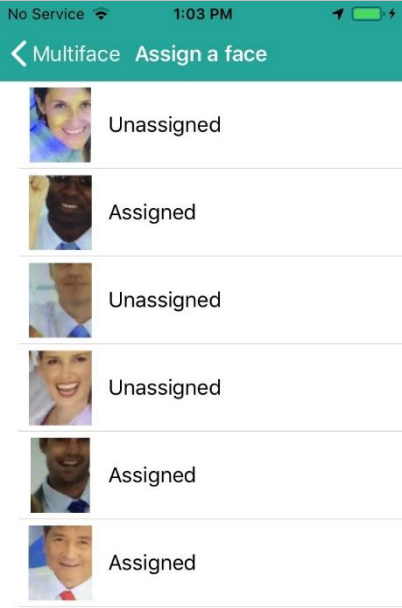
Figure 6.67 Multi face captured view of IOS lite client

1. Unidentified users
Unidentified users represent

1. Users unable to identify when capturing (Ex: Not enough lighting condition, lower quality of the capturing images)
2. Users are not available in the registered user group
2. Identified users
3. Record enable/disable button
Select this button to record attendance of the identified/assigned user.
4. **Edit** button
This allows to assign unidentified face for selected user. To enable this settings, [Manual face selection](#) setting should be enabled from the [Device settings](#) or [Biometric settings](#) view of NCheck Bio Attendance control panel. The face assign view is shown in [Table 6.24](#) Face assign view of the multi face mode. In the face assign view select the user from the list to assign the face.

Table 6.24 Face assign view of the multi face mode

	Lite client
Windows Client	 <p>Figure 6.68 face assign view of Windows lite client</p>

Android Client	<p style="text-align: center;">Assign face</p> <div>  Unassigned </div> <p style="text-align: center;"><i>Figure 6.69 face assign view of Android lite client</i></p>
IOS client	 <p style="text-align: center;"><i>Figure 6.70 face assign view of IOS lite client</i></p>

5. **Capture more** button

User can capture a new image to re-capture unidentified users.

6. **Record** button

The Client will validate the user according the [Authentication mode](#)

6.7.1.2.5 Face capturing in Surveillance client of Windows and Guard client of Android

1. Follow the capturing mode

1. Manual capture

If the manual capturing is enabled, select the capture button

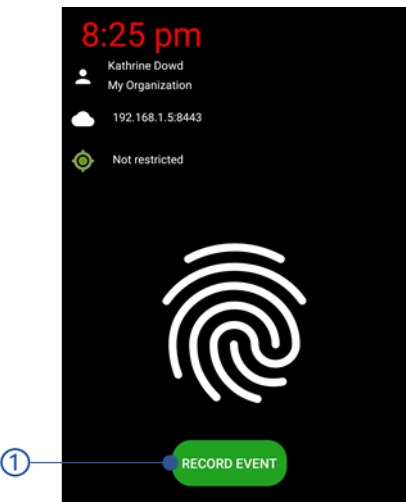
2. Auto capture
If the auto capture is enabled, stay facing to the camera until the client capture the image
2. The client performs matching with the NCheck Bio Attendance server to select the matching event type as follows
 1. Surveillance client
In Surveillance client, the event will be recorded and updated in the result view. Refer [Result view for Surveillance client for Windows and Guard client for Android](#) section for more details.
 2. Guard client
In Guard client, once the face is captured, a record view will be prompted in order to compare the captured face and matching person face. Refer [Record event view](#) section for more details.

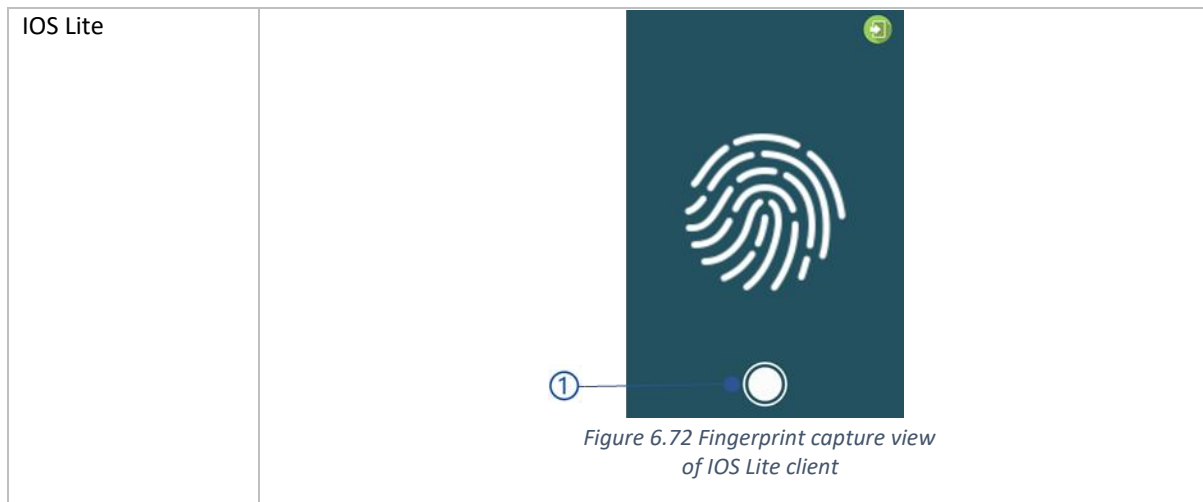
6.7.1.3 Fingerprint Capture view

For NCheck Bio Attendance standard clients, [Capture view](#) indicates finger print scanner is available. Once the fingerprint available, put the finger on fingerprint scanner to record the attendances.

For NCheck Bio Attendance Lite clients for Android and IOS, fingerprint authentication mode can be enabled using [Use in-built biometric verification on personal clients](#) setting.

Table 6.25 Fingerprint capture view of Android and IOS Lite clients

Android Lite	 <p>Figure 6.71 Fingerprint capture view of Android Lite client</p>
--------------	--



1. **Record Event** button

The Client will validate the user according the [Authentication mode](#)

6.7.1.3.1 Fingerprint authentication prompt for Android Lite

Fingerprint authentication prompt is shown in [Figure 6.73](#) Fingerprint authentication prompt

1. **Fingerprint authentication prompt**
Once the fingerprint authentication prompt is appeared, Put the finger on the fingerprint scanner. After successful authentication, The Client will validate the user according the [Authentication mode](#)
2. **Cancel** button
Cancel the fingerprint authentication prompt.

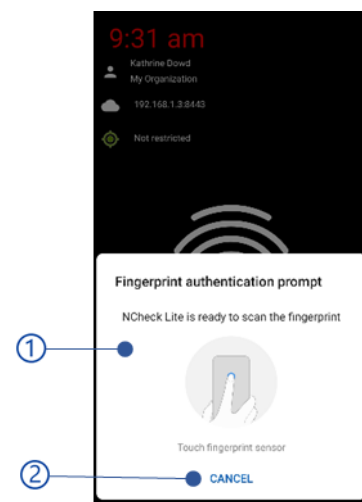


Figure 6.73 Fingerprint authentication prompt

6.7.1.4 Iris Capture view

This view is available on NCheck Bio Attendance Standard clients for Windows only.

As shown in [Capture view](#), NCheck Bio Attendance Standard client will indicates if the iris scanner is available.

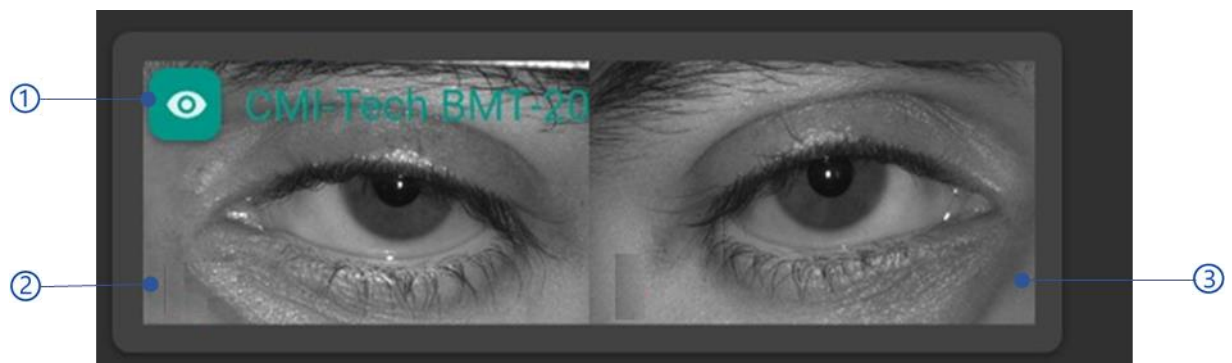


Figure 6.74 Iris capture view

1. Name of the iris scanner
2. Left eye
3. Right eye

NCheck Bio Attendance Standard client support single and double side iris scanners.

After scan the iris, client will validate the user according the [Authentication mode](#)

6.7.1.5 User ID input

The following inputs are allowing in NCheck Bio Attendance Standard clients to record attendances

1. [Employee code input](#)
2. [RFID Input](#)
3. [Barcode Input](#)

To record attendances, each user must have user Employee code, RFID and Barcode id as mentioned in Add/Edit users section

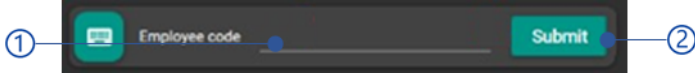
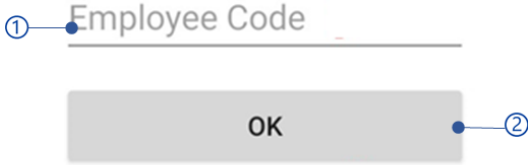
6.7.1.5.1 Employee code input

User ID input has the following controls

1. ID Field
2. Submit button

Table 6.26 User ID view of Standard clients

	Standard client
--	------------------------

Windows Client	 <p>Figure 6.75 User ID view of Windows standard client</p>
Android Client	 <p>Figure 6.76 User ID view of Android client</p>

Once the employee code is given, client will validate the user according to the [Authentication mode](#)

6.7.1.5.2 RFID Input

User allows to use RFID scanner available with Android devices or external RFID scanners with the devices to scan RFID.

Capturing RFID

1. Put the RFID card/tab on the RFID scanner/Android device
2. The Client will validate the user according to the [Authentication mode](#)

6.7.1.5.3 Barcode Input

NCheck Bio Attendance Standard for Android client allows to scan the barcode using front or back camera or external barcode reader with your device.

Capturing Barcode

1. Scan barcode using the Barcode scanner
2. The Client will validate the user according to the [Authentication mode](#).

6.7.1.6 Authentication mode

The authentication mode can be set to the selected device from the NCheck Bio Attendance web control panel as mentioned in [Edit device](#) section or Client control panel (Standalone mode) as mentioned in [Client peripheral configuration](#) section. Following table shows authentication types availability for the NCheck Bio Attendance clients.

Table 6.27 Authentication modes availability for the clients

Authentication mode	Lite	Standard	Surveillance	Guard
Identification	✓	✓	✓	✓
Verification	✗	✓	✗	✗
None	✗	✓	✗	✗

6.7.1.6.1 Identification

The default authentication mode for NCheck Bio Attendance clients. Following table shows how the identification mode is working in clients.

Table 6.28 Identification in clients

Client	Identification
Lite and Standard client	Once the user identified using either form biometric or user id input, the client shows the Result view .
Surveillance and Guard client	Once the user is identified using face biometric, the surveillance client will show the Result view for Surveillance client for Windows and Guard client for Android . The Guard client shows the Record event view appears.

6.7.1.6.2 Verification mode

In NCheck Bio Attendance standard clients, user can be verified using a biometric input and user id input. The verification UI flow can be changed from the NCheck Bio Attendance web control panel as mentioned in [Edit device](#) section or Client control panel (Standalone mode) as mentioned in [Client peripheral configuration](#) section as follows.

1. User id first
The client will be asked for a biometric input once a user id input is given first.
2. Biometric first
The client will be asked for a user id input once a biometric input is given first

When the user is verified, client show the [Result view](#).

6.7.2 Manual event selection view

Manual event selection is available for NCheck Bio Attendance Lite for Android and IOS and Standard client for Android only

Manual event selection view allows to user to select the event type as check-in or check-out before record the attendance. To enable this feature [Manual capture start](#) setting from NCheck Bio Attendance Control panel [Client settings](#) view or [Device settings](#) should be enabled first.

Manual event selection is available for

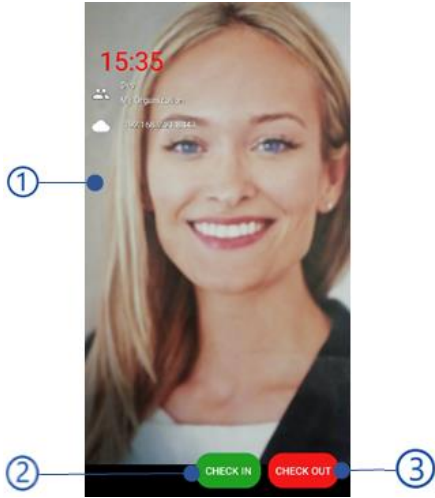
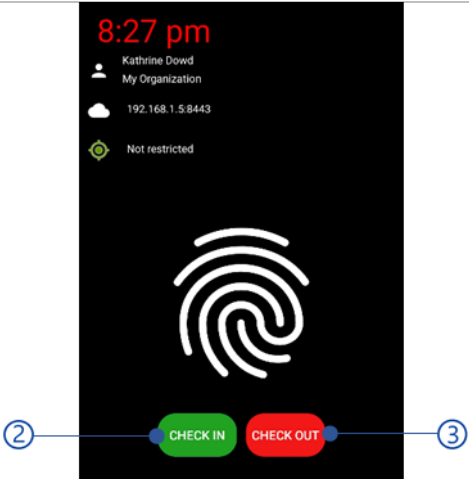
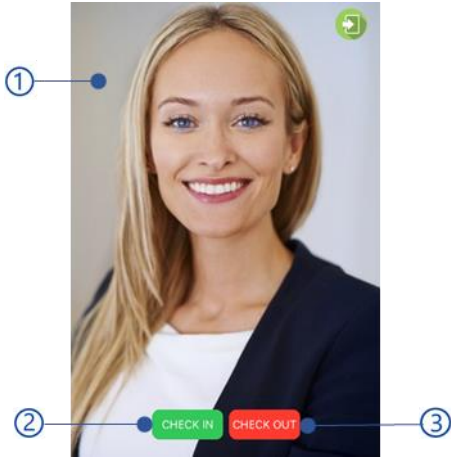
1. [Manual event selection of Lite clients](#)
2. [Manual event selection of Standard clients](#)

6.7.2.1 Manual event selection of Lite clients

Manual event selection view for NCheck Bio Attendance Lite for Android and IOS appears according to the authentication mode using the [Use in-built biometric verification on personal clients](#) setting.

Table 6.29 Manual event selection view of Lite clients

Lite client	Biometric authentication mode	View

Android	Face	 <p>Figure 6.77 Manual event selection view of Android lite client</p>
	Finger ID	 <p>Figure 6.78 Manual capture start of finger ID view in Android Lite</p>
IOS	Face	 <p>Figure 6.79 Manual capture start view of IOS lite client</p>

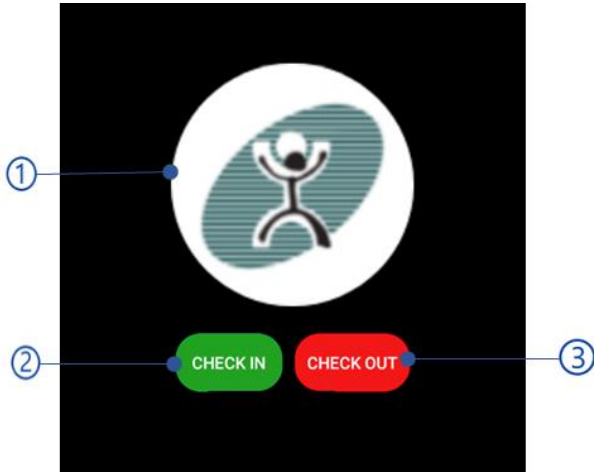
	Finger ID	 <p>Figure 6.81 Manual capture start of finger ID view in IOS Lite</p>
	Face ID	 <p>Figure 6.80 Manual capture start of face ID view in IOS Lite</p>

1. [Capture view](#)
2. **Check-in** button
 - Face
Attendance will be recorded as Check-in event once the user face is identified by the NCheck Bio Attendance server.
 - Finger ID
Attendance will be recorded as Check-in event once the finger is authenticated successfully as mentioned in [Fingerprint authentication prompt for Android Lite](#) section.
 - Face ID
3. **Check-out** button
 - Face
Attendance will be recorded as Check-in event once the user face is identified by the NCheck Bio Attendance server.
 - Finger ID
Attendance will be recorded as Check-out event once the finger is authenticated successfully as mentioned in [Fingerprint authentication prompt for Android Lite](#) section.
 - Face ID

6.7.2.2 Manual event selection of Standard clients

Manual event selection views of the NCheck Bio Attendance Standard clients are shown in [Table 6.30](#) Manual event selection in NCheck Bio Attendance standard clients.

Table 6.30 Manual event selection in NCheck Bio Attendance standard clients

Android Lite	
Android Standard	 <p><i>Figure 6.82 Manual event selection view of Android standard client</i></p>

1. Organization logo
2. **Check-in** button
In Standard client, select **check-in** button to proceed to [Capture view](#) to record attendance as Check-in event.
3. **Check-out** button
In Standard client, select **check-out** button to proceed to [Capture view](#) to record attendance as Check-out event.

6.7.3 Record event view

This view available in NCheck Bio Attendance Guard client only

Once the face captured as mentioned in [Face capturing in Surveillance client of Windows and Guard client of Android](#) section, record view appears to side by side comparison of captured face image and matching face image of the user with the details such as user name and employee code as below.

1. Name of the view
2. Application logo
3. *Side by side comparison view*
4. *Matching list view*

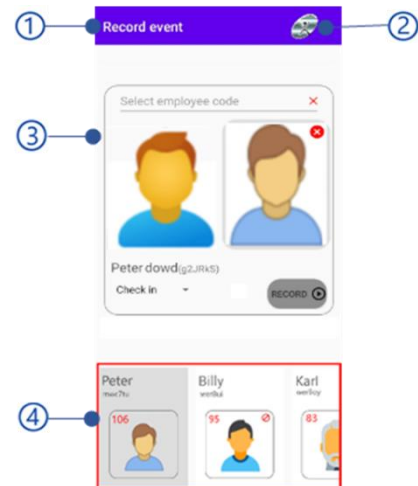


Figure 6.83 Record event view

6.7.3.1 Side by side comparison view

Side by side comparison view represents both captured face image and matching user details to compare and proceed to record the event.

1. Captured face image
Captured face image of the user
2. *Selected person view*
3. *Employee code selection*
If the person is not identified successfully by the server Guard can select the user manually by entering the employee code here
4. Name and employee code of the selected person
5. Event type as check-in or check-out
Even type is not available for black list events
6. Record button
Record the event. The result will be appeared in the result view as mentioned in [Result view for Surveillance client for Windows](#) and Guard client for Android section.

