



White Paper

AirFRONT v7

Wired/Wireless Authentication

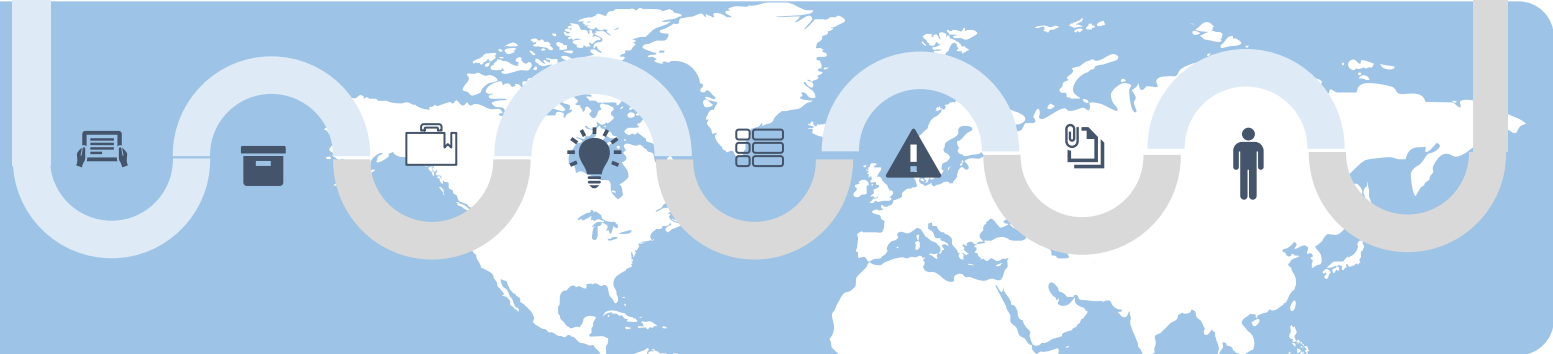
2020





Table of Contents

Needs of Wired/Wireless Authentication System	3
Features of AirFRONT v7	4
Application of AirFRONT v7	5
Architecture of AirFRONT v7	6
Benefits of AirFRONT v7	8

