Suprema Integration with Paxton Net2 ADMINISTRATOR GUIDE

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Introduction

Target Audience

This document describes the integration between Suprema biometric devices and Paxton Net2 Access Control system using the Suprema Integration with Paxton Net2.

This document is intended for OEM Clients. The OEM Clients require basic knowledge of the Paxton Net2 and Suprema biometric devices.

Features

Suprema Integration with Paxton Net2 is a middleware that allows the Paxton Net2 Access Control System to communicate with the Suprema biometric devices, which can register a variety of credentials to users from the Net2, and to manage connected devices. With Suprema Integration with Paxton Net2, you can easily setup and build the Biometric Management System for the Net2 using Suprema biometric devices.

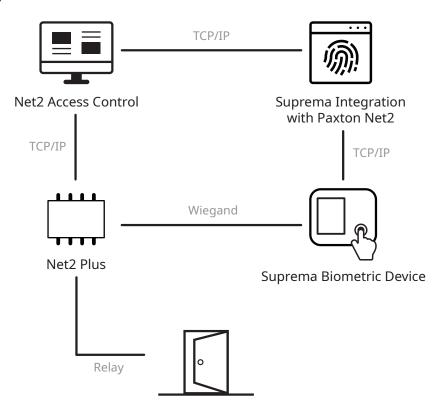
Suprema Integration with Paxton Net2 provides the following features.

- Enable biometrics: Not only the RFID cards and PINs but also fingerprints and face as credentials.
- Easy user management: No need to register or manage users separately because user data on Net2 Access Control system is synchronized in real time.
- Easy enrollment and management: Allows to register the user's credentials directly from the device.
- Enterprise-level configuration: Allows to connect and manage up to 1,000 Biometric Devices.



• For more details on the functionality of Paxton Net2 access control system, see the user manuals for Net2.

System diagram



Installation

System environment

Suprema Integration with Paxton Net2 operates normally in the same system environment as Paxton Net2.

You can find the minimum system requirements for Paxton Net2 at https://www.paxton-access.com/systems/net2/access-control-software/net2-software-compatibility-and-support/.

Check the support conditions before installing the Suprema Integration with Paxton Net2.

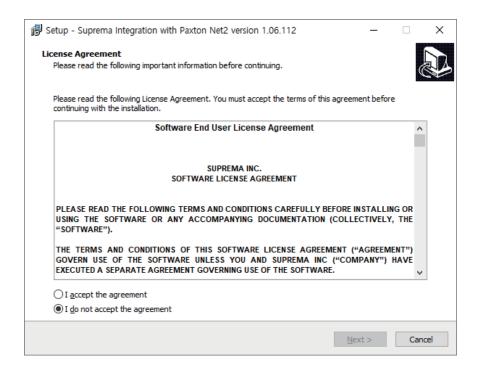
Compatible systems and devices

- · Operating system
 - · Microsoft Windows 8 or later
- Paxton Net2 Access Control
 - V6.01.8319.4827
- · Suprema Biometric Device
 - FaceStation F2 FW v1.1.1 or later
 - FaceStation 2
 - FaceLite
 - BioStation 2
 - BioStation A2
 - BioStation L2
 - BioLite N2
 - BioEntry W2
 - BioEntry P2
- USB Fingerprint Scanner
 - BioMini Plus 2

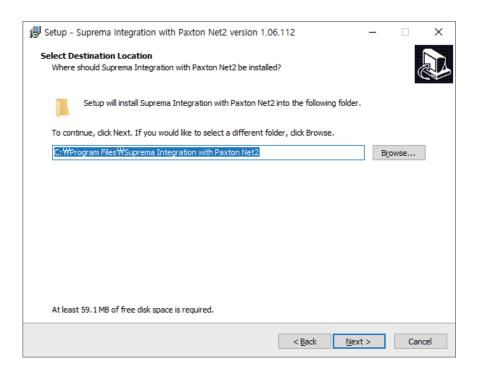
Installing the Suprema Integration with Paxton Net2



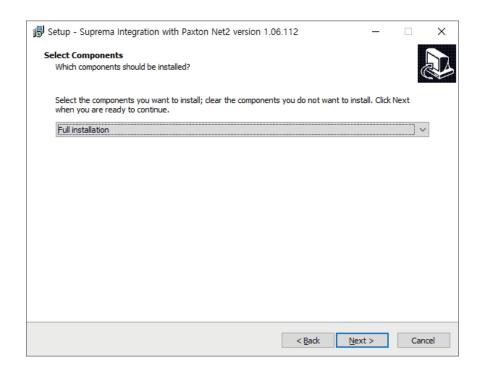
- This section describes how to install the Suprema Integration with Paxton Net2. For more details on the installation of the Paxton Net2 System, see the manuals for the Net2.
- Run the downloaded setup program. (ex. 'Setup.for.suprema.integration.with.paxton.net2.x64.x.xxxx')
- 2 To continue the installation, select **I accept the agreement** and click **Next**.



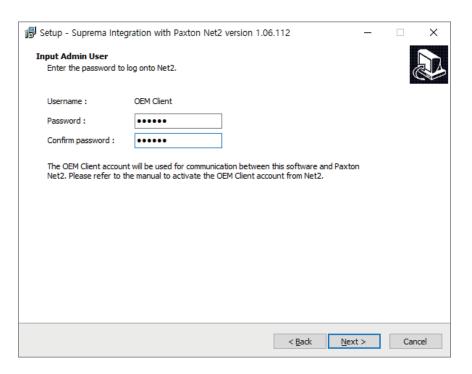
3 Click Next after setting a path for Suprema Integration with Paxton Net2 to be installed.



4 Click **Next** after selecting the components to install.



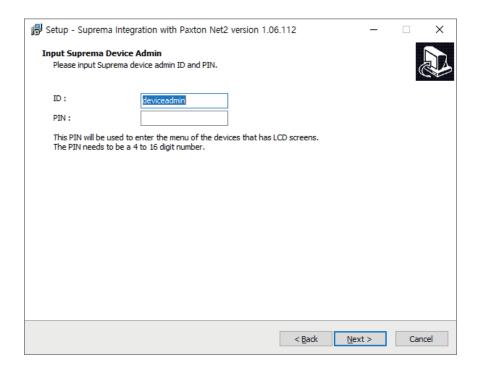
5 Enter the password for OEM Client account and click **Next**.



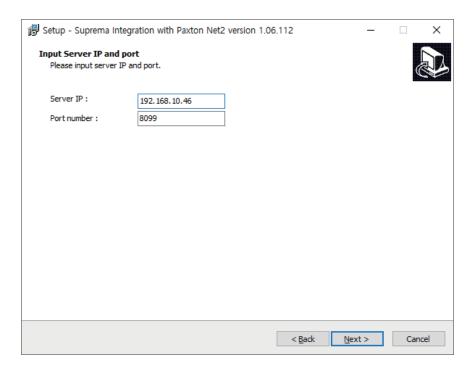


• The OEM Client account must be set up to sync user information stored in Net2 Access Control. Activate the OEM client account by referring to Activate the Paxton Net2 OEM Client.

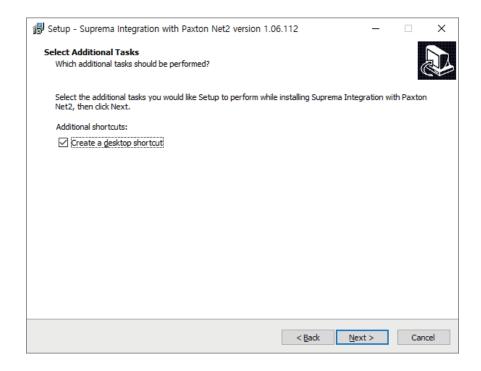
6 Enter the Suprema device admin ID and PIN, and then click **Next**. The ID and PIN set in this step will be used when you log in to Suprema Integration with Paxton Net2 or to access the devices.



