Door Access Control System Solution

AddPac Technology

Sales and Marketing

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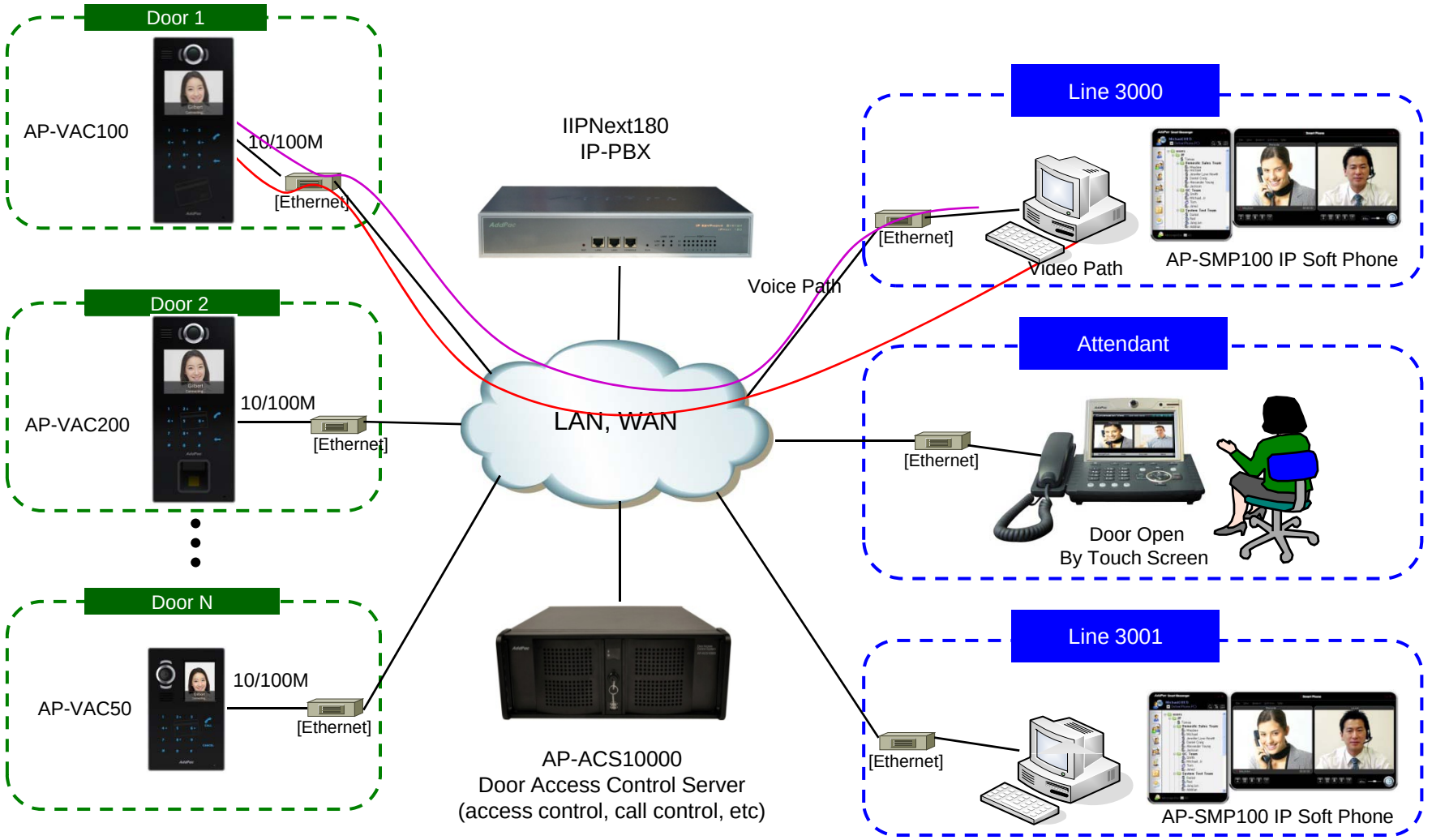
Contents

- IP Door Access Control Service Diagram
- IP Video Door Phone Solution
- IP Door Access Control Systems
  - AP-ACS10000 Large Scale System (IP-PBX Separated)
  - AP-ACS1000 (IP-PBX Built-in)
  - AP-ACS500 (IP-PBX Built-in)
- DACS System Message Flow (Examples)
- DACM (Door Access Control Manager)
- TAAM (Time and Attendance Manager)
- Open API for Third Party Controller

Large Scale
IP Video Door Phone Service
Network Diagram
(Separated Door Access Control and SIP Call Control)

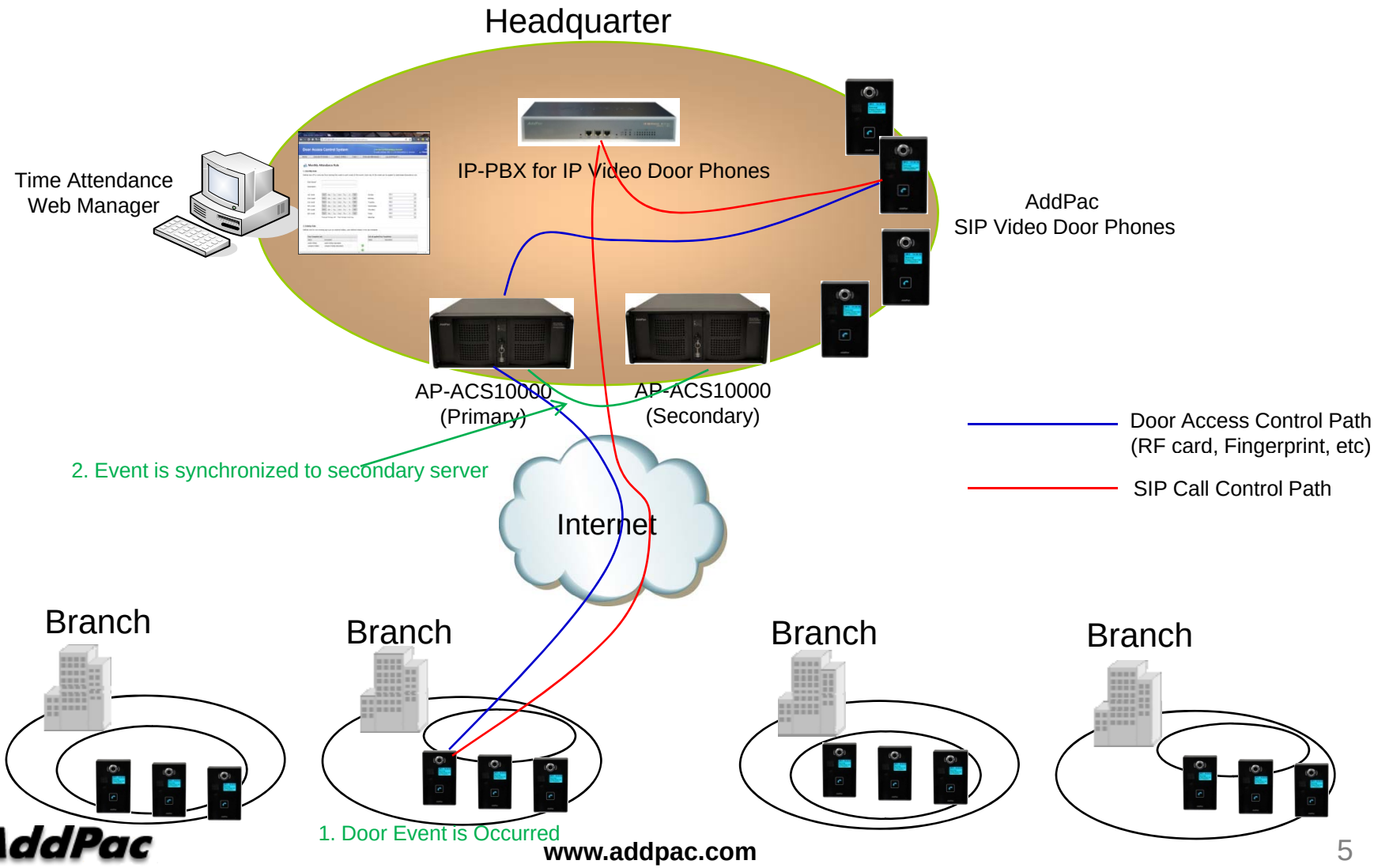
IP-PBX Environment

AP-ACS10000 DACS (Door Access Control System)



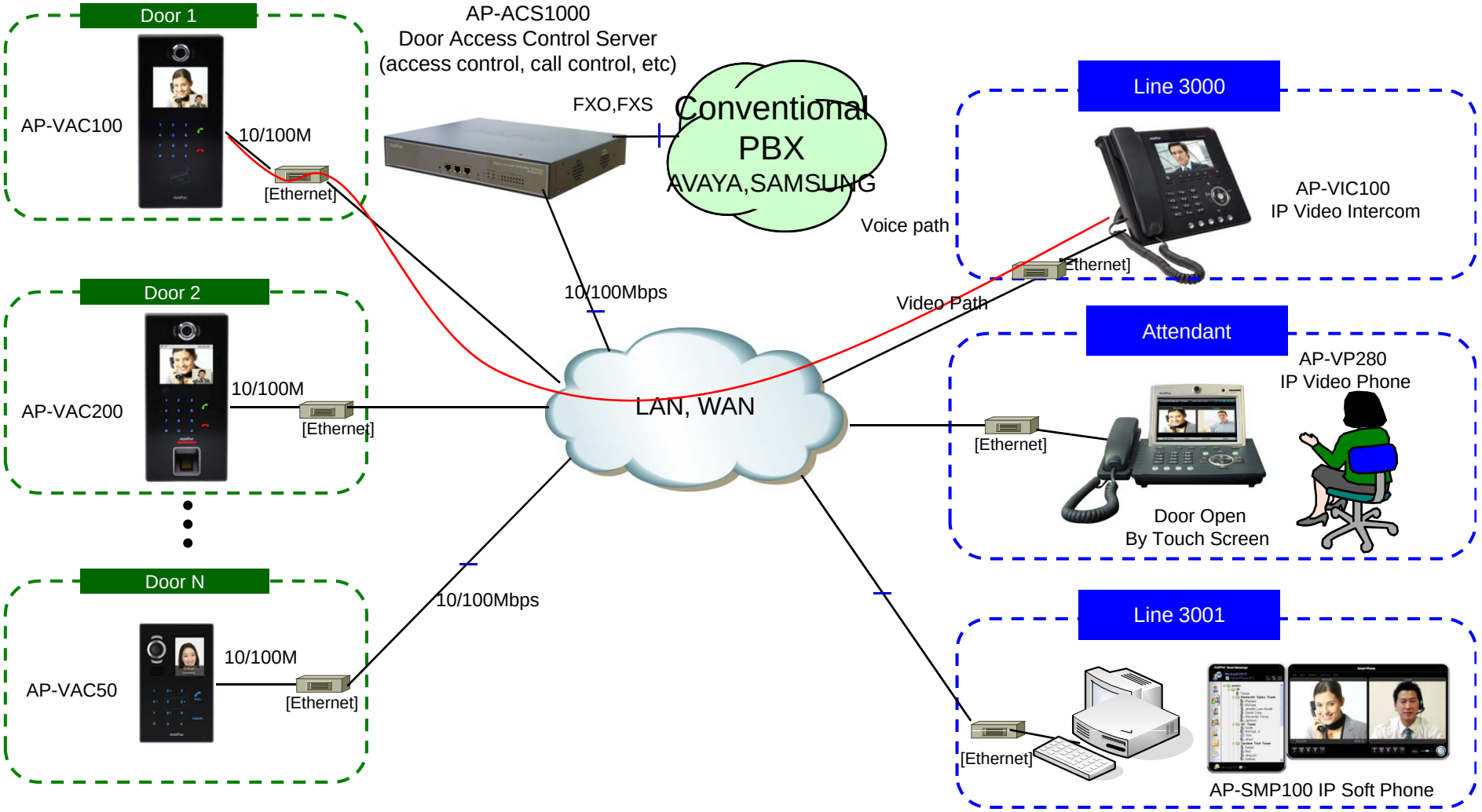
System Redundancy for Fault Tolerant Service

AP-ACS10000 DACS (Door Access Control System)

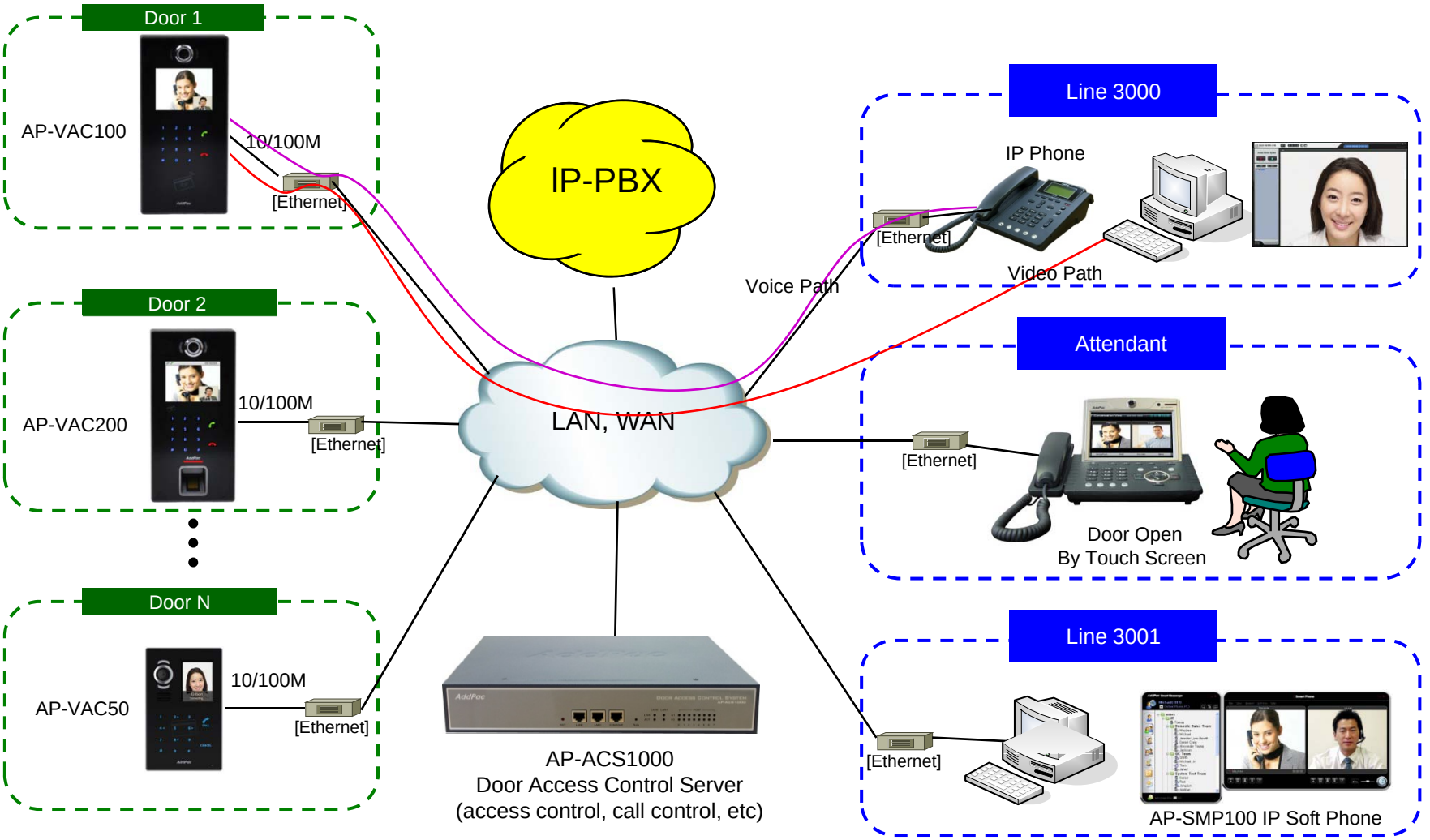


Small & Medium Scale
IP Video Door Phone Service
Network Diagram
(Integrated Door Access Control and SIP Call Control)