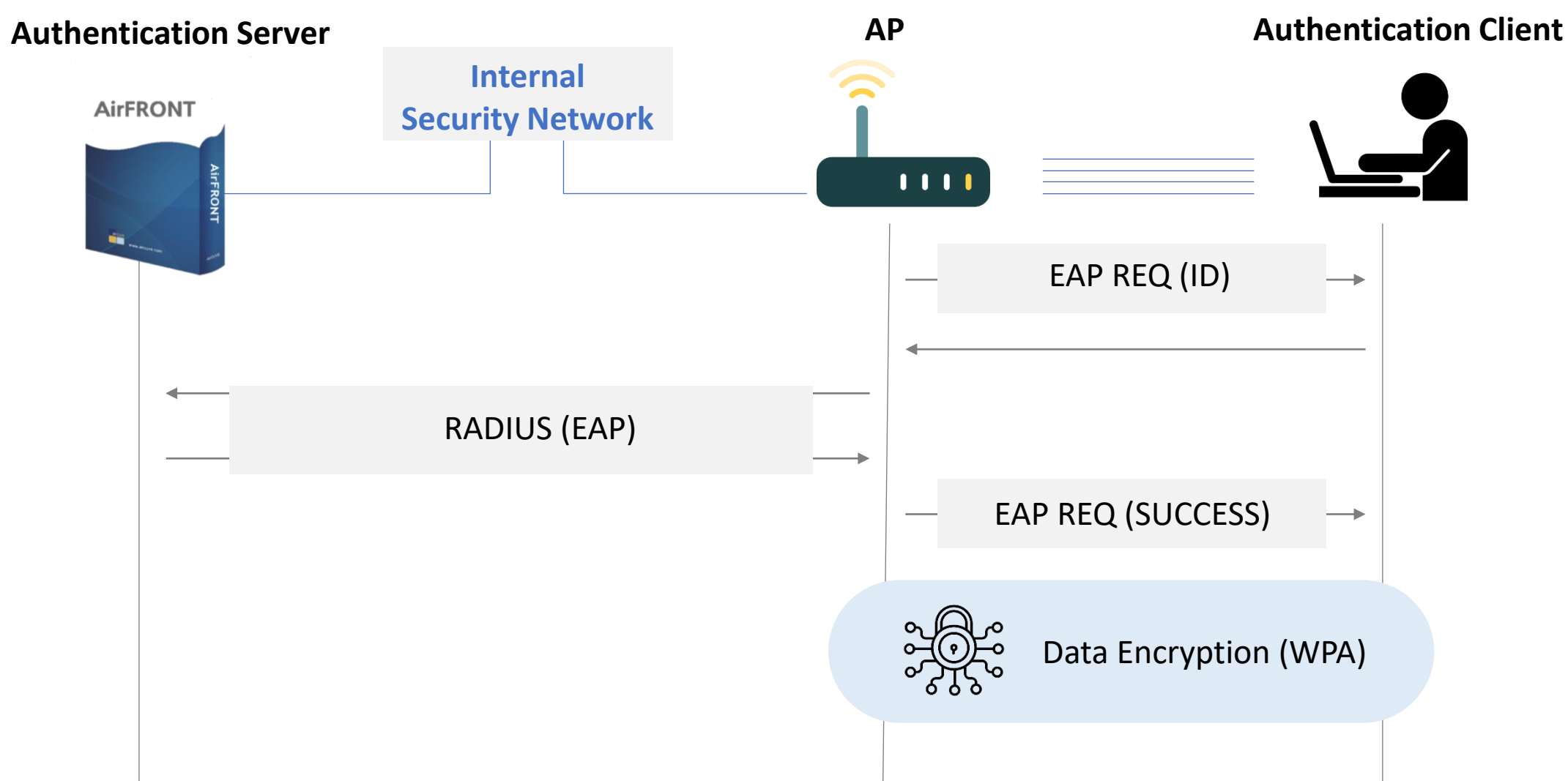


Needs of Wired/Wireless Authentication System

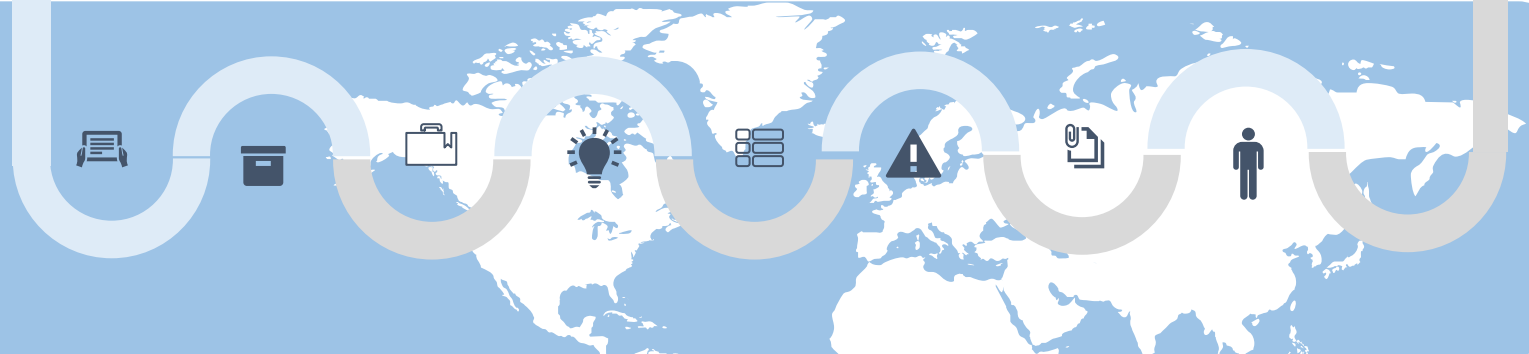
AirFRONT v7 is an AAA system that performs Authentication, Authorization and Account in a wireless LAN environment. The authentication-based network is divided into the authentication server (AirFRONT v7), RADIUS Client (NAS) of wireless LAN switches/Aps and the supplicant (CUVIC v5.2 Client).

The wireless authentication server (AirFRONT v7) is installed in a trusted internal network alongside a client such as a wireless switch/AP. The AP is set up with the authentication server which will handle identifications of users when they connect as well as authentication requests. Furthermore, a client program (CUVIC Client) is installed in the user device in the company which is to use wireless LAN and a user profile set up for connection. When such wireless authentication environment is set up, wireless LAN access is allowed to only authorized users as shown in [Fg1-1] and secure communication is guaranteed for connected users in the wireless area via data encryption.