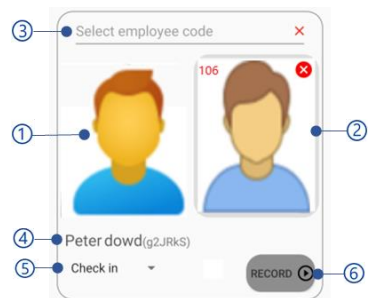


Figure 6.84 Side by side comparison view of Guard client

6.7.3.1.1 Selected person view

The person appeared in this view can be recorded by the Guard. The selected person can be,

1. *Whitelist person*
2. *Blacklist person*
3. *False match*

6.7.3.1.1.1 Whitelist person

If the selected person is not blocked it is known as whitelist person

1. Matching score
The score when matching user face biometric with the captured image.
2. Matching face image
Face image from the biometric face image of the matching users which has the highest matching score.
3. Remove button
Removed the selected person

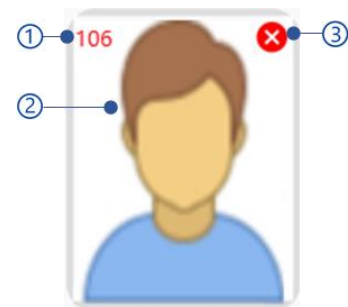


Figure 6.85 Whitelist event view of Guard client

The Guard allows to record the person as check-in or check-out.

6.7.3.1.1.2 Blacklist person

If the selected person is blocked, it is known as blacklist

1. Matching score
The score when matching user face biometric with the captured image.
2. Block indicator
Block indicator appears if the user has blocked.
3. Matching face image
Face image from the biometric face image of the matching users which has the highest matching score.
4. Remove button
Removed the selected person

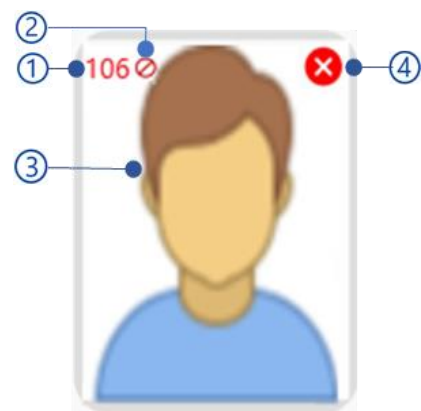


Figure 6.86 Blacklist event view of Guard client

The Guard can record the event as blacklist.

6.7.3.1.1.3 False match

The captured person may not be existed in the database. In such cases, Guard can keep the selected person as empty (false match) and record the event.

6.7.3.2 Matching list view

This view is showing all identified person details. Once Guard selected a person from the list, selected user will be shown in [Side by side comparison view](#) either a [Whitelist person](#) or [Blacklist person](#).

1. Selected user

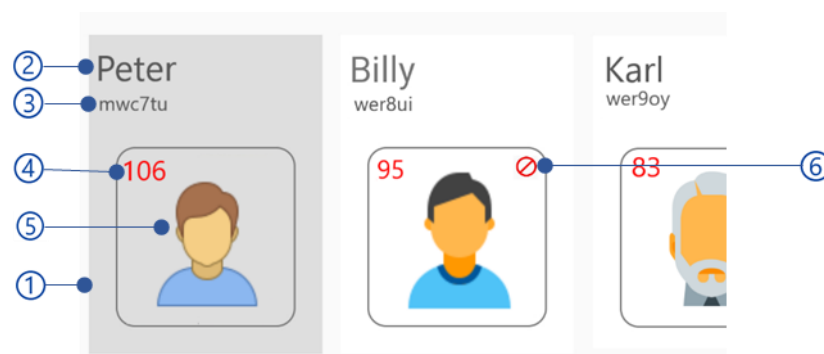


Figure 6.87 Close match list view of Guard client

2. First name
3. Employee code
4. Matching score
The score when matching user face biometric with the captured image.
5. Biometric face image
Face image from the biometric face image of the matching users which has the highest matching score
6. Blocked indicator

6.7.4 Result view

Result view shows the recorded event details. Result view as follows,

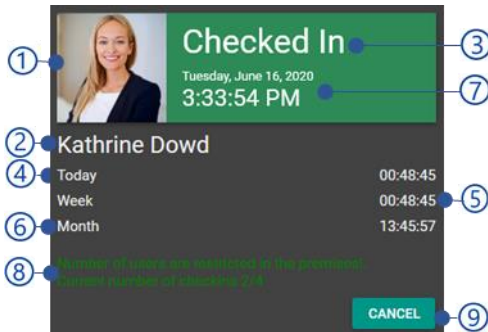
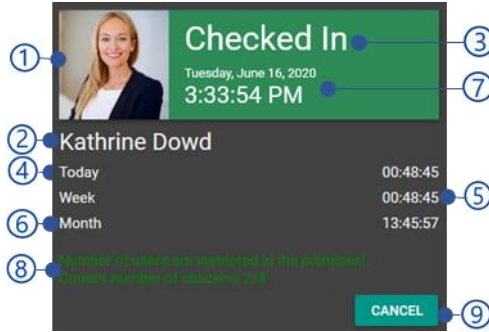
1. [Result view for Standard and Lite clients](#)
2. [Result view for Surveillance client for Windows and Guard client for Android](#)

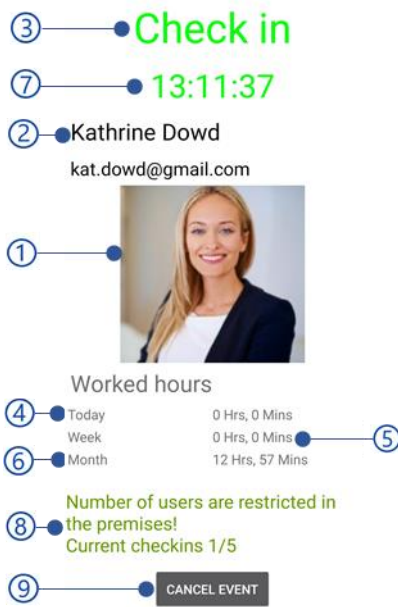
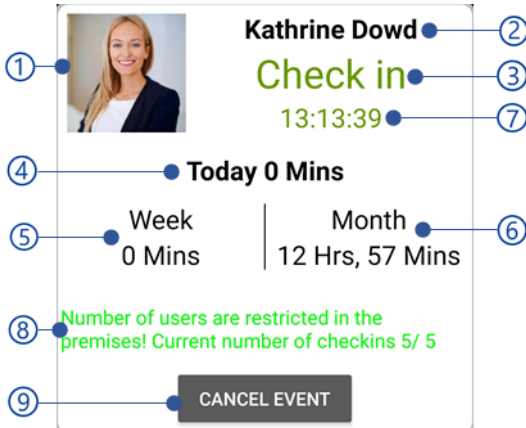
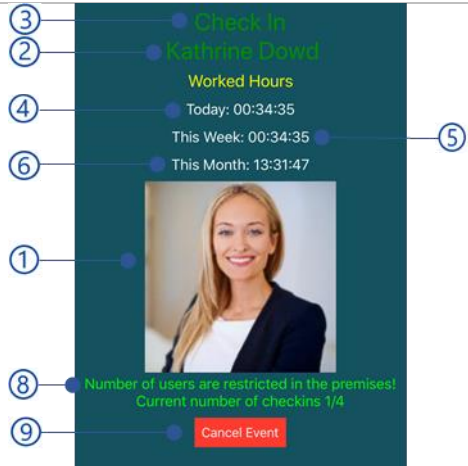
6.7.4.1 Result view for Standard and Lite clients

6.7.4.1.1 Result view for Single face mode

In the single face mode, the result view appears for the successful check-in or check-out events as follows.

Table 6.31 Result view of the single face mode

	Lite	Standard
Windows	 <p><i>Figure 6.88 Result view of Windows lite client</i></p>	 <p><i>Figure 6.89 Result view of Windows standard client</i></p>

<p>Android</p>	 <p>Figure 6.90 Result view of Android lite client</p>	 <p>Figure 6.91 Result view of Android standard client</p>
<p>IOS</p>	 <p>Figure 6.92 Result view of IOS lite client</p>	<p>Not Available</p>

1. User profile image
2. Username
3. Event type
4. Total work hours of the day
5. Total work hours of the week
6. Total work hours of the month
7. Event recorded time
8. Check-in limitation message
If the number of check-in are lower than the maximum occupancy for group

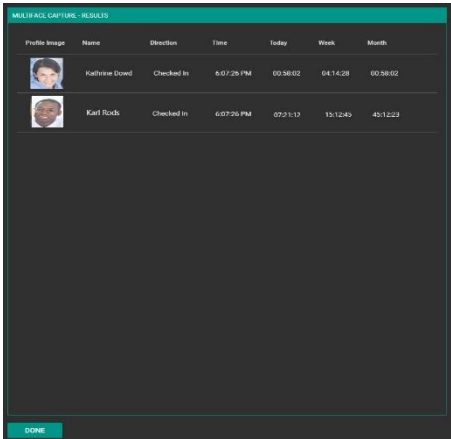
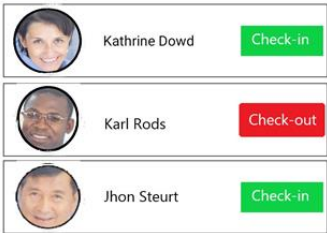
- premises, check-in will be recorded successfully. Otherwise check-in will be restricted. Refer [Maximum occupancy for group premises](#) setting in the server for more details.
9. **Cancel** button
Cancel the event recorded. This button will disappear in few seconds after the event result view appeared.

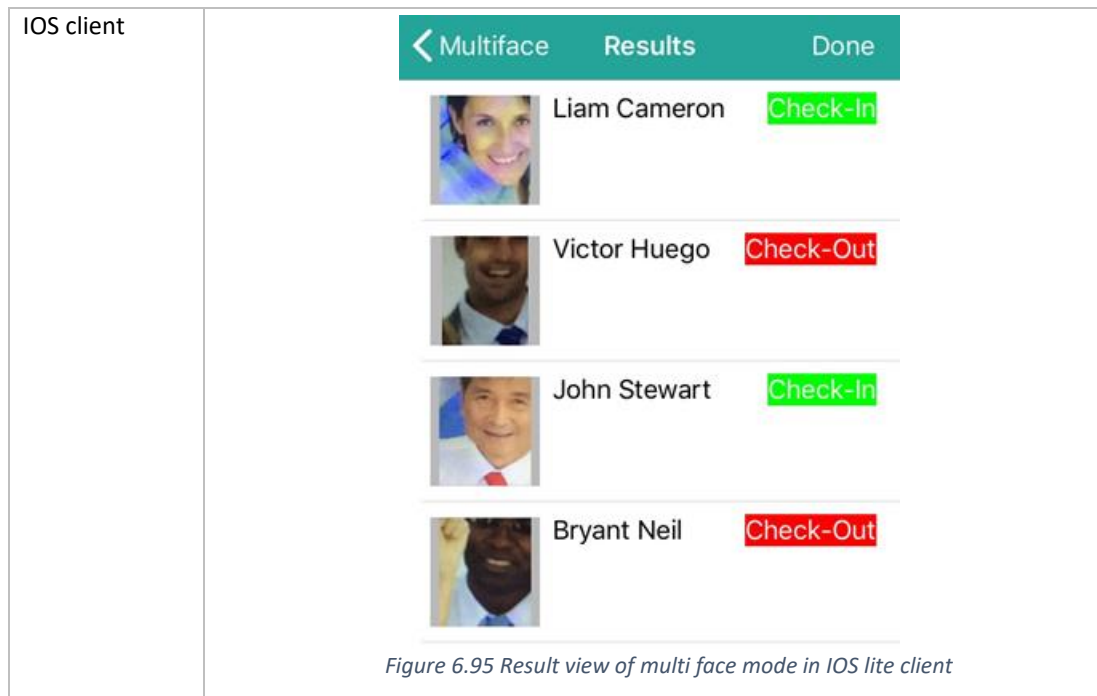
6.7.4.1.2 Result view for multi face mode

This view is available in NCheck Bio Attendance Lite clients only.

In multi face mode, result view appears with all users for all check-in check-out details as follows.

Table 6.32 Result view of the multi face mode

	Lite
Windows Client	 <p>Figure 6.93 Result view of multi face mode in Windows lite client</p>
Android Client	<p>Results</p>  <p>DONE</p> <p>Figure 6.94 Result view of multi face mode in Android lite client</p>



6.7.4.2 Result view for Surveillance client for Windows and Guard client for Android

As mentioned in [Record event view](#) section, NCheck Bio Attendance Guard client records following events.

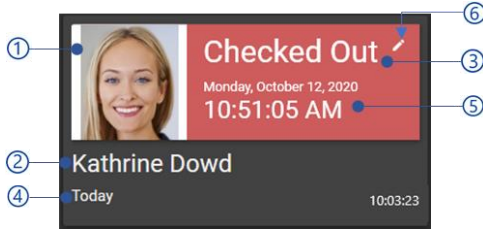

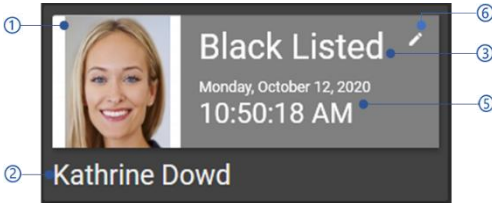

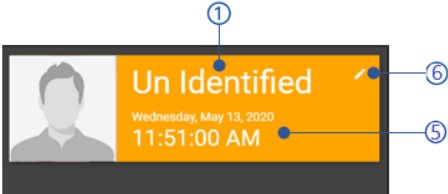
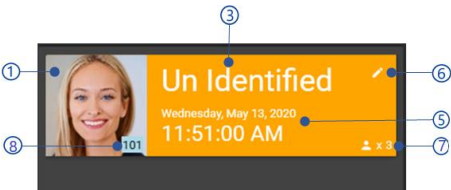
1. Whitelist event
If the selected person by the Guard is not blocked and the event type as check-in or check-out
2. Blacklist event
If the selected person by the Guard is blocked, event will be recorded as blacklist
3. False match event
If the Guard select no person, the event will be recorded as false match.

As mentioned in [Face capturing in Surveillance client of Windows and Guard client of Android](#) section, following events can be recorded in NCheck Bio Attendance Surveillance client for Windows.

1. Whitelist event
Event type as check-in or check-out.
2. Blacklist event
If the user is blocked, event will be recorded as blacklist
3. Unidentified event
Unidentified event will be recorded if
 1. No match available for the captured face image
In this case user can select any user from the registered user group and record the event as whitelist or blacklist event.
 2. Close matches available for the captures face image
In this case user can select the user from the close match list and record the event as whitelist or blacklist event.

Following table is showing the views for all available events in Surveillance and Guard client.

Table 6.33 Result view of events in Guard and Surveillance clients

Matching event type	Surveillance client	Guard client
Whitelist event	 <p>Figure 6.96 whitelist event of Surveillance client</p>	 <p>Figure 6.97 Whitelist event of Guard client</p>
Blacklist event	 <p>Figure 6.98 Blacklisted event in Surveillance client</p>	 <p>Figure 6.99 Blacklist event of Guard client</p>
Unidentified event (No match found)	 <p>Figure 6.100 Unidentified event of Surveillance client</p>	Not available
Unidentified event (Close match found)	 <p>Figure 6.101 Close match event of Surveillance</p>	Not available

- | | |
|--------------------------------|--|
| 1. User profile image | 6. Edit button |
| 2. Username | Edit the selected event as mentioned in section |
| 3. Event type | |
| 4. Total work hours of the day | 7. Number of matches in the close match list |
| 5. Event time | This view appears for the unidentified events if multiple matches found. |

6.7.4.3 Edit event

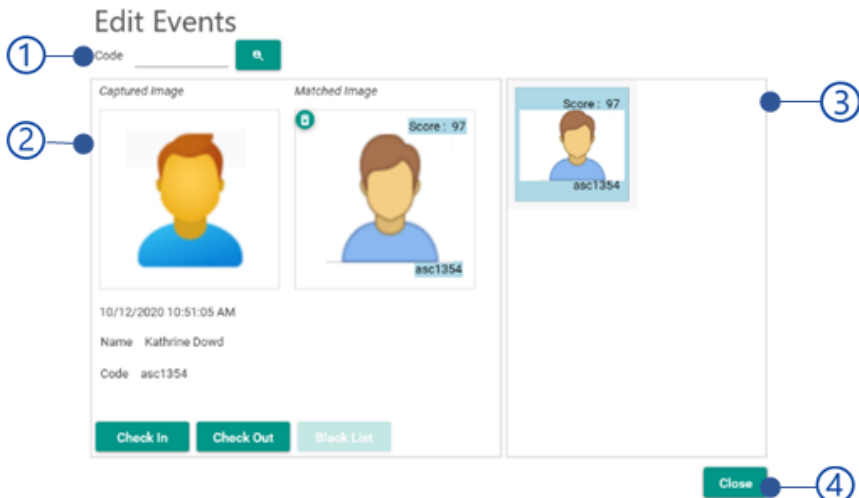
This view is available NCheck Bio Attendance Surveillance client only.

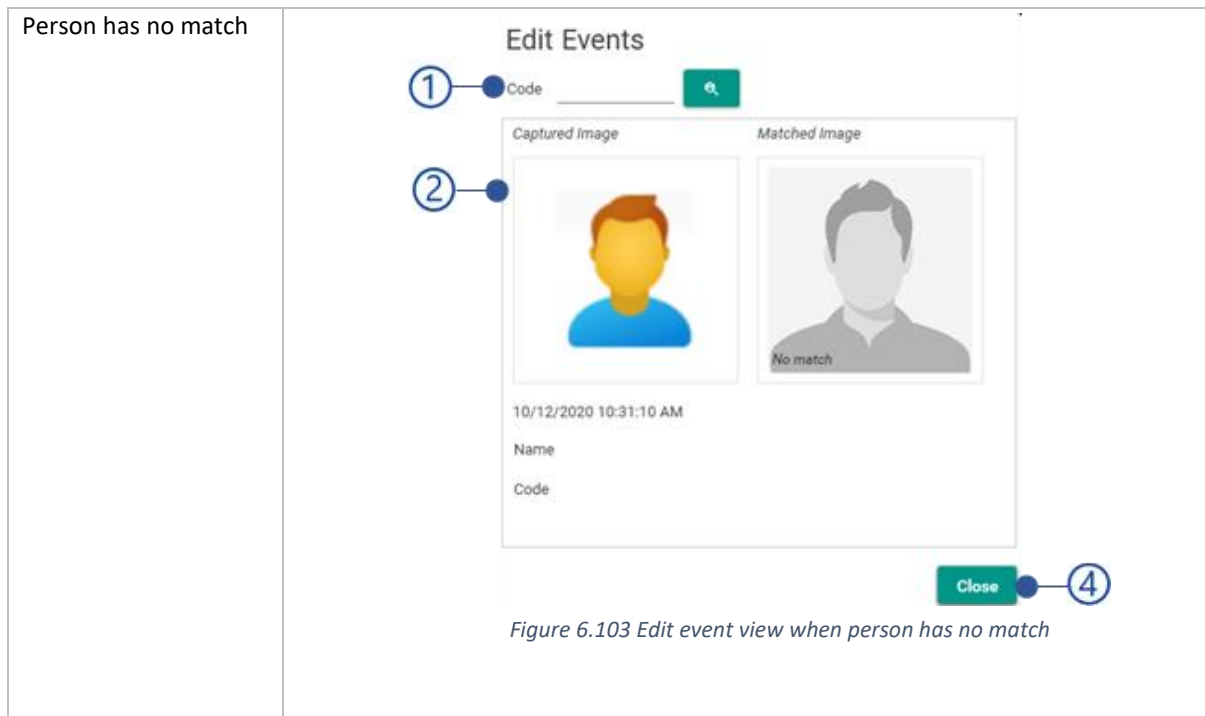
The recorded event can be edited in following case

1. The captured face has matched with the different person(s)
In this case, the captured face is matched with different person and the event will be recorded as Check-in, Check-out or blacklist. If the person is matched with multiple persons, the event will be recorded as unidentified event.
2. The captured face has no match
The captured face has matched with no person and the event will be recorded as unidentified.

