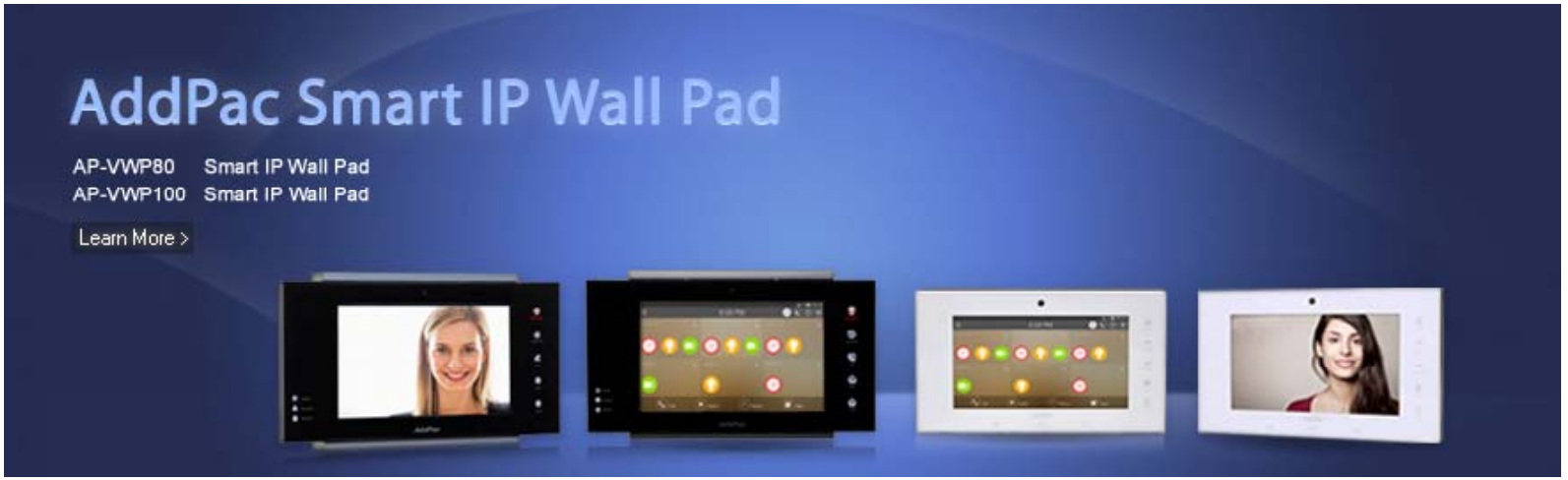
Smart IP Wall PAD Solution



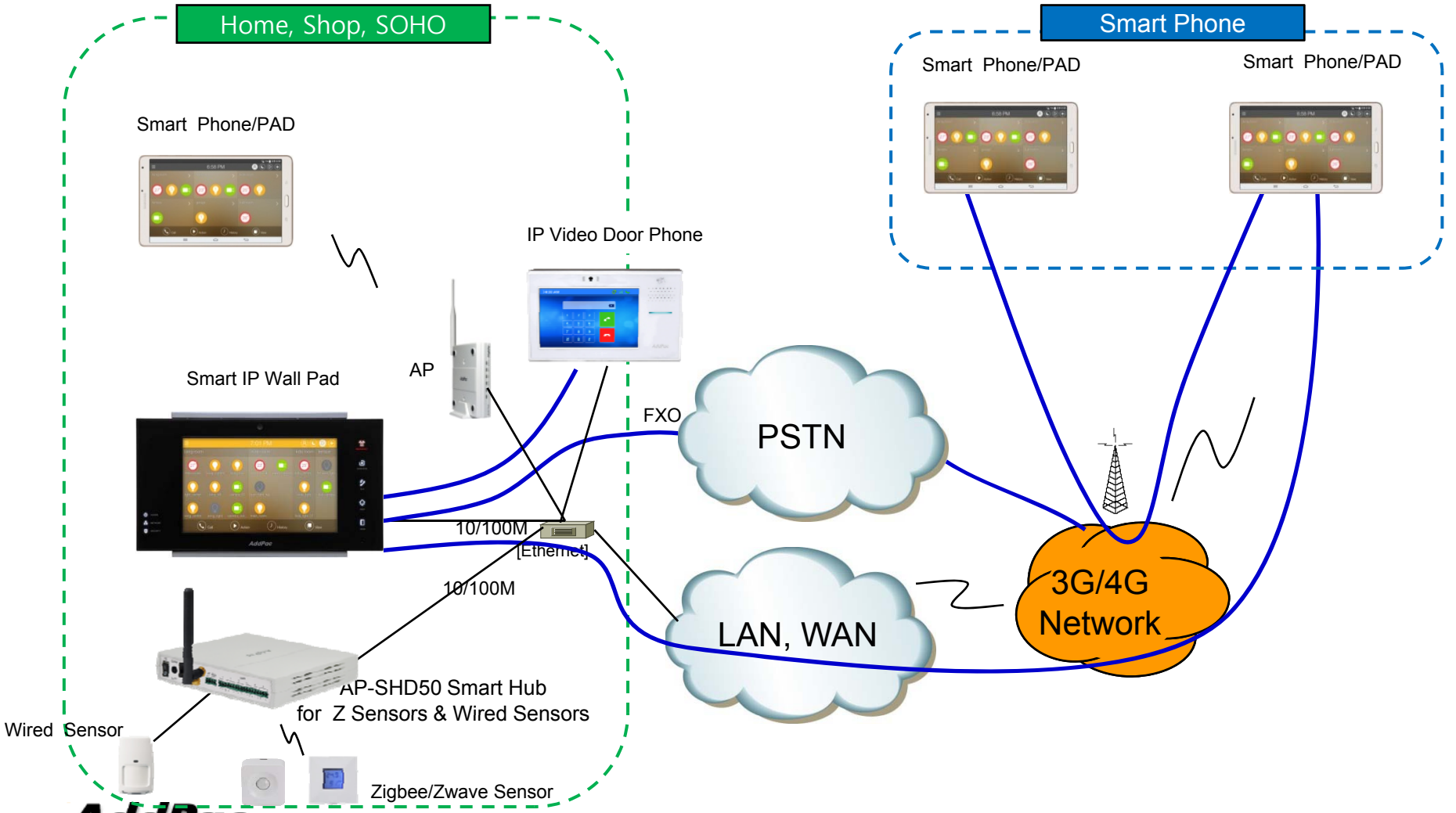
AddPac Technology

2014, Sales and Marketing

Contents

- Smart IP Wall PAD Service Diagram
- Smart IP Wall Solution
  - AP-VWP100
  - AP-VWP80
- Smart Home Backend Products
  - IP Door Access Control Servers
  - IP Video Door Phones
  - IP Video Phones for Security Guard
  - Smart Hubs for Sensor Devices
  - Smart Tab/Phone Application Software

Smart IP Wall PAD Service Diagram



Smart IP Wall PAD

Smart IP Wall PAD Comparison Table

Model Service Features	AP-VWP100 	AP-VWP80 
Duplex (Voice)	Full Duplex	Full Duplex
LCD	7 Inch	7 Inch
Touch Screen	Support	Support
Camera(Option)	SD(VGA)	SD(VGA)
Video Codec	SD, H.264/MPEG4/H.263	SD, H.264/MPEG4/H.263
Voice Codec	G.722, G.711, G.726	G.722, G.711, G.726
Signaling	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support
LAN Port	1	1
Camera(Option)	SD(VGA)	SD(VGA)
Analog Door Phone Interface (option)	SD	SD
PSTN Line (Option)	Support	Support
PoE(Option)	Support	Support

AP-VWP100
Smart IP Wall PAD

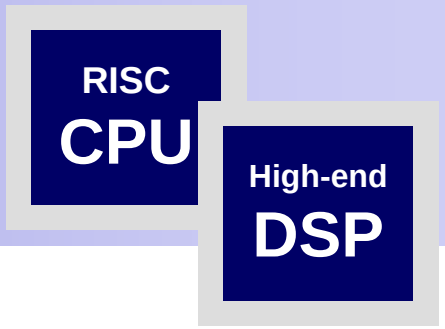
Product Overview

AP-VWP100 IP Video Wall PAD

- High Performance IP Video Wall PAD Solution
- TFT Color LCD, Touch Screen, Touch Sensor, Internal MIC & Speaker
- High Quality “7 Inch LCD, VGA(640x480) Video Resolution
- SIP VoIP Signaling Stack Embedded (Optional H.323)
- High-performance Video/Voice Codec Support
  - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- High Quality Speaker Phone Features
- PSTN with CID Interface Support (Option)
- Power Acoustic Echo Canceller (Option)
- PoE(Power over Ethernet) or Internal SMPS Power Support (Option)
- Video Camera Sensor (Option)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

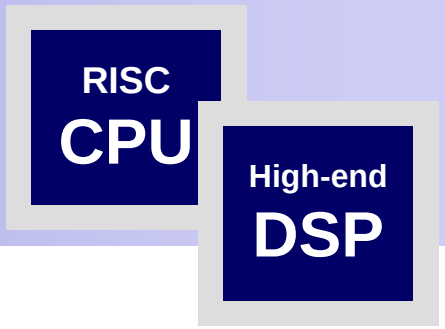
AP-VWP100 IP Video Wall PAD



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (Option)
- TFT Color LCD Interface with Touch Screen
  - 7 Inch LCD, 640 x 480, D1 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- PSTN Interface with CID (Caller ID Detection)
- Powerful Acoustic Echo Canceller (Option)
  - Half Duplex (Default)
  - Full Duplex, Powerful Acoustic Echo Canceller (Option)
- Wall Mount
- Power Supply
  - Power over Ethernet (Option)
  - Internal SMPS Power (Default)

Hardware Specification

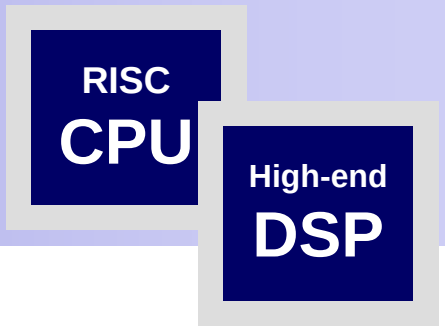
AP-VWP100 IP Video Wall PAD



- Acoustic Echo Canceller (Option)
  - Full-duplex operation during double-talk situations
  - One channel AEC, one channel LEC up to 256ms shared
  - Cancels echoes with up to 10dB echo return
  - Advanced noise reduction(up to 20dB)
- Speaker
  - Impedance : 8 +-15%ohm at 1kHz, 1.0 Vrms
  - Sound Pressure : 90 +- 3dB at 0.1W/10 CM
    at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz
  - Resonance Level : 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
  - Frequency Range : Fo Hz ~20kHz
  - Input Power : Normal : 1.0 W, Max : 2.0W
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet), Option
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VWP100 IP Video Wall PAD



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 480xRGBx640
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Video Camera (Option)
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VWP100 IP Video Wall PAD