- Spread of Wireless Infra : Existing desktops will be substituted
- by notebooks and smart Device
- Increase of Mobile office environment
- Consolidation of various smart terminals



Fg1-1. Expected authentication procedures via the wireless LAN authentication system



Features of AirFRONT v7

Issuance of a private certificate / support management

- Support the compliance of the certificate-based authentication system
- Issue the certificates of private CA / support management
- **CUVIC**
Windows access client (support a certificate)
- **mCUVIC**
Smart mobile authentication application (support a certificate)
Android (4.0 higher)
iOS (6.0 higher)

International standards compliance

- AirFRONT complies with international standards.
- Support the IEEE802.1x standard protocol
- IEEE802.11i security (support WPA v.2 or higher)
- Comply with TLS v.1.2: AES256/SHA256/RSA2048
- Support the AAA standard
- Support RADIUS IP v.6
- Expand the Bring Your Own Devices (BYOD) function

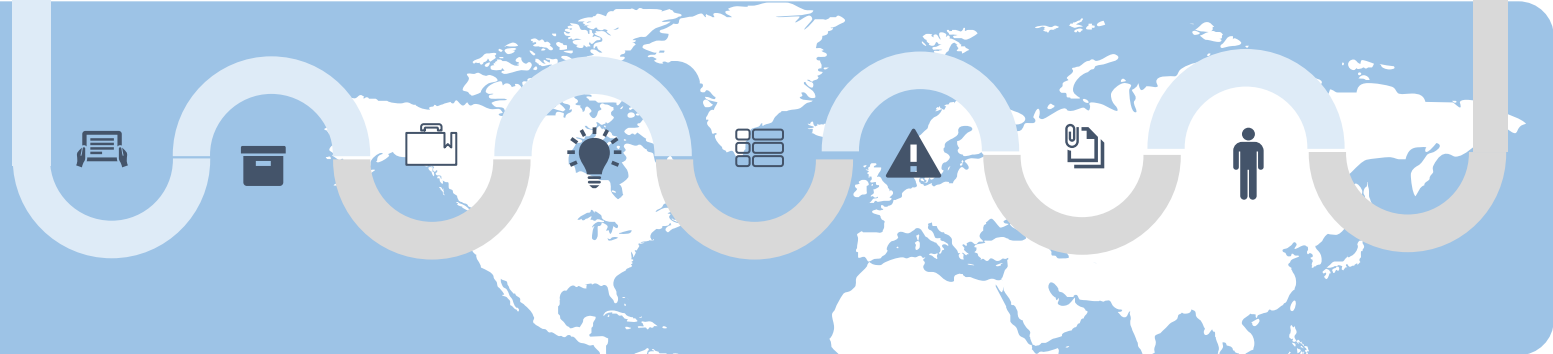
Smart mobile authentication application

- Various smart terminal device authentication applications
- Support the integrated authentication applications of smart terminal devices to gather various security demands
- OS : Android and iOS
- One-way encryption support application in accordance with the Privacy Act
- Interlock with SSL VPN in the smart environment and support API

