

# BioStar 2 Device SDK & G-SDK

Possible Integration Options

---

**YJ JUNG**

**29 APRIL 2020**



# FAQ about Suprema Webinar

## ❖ How can I find Webinar Contents?

### 1) Email

- ✓ After this webinar, Suprema Team will provide the presentation and the recorded video file to the registered emails. It will take 5 days after reviewing the files with including QA list.

### 2) Website (Suprema Technical Support Site)

- ✓ 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>



suprema webinar

support.supremainc.com > support > solutions ▾

[Suprema Webinar : Technical Support](#)

### 3) SNS Channel & YouTube

- ✓ Plus, we will post the information to YouTube, Facebook, and LinkedIn. (Simply search it on each site)

#### Suprema Technical Support

Home Solutions Forums Tickets

#### How can we help you today?

Enter your search term here...

SEARCH

[Solution home](#) / [Suprema Webinars](#) / [BioStar2 Products](#)

#### [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.](#))

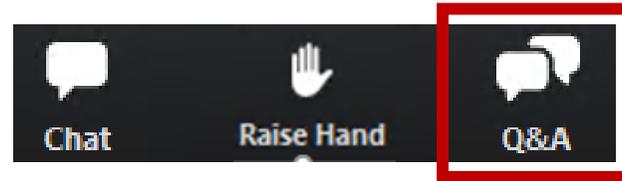
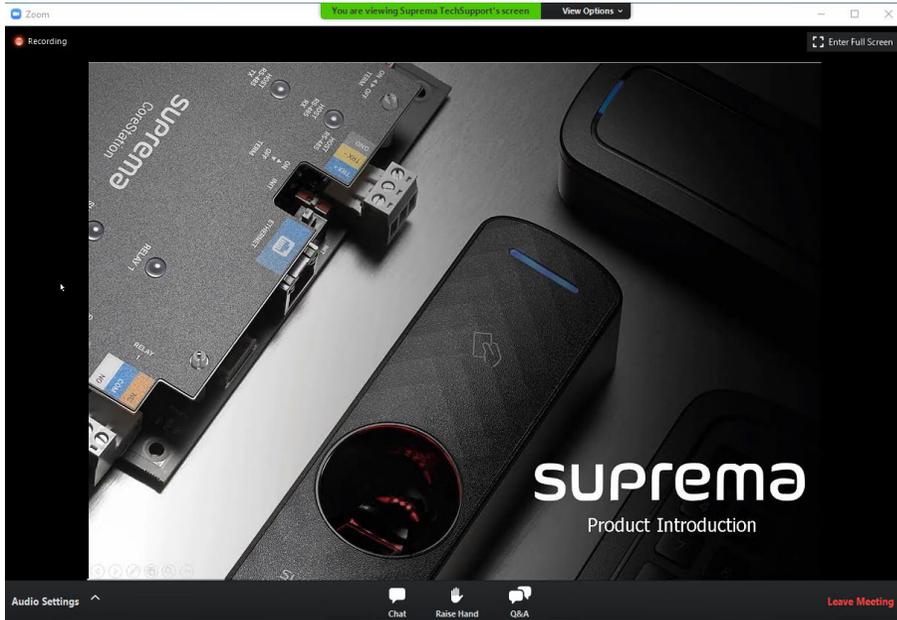
#### What we covered in this webinar:

Knowing CoreStation and selling points

Learning how to make Centralized System with CoreStation

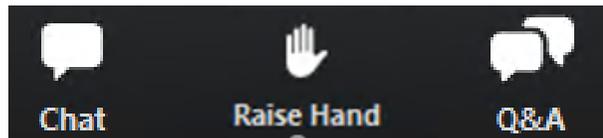
# FAQ about Suprema Webinar

## ❖ How I inquiry during Webinar session?



### 1) [Q&A] Box for leaving your question

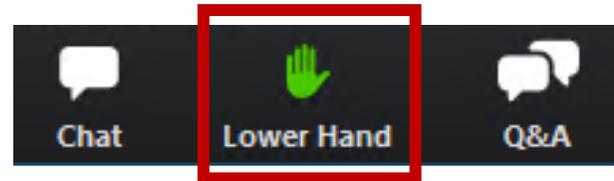
- ✓ During doing webinar, you can leave your questions to **QA box anytime.** Suprema agents in panels will answer in real time.



