

## Suprema Webinar 2020

### Customization Case studies: – Ticket Printing & QR Code Detection

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#### Speaker

Eduardo Palma

Pre-Sales Technical Manager | Suprema LATAM

Date: Wednesday, June 17, 2020

Time: 8:00 AM, GMT-5, Mexico (CDT)

Recommended to attend

North America, Latin America, Europe, Africa,  
Europe, Middle East

Date: Thursday, June 18, 2020

Time: 6:30 PM, GMT-5, Mexico (CDT)

Recommended to attend

Asia

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- ✓ After this webinar, you can also find the information with including QA list to the below site. Search **Suprema Webinar** on the site. Or, simply google it.
- ✓ <https://support.supremainc.com>



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#### [CoreStation] All about CoreStation 📄

Created by: Kate Yu

Modified on: Sun, Apr 19, 2020 at 9:25 PM

#### Suprema Webinar\_01 : All about CoreStation

CoreStation is Suprema's Intelligent Biometric Controller. It's 4 door access controller. It matches all types of credentials such as Card, Biometrics and Mobile credential. It is compatible with all standard readers. Because of easy scalability of the system, it's suitable for SMB to Enterprise system. It is also easy to setup and configure through Webserver and application.

For more details about the webinar, please refer the below description, and download the attached presentation file.  
(The recorded Video File: Click [here](#).)

#### What we covered in this webinar:

Knowing CoreStation and selling points  
Learning how to make Centralized System with CoreStation

# Contents

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## I. Integration with thermal printer

How to make a customization request

Connection & configuration

Demo and Q&A

## II. How to configure QR authentication

How to make a customization request for QR code ?

Configuration

Demo and Q&A

## Integration with thermal printer

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Suprema has its platform for access control and time and attendance. But sometimes clients require additional applications that are not found in Biostar 2, for these special projects we can work on something we call "customizations".

We have some projects implemented using Suprema devices and thermal printers, for example TELCEL in México. They have installed 800 Biostation A2 in different locations around the country.

As I mention, we cannot cover all situations with Biostar 2, but we can work on specific projects through customizations, for this it is necessary to verify that it is possible to carry them out.

In most cases, customers asked us about these types of integrations because they need to check if employees arrive on time or have a meal during their workday and also some companies pay canteen, so they must have proof of the meals they provided during the day, week or month.

# Integration with thermal printer

What do we need to use a printer with Suprema device ?

We need to consider a thermal printer, in this case we can do the integration with any brand of printer, but as long as it has serial communication. You can find two connectors for serial communication called DB9 and DB25 you can identify for the number of pines that they have.



**Some printers have DB9. It is important to consider before to start with the customization process, because maybe you need a converter from DB25 and DB9**



DB9 connector, you should find 9 pines



DB25 connector, you should find 25 pines

# Integration with thermal printer

The most of printers work with serial communication, so we need to have a converter from RS232 to RS485, like you can see in the following picture:



We recommend to use a passive converter, if you have a voltage in the device, the communication between printer and suprema could not work properly.



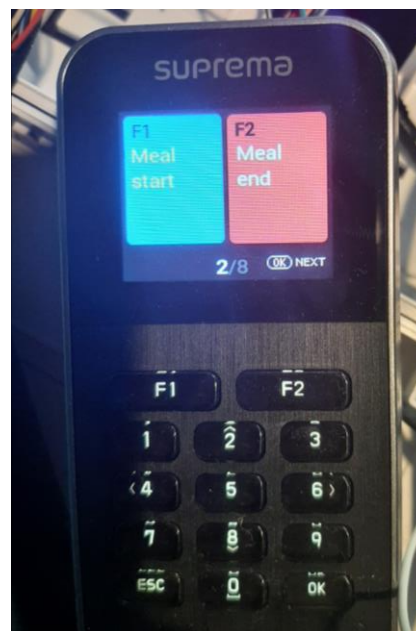
If your converter has a D9 connection you should to consider a converter to DB25 if you printer does not have this type of connection. You could ask to printer provider about the connection.

## Integration with thermal printer

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Once we have the printer and the converter, we need to consider the SUPREMA device that you want to use for this application. We recommend the devices with screen because you can configure codes and with this you can have the "action" in the ticket. For example check in, check out, meal start or meal end.. Etc.

