

Suprema Integration with Genetec Security Center ADMINISTRATOR GUIDE

Version 1.01

English

EN 102.00.SIWG V1.01A

CONTENTS

Introduction	3	Uploading users registered from devices	23
Target Audience	3	Editing device settings and information	24
Features	3	Resending configuration	25
System diagram	3	Upgrading firmware	25
		Connecting a device	25
		Removing a device	26
		Other settings	26
Installation	4	Users	27
System environment	4	Users overview	27
Compatible systems and devices	4	Selecting a card	28
License	5	Enrolling a PIN	28
Installing the Suprema Integration with Genetec Security Center	6	Enrolling fingerprint	29
		Enrolling a face	30
		Enrolling a visual face	32
		Checking AWS account information	33
		Enrolling a visual face remotely	40
		Resending user data to connected devices	44
Getting started	15	Monitoring	45
Setting up the RIO Protocol	15		
Login	18	Audit Trail	46
Home	19		
Devices	20		
Devices overview	20		
Device registration	21		
Slave device search and registration	22		

CONTENTS

Accounts **47**

Settings **48**

Global Device Configuration 48

Visual Face 49

Server Setting 51

Enrollment Helper **52**

Enrolling credentials with Enrollment Helper 52

Troubleshooting **55**

Appendices **56**

Disclaimers 56

Copyright Notice 56

Open Source License 56

Introduction

Target Audience

This document describes how to install and configure Suprema Integration with Genetec Security Center. It is intended for system setup specialists as well as system administrators. The system specialists or administrators require basic knowledge of the Genetec Security Center system and Suprema biometric devices.

Features

Suprema Integration with Genetec Security Center is a middleware that allows the Genetec Security Center system to communicate with the Suprema biometric devices, which can register a variety of credentials to users from Genetec Security Center and to manage connected devices. With Suprema Integration with Genetec Security Center, you can easily setup and build the biometric access control system for Genetec Security Center using Suprema biometric devices. It also leverages the RIO protocol to allow Suprema biometric devices to control doors without need for an access control panel through direct communication with Synergis Cloud Link or Softwire.

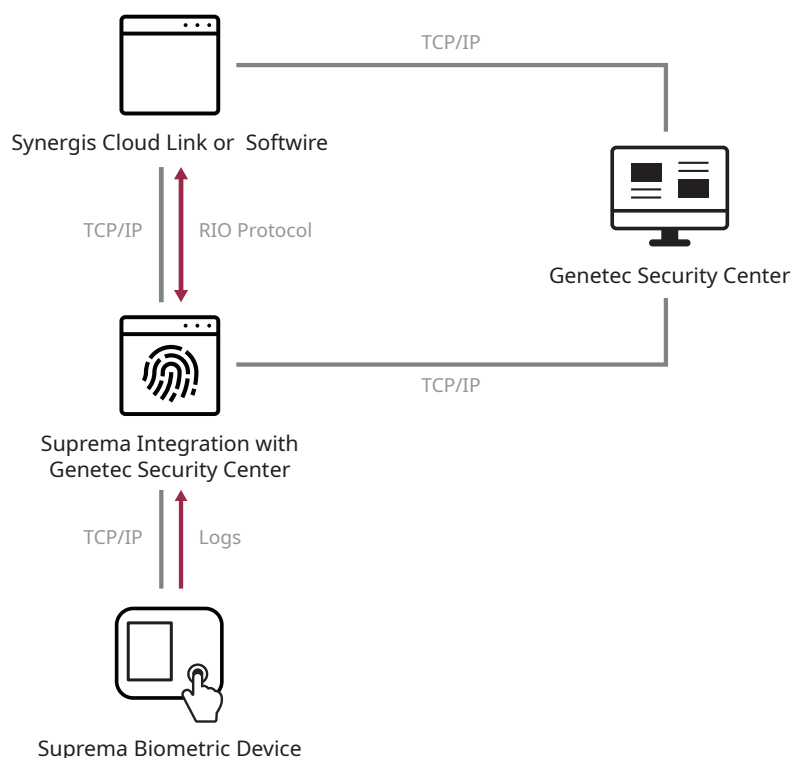
Suprema Integration with Genetec Security Center provides the following features.

- **Enable biometrics:** Use RFID cards and PINs as well as fingerprint and face as credentials.
- **Easy user management:** Real-time user data synchronization between Suprema Integration and Genetec Security Center
- **Easy enrollment and management:** Enroll user's face and fingerprint data directly from Genetec Security Center or Suprema devices which will be polled to the server.
- **Enterprise-level configuration:** Connect and manage up to 1,000 biometric devices.



- For more details on the functionality of Genetec Security Center, refer to its user manual.

System diagram



Installation

System environment

Suprema Integration with Genetec Security Center operates normally in the same system environment as Genetec Security Center.

You can find the minimum system requirements for Genetec Security Center at <https://techdocs.genetec.com/r/en-US/Security-Center-Installation-and-Upgrade-Guide-for-Windows-Cluster-5.10/Windows-Failover-Clustering-terminology>.

Check the support conditions before installing the Suprema Integration with Genetec Security Center.

Compatible systems and devices

- Operating system
 - Microsoft Windows 10 or later
- Genetec Security Center
 - v5.10.0.0 (357.0)
- Genetec Synergis Software
Genetec Synergis Cloud link
 - v11.2.0 or later
- 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
 - CoreStation
 - Secure I/O 2
- USB Fingerprint Scanner
 - BioMini Plus 2

License

You need the following licenses to use Suprema Integration with Genetec Security Center.

- When using the Cloud link
 - GSC-Sy-P or higher tier required (for Synergis license)
 - You need to purchase extra licenses depending on doors you use.
- When using the Softwire
 - GSC-Sy-E-S2T1 required
 - You need to purchase extra licenses depending on doors you use.
- GSC-1SDKSUPREMA-READ (2 licenses per client required)



- For the above license inquiry, please contact Genetec.

- BioStar 2- integration_Genetec



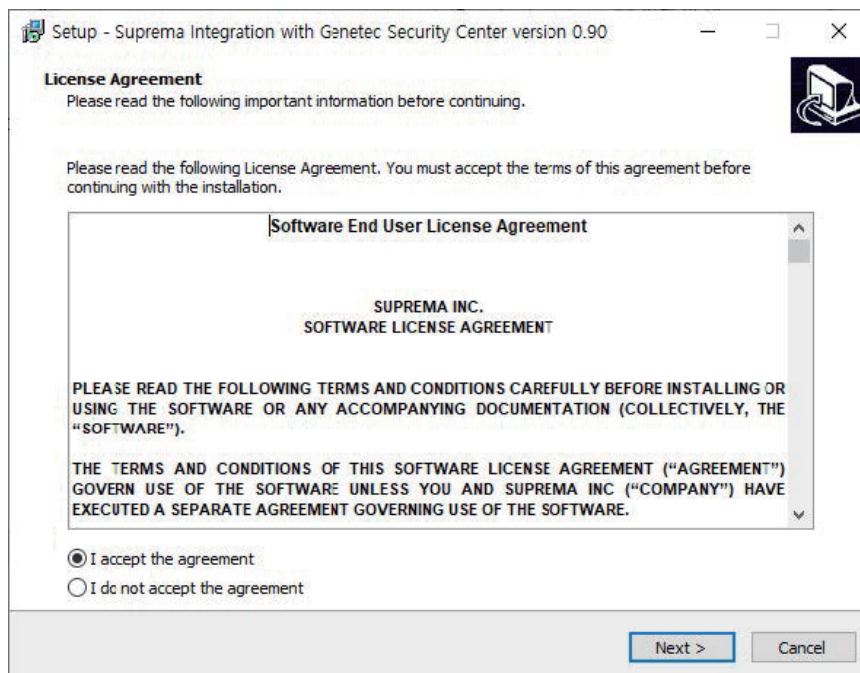
- For the above license inquiry, please contact Suprema.

Installing the Suprema Integration with Genetec Security Center

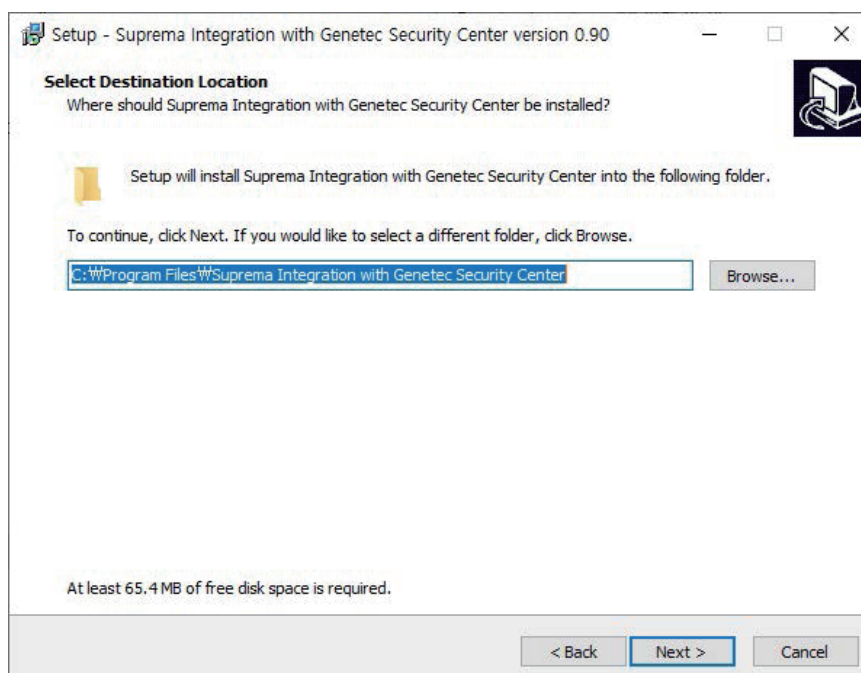


- This section describes how to install the Suprema Integration with Genetec Security Center. For more details on the installation of both Genetec Security Center and Config Tool, refer to its manuals.

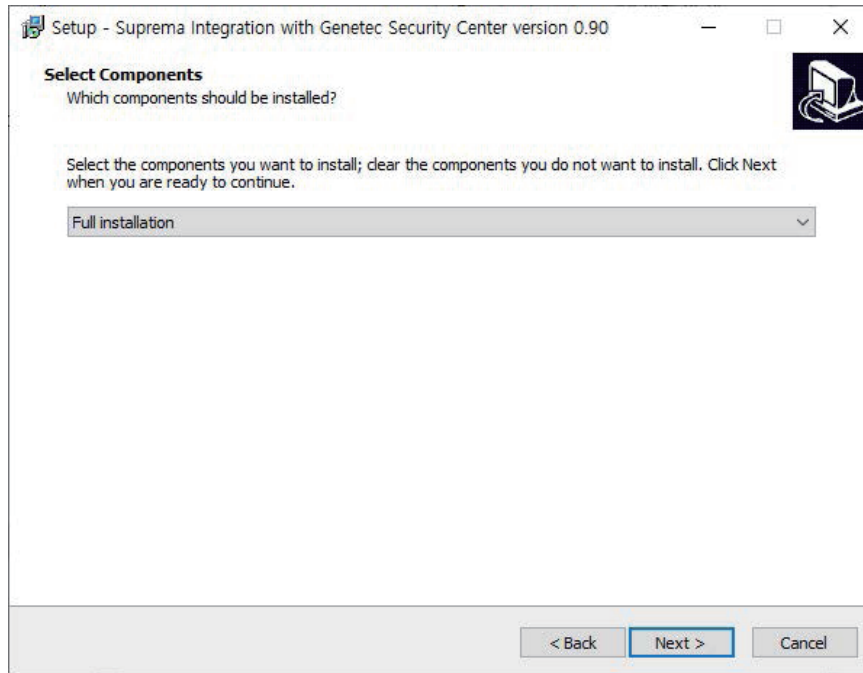
- 1 Run the downloaded setup program.
(ex. 'Integration.With.Genetec.Security.Center.x.x.xx')
- 2 Select I accept the agreement and click **Next**.



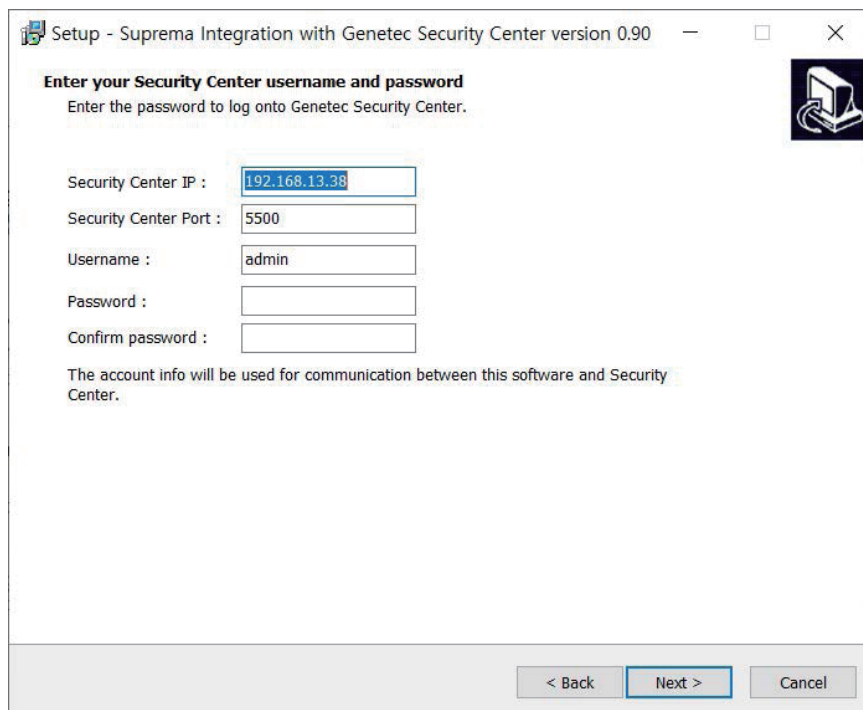
- 3 Set a path and click **Next**.