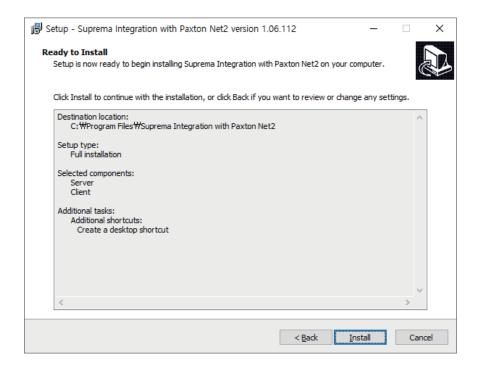
7 Input the server IP and port number.



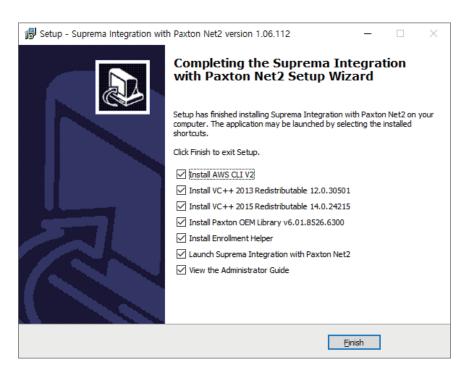
8 To create a shortcut on the desktop, select Create a desktop shortcut and click Next.



9 If ready to install, click **Install**.



10 Select whether to install additional program and click **Finish**.





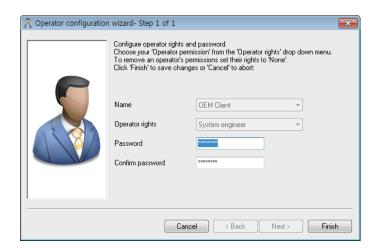
• If you install the Enrollment Helper, you can also enroll fingerprints by opening a window for fingerprint enrollment directly from the Net2 Access Control system. For more information on the Enrollment Helper, refer to Enrollment Helper Client.

Getting started

Activate the Paxton Net2 OEM Client

In order to use Suprema Integration with Paxton Net2, you must first activate the OEM Client on Paxton Net2.

- 1 Run Net2 Access Control.
- 2 Click Net2 operators and double-click OEM Client.
- **3** Enter the desired password in the **Password** and **Confirm password** field.



4 Click **Finish** to activate the OEM Client.

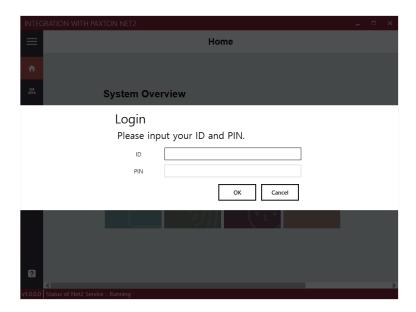


• For more details on the Net2 Access Control system, see the manuals for the Net2.

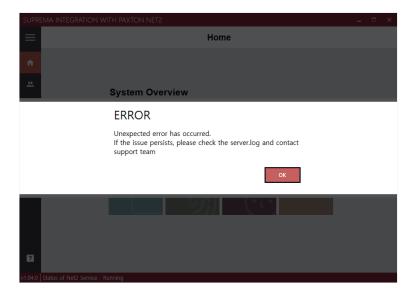
Login

Log in with the device administrator account.

The ID is 'deviceadmin', and PIN is the password you set when you installed Suprema Integration with Paxton Net2.



If there is an error logging in, the message below is displayed. Try again by entering the ID and PIN correctly. If this error persists, check the server.log and contact the Suprema support team.



Home

The **Home** menu is the starting point for accessing all menus of the Suprema Integration with Paxton Net2. You can also check the number of registered devices, users, faces, fingerprints, and cards.

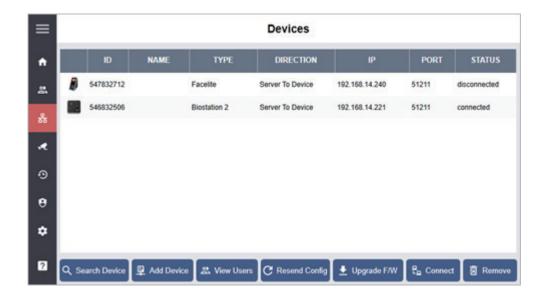


No.	Description	No.	Description
1	View the number of connected devices.	4	View the number of registered faces.
2	View the number of registered users.	5	View the number of registered fingerprints.
3	Access the Suprema website.	6	View the number of registered cards.

Devices

Devices overview

You can use the Devices menu to add, delete or edit registered devices, fetch the user information registered within the device to the server or upgrade the firmware.



- Search Device: You can search for devices connected to Suprema Integration with Paxton Net2 and register them.
- Add Device: You can add a device by entering the IP of the device.
- View Users: You can see a list of users stored on devices.
- · Resend Config: You can apply device settings configured in the Settings menu to devices.
- Upgrade F/W: You can upgrade the device's firmware.
- **Connect**: You can reconnect the selected device to the Suprema Integration with Paxton Net2.
- Remove: You can remove the selected device from the Suprema Integration with Paxton Net2.

Device registration

Adding a device automatically

You can automatically search for devices connected to Suprema Integration with Paxton Net2 and register them. Before searching for devices, check whether they are correctly connected. When adding multiple devices at once, it will be more convenient to know the ID, Type and IP address information of each device in advance.

- 1 Click 器.
- 2 Click **Search Device**. All available devices will appear.



3 Select a device to connect and click **REGISTER**.

Adding a device manually

You can add a device manually by entering the IP of the device.

- 1 Click 器.
- 2 Click Add Device.
- **3** Enter the IP of the device to register and click **Okay**.



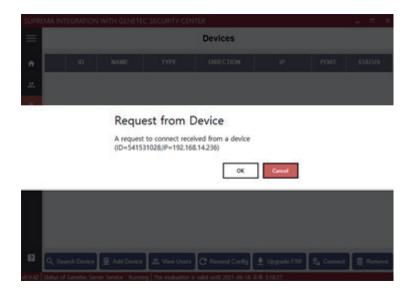


• Up to 1,000 biometric devices can be connected.

Sending a connection request from the device

You can send a connection signal from the device to Suprema Integration with Paxton Net2 with the input information directly. The steps may vary depending on the device you use. For more details, refer to the manual. In this section, BioStation A2 is in use.

- 1 On the device, press → **NETWORK**.
- 2 Press Server and activate Device -> Server.
- **3** Enter the IP address on **Server IP**. The device will automatically request the connection to the server.
- **4** On the server, press **OK**.

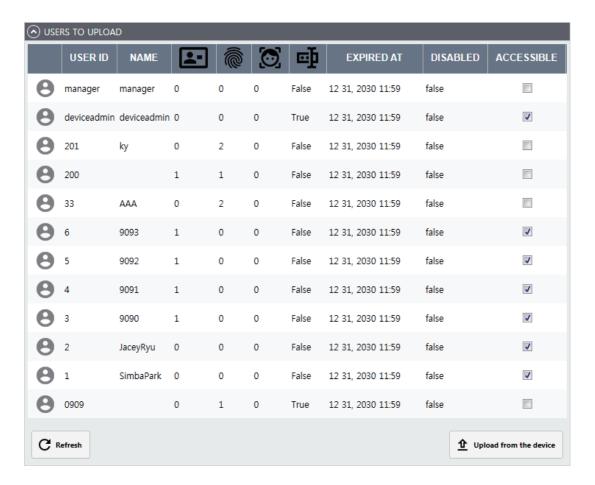


The device is added on the list.

Uploading users registered from devices

You can view the list of users stored on the device and import the users to the server.

