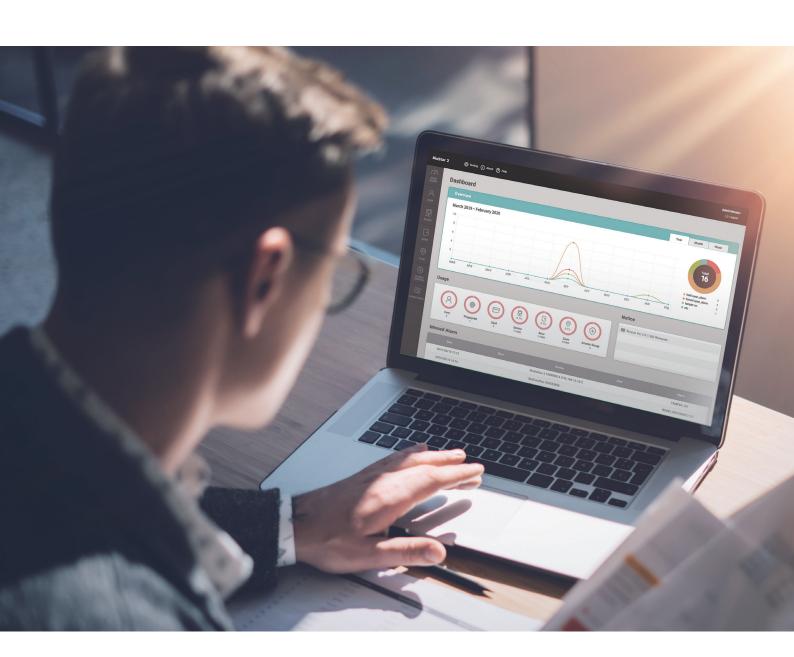
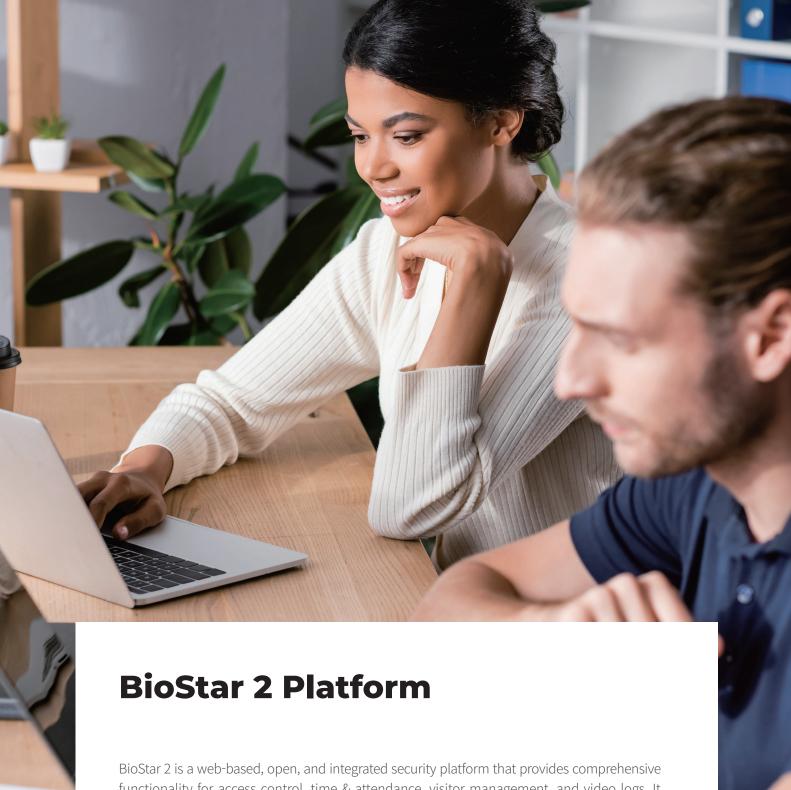
BioStar 2

Web-based Open Integrated Security Platform







BioStar 2 is a web-based, open, and integrated security platform that provides comprehensive functionality for access control, time & attendance, visitor management, and video logs. It encrypts every personal data available and supports both SDKs and web APIs to integrate BioStar 2 with 3rd party software. In addition, users can control the BioStar 2 platform remotely with the mobile app for BioStar 2 and manage Suprema Mobile Access, a solution that stores credentials in smartphones.