**We can use BioStation series, FaceStation 2, Facelite and Biolite N2.**



Example: T&A key configured in BLN2

# How to make a customization request?

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Firstly, you need to contact to your Suprema Local Partner, Authorized partner o dealer. After that they need to open a ticket in our technical support platform ([support.supremainc.com](https://support.supremainc.com)). **All customization process has a cost for that reason it's mandatory make the request directly to SUPREMA:**

Once we have the ticket, our technical support will send the customization request form ( It's mandatory). You need to fill it and send us. You can refer to the following explanation:

## Custom Information

This information is necessary so that our sales team could consider the priority of the customization.

Project name: **You can put the name of you customer if you don't have project name or the name of your company.**

Requested Delivery Date (when you need to receive the firmware): **It's very important to specified the date that you need it, because with this our RnD team will tell us if possible to delivery the customization on time.**

Project requirements (as much detail as possible): **Like I mention before you need to explain the information that you want in the ticket. You can refer to the following sample:**

Company Name: Suprema  
Meal Ticket

Date: <%DATE%> Time: <%TIME%>  
Employee ID : <%ID%> CODE: <%TNA%>  
Employee Name: <%NAME%>



# How to make a customization request?

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Project size (i.e BioStation2 x 100): **We recommend to put the total of devices that you will have in the project with this custom firmware.**

Firmware and software to be customized (BS2-OMPW 1.3 and BioStar 2.5 / or latest firmware): **You need to specify the model, firmware version that you want to custom and the version of BioStar 2 that you will use in the project. If you will integrate the suprema devices with a third party you need to mention that you will use SDK as well.**

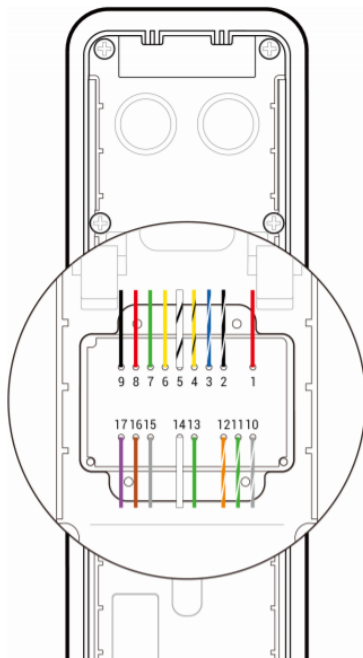


# Connection & configuration

After you finish the request customization and our RnD team send you the FW, you are ready to make the integration!!

As I mention before, you should to consider a serial converter, thermal printer with serial communication and the Suprema Device. The connection is as follows:

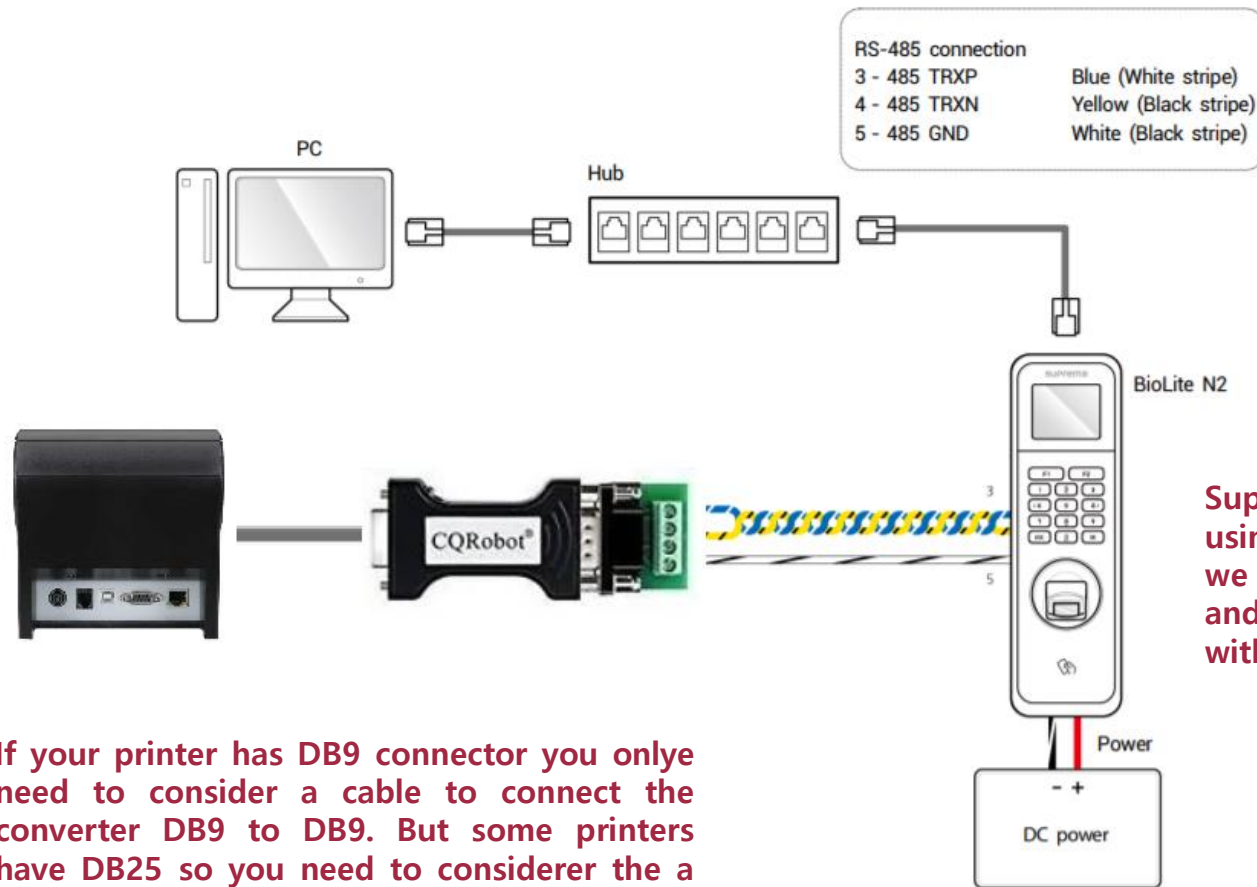
Cables and connectors



Pin	Name	Color
1	PWR +VDC	Red
2	PWR GND	Black (White stripe)
3	485 TRXP	Blue (White stripe)
4	485 TRXN	Yellow (Black stripe)
5	485 GND	White (Black stripe)
6	ENET RXN	Yellow
7	ENET RXP	Green
8	ENET TXN	Red
9	ENET TXP	Black
10	RLY NO	Gray (White stripe)
11	RLY COM	Green (White stripe)
12	RLY NC	Orange (White stripe)
13	WG D0	Green
14	WG D1	White
15	TTL GND	Gray
16	TTL IN 1	Brown
17	TTL IN 0	Purple

Firstly you need to identify the RS485 cables in the Suprema device. You can refer to the user manual of included in the box of your device or in our website [supremainc.com](https://supremainc.com) in the products section.

# Connection & configuration



If your printer has DB9 connector you only need to consider a cable to connect the converter DB9 to DB9. But some printers have DB25 so you need to consider the a converter cable for this connection.

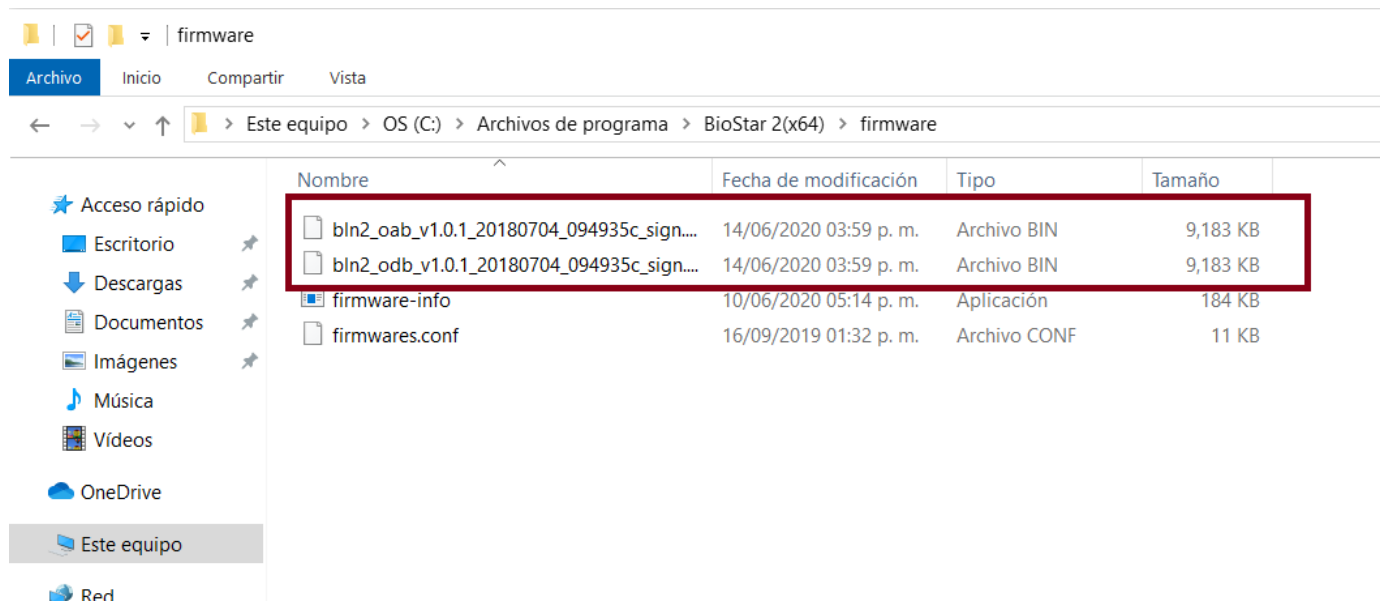
Suprema device should connect using TCP/IP to BioStar because we need to configure the codes and the bauds rate in according with the configuration printer.