Conventional PBX Environment



IP-PBX Environment



IP Video Door Phones

IP Video Door Phone Comparison Table

Model Service Features	AP-VAC200 	AP-VAC100 	AP-VAC50 	AP-VAC20
Duplex (Voice)	Full Duplex	Full Duplex	Full Duplex	Full Duplex
Key Pad	3x4 Key Support	3x4 Key Support	3x4 Key Support	3x4 Key Support
LCD	3.5 Inch	3.5 Inch	2inch LCD	Graphic LCD
RF Card	Support	Support	Support	Support
Fingerprint	Support	N/A	N/A	N/A
Camera Sensor	SD(VGA)	SD(VGA)	SD(VGA)	SD(VGA)
Video Codec	SD, H.264/MPEG4	SD, H.264/MPEG4	SD, H.264/MPEG4	SD, H.264/MPEG4
Voice Codec	G.711	G.711	G.711	G.711
Signaling	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP
MIC & Speaker Phone	Support	Support	Support	Support
LAN Port	1	1	1	1
PoE(Option)	Support	Support	Support	Support

IP Door Access Control Systems

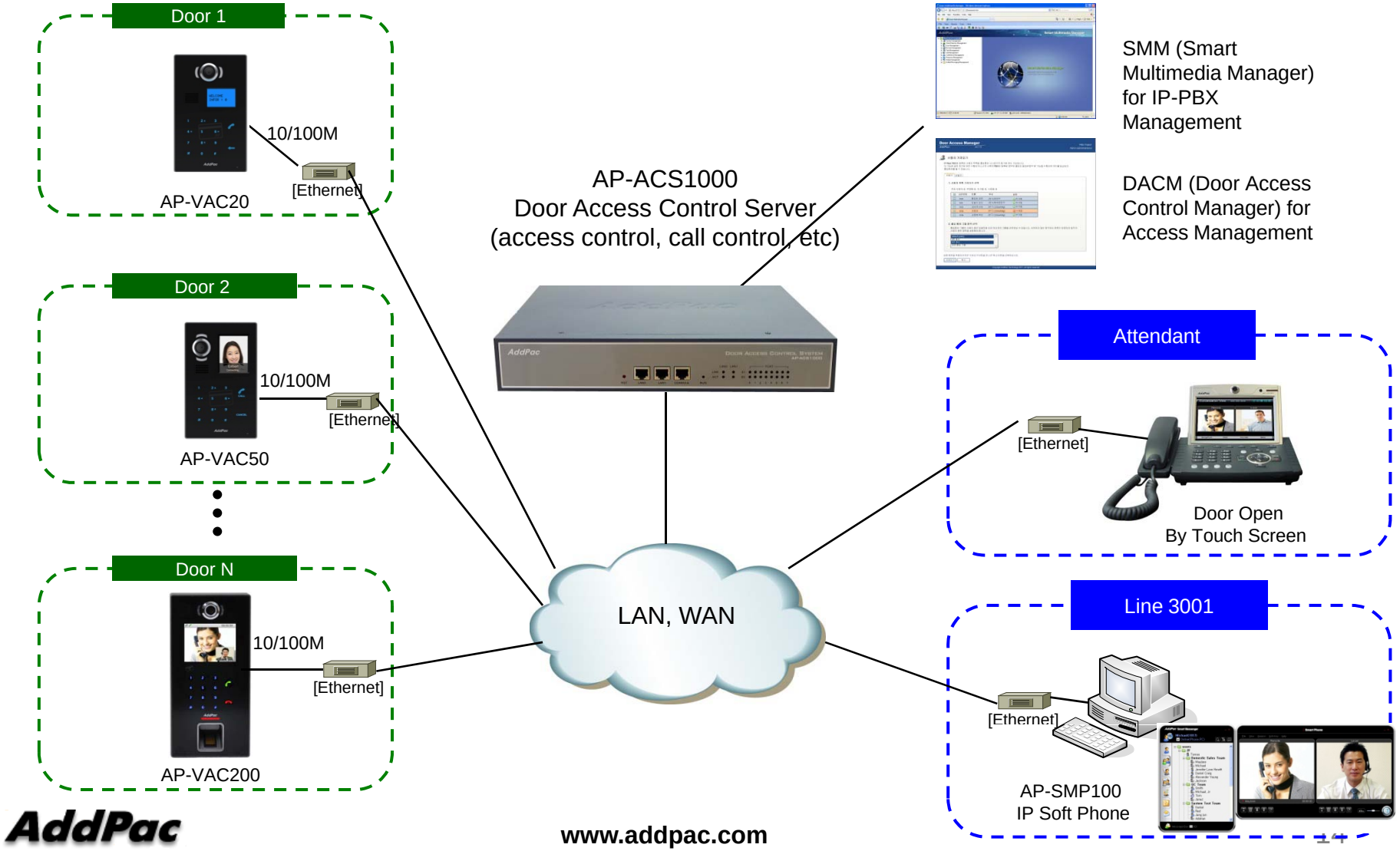
Door Access Control Server Comparison Table

Model / Service Features		AP-ACS10000	AP-ACS1000	AP-ACS500
Registration User Number		N/A	100	30
Concurrent Call User Number		N/A	30	15
VoIP Signaling	Internal	N/A	SIP	SIP
	External	N/A	H.323/SIP	H.323/SIP
Powerful IVR, UMS, Media Service, User Presence Service		N/A	Support	Support
RTP Proxy Service (IPv6, Private IP)		N/A	Support	Support
LAN Port		1	2	2
VoIP Module Slots for PSTN		N/A	2 Slots (8 Port Module)	N/A
VoIP Interface		N/A	FXS,FXO,E1/T1	Option
Video Door Phone Control (RF card, etc)		Support	Support	Support
Time & Attendance Management		Support	Support(option)	Support (Option)

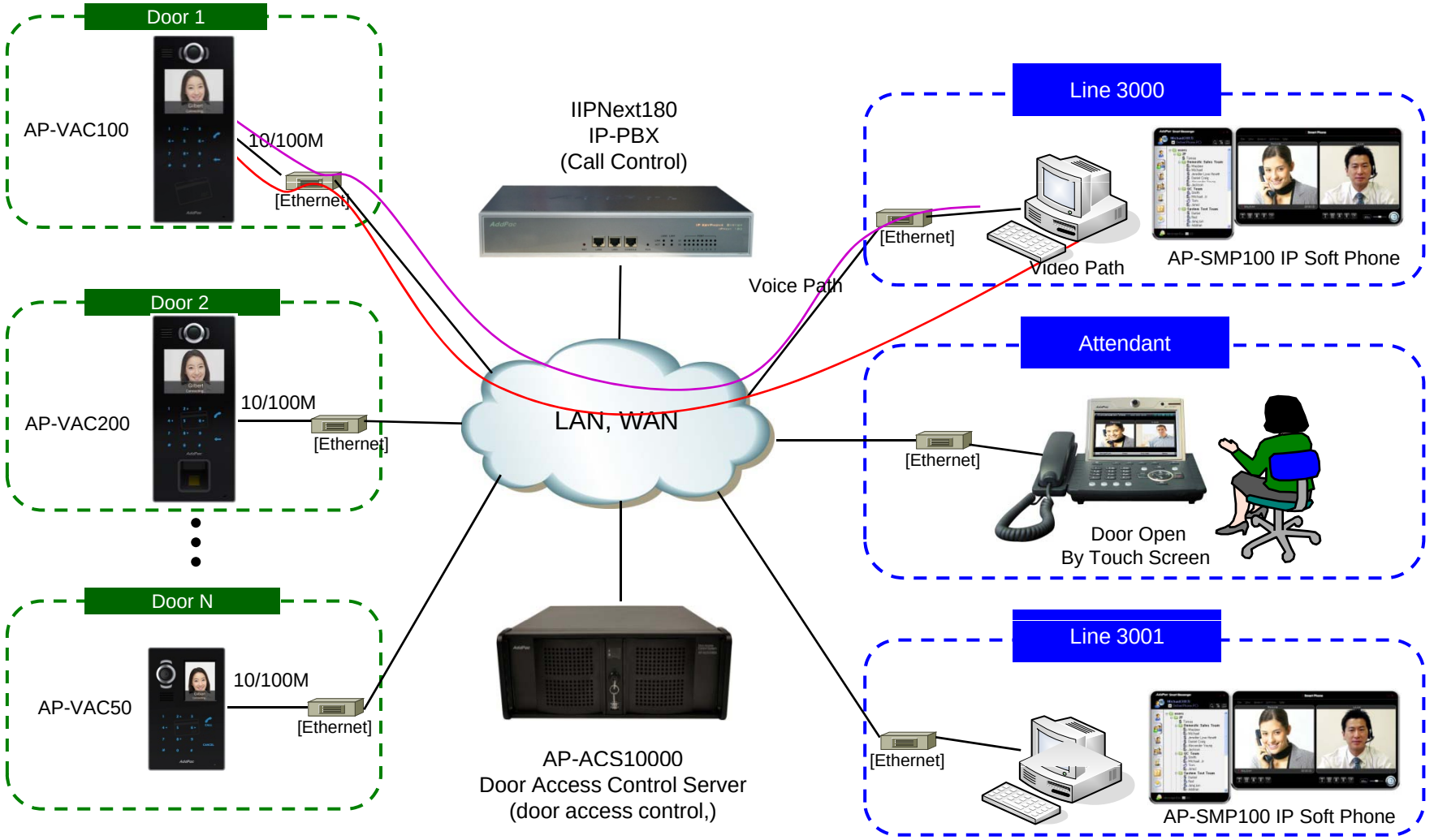
Contents

- DACS(Door Access Control Server) Network Diagram
  - IP-PBX Integrated Service Model
  - IP-PBX Separated Service Model
- AP-ACS10000 Overview
- AP-ACS1000 Overview
- AP-ACS500 Overview

Integrated Door Access Control and Call Control



Separated Door Access Control and Call Control



AP-ACS10000
Door Access Control System

Main Features

AP-ACS10000 DACS (Door Access Control System)

- Large Scale Door Access Control Service Features
- Linux Operating System
- Time & Attendance Control System
- Server & Client Architecture
- System Duplication Support for Fault Tolerant Service
- RF Card, Fingerprint Video Door Phone Interworking Service
- Smart Time & Attendance Manager Support (Web based)
- Excel File Import Function for Large User Registration
- Powerful Management and User Friendly Features
- Open API Support for Third Party
- Firmware Upgradeable Architecture
- Up to 4 x 3.5Inch Hard Disk (SATA Type, 2Tera Byte Support)
- One(1) 10/100/1000Mbps Gigabit Ethernet Interface
- USB Interface Support (Front Side, Back Side)

Hardware Specification

AP-ACS10000 DACS (Door Access Control System)

High End Processor

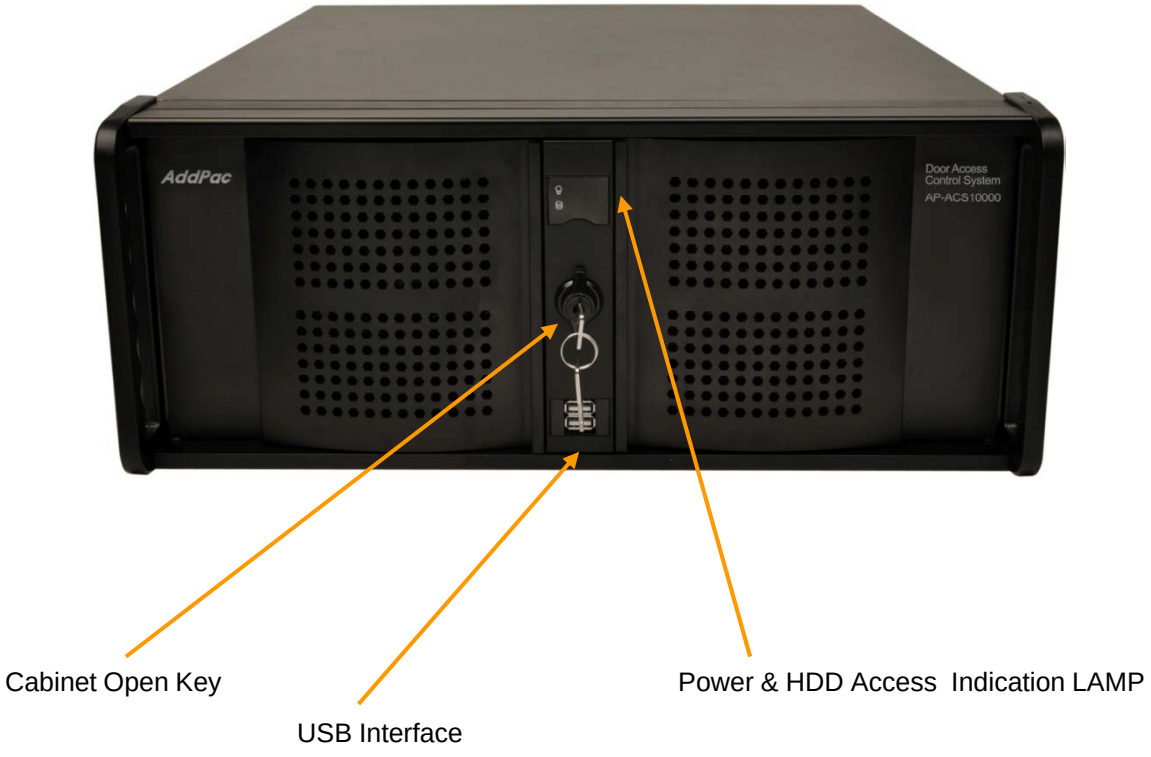
- High Performance Computing Power
- Main Chassis
  - Network Interface
    - One(1) 10/100/1000Mbps Fast Ethernet
  - Video Output Interface
    - HDMI, DVI,RGB Video Output
  - USB 2.0 Interfaces for Mouse, Keyboard, etc
  - One(1) DVD Writer for Video File Backup
  - Up to Four(4) Hard Disk

Hardware Specification

AP-ACS10000 DACS (Door Access Control System)

High End Processor

Front Side

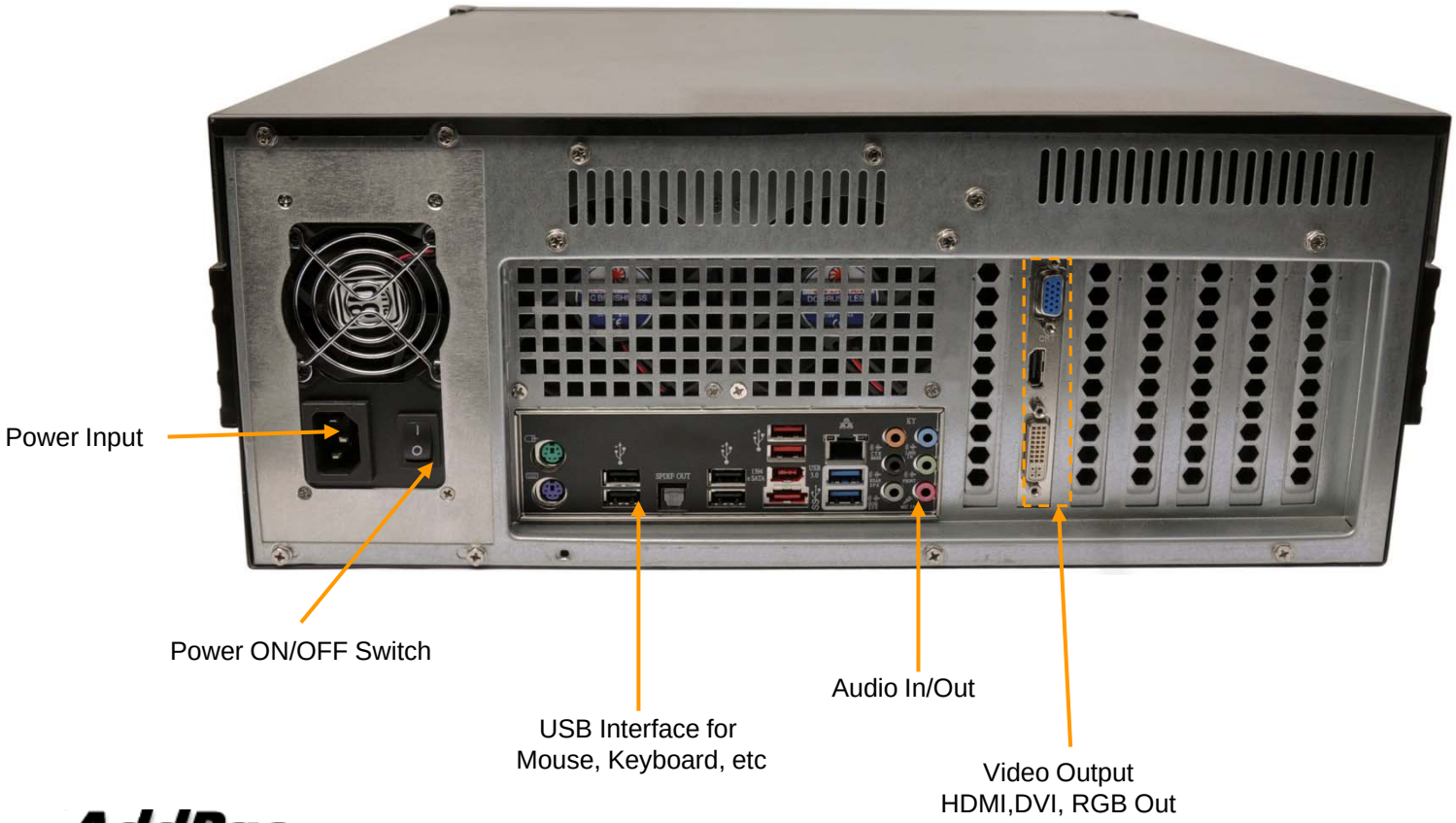


Hardware Specification

AP-ACS10000 DACS (Door Access Control System)