In such cases Guard allows to edit the event as follows.

Table 6.34 Edit event view of Surveillance client

Event	Edit event View
Person has matched with different person(s)	 <p><i>Figure 6.102 Edit event view when matching with different person(s)</i></p>



1. Employee code
Guard allows to select the correct person using the employee code. The selected person will be updated in the [Side by side comparison view](#).
2. [Side by side comparison view](#)
3. [Matching list view](#)
4. Close button
Close Edit event dialogue.

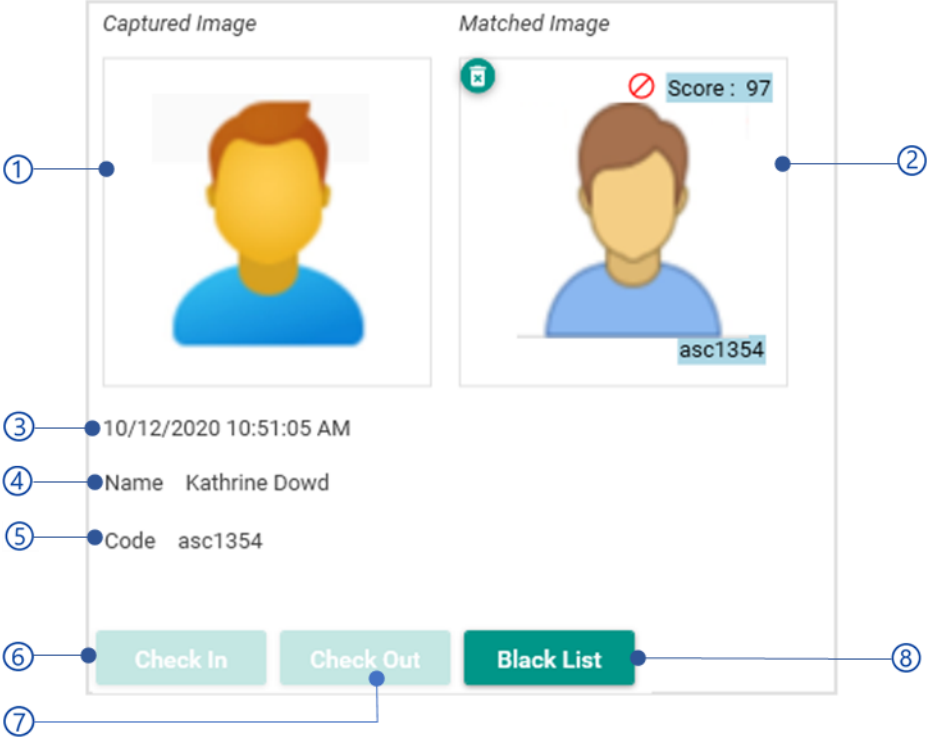
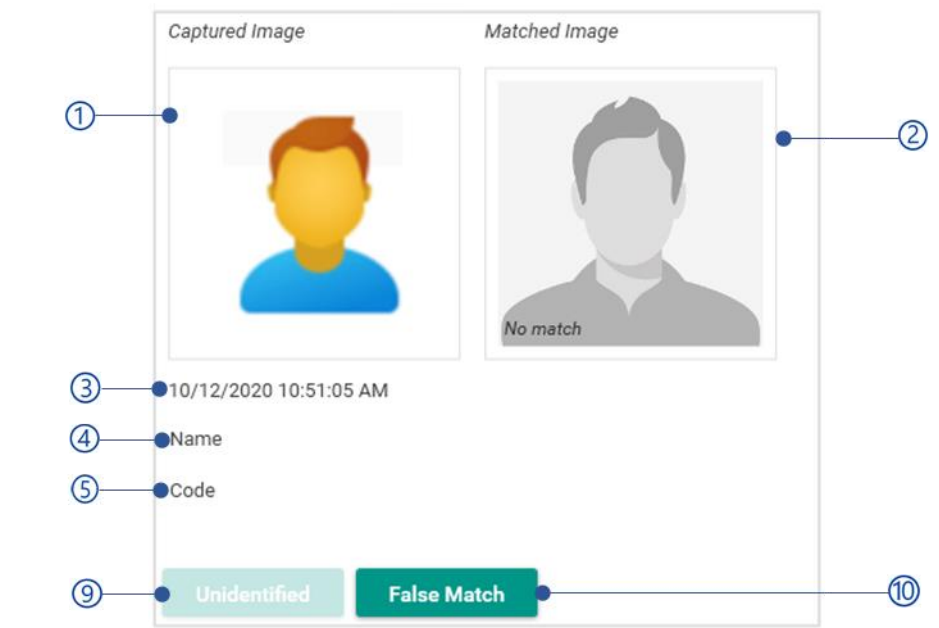
6.7.4.3.1 Side by side comparison view

The side by side comparison view allows to compare the captured face of the person with matching parson(s) and record the event in following cases.

1. The captured face has a match
The captured face can be matched with either the server result or person selected by the Guard. In such cases event can be recorded as Check-in, Check-out or Blacklist if the person has been blocked.
2. The face has not a match
The Guard allows to record the event as false match if the captured person is not existing in the system.

Table 6.35 Side by side comparison view of Surveillance client

Case	View
------	------

<p>Person matched with person(s)</p>	 <p>Figure 6.104 Side by side comparison view when captured face has a match</p>
<p>Person has no match</p>	 <p>Figure 6.105 Side by side comparison view when captured face has no match</p>

1. Captured face image of the user

2. Matched/selected person view

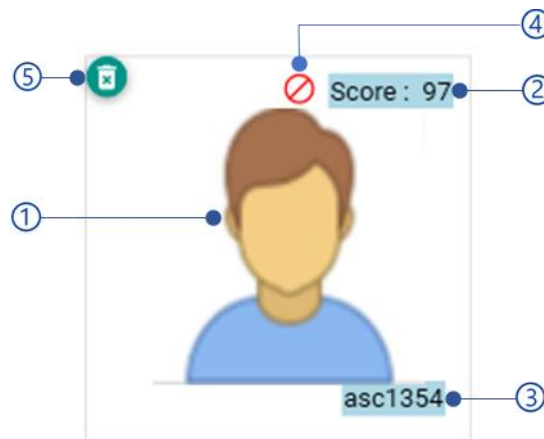


Figure 6.106 Matched/selected person view

1. Image
Wither the face biometric image of the matched person or thumbnail image of the selected person.
2. Matching score
3. Employee code of the matched/selected user
4. Blocked status
This status is shown if the matched/selected person is blocked.
5. Delete button
Removed the matched/selected person. If the captured face image has no match, Guard can remove the matched/selected person using this button and record as false match.
3. Event date and time
4. Name of the matched user
5. Employee code selection view
User able to find the user entering employee code if no match found for the captured face image. Otherwise this will be disabled.
6. Check-in button
Record the event as Check-in if the matched/selected user is not blocked.
7. Check-out button
Record the event as Check-out if the matched/selected user is not blocked.
8. Blacklist button
Record the event as blacklist if the matched/selected user is blocked.
9. Unidentified button
10. False match button
Record the event as false match, if the captured face image has no match.

6.7.4.3.2 Matching list view

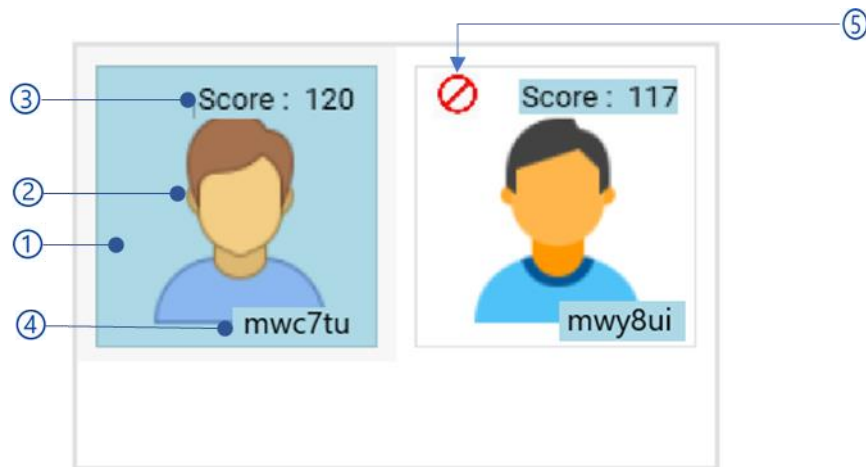


Figure 6.107 Close match list view of Surveillance client

1. Selected user
2. Face biometric image
3. Matching score
4. Employee code of the user
5. Blocked indicator
This indicator appears if the user is blocked.

6.7.5 Recent events list

This view is available in NCheck Bio Attendance clients for Windows only.

Recently recorded attendances are showing in the recent events list. Recent event list view follows

Figure 6.108 Resent event list views of Windows client

	Recent event list view
Standard and Lite clients	

Figure 6.109 Recent event list view of clients for Windows

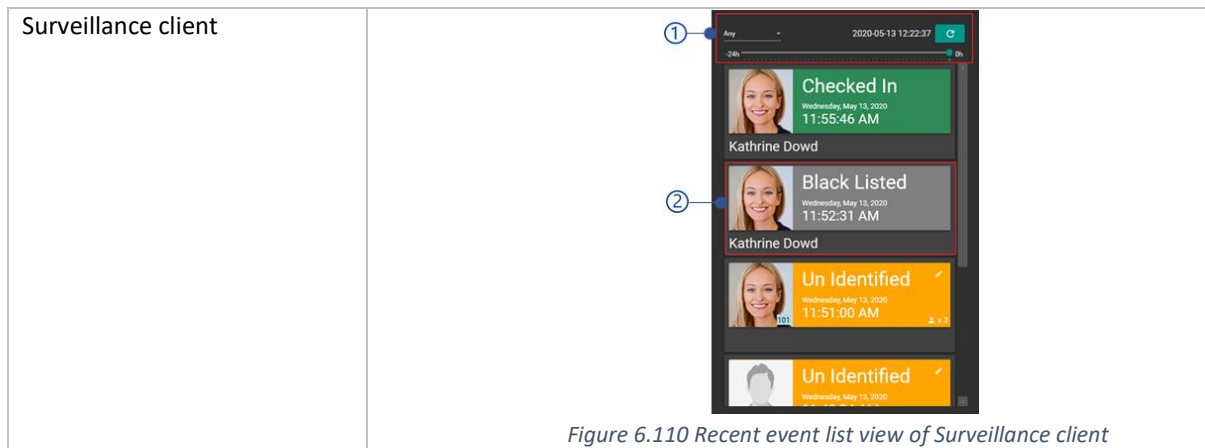
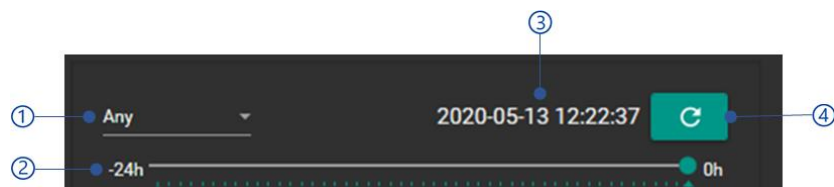


Figure 6.110 Recent event list view of Surveillance client

1. [Event filter view](#)
2. [Result view for Surveillance client for Windows](#) and Guard client for Android

6.7.5.1 Event filter view



1. Event type
 - Whitelist
 - Blacklist
 - Unidentified
 - Close match
2. Timeline selector
Using the timeline selector, the timeline can be changed, and it will support 24 hours of period to backward. It will filter the events according to the timeline selected
3. Timeline of the event
By default, this shows the current timeline and timeline can be changed using the *Time line selector*.

6.8 Client control panel

NCheck Bio Attendance Client Control panel available in clients if the [Offline operation mode](#) has enabled in Attendance Standard cloud/on-premises server as shown below.

Table 6.36 Standard clients control panel availability on offline mode

	Offline mode enabled	
	Network available	Network disabled
Cloud	✗	✓
On-premises	✗	✓

Standalone	✓	✓
------------	---	---

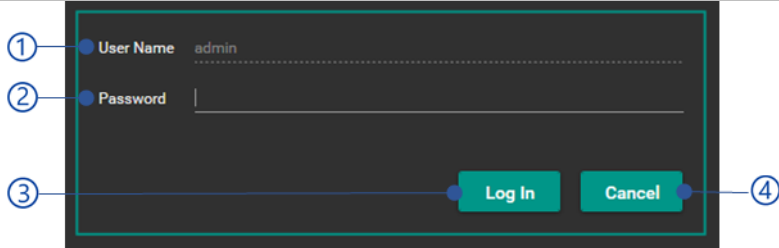
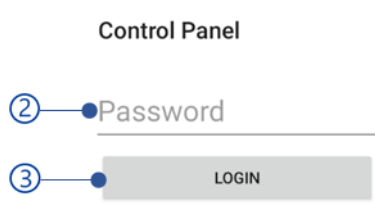
Following options are available in NCheck Bio Attendance Standard Client control panel for Android and Windows,

Table 6.37 Control panel options of Standard clients

	Cloud	On-premises	Standalone
<i>User management</i>	✓	✓	✓
<i>Peripheral view of clients</i>	✗	✗	✓
<i>Event logs</i>	✓	✓	✓
<i>Reports view</i>	✗	✗	✓
<i>Settings view</i>	✗	✗	✓
<i>Admin tasks of Clients</i>	✓	✓	✓

6.8.1 Login view

Table 6.38 Login views of Clients control panel

Windows client	 <p>Figure 6.111 Login view of Windows standard client</p>
Android client	 <p>Figure 6.112 Login view of Android standard client</p>

1. Username
2. Password

The default control panel login password of the Android client is Admin. Windows client does not have a default password. The password can be changed as mentioned in [Standalone password view](#) section.

3. **Login** button

[Table 6.39](#) Error messages of control panel logging could be appeared when logging to the control panel.

4. **Cancel** button

Table 6.39 Error messages of control panel logging

Error code	Error message
2066	Invalid password. Check the password again.

6.8.2 User management

Table 6.40 User management views

Windows Client

Employee Code First Name Last Name Phone Number Email

Zw1gDv	Kathrine	Dowd	+15417543010	kat.dowd@gmail.com
1g04dp	Peter	Nikson	+15418972316	abc@gmail.com
Qjz795	Karl	Mark	+15416404231	
0Bcz3o	Jhon	Stuart	+15417543010	
X52iCM	Bryant	Nail	+12025550164	

KATHRINE DOWD

Employee Code: Zw1gDv
Address: Balch Springs, Texas, Texas, Balch Springs, Texas, US
Email: kat.dowd@gmail.com
Phone Number: +15417543010

BIOMETRICS

Faces: CAPTURE (7)

Fingers: CAPTURE

IRIS: CAPTURE

ENROLL FROM HISTORY (9)

Figure 6.113 User management view of Windows standard client

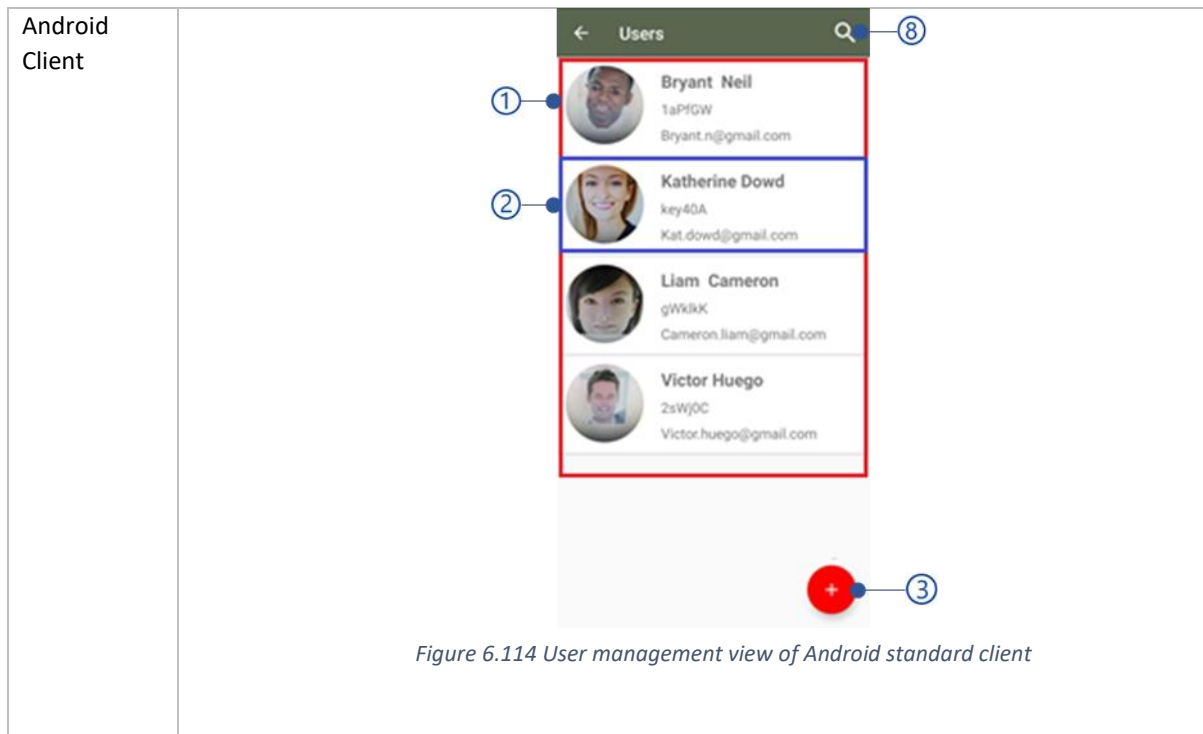


Figure 6.114 User management view of Android standard client

1. Users list view
2. User quick view
In android Stannard client, select user quick view for [User view of Android Standard client](#).
3. **Add** button
Refer [Add user](#) section for more details.
4. **Edit** button
Refer [Edit user](#) section for more details.

5. **Delete** button
Delete selected user. Refer [Edit user](#) section for more details of delete user.
6. **Refresh** button
Refer the user management view.
7. [Manage biometrics](#)
8. Search user
9. **Enroll from history** button
Refer [Enroll from Windows client history](#) section for more details.

6.8.2.1 User view of Android Standard client

User view of the Android Standard client preset all user details as follows.