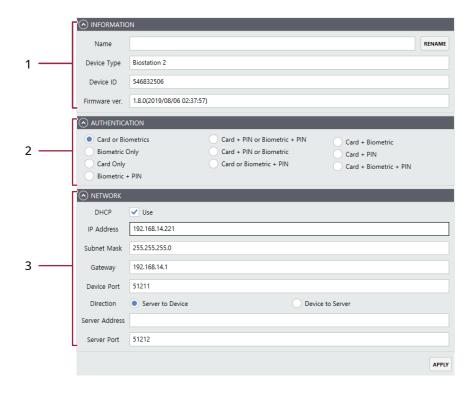
- 1 Click 器.
- **2** Select a device to view the list of users and click **View Users**.
- **3** Select all users to upload to the server and click **Upload from the device**.



Editing device settings and information

You can edit information of registered devices.

- 1 Double-click the device to edit. Or, right-click on the device and click **Device Config**.
- **2** Edit the necessary fields of the INFORMATION, AUTHENTICATION, and NETWORK.



No.	Item	Description	
1	INFORMATION	 Edit the name of the device or see the device information. Name: Enter a device name. Device Type: View the device type. Device ID: View the device ID. Firmware ver.: View the kernel version. 	
2	AUTHENTICATION	Configure the authentication modes of the device.	
3	NETWORK	Configure the authentication modes of the device. Configure the connection settings. DHCP: Select this option to allow the device to use a dynamic IP address. IP Address: Enter network settings of the device. Subnet Mask: Enter network settings of the device. Gateway: Enter network settings of the device. Device Port: Enter a port to be used by the device. Direction: Select the direction. Server Address: Enter the IP address of the Suprema Integration with Paxton Net2 server. Server Port: Enter the port number of the Suprema Integration with Paxton Net2 server.	

3 Click **APPLY** to save the settings.

Resending configuration

You can apply device settings configured in the **Settings** menu to devices.



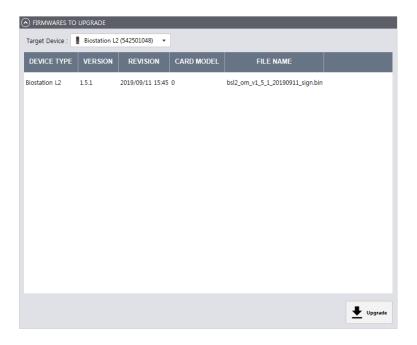
- Make sure that Global Device Configuration is set up correctly before running Resend Config.
- 1 Click 器.
- 2 Click a device to apply settings and click Resend Config.
 If you click Resend Config with nothing selected, the settings are applied to all devices.

Upgrading firmware

You can easily upgrade the firmware on any device connected to Suprema Integration with Paxton Net2 without any additional connection or action.

Copy the firmware files that you have downloaded to the following folder. If the folder does not exist, you need to create it.

- 1 Click 器.
- 2 Select a device and click **Upgrade F/W**.
- 3 Select the firmware file and click **Upgrade**.



Connecting a device

You can reconnect the selected device from the Suprema Integration with Paxton Net2.

- 1 Click 器.
- 2 Select devices to reconnect and click **Connect**.

Removing a device

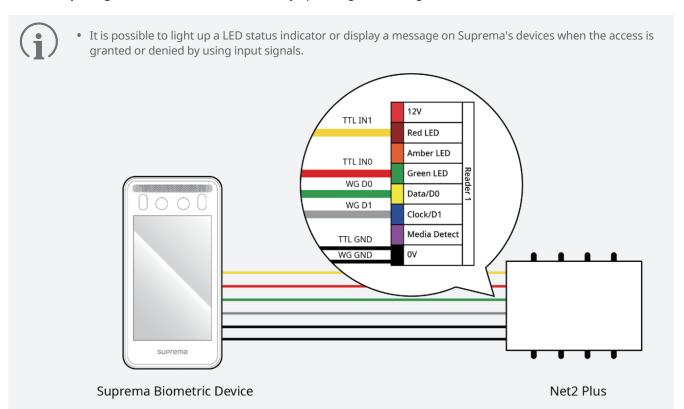
You can delete the selected device from the list.

- 1 Click 器.
- 2 Select devices to delete and click **Remove**.

Other settings

You can reboot or reset to factory default by selecting individual devices. You can also edit other settings, such as a lock or unlock the device.

- 1 Click 器.
- **2** Right-click the device for which you want to edit the settings.
- **3** Select and set the item to edit.
 - **Rename**: You can change the device name.
 - Resync: Delete all user data in the device and send the user data of the server.
 - **Reboot**: You can restart the device.
 - Here I am: You can check the location of the device by making a sound on the selected device.
 - Lock: You can lock the device. When a device is locked, the user cannot authenticate on that device.
 - Unlock: You can unlock the device.
 - All alarms off: You can turn off all alarms on the device.
 - **Factory Reset**: You can delete all data and root certificate on the device and reset the settings. The network settings will not be reset.
 - Delete All Users: Delete all user data.
 - **Device Config**: You can edit the device settings.
 - **Warp Image**: You can extract a visual face by uploading a user image stored on the device.



To use this feature, you must upgrade the firmware included in the setup package and deselect the **Display** reader **LED's** in **OEM** style (not nano's) option.

1 Click Start → All programs → Net2 Access Control → Net2 Configuration Utility.

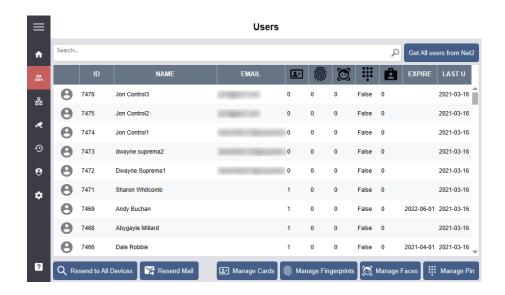


- 2 Click General and deselect Display reader LED's in OEM style (not nano's).
- **3** Click **Apply** to save the setting.

Users

Users overview

The list of users registered in the Paxton Net2 Access Control system is automatically synchronized to Suprema Integration with Paxton Net2. Also, if the users are deleted or registered in the Paxton Net2 Access Control system, the revised list is automatically synchronized in real-time to Suprema Integration with Paxton Net2. You can register various credentials by selecting a user from the Users menu in Suprema Integration with Paxton Net2.



- Search...: Search for users by entering the username or ID.
- Get All users from Net2: Import user data manually stored in the Net2 Access Control system.
- Resend to All Devices: Send users to all devices connected to Suprema Integration with Paxton Net2.
- **Resend Mail**: Send the visual face remote enrollment link to users via email. Users can access the link from their mobile device and enroll their visual face directly.
- Manage Cards: Select the card value to communicate with Net2 via Wiegand.
- Manage Fingerprints: Add, edit, or delete a user's fingerprint template.
- Manage Faces: Add, edit, or delete a user's face template.
- Manage Pin: Add, edit, or delete a user's Pin.

Selecting a card

When a user authenticates with a biometric credential on the device, Suprema Integration with Paxton Net2 sends that user's card ID to Paxton Net2 via Wiegand. Select the card you want to send to Net2.

- 1 Add users on the **Net2 Access Control** system.
- 2 Click at to move to the **Users** menu.
- 3 Select users and click Manage Cards.
- **4** Select the output card.



5 Click **APPLY** to save the settings.

Enrolling a PIN

- 1 Add users on the **Net2 Access Control** system.
- 2 Click at to move to the **Users** menu.
- 3 Select users and click Manage Pin.
- 4 Enter a PIN to use.



5 Click APPLY to save the settings.

Enrolling fingerprint

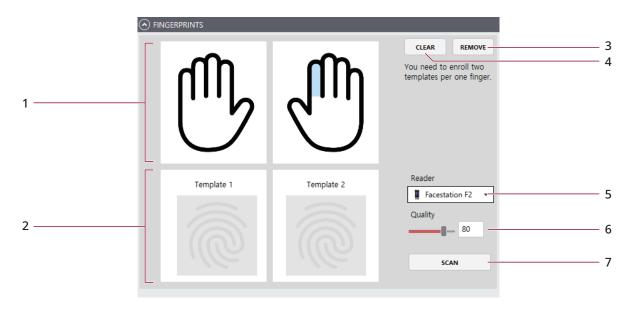
In Suprema Integration with Paxton Net2 server, you can enroll user's fingerprints by selecting the device or USB fingerprint scanner. Or, you can also select the user on the device with an LCD display to enroll the fingerprint directly. Whether you enroll the fingerprint on a server or on a specific device, that user's information is synchronized in real time on all devices connected to Suprema Integration with Paxton Net2.