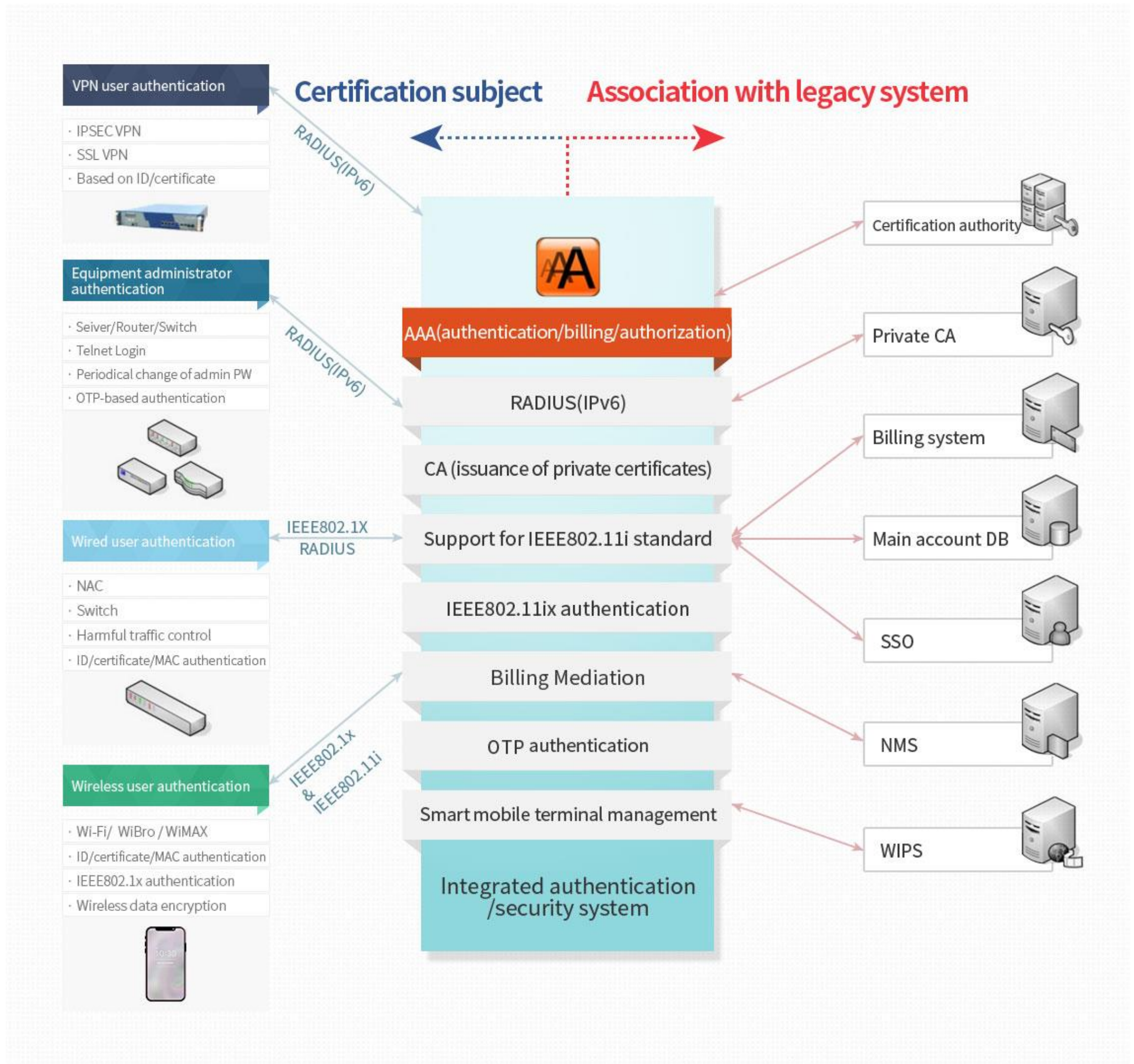
Authentication client

CUVIC / mCUVIC

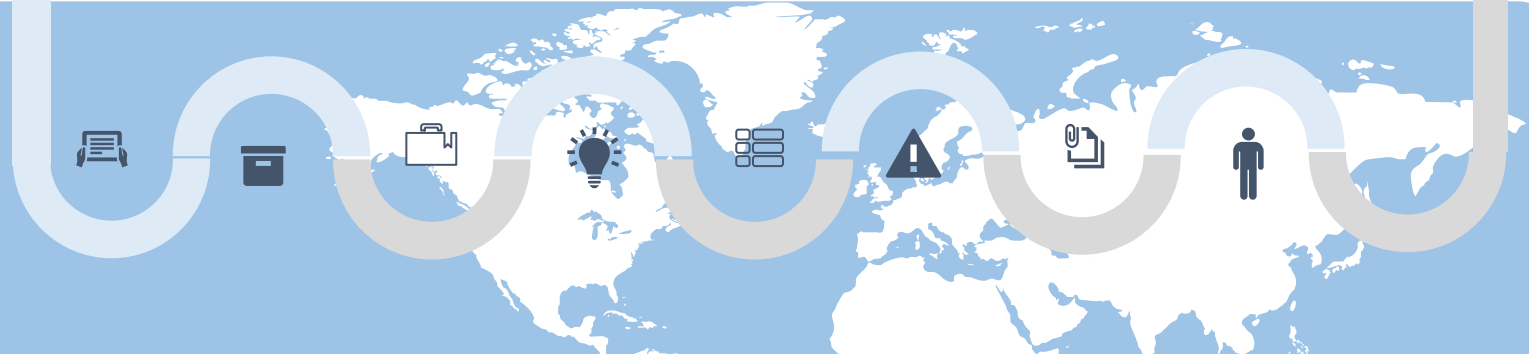
- IEEE802.1x EAP authentication
- WPA v.1/v.2 encryption
- Easy settings for static/WPA-PSK
- Wi-Fi Auto Scan
- Provide profile-based access
- Android 4.0 or higher
- iOS 6.0 or higher