Biometrics-Based



Low Maintenance Cost



Mobile App Support



Remote Control Support



System Integration Tool Support

Flexible System Architecture Supports both centralized and distributed systems, allowing users to customize the optimal system. System Integration Optimal Support Access Control Solution Supports both platform integration Supports all access control features based on RESTful Web APIs and such as door/elevator/zone control, SDK-based hardware integra-tion(BioStar 2 API, BioStar 2 Device graphic map, server matching, video logs, image logs, and audit trail. SDK, Suprema G-SDK support). BioStar 2 Remote Control Visitor Management + Video Log Support Provides user registration, real-time alarm and door control through Manage visit applications and issue/re-BioStar 2 Mobile app. voke visitor access rights. Monitor events recorded with NVR and IP camera at entry points. Flexible Time & Attendance Cybersecurity Management Solution Encrypts all data that can be traced You can set various work rules and back to an individual. ISO 27001 and

ISO 27701 certified for information

security management system.



 $create\ personalized\ time\ \&\ attendance$

reports, utilize the timesheet calendar view and set a fixed or flexible shift.



BioStar 2 Mobile

BioStar 2 Mobile enables you to freely control BioStar 2 anywhere, anytime on your smart device. Developed based on BioStar 2's web APIs, BioStar 2 Mobile provides services which cater to the mobile era, including user information registration, BioMini-based fingerprint registration, door control, real-time door and zone status notification, and access control event monitoring.



Remote User Registration



Remote Door Control



Real-time Door and Zone Status Notification

Access Control Event Monitoring

Suprema Mobile Access

With Suprema Mobile Access, you can use your smartphone as an access card to access doors, facilities, and more. This solution for access control significantly improves user convenience and supports 3rd party systems in an easier way. By linking BioStar 2 and Suprema Airfob Portal, you can issue mobile access cards to users in BioStar 2. And users who are registered with BioStar 2 can be issued with mobile access cards through a link received by email without signing up for a portal or registering mobile access cards separately.



Secure Communication



Contactless Mobile Solution



Remote

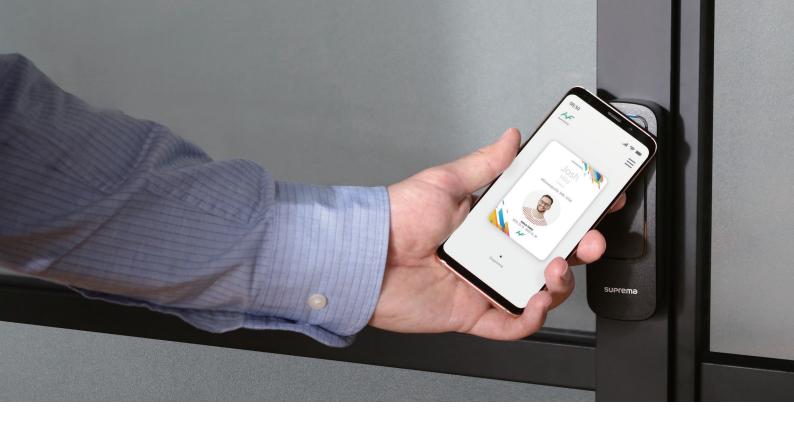


3rd-party Integration



Low Installation and

With Suprema's exclusive security solutions, entire process is protected by ISO 27001 certified system architecture. Users are less likely to handle over their smartphones, so it prevents unauthorized person from entering your property.



Suprema Mobile Access enables smartphones to communicate with card readers via BLE and NFC.





NFC

BLE Bluetooth Low Energy

- · Communicates via BLE in Android
- Protecting data communications using the AES encryption algorithm

NFC Near Field Communication

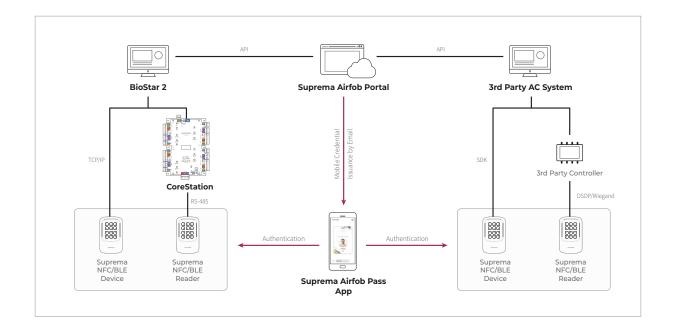
- · Communicates via NFC's HCE in Android
- * Note that HCE is not available from all Android smartphones. It is recommended to check the specification of smartphones, but it is supported mostly latest models.
- · Protecting data communications using the AES encryption algorithm