RISC CPU

High-end DSP

Front Side

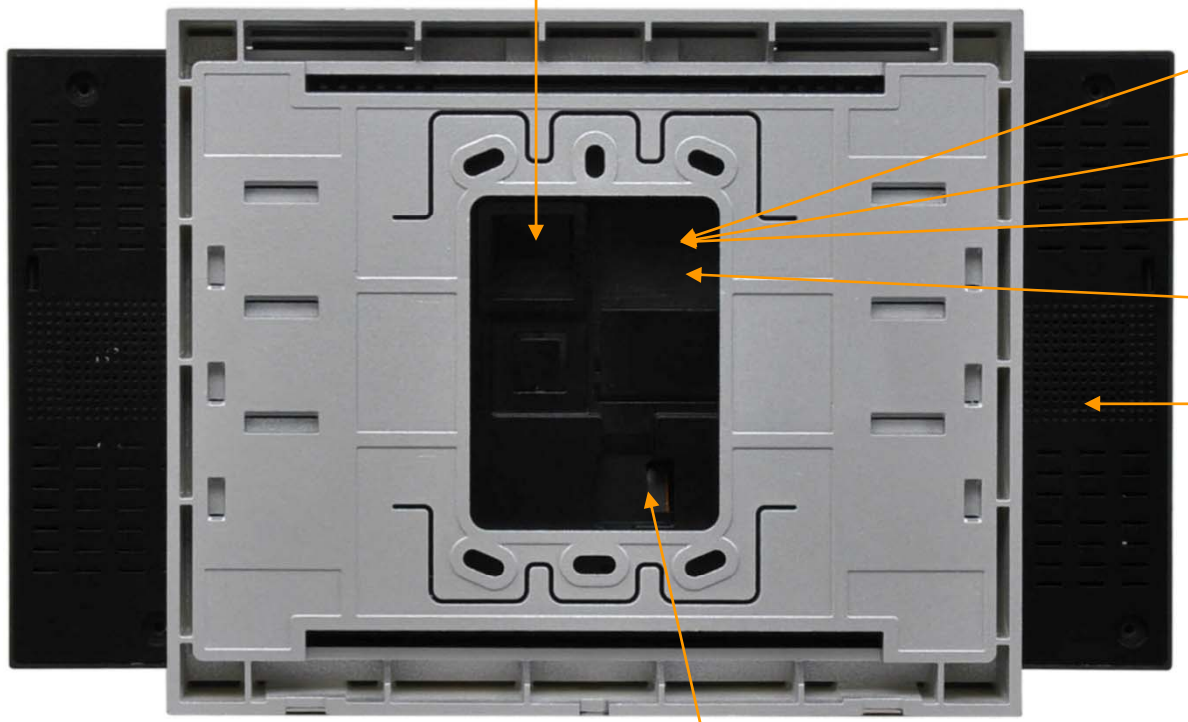
Hardware Specification

AP-VWP100 IP Video Wall PAD

RISC CPU

High-end DSP

Back Side



AP-VWP80
Smart IP Wall PAD

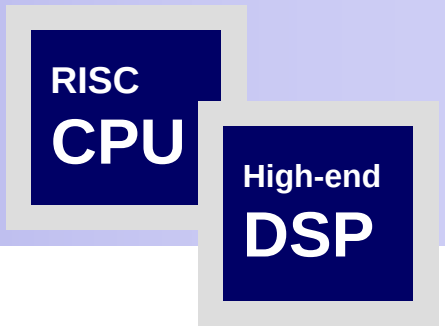
Product Overview

AP-VWP80 IP Video Wall PAD

- High Performance IP Video Wall PAD Solution
- TFT Color LCD, Touch Screen, Touch Sensor, Internal MIC & Speaker
- High Quality “7 Inch LCD, VGA(640x480) Video Resolution
- SIP VoIP Signaling Stack Embedded (Optional H.323)
- High-performance Video/Voice Codec Support
  - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- High Quality Speaker Phone Features
- PSTN with CID Interface Support (Option)
- Power Acoustic Echo Canceller (Option)
- PoE(Power over Ethernet) or Internal SMPS Power Support (Option)
- Video Camera Sensor (Option)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Interworking with Smart Hub for Sensor Devices
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

Hardware Specification

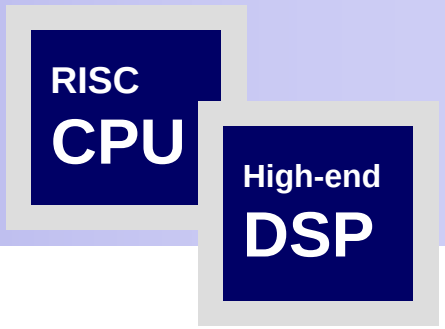
AP-VWP80 IP Video Wall PAD



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
  - Internal MIC
  - Internal Speaker
- Video Camera Interface (Option)
- TFT Color LCD Interface with Touch Screen
  - 7 Inch LCD, 640 x 480, D1 Video Resolution
- Network Interface
  - One(1) 10/100Mbps Fast Ethernet
- PSTN Interface with CID (Caller ID Detection)
- Powerful Acoustic Echo Canceller (Option)
  - Half Duplex (Default)
  - Full Duplex, Powerful Acoustic Echo Canceller (Option)
- Wall Mount
- Power Supply
  - Power over Ethernet (Option)
  - Internal SMPS Power (Default)

Hardware Specification

AP-VWP80 IP Video Wall PAD



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- Speaker
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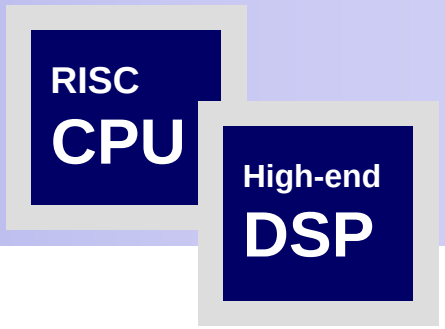
- Audio Amplifier
  - 1-W BTL Output(5V, 0.11 % THD+N)
  - Uncompensated Gains of 2 to 20 (BTL Mode)
  - Thermal and Shot-circuit Protection
  - High Supply Ripple Rejection Ratio
- PoE(Power over Ethernet), Option
  - IEEE802.3af compliant
  - Input voltage range 36V to 57V
  - Short-circuit Protection

Hardware Specification

AP-VWP80 IP Video Wall PAD



- LCD Controller
  - One-Chip Solution for amorphous TFT-LCD
  - Support resolution up to 480xRGBx640
  - Built-in 172800 bytes internal RAM
  - 6,8,16, and 18-bit RGB Interface
  - Resize Function (x ½, x ¼)
  - On-Chip Power Management System

- Video Camera (Option)
  - High Sensitivity for low-light operation
  - Output support for Raw RGB, RGB, and YCrCb format
  - Image Size : VGA, QVGA, and any size scaling down from CIF to 40x30
  - Support AEC, AGC,AWB, ABF, ABLC
  - Saturation Level, Edge Enhancement Level, De-noise level Auto adjust

Hardware Specification

AP-VWP80 IP Video Wall PAD

RISC CPU

High-end DSP

Front Side

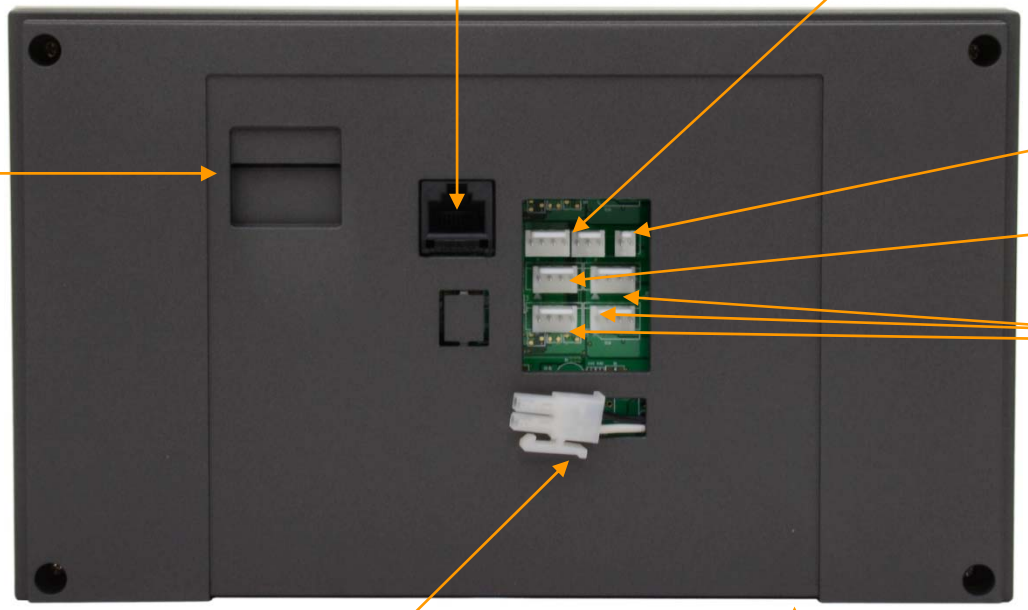
Hardware Specification

AP-VWP80 IP Video Wall PAD

RISC CPU

High-end DSP

Back Side



Smart Home Backend Products

Smart Home Backend Product Table

Smart Home Products	Description	Model
	Smart Wall PAD	AP-VWP100, AP-VWP80
	IP Video Door Phones	AP-VAC20, AP-VAC50, AP-VAC80, AP-VAC150
	IP Video Phone (Bidirectional two-way video)	AP-VP280, AP-VP120, etc
	Smart Hub for Zigbee/Zwave Sensors	AP-SH50, AP-SAH50, AP-SHD50
	Smart Phone and Tab/Pad Appl.	