# FAQ about Suprema Webinar

## ❖ How I inquiry during Webinar session?

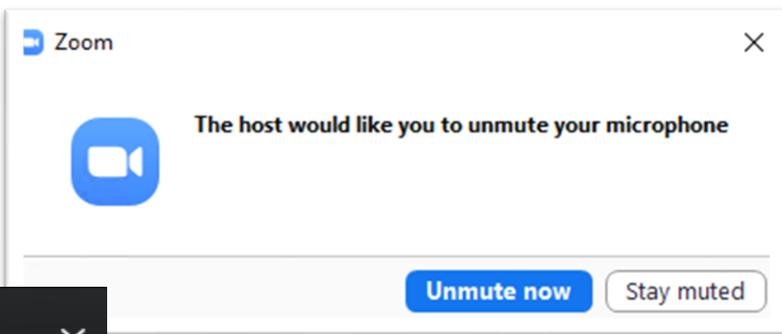
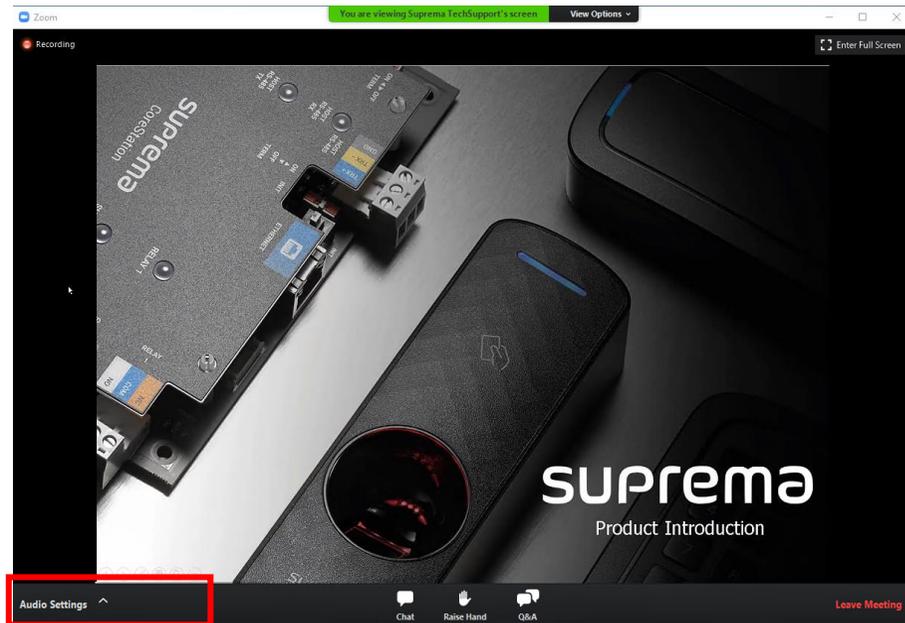
### 2) [Raise Hand] for Question Session



Please click on [Raise Hand] on the menu bar if you have any questions. The color will turn to Green.

Host will allow to unmute your microphone and you will be able to unmute your microphone at the time.

But you can also click [Raise Hand] during webinar anytime if you have questions.



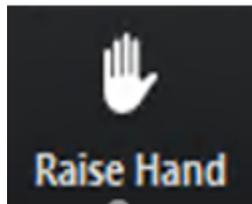
# FAQ about Suprema Webinar

---

## ❖ How I inquiry during Webinar session?

### Notification: Question Session

- ✓ Between the presentation progress, We will have QA session to make the interactive webinar.
- ✓ You can leave your questions through **QA box**.
- ✓ Or you can raise your hand from the menu bar, and you will be able to **unmute your microphone** once the host confirms your sign from Attendee's list.
- ✓ ***When you speak through a microphone**, please **introduce your name and question**. We will answer one by one, so please kindly wait for your turn.*