1. User first name and last name
2. User menu
 1. Edit
Edit user
 2. Remove
Remove user
 3. Biometrics
Manage biometrics as mentioned in [Manage biometrics section](#)
3. User details view

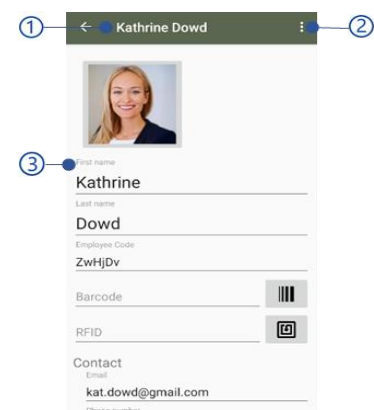


Figure 6.115 User view of Android Standard client

6.8.2.2 Add user

Table 6.41 Add new users view

<p>Windows Client</p>	<p>Figure 6.116 Add user view of Windows standard client</p>
<p>Android Client</p>	<p>Figure 6.117 Add user view of Android standard client</p>

1. User image thumbnail preview
In Android standard client select the image thumbnail to browse the image file from the file system.
2. **Browse** button
Browse image from the file system
3. First name
4. Last name
5. Employee code



6. Barcode ID
Refer [Capture barcode from client](#) section for more details.
7. RFID tag
Refer [Capture RFID from client](#) section for more details.
8. Email
9. Address line 1
10. Address line 2
11. City
12. Country
13. State
14. Zip code
15. Telephone
16. **Apply** button
Apply button will be disabled if the mandatory fields are empty or Validation errors exist. Refer [Table 6.42](#) Error messages of add/edit user in client control panel for all error messages.
17. **Cancel** button

Table 6.42 Error messages of add/edit user in client control panel

Error code	Description
3001	Mobile/telephone number is not valid for the selected country/region.
3002	Invalid email address.
3005	Barcode scanner could not be found.
3006	RFID scanner could not be found
2020	Selected file is not a valid image file.
2021	Employee code already exists.
2022	Barcode ID is already available for different user
2023	RFID is already available for different user
2039	Could not capture barcode. The device has been blocked
2040	Could not capture RFID. The device has been blocked

6.8.2.2.1 Capture barcode from client

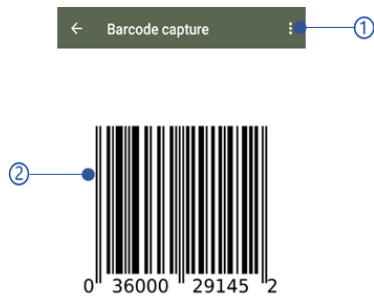
Table 6.43 Barcode field view

Windows client	 <p>Figure 6.118 Barcode field view of Windows Standard client</p>
Android client	 <p>Figure 6.119 Barcode field view of Android standard client</p>

1. Barcode text field
2. **Barcode capture** button



Select **Capture** button to scan the barcode from the client application as mentioned in [Table 6.44](#) Capturing barcode from Client applications.

Table 6.44 Capturing barcode from Client applications

Android client	<p>Scan the barcode after the barcode scan view appeared as shown in Figure 6.120 Barcode capture view.</p> <ol style="list-style-type: none"> 1. Main menu <ol style="list-style-type: none"> 1. Switch camera 2. Change resolution 2. Barcode scan area <p>After successful scan, barcode id will appear in the barcode field.</p>  <p>Figure 6.120 Barcode capture view of Android client</p>
Windows client	<ol style="list-style-type: none"> 1. Select the barcode field 2. Scan the barcode from the connected barcode scanner 3. After successful scan, barcode id will appear in the barcode field.

6.8.2.2.2 Capture RFID from client

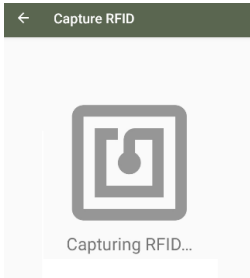
Table 6.45 RFID field view

Windows client	 <p>Figure 6.121 RFID field view of Windows Standard client</p>
Android client	 <p>Figure 6.122 RFID field view of Android standard client</p>

1. RFID text field
2. **RFID capture** button

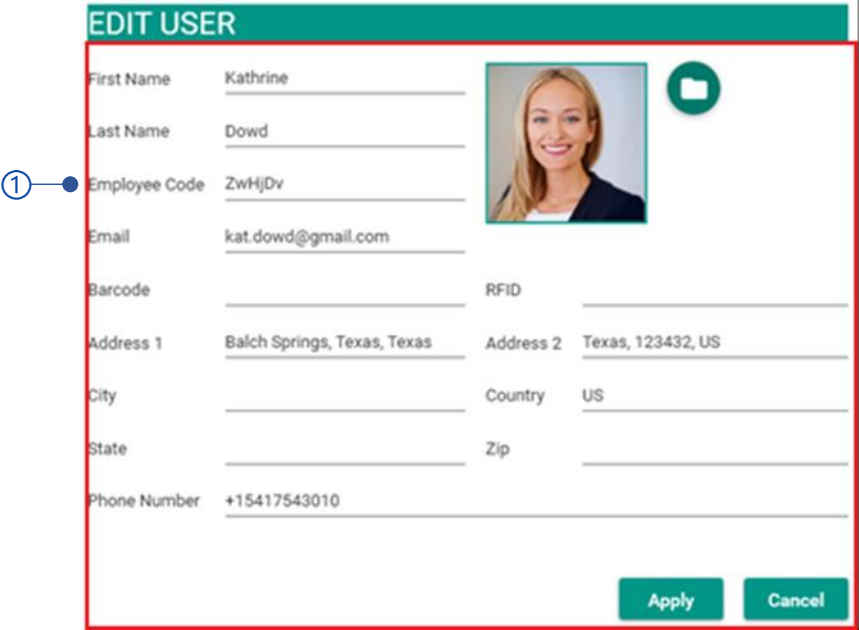
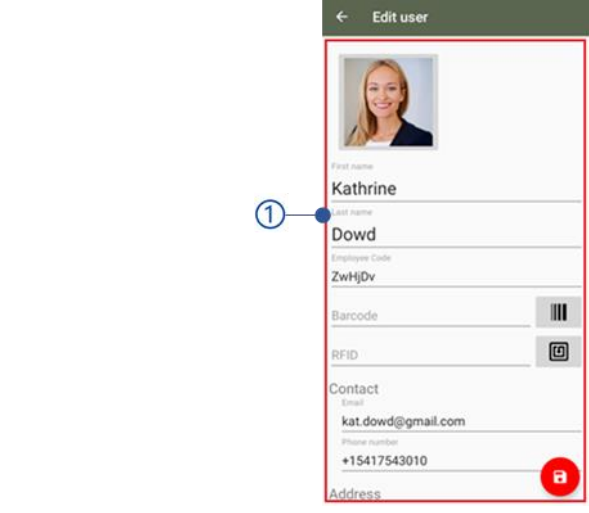
Select **Capture** button to scan the RFID from the client application as mentioned in [Table 6.46](#) Capturing barcode from Client applications.

Table 6.46 Capturing barcode from Client applications

Android client	<ol style="list-style-type: none"> 1. Scan the RFID after the RFID scan view appeared as Figure 6.123 RFID capture view 2. After successful scan, RFID id will appear in the RFIDID field.  <p>Figure 6.123 RFID capture view of Android client</p>
Windows client	<ol style="list-style-type: none"> 1. Select the RFID field 2. Scan the RFID from the connected RFIC scanner 3. After successful scan barcode id automatically appeared in the RFID field.

6.8.2.3 Edit user

Table 6.47 Edit user views

Windows client	 <p>Figure 6.124 Edit user view of Windows standard client</p>
Android client	 <p>Figure 6.125 72 Edit user view of Android standard client</p>

1. User details view as mentioned in [Add user](#) section.

6.8.2.4 Manage biometrics

To proceed to manage biometric view for particular user in NCheck Bio Attendance Android standard client, Select **Biometric** button of the [User view of Android Standard client](#) section.

In the edit user view, if no biometric has been enrolled for user, NCheck Bio Attendance Android standard will show a notification to enroll biometric as shown in [Figure 6.126](#) “No template enrolled” notification in Android standard client.

1. **Enroll** button
Select enroll button to select the biometric type as shown in [Figure 6.128](#) Biometric type selection view of Android standard client to capture biometric.



Figure 6.126 “No template enrolled” notification in Android standard client

Table 6.48 Manage biometrics view

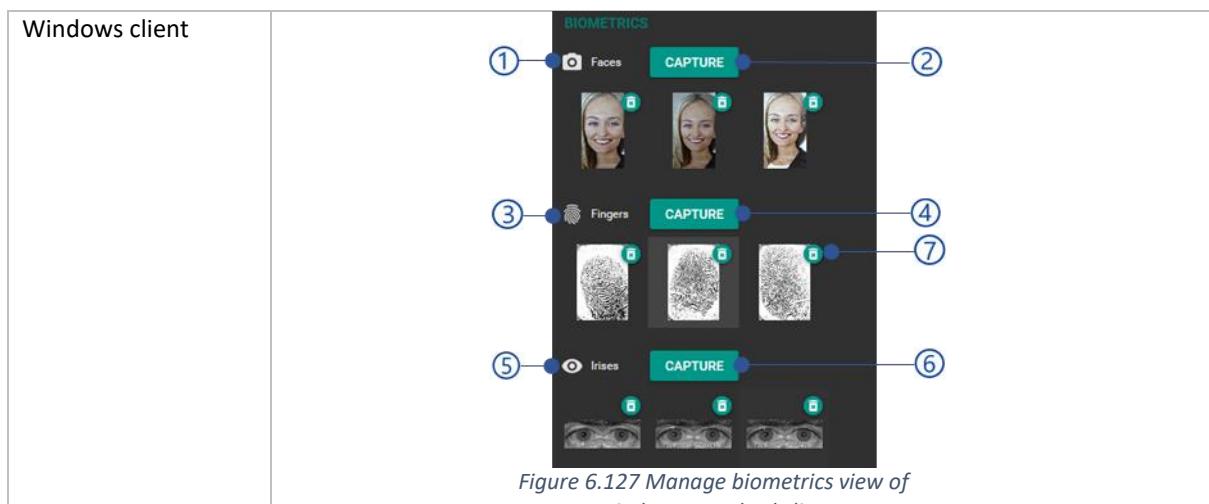
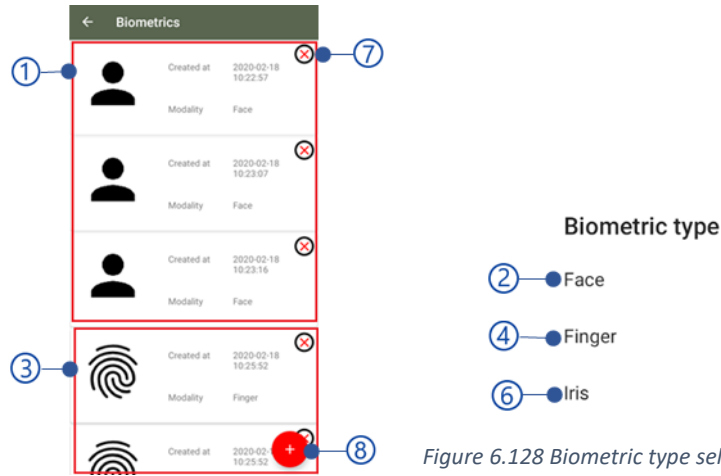


Figure 6.127 Manage biometrics view of Windows standard client

Android client



1. Enrolled face images list
2. **Capture face** button
Refer [Capture face from standard clients](#) section for more details.
3. Enrolled fingerprint images list
4. **Capture fingerprints** button
Refer [Capture fingerprint from Standard clients](#) section for more details.
5. Enrolled iris images list
6. **Capture iris** button
Refer [Capture iris from Windows standard client](#) section for more details

Refer [Capture from client applications](#) section for the error message could be appeared while capturing biometrics.

6.8.2.5 Enroll from Windows client history

This feature is not available for NCheck Bio Attendance Android client.

This option allows enroll biometrics from previous recorded events from users who are not enrolled with NCheck Bio Attendance server.

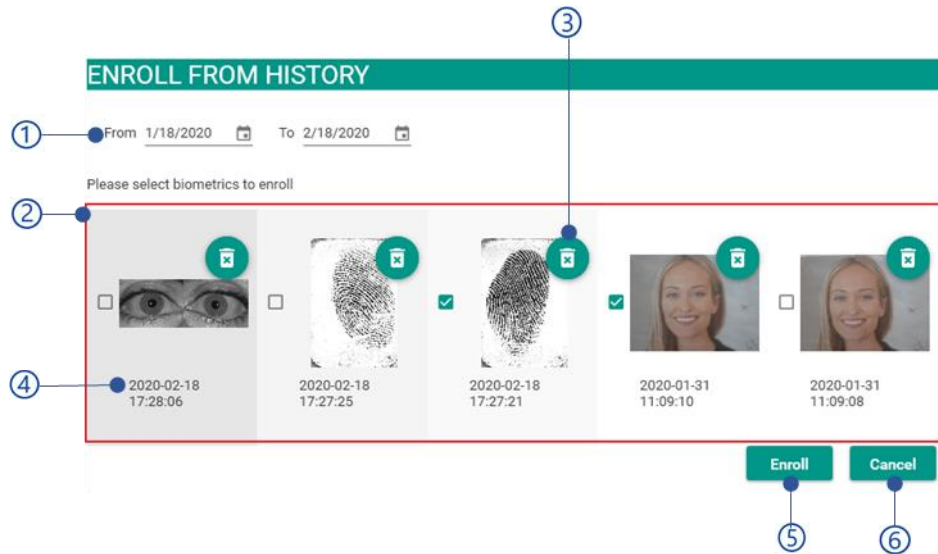


Figure 6.130 Enroll from history view

1. Date filter
2. Unidentified biometric lists
3. **Delete** button
Delete event from the list
4. Event date and time
5. **Enroll** button
Enroll selected biometrics from the list. [Table 6.49](#) Error messages of Enroll from history is shown the error messages could be appeared when enroll biometrics from history
6. **Cancel** button

Table 6.49 Error messages of Enroll from history

Error code	Error message
2024	Could not enroll selected face/finger/iris image.

Figure 6.131 Enroll from history view of Windows standard client

6.8.3 Peripheral view of clients

All available peripherals are showing in this view. The peripheral view as follows,

Table 6.50 Peripherals list views

Windows Client	 <p>Figure 6.132 Peripherals view of Windows standard client</p>
Android Client	 <p>Figure 6.133 Peripherals view of Android standard client</p>

1. [Device details view of Windows standard client](#)
2. Edit button
Refer [Edit peripheral](#) view section for more details. In Android client double click on peripheral quick view.
3. Refresh button
4. [Peripheral list view of Windows standard client](#)
5. [Peripheral quick view of Android standard client](#)

6.8.3.1 Device details view of Windows standard client

This view is showing device details as follows.

1. Device name
2. Name of the operating system
3. Version of the operating system

①	Device Name	DESKTOP-JN2TCPS
②	Operating System	Microsoft Windows NT 6.2.9200.0
③	OS Version	6.2.9200.0

Figure 6.134 Device details view of Windows standard client

6.8.3.2 Peripheral list view of Windows standard client

This view shows all peripheral available with the device as follows.

1. Peripheral name
2. Peripheral ID
3. Status
Peripheral is enabled or disabled.
4. Selected peripheral
Double click on the selected peripheral to get the [Edit peripheral](#) view.

①	②	③
Name	↓ Type	Status
④		
HID Keyboard Device	USER_ID	ENABLED
Logitech HD Webcam C270	FACE	ENABLED
Futronic FS88 #1	FINGER	ENABLED
CMI-Tech BMT-20	IRIS	ENABLED

Figure 6.135 Peripheral list view of Windows standard client

6.8.3.3 Peripheral quick view of Android standard client

This view present details of the selected peripheral.

1. Peripheral type
2. Peripheral ID
3. Peripheral image

This image become green when the peripheral is available with the device. Otherwise become grey color.

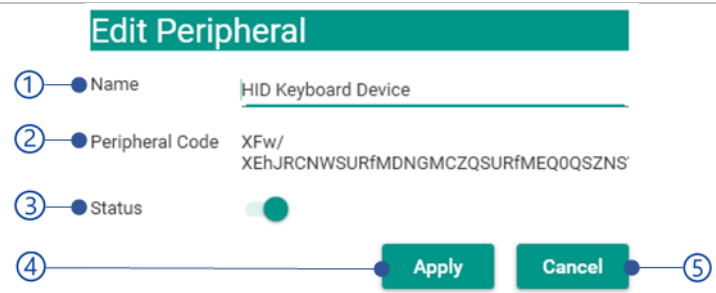
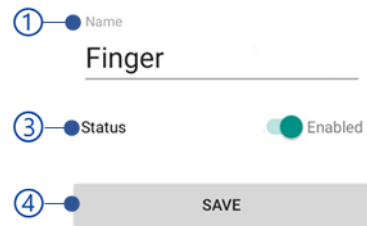


Figure 6.136 Peripheral quick view of Android standard client

Select the peripheral quick view to get the [Edit peripheral](#) view.

6.8.3.4 Edit peripheral view

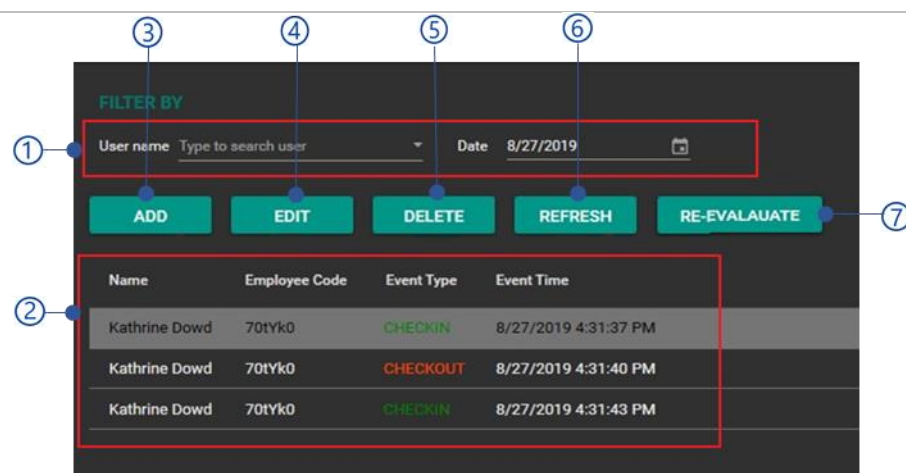
Table 6.51 Edit peripheral views

Windows client	 <p>Figure 6.137 Peripheral edit view of Windows standard client</p>
Android client	 <p>Figure 6.138 Peripheral edit view of Android standard client</p>

1. Peripheral name
2. Peripheral code
A unique id for the peripheral. Peripheral code cannot be edited.
3. Peripheral status
Enable/disable the peripheral.
4. **Save** button
5. **Cancel** button

6.8.4 Event logs

Table 6.52 Event logs views

Windows Client	 <p>Figure 6.139 Event logs view of Windows standard client</p>
----------------	---

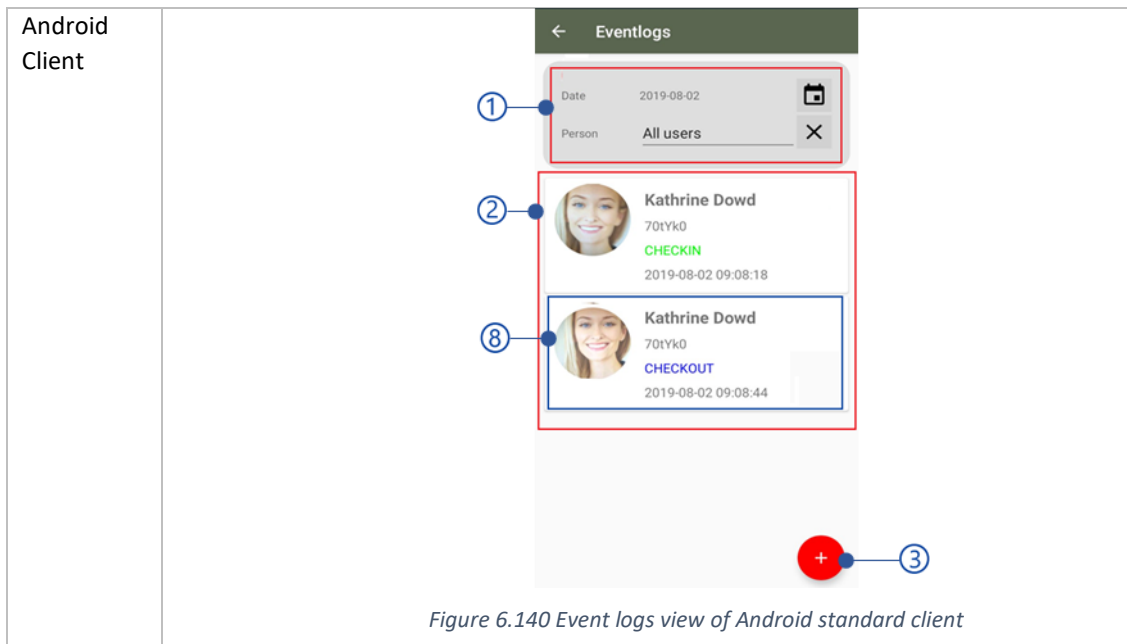


Figure 6.140 Event logs view of Android standard client

1. Event logs filter view
2. Date filter
Select the date to retrieve event logs.
Default date is current date.
3. Username filter
Select the username to retrieve event logs.
4. [Event logs list view of Windows standard client](#)
5. **Add** button
Refer [Add new event log](#) section for more details
6. **Edit** button
In Android standard client select on event log quick view for edit event log. Refer [Edit event log](#) section for more details.
7. **Delete** button
Delete selected event log. In Android client refer [Edit event menu of Android standard client](#) section for delete event log.
8. **Refresh** button
Refresh event logs view
9. Re-evaluate button
Select this button to re-arrange events check-in/check-out sequence of users.
10. [Event log quick view of Android standard client](#)

6.8.4.1 Event logs list view of Windows standard client

Event log list view of the Android standard client shows all event logs as follows.