Application of AirFRONT v7



Fg2-1. Application of AirFRONT

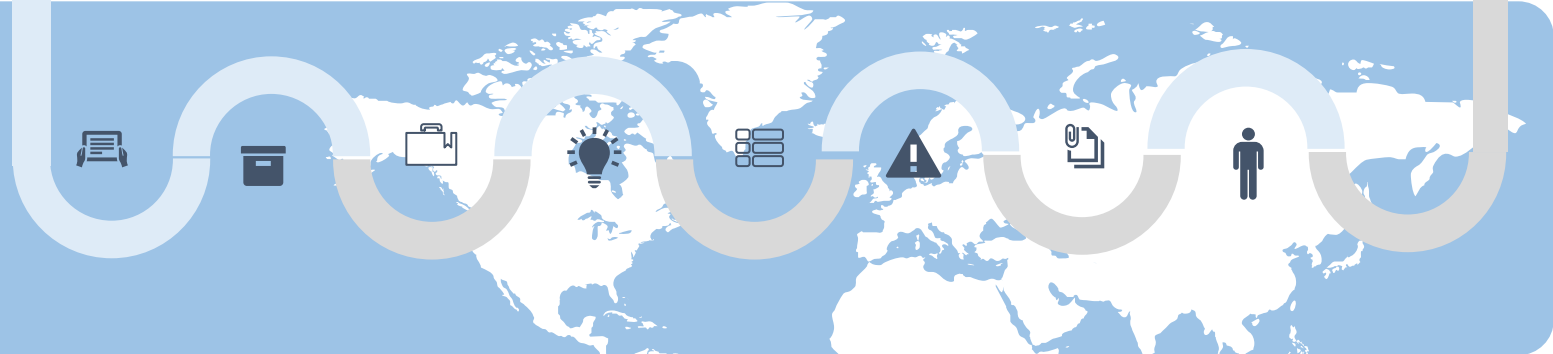


Architecture of AirFRONT v7



Authentication Server

- Support for IEEE802.1x authentication / WPAv2 (AES) Wi-Fi section encryption
- Based on ID, Certification, or MAC
- Private CA Certification authority
- DHCP server Function
- CC Certification by the IT Security Authentication Office (EAL-4)
- TTA Software quality authentication (GS Authentication)