# Connection & configuration

How to upgrade your custom firmware?

You can refer to the following steps:

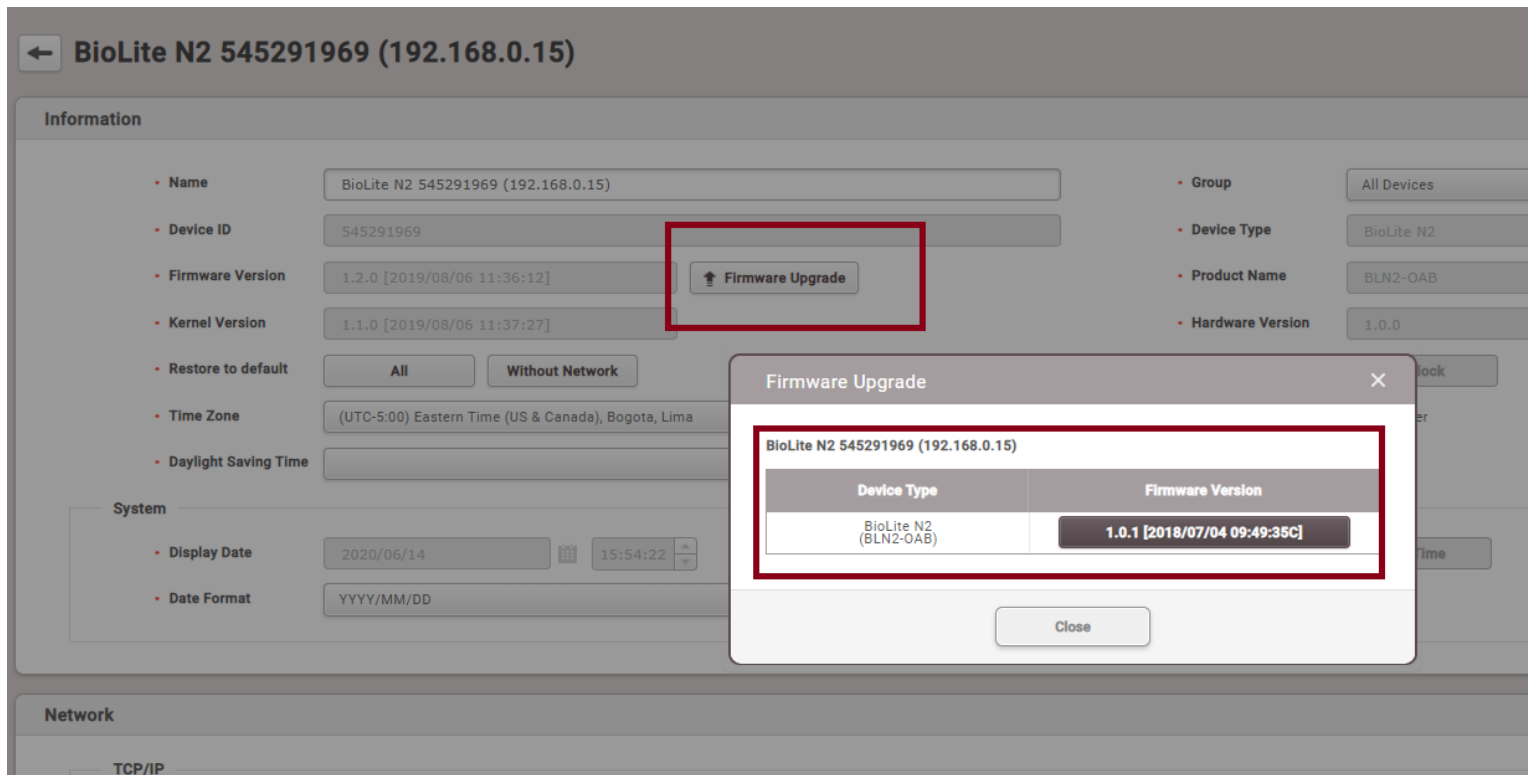
1.- Paste your custom firmware in the BioStar 2 folder: **C:\Program Files\BioStar 2(x64)\firmware**



# Connection & configuration

How to upgrade your custom firmware?