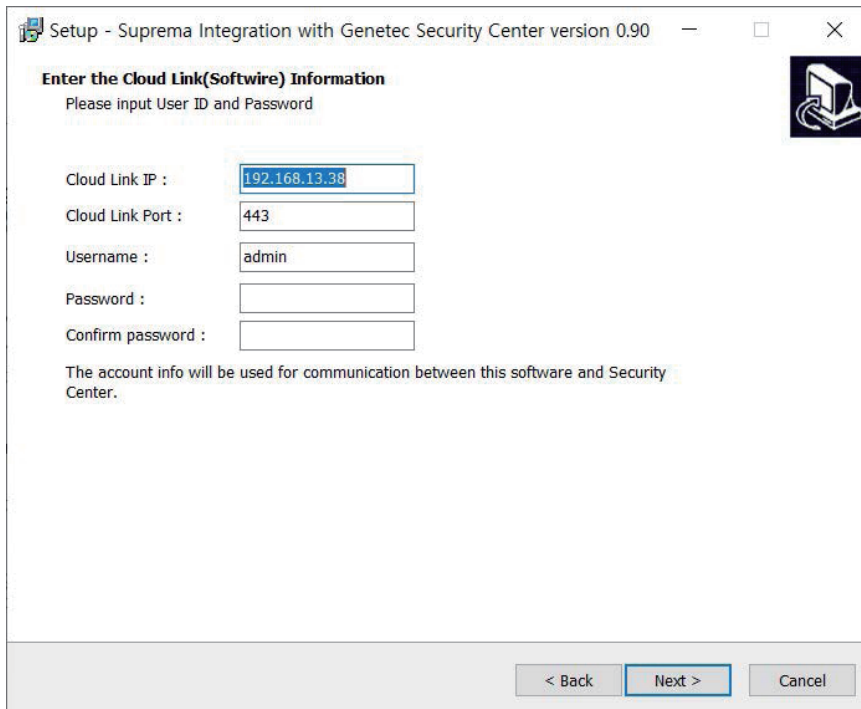
4 Select a component option and click **Next**.



5 Enter an IP address, port number, username, and password for Config Tool, and then click **Next**.



- 6 Enter an IP address, port number, username, and password for Softwire to communicate between the Suprema Integration software and Genetec Security Center.

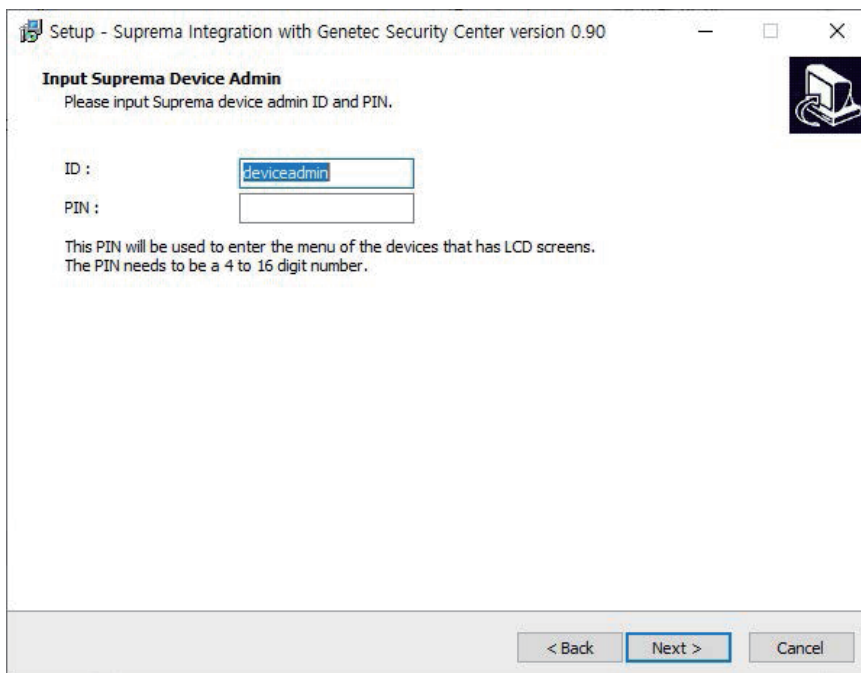


The screenshot shows a window titled "Setup - Suprema Integration with Genetec Security Center version 0.90". The main heading is "Enter the Cloud Link(Software) Information" with the instruction "Please input User ID and Password". There is a small icon of a device with a circular arrow in the top right corner. The form contains the following fields:

- Cloud Link IP :
- Cloud Link Port :
- Username :
- Password :
- Confirm password :

Below the fields, a note states: "The account info will be used for communication between this software and Security Center." At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel".

- 7 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 Genetec Security Center.

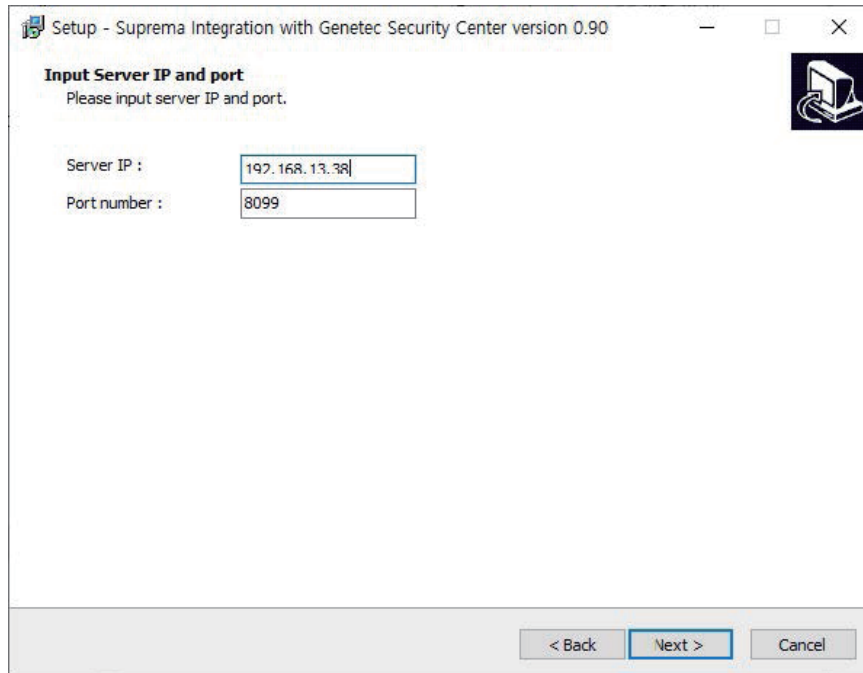


The screenshot shows a window titled "Setup - Suprema Integration with Genetec Security Center version 0.90". The main heading is "Input Suprema Device Admin" with the instruction "Please input Suprema device admin ID and PIN." There is a small icon of a device with a circular arrow in the top right corner. The form contains the following fields:

- ID :
- PIN :

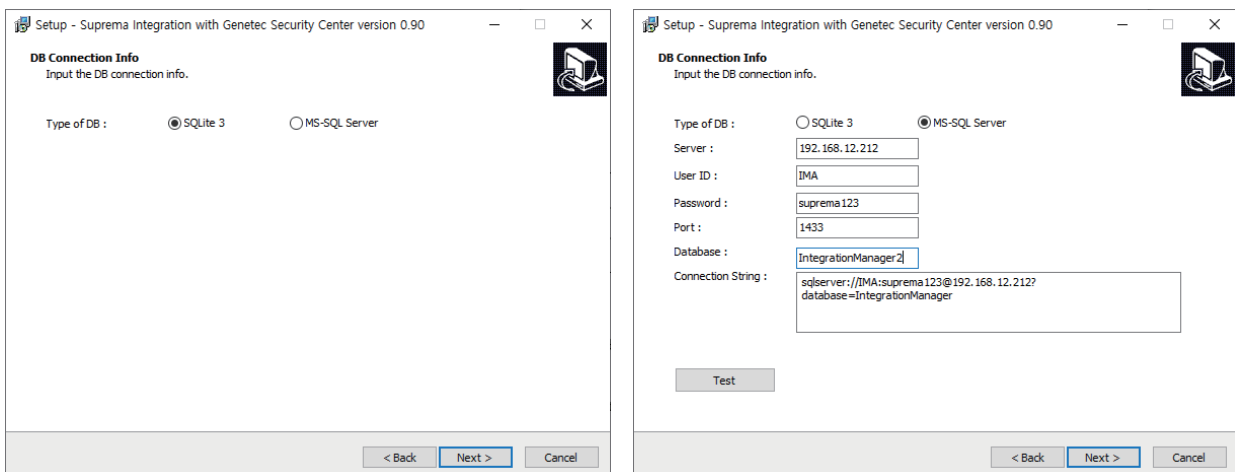
Below the fields, a note states: "This PIN will be used to enter the menu of the devices that has LCD screens. The PIN needs to be a 4 to 16 digit number." At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel".

8 Enter the IP address and port number of Suprema Integration with Genetec Security Center.



The screenshot shows a dialog box titled "Setup - Suprema Integration with Genetec Security Center version 0.90". The main heading is "Input Server IP and port" with the instruction "Please input server IP and port." Below this, there are two input fields: "Server IP :" containing "192.168.13.38" and "Port number :" containing "8099". At the bottom right, there are three buttons: "< Back", "Next >" (highlighted with a blue border), and "Cancel".

9 Select the type of DB.



The first screenshot shows the "DB Connection Info" dialog box with the instruction "Input the DB connection info." Under "Type of DB :", there are two radio buttons: "SQLite 3" (selected) and "MS-SQL Server".

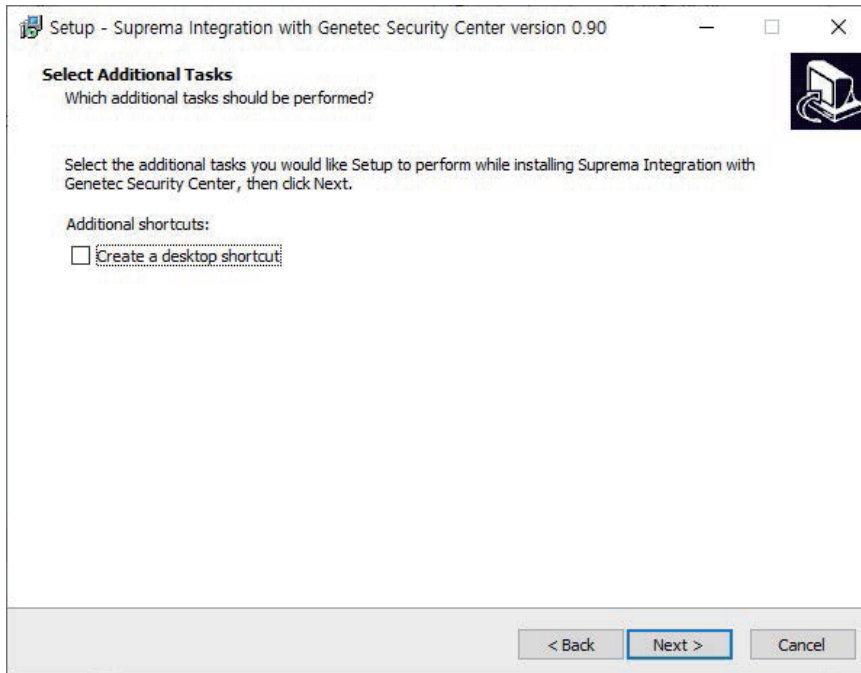
The second screenshot shows the same dialog box but with "MS-SQL Server" selected. The fields are filled with the following information:

- Server : 192.168.12.212
- User ID : IMA
- Password : suprema123
- Port : 1433
- Database : IntegrationManager2
- Connection String : sqlserver://IMA:suprema123@192.168.12.212?database=IntegrationManager

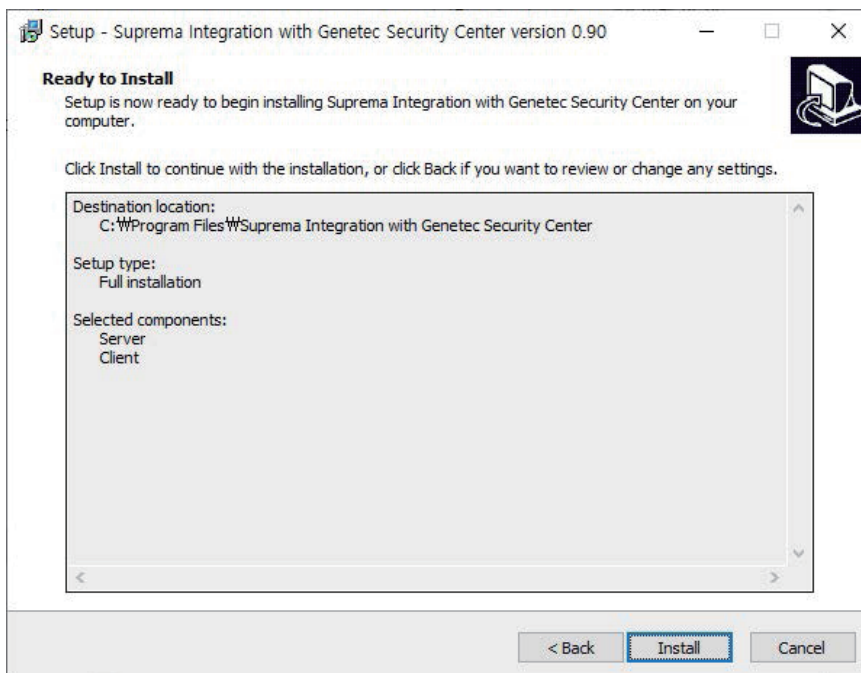
At the bottom, there is a "Test" button and navigation buttons "< Back", "Next >" (highlighted), and "Cancel".

If you select MS-SQL Server, enter each item and click **Test**. It is tested whether it is connected to the DB, and the message displays whether the connection is successful.

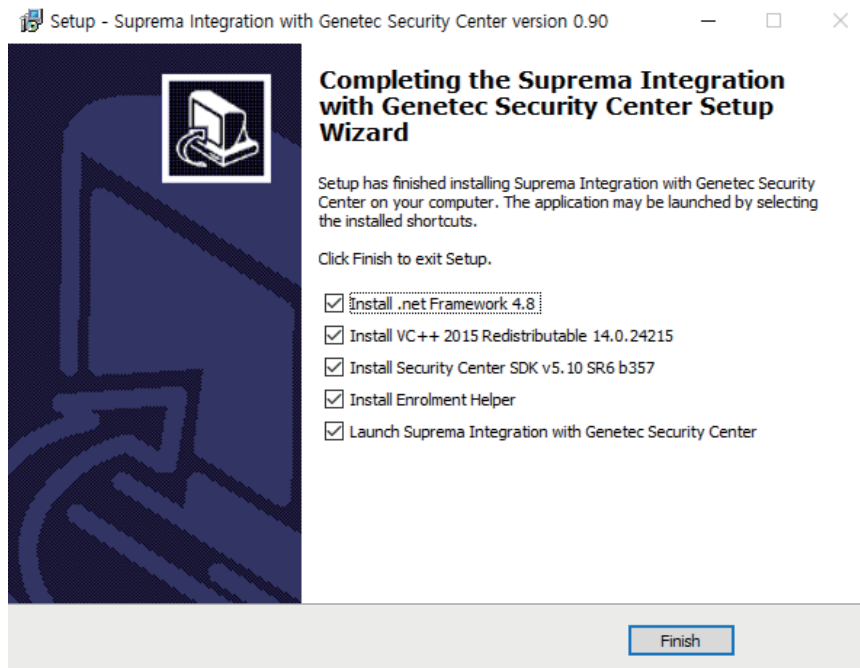
10 Select **Create a desktop shortcut** if you want to create a shortcut, and then click **Next**.