# About this webinar

---

- **Target Audience**

Pre-sales or Beginner level

- **Objective**

1. Comprehension of Suprema SDK solutions
2. Differences between Device SDK and G-SDK

# Contents

1. What is API and SDK?
2. Why should I use SDK?
3. Overview
  - BioStar 2 Device SDK
  - G-SDK
  - Comparison

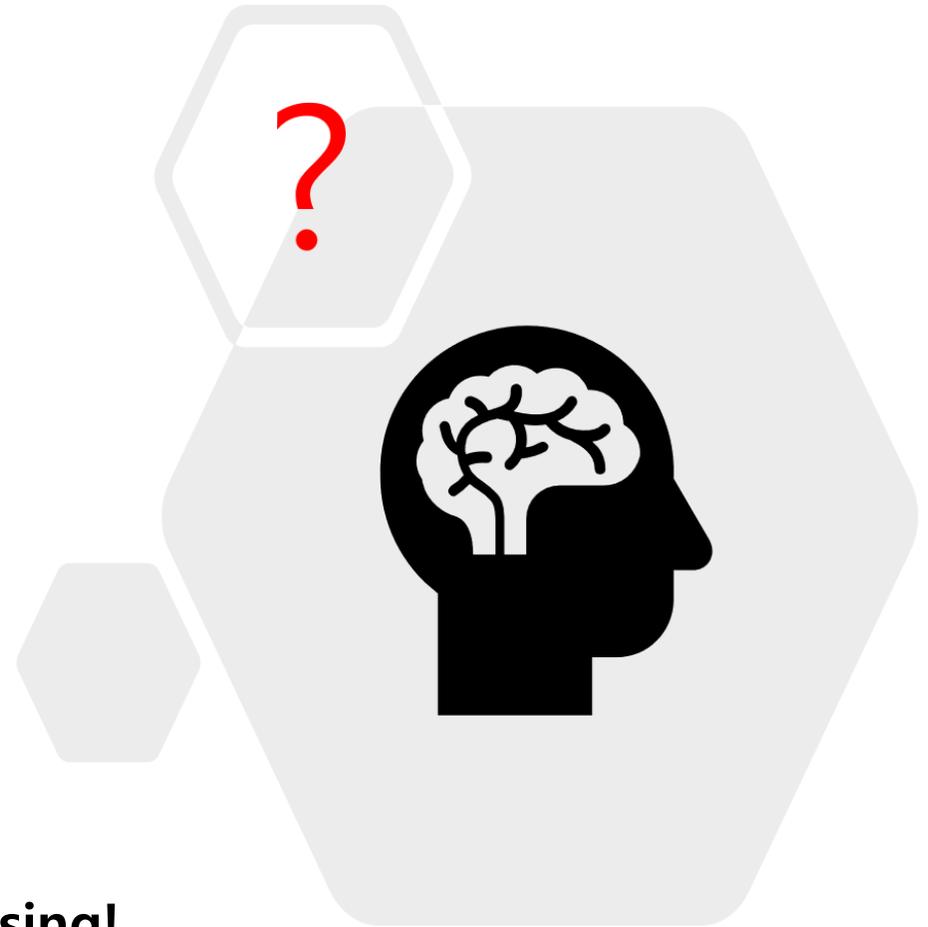
## **DISCLAIMER**

This presentation is solely for the use of Suprema's employees. No part of this material may be circulated, quoted, or reproduced for distribution outside the customer's organization without prior written approval from Suprema Inc. This material was prepared by Suprema Inc. solely for informative purpose and was not independently verified. No representations or warranties, express or implied, are made as to, and no reliance should be placed on, the accuracy, fairness or completeness of the information presented or contained in this presentation. © 2020 Suprema Inc. All rights reserved.

---

# What is API and SDK?

# What is API and SDK?

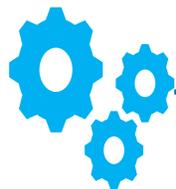
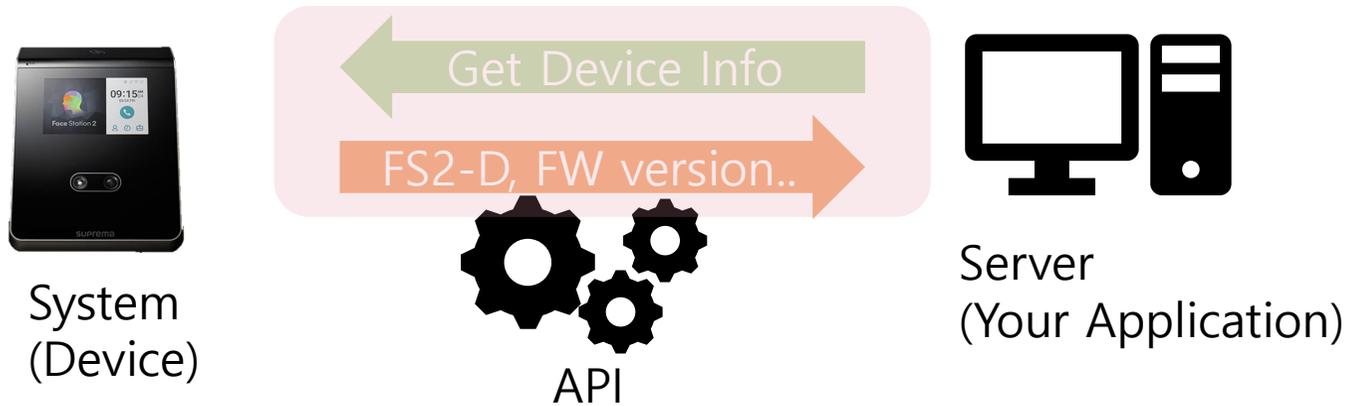


**So confusing!**

# What is API and SDK?

---

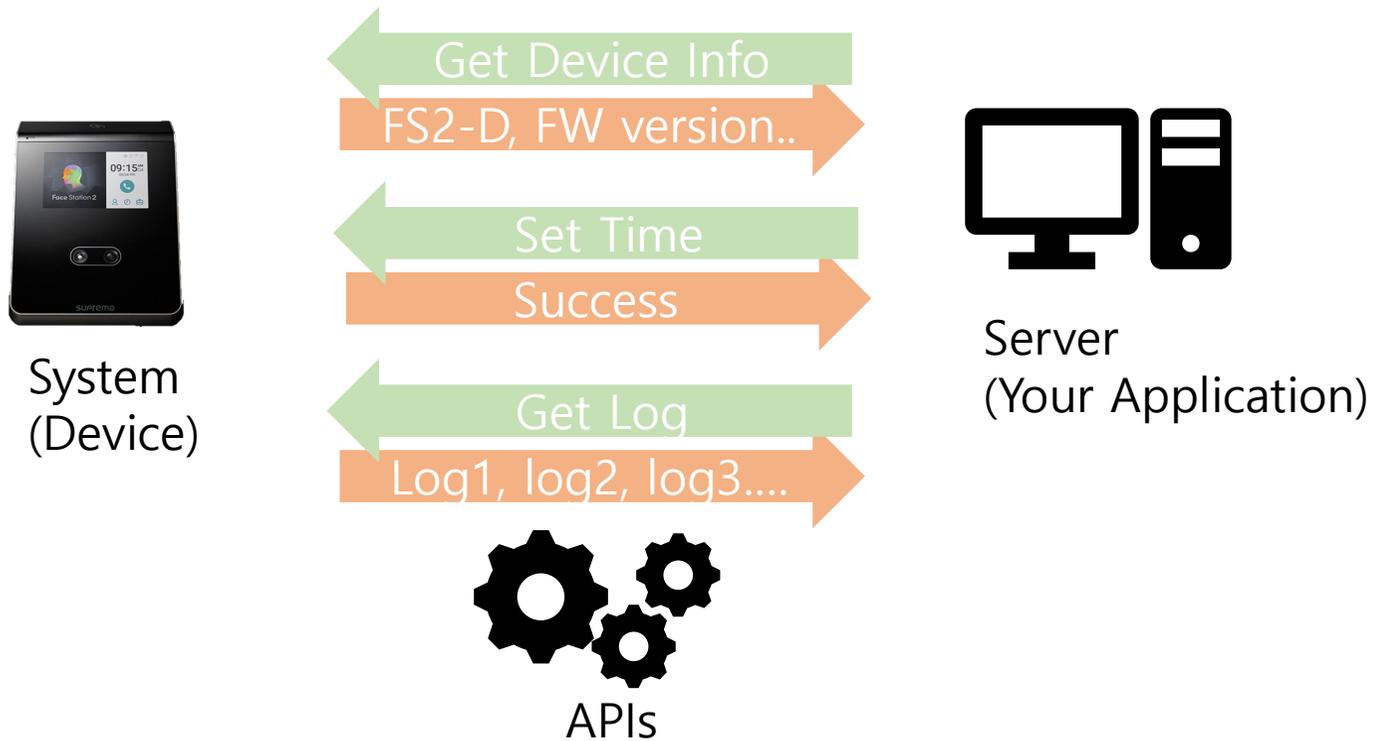
## What is API?