- You can register up to 10 fingerprints per user.
- If the fingerprint authentication rate is low, delete the existing fingerprint information and add a new fingerprint.
- For best fingerprint scanning quality, make sure to cover the entire surface of the fingerprint sensor with the finger. We recommend using the index finger or the middle finger.

Server

- 1 Add users on the **Net2 Access Control** system.
- 2 Click sto move to the **Users** menu.
- 3 Select a user and click **Manage Fingerprints**.
- 4 Configure the settings.



No.	Item	Description	
1	Finger Selection	Select a finger from image to enroll a fingerprint.	
2	Fingerprint Image	This section shows the analysis of the fingerprint enrolled. Template 1 Template 2	
3	REMOVE	Delete a selected fingerprint template.	
4	CLEAR	Delete all registered fingerprints templates.	
5	Reader	Select a device or USB fingerprint scanner to enroll the fingerprint with. NOTE Only devices connected to Suprema Integration with Paxton Net2 are displayed in the Reader list. Register the device first by referring to Device registration and then enroll fingerprints.	
6	Quality	Select a fingerprint enrollment quality level. Any fingerprint which does not meet the quality requirement will not be enrolled.	
7	SCAN	Click SCAN and then place a finger on the fingerprint scanner or the device sensor.	

5 Click **APPLY** to enroll the fingerprint.

Device

You can view the added user in the user list of the device connected to Suprema Integration with Genetec Security Center.



- This section uses the FaceStation F2 as an example. The user interface such as the name of functions and the shape of icons may be different for each device.
- For how to register fingerprint of each device, refer to the user guide of the device.
- 1 On the device, press **and** authenticate with the Admin level credential.
- 2 Press **USER** and select a user to enroll a fingerprint.
- 3 Press Fingerprint.
- 4 Press and enroll a fingerprint. Scan the fingerprint of a finger you wish to enroll, and then scan the fingerprint of the same finger again.

Enrolling a face

In Suprema Integration with Paxton Net2 server, you can enroll user's face by selecting the device. Or, you can also select the user on the device with an LCD display to enroll the face directly.

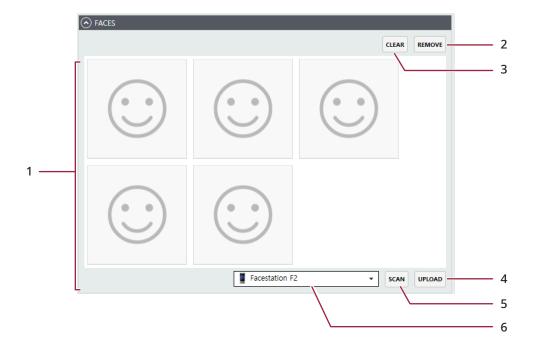
Whether you enroll the face on a server or on a specific device, that user's information is synchronized in real time on all devices connected to Suprema Integration with Paxton Net2.



- You can register up to 5 face templates per user. On FaceStation F2, you can register up to 2 face templates per user.
- When enrolling a face, maintain a distance of 60–100 cm between the device and the face.
- Do not change your face expression.
- Do not wear masks, hats, or eye patches.
- Do not enroll a face wearing a mask. It may increase the False Acceptance Rate (FAR) if both faces with and without a mask are enrolled.
- Do not raise head up or lower head.
- Do not wear thick makeup.
- Do not close your eyes.
- Make sure that both of your shoulders correctly appear on the screen.
- Stand still and enroll your face by staring at the screen.
- Be careful not to display two faces on the screen. Enroll one person at a time.
- If you do not follow the instructions on the screen, the face enrollment may take longer or may fail.

Server

- 1 Click 🕰.
- 2 Select a user and click Manage Faces.
- 3 Configure the settings.



No.	Item	Description
1	Face Image	Select the face.
2	REMOVE	Delete the selected face template.
3	CLEAR	Delete all registered face templates.
4	UPLOAD	Upload a user's picture.
5	SCAN	Click SCAN and then follow the instructions on the device screen to scan.
6	Device	Select a device to enroll the face with.

4 Click **APPLY** to enroll the face.

Device

You can view the added user in the user list of the device connected to Suprema Integration with Paxton Net2.



- This section uses FaceStation F2 as an example. The user interface such as the name of functions and the shape of icons may be different for each device.
- For how to register the face of each device, refer to the user guide of the device.
- 1 Press and authenticate with the Admin level credential.
- 2 Select **USER** and select a user to enroll a face.
- 3 Press Face.
- 4 Press and enroll a face.

Enrolling a visual face remotly

Visual Face is a credential that captures the user's face with a visual camera. It is different from face information captured with an infrared camera and is only available on devices that support Visual Face.



- The devices that can use Visual Face are as follows.
- FaceStation F2 FW v1.1.1 or later

You can send the visual face remote enrollment link to users via email. Users can access the link from their mobile device and enroll their visual face directly.

An AWS account is required to use the visual face remote enrollment, and you need to register your AWS account and SMTP information on the awsDeploy.bat file.

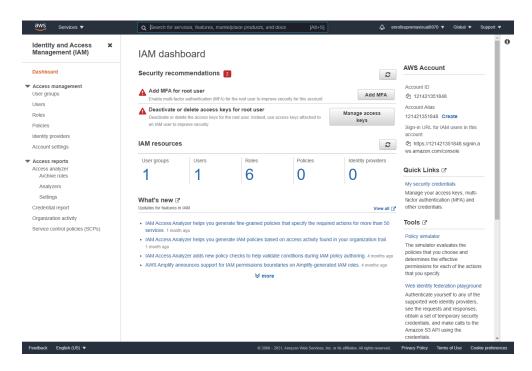
Checking AWS account information

To use the visual face remote enrollment, the following information is required.

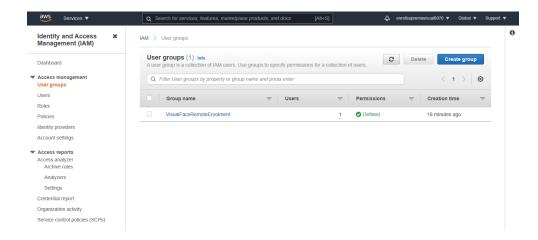
- AWS Account ID
- AWS Access Key ID
- AWS Secret Access Key
- · Default region name
- Default output format

You can find this information on the AWS website (https://aws.amazon.com).

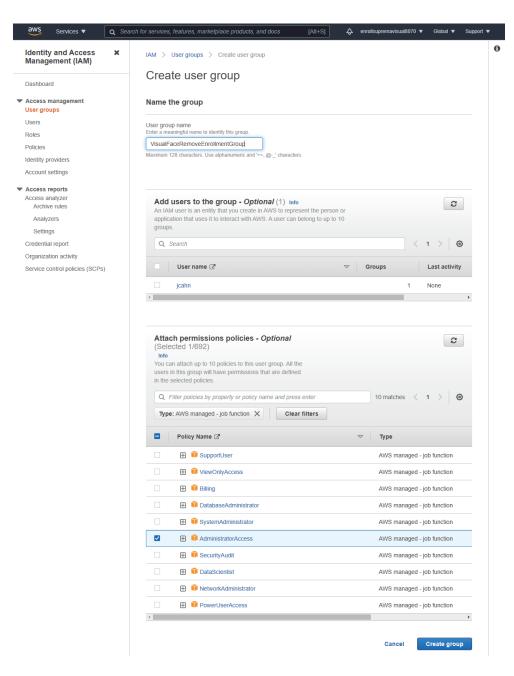
- Log in to your AWS account. If you do not have an account, click **Create an AWS Account** to create one.
- 2 Click Services to access Identity and Access Management (IAM).