1. Username
2. Employee code
3. Event type as Check-in or Check-out
4. Event date and time
5. Selected event
Double click on selected event to [Edit event log](#).

① Name	② Employee Code	③ Event Type	④ Event Time
⑤ Kathrine Dowd	70tYk0	CHECKIN	8/27/2019 4:31:37 PM
Kathrine Dowd	70tYk0	CHECKOUT	8/27/2019 4:31:40 PM
Kathrine Dowd	70tYk0	CHECKIN	8/27/2019 4:31:43 PM

Figure 6.141 Event logs list view of Windows standard client

6.8.4.2 Event log quick view of Android standard client

Event log quick view of Android standard client shows details of the selected event log as follows

1. User thumbnail
2. Username
3. Employee code
4. Event type as Check-in or Check-out
5. Event date and time



Figure 6.142 Event log quick view of Android standard client

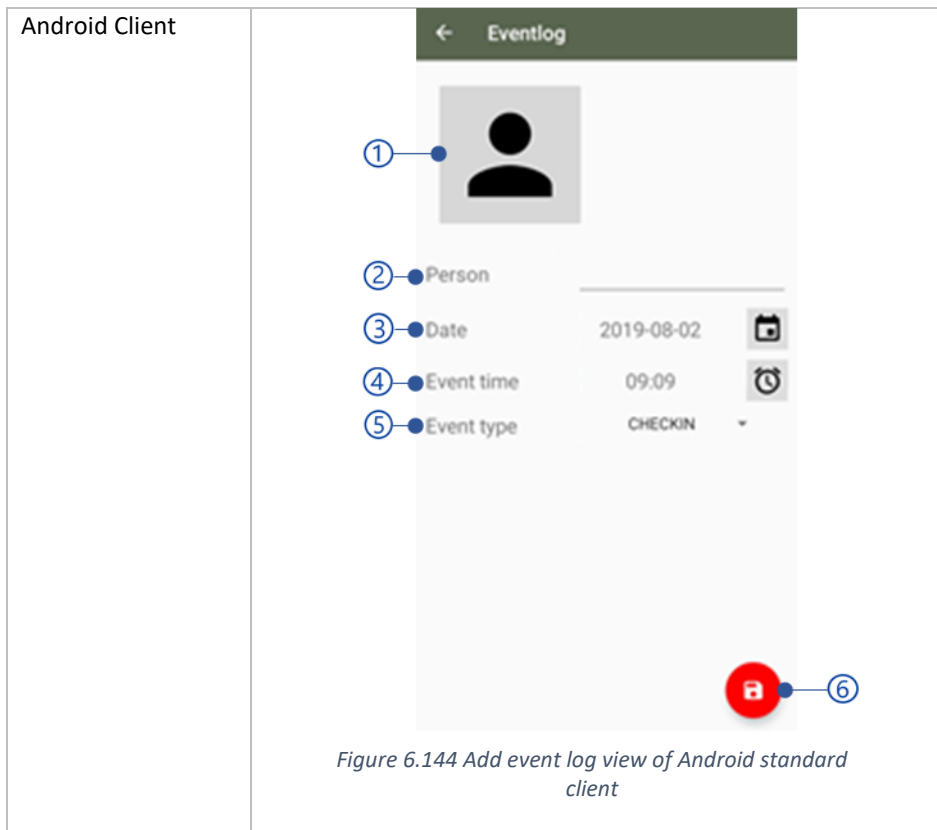
Select on event quick view to [Edit event log](#).

6.8.4.3 Add new event log

Table 6.53 Add event logs view

Windows Client	
	<div style="text-align: center; background-color: #008080; color: white; padding: 5px; margin-bottom: 10px;">Add Event Log</div> <div> <div>②</div> <div>Name</div> <div>Karl</div> </div> <div> <div>③</div> <div>Event Date</div> <div>6/12/2019</div> </div> <div> <div>④</div> <div>Event Time</div> <div>16:10:42</div> </div> <div> <div>⑤</div> <div>Event type</div> <div>CHECKIN</div> </div> <div> <div>⑥</div> <div>Apply</div> <div>Cancel</div> <div>⑦</div> </div>

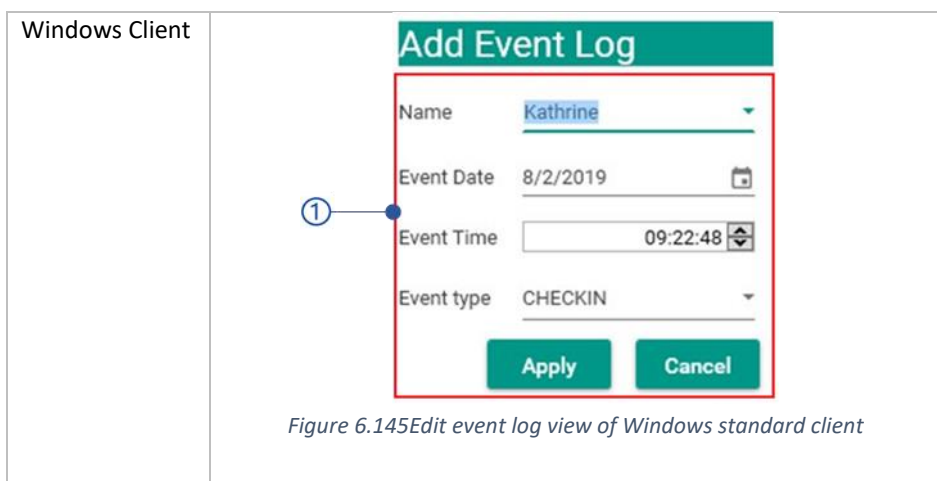
Figure 6.143 Add event log view of Windows standard client

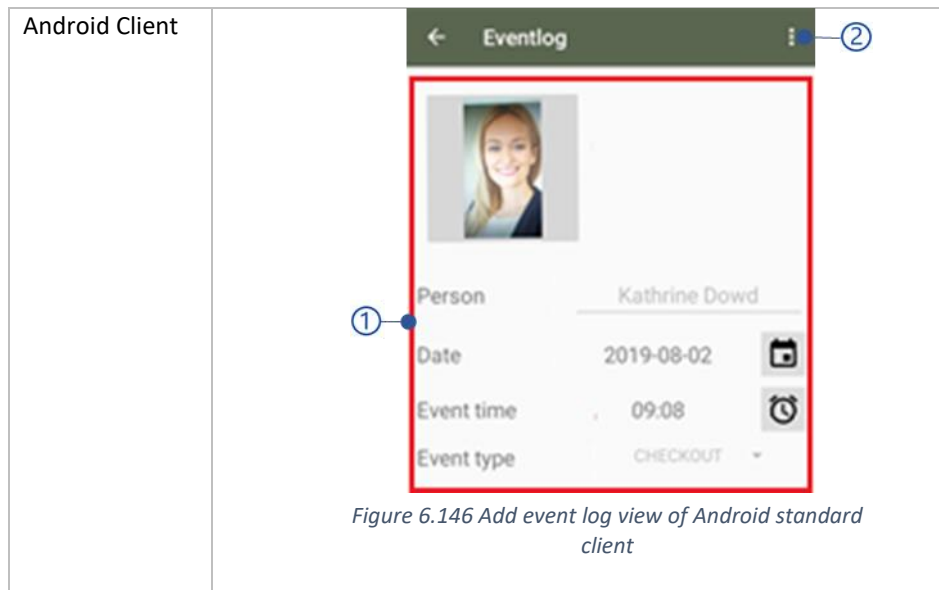


- | | |
|--------------------|-------------------------|
| 1. Event thumbnail | 2. Unidentified |
| 2. Person name | 3. Not known |
| 3. Date | |
| 4. Event time | |
| 5. Event type | 6. Add button |
| | 7. Cancel button |
| 1. Checkout | |

6.8.4.4 Edit event log

Table 6.54 Edit event log views





1. Event details view as shown in
2. [Edit event menu of Android standard client](#)

6.8.4.4.1 Edit event menu of Android standard client

This menu is available in the Android standard client to delete the selected event log

1. Delete
The delete the selected event log

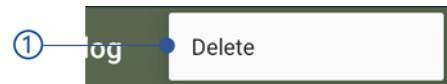
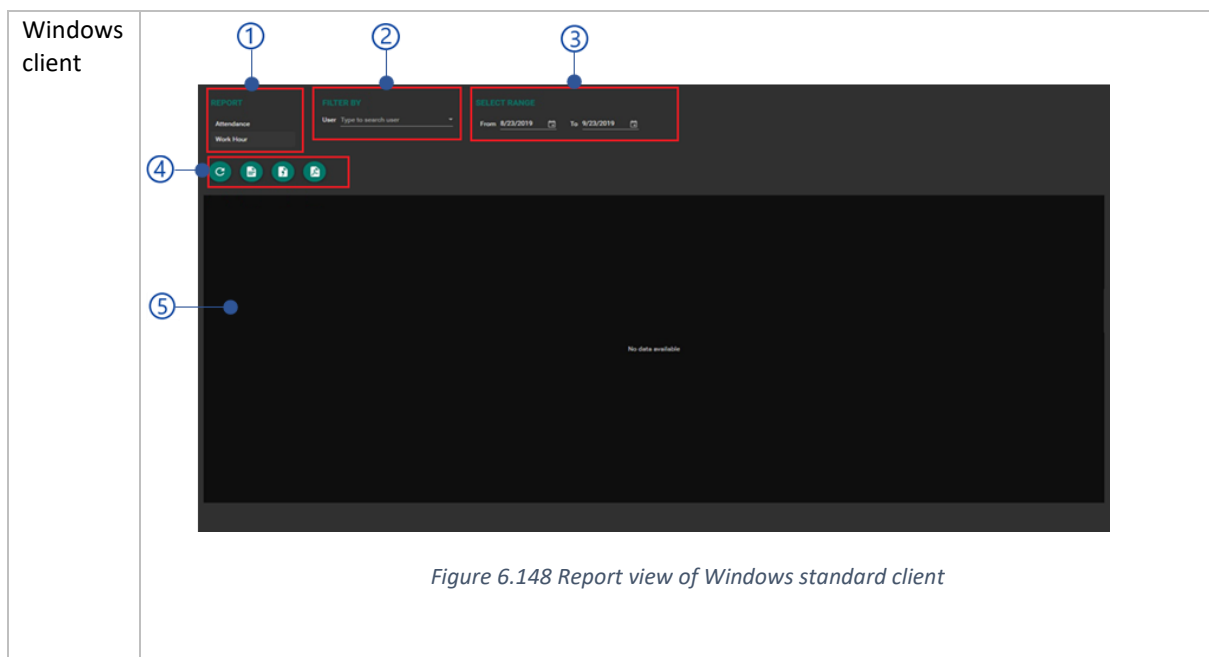
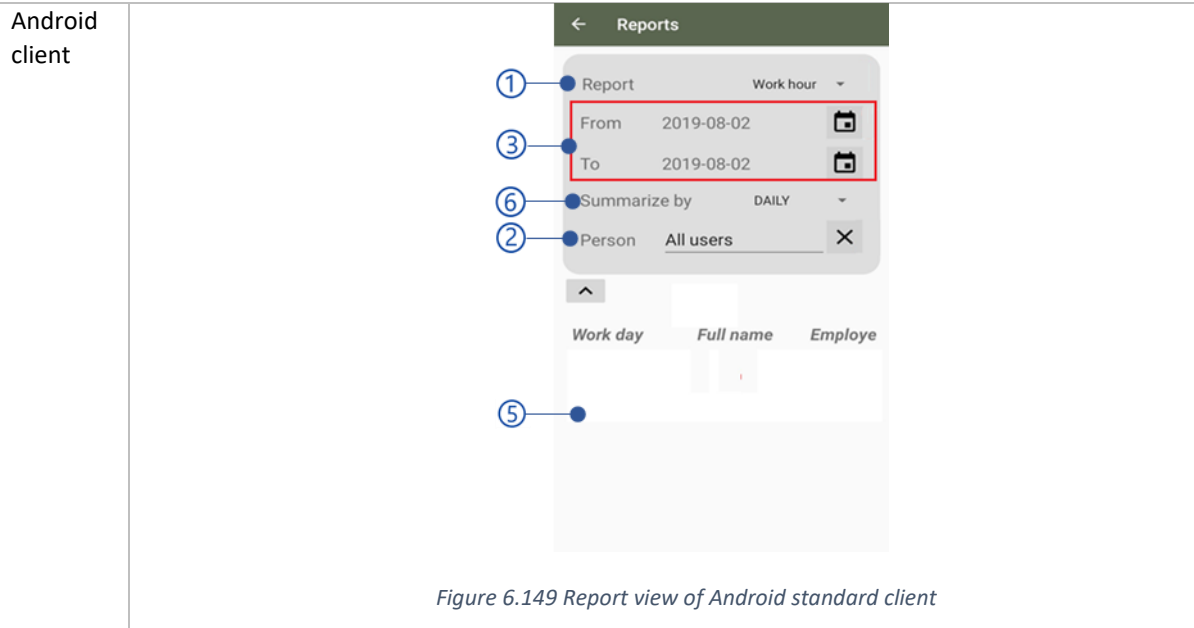


Figure 6.147 Edit event menu of Android standard client

6.8.5 Reports view

Table 6.55 Report views





1. Report type
 1. [Workhour report](#)
 2. [6.7.5.3 Event log report](#)
2. Filter report by username
3. Select report start date and end date to generate report
4. [Report options of Windows standard client](#)
5. Report data view
6. Summarize report by daily, weekly, or monthly

6.8.5.1 Report options of Windows standard client

Report options of the Windows standard clients available shown as below.

1. Refresh button
Refresh report view.
2. Print button
Print the report.
3. Save CSV button
Save report in CSV format.
4. Save PDF button
Save report in PDF format.



Figure 6.150 Report options view of Windows standard client

6.8.5.2 Workhour report

Table 6.56 Details in the workhour report

Windows client	<p>Report columns as follows</p> <ol style="list-style-type: none"> 1. Date The date for the workhour entry. 2. Name Name of the employee. 3. Employee code 4. Productive work hours Work hours without early arrival and late departure.
Android Client	<p>Report columns as follows</p> <ol style="list-style-type: none"> 1. Workday Day for the entry. 2. Full name First name and last name of the user. 3. Employee code 4. Work hours The number of work hours for the day.

6.7.5.3 Event log report

Table 6.57 Details in the Event log report

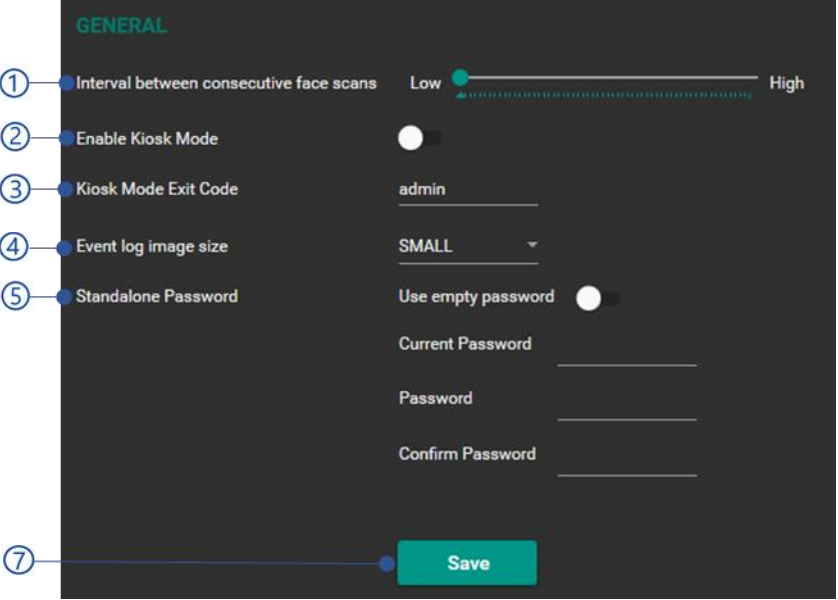
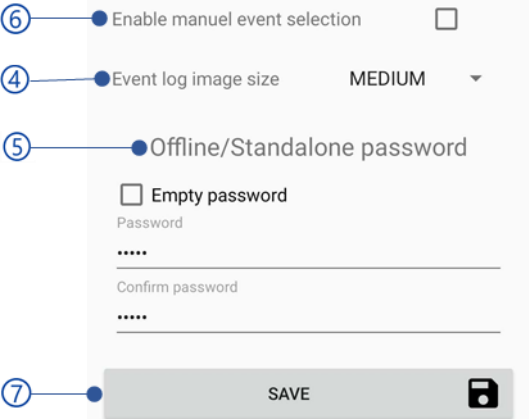
Windows Client	<p>Report columns as follows</p> <ol style="list-style-type: none"> 1. Name Name of the employee 2. Employee code 3. Direction The event as check-in or checkout 4. Time Event time
Android Client	<p>Report columns as follows</p> <ol style="list-style-type: none"> 1. Workday Day for the entry. 2. Full name First name and last name of the user. 3. Employee code 4. Event time Date and time the event is performed. 5. Event type Event type as check-in or checkout.