High End Processor

Front Side



AP-ACS1000
Door Access Control System

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

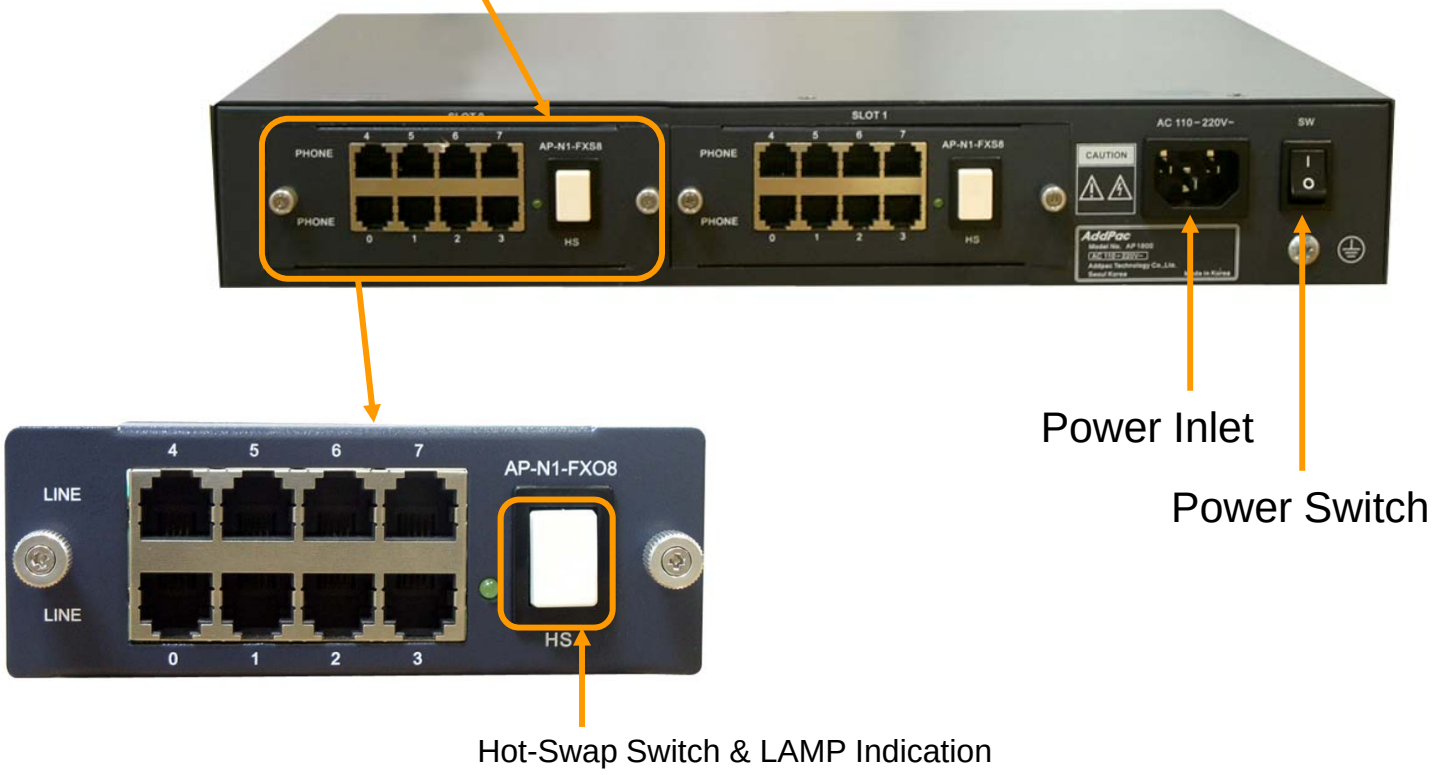
AP-ACS1000 DACS (Door Access Control System)

- 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 System

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

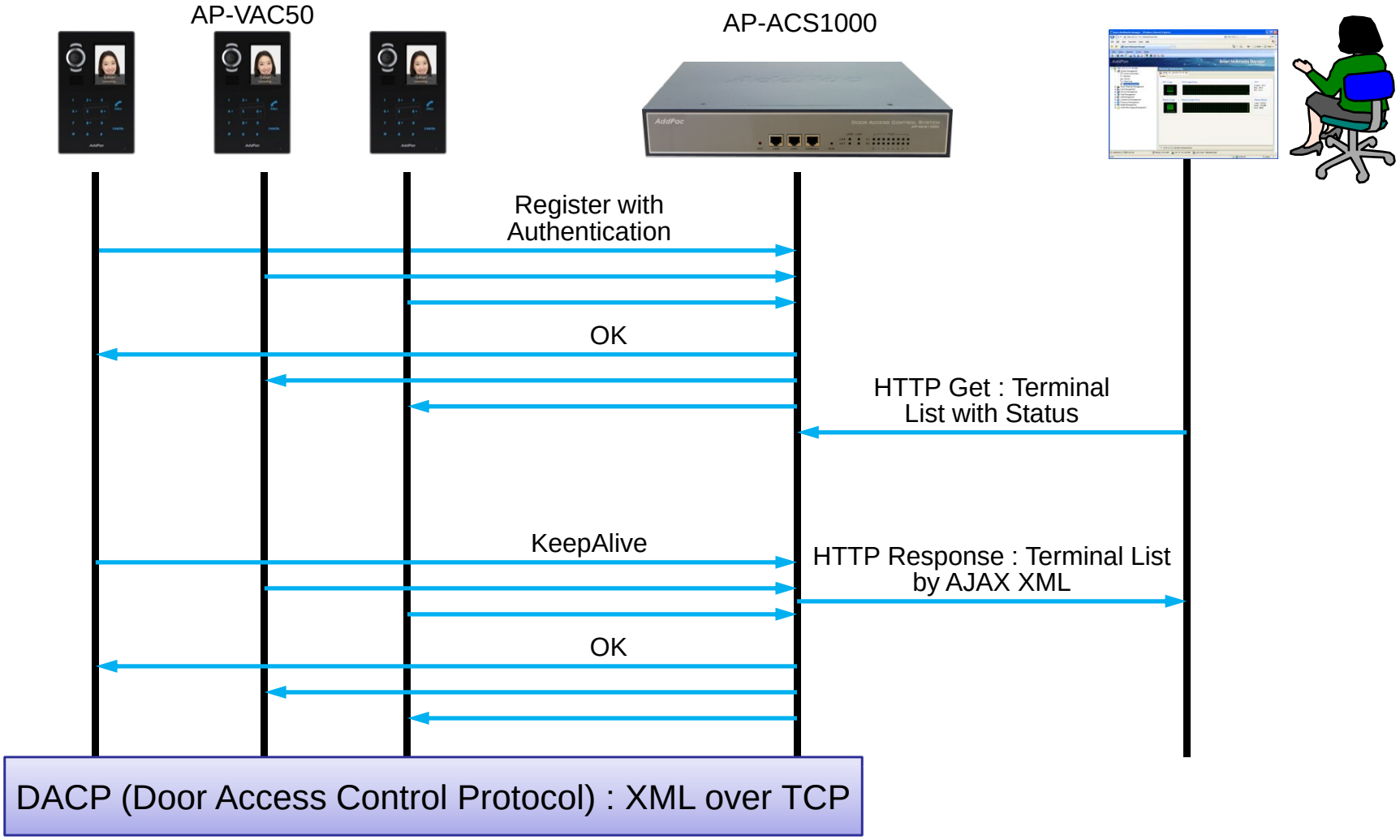
AP-ACS500 DACS (Door Access Control System)

- 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

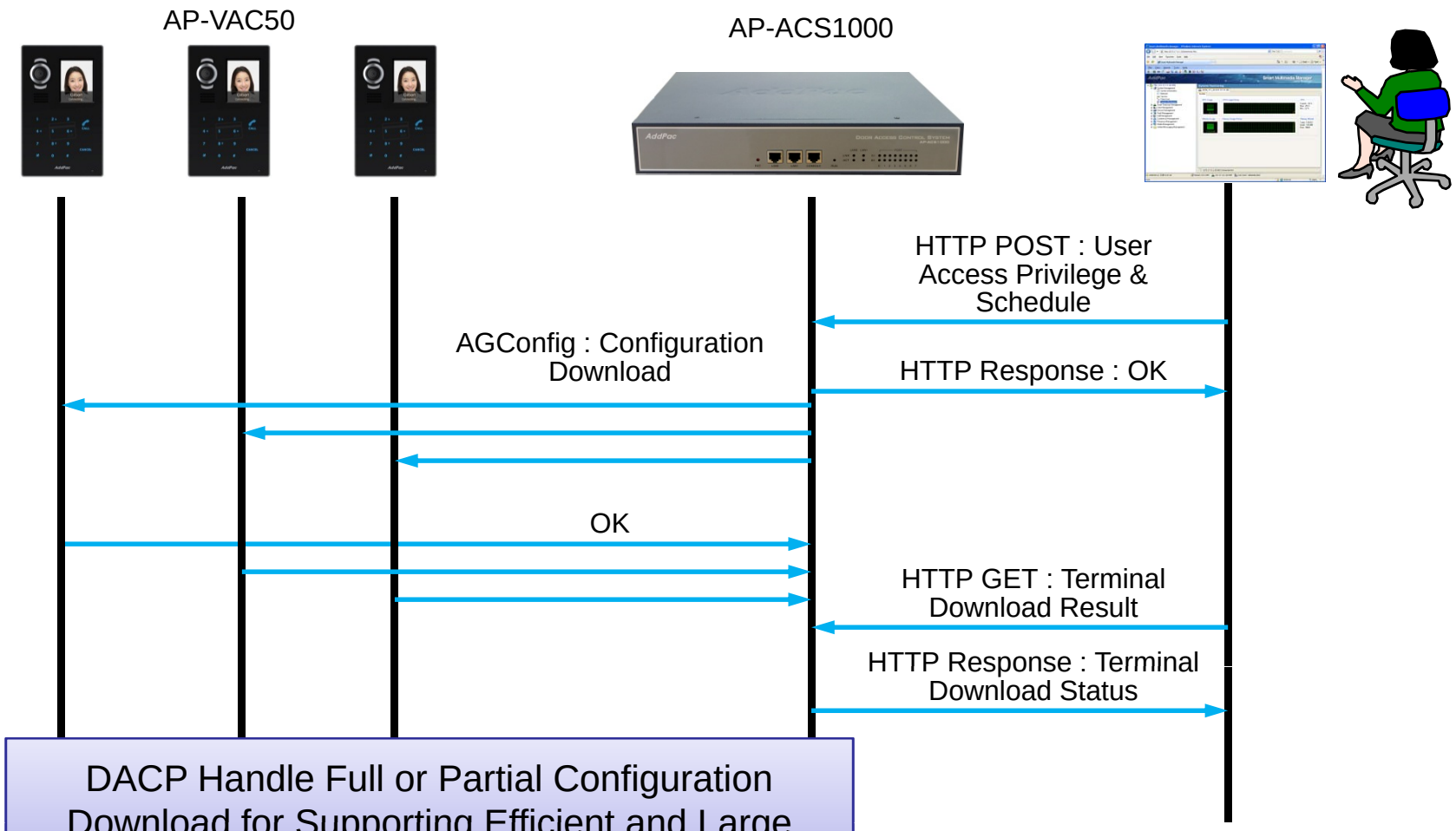
DACS System Message Flow

Registration and KeepAlive



DACS System Message Flow

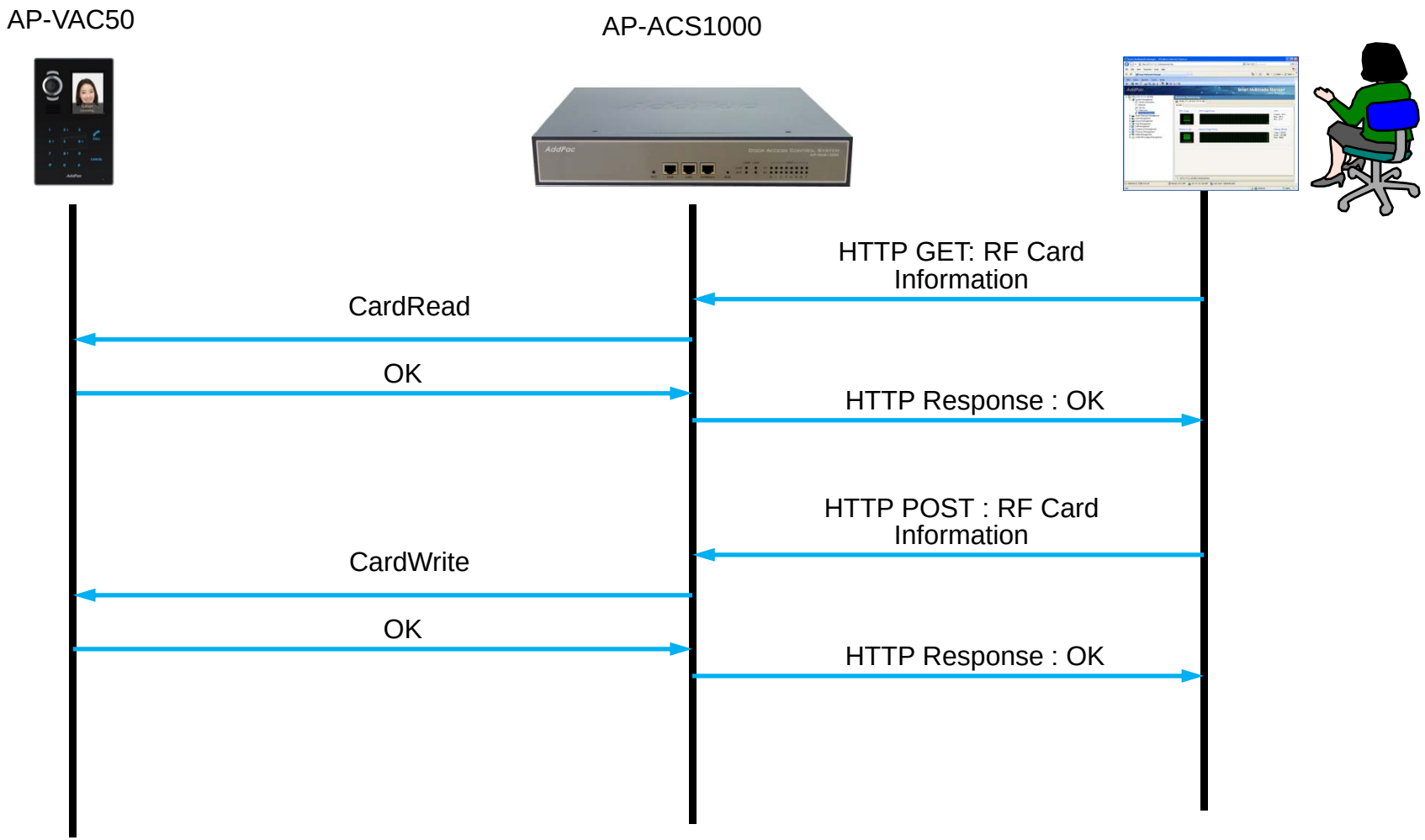
Access Privilege and Schedule Download



DACP Handle Full or Partial Configuration Download for Supporting Efficient and Large Scale Network