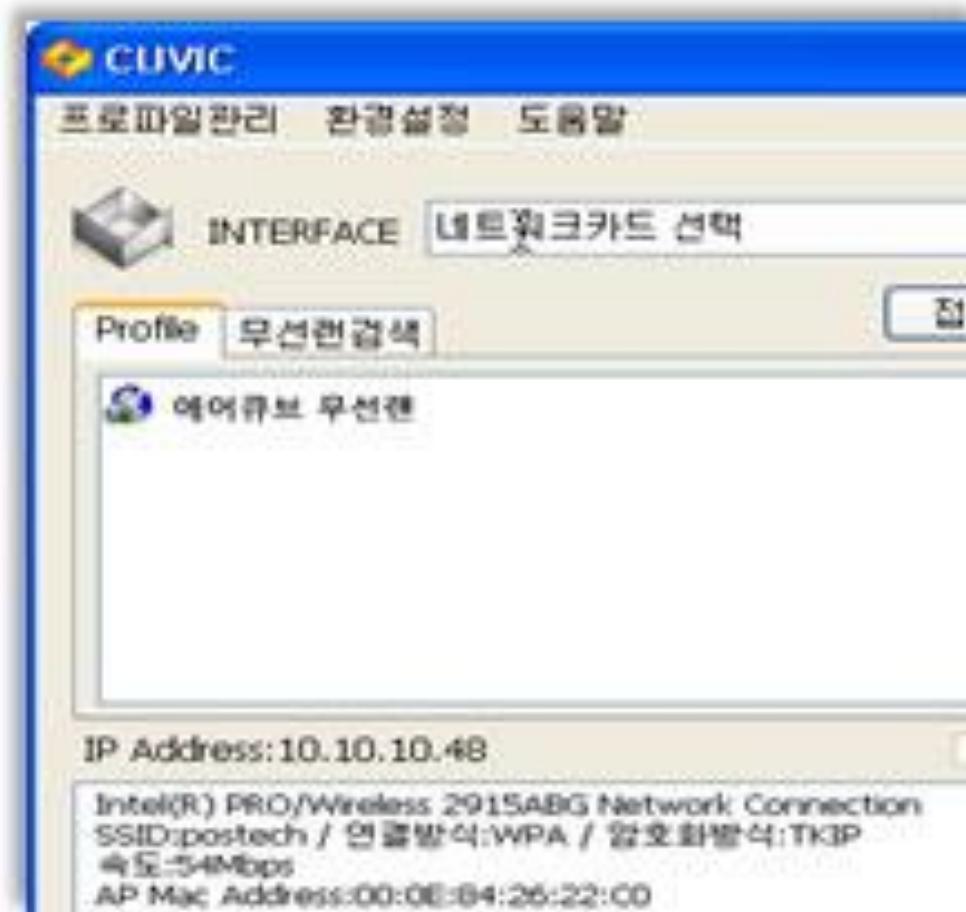


Architecture of V-FRONT v7 (for a details)

cuvic

- IEEE802.1x Authentication, Wi-Fi data encryption (WPA2)
- Search for a nearby Wi-Fi
- Certificate Management

Wireless authentication agent

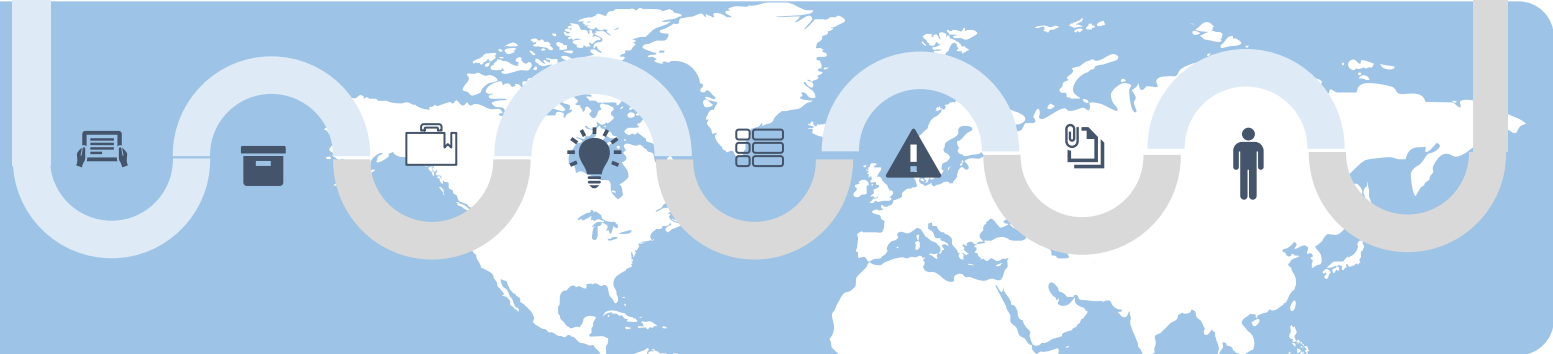


mCUVIC

- Wi-Fi Access
- Preferred access to preset profile
- IEEE802.1x Authentication
- Support for Wi-Fi section encryption (WPA2)
- Certificate-based authentication API available
- Available association with VPN client APP

Integrated smart mobile authentication app





Benefits of AirFRONT v7

Provide Wired / Wireless integrated authentication solution

Data encryption of the devices in the wireless LAN environment

Support the integrated authentication application of smart devices (Android, iOS)

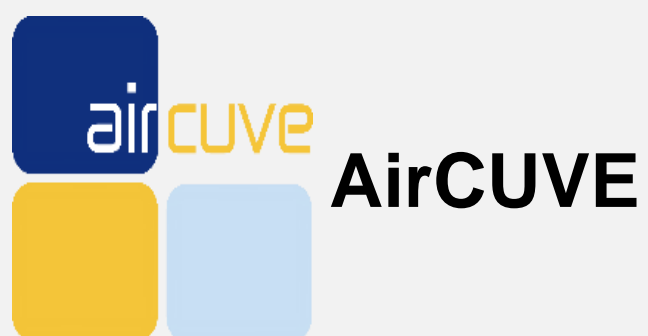


Integrated smart mobile authentication app
mCUVIC

Wireless authentication agent
cuvic

- CC certification by the IT Security Authentication Office (EAL-4)
- TTA software quality authentication (GS authentication)





2FA MFA Authentication
WiFi Access Authentication
BYOD Mobile Access Authentication

www.aircuve.com
gsahn@aircuve.com
tac@aircuve.com

Marketing & Sales
Engineering