6.8.6 Settings view

1. [General settings of clients](#)
2. [Shift settings of clients](#)
3. [Biometric settings of clients](#)
4. [Client peripheral configuration](#)

6.8.6.1 General settings of clients

Table 6.58 General setting views

Windows client	 <p>Figure 6.151 General setting view of Windows standard client</p>
Android client	 <p>Figure 6.152 General setting view of Android standard client</p>

1. The interval between consecutive face scans
Minimum time difference between two
ancillary events to prevent event duplication
for the user.
2. [KIOSK mode operation](#) (For Microsoft
Windows clients)
3. [KIOSK mode exit code](#)
4. [Event log image size](#)

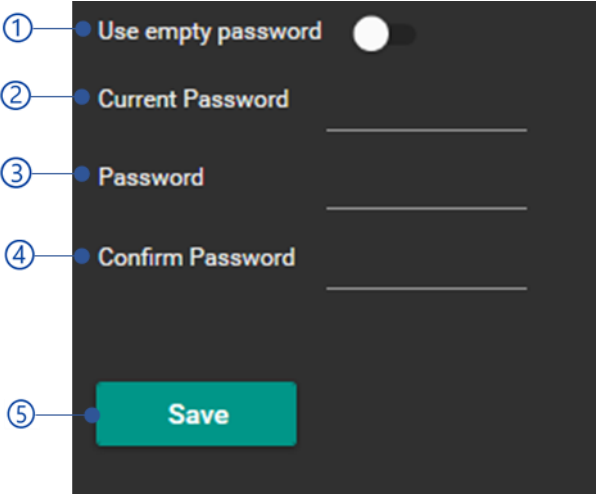
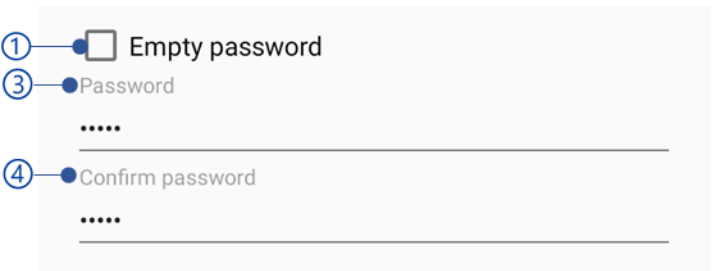
5. [Standalone password view](#)

7. **Save** button

6. Enable/disable [Manual capture start](#)

6.8.6.1.1 Standalone password view

Table 6.59 Standalone password view of clients

Windows client	 <p>Figure 6.153 Standalone password view of Windows standard client</p>
Android client	 <p>Figure 6.154 Standalone password view of Android standard client</p>


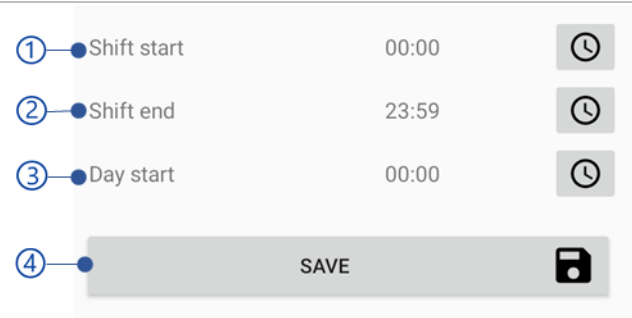
1. Empty password
Select this option to login control panel with empty password.
2. Current password
3. Password
New password.
4. Confirm password
5. **Save** button
Save password details. Save button will be disabled if the mandatory fields are empty or Validation errors exist. All errors message could be appeared as shown below.

Table 6.60 Error messages of password save

Error code	Error message
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.
3012	Current password is incorrect

6.8.6.2 Shift settings of clients

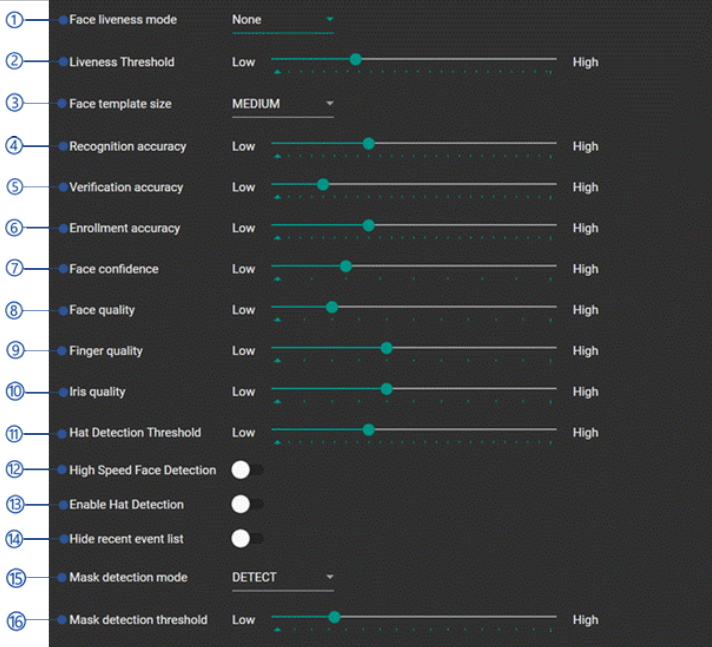

Table 6.61 General settings

Windows Client	 <p>Figure 6.155 Shift settings view of Windows standard client</p>
Android Client	 <p>Figure 6.156 Shift settings view of Android standard client</p>

1. *Default shift start time*
2. *Default shift end time*
3. *Day start time*
4. **Save** button

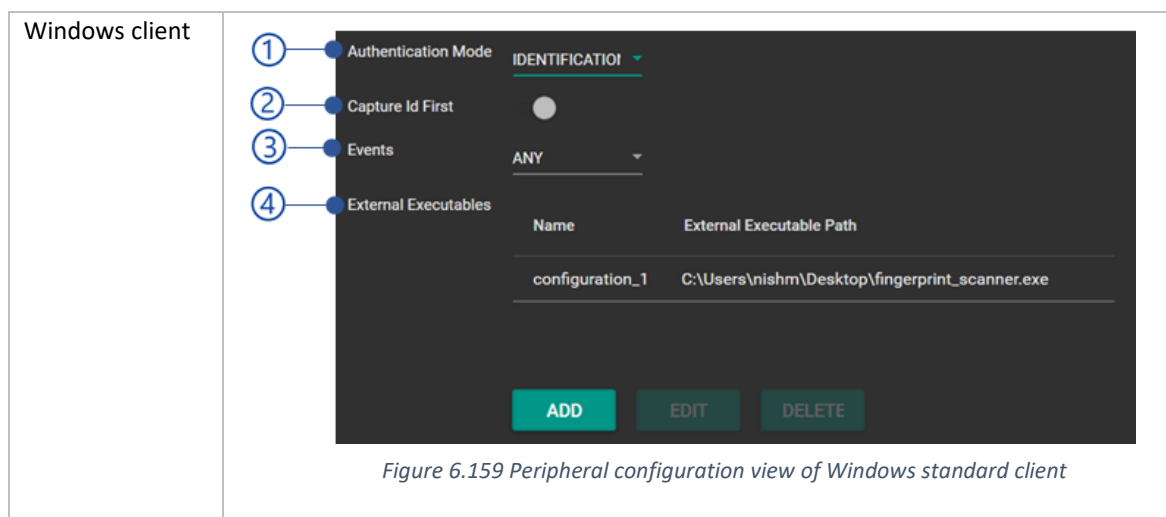
6.8.6.3 Biometric settings of clients

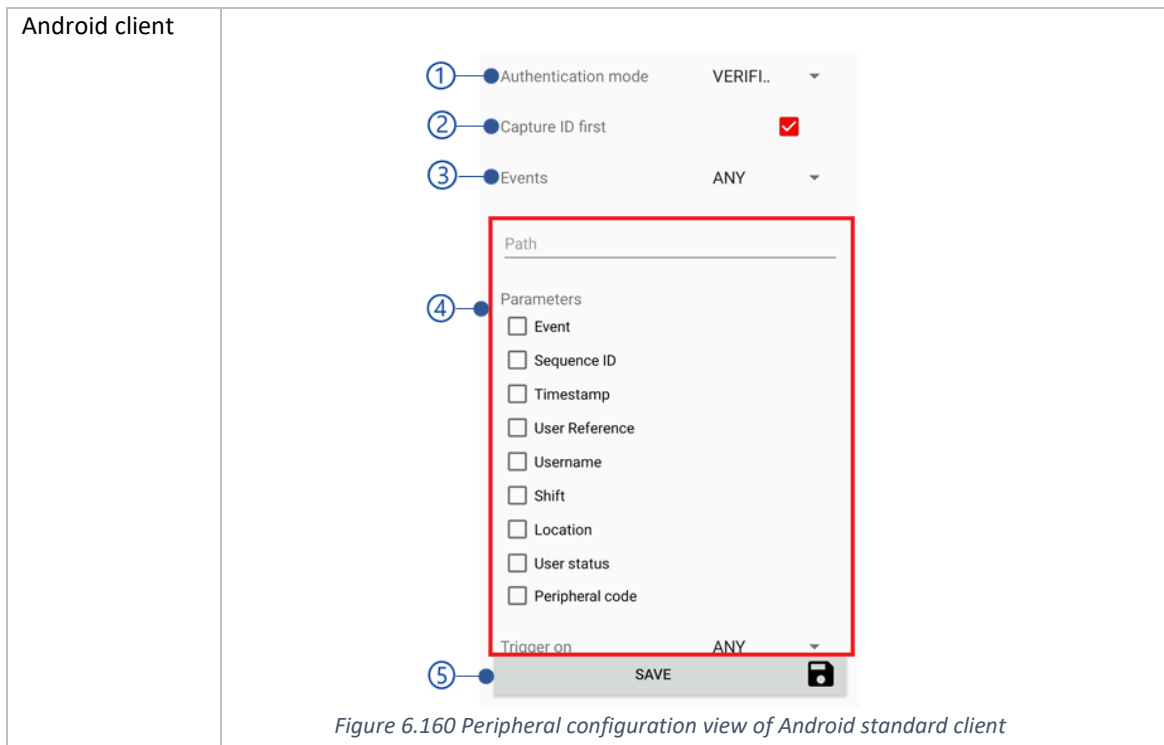
Table 6.62 Biometric settings views

Windows Client	 <p>Figure 6.157 Biometric settings of Windows standard client</p>
Android Client	 <p>Figure 6.158 Biometric settings of Android standard client</p>

1. *Face liveness mode* for client application
 2. *Face liveness threshold* for client application
 3. Face template size
Size of each face enrolled template among medium or large. Large face template contains more details than medium.
 4. *Recognition threshold*
 5. *Verification threshold*
 6. *Enrollment threshold*
 7. *Face confidence*
 8. *Face quality*
 9. *Fingerprint quality*
 10. Iris quality threshold
Increase the value if the same user
 11. *Hat detection threshold*
 12. *High-speed face detection*
 13. *Hat detection feature*
 14. *Hide user list on windows client*
 15. *Mask detection*
 16. *Mask detection threshold*
 17. **Save** button
- 6.8.6.4 Client peripheral configuration**

Table 6.63 Peripheral configuration views





1. Authentication mode

Available authentication modes are,

- Identification
Identification is the default authentication mode. Identification is performed on biometric and user id data. User biometric data such as face, finger print and iris are comparing against the database with previously collected biometric samples depending on the *Recognition threshold*. If the matching score is greater than the *Recognition threshold*, user is considered as identified. Therefore, this mode may demand large processing time. User id data such as user id, barcode and QR code are comparing against the database and giving the matching users.
- Verification
The verification mode can be applied with a user id peripheral and a biometric peripheral in order to verify the user against the previously collected biometric sample. To get verified, matching score should be greater than *Verification threshold*.



Figure 6.161 Combinations of user id peripheral with biometric peripheral in verification mode

- None

2. Capture id first

The verification sequence when the verification is selected as the authentication mode. If the capture Id

first has enabled, id input should be input before the biometric. Otherwise biometric should be given at first.

3. Events

Attendances will be recorded in the specific event type as selected from this option.

- check-in
- checkout
- any
Both Check-in and Check-out events

4. Manage external executable

Refer [Manage external executables](#) section.

5. **Save** button

6.8.6.4.1 Manage external executables

NCheck Bio Attendance Standard clients can be configured to run external programs (Either from external executable or API) during user identification. For an example, an automatic door opening program can be executed upon successful user identification. Following setting should be specified to configure external programs.

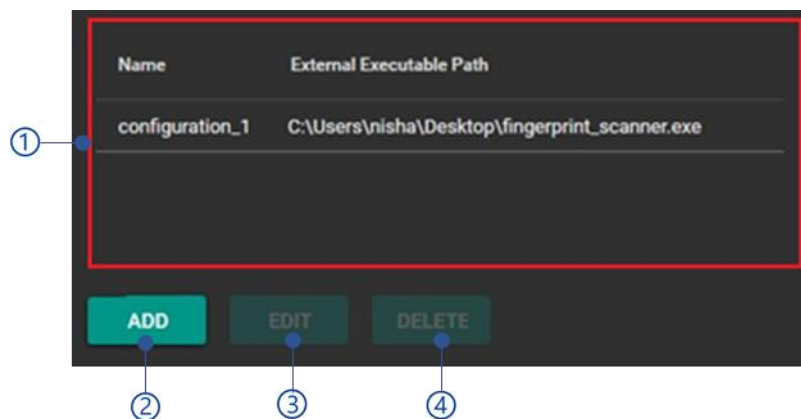


Figure 6.162 Manage external executables view

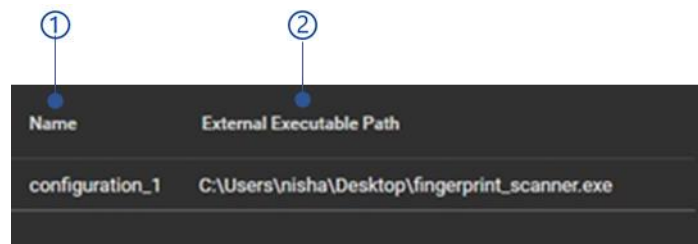
1. [External executable lists](#)
2. [Add external executable](#)
3. Edit external executable
Edit external executable in Windows standard client
4. Delete external executable
Delete selected external executable.

NCheck Bio Attendance Android standard client doesn't support on multiple external executable. It only allows to as single external executable to trigger APIs.

6.8.6.4.2 External executable lists

External executable list as follows.

- 1 Name of the external executable
- 2 Path to the EXE/URL of the API



1 Name	2 External Executable Path
configuration_1	C:\Users\nisha\Desktop\fingerprint_scanner.exe

Figure 6.163 External executables list of Windows standard client

6.8.6.4.3 Add external executable

Table 6.64 Add external executable view of Windows standard client

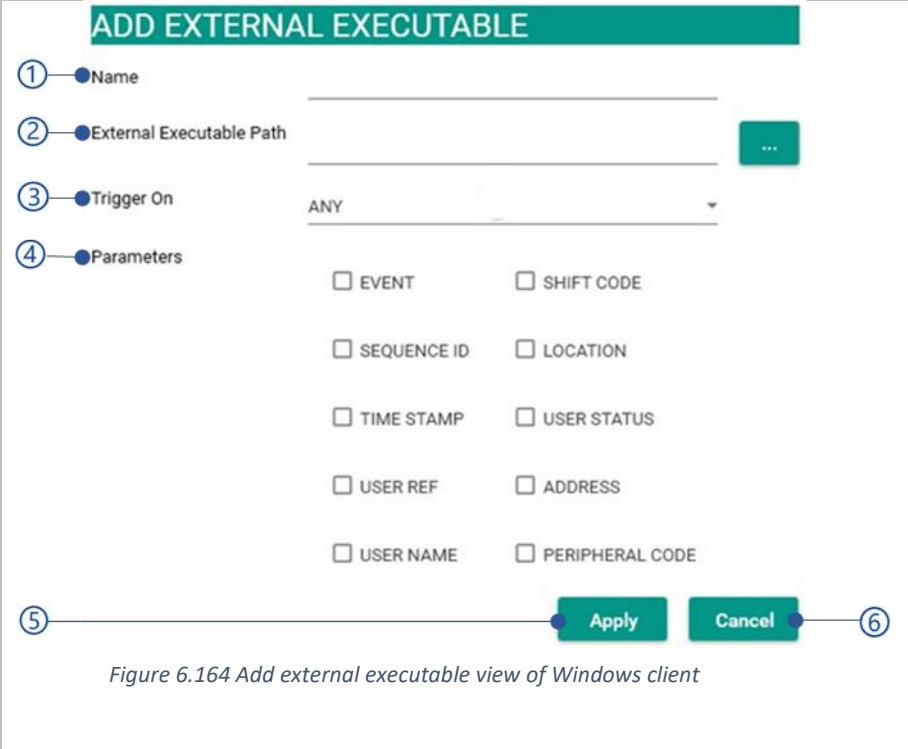
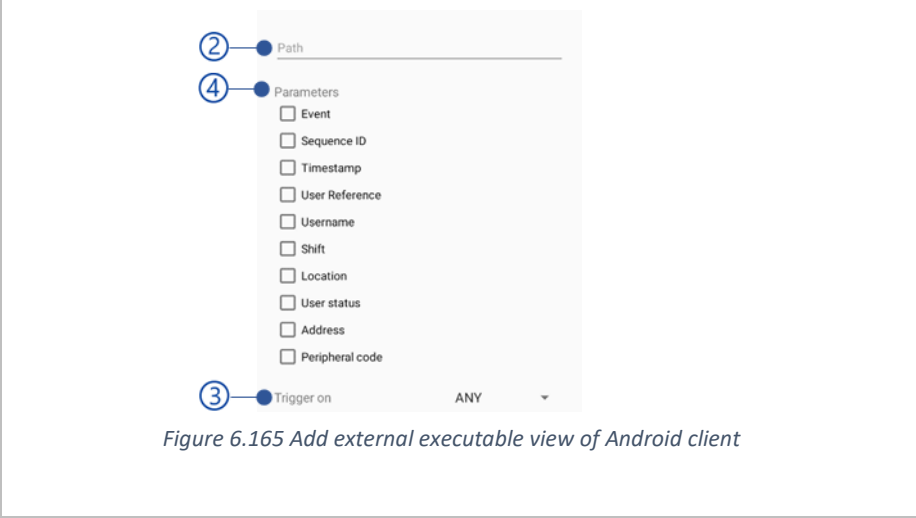
<p>Windows client</p>	
<p>Android client</p>	

Figure 6.165 Add external executable view of Android client

1. Name

Name of the external executable.

2. Path of the external executable

Path of the external executable or API URL to invoke.

3. Trigger on

- Any
Trigger the executable when record check-in or checkout events.
- Check-in
Trigger executable when record check-in event.
- Check-out
Trigger executable when record checkout event.
- Unidentified
Trigger executable when the record is not identified as check-in or checkout.

4. Parameter

Following parameter(s) can be passed to the external executable when triggering the executable.

- Event (EVENT)
Event type as CHECKIN, CHECKOUT or UNIDENTIFIED.
- Sequence id (SEQUENCE_ID)
Id of the event.
- Time stamp (TIMESTAMP)
Date and time of the event.
- User reference (USER_REF)
Employee code of the user.
- User name (USER_NAME)
First name and last name of the user event recorded.
- Shift code (SHIFT_CODE)
Shift code of the NCheck Bio Attendance Standard clients. In the standalone mode shift code is DEFAULT.
- Location (LOCATION)
Longitude and latitude of the event geo-location. Example: {Longitude,latitude}
- User status (USER_STATUS)
User is blocked or not. Pass 0 if the user has blocked otherwise 1.
- Address (ADDRESS)
Address of the user.
- Peripheral code (PERIPHERAL_CODE)
Unique identified number of the peripheral.

The applied parameters will be passed to the external executable as below when recording events.

Table 6.65 Parameters with external executable path or URL

Type	Format
External executable	<ul style="list-style-type: none"> • Value of the parameters will be separated with empty space • Example: {parameter value 1} {parameter value 2} {parameter value 3}

URL	<ul style="list-style-type: none"> As URL parameters Example: <code>{url}?{Paramter1}={value}&{Paramter2}={value}&{Paramter3}={value}</code>
-----	--

NCheck Bio Attendance Standard client for Android is supported for URLS's only.

6.8.7 Admin tasks of Clients

Table 6.66 Admin tasks views

Windows client

The screenshot displays the Windows client admin interface with the following sections and callouts:

- 1** points to the **Data Import/Export** header.
- 2** points to the **Export** button.
- 3** points to the **DATABASE BACK UP AND RESTORE** header.
- 4** points to the **PASSWORD** section, which includes a password field, a confirmation field, and a **Save** button. A note states: "Password must have minimum number of 8 characters with atleast one uppercase letter and atleast one number digit."
- 5** points to the **BIOMETRICS** section, which includes a **Re-Extract** button and the text: "Extract the templates from the images and re-initialize the biometric engine".
- 6** points to the **AUDIT LOGS** section, which includes a filter for **Action Type**, date range selection (From: 8/23/2019, To: 9/23/2019), and a table of logs.