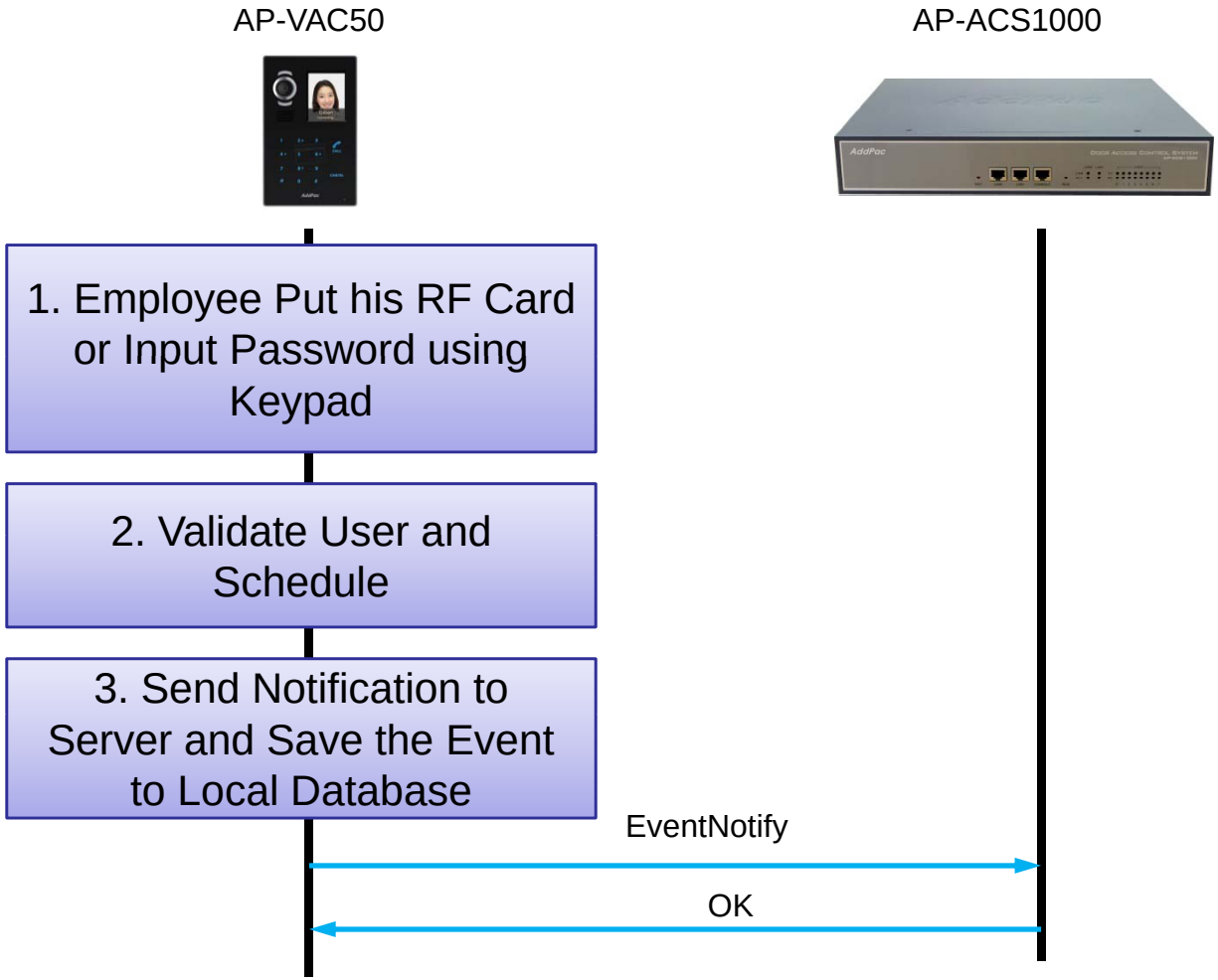
DACS System Message Flow

RF Card Read/Write and Registration



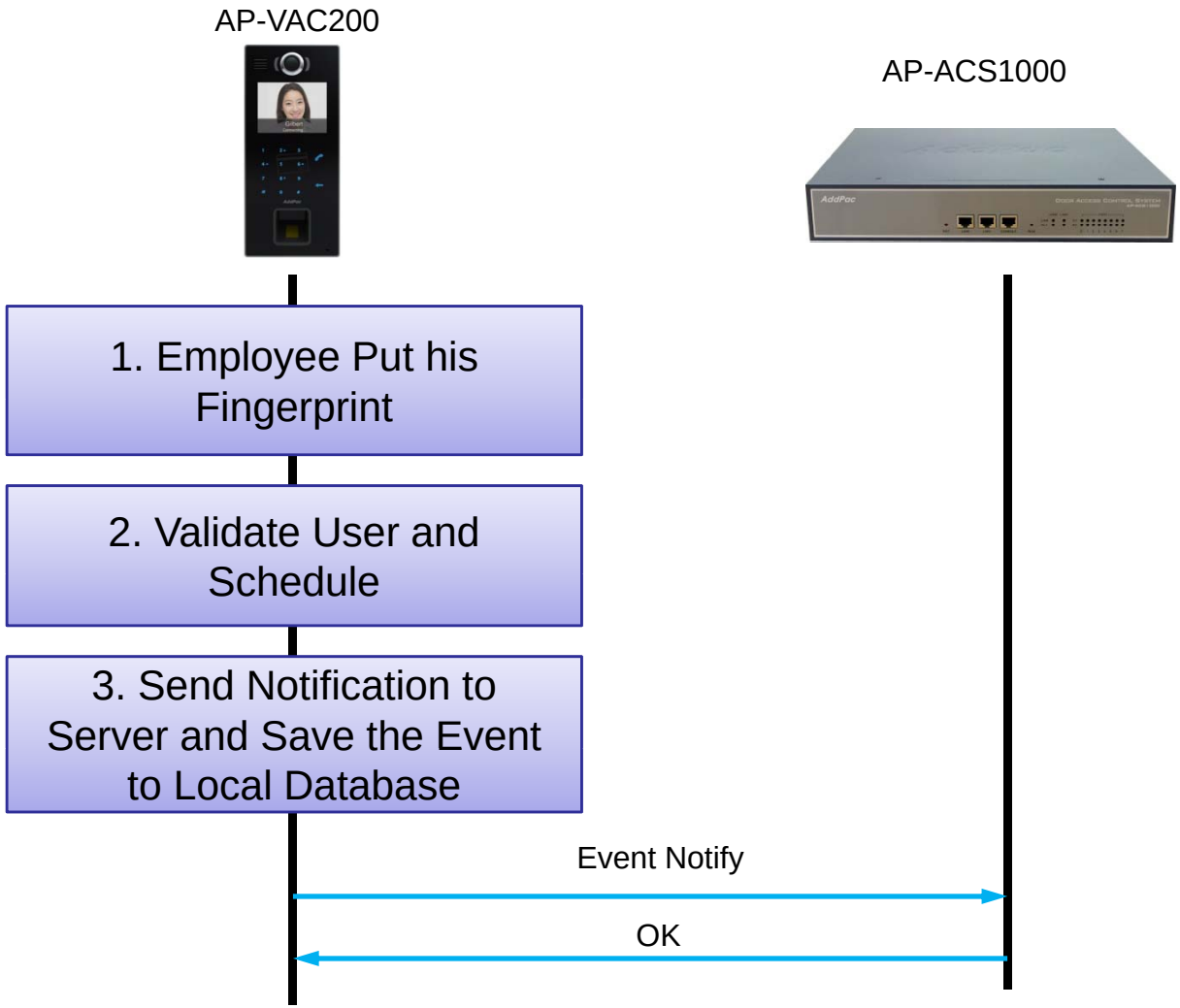
DACS System Message Flow

Door Open by RF Card or Password



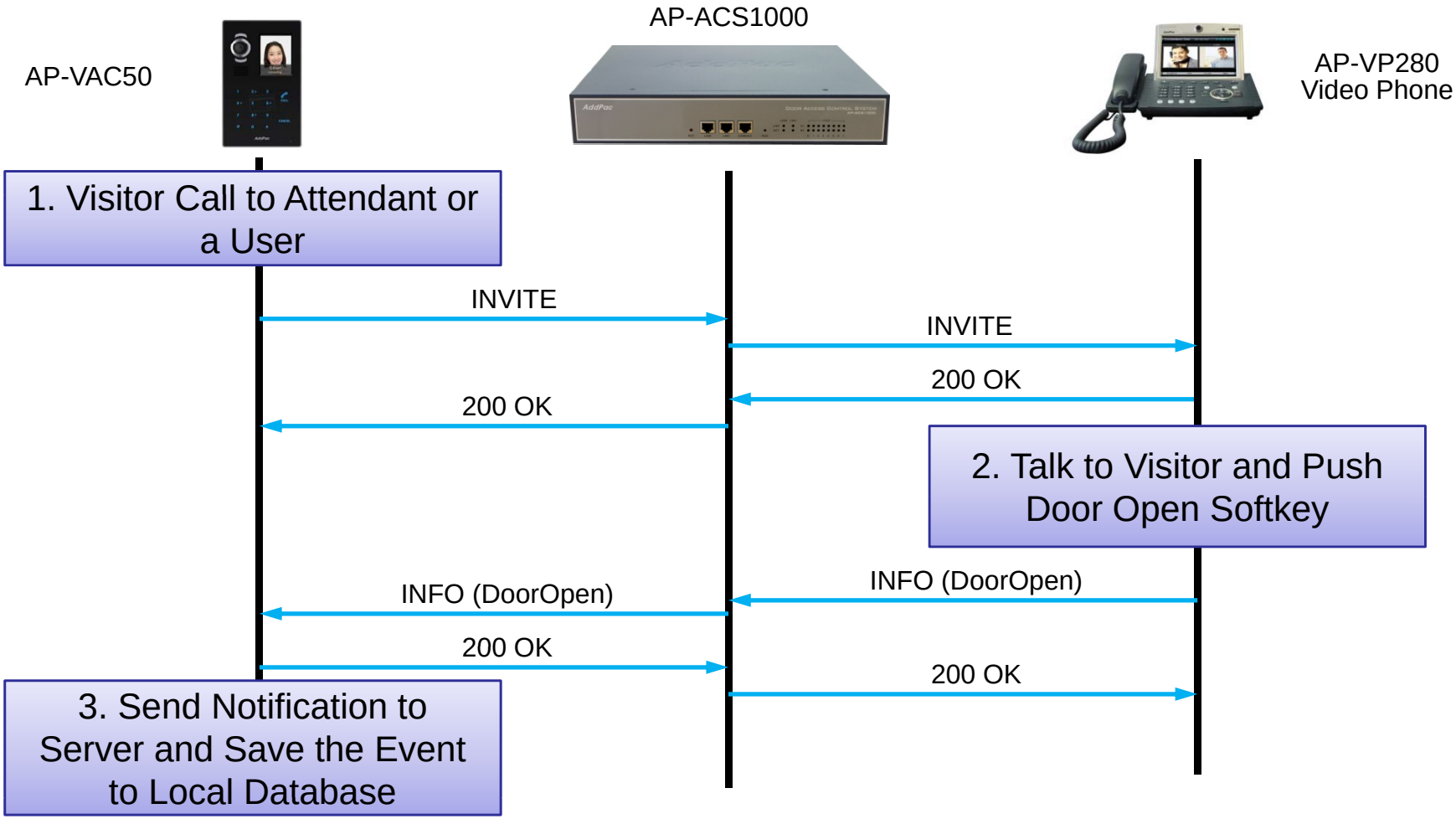
DACS System Message Flow

Door Open by Fingerprint



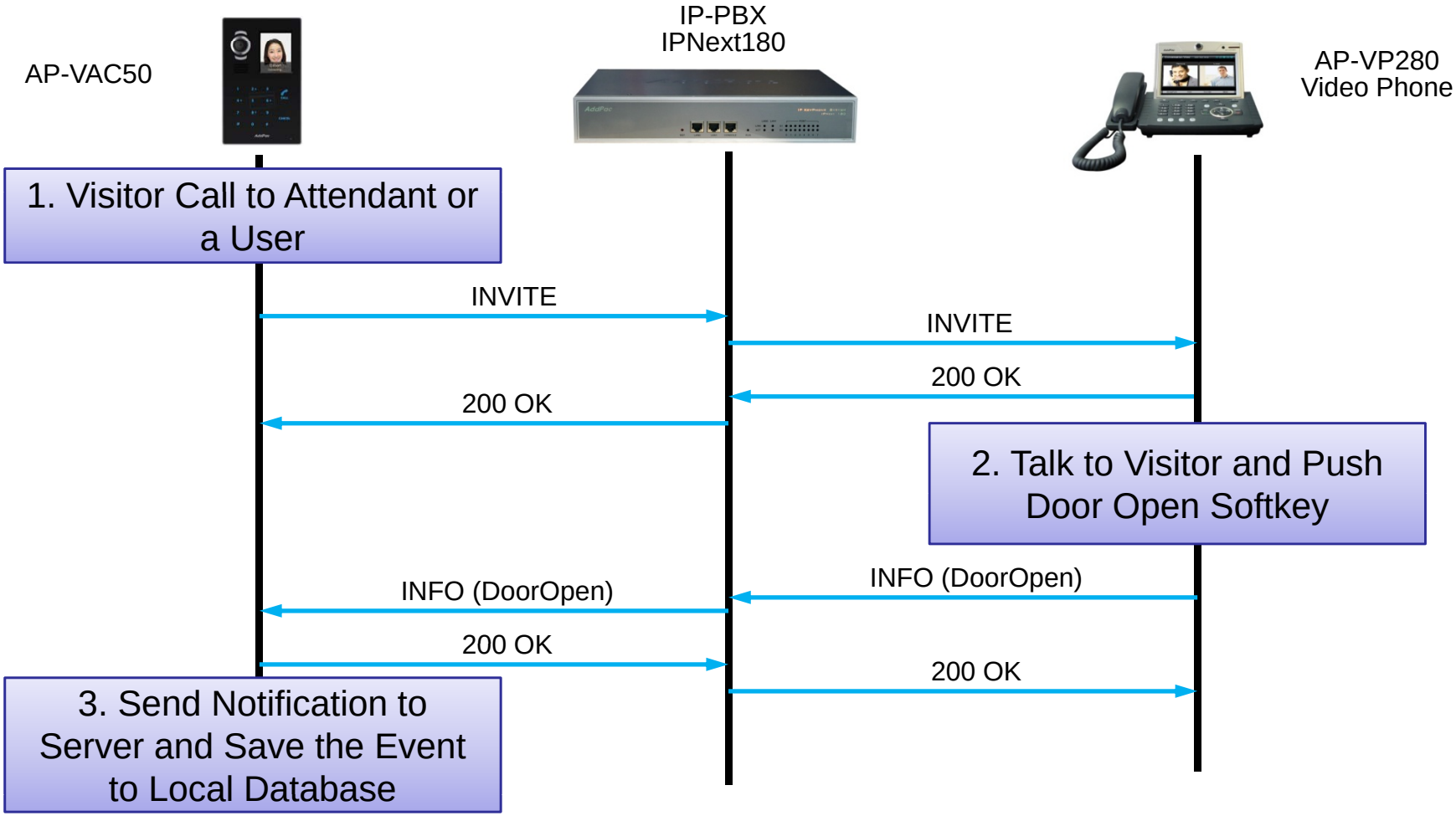
DACS System Message Flow

Door Open by Other Terminal



SIP VoIP Message Flow

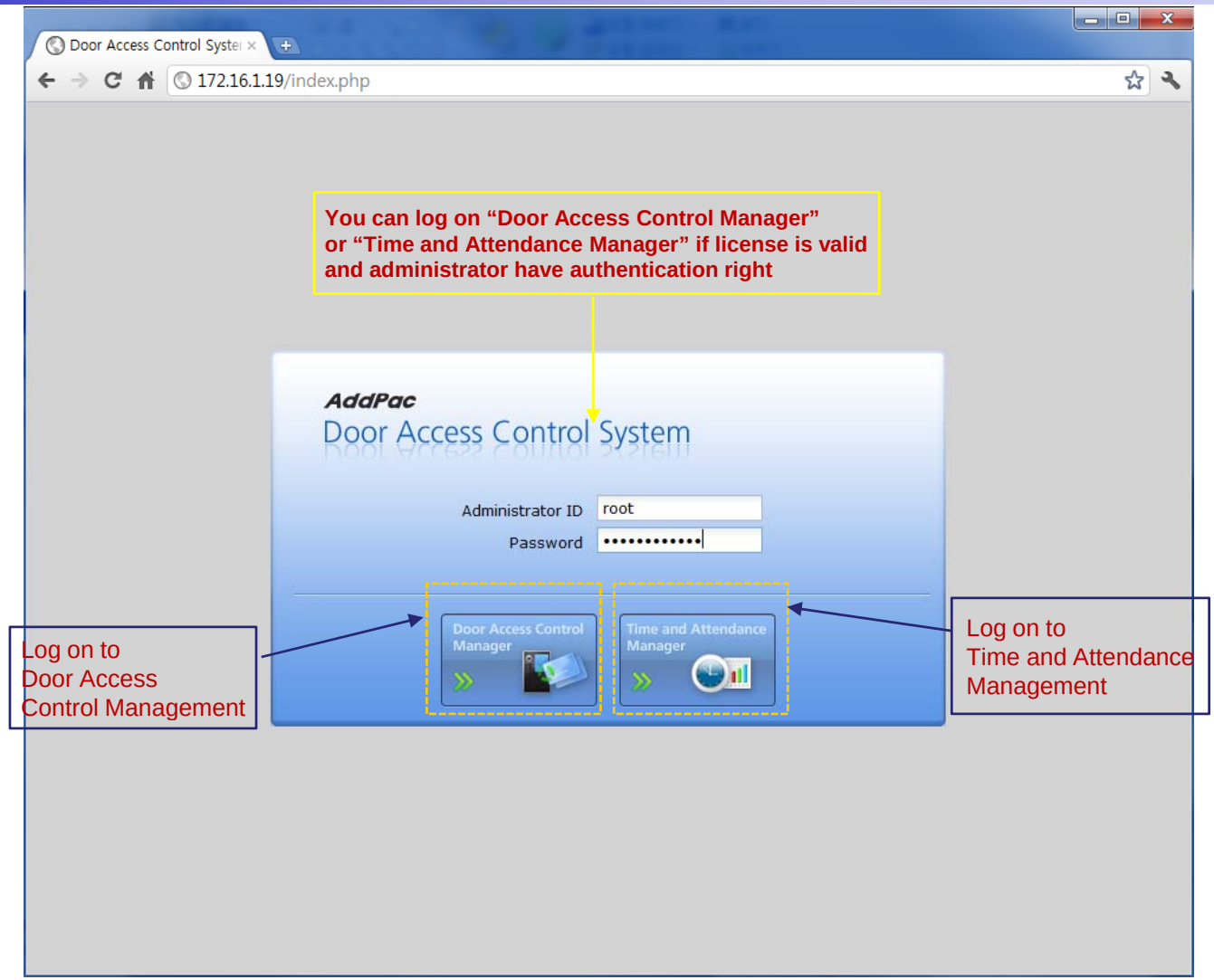