This pathway to communicate a system is called API (Application Programming Interface)

# What is API and SDK?

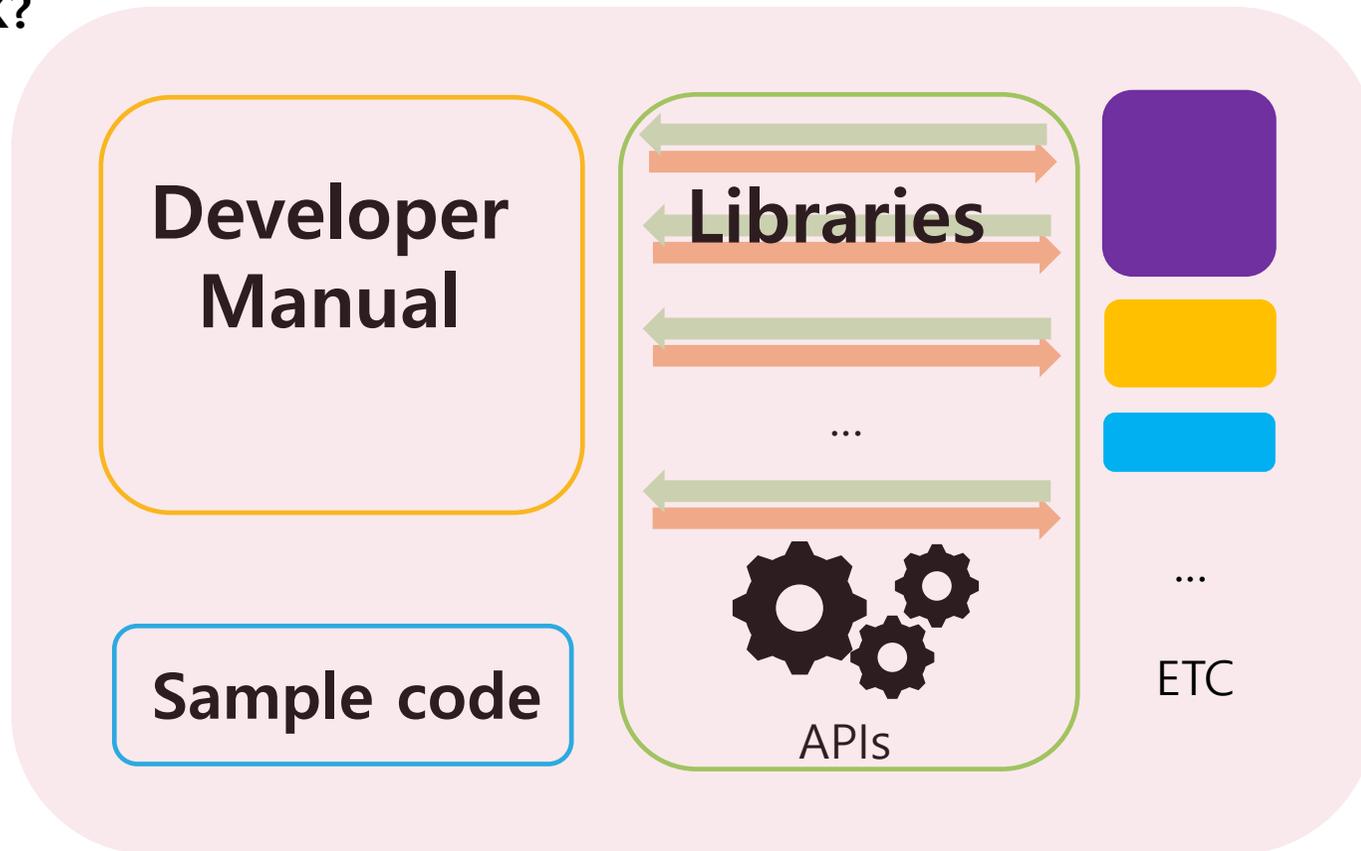
---



**A lot of APIs are required for each purpose**

# What is API and SDK?

## What is SDK?



This package is called **SDK**(Software **D**evelopment **K**it)

---

# Why should I use SDK?

# Why should I use SDK?

---



All 2<sup>nd</sup> Generation devices are compatible

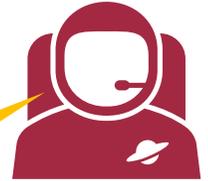
# Why should I use SDK?