2.- Login to BioStar 2 and add the device. Upgrade the firmware as you can see in the following picture:



# Connection & configuration

Configuring the bauds rate and code in the device. In the NETWORK section:

Network

TCP/IP

☐ Use DHCP

• IP Address: 192.168.0.15

• Subnet Mask: 255.255.255.0

• Gateway: 192.168.0.1

• Device Port: 51211

• DNS Server Address:

Server

☐ Device ▶ Server Connection

• Server Address:

• Server Port: 51212

Serial

• RS485: Master

• Baud Rate: 115200, 9600, 19200, 38400, 57600, 115200

Authentication

• Auth Mode: Always

Configure as Master device

You need to configure the bauds rate. We recommend to configure before your printer. Usually in the user manual you can find how to set the bauds.

# Connection & configuration

Configuring the bauds rate and code in the device. In the ADVANCED section:

The screenshot shows the 'Advanced' configuration page. Under the 'Administrator' section, there are three rows, each with a 'Name' label. Under the 'T&A' section, the 'T&A Mode' is set to 'By User'. The 'T&A Required' toggle is turned on. Below this is a table with two columns: 'T&A Event Key' and 'Label'. The table contains four rows of data:

T&A Event Key	Label
Code 1	Check In
Code 2	Check out
Code 3	Meal start
Code 4	Meal end

- 1.- Set T&A mode a By user
- 2.- Enable the T&A required option
- 3.- Write the labels that you can use in the device for every authentication success.

# DEMO, Q&A

**suprema**  
SECURITY & BIOMETRICS





## QR code as authentication credential

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As you know, in BioStar 2 we have different authentications modes like fingerprints, facial recognition, RFID card and PINS, but we had projects where the customers needs to use a different authentication mode for example barcodes or QR codes. For this kind application you can contact to SUPREMA and together search a solution for this applications.

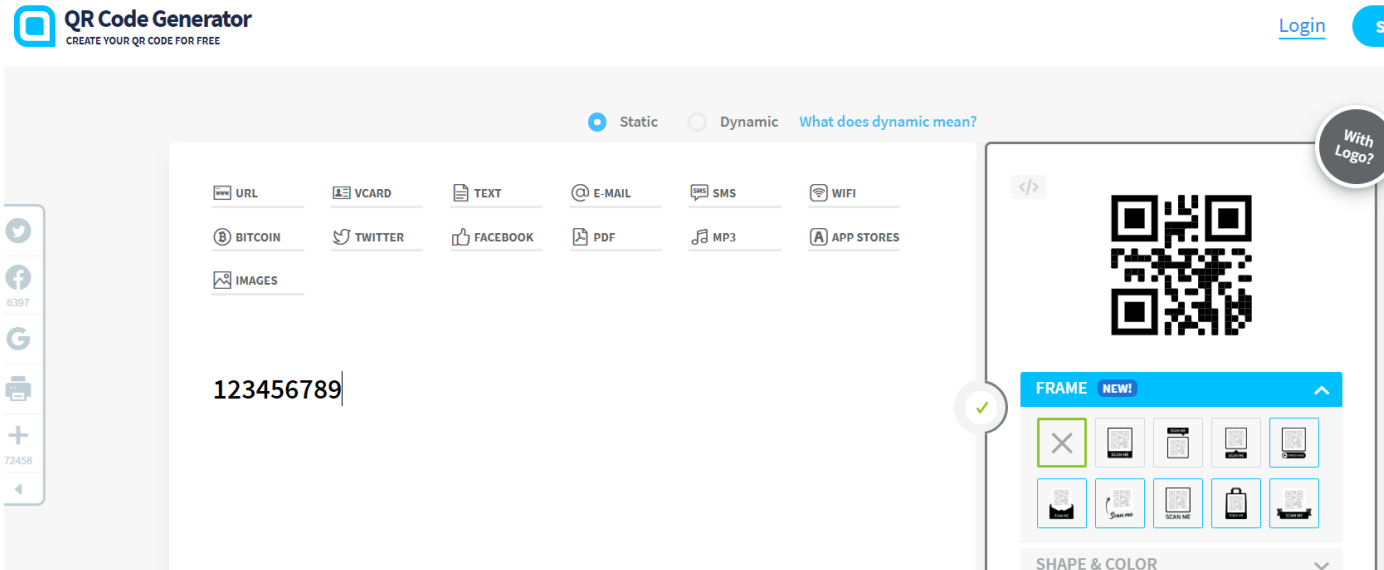
We know that cover all situations with BioStar 2 is complicated because for example, the customer needs to use a QR code only for visitor people and our module included in BioStar 2 can not add a QR code as authentication, in this case we can make a customization request process.