11 Click **Install**.

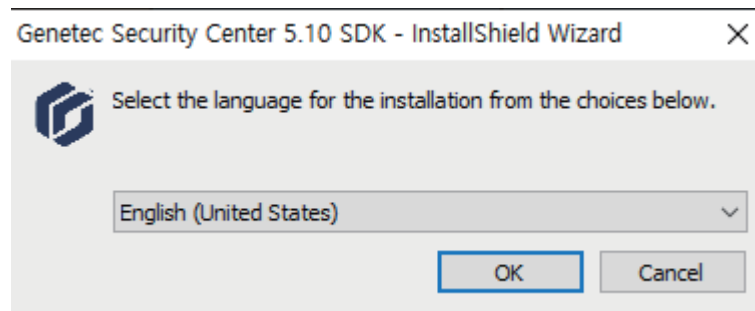


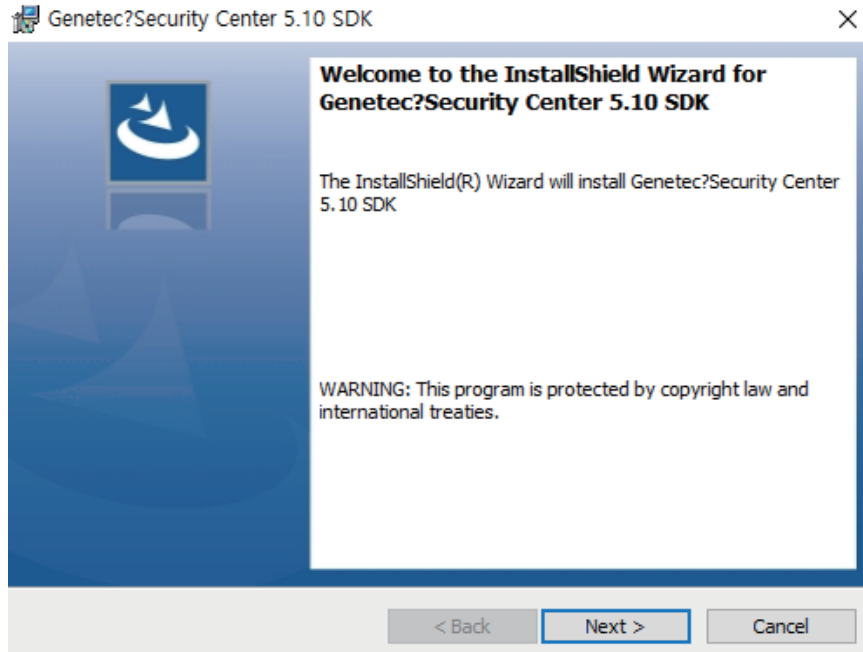
- 12 Select additional programs to install and click **Finish**. You must select the Install Security Center SDK option to proceed the next step.

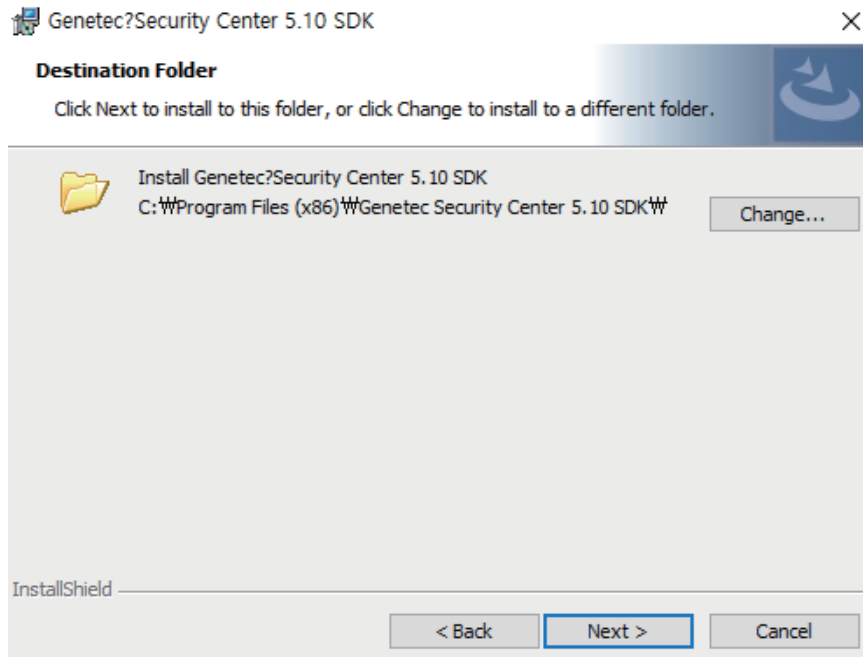
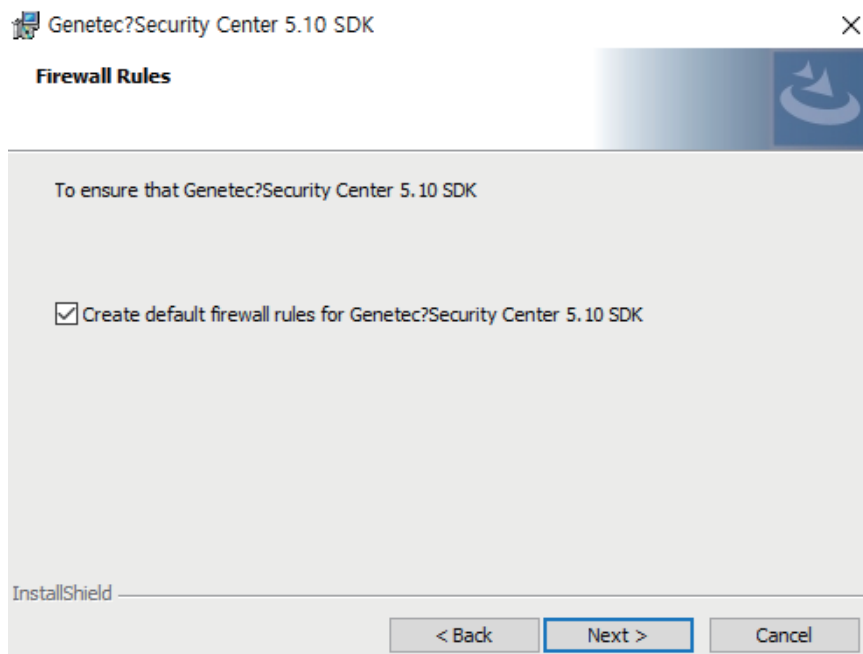


- If you install the Enrollment Helper, you can also enroll fingerprints by opening a window for fingerprint enrollment directly from Config Tool. For more information on the Enrollment Helper, refer to [Enrollment Helper](#).

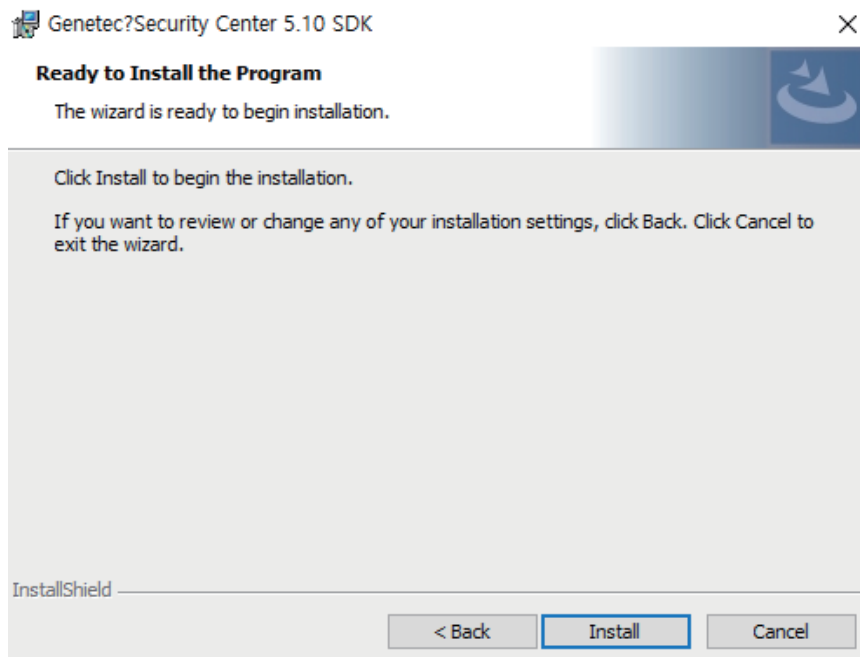
- 13 Select a language to use and click **OK**.



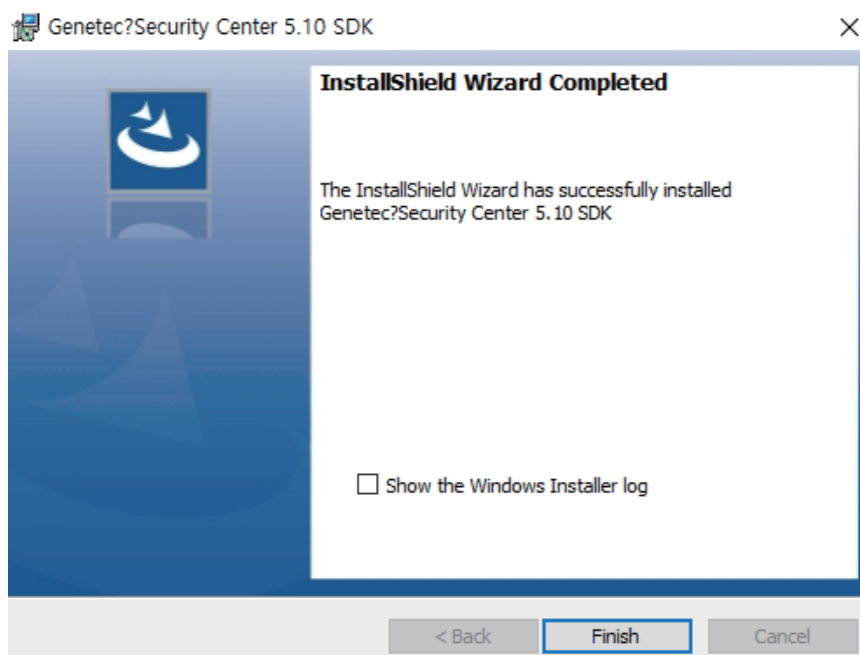
14 Click **Next**.**15** Select **I accept the terms in the license agreement** and click **Next**.

16 Set a path and click **Next**.**17** Select whether to create default rules and click **Next**.

18 Select whether to update the software automatically when it is available and click **Install**.



19 Click **Finish** to finish the installation.



Getting started

Setting up the RIO Protocol

Before using Suprema Integration with Genetec Security Center, you need to setup the RIO Protocol for direct communication to Synergis Cloud Link or Software.

Enabling the RIO Protocol on Synergis Cloud Link or Software

- 1 Enter the following URL into your browser. You need to change [IP-address] with the IP address of your Synergis Cloud Link or Software.

[https://\[IP-address\]/Features/DuiRIO/Enabled/Set?value=true](https://[IP-address]/Features/DuiRIO/Enabled/Set?value=true)

- 2 Log in to Software.



Login

User Name:

Password:

Certificate login

Login

- 3 Click the link.



Login successful

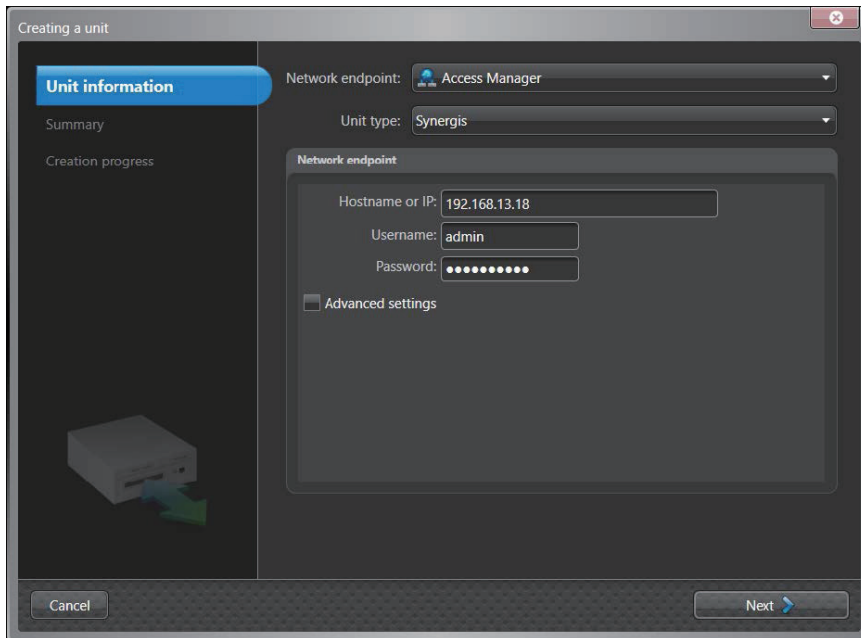
[Logout](https://localhost/Features/DuiRIO/Enabled/Set?value=true)
<https://localhost/Features/DuiRIO/Enabled/Set?value=true>

If the login is successfully done, you will receive a confirmation indicating 'Feature enabled'.

Creating an access control unit

You should create an access control unit in Config Tool before using Suprema Integration with Genetec Security Center.

- 1 Run **Config Tool**.
- 2 Click **Config Tool > Tasks > Access control** and click **Access control unit** at the bottom left corner of the window.
- 3 Enter an IP address and the same password that you are using in Softwire, and then click **Next**.