The **AUDIT LOGS** table contains the following data:

User Name	Action Type	Description	Created At
Admin	LOGIN	Successfully logged in	2019-09-23 13:43:08

Android client

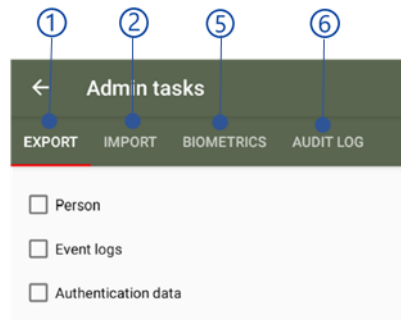


Figure 6.166 Admin tasks view of Android standard client

1. Data import

2. Data export

3. Database backup and restore

4. Database

5. Biometrics

6. 6.7.7.5 Audit logs

6.8.7.1 Data import/export

This allows to import/export below information.

1. User profile information

- | | |
|----------------------------|-------------------------|
| • First name | • Country |
| • Last name | • State province region |
| • Employee code | • Zip or postal code |
| • Email | • Barcode |
| • Primary telephone number | • RFID |
| • Address1 | • Created date and time |
| • Address2 | • System Id |
| • State | |

2. Event log information

- | | |
|-------------------------|----------------------|
| • Check-in latitude | • Shift start time |
| • Check-in longitude | • OT start time |
| • Check-in address | • Shift span seconds |
| • Check-in description | • OT span seconds |
| • Check-out latitude | • OT enabled or not |
| • Check-out longitude | • OT limit in hours |
| • Check-out address | • Check-in timezone |
| • Check-out description | • Check-out timezone |
| • Employee code | • Work hours |
| • Check-in time | • Maximum OT hours |
| • Check-out time | |

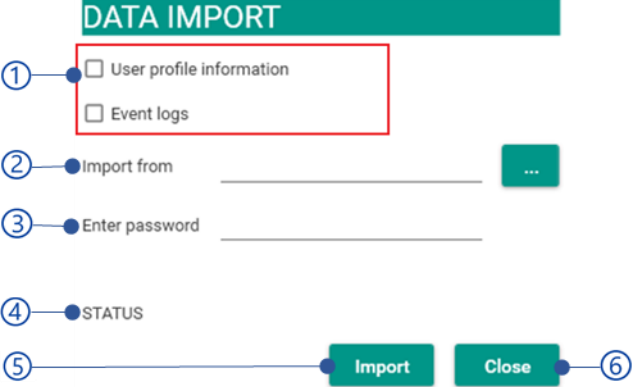
All date time should be MM/dd/yyyy h:mm:ss a format and date format should be MM/dd/yyyy format when export data.

To import/export data successfully following, following guidelines must be satisfied.

1. The file names of csv files (user profile information and event logs) should be
User profile information : PersonData.csv
event logs : EventLogData.csv
2. All date format must be MM/dd/yyyy.
3. All time format must be h:mm:ss.
4. The column names should be equal as above.
5. Country, state, provincial code, zip/postal code, email and telephone number should be in correct format.

6.8.7.1.1 Data import

Table 6.67 Data import views

Windows client	 <p>Figure 6.167 Data import view of Windows Standard client</p>
Android client	 <p>Figure 6.168 Data import view of Android standard client</p>

1. Importing information

- User profile information
- Event logs information

2. Import location

Select the file path of the importing file.

3. Encrypted password of the importing file

4. Status

Importing status in successful or fail attempts.

5. **Import** button

Import button will be disabled if the mandatory fields are empty or *Validation errors* exist. [Table 6.68](#) Error messages of import data from clients is showing error messages could be appeared.

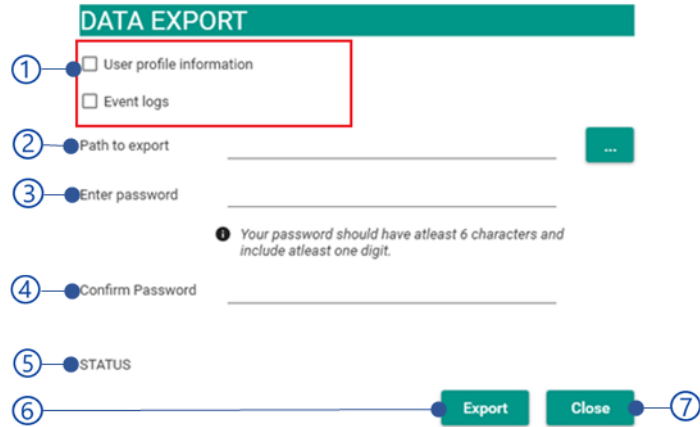
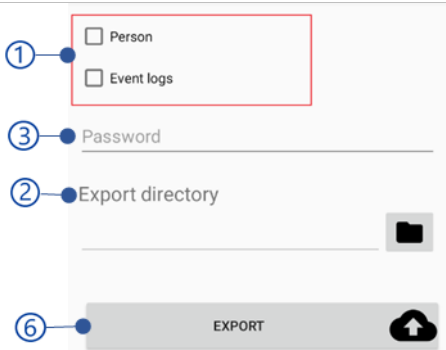
6. **Close** button

Table 6.68 Error messages of import data from clients

Error code	Error message
2062	Data import failed. Invalid password.
2063	Data import failed. The selected file could not be imported.
4003	Unidentified error occurred during data import. Please contact administrator or NCheck Bio Attendance support for more details.

6.8.7.1.2 Data export

Table 6.69 Data export views

Windows client	 <p>Figure 6.169 Data export view of Windows standard client</p>
Android client	 <p>Figure 6.170 Data export view of Windows standard client</p>

1. Exporting information
 - User profile information
 - Event log information
2. Select path to export location
3. Password to encrypt the exporting file
4. Confirm password
5. Status
 - Exporting status in successful or fail attempts.

6. **Export** button

Export button will be disabled if the mandatory fields are empty or [Validation errors](#) exist. [Table 6.70](#) Error messages of export data from clients is showing error messages could be appeared.

7. **Close** button

Table 6.70 Error messages of export data from clients

Error code	Error message
3003	Password does not match.
3004	Password must contain at least 6 characters with one number.
4004	Unidentified error occurred during data export. Please contact administrator or NCheck Bio Attendance support for more details.

6.8.7.2 Database backup and restore

Database backups and restore allows to back up the database as JSON files in a zip file securely and restore back in the application. The backup file contains,

1. Person.json
All user information added as mentioned in [Add user](#) section.
2. Authentication.json
All authentication information of users such as biometrics, RFID and barcode.
3. eventlogsPairViews.json
All check-in and check-out pairs are backup in this file.
4. settings.json
All settings as mentioned in [Settings view](#) section are kept in this file.

We are recommending to keep backup files safe without alter any information to prevent backup restore failures. Backup and restore feature are not available for NCheck Bio Attendance Android standard client.

6.8.7.2.1 Database backup

This view allows to backup the database as follows.

1. Database backup location
2. The password to encrypt backup file
Password must have at least 6 characters with on digit.
3. Confirm password
4. Status
Database backup status in successful or fail attempts.

BACK UP DATABASE

① Path to backup

② Enter password

③ Confirm Password

④ STATUS

⑤ Back Up Close ⑥

① Your password should have atleast 6 characters and include atleast one digit.

Figure 6.171 Backup database view of Windows standard client

5. **Back** **up** **button**
Backup button will be disabled if the mandatory fields are empty or *Validation errors* exist. [Table 6.71](#)
Error messages of backup database in clients Show all the error messages could be occurred.
6. **Close** button

Table 6.71 Error messages of backup database in clients

Error code	Error message
3003	Password does not match.
4001	Unidentified error occurred during data backup. Please contact administrator or NCheck Bio Attendance support for more details.

6.8.7.2.2 Database restore

This view allows to restore backup databases as follows.

1. Database location
2. Database encrypted password
3. Status
Database restore status in successful or fail attempts.
4. **Restore** button
Restore button will be disabled if the mandatory fields are empty or *Validation errors* exist. [Table 6.72](#)
Error messages of data backup and restore view Show all the error messages could be occurred.
5. **Close** button

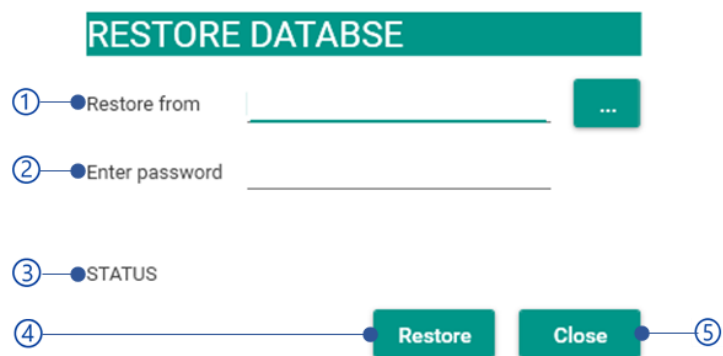


Figure 6.172 Restore database view of Windows client

Table 6.72 Error messages of data backup and restore view

Error code	Description
2015	Data restore has been failed. Could not decrypt the file with the given password
2014	Data restore has been failed. Invalid backup file
4002	Unidentified error occurred during data restore. Please contact administrator or NCheck Bio Attendance support for more details.

6.8.7.3 Database encryption

Database encryption feature is not available for NCheck Bio Attendance Android standard application.

Database encryption could be done as follows.

1. Password
Password must have 8 characters with one uppercase character and one digit.
2. Confirm password
Save button will be disabled if the password and confirm password fields are empty or validation errors as shown in [Table 6.73](#) Error messages of database encryption
3. **Save** button



Figure 6.173 Encrypt database view of Windows standard client

Table 6.73 Error messages of database encryption

Error code	Error message
3003	Password does not match.

6.8.7.4 Biometrics

Re-extract users' biometric templates from biometric engine and re-enroll.

Table 6.74 Re-extraction views

Windows client	<p>Figure 6.174 Re-extract template view of Windows standard client</p>
Android client	<p>Figure 6.175 Re-extract template view of Android standard client</p>

1. **Status**
Status of the template extraction as in-progress, Finished or failed.
2. **Re-enroll** button
Select re-enroll button to begin extraction. The extraction time will be depended on number of templates to re-enroll. [Table 6.75](#) Error messages of biometric re-extraction view is showing the error messages during re-extraction.
3. **Finish** button
Select finish button to finish re-enroll task while in-progress or finish.
4. **Cancel** button

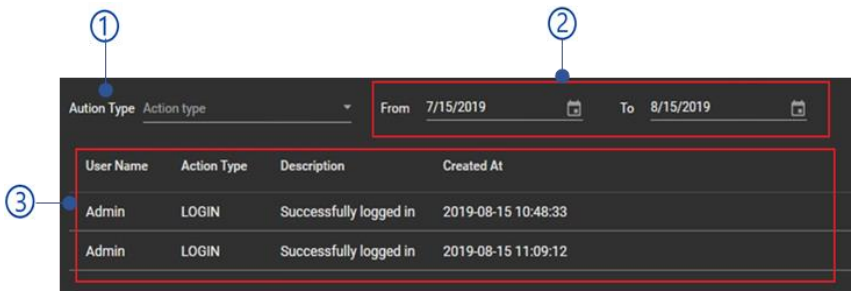
Table 6.75 Error messages of biometric re-extraction view

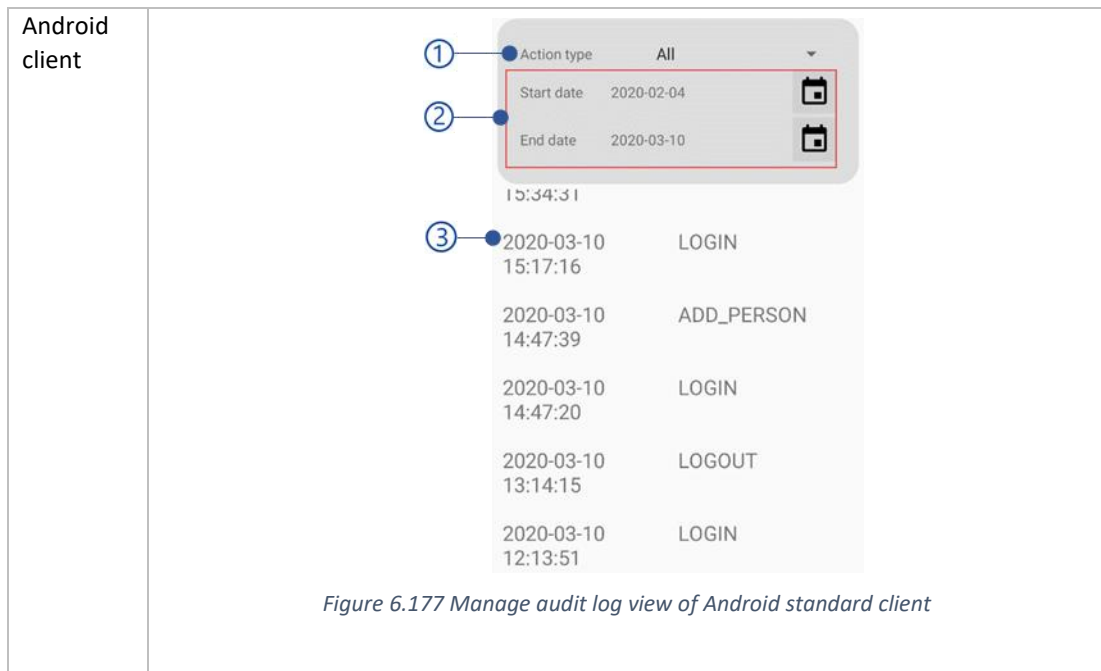
Error code	Error messages
2002	License cannot be obtained
2048	Biometric re-extraction has failed on following images. I. {images list}

6.8.7.5 6.7.7.5 Audit logs

This view shows date and time with the actions history performed by the user in the control panel. The following actions types are logged by the application.

Table 6.76 Admin logs views

Windows client				
	<p>Figure 6.176 Manage audit log view of Windows standard client</p>			



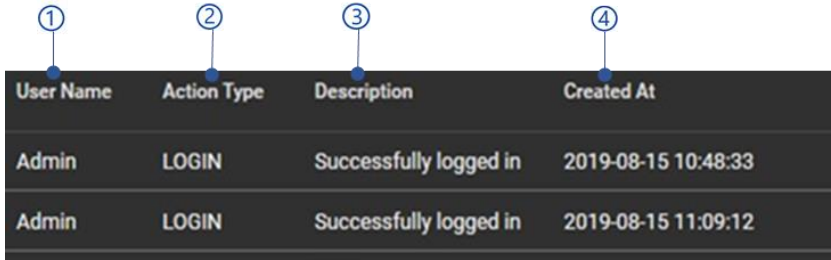
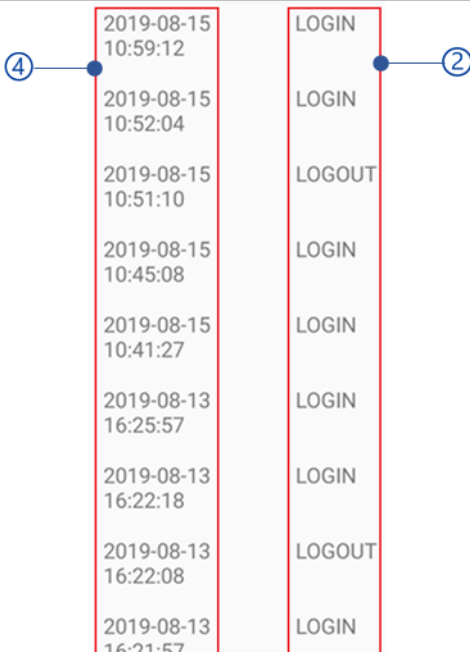
1. Action type
Filter audit logs by action type
2. Date filter with start and end date
3. [Audit logs list view](#)

The available action types are

- LOGIN
Date and time for the admin logins.
- LOGOUT
Date and time for the admin logouts.
- ADDEVENTLOG
Date and time when event logs added.
- MODIFYEVENTLOG
Date and time when event logs modified.
- DELETEEVENTLOG
Date and time when event logs deleted.
- ADDEVENTLOG
Date and time when event logs added.
- MODIFYPERSON
Date and time when persons modified.
- DELETEDPERSON
Date and time when persons deleted.

6.8.7.5.1 Audit logs list view

Table 6.77 Audit log list views

Windows client	 <p>Figure 6.178 Audit logs list view of Windows standard client</p>
Android client	 <p>Figure 6.179 Audit logs list view of Android standard client</p>

1. Username
2. Action type
3. Description
4. Created date and time

7 ERROR MESSAGES

All error messages showing in NCheck Bio Attendance server configuration window, control panel, clients and API are showing in this chapter. In NCheck Bio Attendance, all error messages are identified using error code as mentioned in [Error code](#) section and error messages have been divided in to 3 basic error types as mentioned in [Error types](#) section. Refer [Error messages list](#) section for all available error messages

7.1 Error code

Error code is a 4 digits unique number specified to identify error messages. Refer [Error types](#) section for more details about error codes for each error type.

7.2 Error types

The following error types available across NCheck Bio Attendance server and clients.

7.2.1 Communication errors

Error showing in connection failures of NCheck Bio Attendance server and clients. Error code format of the communication message is 1XXX.

7.2.2 Application errors

NCheck Bio Attendance server and clients specific errors are known as application errors. Error code format of the application errors is 2XXX.

7.2.3 Validation errors

All input data from NCheck Bio Attendance control panel and clients are validating before send to the server. It will ask to review and correct the inappropriate data with certain error messages. Error code format of the validation errors is 4XXX.

7.2.4 Unidentified errors

Errors other than Communication errors and Application errors are known as unidentified errors. Error code format of the unidentified errors is 4XXX.

7.2.5 Common error messages

Errors could be appeared in any operation of NCheck Bio Attendance control panel/clients are known as common errors. The error code of common error message is X9XX.

7.3 Error messages list

Table 7.1 Error messages list of server and clients

Error code	Error message	Description
1001	Could not connect with MYSQL/MSSQL {server url}: {port} server.	This message may appear if the entered database server is not reachable/offline.

		Contact NCheck Bio Attendance support for more detail.
1002	Could not connect with the email server {host name}: {port}.	Email server may offline or not reachable.
1003	Unable to connect with the FTP server {server name}	The FTP server is not reachable.
1901	Unable to connect with the NCheck Bio Attendance server {server URL}	This message may appear, if <ul style="list-style-type: none"> • The Server has stopped • The server is not reachable from clients in cloud or on-premises mode.
2001	Trial license has expired.	After the 30days trial period you must obtained a valid license.
2002	License cannot be obtained	The license cannot be obtained if <ol style="list-style-type: none"> 1. The license is not valid 2. The internet is not available with the device to verify the license with the licensing server. Refer License section for more details or contact NCheck Bio Attendance support .
2003	The license is already in use.	This message may appear if the license file already in use with another device. In this situation you may <ol style="list-style-type: none"> 1. Deactivate the license in the current device from the neurotechnology web site. 2. Purchase valid license from the web site.
2004	The license limit has exceeded. Please contact administrator/ NCheck Bio Attendance <u>support</u> for more details	This message appears if the number of available licenses in the multiple license file/license dongle has exceeded.
2005	No valid NCheck Bio Attendance license has found.	The selected file, license code or dongle has no valid license.
2006	Invalid SSL certificate file.	The selected SSL file should be valid file with system certificate and private key.
2007	Invalid key store password or SSL key alias.	The key store password or SSL key alias of the selected SSL certificate is invalid.
2008	Invalid port number. Please select the valid port.	The selected port is not available.
2009	Port is used by another application.	The added port should not be used by another application to user with NCheck Bio Attendance server.