If you have a similar project or you need to use a QR code for another kind application, you can contact to SUPREMA for more information.

# How to configure QR authentication

What do we need to use QR code as Credential?

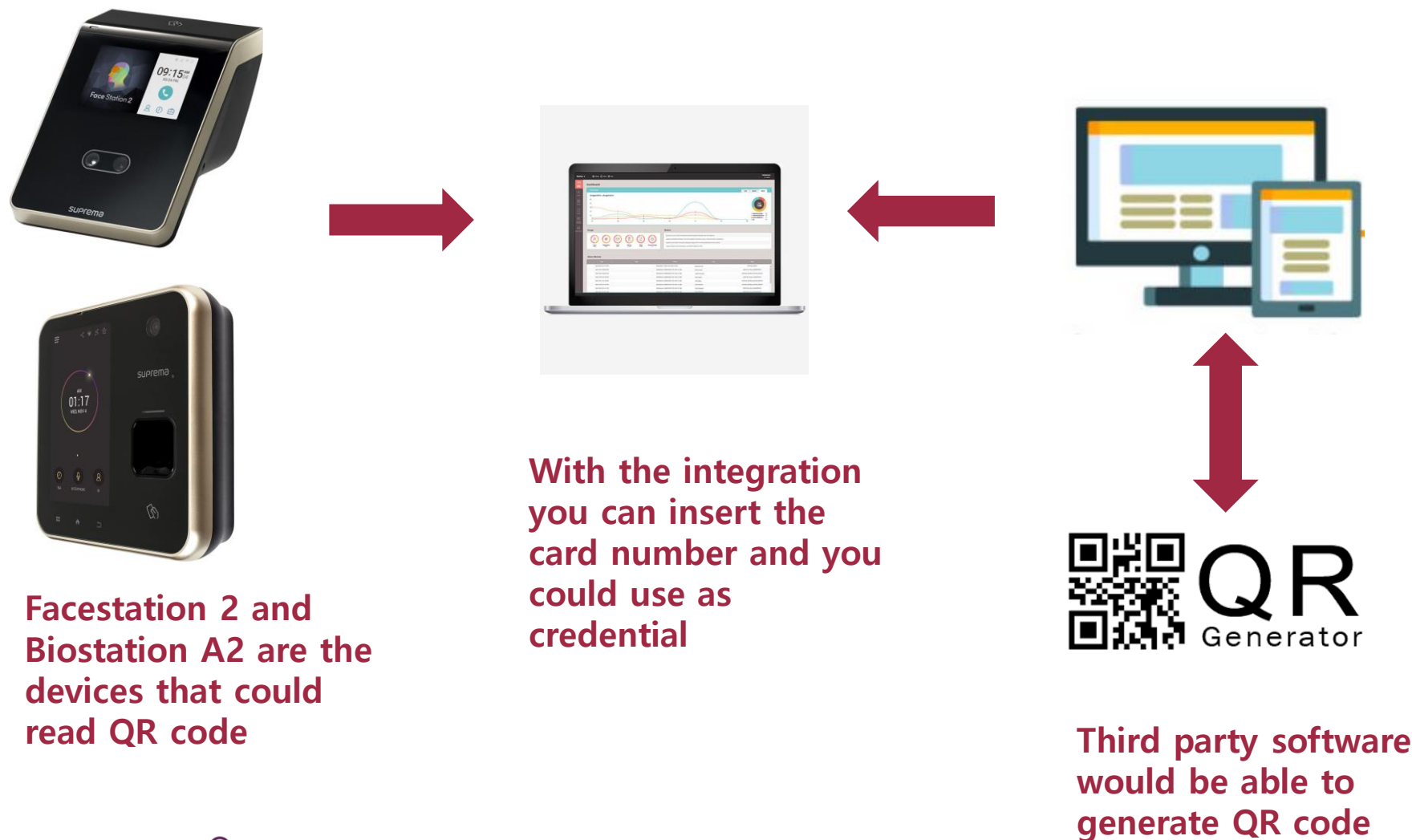
Firstly we need to explain that BioStar 2 does not have a generator QR code, so you need to consider a third party software or application. We have some projects where the end user has an integration between the generator software of QR and BioStar 2.