IP Door Access Control Servers

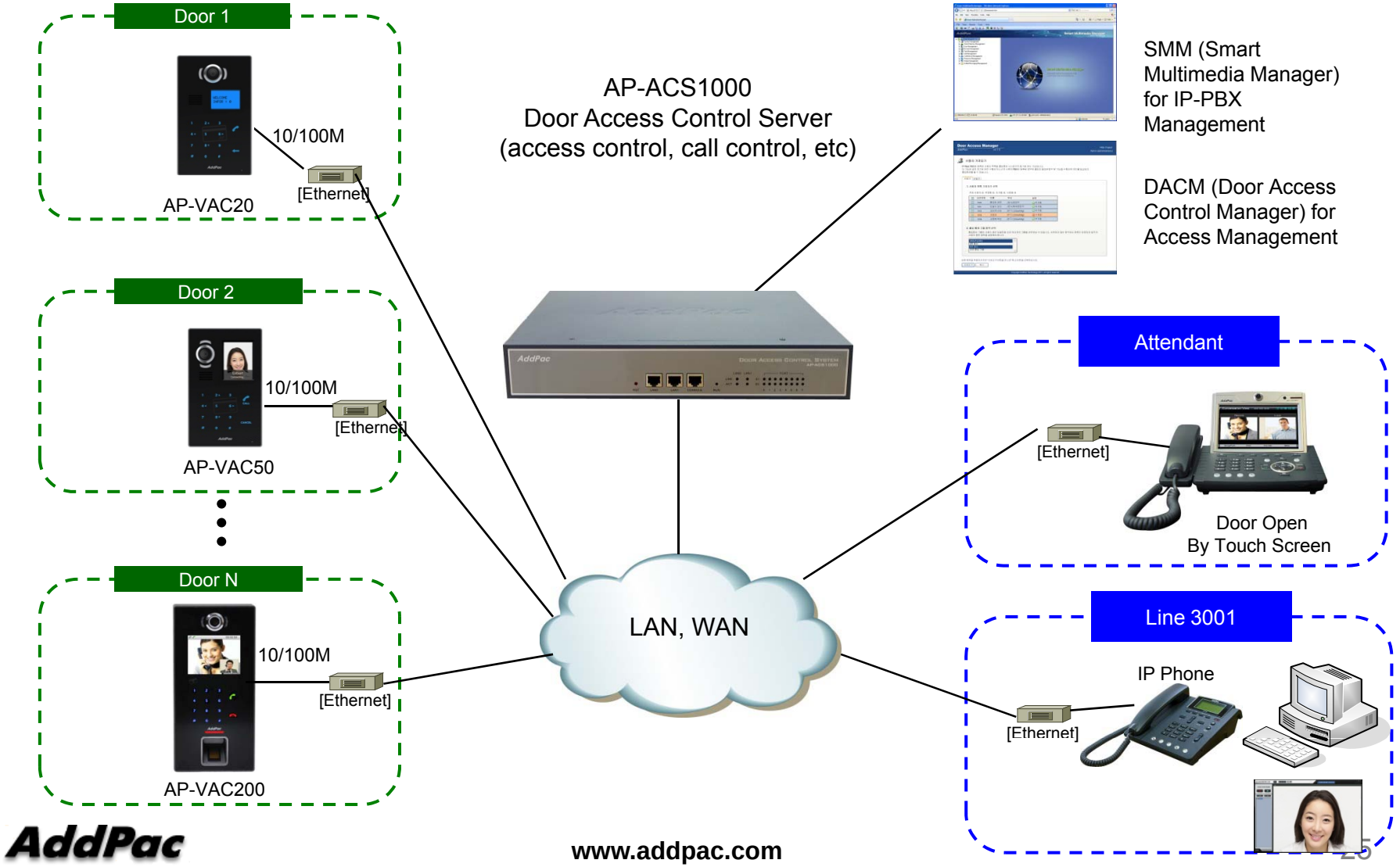
Door Access Control Server Comparison Table

Model / Service Features		AP-ACS1000 	AP-ACS500 
Registration User Number		100	30
Concurrent Call User Number		30	15
IPv4/IPv6 Dual Stack Support		Support	Support
VoIP Signaling	Internal	SIP	SIP
	External	H.323/SIP	H.323/SIP
Powerful IVR, UMS, Media Service, User Presence Service		Support	Support
RTP Proxy Service (IPv6, Private IP)		Support	Support
LAN Port		2	2
VoIP Module Slots for PSTN		2 Slots (8 Port Module)	N/A
VoIP Interface		FXS,FXO,E1/T1	Option
Video Door Phone Control (RF card, etc)		Support	Support
Time & Attendance Management		Support(option)	Support (Option)

Contents

- DACS(Door Access Control Server) Network Diagram
- AP-ACS1000 Main Features & Hardware Specification
- AP-ACS500 Main Features & Hardware Specification
- DACS System Message Flow (Examples)
- DACM (Door Access Control Manager)
- Open API for Third Party Controller

Integrated Door Access Control and Call Control



AP-ACS1000
Door Access Control Server

Main Features

AP-ACS1000 DACS (Door Access Control System)

- Door Access Control Application System
- SIP Application Server, Proxy, Registrar and Location Server
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
- Legacy PBX Interworking Service
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Performance LAN-to-LAN Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- IPv4/IPv6 Dual Stack
- Firmware Upgradeable Architecture
- Smart Multimedia Manager for IP-PBX Management
- DACM(Door Access Control Manager)
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Two(2) VoIP Module Slots for Analog, Digital Interface

Main Features

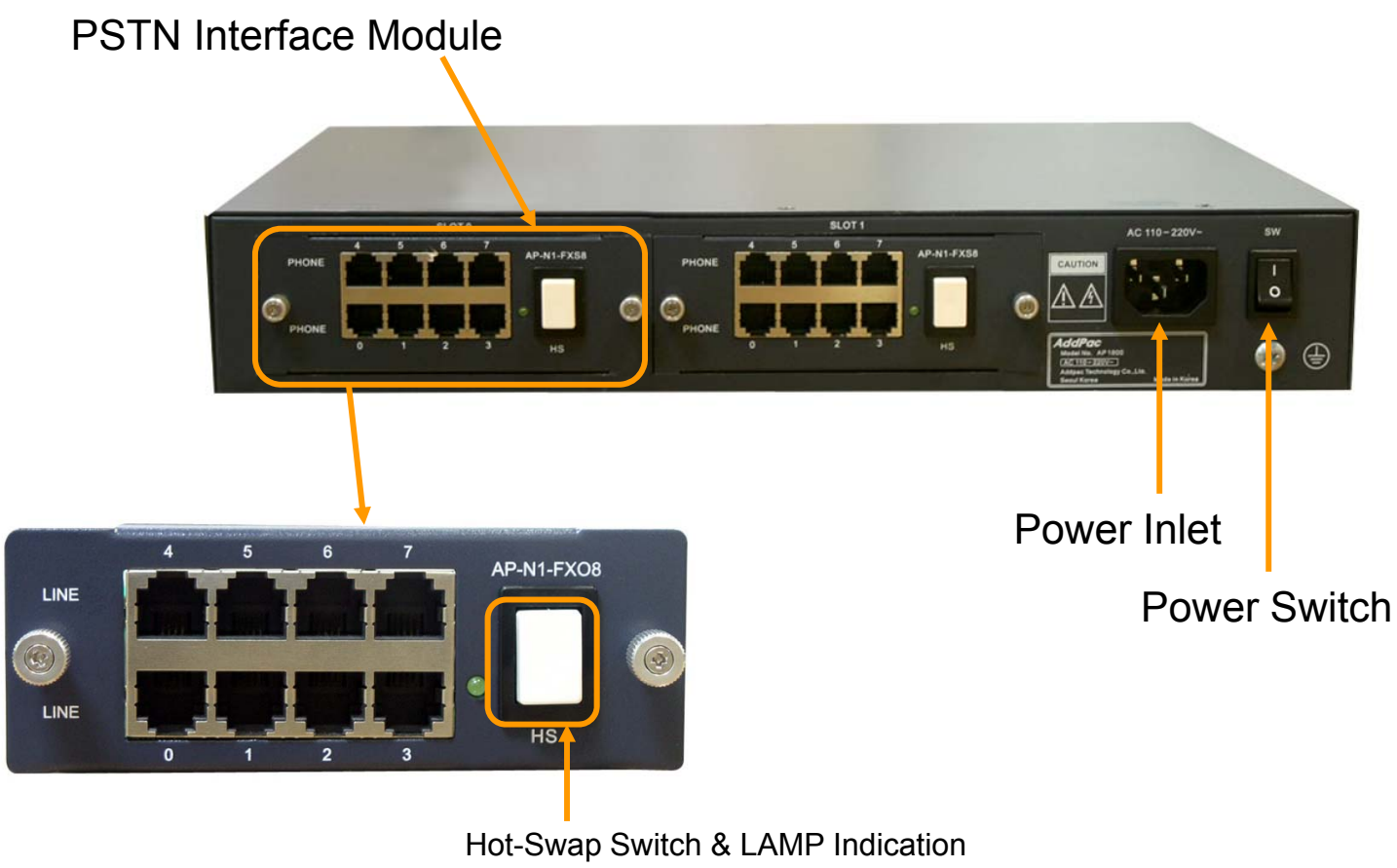
AP-ACS1000 DACS (Door Access Control System)

- RISC Microprocessor Computing Power
- Main Chassis
  - Network Interface
    - Two(2) 10/100Mbps Fast Ethernet
    - One(1) RS-232C Console (RJ45)
  - Two(2) VoIP Module Slots for FXS, FXO etc

Hardware Specification

AP-ACS1000 DACS (Door Access Control System)

AP-ACS1000 Back Side



Hardware Specification

AP-ACS1000 DACS (Door Access Control System)

PSTN Interface Module

AP-N1-FXS8		8-Port FXS Voice Processing Module (8 x RJ11)
AP-N1-FXO8		8-Port FXO Voice Processing Module (8 x RJ11)
AP-N1-FXO4S4		4-Port FXO and 4-Port FXS Voice Processing Module (8 x RJ11)
AP-N1-E1T1		1-Port VoIP Digital E1/T1 Interface Module(1xRJ45)

AP-ACS500
Door Access Control Server

Main Features

AP-ACS500 DACS (Door Access Control System)

- Door Access Control Application System
- SIP Application Server, Proxy, Registrar and Location Server
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
- Legacy PBX Interworking Service
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Performance LAN-to-LAN Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- IPv4/IPv6 Dual Stack
- Firmware Upgradeable Architecture
- Smart Multimedia Manager for IP-PBX Management
- DACM(Door Access Control Manager)
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs

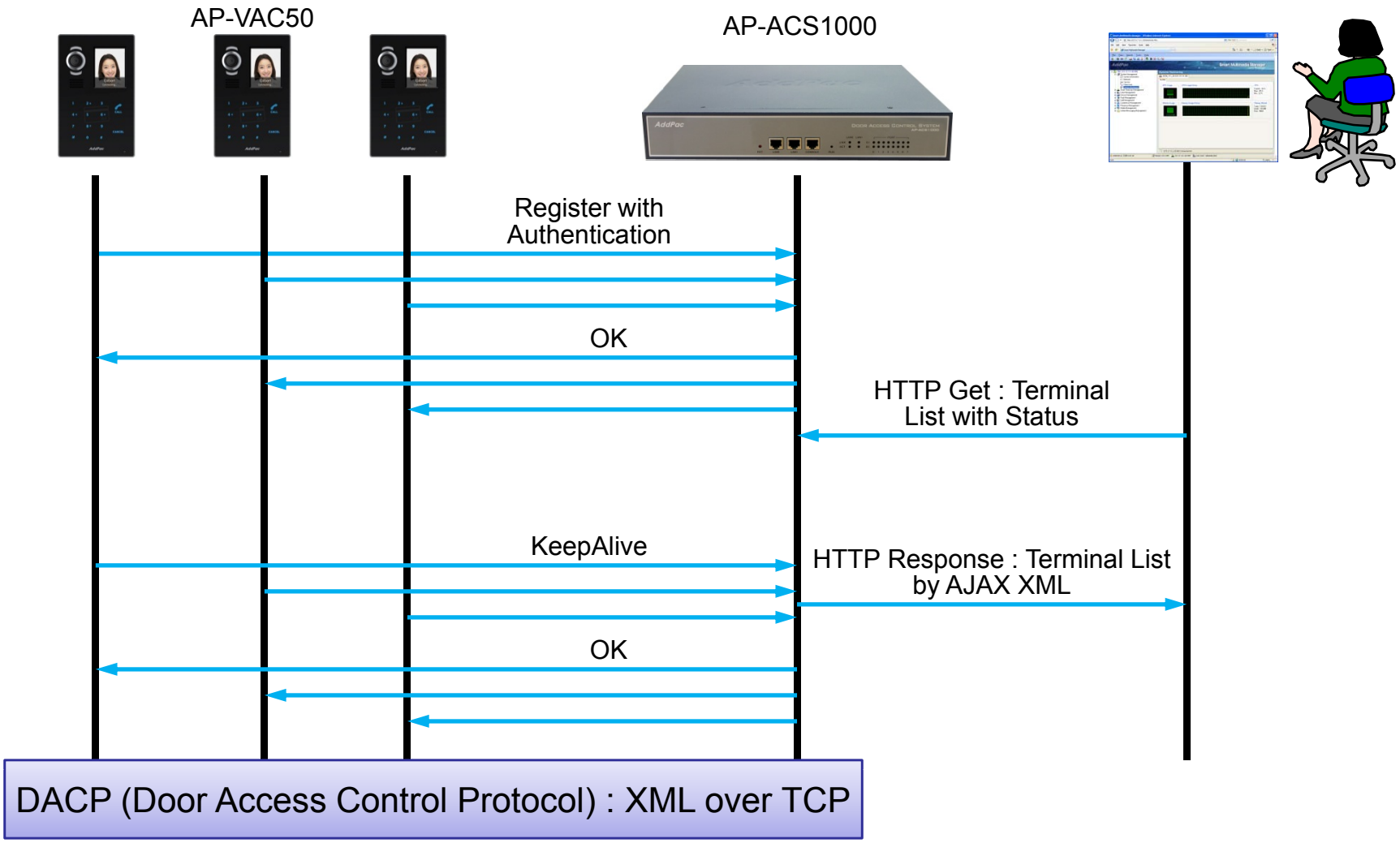
Hardware Specification

AP-ACS500 DACS (Door Access Control System)

- RISC Microprocessor Computing Power + High End Programmable DSP
- VoIP Gateway Interface
  - Model A: Basic Configuration
  - Model B: Two(2) FXO Port
  - Model C: Four(4) FXO Port
  - Model D: Two(2) FXS + Two(2) FXO Port
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- USB Interface
  - One(1) USB Host Mode Interface for USB Memory and Wireless LAN
- Power Supply
  - External Power Adaptor
- Power On/Off Switch
- Power LED, LAN LEDs, FXO Port LEDs

