Enterprise Time Attendance SIP Door Phone Solution





AddPac Technology

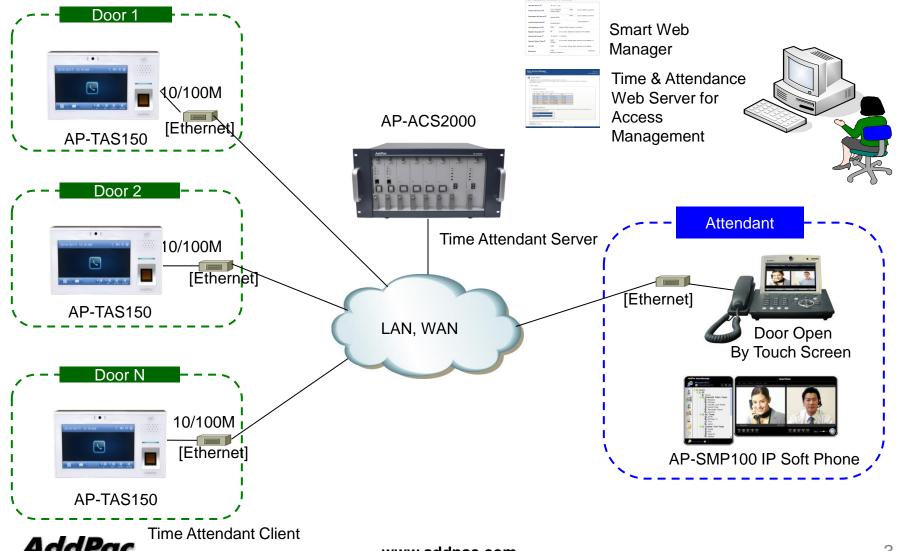
2014, Sales and Marketing

Contents

- Time Attendance + SIP Video Door Phone Service Diagram
- Time Attendance + SIP Video Door Phone Solution
 - AP-TAS150 (Fingerprint, RF card, SIP Video Call)
 - AP-TAS80 (RF card, SIP Video Call)
- Time Attendance Signal Call Flow Diagram
- Time Attendance Embedded Web Manager
- Backend Solution (other documents)
 - AP-ACS2000 Access Control Server
 - AddPac IP Video Phones
 - IP Soft Video Phones (Window, Android, etc)



Time Attendance + SIP Video Door Phone Service Diagram



Time Attendance + SIP Video Door Phones



Time & Attendance SIP Door Phone Comparison Table

Model	AP-TAS150	AP-TAS80
Service Features	2014/317/ 1016/AN	STICHTON TO 10 AM THE BOOK ANALONS
Time & Attendance	Support	Support
SIP Door Phone	SIP Video Door Phone	SIP Video Door Phone
Duplex (Voice)	Full Duplex	Full Duplex
Key Pad	One(1) Call Button	One(1) Call Button
LCD	5 inch LCD	3.5 inch LCD
RF Card	Support	Support
Fingerprint	Support	N/A
Camera Sensor	SD(VGA)	SD(VGA)
Video Codec	SD, H.264/MPEG4/H.263	SD, H.264/MPEG4/H.263
Voice Codec	G.711,G722(option)	G.711, G.722(option)
Signaling	SIP	SIP
MIC & Speaker Phone	Support	Support
LAN Port	1	1
PoE(Option)	Support	Support



Time Attendance SIP Video Door Phone AP-TAS150



Main Features

AP-TAS150 Time Attendance SIP Video Door Phone

- Smart Time & Attendance IP Video Door Phone Solution
- High Performance SIP Video Door Phone Solution
- Video Camera, Touch Screen TFT Color LCD, Internal MIC & Speaker
- High Quality 5 Inch LCD, 800 x 480 Video Resolution
- Fingerprint Recognition Support
- RF Card Support
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
 - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism www.addpac.co

AP-TAS150 Time Attendance SIP Video Door Phone

- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
 - Internal MIC
 - Internal Speaker
- Video Camera Interface
- TFT Color LCD Interface
 - 5 Inch LCD, 800 x 480 Video Resolution
- Network Interface
 - One(1) 10/100Mbps Fast Ethernet
- Fingerprint Recognition Interface
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Power Supply
 - Power over Ethernet (Option)
 - External Power Supply





RISC CPU

High-end DSP

AP-TAS150 Time Attendance SIP Video Door Phone

Acoustic Echo Canceller

- 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)

- IEEE802.3af compliant
- Input voltage range 36V to 57V

Short-circuit Protection



High-end DSP

AP-TAS150 Time Attendance SIP Video Door Phone

LCD Controller

- One-Chip Solution for TFT-LCD
- Hardware On-Screen Display (OSD)
- Support resolution up to 240xRGBx320
- Up to 24-bit RGB888 Digital Interface
- Resize Function (x 1/16, x8)
- BT.60/BT.66 Digital YCbCr 4:2:2(8-/16-bit) Interface

Camera

- 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



RISC CPU

High-end DSP

AP-TAS150 Time Attendance SIP Video Door Phone

RF Card Sensor

Protocol Supported

ISO14443A/B all bit rates

> 106,212,424 and 848 kbps

Compatible to MiFare Classic

ISO15693 all modes

- > 1.65/6.6 & 26.5 kbps
- > Uplink 1 & 2 sub-carrier

Receiver

Rx Sensitivity down to 1mVrms
Rx Automatic Gain Control
Accept external baseband signal from
external circuitry for frame level processing
Integrated signal strength indicator (SSI)
On-Chip Framing handler for supported standard