---

What integration solution should I choose to develop MY OWN SW or APPLICATION?



Customer/Developer



Suprema

You have  
4 options

1. **BioStar 2 Device SDK (C++ SDK solution)**
2. **G-SDK (gRPC server based solution)**
3. **SVP Android SDK (Android SDK solution)**
4. **BioStar 2 API (RESTful API solution)**

# Why should I use SDK?

---

## BioStar 2 Device SDK Target

Users who would like to use

- C++, C# or similar environment
- Most features of Suprema device

## G-SDK Target

Users who would like to use

- Various types of client(C#, Java, Python etc)
- Simple basic features of Suprema device
- **Cannot configure advanced features like RS485, Wiegand, Zone**

---

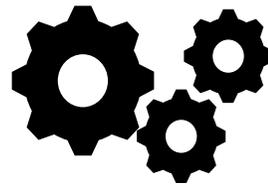
# Overview – BioStar 2 Device SDK



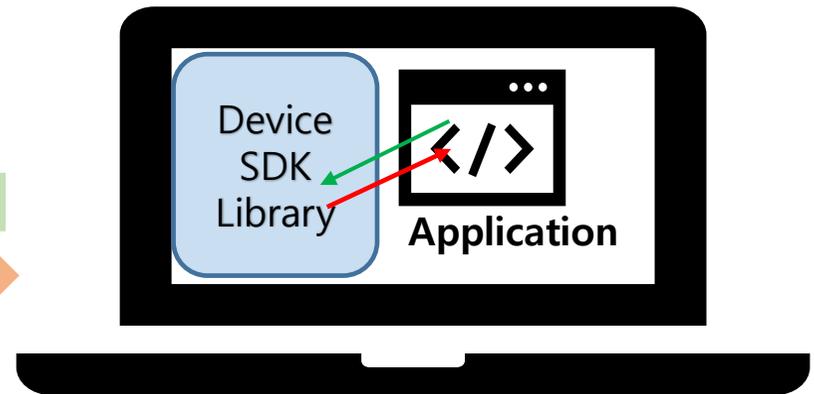
# Overview – BioStar 2 Device SDK



Device

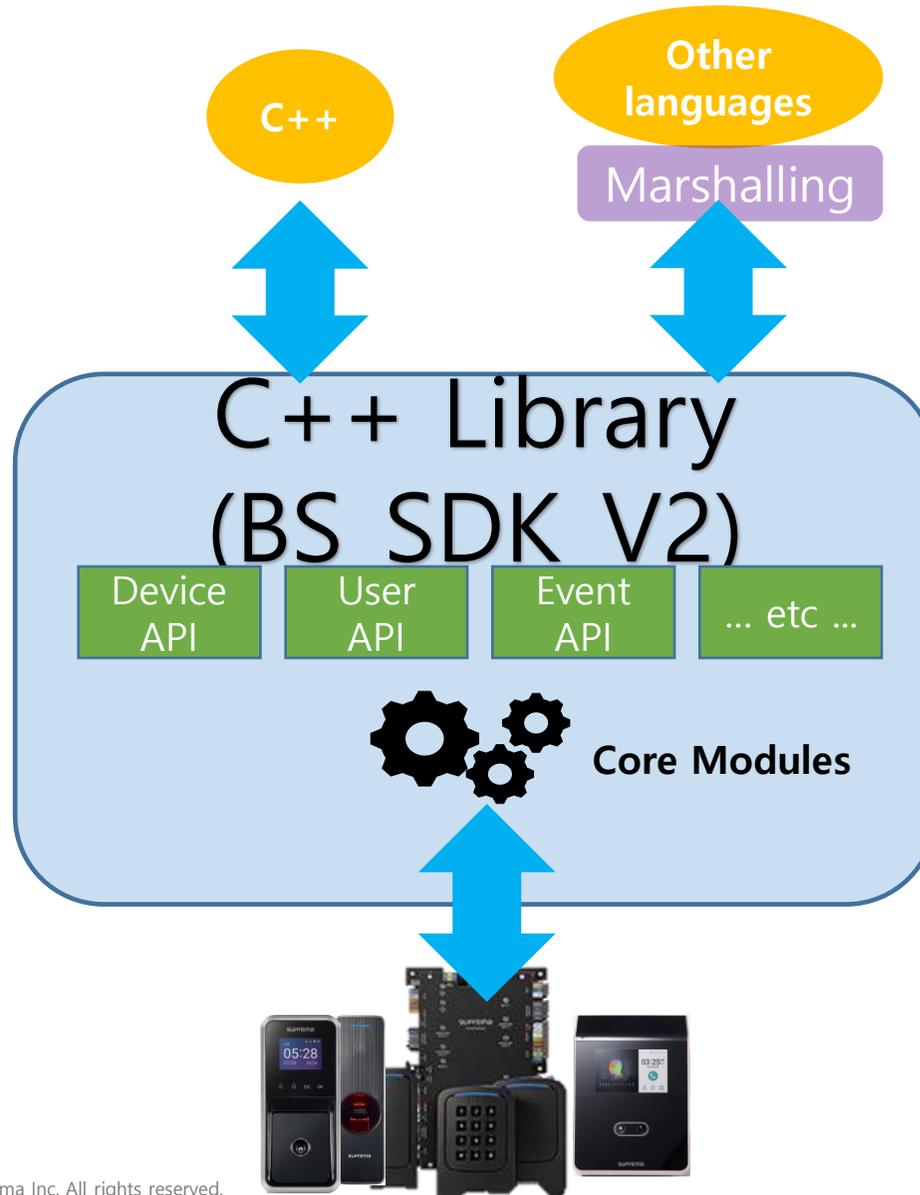


Suprema Protocol



Server

# Overview – BioStar 2 Device SDK



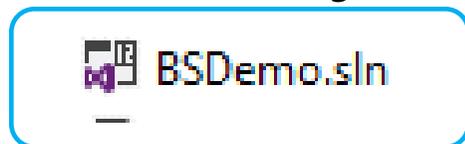
All the languages other than C++ need Marshalling process, the conversion between two different systems.

# Overview – BioStar 2 Device SDK

## Developer Manual Website



## C# Sample code (with Marshalling)



## C++ Library

 BS\_SDK\_V2.dll