Creating a unit

Unit information

Summary

Creation progress

Network endpoint: Access Manager

Unit type: Synergis

Network endpoint

Hostname or IP: 192.168.13.18

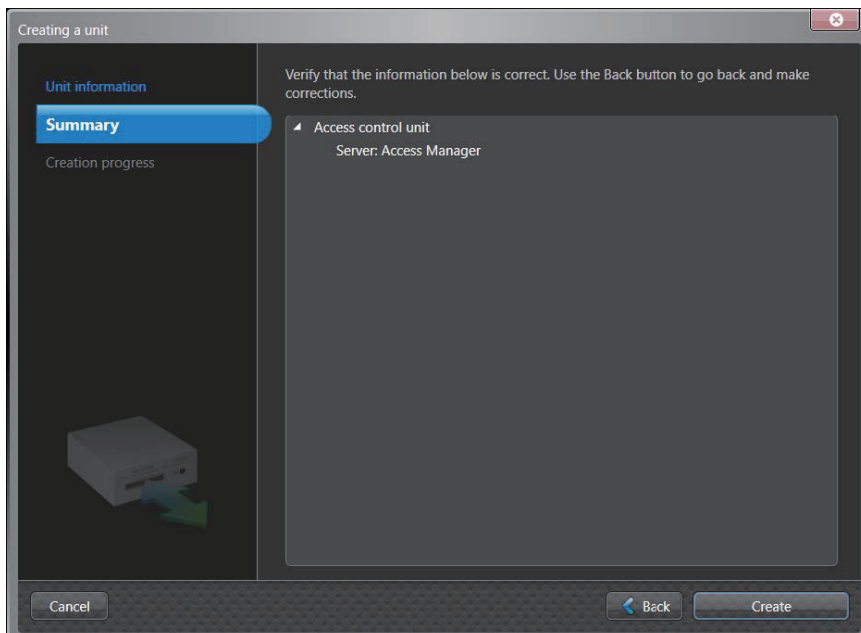
Username: admin

Password: ●●●●●●●●

Advanced settings

Cancel Next

- 4 Check the information and click **Create**.



Creating a unit

Unit information

Summary

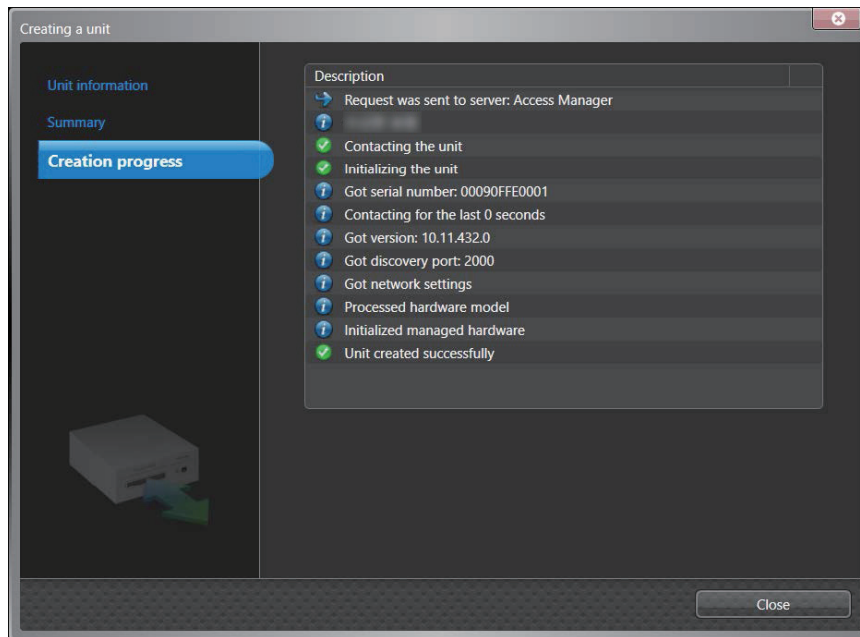
Creation progress

Verify that the information below is correct. Use the Back button to go back and make corrections.

Access control unit

Server: Access Manager

Cancel Back Create

5 Click **Close**.

The access control unit has been created under **Access Manager**. After creating the access control unit, check that the RIO tap successfully appears. Click **Tasks > Access Control > Role and units**, select the access control unit, and then click **Hardware > RIO**.

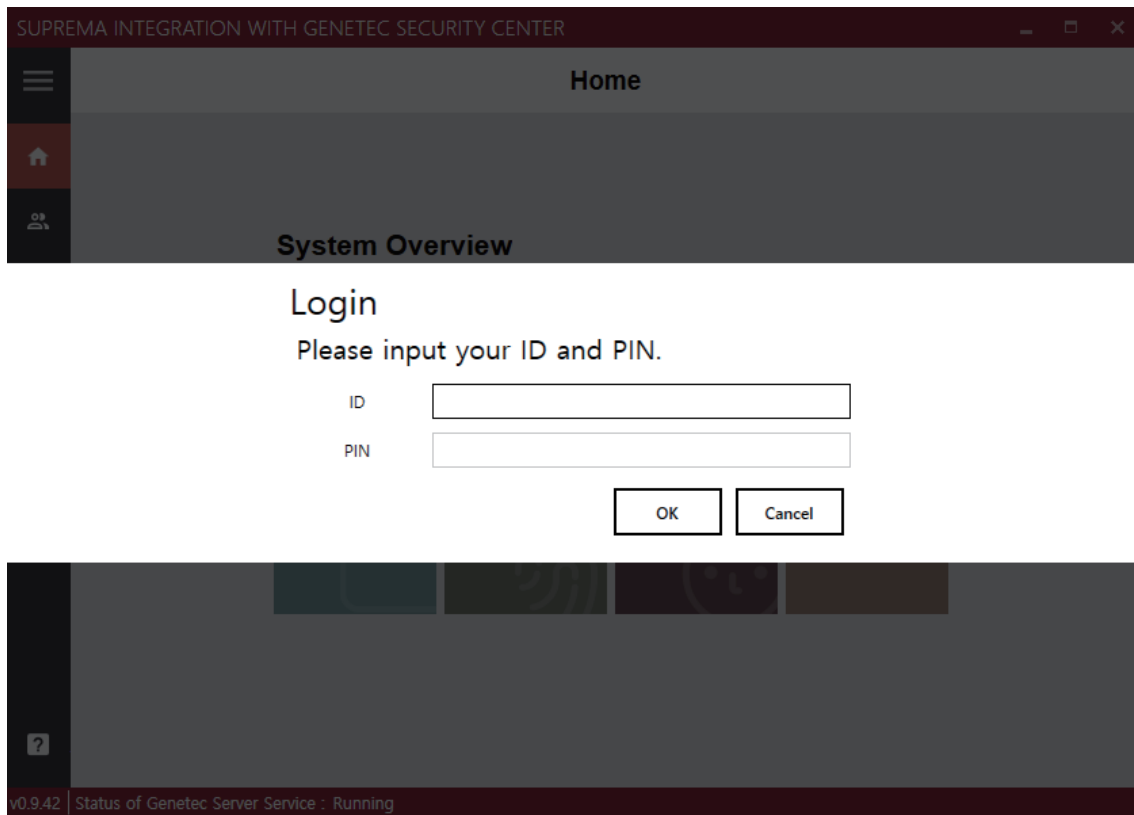


- To learn how to install Config Tool, refer to its manual.

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 Genetec Security Center.



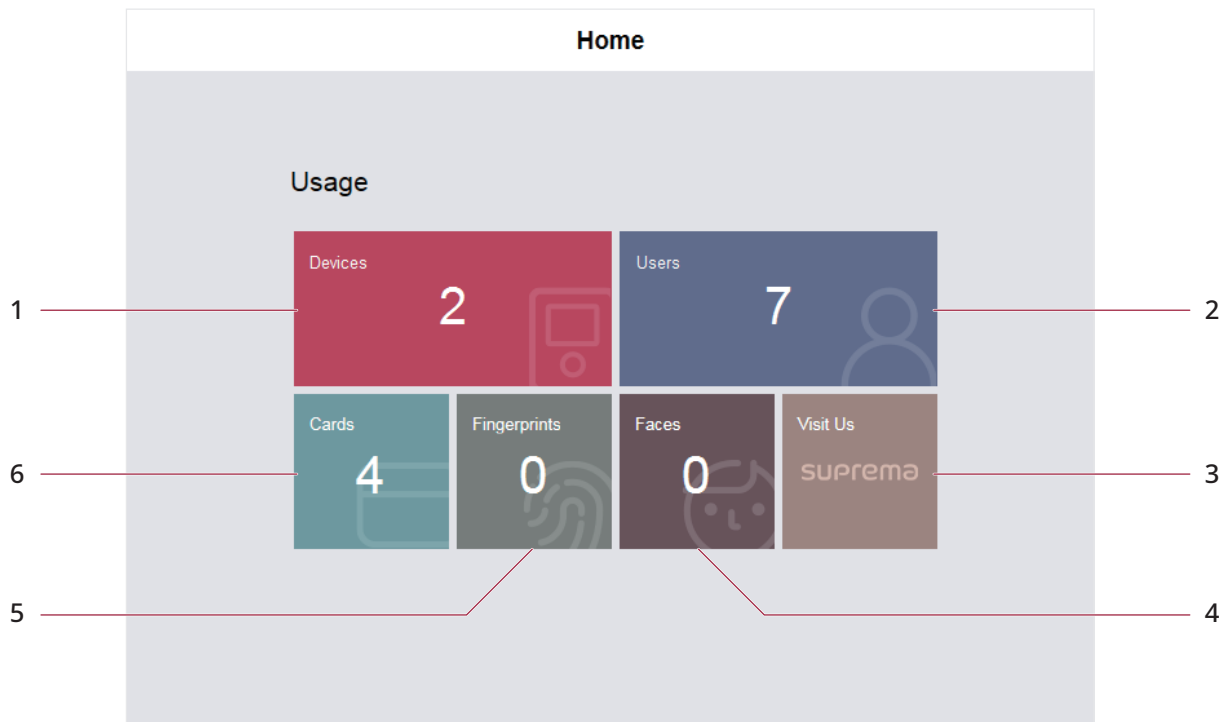
The screenshot shows a web application window titled "SUPREMA INTEGRATION WITH GENETEC SECURITY CENTER". The interface includes a navigation menu on the left with icons for Home and System Overview. The main content area displays a "Login" dialog box with the following elements:

- Header: "Login"
- Instruction: "Please input your ID and PIN."
- Input fields: "ID" and "PIN", each with a corresponding text input box.
- Buttons: "OK" and "Cancel" buttons positioned below the input fields.

At the bottom of the window, a status bar indicates "v0.9.42 | Status of Genetec Server Service : Running".

Home

The **Home** menu is the starting point for accessing all menus of the Suprema Integration with Genetec Security Center. You can also check the number of registered devices, users, faces, fingerprints, and cards. Open the AEOS\AEserver\standalone\configuration folder.



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.



- You can set access rules to registered devices in Config Tool. To learn how to set access rules, refer to its manual.


ID	NAME	TYPE	RS485	DIRECTION	IP	PORT	STATUS
73000000	F2-1	Facestation F2		Device To Server	192.168.16.127	58780	
73000001	F2-2	Facestation F2		Device To Server	192.168.16.127	37520	
73000002	F2-3	Facestation F2		Device To Server	192.168.16.127	52778	
73000003	F2-4	Facestation F2		Device To Server	192.168.16.127	57278	
73000004	F2-5	Facestation F2		Device To Server	192.168.16.127	45936	
73000005	F2-6	Facestation F2		Device To Server	192.168.16.127	56786	
73000006	F2-7	Facestation F2		Device To Server	192.168.16.127	59394	
73000007	F2-8	Facestation F2		Device To Server	192.168.16.127	42612	
73000008	F2-9	Facestation F2		Device To Server	192.168.16.127	41434	

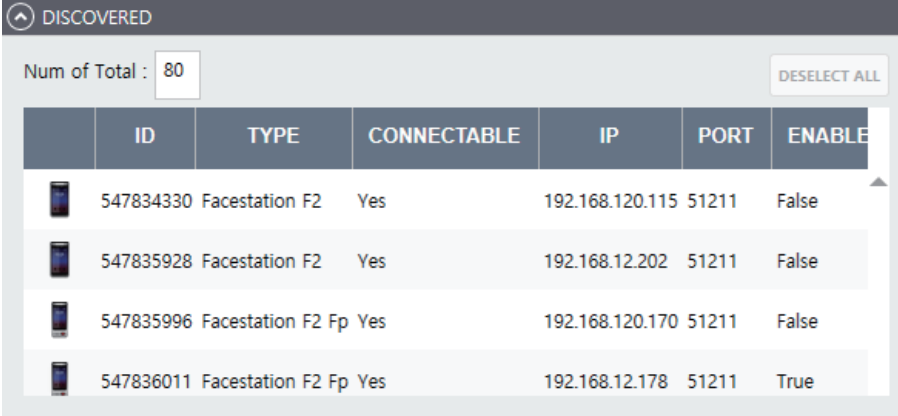
- Search Device:** You can search for devices connected to Suprema Integration with Genetec Security Center and register them.
- Add Device:** You can add a device by entering the IP of the device.
- Discover Slaves:** You can search and add slave devices connected to the device.
- Upgrade F/W:** You can upgrade the device's firmware.
- 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.
- Connect:** You can reconnect the selected device to the Suprema Integration with Genetec Security Center.
- Remove:** You can remove the selected device from the Suprema Integration with Genetec Security Center.

Device registration

Adding a device automatically





You can automatically search for devices connected to Suprema Integration with Genetec Security Center 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, device type and IP address information of each device in advance.

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



DISCOVERED


Num of Total : 80 DESELECT ALL

	ID	TYPE	CONNECTABLE	IP	PORT	ENABLE
	547834330	Facestation F2	Yes	192.168.120.115	51211	False
	547835928	Facestation F2	Yes	192.168.12.202	51211	False
	547835996	Facestation F2 Fp	Yes	192.168.120.170	51211	False
	547836011	Facestation F2 Fp	Yes	192.168.12.178	51211	True

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

Add Device

Input the IP of the device.


IP

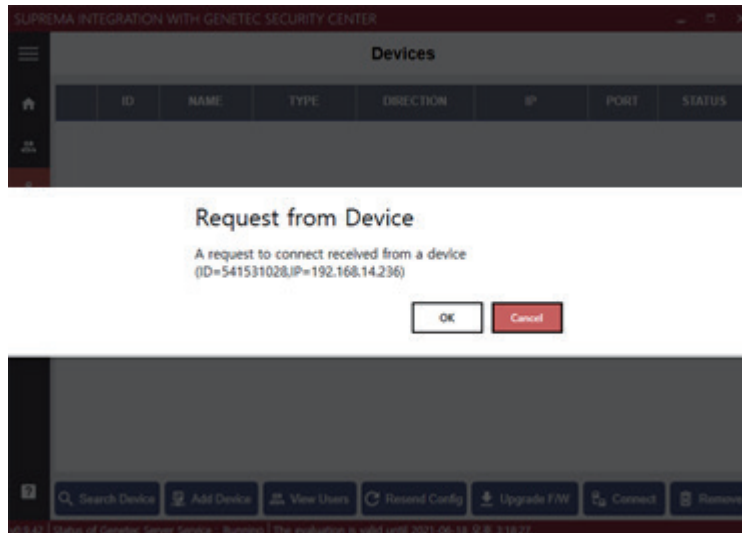


- Up to 1,000 biometric devices can be connected.