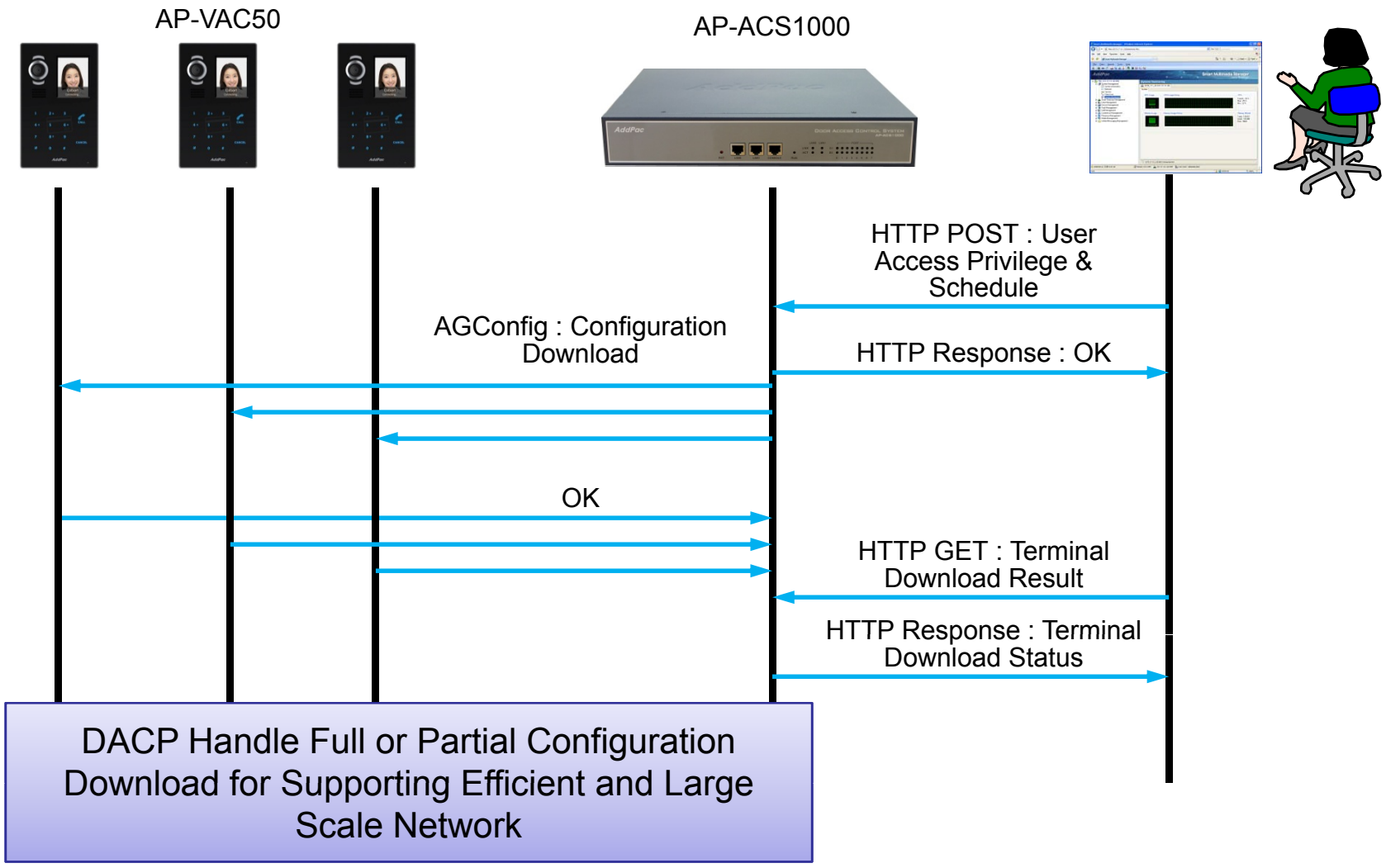
DACS
System Message Flow

DACS System Message Flow
Registration and KeepAlive



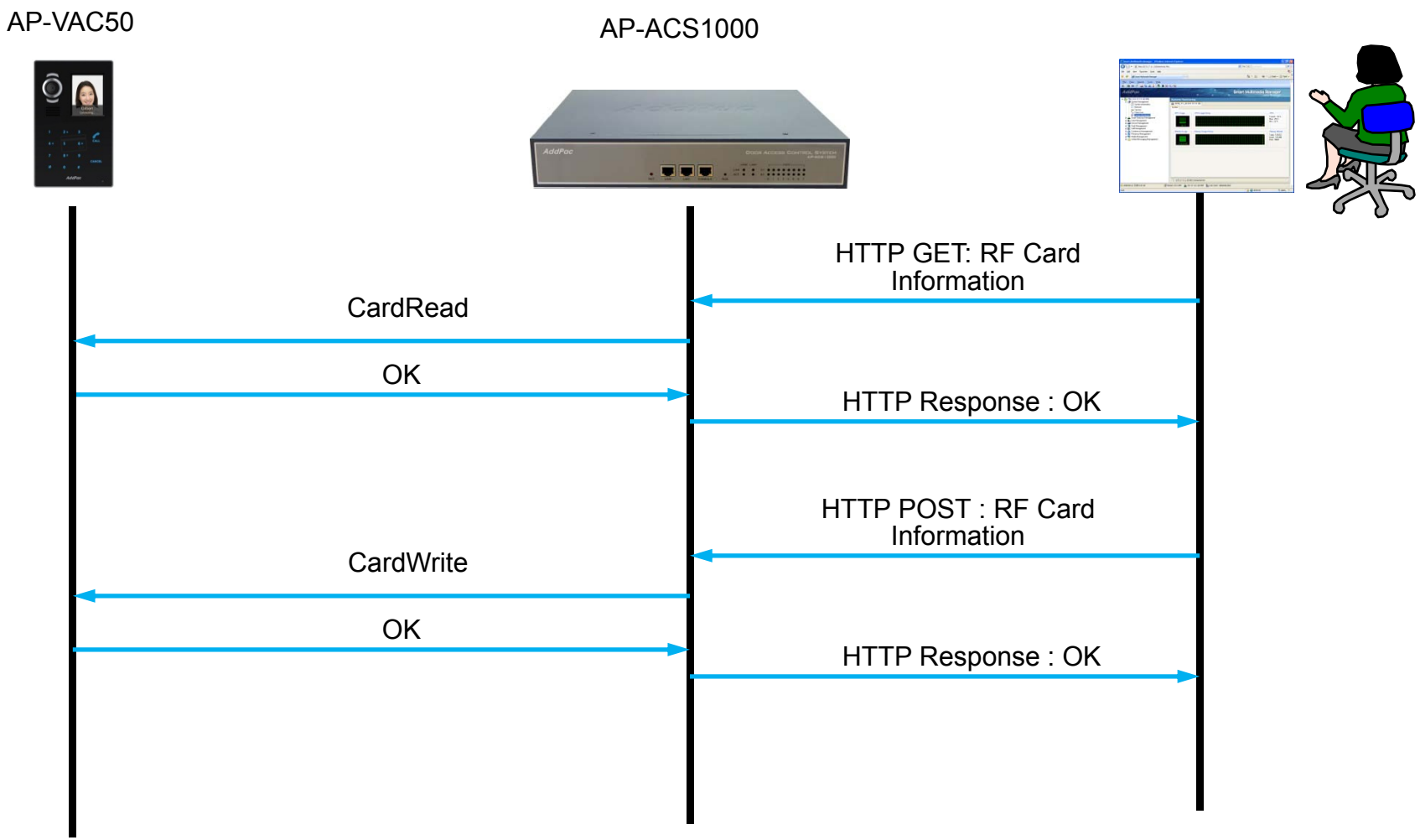
DACS System Message Flow

Access Privilege and Schedule Download



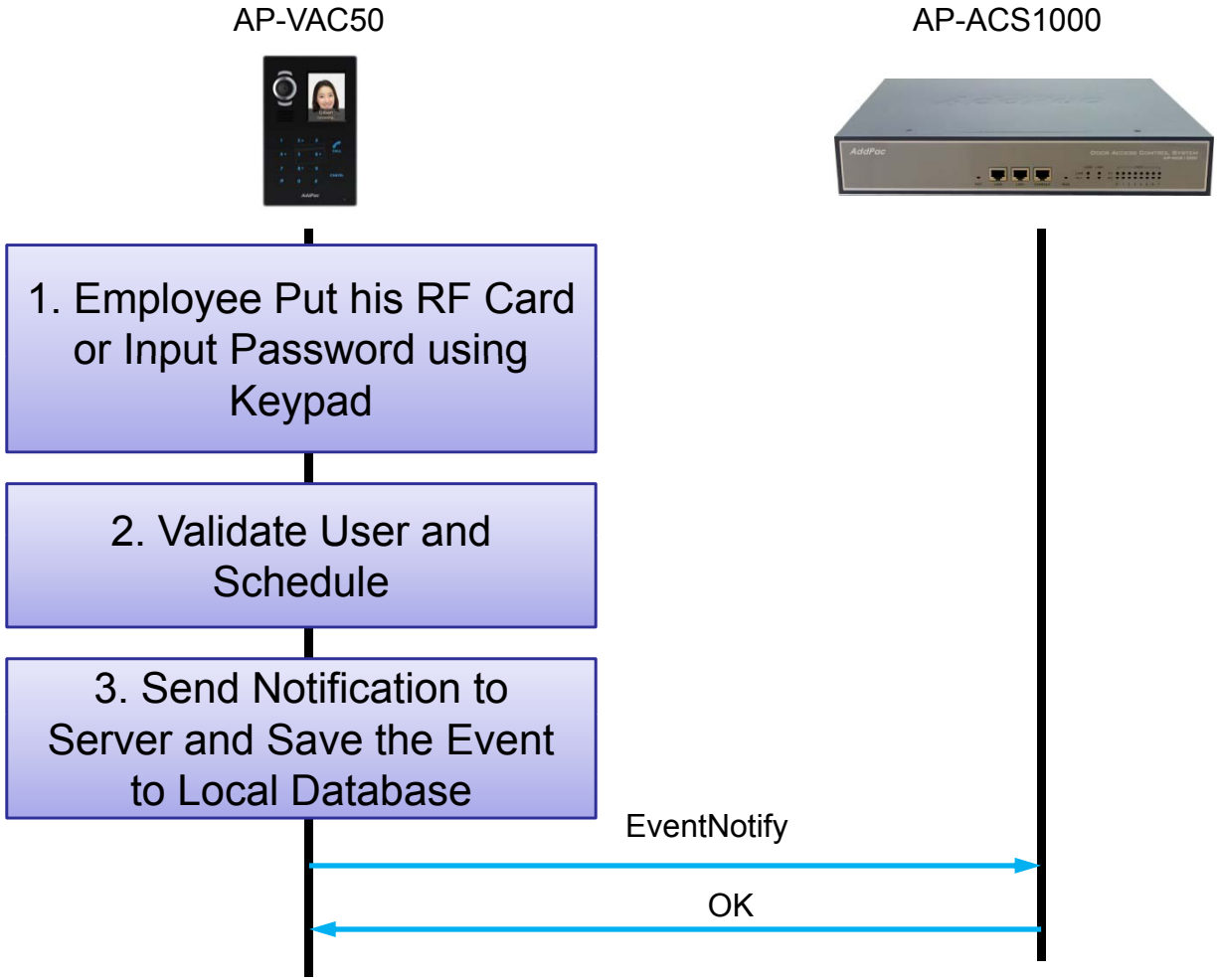
DACS System Message Flow

RF Card Read/Write and Registration



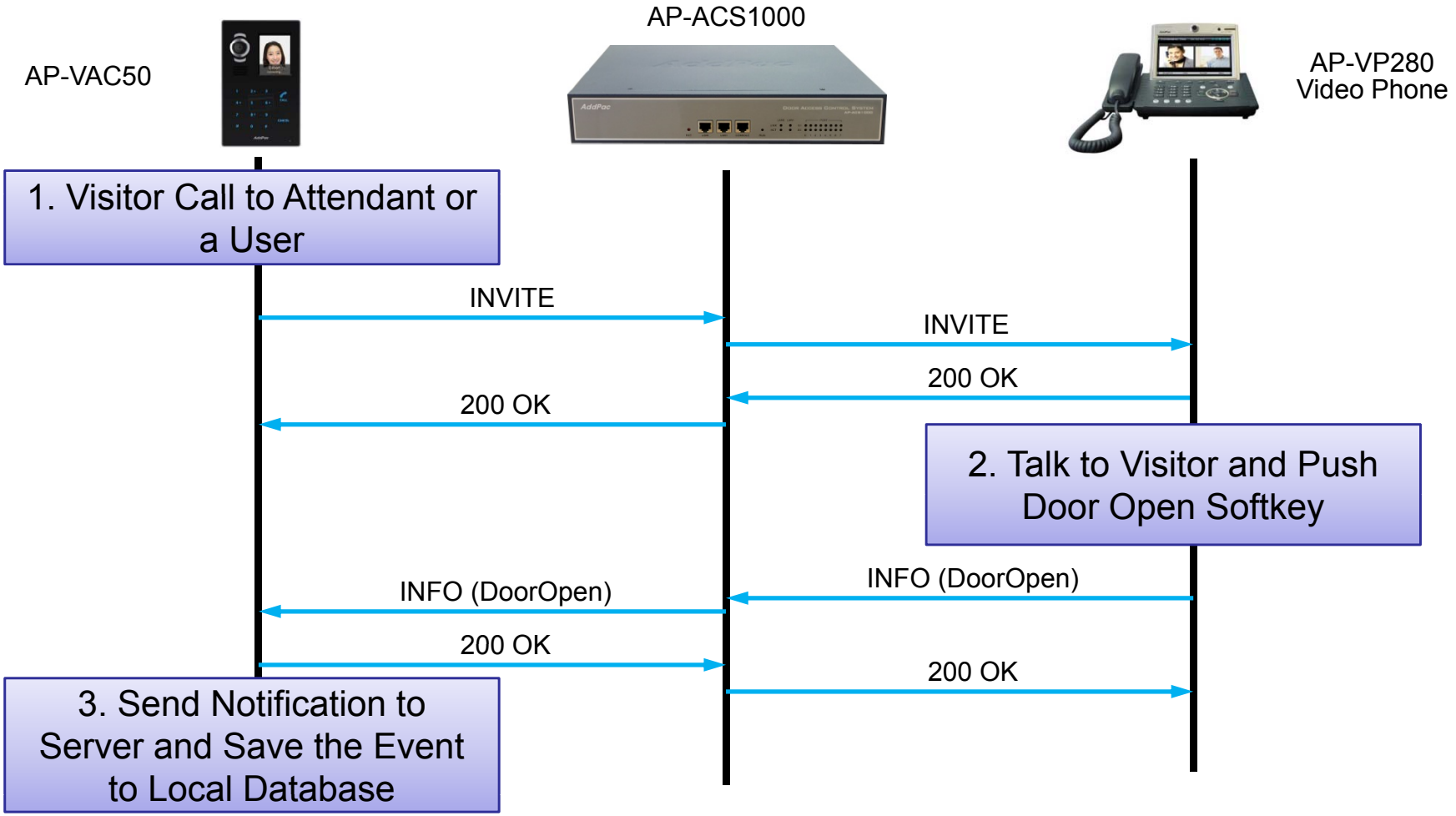
DACS System Message Flow

Door Open by RF Card or Password



DACS System Message Flow