 BS\_SDK\_V2.lib

Windows

 libBS\_SDK\_V2.so

Linux

**BioStar 2 Device SDK** is provided as libraries with C# sample code

# Overview – BioStar 2 Device SDK

## SDK Download – Github link

[https://github.com/supremainc/BioStar2\\_device\\_SDK](https://github.com/supremainc/BioStar2_device_SDK)

The screenshot displays the GitHub repository for `supremainc / BioStar2_device_SDK`. The `Code` tab is active, showing the `SDK_Release` directory. A red box highlights the `SDK_Release` directory in the left sidebar, with a green arrow pointing to the `SDK_Release` directory in the main view. Another red box highlights the file `BioStarSDK_V2.6.4.1_20200225.7z` in the main view, with a green arrow pointing to a detailed view of the file. The detailed view shows the file name and a list of contents: `Document`, `Example`, `Include`, and `Lib`. A red box highlights this list of contents, with a green arrow pointing to the text `Package Contents`.

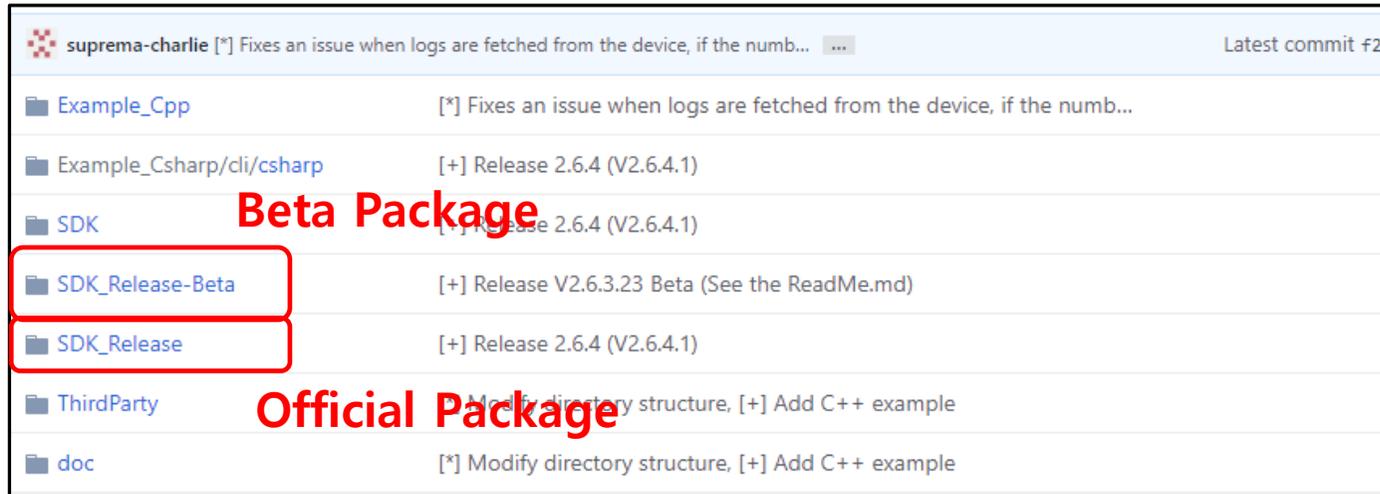
**Official Package**

**Package Contents**

# Overview – BioStar 2 Device SDK

## SDK Download – Github link

[https://github.com/supremainc/BioStar2\\_device\\_SDK](https://github.com/supremainc/BioStar2_device_SDK)