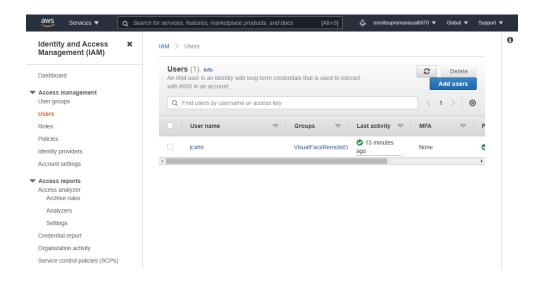
3 Select **User groups** under **Access management** and click **Create group**.



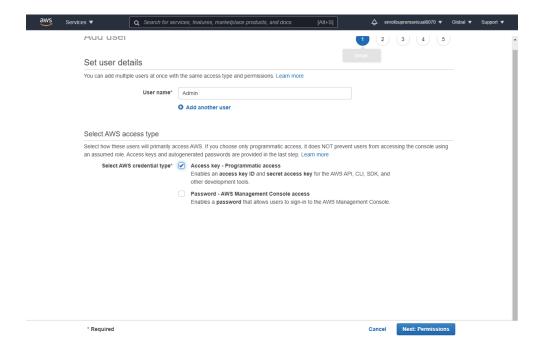
4 Enter the user group name and select **AdministratorAccess** for the permissions policies. And then click **Create** group.



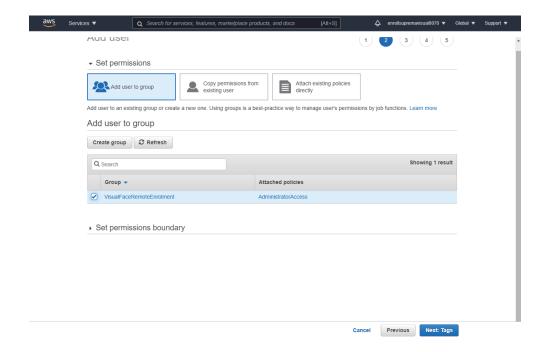
5 Select Users under Access management and click Add users.



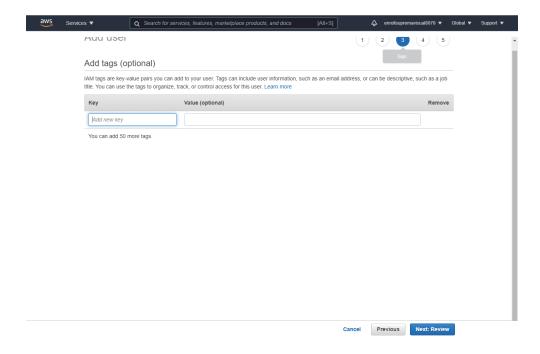
6 Enter the user name and Select Access key - Programmatic access on the Select AWS access type tab. And then click Next:Permissions.



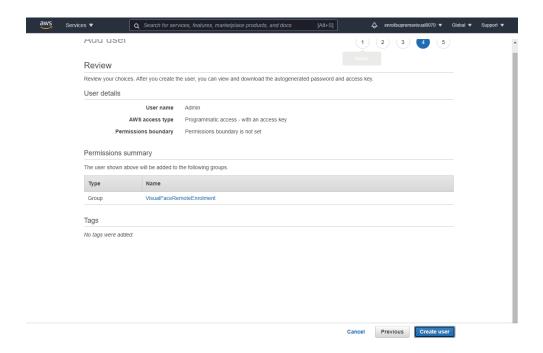
7 Select the group and click **Next:Tags**.



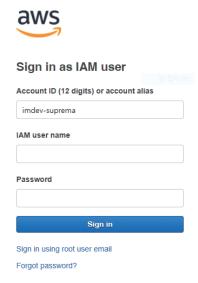
8 Add tags. This step is optional. Click **Next:Review**.



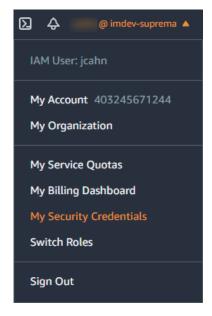
9 Check the user details you have set and click **Create user**.



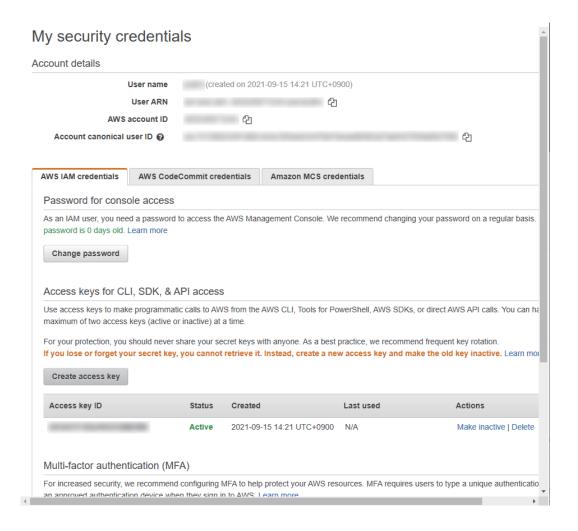
10 Sign in again with the created IAM user account.



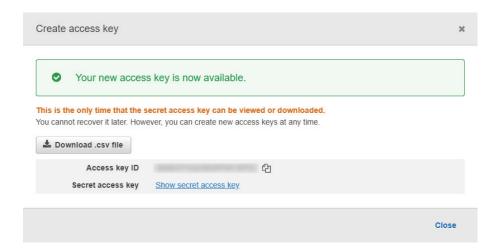
11 Click your email address in the upper right corner of the screen and then click My Security Credentials.



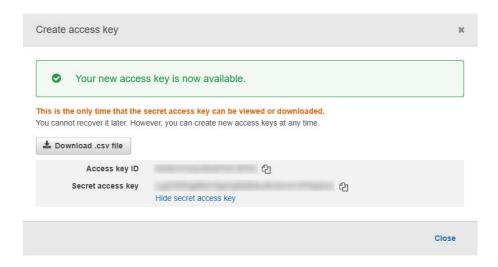
12 Check your AWS Account ID. Then, click Create access key on the AWS IAM credentials tab.



13 Click Show secret access key.



14 Check the Access Key ID and Secret access key. Keep your access key in a safe place to avoid losing it.



15 Click **Global** in the upper right corner of the screen to select a region.



Checking SMTP/POP3 information

Visual face remote enrollment links are emailed to individual users. When a user accesses the link and registers a face using a mobile device, the visual face data is sent back to the system via email. Incoming Mail (POP) Server and Outgoing Mail (SMTP) Server are required for this process.

This document describes how to set up the SMTP/POP server using Gmail as an example. If you are using another email service, refer to the guidance of the email service provider.

- 1 Log in with a gmail account to use as an SMTP and POP server.
- 2 Click \rightarrow Account.
- 3 Select **Security** in the navigation panel.
- 4 Click Less secure app access and set Allow less secure apps to ON.
- 5 Under Signing in to Google, click 2-Step Verification → GET STARTED.
- **6** Follow the on-screen instructions to create an app password.
- 7 Click \rightarrow Gmail.
- 8 Click $\mathfrak{D} \rightarrow$ See all settings.
- 9 Click the Forwarding and POP/IMAP tab.
- 10 In the POP download section, select Enable POP for all mail or Enable POP for mail that arrives from now on.
- 11 Click Save Changes.

If you set up the SMTP/POP servers with gmail as above, you can enter each field of SMTP and POP3 in the visual face settings on Settings as follows.