Door Open by Other Terminal



Door Access Control System
Web Manager
Software
(DACM, TAAM)

DACS (Door Access Control System)

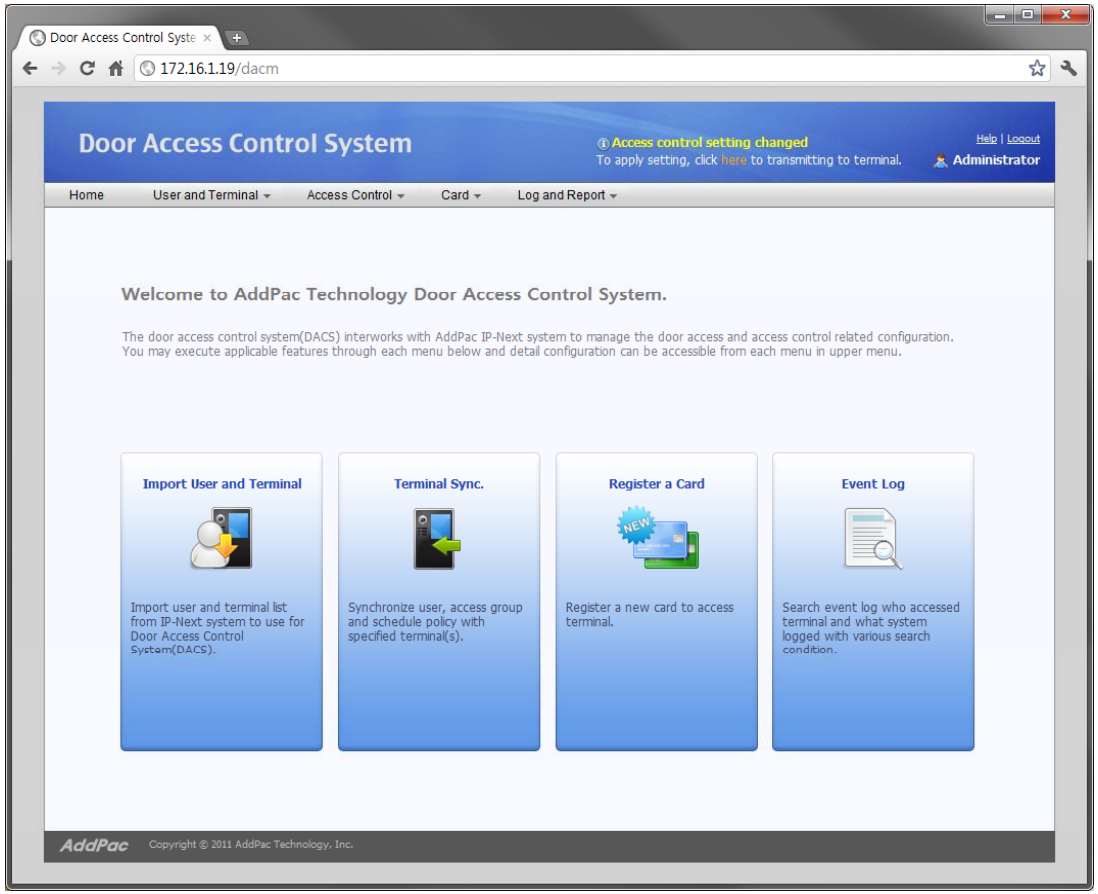
Login page



Door Access Control Web Manager Software (DACM)

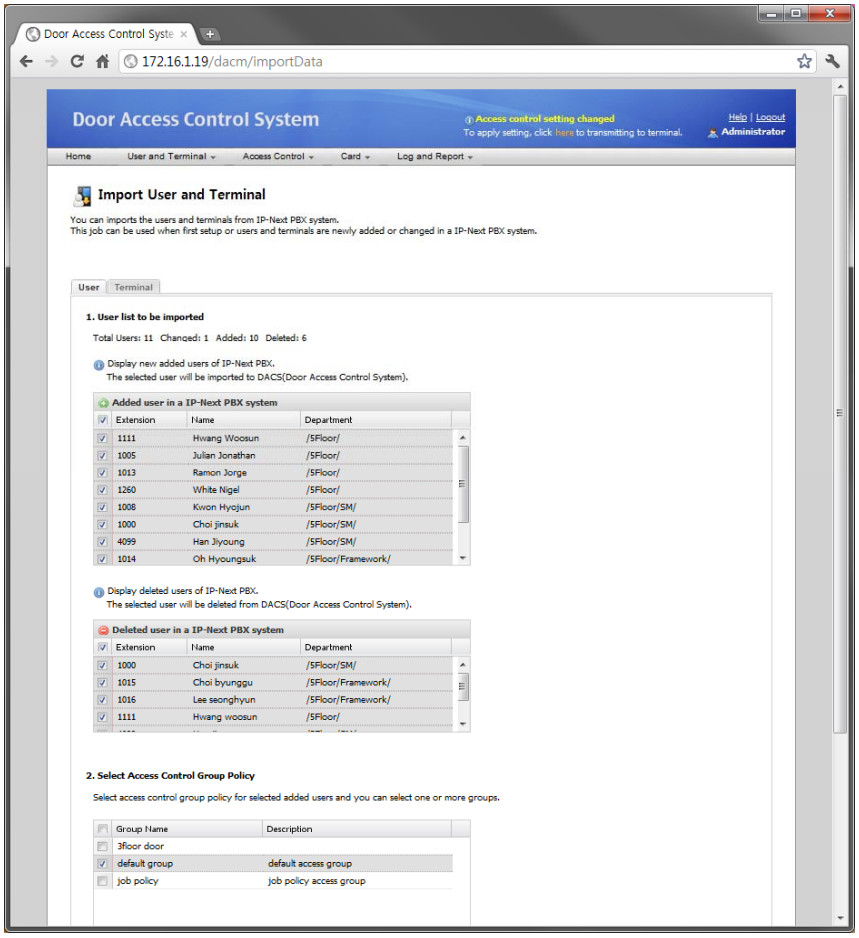
DACM (Door Access Control Manager)

Main Web Page



DACM (Door Access Control Manager)

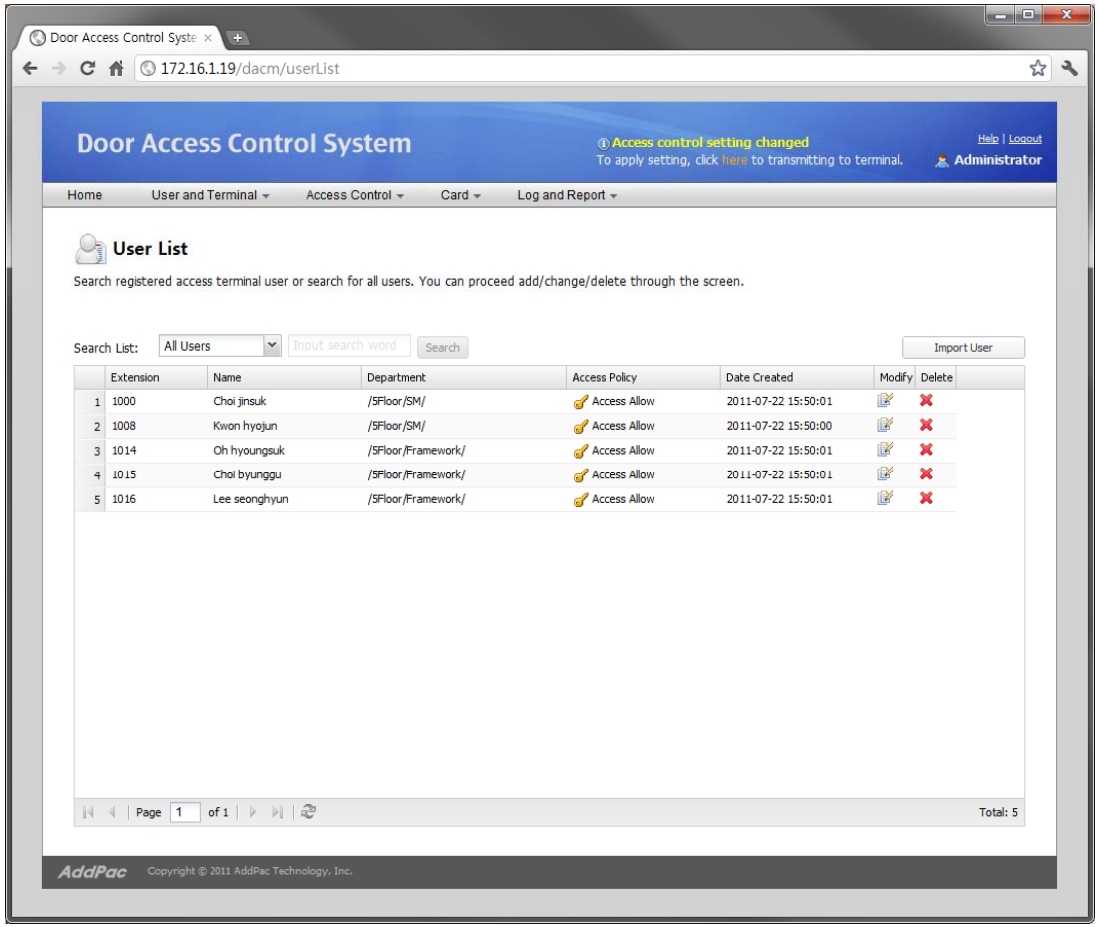
Import User and Terminal



DACM (Door Access Control Manager)