Sending a connection request from the device

You can send a connection signal from the device to Suprema Integration with Genetec Security Center 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, FaceStation F2 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**.

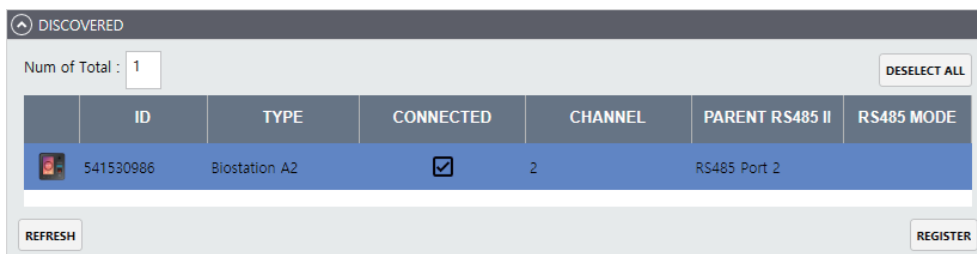


The device is added on the list.

Slave device search and registration

You can easily expand your access control system network by adding slave devices to existing master devices. Master devices and slave devices can be connected together via RS-485.


- 1 Click .
- 2 Select the master device to search for slave devices and click **Discover Slaves**.
- 3 The list of slave devices connected to the master device is shown. If the devices you are looking for are not shown on the list, click **REFRESH** to search for the devices again.




















- 4 Select the device to add, and click **REGISTER**.


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

USERS TO UPLOAD									
	USER ID	NAME					EXPIRED AT	DISABLED	ACCESSIBLE
	manager	manager	0	0	0	False	12 31, 2030 11:59	false	<input type="checkbox"/>
	deviceadmin	deviceadmin	0	0	0	True	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	201	ky	0	2	0	False	12 31, 2030 11:59	false	<input type="checkbox"/>
	200		1	1	0	False	12 31, 2030 11:59	false	<input type="checkbox"/>
	33	AAA	0	2	0	False	12 31, 2030 11:59	false	<input type="checkbox"/>
	6	9093	1	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	5	9092	1	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	4	9091	1	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	3	9090	1	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	2	JaceyRyu	0	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	1	SimbaPark	0	0	0	False	12 31, 2030 11:59	false	<input checked="" type="checkbox"/>
	0909		0	1	0	True	12 31, 2030 11:59	false	<input type="checkbox"/>

 Refresh

 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.

The screenshot shows a configuration window with three main sections:

- 1 INFORMATION:** Contains fields for Name (with a RENAME button), Device Type (Facestation F2), Device ID (547837581), and Firmware ver. (1.1.0(2021/05/07 11:10:19)).
- 2 AUTHENTICATION:** Contains radio button options for various authentication modes: Card or Biometrics, Biometric Only, Card Only, Biometric + PIN, Card + PIN or Biometric + PIN, Card + PIN or Biometric, Card or Biometric + PIN, Card + Biometric, Card + PIN, and Card + Biometric + PIN.
- 3 NETWORK:** Contains a DHCP checkbox (checked) with a Use button, and fields for IP Address (192.168.12.175), Subnet Mask (255.255.255.0), Gateway (192.168.12.1), Device Port (51211), Direction (radio buttons for Server to Device and Device to Server), Server Address, and Server Port (51212). An APPLY button is at the bottom right.

No.	Item	Description
1	INFORMATION	<p>Edit the name of the device or see the device information.</p> <ul style="list-style-type: none"> • 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	<p>Configure the authentication modes of the device.</p>
3	NETWORK	<p>Configure the connection settings.</p> <ul style="list-style-type: none"> • 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 the Genetec Security Center server. • Server Port: Enter the port number of the Suprema Integration with the Genetec Security Center 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.

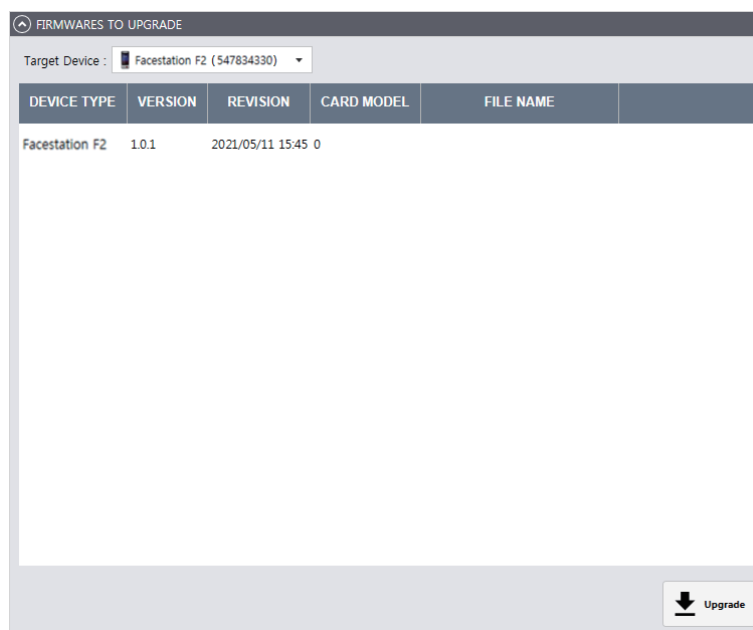
- 1 Click .
- 2 Click a device to apply settings and click **Resend Config**.
If you click **Resend Config** with nothing selected, the settings are applied to all devices.

Upgrading firmware

You can easily upgrade the firmware on any device connected to Suprema Integration with Genetec Security Center 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 .
- 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 Genetec Security Center.

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


Removing a device

You can delete the selected device from the list.

- 1 Click .
- 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 .
- 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.

Users

Users overview

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

Users

Get All from ACM


	ID	NAME	EMAIL						EXPIRED /	LAST UPD
	deviceadmin	deviceadmin		0	0	0	True	0	2030-12-31	2001-01-01
	999	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01
	998	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01
	997	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01
	996	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01
	995	[REDACTED]	[REDACTED]	1	0	0	False	0	0001-01-01	0001-01-01
	994	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01
	993	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01
	992	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01
	991	[REDACTED]	[REDACTED]	1	0	0	False	0	0001-01-01	0001-01-01
	990	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01
	99	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01
	999	[REDACTED]	[REDACTED]	1	0	0	False	0	0001-01-01	0001-01-01

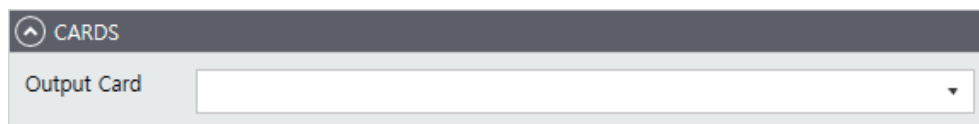
Resend to All Devices Resend Mail Enroll Bulk Faces Manage Cards Manage Fingerprints Manage Faces Manage Pin

- **Search**: Search for users by entering the username or ID.
- **Get All users from ACM**: Import user data manually stored in the Genetec Security Center system.
- **Resend to All Devices**: Send users to all devices connected to Suprema Integration with Genetec Security Center.
- **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.
- **Enroll Bulk Faces**: Enroll user's visual face by importing CSV.
- **Manage Cards**: Select the card value to communicate with a controller.
- **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 Genetec Security Center sends that user's card ID to the controller. Select the card you want to send to the controller.

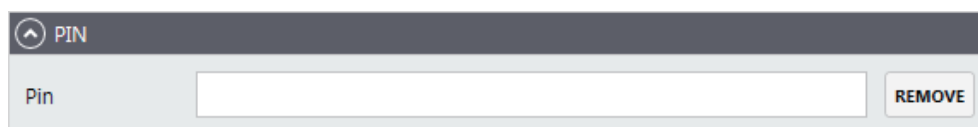
- 1 Click .
- 2 Select users and click **Manage Cards**.
- 3 Select the output card.



- 4 Click **APPLY** to save the settings.

Enrolling a PIN

- 1 Click .
- 2 Select users and click **Manage Pin**.
- 3 Enter a PIN to use.



- 4 Click **APPLY** to save the settings.

Enrolling fingerprint

On the Suprema Integration with Genetec Security Center 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.

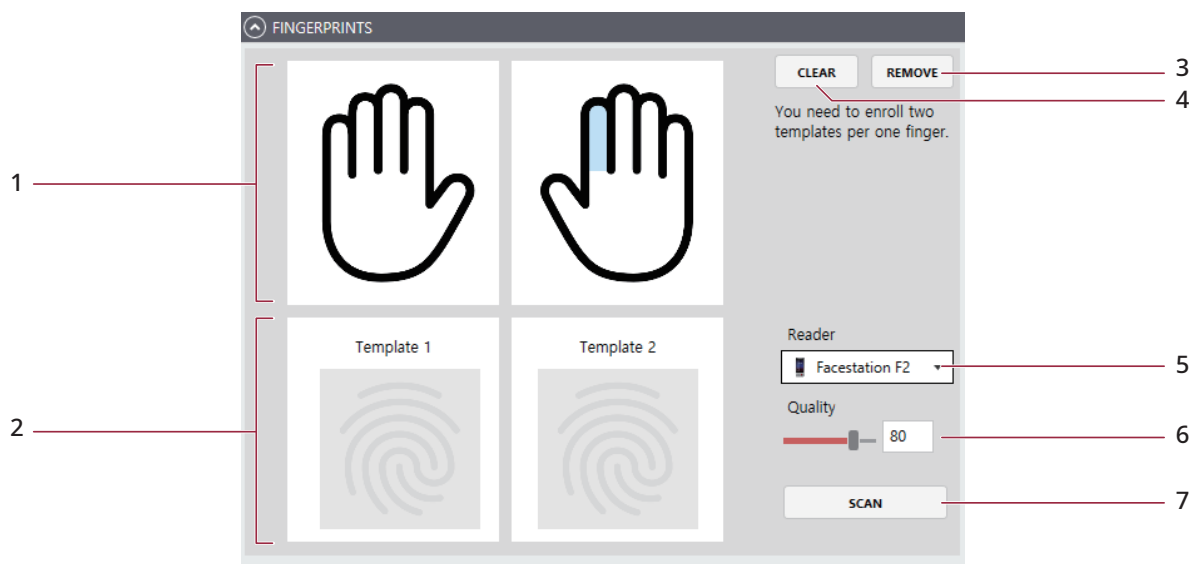
Whether you enroll the fingerprint on a server or on a specific device, that user's information is synchronized in real time on all devices connected to Suprema Integration with Genetec Security Center.

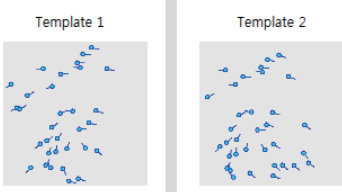


- You can register up to 10 fingerprints per user.
- If the fingerprint authentication rate is low, delete the existing fingerprint information and add a new fingerprint.
- For best fingerprint scanning quality, make sure to cover the entire surface of the fingerprint sensor with the finger. We recommend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

Server

- 1 Click .
- 2 Select a user and click **Manage Fingerprints**.
- 3 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. 
3	CLEAR	Delete all registered fingerprints templates.
4	REMOVE	Delete a selected fingerprint template.

5	Reader	Select a device or USB fingerprint scanner to enroll the fingerprint with. NOTE <ul style="list-style-type: none"> Only devices connected to Suprema Integration with Genetec Security Center are displayed in the Reader list. Register the device first by referring to Adding a device automatically 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.

4 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.

- On the device, press and authenticate with the Admin level credential.
- Press **USER** and select a user to enroll a fingerprint.
- Press **Fingerprint**.
- 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


On the Suprema Integration with Genetec Security Center 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.

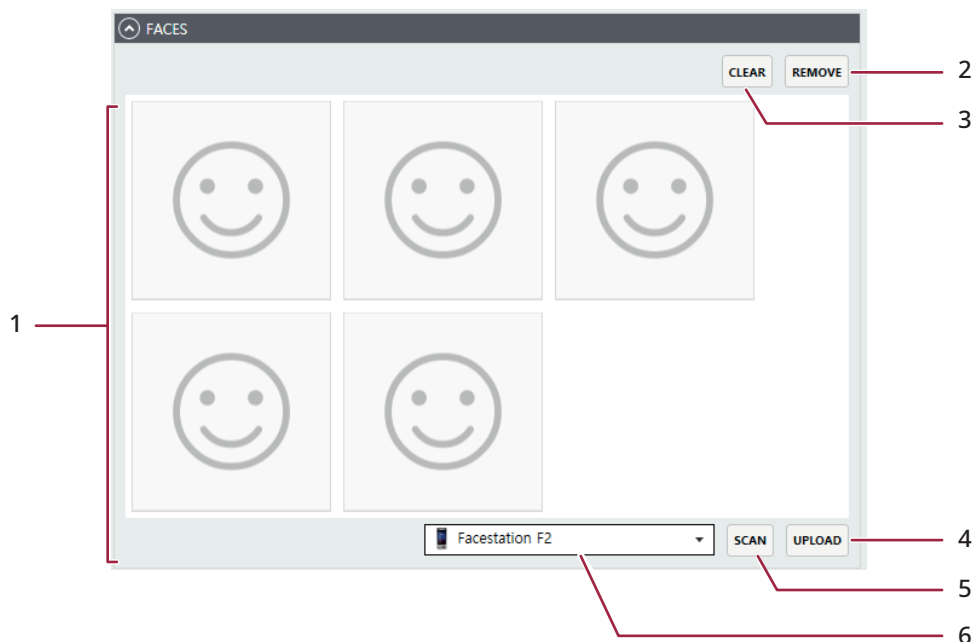
Whether you enroll the face on a server or on a specific device, that user's information is synchronized in real time on all devices connected to Suprema Integration with Genetec Security Center.



- You can register up to 5 face templates per user. On FaceStation F2, you can register up to 2 face templates per user.
- When registering a face, maintain a distance of 60 cm to 100 cm between the device and the face.
- Do not change your face expression.
- Do not wear masks, hats, or eye patches.
- Do not raise head up or lower head.
- Do not close your eyes.
- Do not wear thick makeup.
- Be careful not to display two faces on the screen. Register one person at a time.
- If you do not follow the instructions on the screen, the face registration 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 Genetec Security Center.