For this demonstration we will use a number 123456789 as a card number and the QR generated.

# How to configure QR authentication

As I mention, BioStar 2 can not generate QR code, so the integration with our platform will be develop by the customer or end user.



## 6.- How to make a customization request for QR code ?

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The process is the same that we mentioned before. You need to contact to your Suprema Local Partner, Authorized partner or dealer. After that they need to open a ticket in our technical support platform ([support.supremainc.com](https://support.supremainc.com)). **All customization process has a cost for that reason it's mandatory make the request directly to SUPREMA:**

Once we have the ticket, our technical support will send the customization request form ( It's mandatory). You need to fill it and send us. You can refer to the following explanation:

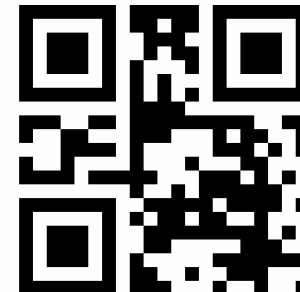
### **Custom Information**

This information is necessary so that our sales team could consider the priority of the customization.

Project name: **You can put the name of you customer if you don't have project name or the name of your company.**

Requested Delivery Date (when you need to receive the firmware): **It's very important to specified the date that you need it, because with this our RnD team will tell us if possible to delivery the customization on time.**

Project requirements (as much detail as possible): **For this customization we recommend to send us a sample of the QR code that you want to read:**



# How to make a customization request for QR code ?

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Project size (i.e BioStation2 x 100): **We recommend to put the total of devices that you will have in the project with this custom firmware.**

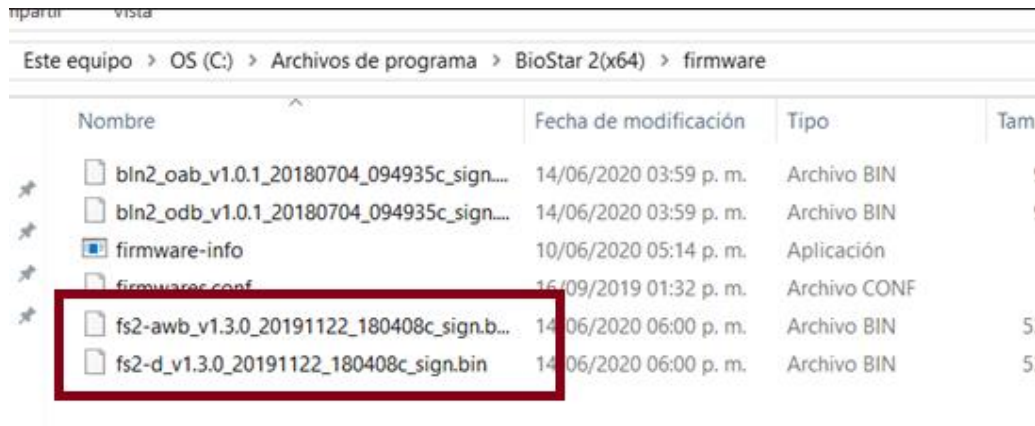
Firmware and software to be customized (BS2-OMPW 1.3 and BioStar 2.5 / or latest firmware):  
**You need to specify the model. For this customization you need to consider only FaceStation 2 and BioStation A2 models. Facelite's camera does not support QR code reading .**