Item	Description	
Outgoing Mail (SMTP) Server	 Server Address: smtp.gmail.com Port: 587 User Name: Email sender name Password: The app password created in step 6 above 	
Incoming Mail (POP) Server	 Server Address: pop.gmail.com Port: 995 User Name: Email recipient name Password: The app password created in step 6 above 	



When using the SMTP server as an email account with two-factor authentication and change the password of
the account, note the following: Once you set up two-factor authentication, the SMTP password is the same
as the app password generated using two-factor authentication, not the password of the email account. At
this time, if the password of the email account is changed, the app password is automatically deleted, and the
SMTP password is no longer available. When changing the password for the email account, regenerate the
app password and then set the SMTP password again.

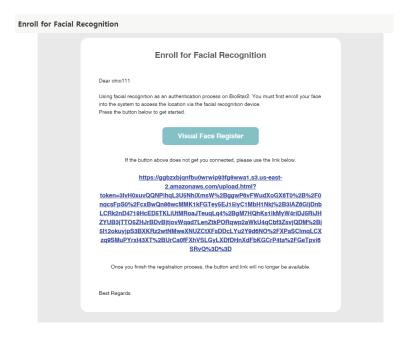
Enrolling a visual face remotly

You can send the visual face remote enrollment link to users via email.

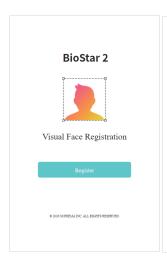
If all settings for using remote enrollment are completed and email address is registered to the user, a remote enrollment link will be automatically sent to the user by email. Users can access the link from their mobile device and enroll their visual face directly.

You can also manually send emails to users if automatic delivery fails.

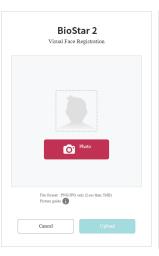
- 1 Click A.
- 2 Select a user and click Resend Mail.
- The visual face enrollment link will be sent to the email of the selected user.

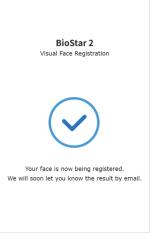


When the user taps on Visual Face Register button on the email, the visual face enrollment is executed as follows.





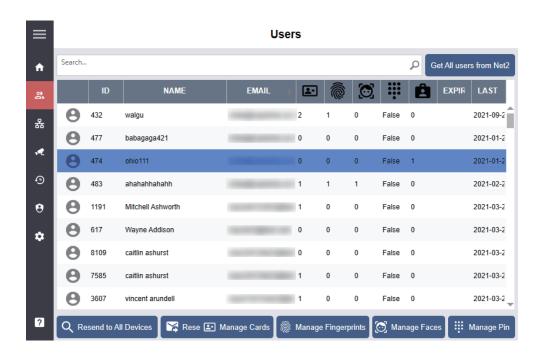






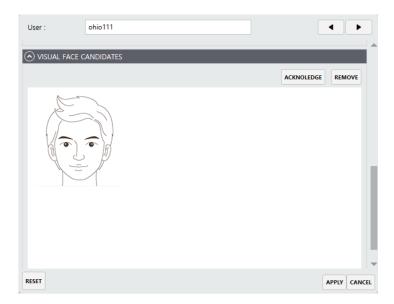
- If the user receiving the visual face remote enrollment link uses an external email application, the language of the email application must be set to the language of their country. If the language does not support Unicode, the text in the email may be broken.
- Supported image file size is up to 5MB.
- Supported image file formats are JPG, JPEG and PNG.
- Once the visual face remote enrollment process is complete, users will receive an email notifying them of successful registration. If registration fails, a new link for the visual face remote enrollment will be sent and the user can retry the registration. At this time, the existing registration link will automatically expire.

4 When the user completes the upload, a number is displayed in the column. Select that user and click Manage Faces.





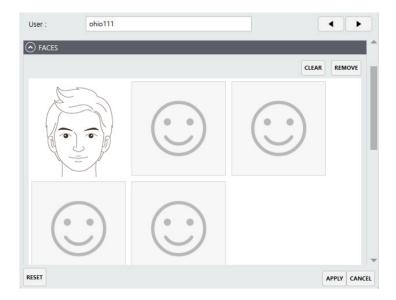
- If Use Auto Acknowledge is set in Settings, the process below will be omitted when the user completes visual
 face enrollment, and the user's visual face will be automatically enrolled. For more information, refer to Visual
 Face.
- 5 Check the visual face in the **VISUAL FACE CANDIDATES** tab and click **ACKNOLEDGE**.



6 If the image extraction is successful, the following message is displayed. Click **OK** to continue.



7 The extracted visual face is enrolled in the **FACES** tab. Click **APPLY** to complete the enrollment of the visual face, and the visual face is synchronized with devices so that the user can authenticate the face.



Resending user data to connected devices

You can send users to all devices connected to Suprema Integration with Paxton Net2.

- 1 Click 🕰.
- 2 Select users to send and click **Resend to All Devices**.
- 3 Check the list of users on the device.

Monitoring

You can use the Monitoring menu to view lists of events that occurred on device.

- 1 Click •••.
- Check the logs.To delete the logs, click Refresh.

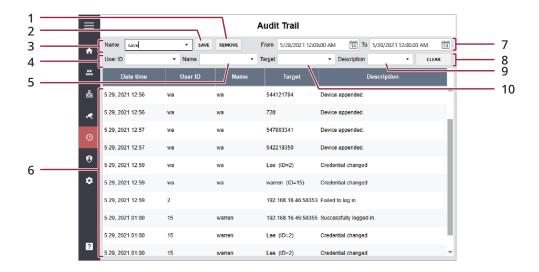
Monitoring

DATETIME	EVENT	USER ID(CARD ID)	DEVICE	INDEX
5 11, 2021 06:18	Authentication failed (Invalid credential)	1032	541531089	63441
5 11, 2021 06:18	Authentication failed (Invalid credential)	1032	541531089	63440
5 11, 2021 06:17	User update succeeded	wa	541531089	63439
5 11, 2021 06:17	User update succeeded	6350	541531089	63438
5 11, 2021 06:17	User update succeeded	6349	541531089	63437
5 11, 2021 06:17	User update succeeded	6348	541531089	63436
5 11, 2021 06:17	User update succeeded	6347	541531089	63435
5 11, 2021 06:17	User update succeeded	6346	541531089	63434
5 11, 2021 06:17	User update succeeded	6345	541531089	63433
5 11, 2021 06:17	User update succeeded	6344	541531089	63432

Audit Trail

Audit trail tracks user access information as well as all the information changed in the system. You can set a filter for each item for sorting.

- 1 Click **9**.
- 2 Set filters.

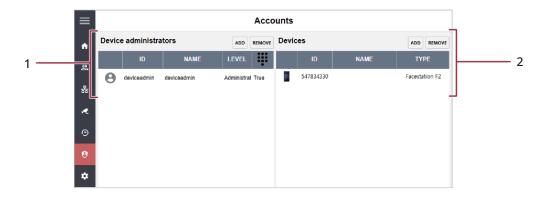


No.	Item	Description
1	REMOVE	Remove the preset filter.
2	SAVE	Save the current filter values.
3	Name	Select a preset filter.
4	User ID	Select a user ID.
5	Name	Select a username.
6	Audit List	Shows the audit list.
7	Period	Set the period.
8	CLEAR	Clear the current filter values.
9	Description	Select a description.
10	Target	Select a target.

Accounts

You can assign administrator account levels to registered users.

- 1 Click **9**.
- 2 Configure the settings.



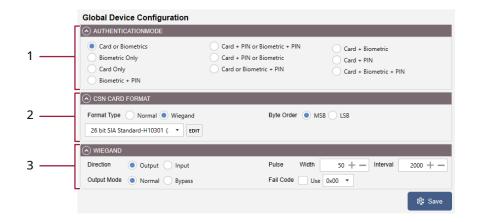
No.	Item	Description	
1	Device administrators	 A list of administrators registered with Suprema Integration with Paxton Net2 is displayed. If the pin is set in the administrator account, the administrator can log in directly to Suprema Integration with Paxton Net2. ADD: You can assign the administrator level by selecting a user. Select an account level type, then click on the user to whom you want to assign that level. NOTE The administrator account levels are as follows: Administrator: Users can access and use all menus. Device Operator: If a PIN is registered with the user, the user can log in to Suprema Integration with Paxton Net2. Also, users can register user accounts in the client system and configure device settings by accessing devices. User Operator: If a PIN is registered with the user, the user can log in to Suprema Integration with Paxton Net2. Also, users can register user accounts in the client system and enroll users in devices. REMOVE: Remove an administrator. 	
2	Devices	The list of devices that can be managed by the user selected in the Device administrator list is displayed. • ADD: Add devices to the selected administrator. • REMOVE: Remove the device from the selected administrator.	