- 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

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

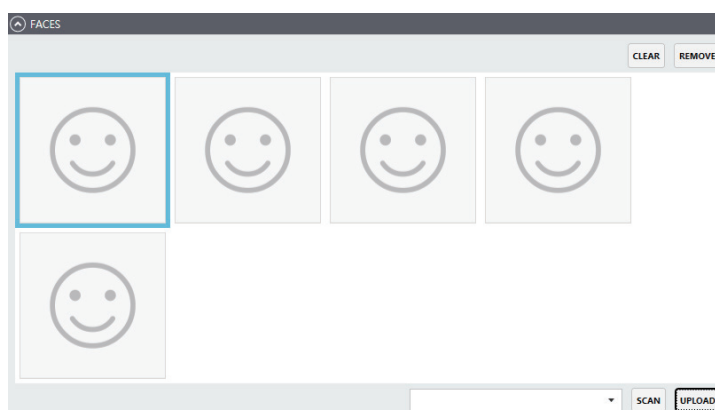
Enroll by uploading an image

You can upload the image to use as a visual face.



- FaceStation F2 must be connected when uploading an image.

- 1 Click .
- 2 Select a user and click **Manage Faces**.

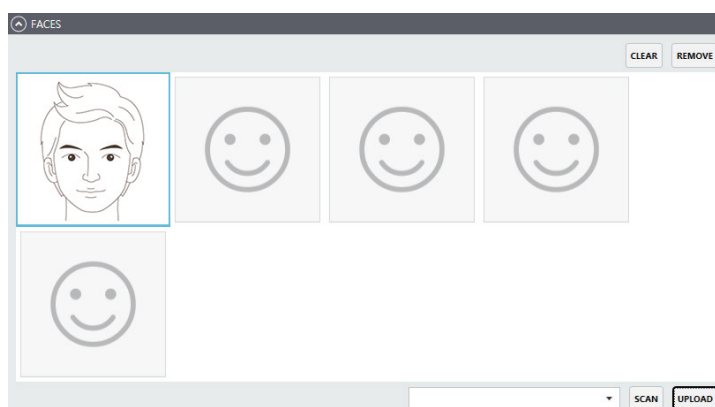


- 3 Click **UPLOAD** and select an image to be enrolled as the user's visual face.



- Supported image file size is up to 5MB.
- Supported image file formats are JPG, JPEG and PNG.
- Use an image with the user's face straight in the front. Do not use images taken with the user wearing a mask, hat, eye patch, etc., closing eyes, or frowning.

- 4 A visual face image will appear on the **Face** tab. Click **APPLY**. If the upload fails, check the device connection and the specifications of the image file. And then try again.



Enroll remotely

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 set the SMTP/POP.

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>).

- 1 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)**.

The screenshot shows the AWS IAM dashboard. The left sidebar contains navigation options: Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers, Account settings), Access reports (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity, Service control policies (SCPs)), and Feedback. The main content area is titled 'IAM dashboard' and includes:

- Security recommendations:** Two alerts: 'Add MFA for root user' and 'Deactivate or delete access keys for root user'. Buttons for 'Add MFA' and 'Manage access keys' are visible.
- IAM resources:** A summary table showing counts for User groups (1), Users (1), Roles (6), Policies (0), and Identity providers (0).
- What's new:** A section with updates for IAM features, including IAM Access Analyzer and IAM Amplify.
- AWS Account:** Information for Account ID (121421351848), Account Alias (121421351848), and a 'Create' button.
- Quick Links:** My security credentials, Tools (Policy simulator, Web identity federation playground), and other links.

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

The screenshot shows the 'User groups' page in the AWS IAM console. The left sidebar is the same as in the previous screenshot. The main content area is titled 'User groups (1) Info' and includes:

- A description: 'A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.'
- Buttons for 'Delete' and 'Create group'.
- A search bar: 'Filter User groups by property or group name and press enter'.
- A table with columns: Group name, Users, Permissions, and Creation time. One group is listed: 'VisualFaceRemoteEnrollment' with 1 user, 'Deftned' permissions, and a creation time of '18 minutes ago'.

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

The screenshot shows the AWS IAM console interface for creating a user group. The left sidebar shows the navigation menu with 'Access management' expanded to 'User groups'. The main content area is titled 'Create user group' and includes the following sections:

- Name the group:** The 'User group name' field is populated with 'VisualFaceRemoveEnrollmentGroup'. A note indicates a maximum of 128 characters using alphanumeric and '+-@_.' characters.
- Add users to the group - Optional (1):** A search bar is present, and a table below shows one user, 'jcahn', with 1 group and no last activity.
- Attach permissions policies - Optional (Selected 1/692):** A search bar shows '10 matches'. The 'Type' is set to 'AWS managed - job function'. A list of policies is shown, with 'AdministratorAccess' selected.

At the bottom right, there are 'Cancel' and 'Create group' buttons.

- 5 Select **Users** under **Access management** and click **Add users**.

The screenshot shows the AWS IAM console interface for the 'Users' page. The left sidebar shows the navigation menu with 'Access management' expanded to 'Users'. The main content area is titled 'Users (1)' and includes the following sections:

- Users (1) Info:** A description of an IAM user and an 'Add users' button.
- Search:** A search bar with the placeholder text 'Find users by username or access key'.
- Table:** A table with columns for 'User name', 'Groups', 'Last activity', and 'MFA'. One user, 'jcahn', is listed with the group 'VisualFaceRemoteEi' and a last activity of '13 minutes ago'.

The 'Add users' button is highlighted in blue.

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

The screenshot shows the 'Add user' page in the AWS IAM console. The user name 'Admin' is entered. Under 'Select AWS access type', the 'Access key - Programmatic access' option is selected. The 'Next: Permissions' button is visible at the bottom right.

aws Services Search for services, features, marketplace products, and docs [Alt+S] enr01supremavisual8070 Global Support

ADD USER 1 2 3 4 5

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name* Admin

[Add another user](#)

Select AWS access type

Select how these users will primarily access AWS. If you choose only programmatic access, it does NOT prevent users from accessing the console using an assumed role. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Select AWS credential type* **Access key - Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

Password - AWS Management Console access
Enables a **password** that allows users to sign-in to the AWS Management Console.

* Required Cancel **Next: Permissions**

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

The screenshot shows the 'Set permissions' step of the 'Add user' process. The 'Add user to group' button is selected. A table shows the 'VisualFaceRemoteEnrolment' group with 'AdministratorAccess' policy attached. The 'Next: Tags' button is visible at the bottom right.

aws Services Search for services, features, marketplace products, and docs [Alt+S] enr01supremavisual8070 Global Support

ADD USER 1 2 3 4 5

Set permissions

[Add user to group](#) [Copy permissions from existing user](#) [Attach existing policies directly](#)

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Add user to group

[Create group](#) [Refresh](#)

Search Showing 1 result

Group	Attached policies
<input checked="" type="checkbox"/> VisualFaceRemoteEnrolment	AdministratorAccess

Set permissions boundary

Cancel Previous **Next: Tags**

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

The screenshot shows the 'Add tags (optional)' step in the AWS IAM console. The breadcrumb trail at the top indicates the user is on step 3 of 5. The main heading is 'Add tags (optional)'. Below this, there is a brief explanation of IAM tags and a 'Learn more' link. A table with three columns: 'Key', 'Value (optional)', and 'Remove' is present. The 'Key' column contains a text input field with the placeholder text 'Add new key'. Below the table, it states 'You can add 50 more tags.' At the bottom of the form, there are three buttons: 'Cancel', 'Previous', and 'Next: Review'.

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

The screenshot shows the 'Review' step in the AWS IAM console. The breadcrumb trail at the top indicates the user is on step 4 of 5. The main heading is 'Review'. Below this, there is a brief explanation of the review process. The 'User details' section contains a table with the following information:

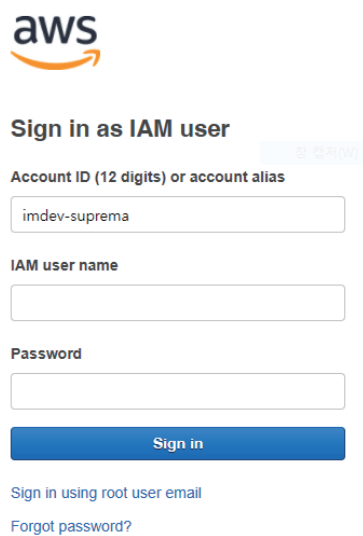
User name	Admin
AWS access type	Programmatic access - with an access key
Permissions boundary	Permissions boundary is not set

The 'Permissions summary' section states: 'The user shown above will be added to the following groups.' Below this is a table with two columns: 'Type' and 'Name'.

Type	Name
Group	VisualFaceRemoteEnrolment

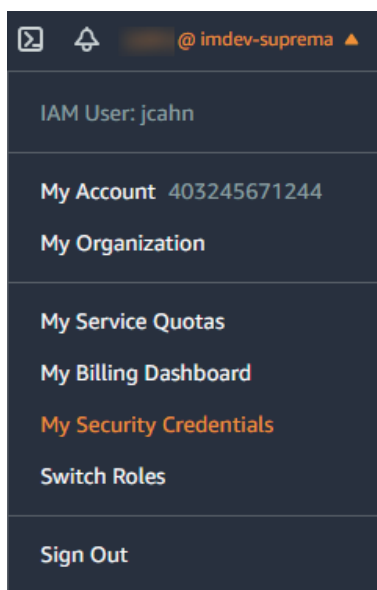
The 'Tags' section states: 'No tags were added.' At the bottom of the form, there are three buttons: 'Cancel', 'Previous', and 'Create user'.

10 Sign in again with the created IAM user account.



The screenshot shows the AWS IAM console's 'Sign in as IAM user' page. At the top is the AWS logo. Below it is the heading 'Sign in as IAM user' with a 'Sign in with' button. The page contains three input fields: 'Account ID (12 digits) or account alias' with the value 'imdev-suprema', 'IAM user name' (empty), and 'Password' (empty). A blue 'Sign in' button is positioned below the password field. At the bottom, there are links for 'Sign in using root user email' and 'Forgot password?'.

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.

My security credentials

Account details

User name [redacted] (created on 2021-09-15 14:21 UTC+0900)

User ARN [redacted]

AWS account ID [redacted]

Account canonical user ID [redacted]

AWS IAM credentials | AWS CodeCommit credentials | Amazon MCS credentials

Password for console access

As an IAM user, you need a password to access the AWS Management Console. We recommend changing your password on a regular basis. Your password is 0 days old. [Learn more](#)

[Change password](#)

Access keys for CLI, SDK, & API access

Use access keys to make programmatic calls to AWS from the AWS CLI, Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time.

For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation. **If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive.** [Learn more](#)

[Create access key](#)

Access key ID	Status	Created	Last used	Actions
[redacted]	Active	2021-09-15 14:21 UTC+0900	N/A	Make inactive Delete

Multi-factor authentication (MFA)

For increased security, we recommend configuring MFA to help protect your AWS resources. MFA requires users to type a unique authentication code from an approved authentication device when they sign in to AWS. [Learn more](#)

13 Click **Show secret access key**.

Create access key ✕

✓ Your new access key is now available.

This is the only time that the secret access key can be viewed or downloaded.
You cannot recover it later. However, you can create new access keys at any time.

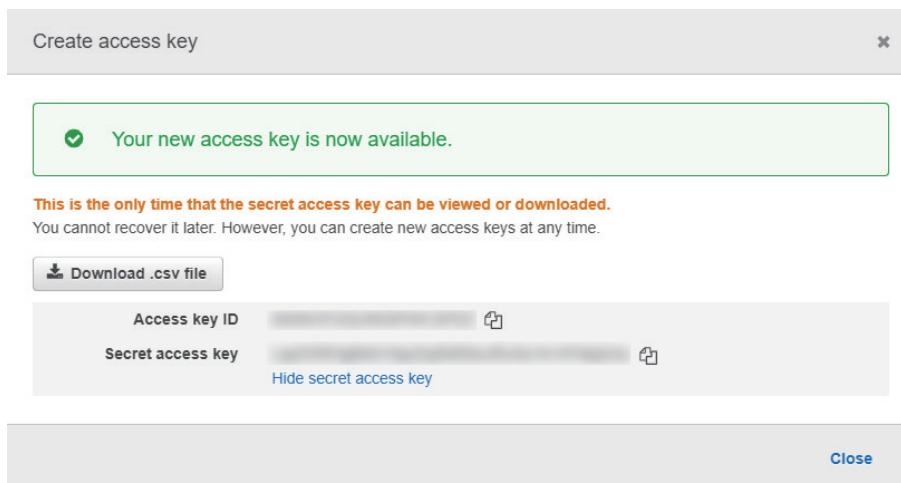
[Download .csv file](#)

Access key ID [redacted]

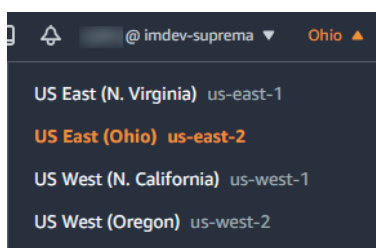
Secret access key [Show secret access key](#)

[Close](#)

- 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  → **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  → **Gmail**.
- 8 Click  → **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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

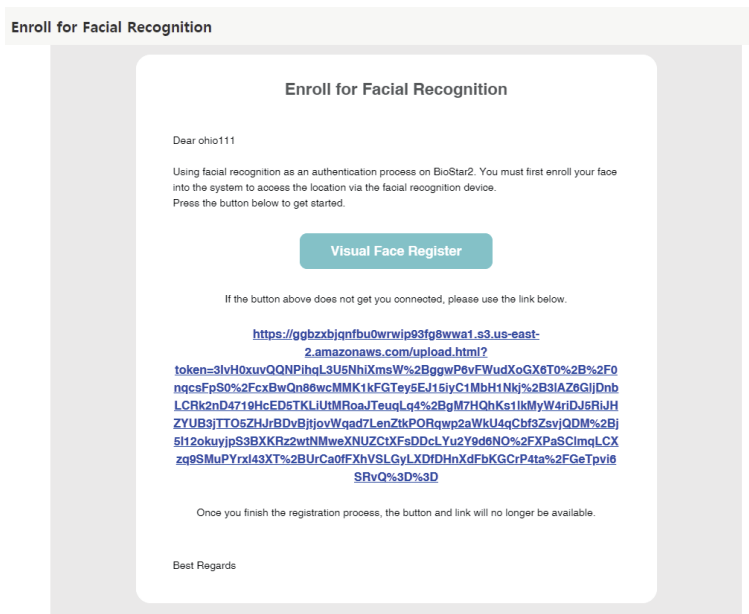
Enrolling a visual face remotely

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

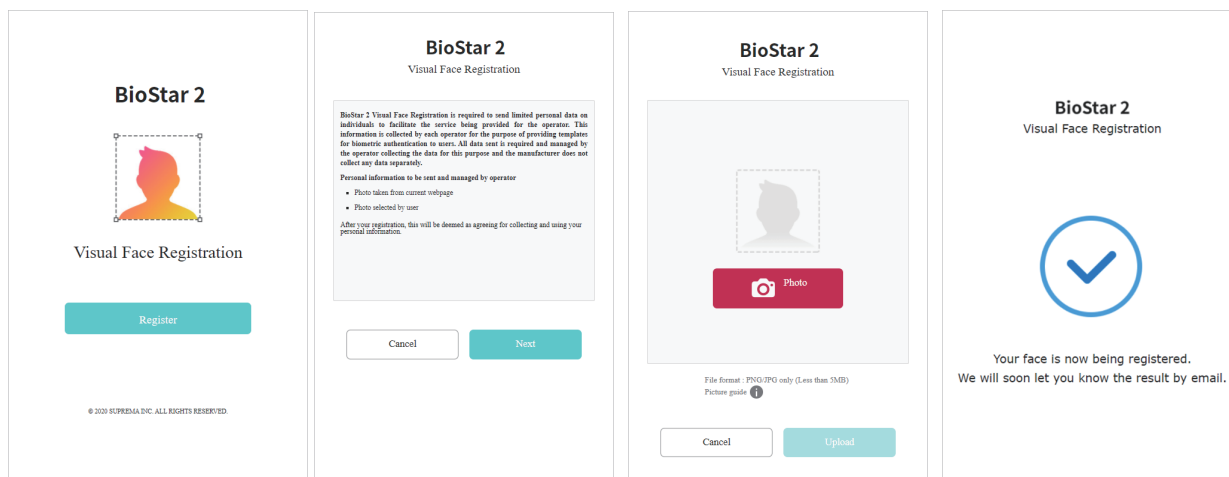
If all settings for using remote enrollment are completed and email address is registered to the user, a remote enrollment link will be automatically sent to the user by email. Users can access the link from their mobile device and enroll their visual face directly.