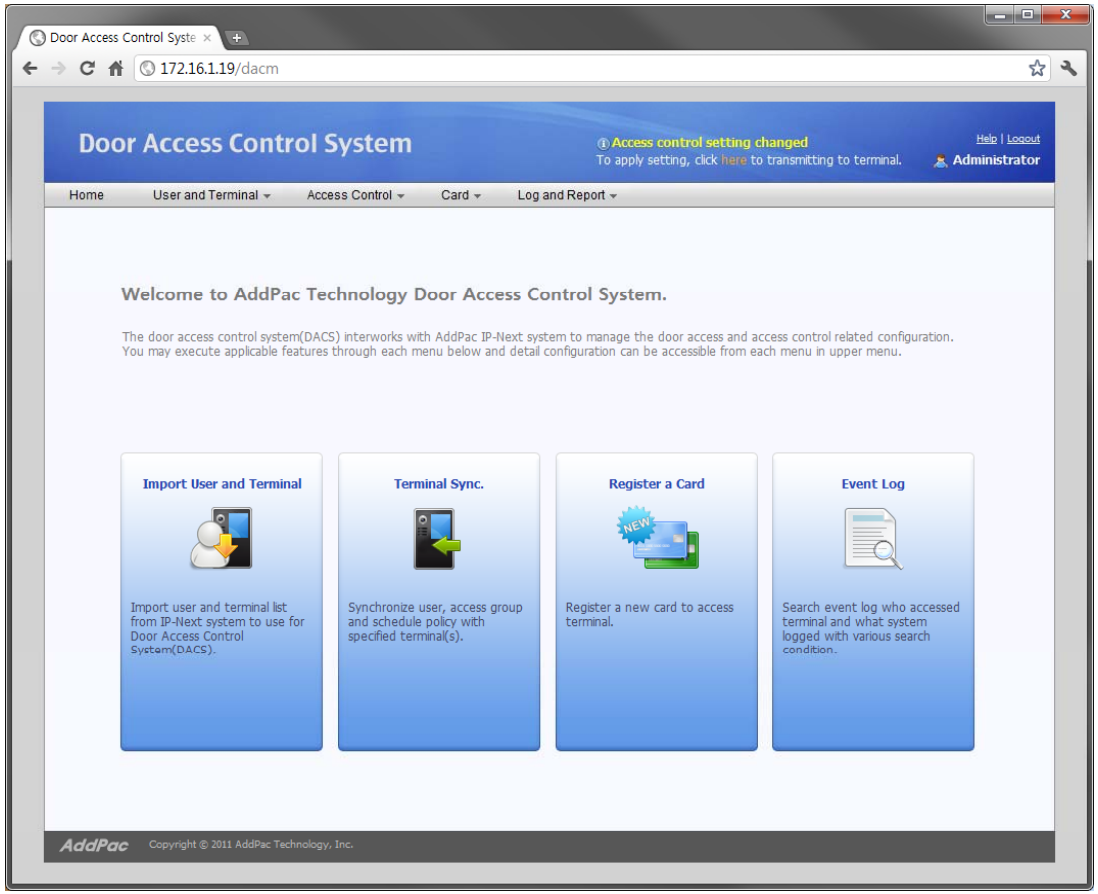
Door Open by Other Terminal



Door Access Control Manager

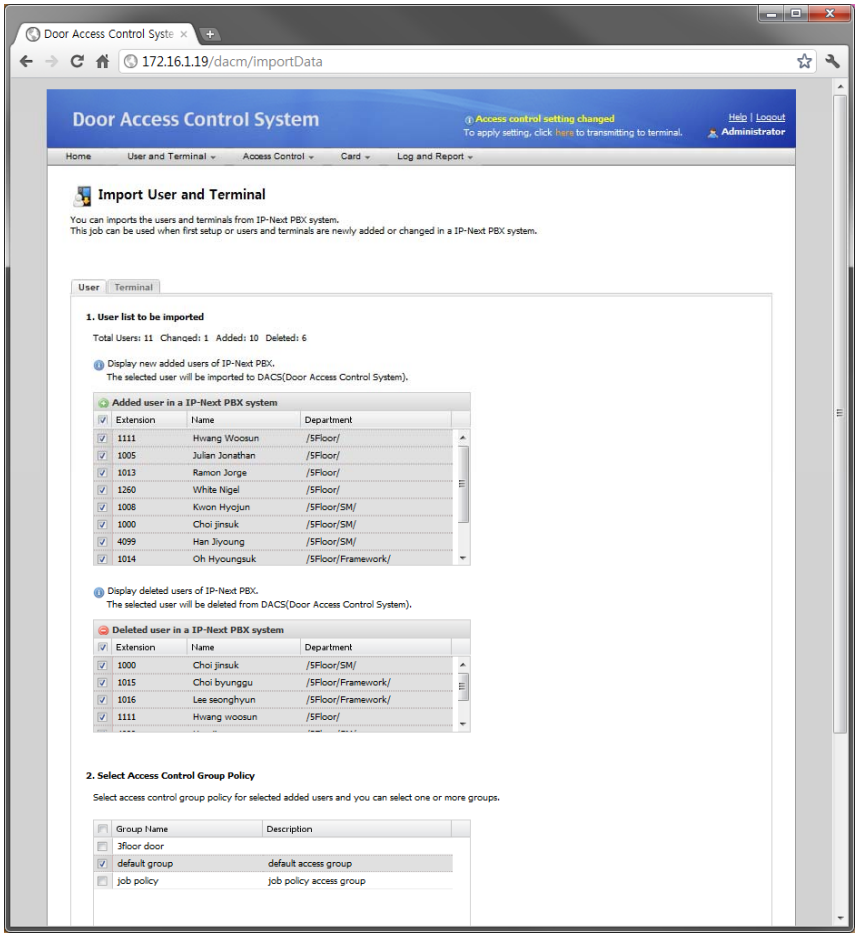
DACM (Door Access Control Manager)

Main Web Page



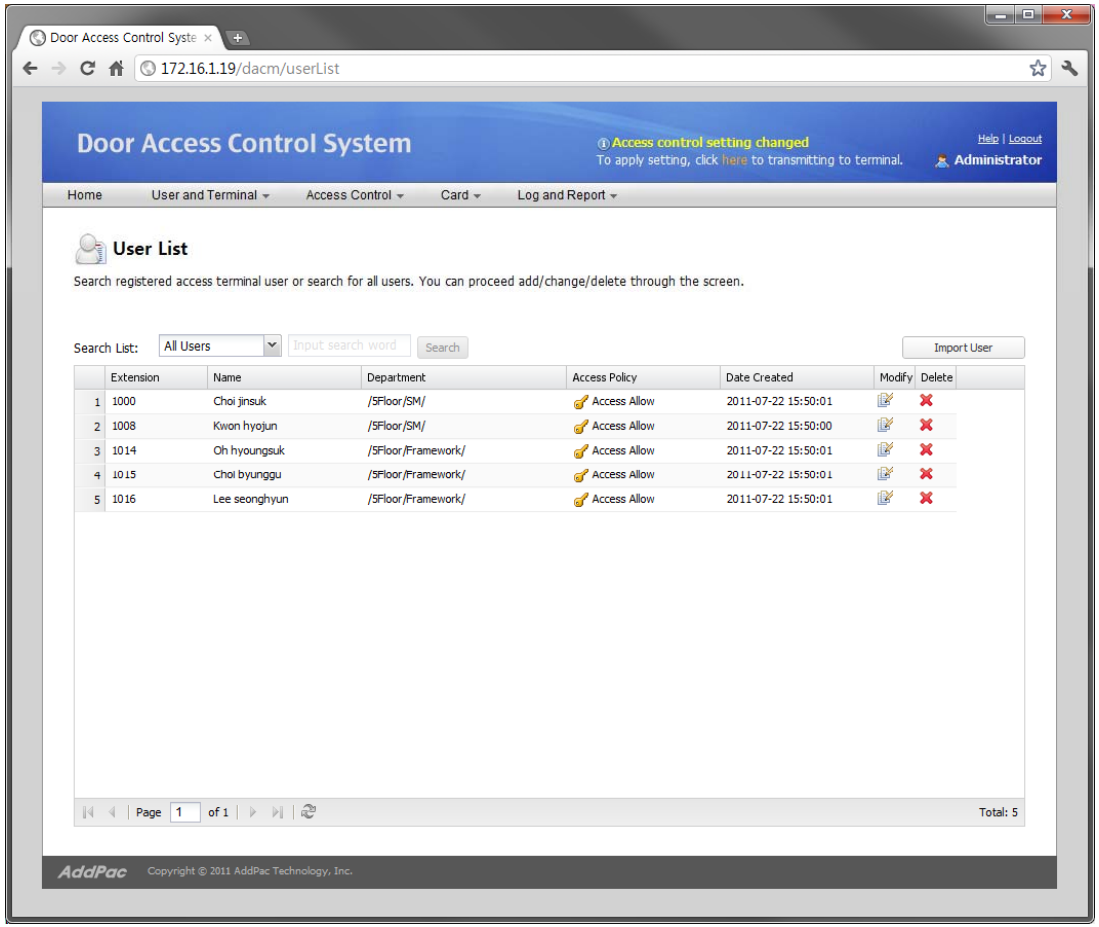
DACM (Door Access Control Manager)

Import User and Terminal



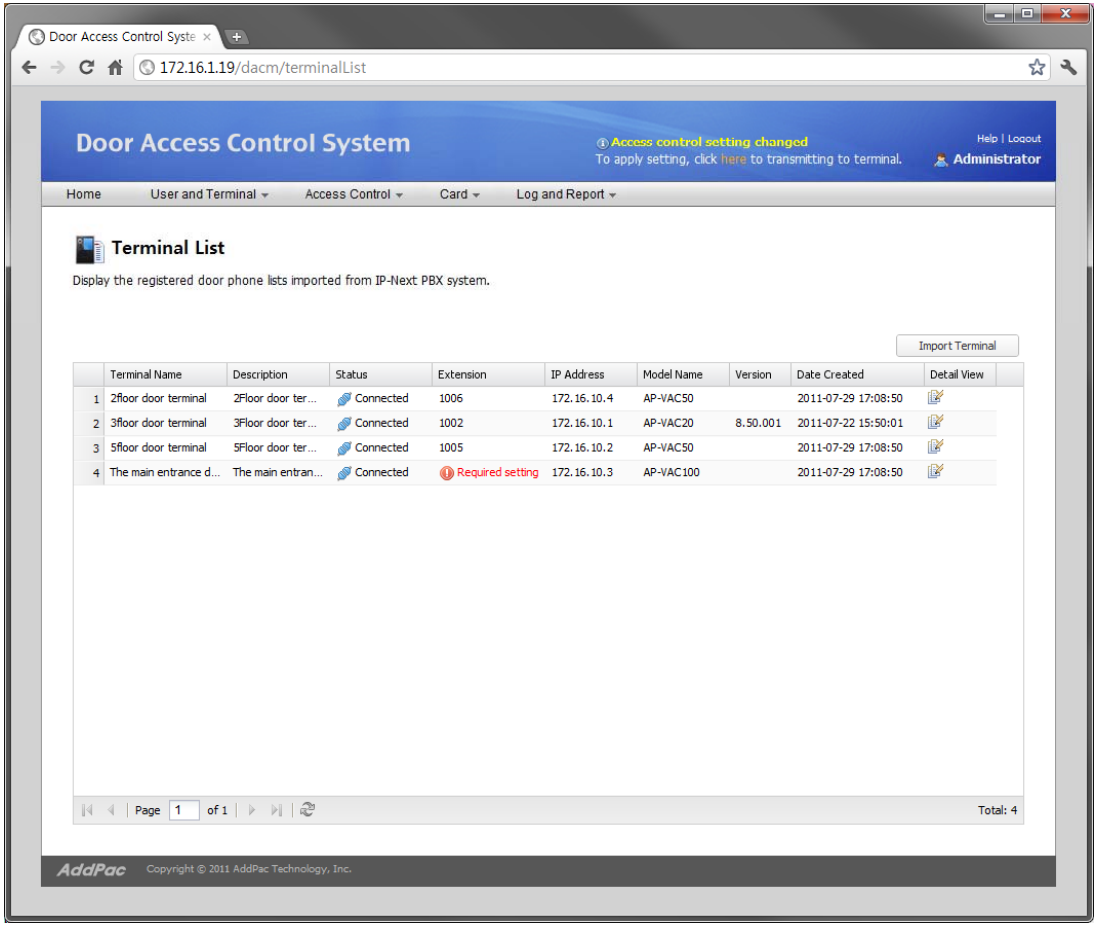
DACM (Door Access Control Manager)

User List



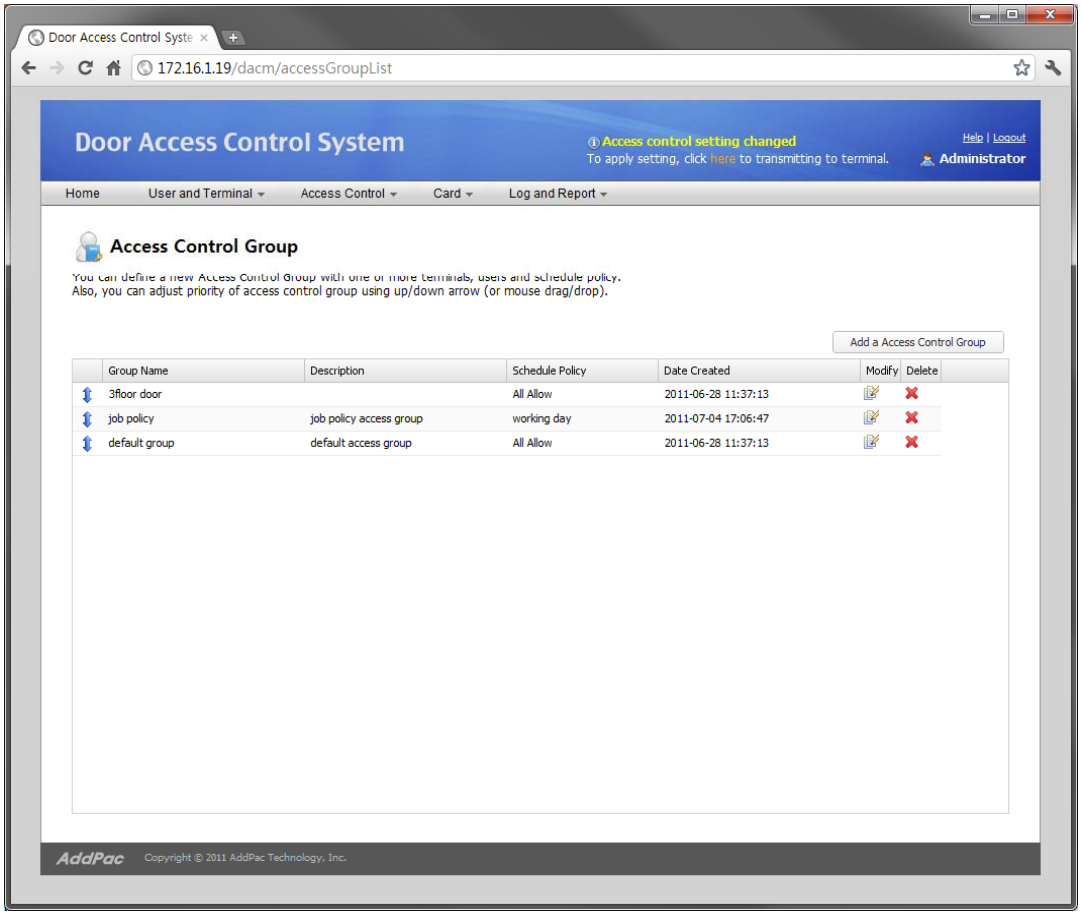
DACM (Door Access Control Manager)