Settings

Global Device Configuration

You can edit settings of registered devices.

- 1 Click .
- 2 Configure the settings.



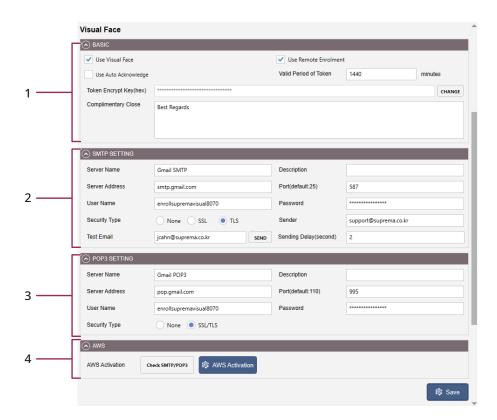
No.	Item	Description
1	AUTHENTICATION MODE	You can configure the authentication modes of the device. Suprema Integration with Paxton Net2 can use any combinations of biometric credentials, card, and PIN as authentication modes.
	CSN CARD FORMAT	You can set the CSN card format used by the device.
2		• Format Type: If Format Type is set to Normal, the device will read the card serial number (CSN). If the option is set to Wiegand, the device will read the card serial number in a Wiegand format that the user has defined. If Format Type is set to Wiegand, you can set the Wiegand format to be used in the device. Click EDIT to edit the Wiegand format. You can configure the number of bits and rules for the Wiegand format directly in Suprema Integration with Paxton Net2, as in Net2 Access Control.
		 Byte Order: When Byte Order is set to MSB, the device reads a card ID from the highest byte to the lowest byte. When the option is set to LSB, the device reads a card ID from the lowest byte to the highest byte.
		You can define the Wiegand Input/Output.
		Direction: You can select input/output mode.
		Pulse Width: You can set the pulse width of the Wiegand signal.
•	WIEGAND	• Pulse Interval: You can set the pulse interval of the Wiegand signal.
3	WIEGAND	 Output Mode: You can set the Wiegand signal output mode. If it is set to Normal, a card will be scanned in the set Wiegand format. If it is set to Bypass, CSN will be sent regardless of Wiegand authentication. Bypass should be set when using the device without an entrance door control function. If it is set to Normal mode, it is possible to set Fail Code, and select a value to be transmitted when Wiegand card authentication fails.

3 Click Save to save the settings.

Visual Face

You can set whether to use visual face and remote enrollment. And you can also enter the SMTP/POP3 settings and activate AWS.

- 1 Click 🌣.
- 2 Configure the settings.



No.	Item	Description
		You can make basic settings related to visual face.
		• Use Visual Face: Click to use the visual face as a credential.
		• Use Remote Enrollment: Click to use the visual face remote enrollment.
1 B	BASIC	• Use Auto Acknowledge : Click to automatically enroll a visual face as a user's credential when that is received by email. If this option is not selected, the administrator must enroll it manually.
		• Valid Period of Token : Set the time for the visual face remote enrollment link to expire. You can enter numbers from 30 to 10080. If you enter an invalid value and save it, it will be changed to 1440.
		• Token Encrypt Key(hex) : Enter the token encrypt key. If there is no token encryption key, it is automatically generated. If the key is exposed, click CHANGE to change the key.
		• Complimentary Close: Enter the complimentary close in the email.

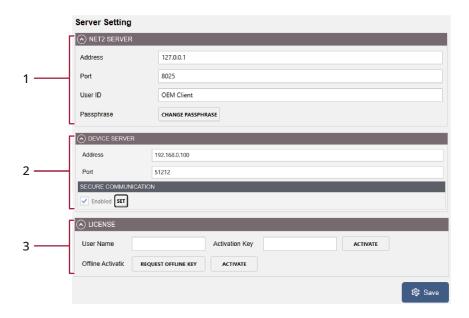
Set up SMTP to send emails including remote enrollment link. • Server Name: Enter the SMTP server name. • **Description**: Enter the description. • Server Address: Enter the SMTP server address. SMTP server address is the same form as 'smtp. Email Service Provider.com'. • Port(default: 25): Enter the port number of the email used as the SMTP server. • **User Name**: Enter the name or email address of the email sender. • Password: Enter the app password for the email account used as the SMTP server. • Security Type: Select security type. **Sender**: Enter the email address of the email sender. 2 SMTP SETTING Test Email: Enter an email address to receive the test email and click SEND. If the test email is sent successfully, the message below will be displayed. OKSending test mail succeeded • **Sending Delay**: Enter the sending delay time. It is recommended to set 3 to 5 seconds. NOTE • For each SMTP information, refer to Checking SMTP/POP3 information Set up POP3 to receive emails from users with remote enrollment information. Server Name: Enter the POP3 server name. • **Description**: Enter the description. • Server Address: Enter the POP3 server address. POP3 server address is the same form as 'pop. Email Service Provider.com'. • Port(default: 110): Enter the port number of the email used as the POP server. 3 POP3 SETTING • User Name: Enter the Email recipient name. • **Password**: Enter the app password for the email account used as the POP server. • Security Type: Select security type. NOTE • For each POP3 information, refer to Checking SMTP/POP3 information. Activate AWS to use the visual face remote enrollment. Click **AWS Activation**. Enter the value of AWS Access Key ID, AWS Secret Access Key, Default region name, and AWS Statement ID (AWS Account ID). **AWS Activation** Input the AWS account and confirm Input AWS Access Key ID **AWS Activation** 4 Input AWS Secret Access Key Input Default Region Name Input Statement ID OK Cancel NOTE For each AWS account information, please refer to Checking AWS account information.

3 Click Save to save the settings.

Server Setting

You can set up the network for connecting with Net2 Access Control and devices. You can also activate the purchased license.

- 1 Click .
- 2 Configure the settings.



No.	Item	Description
1	NET2 SERVER	 Address: Enter the IP address of the Net2 Access Control server. Port: Enter the port number of the Net2 Access Control server. User ID: Enter the operator ID of Suprema Integration with Paxton Net2. Password: If you changed the password of the OEM Client in Net2 Access Control, click CHANGE PASSWORD to enter the changed password.
2	DEVICE SERVER	 Address: Enter the IP address to be used by the device. Port: Enter the port number to be used by the device. SECURE COMMUNICATION: The communication between the server and the device can be protected using a certificate. To set the secure communication, select Enabled and then click SET to set the necessary items. Secure Communication Secure Communication Secure Communication Secure Communication Public Key Cert Upload Private Key Passphrase(optional) Private Key Passphrase(optional) Confirm Private Key Passphrase Appy Cancel When Use is set for Secure Comm., the server creates and sends a certificate to the device. The device can use a secure channel for exchanging data with the server using this certificate. In order to use an External Cert. (External certificate), Root CA Cert. (Root certificate), Public Key Cert. (Public key certificate), and Private key files must be uploaded. Enter the Private Key Passphrase (Optional). And Enter the Confirm Private Key Passphrase again to confirm.