## Beta Package VS Official Package

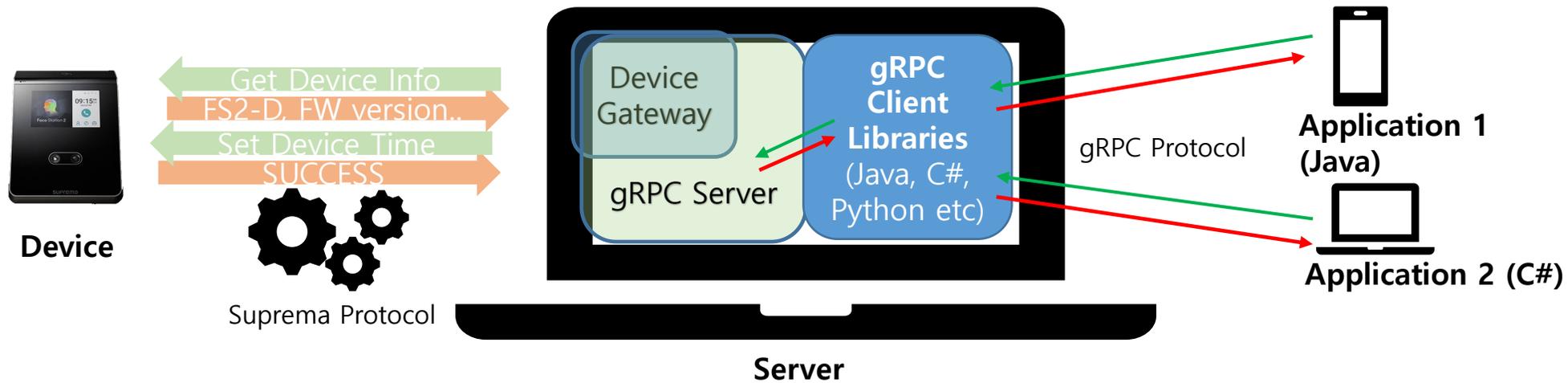
- **Beta**  
It has been distributed including the latest bug fixes or features, but has not passed QA yet
- **Official**  
The official product with registration completed after QA process