Terminal List



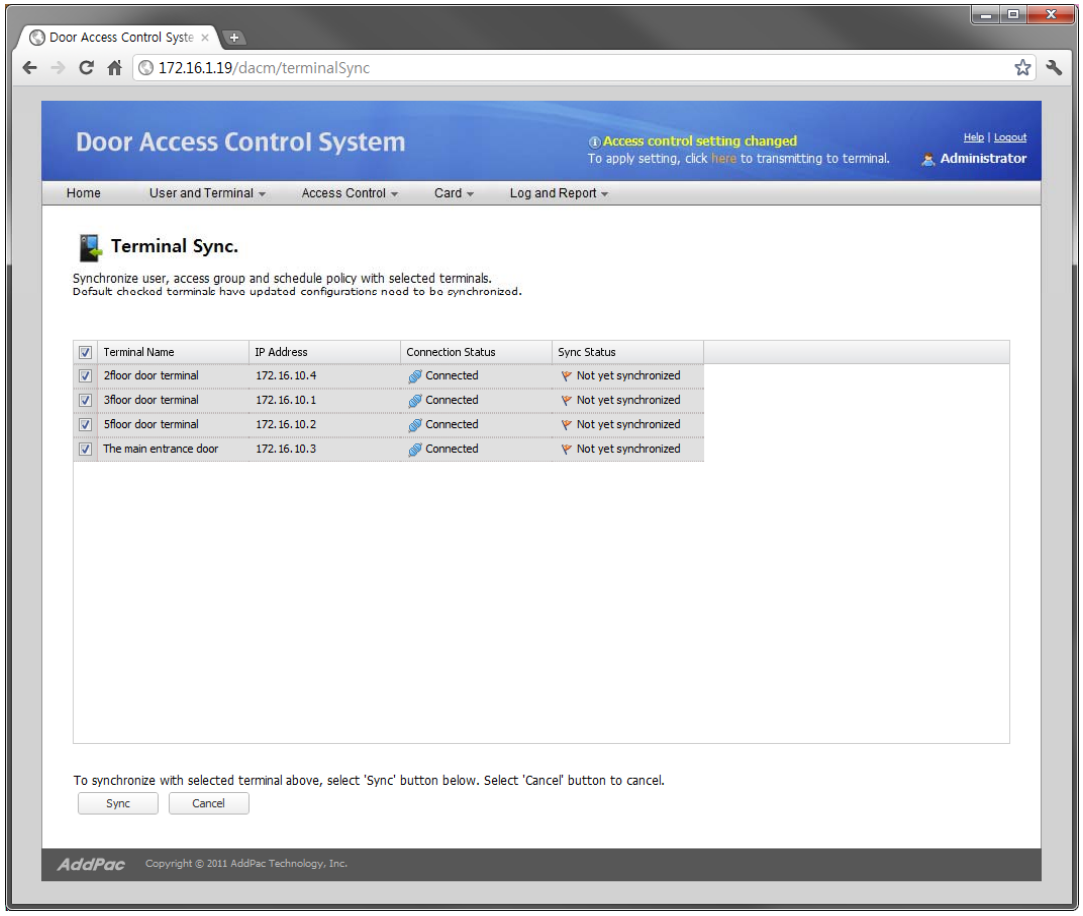
DACM (Door Access Control Manager)

Access Control Group Management



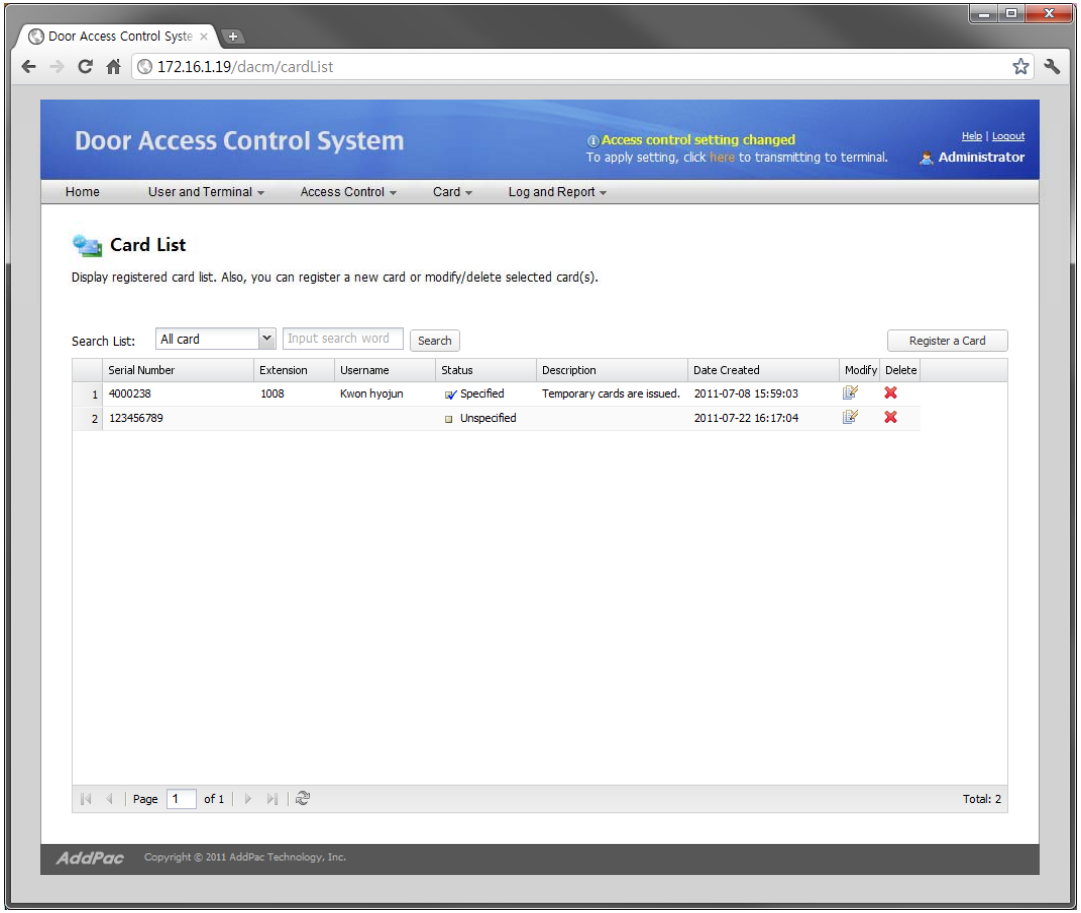
DACM (Door Access Control Manager)

Configuration Download to Terminal



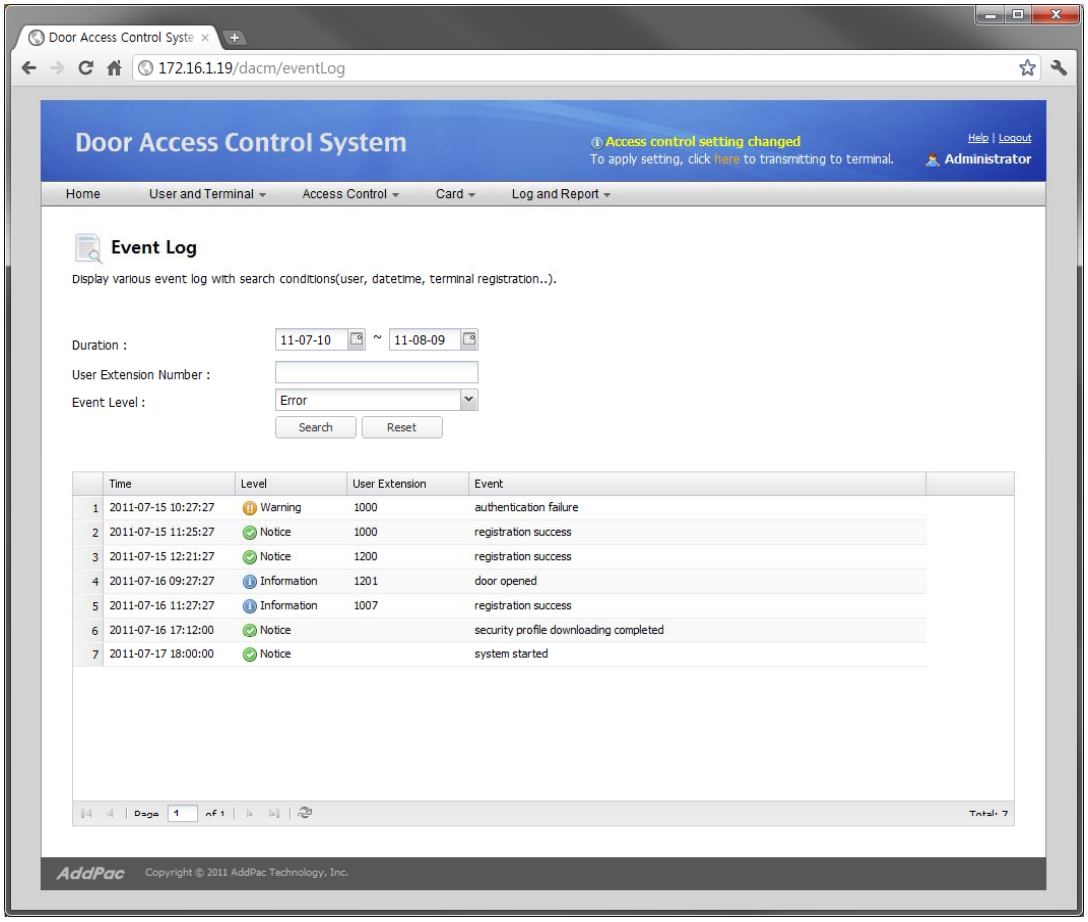
DACM (Door Access Control Manager)

RF Card Management



DACM (Door Access Control Manager)