2	DEVICE SERVER	 NOTE The server creates or deletes a certificate according to the setting status of Secure communication, and the same certificate as the previous certificate will not be created. For example, if the setting of Secure communication is changed in the order of [Use - Not Use], the created certificate will be deleted automatically. When the setting is changed in the order of [Use - Not Use - Use], the operation of [Create A certificate - Delete A certificate - Create B certificate] is carried out. If the device is disconnected from the network physically while using the secure communication of the server, do not turn off the secure communication option. In such a case, the certificate of the server will be deleted, and the device will not be able to connect again. To connect it again, the certificate saved in the device must be deleted or the device must be reset to factory default. Depending on the device type, you can delete a certificate in the following ways: - FaceStation F2, FaceStation 2, BioStation 2, BioStation A2, BioStation L2, BioStation N2: Access the device with the admin level credential and select Delete the Root Certificate on the Device menu. - BioEntry W2, BioEntry P2: Press the reset button three times quickly and when the green LED is blinking, press the reset button again.
3	LICENSE	 User Name: Enter the user name. Activation Key: Enter the activation key that you've received from the Suprema local distributor. NOTE To activate the license online, click ACTIVATE after entering your name and the activation key. To activate the license offline, click REQUEST OFFLINE KEY. You can find contact details of your local distributor on the Suprema website (https://www.supremainc.com/en/wheretobuy/list.asp). The valid date of the evaluation will be shown in LICENSE.

Click **Save** to save the settings.

Enrollment Helper Client

The Enrollment Helper provides an enrollment window for fingerprints and faces on the Net2 Access Control system. If you install the Enrollment Helper, you can enroll fingerprints and faces by opening a window for enrollment directly from the Net2 Access Control system.



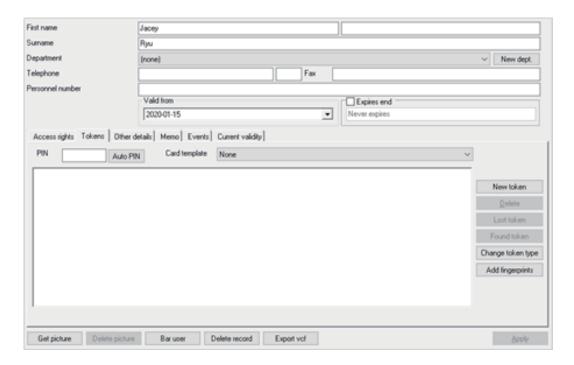
• You can choose whether to install the Enrollment Helper when you install the Suprema Integration with Paxton Net2.

Enroll Credentials with Enrollment Helper

You can enroll fingerprints and faces for both existing and new users.

Enroll Credentials to Existing User

- 1 Run Net2 Access Control.
- 2 Click **Users** menu and select the user to enroll fingerprints or faces on the user list.
- 3 Click **Tokens** and then click **Add fingerprints**.

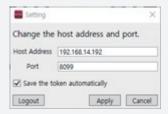


4 Click Login after entering the User ID and PIN.

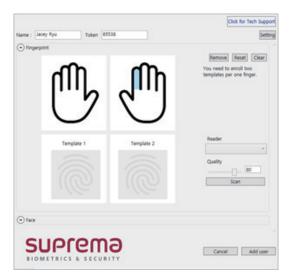


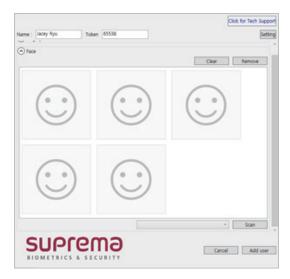


- A user can login with an account that has the administrator permission for Suprema Integration with Paxton Net2.
- Click **Setting** to change the host Address and port. And you can also choose whether to save tokens automatically. If you select **Save the token automatically** option, the automatically generated token will be registered in the Paxton Net2 system.



5 Enroll fingerprints by referring to Enrolling fingerprint. Or, Enroll faces by referring to Enrolling a face.







• The user name and the value of the automatically generated token are displayed on the enrollment window.



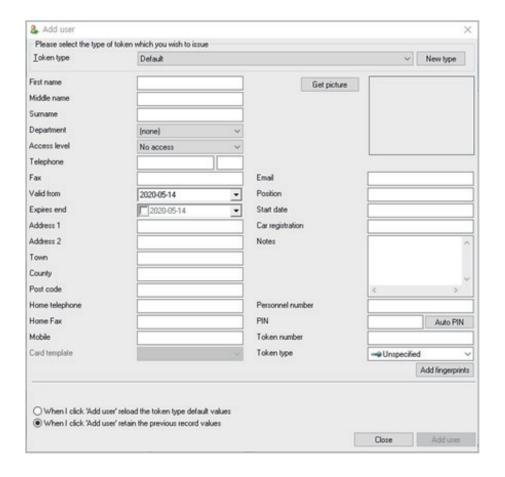
Token values can be changed, but we recommend that you use auto-generated values to prevent duplicate values from being generated.

6 Click **Add user** to save the settings.
The token generated for the credential is displayed on the Tokens tab.



Enroll Credentials to New User

- 1 Run Net2 Access Control.
- 2 Click **Users** menu and double-click How user.
- 3 Enter the user information to add and click **Add fingerprints**.

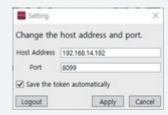


4 Click **Login** after entering the User ID and PIN.



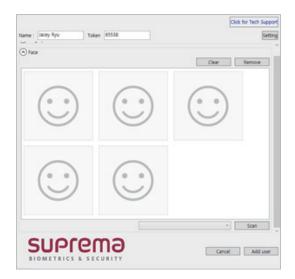


- A user can login with an account that has the administrator permission for Suprema Integration with Paxton Net2.
- Click **Setting** to change the host Address and port. And you can also choose whether to save tokens automatically. If you select **Save the token automatically** option, the automatically generated token will be registered in the Paxton Net2 system.



5 Enroll fingerprints by referring to Enrolling fingerprint. Or, Enroll faces by referring to Enrolling a face.





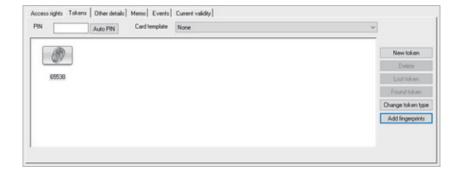


• The user name and the value of the automatically generated token are displayed on the enrollment window.



Token values can be changed, but we recommend that you use auto-generated values to prevent duplicate values from being generated.

6 Click **Add user** to save the settings. The token generated for the credential is displayed on the Tokens tab.



Troubleshooting

This troubleshooting provides information to solve unexpected issues that you may encounter when using the product.

Problem	Solution
AWS activation failed, and logs occurred as 'aws is not recognized as an internal or external command, operable program or batch file'.	If AWSCLIV2.msi is not installed, you cannot activate AWS. Install AWSCLIV2.msi of the installation path (C:\Program Files\Suprema Integration with Paxton Net2\install\cloud) and try to activate AWS again.
AWS activation failed, and logs occurred as 'An error occurred (EntityAlreadyExists) when calling the CreateRole operation: Role with name tokenValid-role already exists'.	 If there are already created IAM Roles, Lambda, and API Gateway, you cannot create duplicates. Delete the existing IAM Roles, Lambda, and API Gateway as described below and try again. Sign in to your AWS account. Click Services → Identity and Access Management (IAM). Select Roles under Access management. Select faceDetect-role, sendMail-role, and tokenValid-role on the Roles list and click Delete. Click Services → Lamda → Functions. Select tokenValidLambda, sendMailLambda, and faceDetectLambda on the Functions list and click Actions → Delete. Click Services → API Gateway → APIs. Select faceDetectLambda-API, sendMailLambda-API, and tokenValidLambda-API on the APIs list and click Actions → Delete.
AWS activation failed, and logs occurred as 'An error occurred (AccessDenied) when calling the CreateRole operation: User: arn:aws:iam::121421351848:user/jcahn is not authorized to perform: iam:CreateRole on resource: arn:aws:iam::121421351848:role/tokenValid-role'.	If you do not have IAM user permissions, you cannot create IAM Roles. Refer to Checking AWS account information and add AdministratorAccess to the AWS user's Permission Policy and try again.

Appendices

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Gorm

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google/uuid

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gorilla/websocket

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