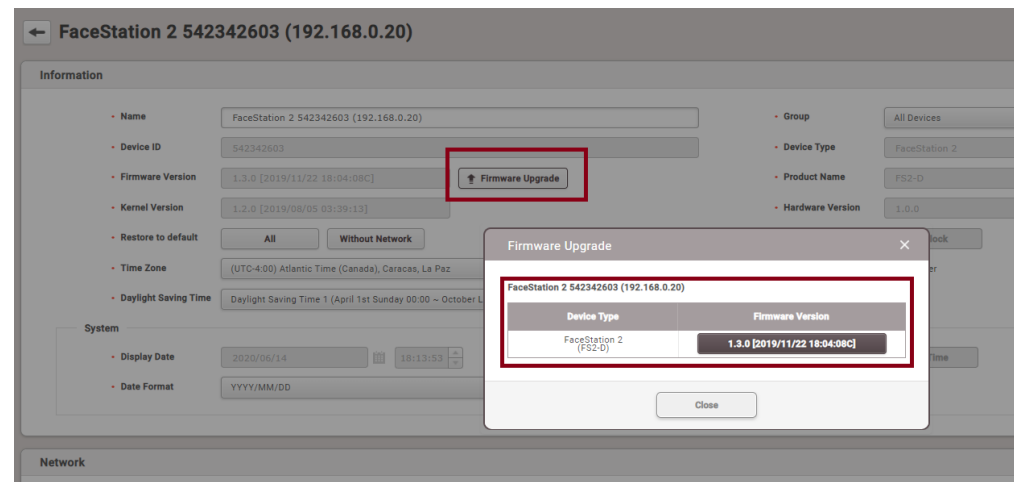
# Configuration

Once you receive the custom Fw, you need to upgrade the Fw.

1.- Paste your custom firmware in the BioStar 2 folder: **C:\Program Files\BioStar 2(x64)\firmware**



2.- After that, you would be able to upgrade the Fw in Biostar 2:

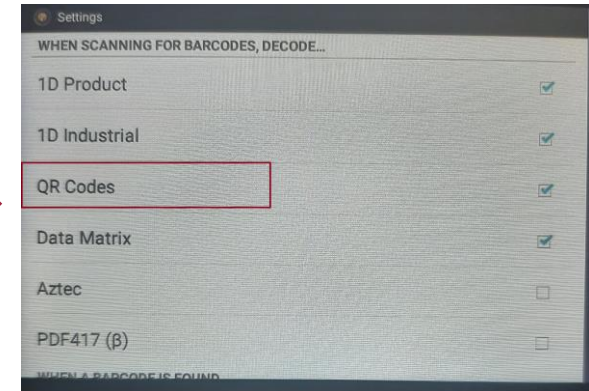
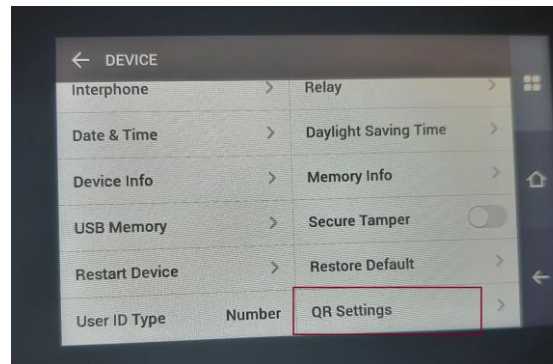
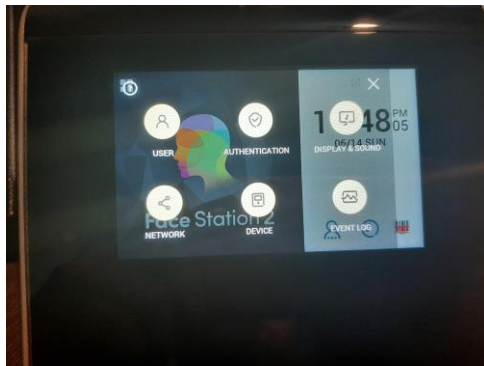


# Configuration

3- After upgrade FW, you need to configure the device.

For this example, we will use a FaceStation 2 AWB so in the menu of the device you need to select DEVICE:

Check the option QR code as you can see in the following picture:



Select QR SETTINGS

# Configuration

4.- In BioStar 2, you should have the card number added in a user, like you can see in the following picture:

The screenshot shows the BioStar 2 user configuration interface. The 'Information' tab is active, displaying fields for Name, ID, Group, Period, Operator Level, Login ID, and Password. The 'Credential' tab is also visible, showing authentication settings. A red box highlights the 'Card' button in the 'Credential' section. Below this, a table shows the card data format and the ID number.

Type	Card Data Format	Summary
CSN	-	ID: 123456789

5.- You need to configure in authentication mode as only card:

The screenshot shows the BioStar 2 Authentication configuration interface. The 'Auth Mode' section is active, displaying a table of authentication methods. A red box highlights the 'Card' method, which is set to 'Always'. The 'Full Access' section is also visible, with a 'Disable' toggle.

Auth Mode	Method	Policy	Action
Auth Mode	Face	Always	[Edit] [Delete]
	Card	Always	[Edit] [Delete]
	ID + Face	Always	[Edit] [Delete]

6.- You are ready to read QR code with your SUPREMA device!!!



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# DEMO, Q&A

# Thank you!