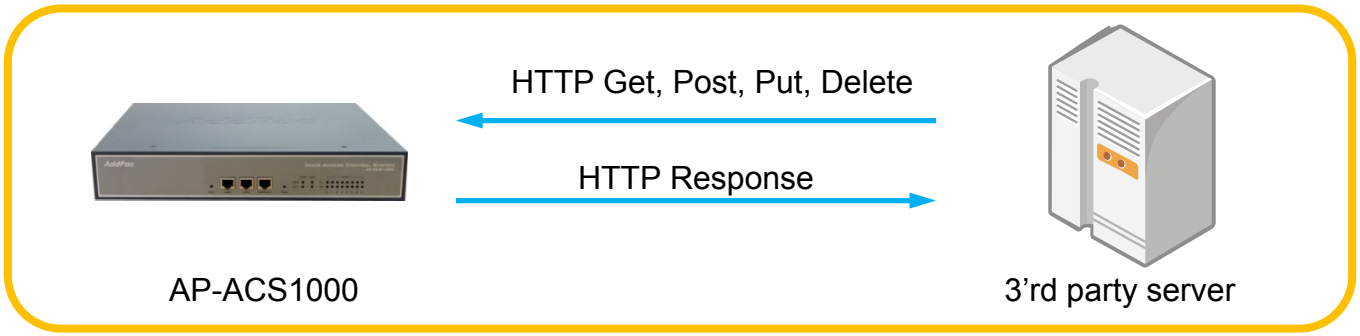
Access Log Management



AP-ACS1000 Open API

Open API

Open API for 3’rd Party Management System



- HTTP based RESTful Open API for Door Access Management
- XML based Flexible and Expandable Message Contents
- Provides More than 40 APIs as Bellow
  - user_list(GET), user(GET, POST, PUT, DELETE), …
  - terminal_list(GET), terminal(GET, POST, PUT, DELETE), …
  - access_group(GET, POST, PUT, DELETE), priority (PUT), …
  - card_list(GET), card(POST, PUT, DELETE), …
  - schedule_template(GET, POST, PUT, DELETE), rule(GET, POST, PUT, DELETE) ,…

IP Video Phones for Security Gurad

IP Video Phones for AddPac IP Video Door Phone

	AP-VP300N	AP-VP280	AP-VP230	AP-VP150	AP-VP120
					
LCD Size	7Inch Touch Screen	7Inch Touch Screen	5Inch Touch Screen	4.3Inch Touch Screen	4.3Inch
Camera	CCD	CMOS	CMOS	CCD	CMOS
Video Codec	H.263 MPEG4 H.264	H.263 MPEG4 H.264	H.263 MPEG4 H.264	H.263 MPEG4 H.264	H.263 MPEG4 H.264
Signaling	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP
Video MCU	N/A	N/A	N/A	N/A	N/A
Voice MCU	3-Party	3-Party	3-Party	3-Party	3-Party
LAN Port	2	2	2	2	2
PoE	Support	Support	Support	Support	Support

Smart Hub Solution for Sensor Devices

Smart Hub Equipment Comparison Table

Model / Service Features	AP-SH50	AP-SAH50	AP-SH050
			
Sensor Type	Wireless	Wired	Wireless/Wired
	Zigbee, Zwave		Zigbee, Zwave
Wired Sensor Port	N/A	6-Port	6-Port
Smart Appl. for Phone, PAD	Support	Support	Support
Smart Web Manager	Support	Support	Support
LAN Port	1	1	1
PoE(Option)	Option	Option	Option

AP-SH50 Smart Hub

Product Overview

AP-SH50 Smart Hub for Z sensors

- Advanced Smart Home Solution
- Zigbee/Zwave Dual Sensor Interface Support
- Smart IP Routing Service Features for Sensor Network
- Smart Wall Pad Interworking Service Features
- Smart Hub Interworking Support for Third Party
- High Performance RISC Programmable Architecture
- One 10/100Mbps Fast Ethernet
- High Performance LAN-to-Zigbee/Zwave Routing Capability
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Smart Web based Management
- Light and Compact Design with External Power Supply

Hardware Specification

AP-SH50 Smart Hub for Z sensors

- RISC Microprocessor Computing Power
- 1-Port Zigbee Interface
- 1-Port Zwave Interface
- 1-Port Zigbee Antenna
- 1-Port Zwave Antenna
- Network Interface
  - -One(1) 10/100Mbps Fast Ethernet (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply

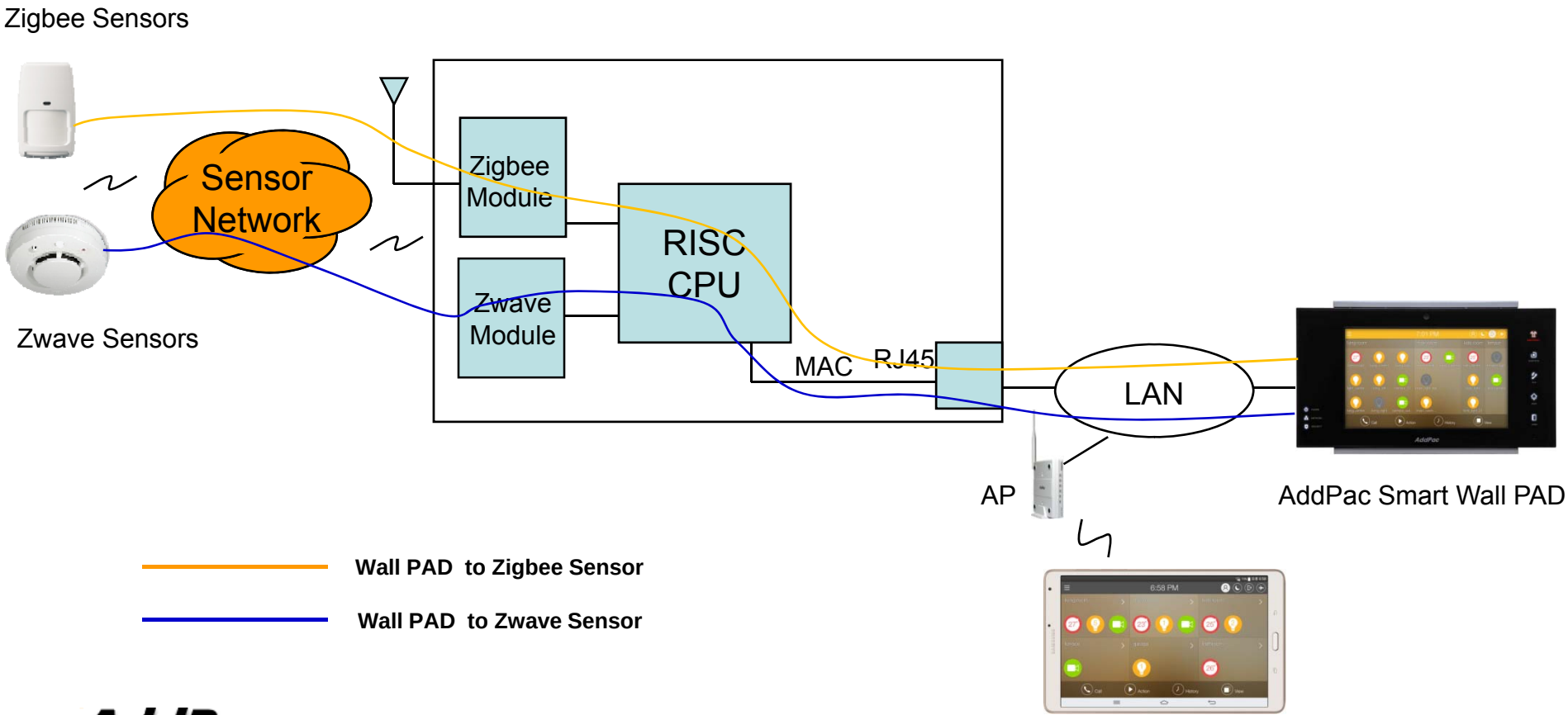
Hardware Specification

AP-SH50 Smart Hub for Z sensors

RISC CPU

Smart Hub Service Diagram

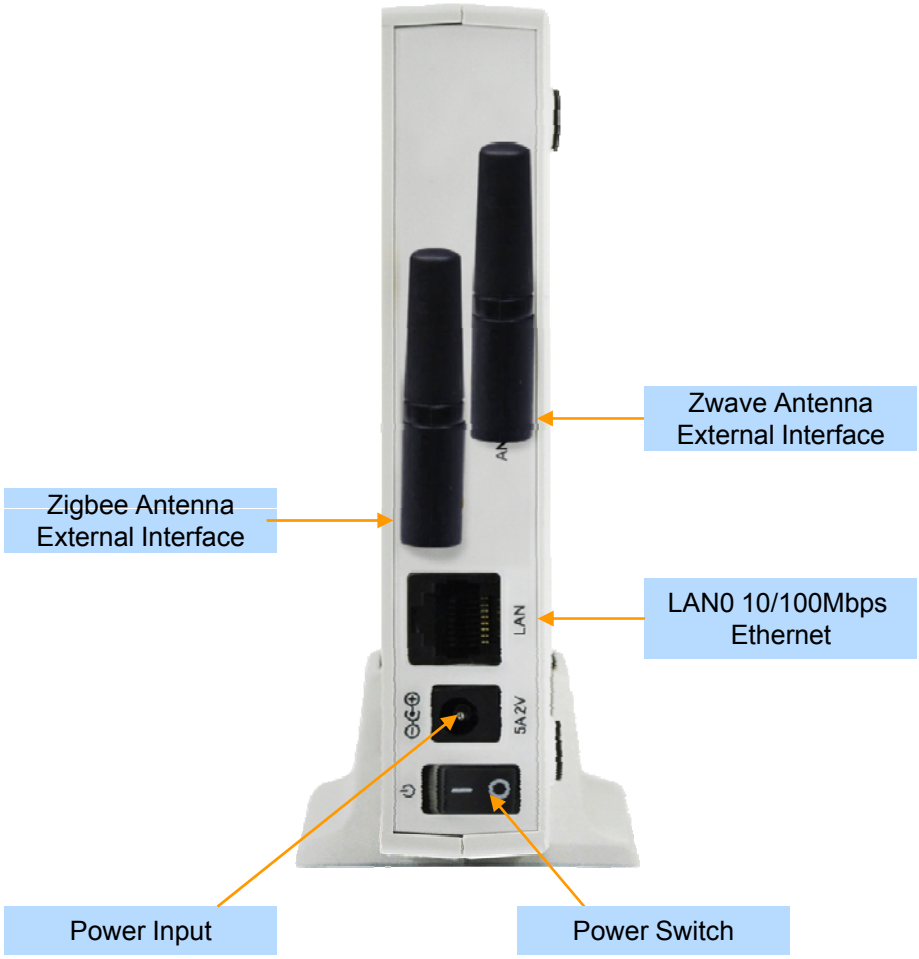
AP-SH50 Smart Hub Internal H/W Block Diagram



Hardware Specification

AP-SH50 Smart Hub for Z sensors

Network interface Configurations



Thank you!

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