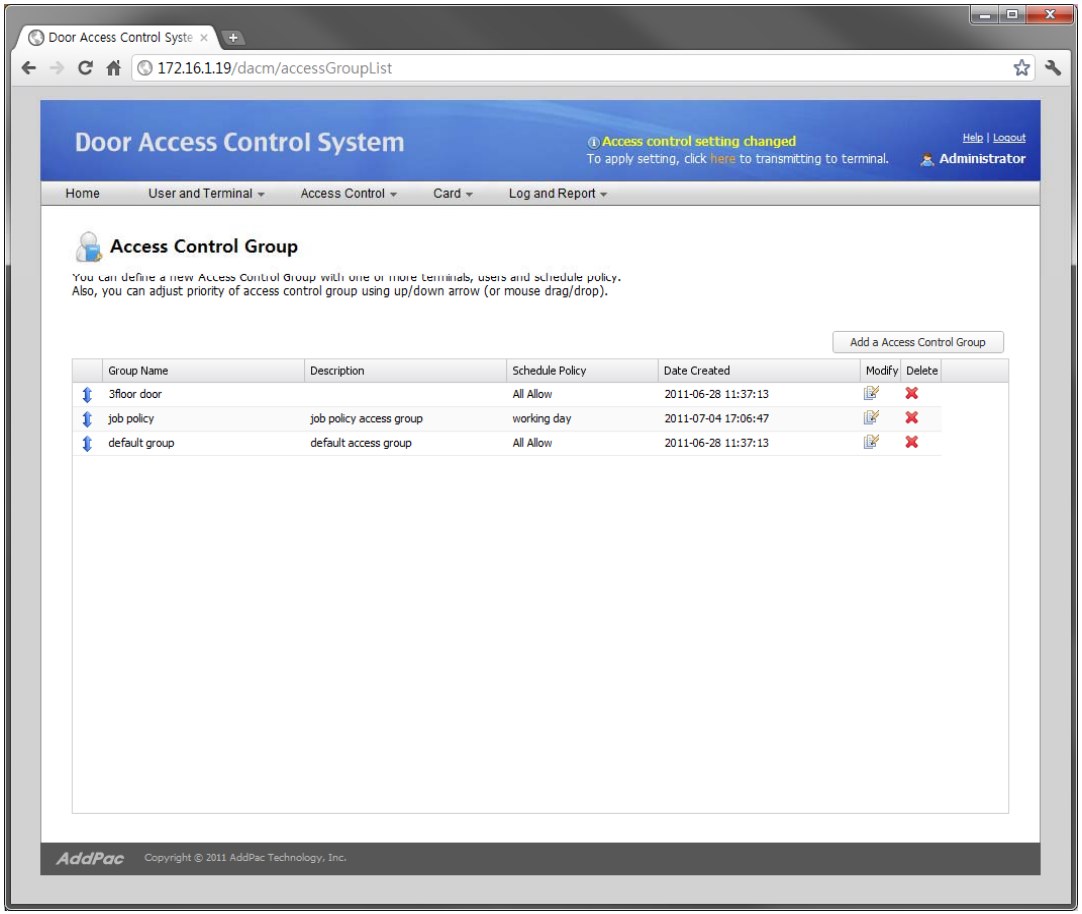
User List

User List



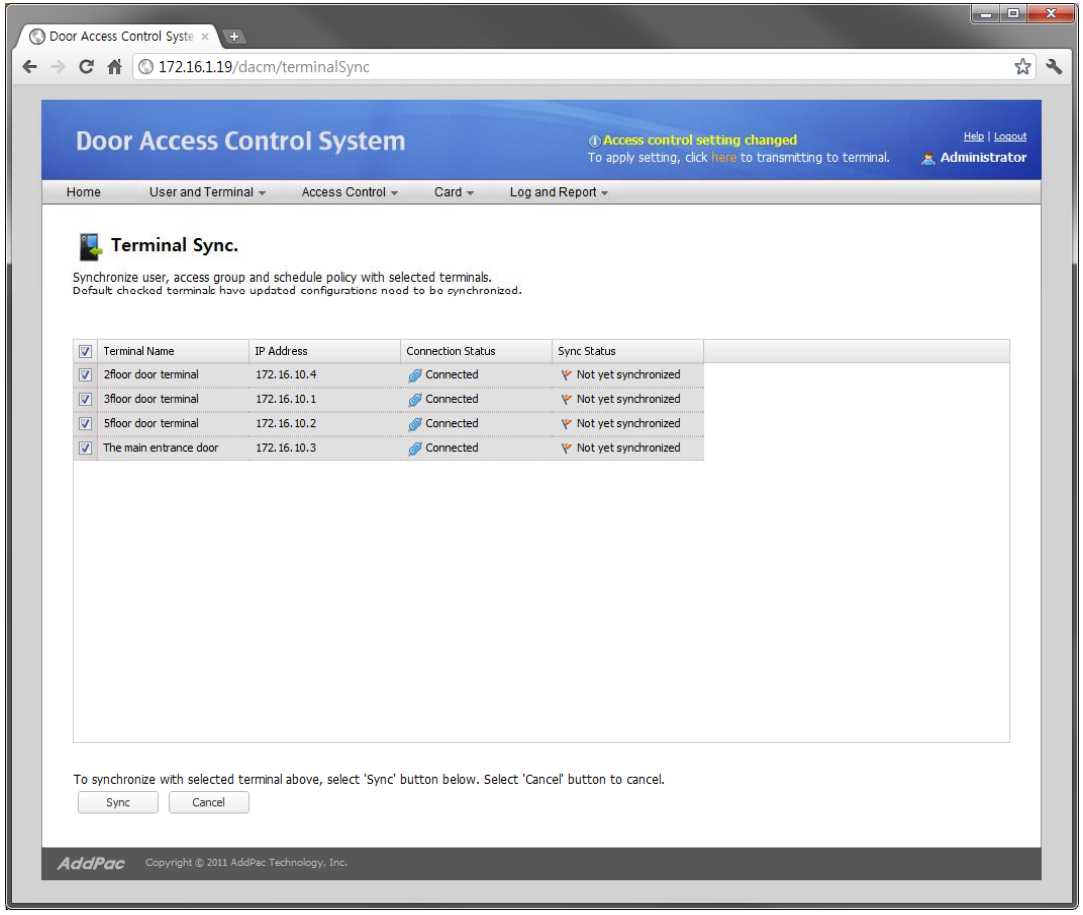
DACM (Door Access Control Manager)

Access Control Group Management



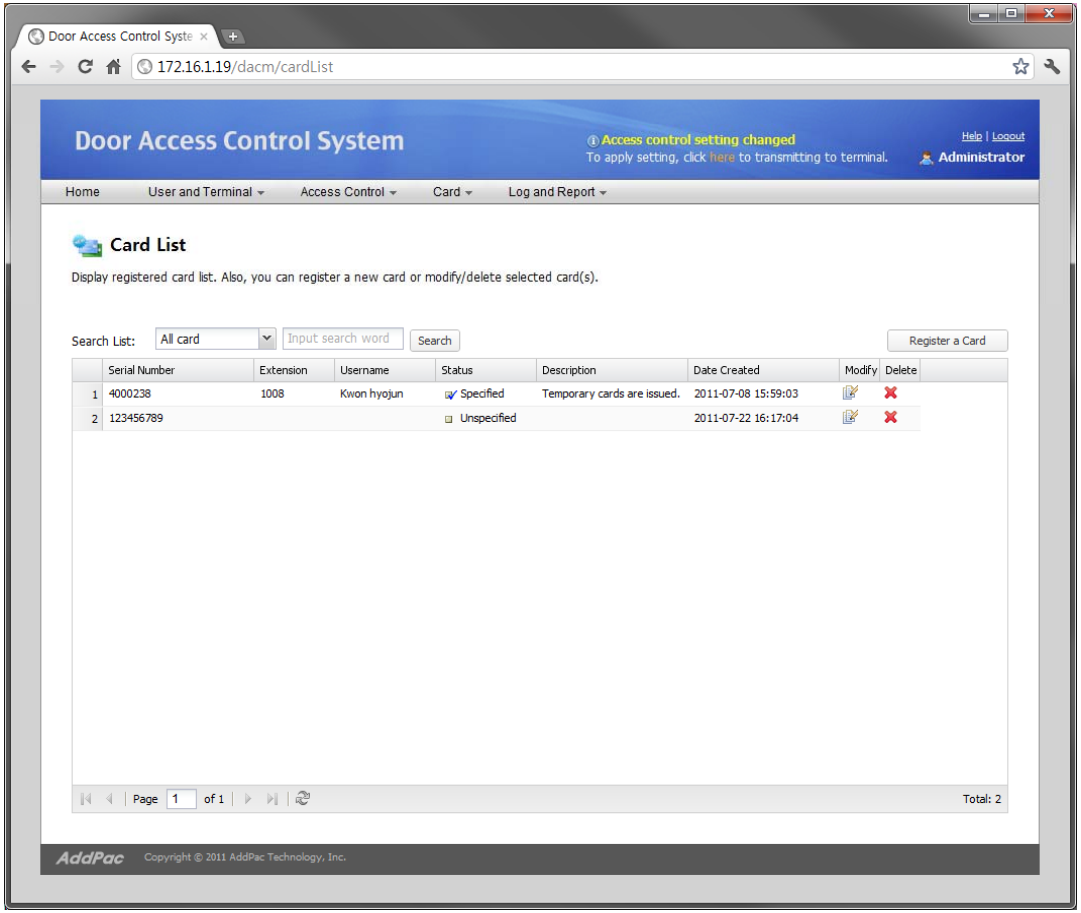
DACM (Door Access Control Manager)

Configuration Download to Terminal



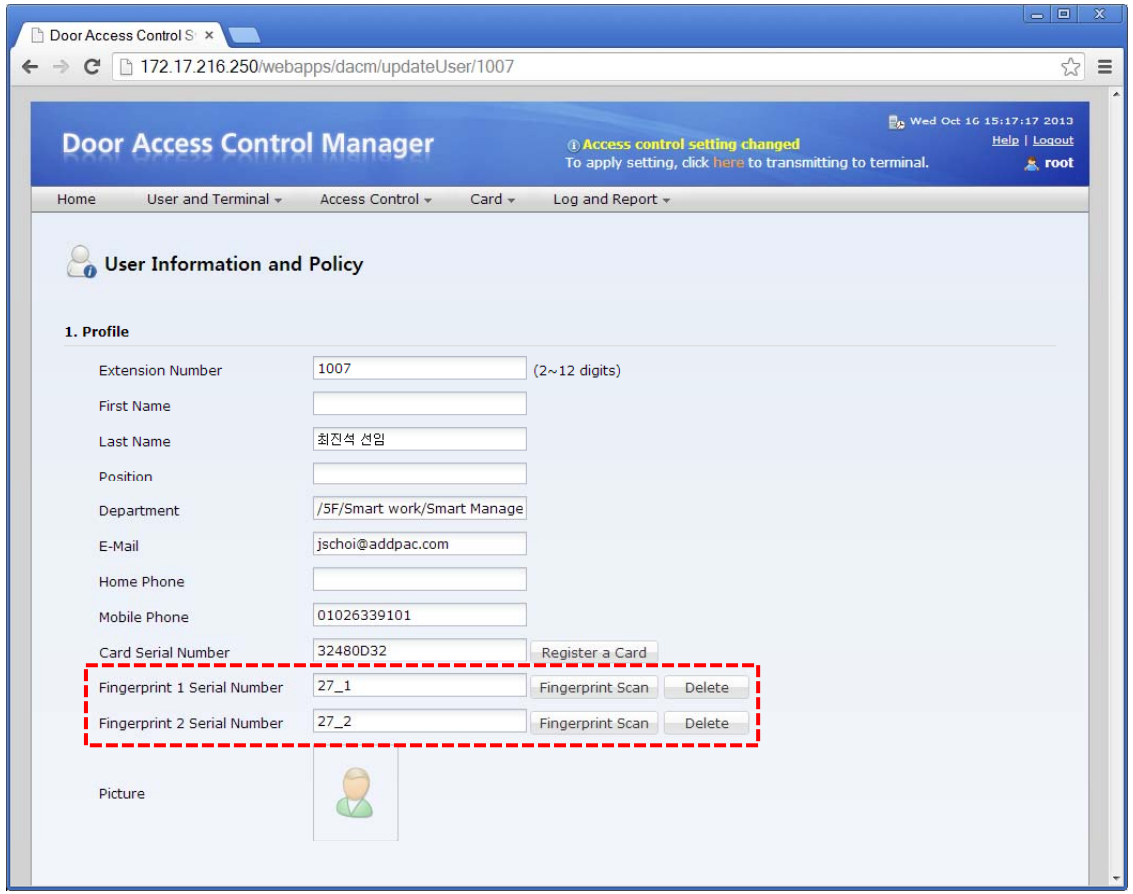
DACM (Door Access Control Manager)

RF Card Management



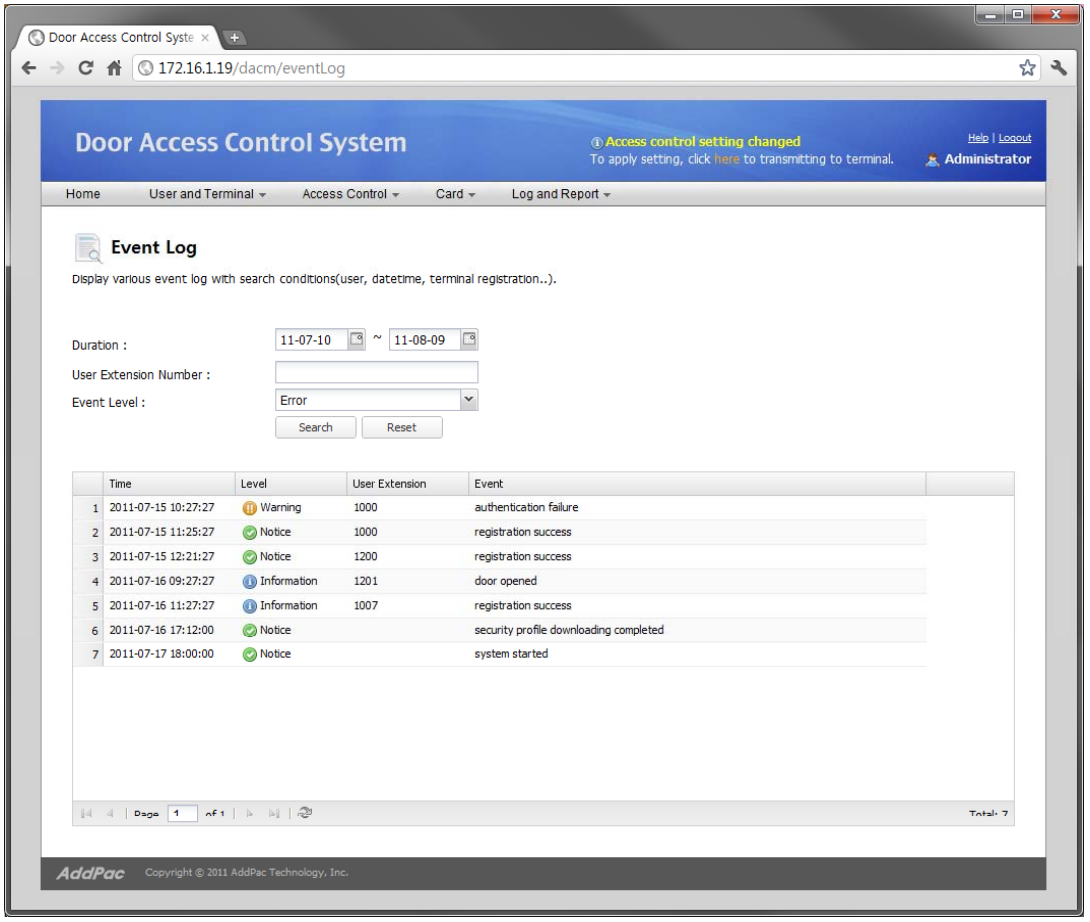
DACM (Door Access Control Manager)

Fingerprint Management



DACM (Door Access Control Manager)

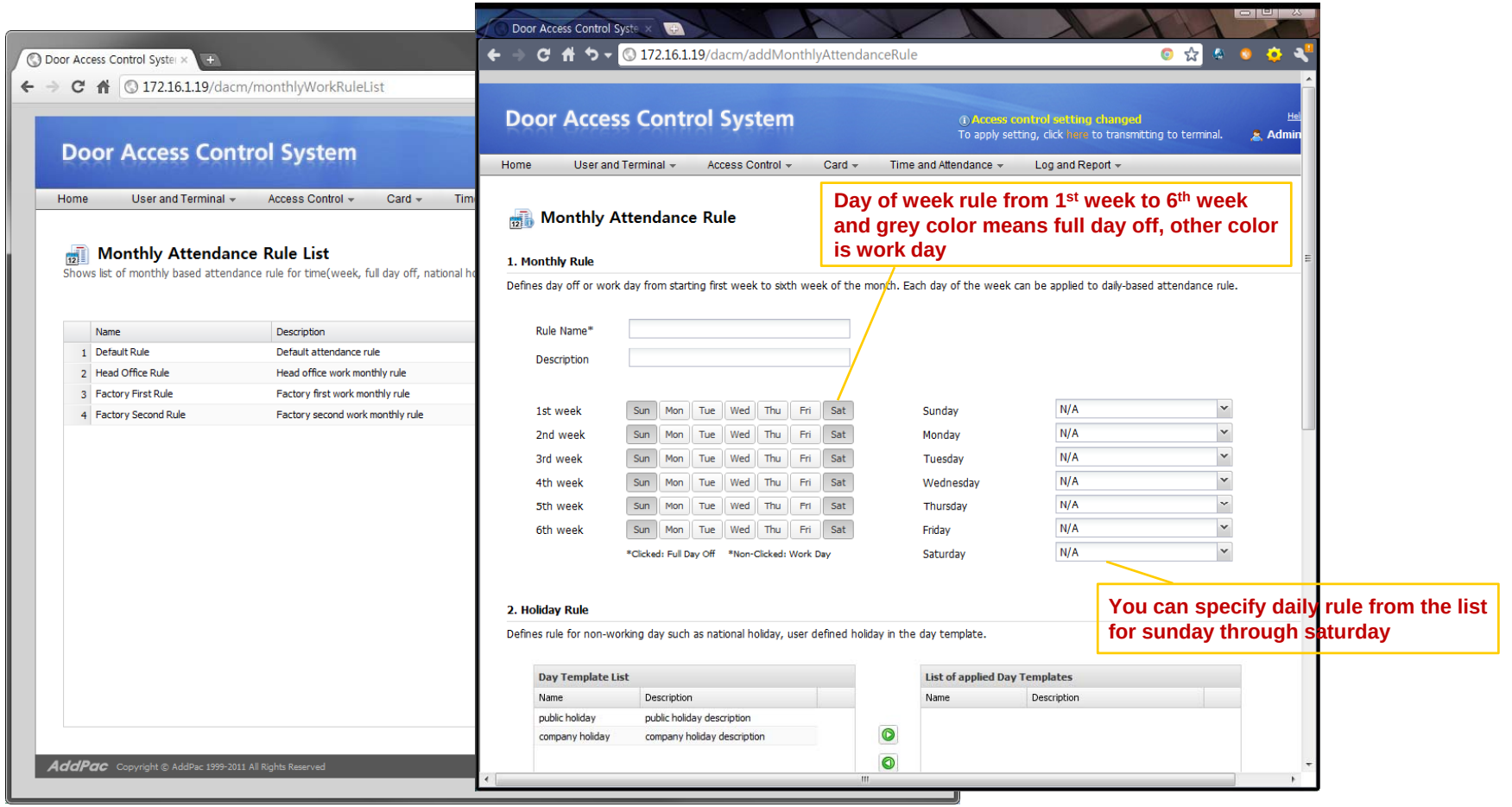
Access Log Management



Time Attendance Web Manager Software (TAAM)