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

- 1 Click .
- 2 Select a user and click **Resend Mail**.
- 3 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.

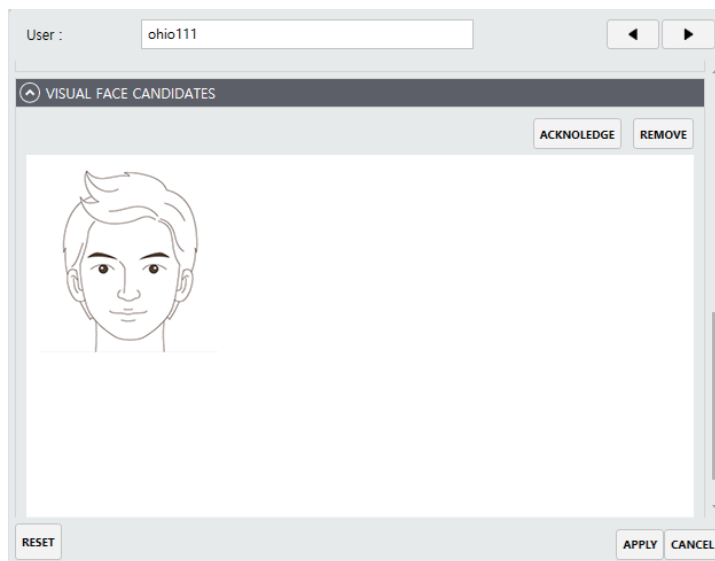
4 When the user completes the upload, a number is displayed in the column. Select that user and click **Manage Faces**.

Users										
Search...										
ID	NAME	EMAIL						EXPIRED	LAST UPD	
deviceadmin	deviceadmin		0	0	0	True	1	2030-12-31	2001-01-01	
999	[REDACTED]	[REDACTED]	1	0	1	False	1	0001-01-01	0001-01-01	
998	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01	
997	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01	
996	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01	
995	[REDACTED]	[REDACTED]	1	0	0	False	1	0001-01-01	0001-01-01	
994	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01	
993	[REDACTED]	[REDACTED]	0	0	0	False	0	0001-01-01	0001-01-01	
992	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01	
991	[REDACTED]	[REDACTED]	1	0	0	False	0	0001-01-01	0001-01-01	
990	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01	
99	[REDACTED]	[REDACTED]	1	0	1	False	0	0001-01-01	0001-01-01	
989	[REDACTED]	[REDACTED]	1	0	0	False	0	0001-01-01	0001-01-01	



- 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 **ACKNOWLEDGE**.



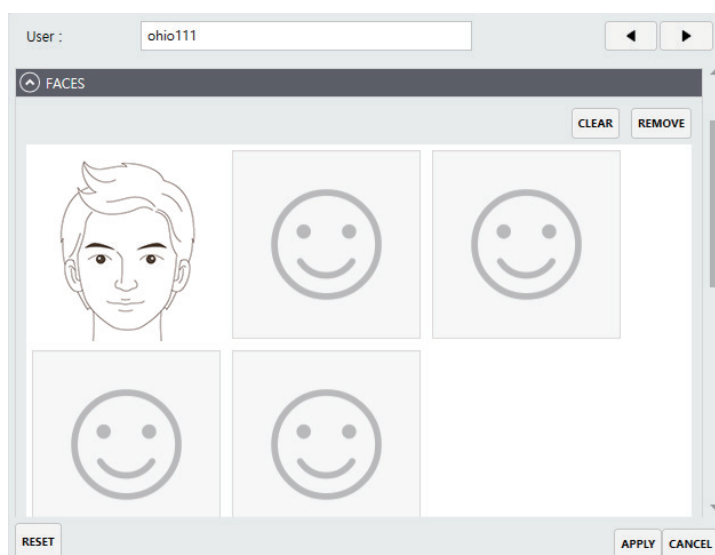
- 6 If the image extraction is successful, the following message is displayed. Click **OK** to continue.

Warp Success

Photo extraction succeeded. Do you want to proceed?



- 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.



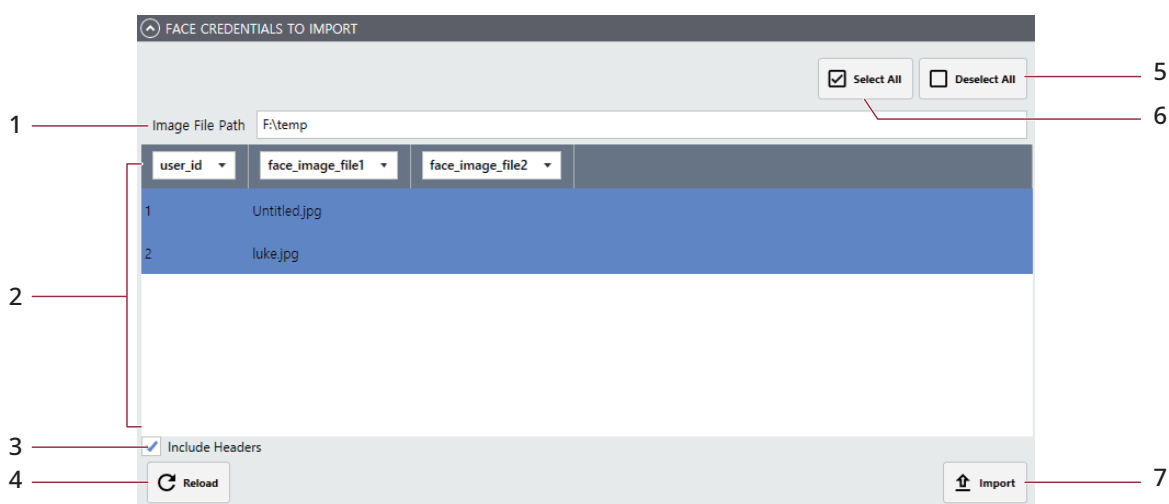
Enroll by CSV Import

You can enroll user's visual face by importing CSV.



- FaceStation F2 must be connected when importing the CSV file.
- Each column setting in the CSV file is as follows.
 - **user_id**: Enter the user ID.
 - **face_image_file1**: Enter the image file name including the extension.
 - **face_image_file2**: Enter the image file name including the extension.
- It is recommended to use the same path for the CSV file and visual face image files to be loaded.

- 1 Enter the file name of visual face image, including the extension in visual face column (**face_image_file1**, **face_image_file2**) of CSV file, and then save it.
- 2 Click → **Enroll Bulk Faces**.
- 3 Select the csv file to import and click **Open**.
- 4 Data of the selected CSV file is displayed. Set the necessary items.



No.	Item	Description
1	Image File Path	Set the path of image files. It is recommended to use the same path for the CSV file and visual face image files to be loaded.
2	User data	A list of loaded users is displayed.
3	Include Headers	If there is a header in the csv, click this option.
4	Reload	Load the csv file again.
5	Deselect All	Deselect selected users.
6	Select All	Select all users.
7	Import	Select users to import and click Import .



- If an error occurs during the import of CSV file information, you can upload it again after checking only the erroneous CSV data.

Failed to Upload Bulk Visualfaces

The failure information will be saved to a file.



If you see the error message, click **OK** and download the import failure result file.

	A	B	C	D	E	F
1	user_id	name	email	face_image_file1	face_image_file2	message
2	1			Untitled.jpg		empty warped result.
3	2			luke.jpg		empty warped result.


Resending user data to connected devices

You can send users to all devices connected to Suprema Integration with Genetec Security Center.

- 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 logs.

- 1 Click .
- 2 Check the logs.
To delete the logs, click **Clear**.

Monitoring

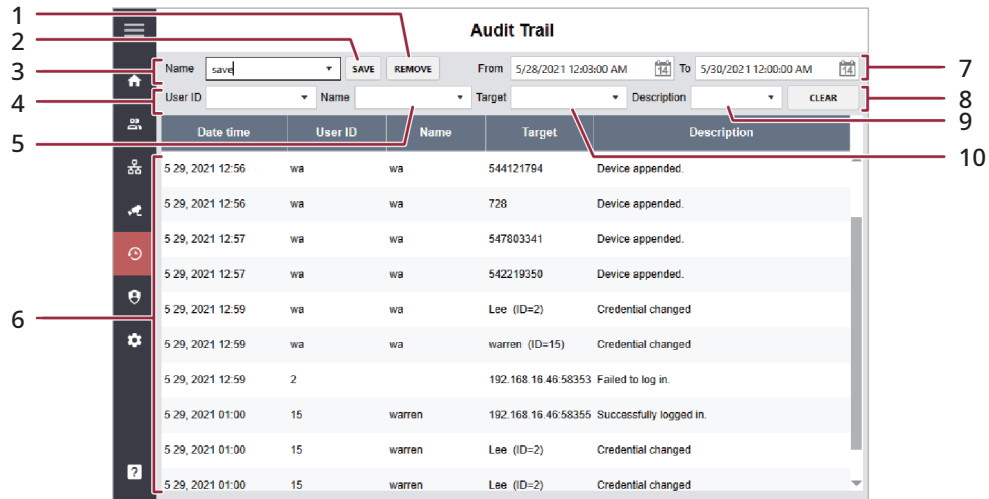
DATETIME	EVENT	USER ID(CARD ID)	DEVICE	INDEX
5 11, 2021 06:18	Authentication failed (Invalid credential)	1032	541531089	63441
5 11, 2021 06:18	Authentication failed (Invalid credential)	1032	541531089	63440
5 11, 2021 06:17	User update succeeded	wa	541531089	63439
5 11, 2021 06:17	User update succeeded	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

 Refresh

Audit Trail

Audit trail tracks user access information as well as all the information changed in the system. You can extract data using filters for each item.


- 1 Click .
- 2 Set filters.

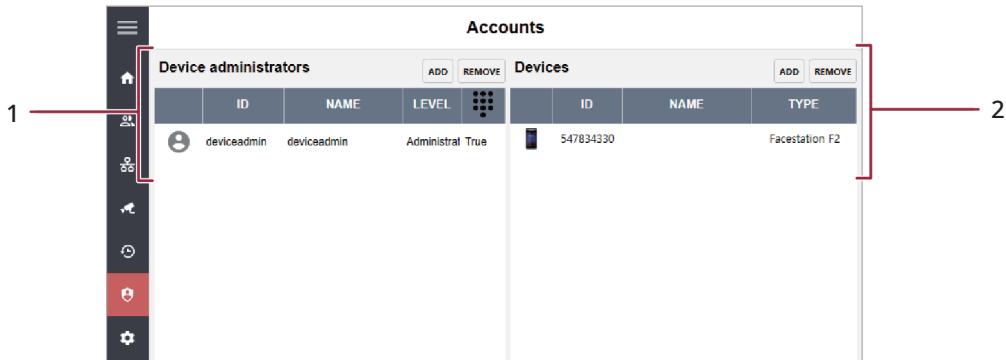


No.	Item	Description
1	REMOVE	Remove the preset filter.
2	SAVE	Save the current filter values.
3	Name	Select a preset filter.
4	User ID	Select a user ID.
5	Name	Select a username.
6	Audit List	Shows the audit list.
7	Period	Set the period.
8	CLEAR	Clear the current filter values.
9	Description	Select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

Accounts

You can assign administrator account levels to registered users.

- 1 Click .
- 2 Configure the settings.




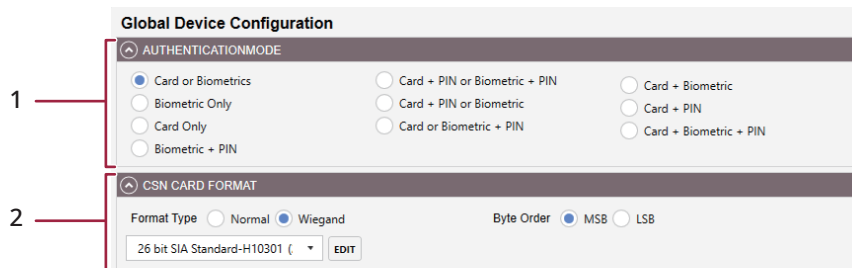
No.	Item	Description
1	Device administrators	<p>A list of administrators registered with Suprema Integration with Genetec Security Center is displayed. If a PIN is set in the administrator account, the administrator can log in directly to Suprema Integration with Genetec Security Center.</p> <ul style="list-style-type: none"> ADD: 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. <p>NOTE</p> <ul style="list-style-type: none"> The administrator account levels are as follows: <ul style="list-style-type: none"> 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 Genetec Security Center. 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 Genetec Security Center. Also, users can register user accounts in the client system and enroll users in devices. REMOVE: Remove an administrator.
2	Devices	<p>The list of devices that can be managed by the user selected in the Device administrator list is displayed.</p> <ul style="list-style-type: none"> 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	Configure the authentication modes of the device. Suprema Integration with Genetec Security Center can use any combinations of biometric credentials, card, and PIN as authentication modes.
2	CSN CARD FORMAT	Set the CSN card format used by the device. <ul style="list-style-type: none">• 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 Genetec Security Center, as in Genetec Security Center.• 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.