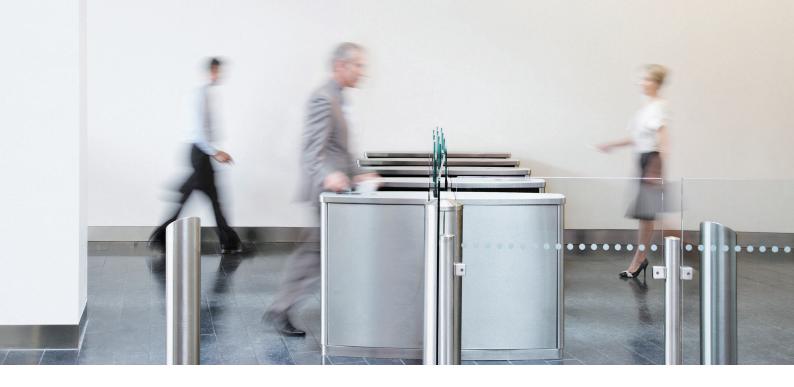




BLE Bluetooth Low Energy

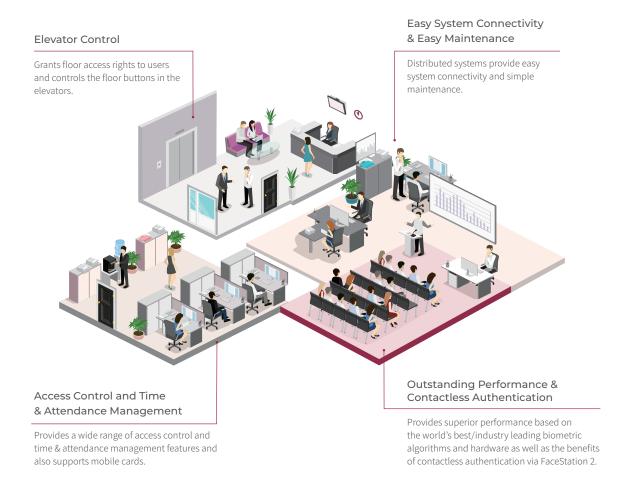
- Communicates via BLE in iOS
 Protecting data communications using the AES encryption algorithm

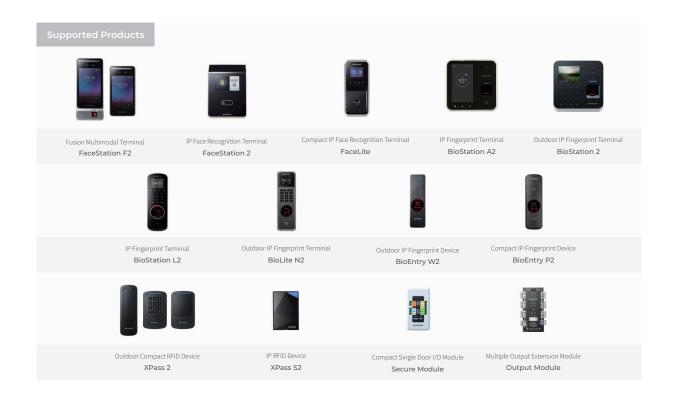




Distributed System | Access Control and Time & Attendance

In distributed systems, the IP terminal and readers perform the roles of controller and reader simultaneously. This design simplifies functions such as user management, access control management, and biometrics by using a single terminal. Suprema's IP terminals and readers improve system reliability with user friendly system configuration and distributed management. It also provides the benefits of simple wiring and low installation/maintenance costs.









Centralized System I Access Control and Time & Attendance

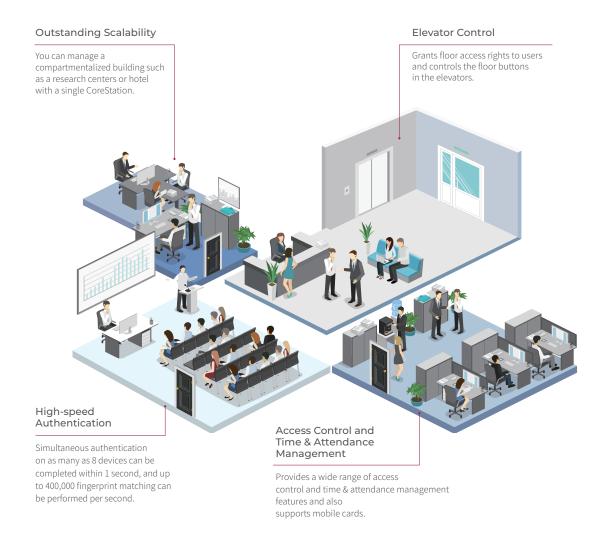
With Suprema's CoreStation and readers, you can build a centralized system, which is a system based on access control units (ACU). Suprema's centralized system not only provides the benefits of biometrics, but it also provides enhanced security and excellent system scalability. In addition, the centralized system also enables you to upgrade your existing systems at lower installation cost. Integrated with BioStar 2, this system safely stores all information about each user including the user's name, ID, PIN, access rights and fingerprint data by storing it on a single device. Suprema's intelligent biometric controller, CoreStation, is capable of performing fingerprint matching as well as RFID cards. It provides differentiated performance and features based on a 4-channel module that boasts superior hardware performance and scalability.