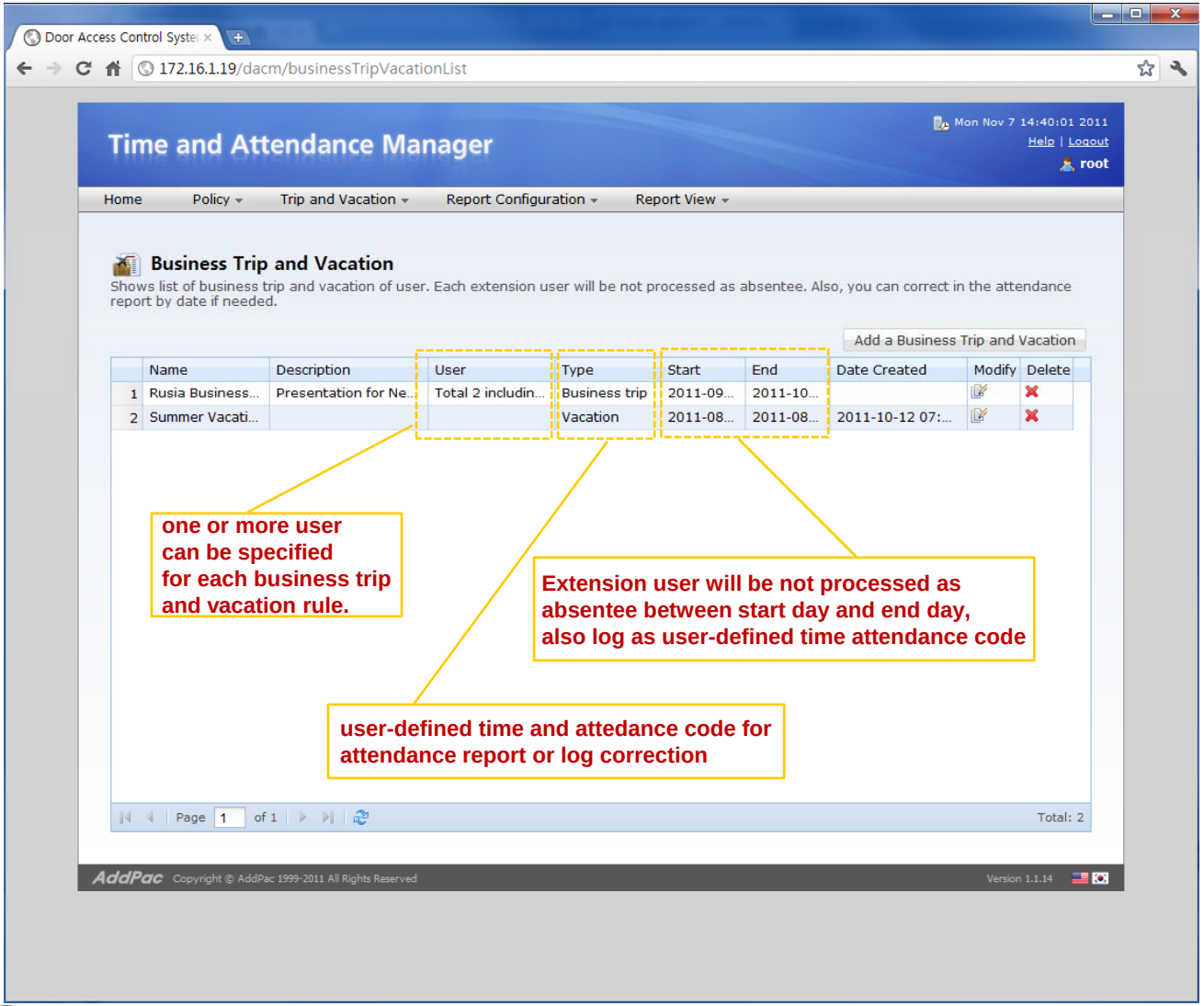
TAAM (Time and Attendance Manager)

Monthly Attendance Rules



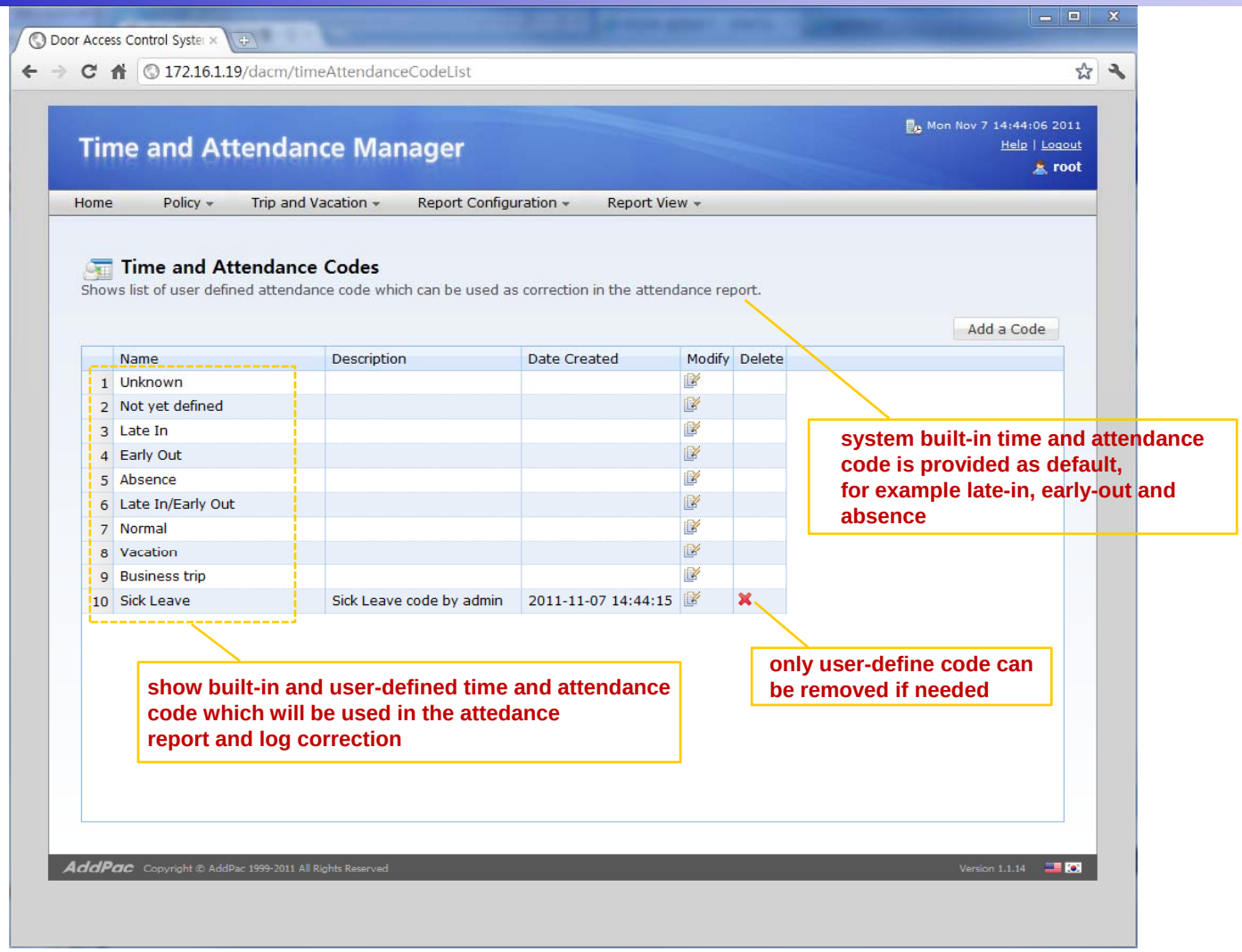
TAAM (Time and Attendance Manager)

Business Trip and Vacation



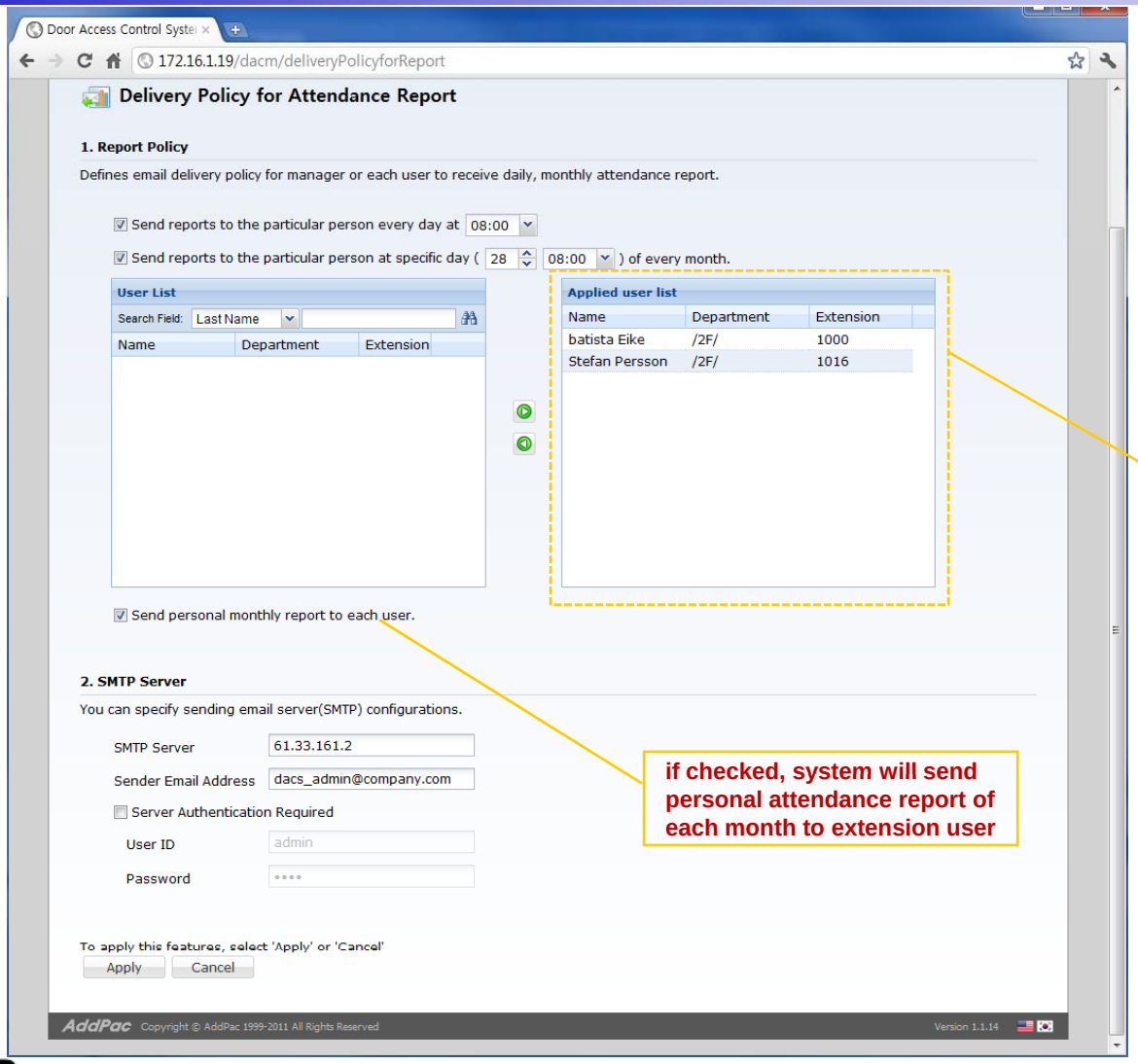
TAAM (Time and Attendance Manager)

Time and Attendance Codes



TAAM (Time and Attendance Manager)

Delivery Policy for Attendance Report

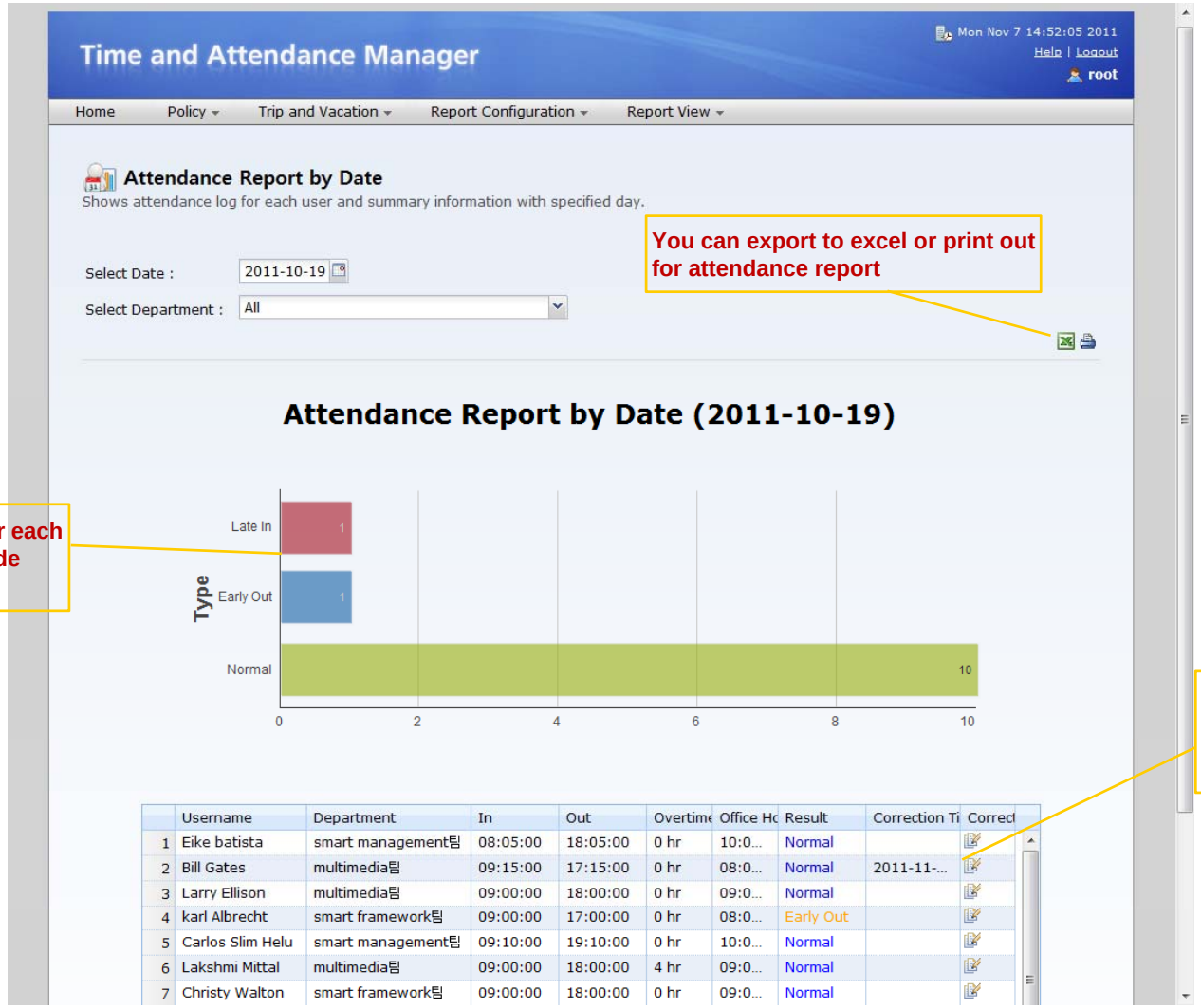


manager level users (extension) list who want to receive daily and monthly attendance report

if checked, system will send personal attendance report of each month to extension user