2010	Invalid SQLite database or password. Please recheck the database file or password.	This message may appear for the selected SQLite database, if <ol style="list-style-type: none"> 1. Selected SQLite database file is not a database file 2. Database password is incorrect.
2011	SQLite database migration has failed with following errors. <ol style="list-style-type: none"> 1. Error 1 2. Error 2 	SQLite database migration has been designed to migrate old databases to be compatible with installed NCheck Bio Attendance server. The certain migration rules have been applied in each version. In case of migration failure, it will show the associate error messages with version. Please contact the NCheck Bio Attendance for more details.
2012	{database name} could not be found.	The database name is not available in the MYSQL/MSSQL server.
2013	Invalid MYSQL/MSSQL username and password.	This message may appear if, <ol style="list-style-type: none"> 1. Entered username has not existed 2. Username or Password is incorrect. 3. Entered user does not have administrator privileges.
2014	Data restore has been failed. Invalid backup file.	In order to restore backup, the backup file should be available with all data as mentioned in Data backup and restore section.
2015	Data restore has been failed. Could not decrypt the file with the given password.	Backup decrypt password is incorrect. Please try with correct password again.
2017	Could not connect with the email server {host}: {port}. Invalid username or password.	This message may appear for the email server if <ol style="list-style-type: none"> 1. The username has not existed 2. Incorrect username and password
2018	Invalid username or password.	This message may appear if <ol style="list-style-type: none"> 1. The username has not existed Contact the administrator or NCheck Bio Attendance support for more details. 2. Incorrect password Reset the password if you don not remember the password.
2019	Could not find the user associated with {email address} email address.	This message may appear if the NCheck Bio Attendance could not able to the find the user associated with the email when reset password. Contact Administrator for more details.

2020	Selected file is not a valid image file.	All image files must be valid images file with allowed image extensions.
2021	Employee code already exists.	Employee code could not be duplicated.
2022	Barcode ID is already available for different user	Barcode id could not be duplicated with barcode id of another user.
2023	RFID is already available for different user	RFID could not be duplicated with barcode id of another user.
2024	Could not enroll selected face/finger/iris image.	<p>This error may appear if,</p> <ol style="list-style-type: none"> 1. The Enrollment threshold has not satisfied 2. The face/fingerprint image has not satisfied the Face confidence/Face quality/Fingerprint quality. <p>Please contact NCheck Bio Attendance support form more details.</p>
2025	Capture face with enough lighting	The face image should be clear enough for extraction. If the captured image is not clear this message will appear.
2026	The biometric image has already enrolled for another user	A biometric image could not be
2027	User group code has already existed.	The user group code could not be duplicated.
2028	The shift name has already existed.	Shift name could not be duplicated.
2029	The roster name has already existed.	Roster name could not be duplicated.
2030	The holiday name has already existed for the selected date.	Could not add same holiday for the same date.
2031	You already have applied the leave(s) for start date – end date.	Multiple leaves could not be added in same day.
2032	Could not exceed the available number of leaves for {leave type name} leave type.	Cannot exceed the number of available leave in each leave type when add leaves. Refer Configure leave type section to change number of leaves in each leave type or Leave entitlement section to change the leaves for particular user. Users, Contact administrator for more details.
2033	A roster item already existed on {date} with {shift name} shift and {user group name} user group.	A roster item cannot be duplicate with date, shift name and user group name.
2034	{user 1, user 2....} user(s) have been added as additional staff for the {shift name} shift on {date}.	Cannot duplicate user as additional staff for the selected shift and date.
2035	Failed to email registration token.	This message may appear if,

		<ol style="list-style-type: none"> 1. The Email notification settings has not configured. 2. No email has available for the user
2036	Peripheral configuration name has already existed.	Peripheral name could not be duplicated.
2037	Could not record events. The device has been blocked	Clocked devices are not allowed for enroll biometrics and record events. This message appeared when the devices is blocked. Refer Block/unblock device/API section for more details.
2038	Could not enroll events. The device has been blocked	
2039	Could not capture barcode. The device has been blocked	
2040	Could not capture RFID. The device has been blocked	
2041	The API has been blocked	This message appears when the API is blocked. Refer Block/unblock device/API section for more details
2042	Could not record events. The user has been blocked	Blocked users are not allowed to record attendances. Refer Block/unblock users section for more details of block/unblock users.
2043	Could not record event. Check-in time has restricted	Event cannot record when the check-in time is not in the check-in restricted interval. Please refer Add/Edit shifts section for more details.
2044	Could not record event. Check-out time has restricted	Event cannot record when the check-out time is not in the check-out restricted interval. Please refer Add/Edit shifts section for more details.
2045	Could not email reports for the recipients	This message may appear if the Email notification settings has not configured.
2046	Invalid FTP file path	This message appears if the selected FTP path is not existed.
2047	Invalid FTP username or password	<p>This message may appear if,</p> <ol style="list-style-type: none"> 1. Username has not existed for the given FTP 2. Incorrect password
2048	<p>Biometric re-extraction has failed on following images.</p> <ol style="list-style-type: none"> 1. {images list} 	<p>This error may appear if,</p> <ol style="list-style-type: none"> 1. The Enrollment threshold has not satisfied 2. The face/fingerprint image has not satisfied the Face confidence/Face quality/Fingerprint quality.

		Please contact support for more details.
2049	Your current subscription has blocked. Please settle the outstanding amount and try again.	You are not allowed to change the plan without paying outstanding amount of the current plan.
2050	Customer has blocked. Please contact support.	<p>The customer can be blocked, if</p> <ol style="list-style-type: none"> 1. If the credit period of the subscription has passed. Please pay the outstanding amount to enable the account. <p>If the customer account has been blocked by NCheck Bio Attendance system administrator. Please contact NCheck Bio Attendance support for more details.</p>
2051	Failed to register with the NCheck Bio Attendance server {server URL}	Make sure that the server is running.
2052	Failed to register with the registration code	Make sure that the registration code is correct. Delete the existing registration code and generate new one in case if you cannot register.
2053	The registration token has already been used. Please generate new registration code or contact administrator.	The registration token can use to register a single device.
2054	Could not discover the NCheck Bio Attendance server URL.	The server discovery button of the clients in on-premises mode is working if the server and clients are operating within the same local area network. Otherwise this message will be shown.
2055	Device has not registered. Please register the device first.	The device should be enrolled before record attendances. Please refer Register clients section for more details.
2056	The location is restricted. You are not allowed record attendance from this location	User is not allowed to record attendances in restricted locations. Refer Location restrictions section for more details.
2057	You have already checked-in/checked-out. Please try again in {number of seconds} seconds.	NCheck Bio Attendance clients is not allowed record events in certain time interval defined by the administrator to avoid duplicates events.
2058	Attendances time has restricted. Please contact administrator for more details.	<p>The attendance time is restricted if</p> <ul style="list-style-type: none"> • No Valid shift available for the event • Overtime restriction has added <p>Please contact administrator for more details. Standalone users please contact NCheck Bio Attendance support.</p>

2059	No match found. Please make sure that face/fingerprint/iris templates have been enrolled before record attendance.	The biometric used to record event is not matching with the enrolled biometrics in the server. Please contact administrator to enroll your face to record attendances. Standalone users please contact NCheck Bio Attendance support.
2060	Failed to identify the face/fingerprint/iris. Please try again.	This message appears in case of face extraction in the server side. Please contact the administrator if you receive this message continuously. Standalone users please contact NCheck Bio Attendance support.
2061	Data restore has been failed. Invalid backup file.	To restore data successfully, any file(s) or key value pairs in backup file(s) should not be altered. Otherwise data restore can be failed. Refer Data backup and restore section or Database backup and restore section for clients
2062	Data import failed. Invalid password.	The password must be correct to import the file.
2063	Data import failed. The selected file could not be imported.	The CSV files guidelines must be fulfilled as mentioned in Data import/export to import data successfully.
2064	Could not record attendances. Invalid user id input.	Attendances may fail if, the employee id/barcode/RFID does not match with users.
2065	Could not record attendances. Peripherals are not ready. Please try again.	NCheck Bio Attendance Standard client may require time to initialize/refresh all connected peripherals.
2066	Invalid password. Check the password again.	The message could be appeared when try to sign in the clients standalone/offline control panel.
2067	User not allowed to Check-in while on Restricted Leave!	User check-ins can be limit for the user group premises. If the check-in count is greater than the maximum occupancy for group premises, check-in will be restricted. Refer Maximum occupancy for group premises setting for more details.
3001	Mobile/telephone number is not valid for the selected country/region. Please recheck again.	The telephone/mobile number should be followed the certain format according to the selected country/region.
3002	Email address is not valid.	The email address should be followed the correct format.
3003	Password does not match.	Password and confirmation password should be equal.

3004	Password must contain at least 6 characters with one number.	Every password has defined in NCheck Bio Attendance control panel and clients must contain 6 characters and one digit for enhance the security.
3005	Barcode scanner could not be found.	<p>This message may appear if</p> <ol style="list-style-type: none"> 1. The connected barcode scanner is not compatible with the device 2. No barcode scanner has connected with the device <p>Refer Other section for more details.</p>
3006	RFID scanner Could not be found	<p>This message may appear if</p> <ol style="list-style-type: none"> 1. The connected RFID scanner is not compatible with the device 2. No RFID scanner has connected with the device <p>Refer Other section for more details.</p>
3007	Camera could not be found.	<p>This message may appear if</p> <ol style="list-style-type: none"> 1. The connected camera is not compatible with NCheck Bio Attendance 2. No camera has connected with the device. <p>Refer Face section form more details.</p>
3008	Fingerprint scanner could not be found	<p>This message may appear if,</p> <ol style="list-style-type: none"> 1. The connected fingerprint scanner is not compatible with NCheck Bio Attendance 2. No fingerprint scanner has connected with the device. <p>Refer Fingerprint section for more details.</p>
3009	Iris scanner could not be found	<p>This message may appear if,</p> <ol style="list-style-type: none"> 1. The connected Iris scanner is not compatible with NCheck Bio Attendance 2. No Iris scanner has connected with the device. <p>Refer Iris section for more details</p>
3010	Could not record overtime. Overtime should not be greater than the max overtime hours.	Overtime hours could not exceed the max overtime hours.
3011	Only 5 decimal places are allowed in latitude and longitude values.	For latitude and longitude values, 5 decimal places accuracy is allowed. Round the values if it exceeds the 5 decimal places.

3012	Current password is incorrect	To change the password of the clients standalone control panel, the correct current password should be given.
4001	Unidentified error occurred during data backup. Please contact administrator or NCheck Bio Attendance support for more details.	This message could be appeared when unidentified error occurred within the system. Contact administrator or NCheck Bio Attendance support for more details.
4002	Unidentified error occurred during data restore. Please contact administrator or NCheck Bio Attendance support for more details.	
4003	Unidentified error occurred during data import. Please contact administrator or NCheck Bio Attendance support for more details.	This message could be appeared when unidentified error occurred in the system. Contact administrator or NCheck Bio Attendance support for more details.
4004	Unidentified error occurred during data export. Please contact administrator or NCheck Bio Attendance supportfor more details.	

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8.4.11 Server application

Table 8.1 License and agreements for third party softwares used in the server

third party component	License and agrrement
Wro4j Maven Plugin	Apache License, Version 2.0
Apache Maven Resources	Apache License, Version 2.0
org.springframework.boot	Apache License, Version 2.0
org.springframework.security.oauth	Apache License, Version 2.0
org.springframework.security	Apache License, Version 2.0
mysql-connector-java	Mysql connector community licnese
Zip4j	Apache License, Version 2.0
sqlite-jdbc	Apache License, Version 2.0
sqlite-dialect	Apache License, Version 2.0
Microsoft JDBC Driver For SQL Server	MIT license
Face4j Core	MIT license
Apache HttpClient	Apache License, Version 2.0
commons-dbcp	Apache License, Version 2.0
commons-net	Apache License, Version 2.0
commons-io	Apache License, Version 2.0
VIES Service Client	Apache License, Version 2.0
AWS SDK For Java	Apache License, Version 2.0
spring-kafka	Apache License, Version 2.0
guava	Apache License, Version 2.0
org.imgscalr	Apache License, Version 2.0
commons-csv	Apache License, Version 2.0
Apache Commons BeanUtils	Apache License, Version 2.0
Gson	Apache License, Version 2.0

8.4.12 Web application

Table 8.2 License and agreements for third party softwares used in the web UI

third party component	License and agrrement	Copyright
Anchor.js	MIT license	UMD contributors.
AngularJS	MIT license	Google, Inc.
Angular-base64	MIT license	Nick Galbreath
Angular Dynamic Locale	MIT license	Lucas Galfasó
Angular-iso-country-filter	MIT license	Pedro Catré
Angular-localization	MIT license	Rahul Doshi
Angular-gettext	MIT license	Ruben Vermeersch
Angular-datatables	MIT license	Louis Lin
Angular-confirm	Apache License 2.0	
Angular-chart.js	Apache License 2.0	Jerome Touffe-Blin
AngularJS Google Maps	MIT license	Allen Kim
Angular-moment	MIT license	Uri Shaked and contributors
Angular-notify	MIT license	Chris Gross
Angular-recaptcha	MIT license	VividCorte
Angular-schema-form	MIT license	Textalk
Angular-spinner	MIT license	Uri Shaked and contributors
Angular-translate	MIT license	The angular-translate team, Pascal Precht
AngularJS-ui-router	MIT license	
Angular-ui-switch	MIT	
AngularJS - VisJS	MIT license	Chris Jackson and others
bc-phone-number	MIT license	
Bootstrap	MIT license	Twitter, Inc.
Bootstrap-formhelpers	MIT license	Vincent Lamanna
Bootstrap Dropdowns Enhancement	MIT license	Twitter, Inc and The Bootstrap Authors
Chart.js	MIT license	Chart.js Contributors
CodeMirror	MIT license	Marijn Haverbeke
DataTables	GPL v2 license and the BSD 3point	
FullCalendar Standard	MIT license	
Html2canvas	MIT license	Niklas von Hertzen
Handlebars	MIT license	Yehuda Katz
International Telephone Input	MIT license	Jack O'Connor
JavaScript Cookie	MIT license	Klaus Hartl
jsPDF	MIT license	James Hall
JSZip	MIT license	
Jquery	MIT license	
Jquery.cookie	MIT license	Klaus Hartl

Jquery Password Strength Meter for Twitter Bootstrap	GPL v3 and MIT licenses	
Jquery-ui	MIT license	
jquery-validation	MIT license	Jörn Zaefferer
Lodash	MIT license	
Moment.js	MIT license	
Moment Timezone	MIT license	JS Foundation and other contributors
ng-camera	MIT license	Benjamin Cabanes
ngDialog	MIT license	Likeastore.com
ng-file-upload	MIT license	danialfarid
ng-image-appear	MIT license	Arun Michael Dsouza
ng-img-crop	MIT license	Alex Kaul
ng-intl-tel-input	MIT license	rswebteam
ng-image-input-with-preview	MIT license	Deiwin Sarjas
Object-path	MIT license	Mario Casciaro
pdfmake	MIT license	Feross Aboukhadijeh
Poision.js		
pvpCountryPicker	MIT license	Pablo Villoslada Puigcerber
Schema Form File	MIT license	Netzwerkplan GmbH
Selection.js	MIT license	Simon Reinisch
Script.js		
Scripts.js		
timePickerPop.js	MIT license	mytechtip
third party component	License and agrrement	Copyright
ui-grid-auto-scroll (Third party library used for UI-grid)	MIT license	stevezau
ui-grid-custom-scroller (Third party library used for UI-grid)	MIT license	Marcelo Sauerbrunn Portugal
ui-grid-custom-cell-select	MIT license	
Validator.js	MIT license	Cina Saffary
Vendor.js		
Vis.js	Apache License 2.0 and MIT license	Almende B.V. and Contributors
Webcamjs	MIT license	Joseph Huckaby

8.4.13 Lite client for Windows

Table 8.3: License and agreements for third party software's used in Lite for Windows

third party component	License and agrrement	Copyright
CefSharp.Wpf	CefSharp.Wpf license	
Deviceld	MIT license	
Extended.Wpf.Toolkit	Microsoft public license (MS-PL)	

Hardcodet.NotifyIcon.Wpf	The Code Project Open License	
Help		
log4net	Apache License, Version 2.0	
MahApps.Metro	MIT License	
MaterialDesignColors	Microsoft public license (MS-PL)	
MaterialDesignThemes	MIT license	
Microsoft.EntityFrameworkCore.	SQLite Microsoft Entity Framework core license	.Sqlite
Newtonsoft.Json	MIT License	
Prism.Core	MIT License	
Prism.Unity	MIT License	
Prism.Wpf	MIT license	

8.4.14 Standard client for Windows

Table 8.3 License and agreements for third party software's used in the Standard client for Windows

third party component	License and agreement	Copyright
BCrypt-Official		rdez
CefSharp.Wpf	CefSharp.Wpf license	
Deviceld	MIT license	
Extended.Wpf.Toolkit	Microsoft public license (MS-PL)	
Hardcodet.NotifyIcon.Wpf	The Code Project Open License	
Help		
log4net	Apache License, Version 2.0	
MahApps.Metro	MIT License	
MaterialDesignColors	Microsoft public license (MS-PL)	
MaterialDesignThemes	MIT license	
Microsoft.EntityFrameworkCore.	SQLite Microsoft Entity Framework core license	.Sqlite
Newtonsoft.Json	MIT License	
PDFsharp-MigraDoc-wpf	MigraDoc Foundation License	
Prism.Core	MIT License	

Prism.Unity	MIT License	
Prism.Wpf	MIT icense	

8.4.15 Lite client for Android

Table 8.4 License and agreements for third party softwares used in Lite client for Android

third party component	License and agrrement
Android Logging Log4j	Apache License, Version 2.0
CircleImageView	Apache License, Version 2.0
Fabric	<ul style="list-style-type: none"> • Codehaus Classworlds license • GNU LESSER GENERAL PUBLIC LICENSE • BSD 3-Clause License • Eclipse Public License - v 1.0 • Apache License, Version 2.0
gson	Apache License, Version 2.0
Spring For Android Rest Template	Apache License, Version 2.0

8.4.16 Standard client for Android

Table 8.5 License and agreements for third party software's used in Standard client for Android

third party component	License and agrrement
Android Logging Log4j	Apache License, Version 2.0
Android Logging Log4j	Apache License, Version 2.0
CircleImageView	Apache License, Version 2.0
CircularProgressBar	Apache License, Version 2.0
Apache Commons IO	Apache License, Version 2.0
Apache Commons Lang	Apache License, Version 2.0
Fabric	<ul style="list-style-type: none"> • Codehaus Classworlds license • GNU LESSER GENERAL PUBLIC LI • BSD 3-Clause License • Eclipse Public License - v 1.0 • Apache License, Version 2.0
gson	Apache License, Version 2.0
Material Components for Android	Apache License, Version 2.0
multidex	Apache License, Version 2.0
CWAC-SafeRoom	Apache License, Version 2.0
Spring for Android Rest Template	Apache License, Version 2.0

8.4.17 Lite client for IOS

8.4.17.1 CryptoSwift

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8.4.17.2 CocoaLumberjack

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