Strength in numbers

- · Performs 400,000 times of fingerprint matching within 1 second
- · Stores information about up to 500,000 users and RFID cards
- · Stores up to 5,000,000 text logs
- · Controls up to 132 Wiegand devices (DM-20 connection required)
- · Controls up to 64 RS-485 devices
- · Processes fingerprint authentication on up to 8 devices simultaneously within 1 second

CoreStation Specs			
CPU	1.4 GHz Octa Core		
Memory	8 GB Flash + 1 GB RAM		
Maximum No. of Users	500,000 (1:1) and 100,000 (1:N)		
Maximum No. of Templates	1,000,000 (1:1) and 200,000 (1: N)*		
Maximum No. of Text Logs	5,000,000 (text)		
Serial Communication Protocol	OSDP V2		
Ethernet	10/100 Mbps and Auto MDI/MDI-X		
RS-485	5ch		
Wiegand	4ch Input		
Relay	4 Relays		
TTL Input	8ch (Supervised input selectable)		
TTL Output	8ch		
AUX Input	2ch (AC power fail and tamper)		







BioStar 2 License Policy

Access Control License

	Item	Starter (free of charge)	Basic	Standard	Advanced	Professional	Enterprise
	No. of Doors	5	20	50	100	300	1,000
	Maximum No. of Connected Devices	1,000	1,000	1,000	1,000	1,000	1,000
	Maximum No. of Access Levels 1)	2,048	2,048	2,048	2,048	2,048	2,048
Access Control	Maximum No. of Access Groups ¹⁾	2,048	2,048	2,048	2,048	2,048	2,048
Control	Maximum No. of Access Groups per User	16	16	16	16	16	16
	Maximum No of Access Levels per Access Group	128	128	128	128	128	128
	Access Group Auto Sync		•	•	•	•	
	Maximum No. of Cards per User	8	8	8	8	8	8
	Maximum No. of Fingerprints per User	10	10	10	10	10	10
	User Auto Sync	•	•	•			
	Access-on-Card	•	•	•			
Users	Security Credential Cards	•	•	•			•
	iCLASS Seos Card	•	•	•			
	Long-term Idle Users Management	•	•	•			•
	Custom Field	•	•	•	•	•	
	Elevators	-	-	-	•	•	•
Elevator Control	Maximum No. of Floors per Elevator	-	-	-	192	192	192
Control	Maximum No. of Floor Levels	-	-	-	2,048	2,048	2,048
	Anti-Passback	▲(Door)	▲(Door)	•	•	•	•
	Fire Alarm	-	-	•	•	•	
_	Schedule Lock/Unlock	-	-	•	•	•	
Zones	Intrusion Alarm Zone	-	-	•	•	•	
	Interlock Zone	-	-	•	•	•	
	Muster Zone	-	-	•	•		•
	Dashboard	•		•	•	•	•
	Cloud	-	-	•	•	•	
	New Local API	•		•	•	•	
Advanced	Server Matching	-	-	-	•	•	•
Features	Audit Trail	•		•	•	•	•
	Daylight Saving Time	•		•	•	•	•
	Dual Authentication	•		•	•	•	•
	Active Directory	-	-	-	•	•	•
Monitoring	Graphic Map	-	_	-	•	•	•

¹⁾ Available from BioStar 2.8.9. (Requires latest firmware) : Yes or supported.

Time & Attendance Management License

Items	Starter (free of charge)	Standard	Advanced	Professional
No. of Users	100	500	1,000	unlimited

Video Log License

Items	Starter (free of charge)	Video License		
Video Log	-	•		

Visitor Management License

Items	Starter (free of charge)	Visitor License		
Visitor Management	-			



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For more information about Suprema's global offices, visit the webpage below by scanning the QR code. $\underline{\text{https://www.supremainc.com/en/about/contact-us.asp}}$