- 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
1	BASIC	<p>You can make basic settings related to visual face.</p> <ul style="list-style-type: none"> • Use Visual Face: Click to use the visual face as a credential. • Use Remote Enrollment: Click to use the visual face remote enrollment. • 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.

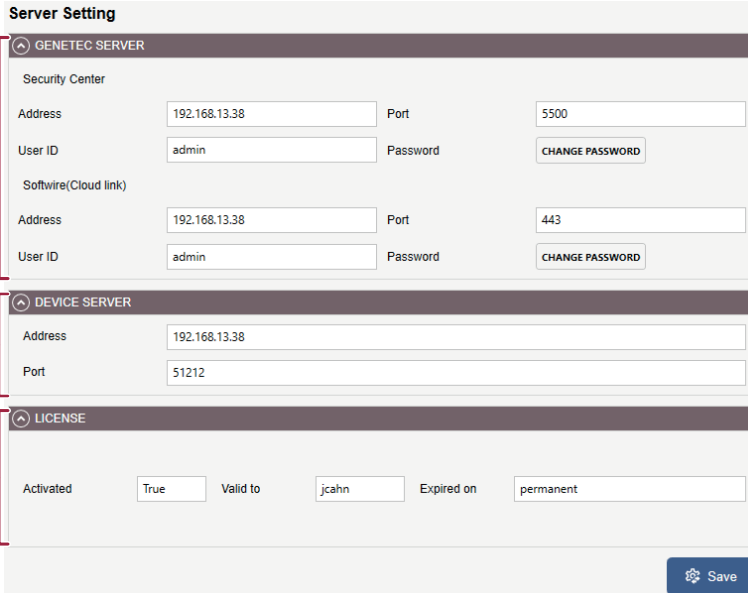
2	SMTP SETTING	<p>Set up SMTP to send emails including remote enrollment link.</p> <ul style="list-style-type: none"> • Server Name: Enter the SMTP server name. • Description: Enter the description. • Server Address: Enter the SMTP server address. SMTP server address is the same form as 'smtp. Email 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. • 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. <div data-bbox="424 667 1457 864" style="border: 1px solid #ccc; padding: 10px; text-align: center;"> <p>OK</p> <p>Sending test mail succeeded</p> <p><input type="button" value="OK"/></p> </div> <ul style="list-style-type: none"> • Sending Delay: Enter the sending delay time. It is recommended to set 3 to 5 seconds. <p>NOTE</p> <ul style="list-style-type: none"> • For each SMTP information, refer to Checking SMTP/POP3 information.
3	POP3 SETTING	<p>Set up POP3 to receive emails from users with remote enrollment information.</p> <ul style="list-style-type: none"> • 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. • 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. <p>NOTE</p> <ul style="list-style-type: none"> • For each POP3 information, refer to Checking SMTP/POP3 information.
4	AWS Activation	<p>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).</p> <div data-bbox="424 1621 1457 1917" style="border: 1px solid #ccc; padding: 10px;"> <p>AWS Activation Input the AWS account and confirm.</p> <p>Input AWS Access Key ID <input type="text"/></p> <p>Input AWS Secret Access Key <input type="text"/></p> <p>Input Default Region Name <input type="text" value="us-east-2"/></p> <p>Input Statement ID <input type="text"/></p> <p style="text-align: center;"><input type="button" value="OK"/> <input type="button" value="Cancel"/></p> </div> <p>NOTE</p> <ul style="list-style-type: none"> • 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 Genetec Security Center and devices. You can also activate the purchased license.

- 1 Click .
- 2 Configure the settings.



Server Setting

GENETEC SERVER

Security Center

Address: 192.168.13.38 Port: 5500

User ID: admin Password: CHANGE PASSWORD

Software(Cloud link)

Address: 192.168.13.38 Port: 443

User ID: admin Password: CHANGE PASSWORD

DEVICE SERVER

Address: 192.168.13.38

Port: 51212

LICENSE

Activated: True Valid to: jahn Expired on: permanent

Save

No.	Item	Description
1	GENETEC SERVER	<ul style="list-style-type: none"> Address: Enter the IP address of both the Genetec Security Center server and Software. Port: Enter the port number of both the Genetec Security Center server and Software. User ID: Enter the operator ID of Suprema Integration with Genetec Security Center. Password: Click CHANGE PASSWORD to change the current password.
2	DEVICE SERVER	<ul style="list-style-type: none"> Address: Enter the IP address to use in the device. Port: Enter the port number to use in the device.
3	LICENSE	<ul style="list-style-type: none"> Activated: It shows the current license status. If the license is activated, it shows True. If the license is deactivated, it shows False. Valid to: It indicates who has the license. Expired on: It indicates the valid date of the license. <p>NOTE</p> <ul style="list-style-type: none"> You can find contact details of your local distributor on the Suprema website (https://www.supremainc.com/en/wheretobuy/list.asp).

- 3 Click **Save** to save the settings.

Enrollment Helper

You can enroll fingerprints and faces by opening a window for enrollment directly from Config Tool by using Enrollment Helper.



- You can choose whether to install the Enrollment Helper when you install the Suprema Integration with Genetec Security Center.

Enrolling credentials with Enrollment Helper

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

Enrolling credentials to existing users

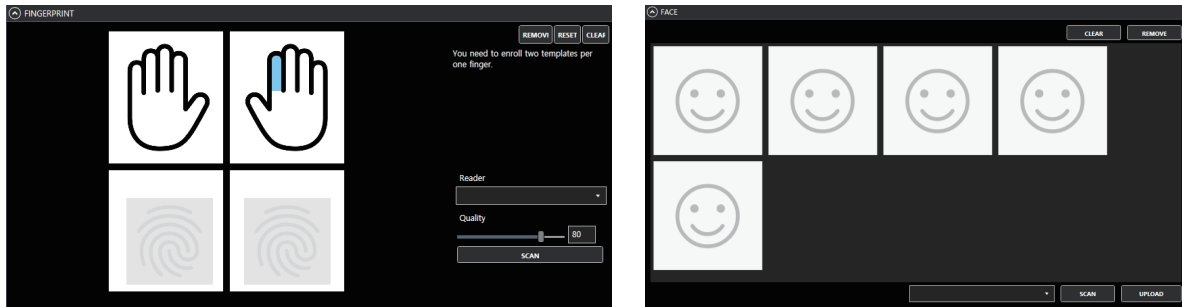
- 1 Run **Config Tool**.
- 2 Click **Config Tool > Tasks > Cardholder management**.
- 3 Select a user from the list and click **Modify** at the bottom left corner of the window.
- 4 Click **Enroll Biometrics**.

The screenshot shows the user management interface for a user named Chloe Kim. The interface includes fields for First name (Chloe) and Last name (Kim), and a Last access status of Unknown. There are buttons for Identity and Access rules. The Status section shows the user is Active, with a Deactivate button, and displays the activation date and time (2021-05-27 오전 8:27:45) and an expiration date of Never. The Cardholder group is set to Unassigned. There are fields for Email address and Mobile phone number. A Credential section has a button to Add a credential. At the bottom, there are buttons for Enroll Biometrics, Cardholder activities, Audit trails, Close, Save, and Save and close.

- 5 Enter the user ID and PIN that you are using in Suprema Integration with Genetec Security Center and click **Login**.

The screenshot shows a dialog box titled "Input your ID and PIN". It contains three input fields: Host (192.168.120.37), User ID, and PIN. The PIN field is masked with dots. There are buttons for Login and Cancel at the bottom right.

- 6 Enroll fingerprints by referring to **Enrolling a face**. Or, Enroll faces by referring to **Enrolling a face**.



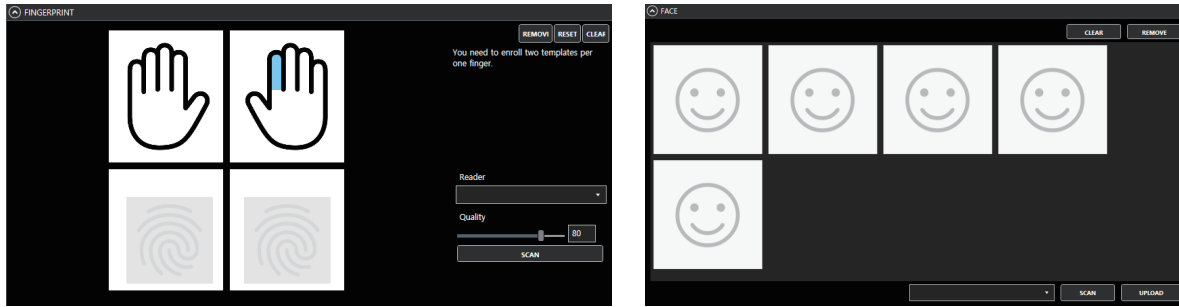
- 7 Click **APPLY** to save the settings.

Enrolling credentials to new users

- 1 Run Config Tool.
- 2 Click **Config Tool > Tasks > Cardholder management**.
- 3 Click **New** at the bottom left corner of the window.
- 4 Enter user information and click **Save**.

- 5 Click **Enroll Biometrics**.
- 6 Enter the user ID and PIN that you are using in Suprema Integration with Genetec Security Center and click **Login**.

- 7 Enroll fingerprints by referring to [Enrolling fingerprint](#). Or, Enroll faces by referring to [Enrolling a face](#).



- 8 Click **APPLY** to save the settings.

Troubleshooting

This troubleshooting provides information to solve unexpected issues that you may encounter when using Suprema Integration with Genetec Security Center.

Classification	Problem	Solution
License	I cannot create an access control unit due to a license error.	Enter "localhost" for Hostname instead of an IP address.
Visual Face	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 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'.	<p>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.</p> <ol style="list-style-type: none"> 1 Sign in to your AWS account. 2 Click Services → Identity and Access Management (IAM). 3 Select Roles under Access management. 4 Select faceDetect-role, sendMail-role, and tokenValid-role on the Roles list and click Delete. 5 Click Services → Lambda → Functions. 6 Select tokenValidLambda, sendMailLambda, and faceDetectLambda on the Functions list and click Actions → Delete. 7 Click Services → API Gateway → APIs. 8 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

Disclaimers

- Information in this document is provided in connection with Suprema products.
- The right to use is acknowledged only for Suprema products included in the terms and conditions of use or sale for such products guaranteed by Suprema. No license, express or implied, by estoppel or otherwise, to any intellectual property is granted by this document.
- Except as expressly stated in an agreement between you and Suprema, Suprema assumes no liability whatsoever, and Suprema disclaims all warranties, express or implied including, without limitation, relating to fitness for a particular purpose, merchantability, or noninfringement.
- All warranties are VOID if Suprema products have been: 1) improperly installed or where the serial numbers, warranty date or quality assurance decals on the hardware are altered or removed; 2) used in a manner other than as authorized by Suprema; 3) modified, altered or repaired by a party other than Suprema or a party authorized by Suprema; or 4) operated or maintained in unsuitable environmental conditions.
- Suprema products are not intended for use in medical, lifesaving, life-sustaining applications, or other applications in which the failure of the Suprema product could create a situation where personal injury or death may occur. Should you purchase or use Suprema products for any such unintended or unauthorized application, you shall indemnify and hold Suprema and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Suprema was negligent regarding the design or manufacture of the part.
- Suprema reserves the right to make changes to specifications and product descriptions at any time without notice to improve reliability, function, or design.
- Personal information, in the form of authentication messages and other relative information, may be stored within Suprema products during usage. Suprema does not take responsibility for any information, including personal information, stored within Suprema's products that are not within Suprema's direct control or as stated by the relevant terms and conditions. When any stored information, including personal information, is used, it is the responsibility of the product users to comply with national legislation (such as GDPR) and to ensure proper handling and processing.
- You must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Suprema reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them.
- Except as expressly set forth herein, to the maximum extent permitted by law, the Suprema products are sold "as is".
- Contact your local Suprema sales office or your distributor to obtain the latest specifications and before placing your product order.

Copyright Notice

Suprema has the copyright of this document. The rights of other product names, brands, and trademarks belong to individuals or organizations who own them.

Open Source License

gin-gonic/gin

The MIT License (MIT)

Copyright (c) 2014 Manuel Martínez-Almeida

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to

whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Gorm

The MIT License (MIT)

Copyright (c) 2013-NOW Jinzhu <wosmvp@gmail.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Go-ps

The MIT License (MIT)

Copyright (c) 2014 Mitchell Hashimoto

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

google/uuid

Copyright (c) 2009,2014 Google Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following

disclaimer.

* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

gorilla/websocket

Copyright (c) 2013 The Gorilla WebSocket Authors. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

CommandLineParser

The MIT License (MIT)

Copyright (c) 2005 - 2015 Giacomo Stelluti Scala & Contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

MahApps Metro

MIT License

Copyright (c) .NET Foundation and Contributors. All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

MahApps Metro IconPacks

The MIT License (MIT)

Copyright (c) 2016-2019 MahApps, Jan Karger

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Newtonsoft.Json

The MIT License (MIT)

Copyright (c) 2007 James Newton-King

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Apache/log4net

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

APPENDIX: How to apply the Apache License to your work.

To apply the Apache License to your work, attach the following boilerplate notice, with the fields enclosed by brackets "[]" replaced with your own identifying information. (Don't include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same "printed page" as the copyright notice for easier identification within third-party archives.

Copyright [yyyy] [name of copyright owner]

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

CovenantSQL/go-sqlite3-encrypt

The MIT License (MIT)

Copyright (c) 2014 Yasuhiro Matsumoto

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

mattn/go-sqlite3

The MIT License (MIT)

Copyright (c) 2014 Yasuhiro Matsumoto

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

tdewolff/Minify

Copyright (c) 2015 Taco de Wolff

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

go-ole/go-ole

The MIT License (MIT)

Copyright © 2013-2017 Yasuhiro Matsumoto, <mattn.jp@gmail.com>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

ControlzEx/ControlzEx

The MIT License (MIT)

Copyright (c) 2015-2019 Jan Karger, Bastian Schmidt

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.



Suprema Inc.

17F Parkview Tower, 248, Jeongjail-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13554, Rep. of KOREA
Tel: +82 31 783 4502 | Fax: +82 31 783 4503 | Inquiry: sales_sys@supremainc.com



For more information about Suprema's global branch offices,
visit the webpage below by scanning the QR code.
<http://www.supremainc.com/en/about/contact-us.asp>