TAAM (Time and Attendance Manager)

Attendance Report by Date

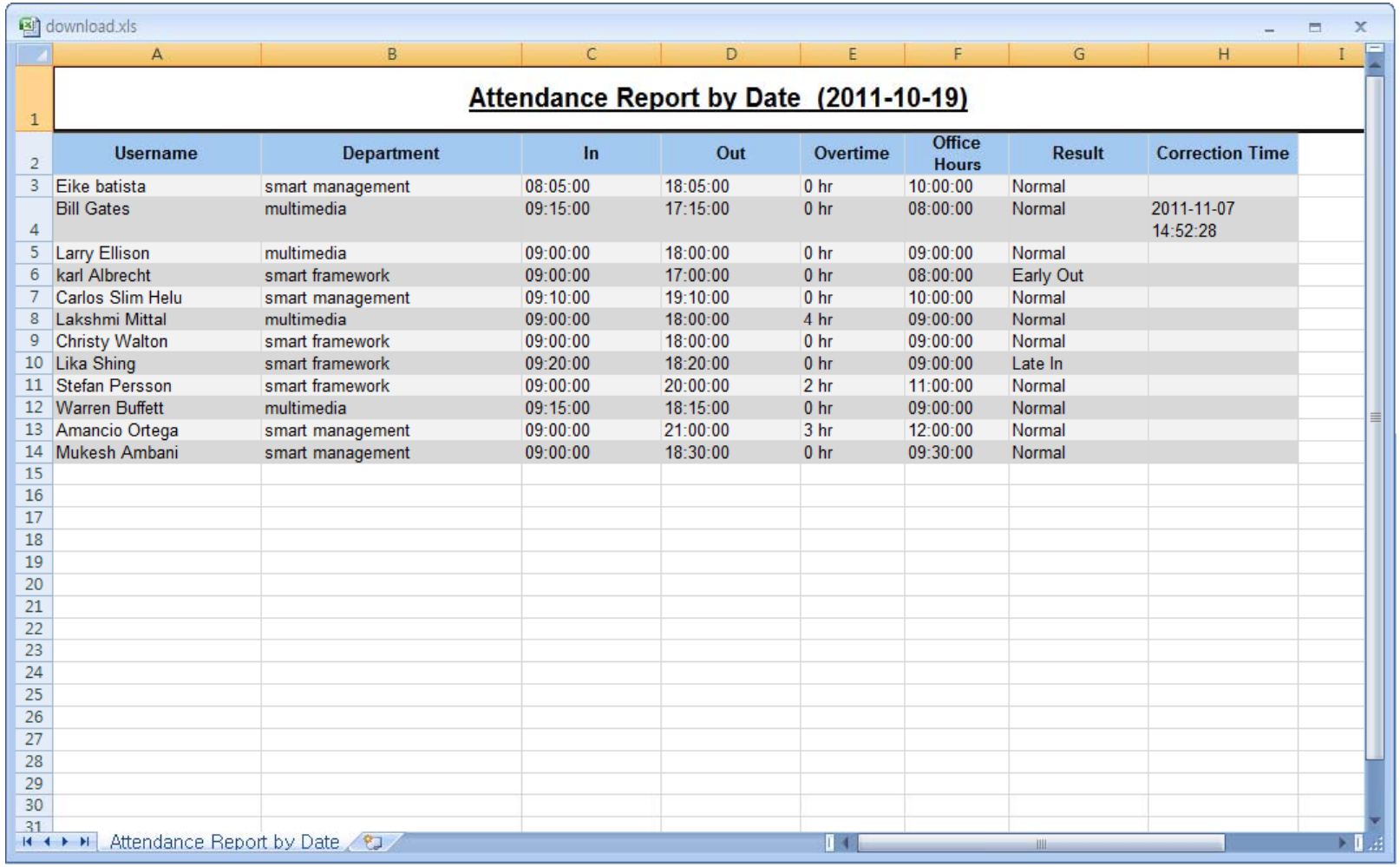


attendance summary for each time and attendance code with specified date

administrator may adjust or correct attendance log which system have processed if necessary

TAAM (Time and Attendance Manager)

Attendance Report Excel Export



download.xls

Attendance Report by Date (2011-10-19)

Username	Department	In	Out	Overtime	Office Hours	Result	Correction Time
Eike batista	smart management	08:05:00	18:05:00	0 hr	10:00:00	Normal	
Bill Gates	multimedia	09:15:00	17:15:00	0 hr	08:00:00	Normal	2011-11-07 14:52:28
Larry Ellison	multimedia	09:00:00	18:00:00	0 hr	09:00:00	Normal	
karl Albrecht	smart framework	09:00:00	17:00:00	0 hr	08:00:00	Early Out	
Carlos Slim Helu	smart management	09:10:00	19:10:00	0 hr	10:00:00	Normal	
Lakshmi Mittal	multimedia	09:00:00	18:00:00	4 hr	09:00:00	Normal	
Christy Walton	smart framework	09:00:00	18:00:00	0 hr	09:00:00	Normal	
Lika Shing	smart framework	09:20:00	18:20:00	0 hr	09:00:00	Late In	
Stefan Persson	smart framework	09:00:00	20:00:00	2 hr	11:00:00	Normal	
Warren Buffett	multimedia	09:15:00	18:15:00	0 hr	09:00:00	Normal	
Amancio Ortega	smart management	09:00:00	21:00:00	3 hr	12:00:00	Normal	
Mukesh Ambani	smart management	09:00:00	18:30:00	0 hr	09:30:00	Normal	

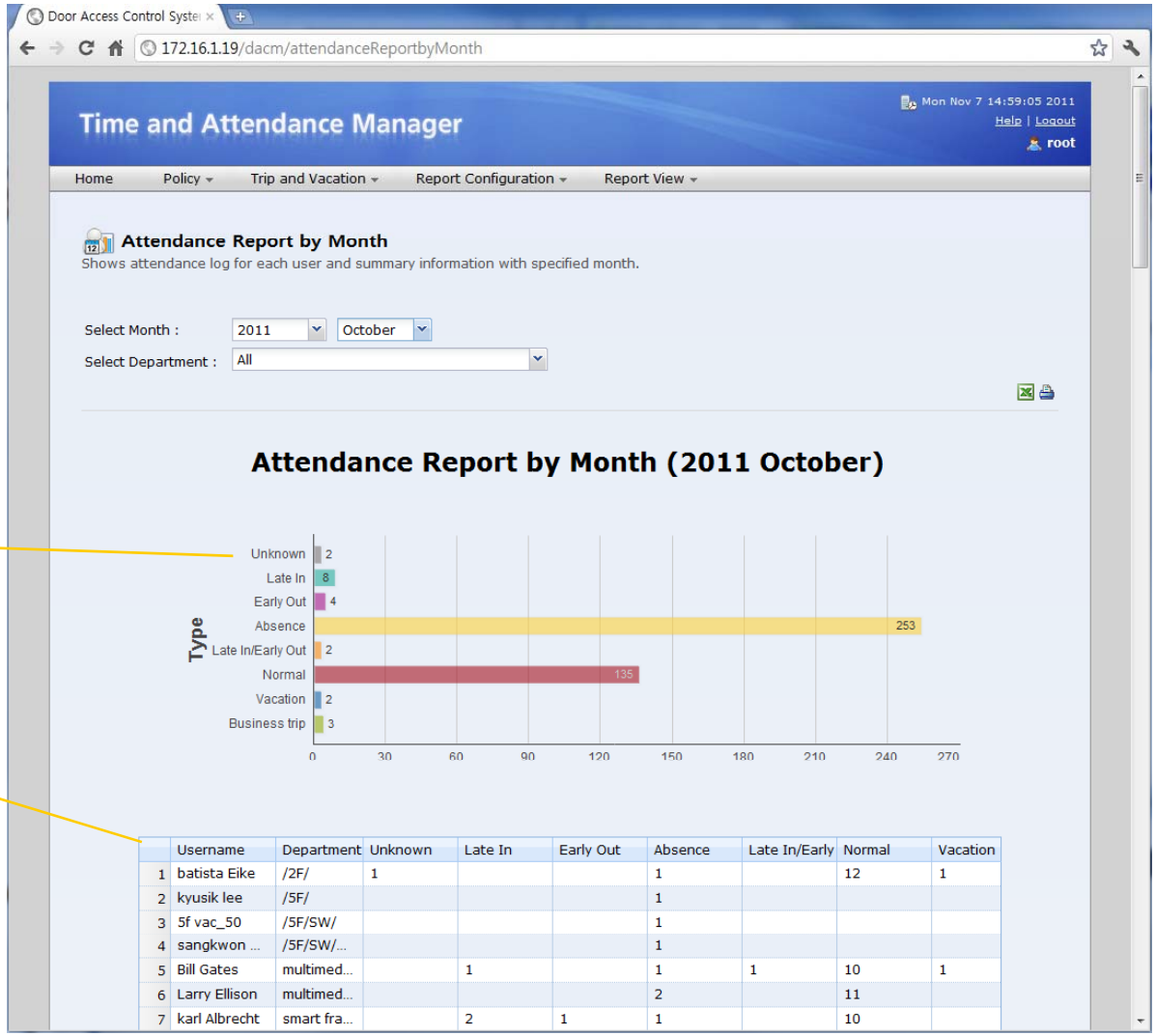
Attendance Report by Date

TAAM (Time and Attendance Manager)

Attendance Report by Month

attendance summary for each time and attendance code with specified month

attendance summary for each extension user

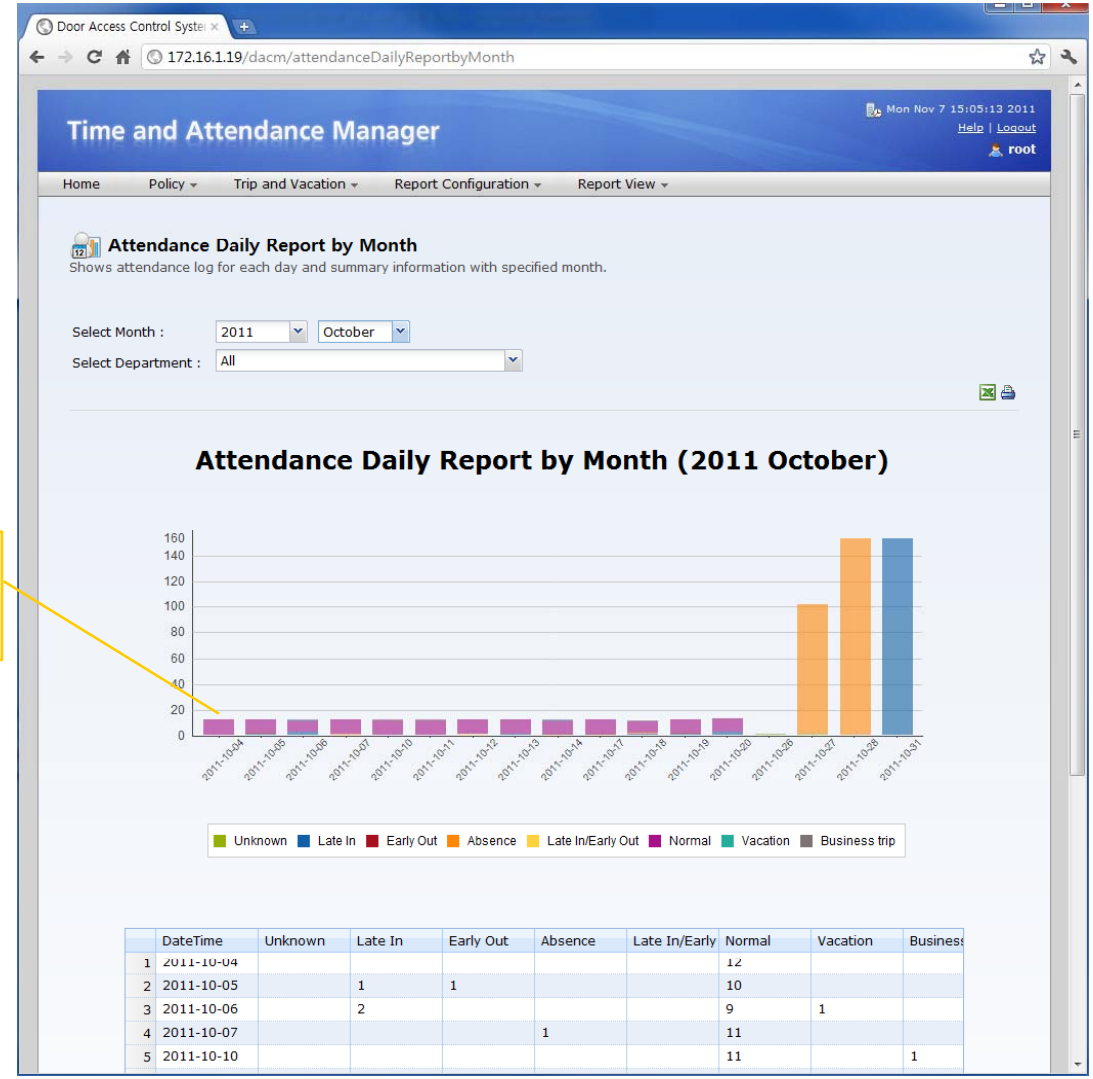


	Username	Department	Unknown	Late In	Early Out	Absence	Late In/Early	Normal	Vacation
1	batista Eike	/2F/	1			1		12	1
2	kyusik lee	/5F/				1			
3	5f vac_50	/5F/SW/				1			
4	sangkwon ...	/5F/SW/...				1			
5	Bill Gates	multimed...		1		1	1	10	1
6	Larry Ellison	multimed...				2		11	
7	karl Albrecht	smart fra...		2	1	1		10	

TAAM (Time and Attendance Manager)

Attendance Daily Report by Month

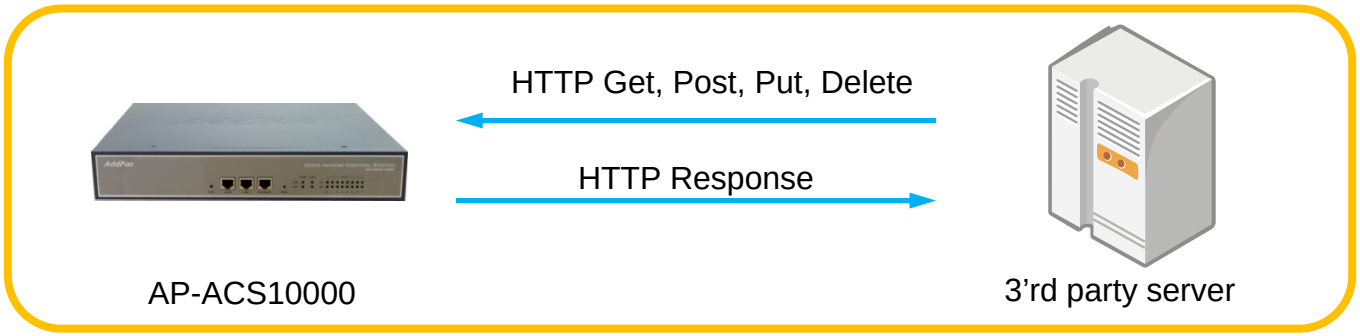
clustered column of attendance summary with time span from first to end of the month



Door Access Control Server 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) ,…

Thank you!

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