---

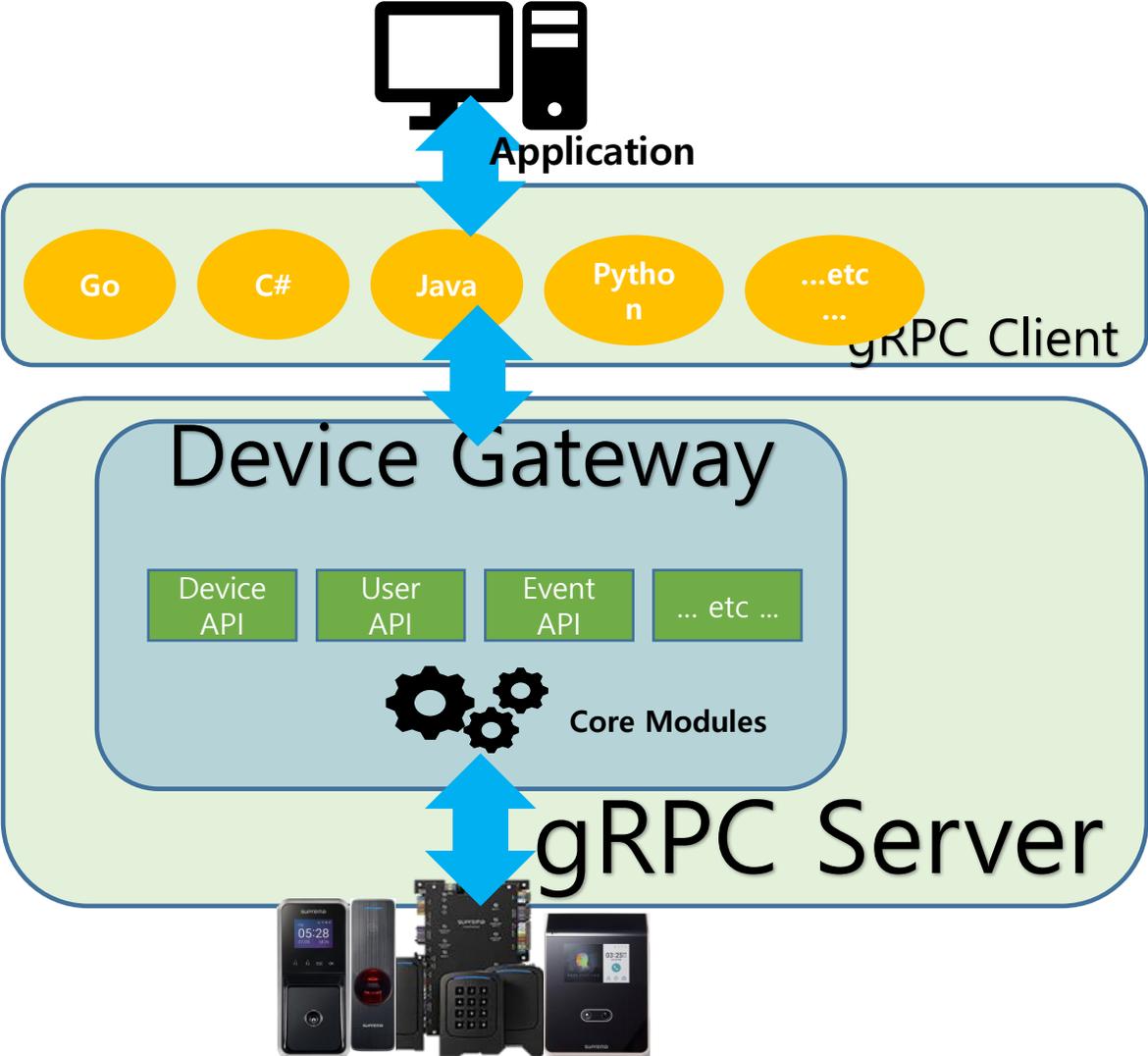
# Overview – G-SDK



# Overview – G-SDK



# Overview – G-SDK

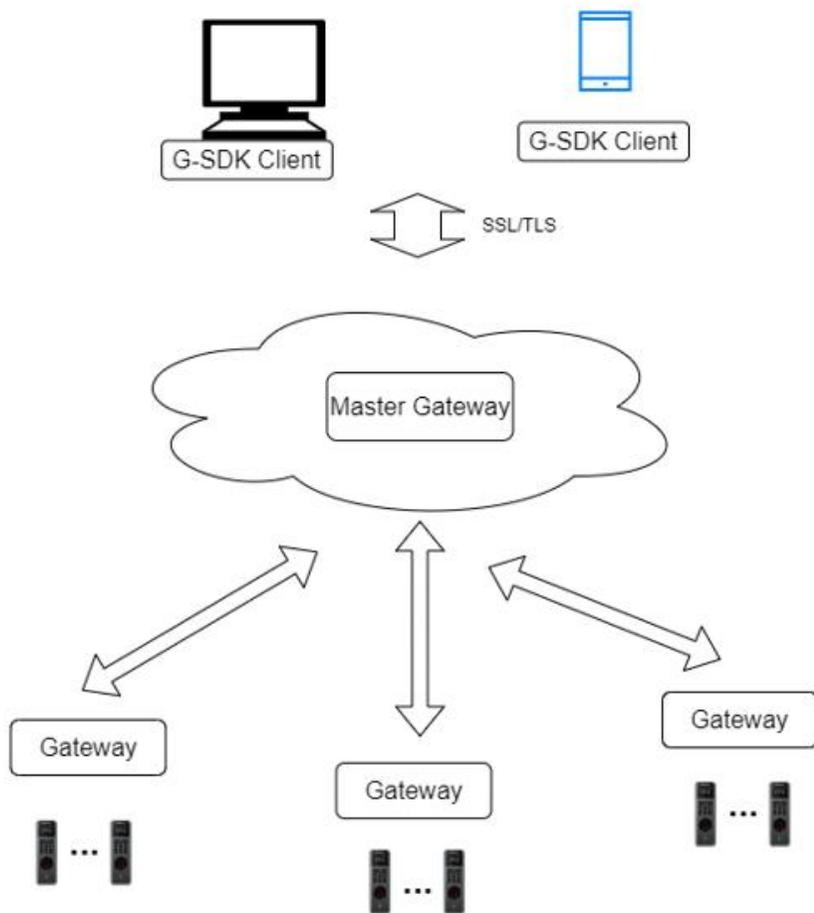


## Future Release Plan

1. Master Gateway (Q2 2020)
2. Advanced AC API (Q3 2020)
3. More language support samples – Android, iOS, Ruby etc (Q4 2020)

# Overview – G-SDK

## Master Gateway



**A master gateway can handle multiple gateways.**

**Up to 100,000 devices**

# Overview – G-SDK

---

## Master Gateway

|                     | Device Gateway  | Master Gateway   |
|---------------------|---|--|
| Role                | <ul style="list-style-type: none"><li>• Manage devices</li></ul>                  | <ul style="list-style-type: none"><li>• Manage devices through gateways</li><li>• Manage gateways</li><li>• Provide additional services such as authentication, rate limit, user synchronization, etc.</li></ul> |
| Deployment          | <ul style="list-style-type: none"><li>• Single binary</li></ul>                   | <ul style="list-style-type: none"><li>• Single binary</li><li>• Docker</li></ul>   |
| Target Applications | <ul style="list-style-type: none"><li>• Desktop</li><li>• Single site</li></ul>   | <ul style="list-style-type: none"><li>• Mobile</li><li>• Cloud</li><li>• Multi sites</li></ul>   |
| Max. Devices        | <ul style="list-style-type: none"><li>• 1,000</li></ul>                           | <ul style="list-style-type: none"><li>• 100,000</li></ul>  |
| Design Goals        | <ul style="list-style-type: none"><li>• Performance</li><li>• Stability</li></ul> | <ul style="list-style-type: none"><li>• Scalability</li><li>• Extensibility</li></ul>  |

---

# Overview – Comparison



VS



# Overview – Comparison

|                    | BioStar 2 Device SDK   | G-SDK  |
|--------------------|--|--|
| Deployment         | <ul style="list-style-type: none"><li>• Shared library</li></ul>                                       | <ul style="list-style-type: none"><li>• Client libraries</li><li>• Device Gateway</li></ul>  |
| Supported OS       | <ul style="list-style-type: none"><li>• Windows</li><li>• X86 Linux</li></ul>                          | <ul style="list-style-type: none"><li>• Windows</li><li>• X86/Arm Linux</li><li>• Mac OS</li></ul>   |
| Supported Language | <ul style="list-style-type: none"><li>• C++</li><li>• C# sample</li></ul>                              | <ul style="list-style-type: none"><li>• C++, Java, Python, Go, Ruby, C#, Node.js, Android Java, Objective-C, PHP, Web</li><li>• C#, Java, Python, GO, node samples</li></ul> |
| Supported Features | <ul style="list-style-type: none"><li>• Most of features including RS 485, Wiegand, Zone etc</li></ul> | <ul style="list-style-type: none"><li>• Only simple features</li><li>• Do not support RS485, Wiegand and Zone etc</li></ul>  |



---

# Q & A