Transmitter

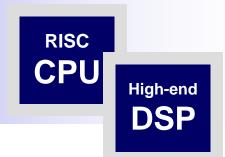
Typical proximity operating distance up to 100mm. Software configurable modulation index Maximum driving current up to 200 mA/PIN @ 5V Accept external baseband signal for RF modulation Wide Transmitter driver supply range from 2.7~7.0V



RF Card Sensor







Fingerprint Recognition

Sensor Type : Capacitive

Resolution(dpi): 508

Sensing Area(mm): 12.8 x18.0Image Size(pixel): 256 x 360

CPU: 400MHz DSPFlash Memory: 4MB

– ERR : < 0.1%</p>

Enrollment Time: 800msec

1:1 Verification Time: 800msec

1:1000 Identification Time: 970msec

Template Size : 256~384bytes (configurable, 384bytes default)

Template Capacity: 9,000

Encryption: 256bit AES



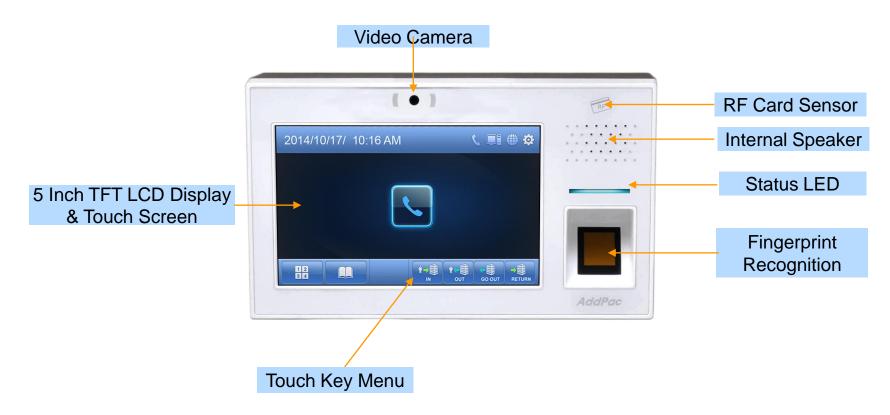






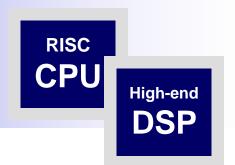
AP-TAS150 Time Attendance SIP Video Door Phone

Front Side

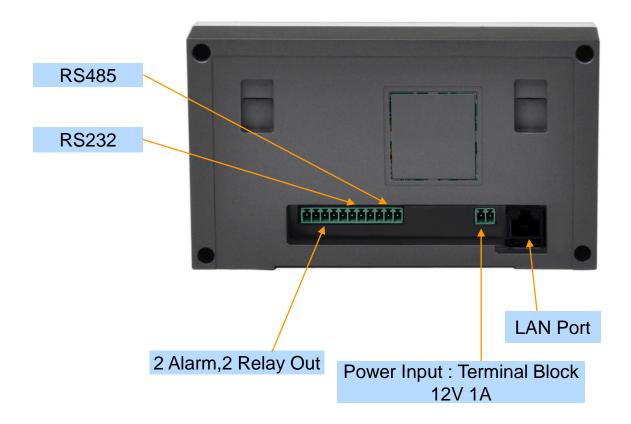








Back Side







AP-TAS150 Time Attendance SIP Video Door Phone

High-end DSP

Power Supply



Example





Time Attendance SIP Video Door Phone AP-TAS80



Main Features

AP-TAS80 Time Attendance SIP Video Door Phone

- Smart Time & Attendance IP Video Door Phone Solution
- High Performance SIP Video Door Phone Solution
- Video Camera, Touch Screen TFT Color LCD, Internal MIC & Speaker
- High Quality 5 Inch LCD, 800 x 480 Video Resolution
- RF Card Support
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
 - H.264/MPEG4/H.263, G.711, etc
- One(1) 10/100Mbps Fast Ethernet
- PoE(Power over Ethernet) Support
- High Quality Speaker Phone Features
- Powerful Acoustic Echo Canceller Chip Embedded
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- Advanced Voice QoS Mechanism

AddPac

RISC CPU

High-end DSP

- AP-TAS80 Time Attendance SIP Video Door Phone
- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
 - Internal MIC
 - Internal Speaker
- Video Camera Interface
- TFT Color LCD Interface
 - 5 Inch LCD, 800 x 480 Video Resolution
- Network Interface
 - One(1) 10/100Mbps Fast Ethernet
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- Power Supply
 - Power over Ethernet (Option)
 - External Power Supply





RISC CPU

High-end DSP

AP-TAS80 Time Attendance SIP Video Door Phone

Acoustic Echo Canceller

- 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
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at 800Hz, 1.0kHz, 1.2kHz, 1.5kHz

- Resonance Level: 550Hz +- 20%Hz at Fo Hz, 1.0Vrms
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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)

- IEEE802.3af compliant
- Input voltage range 36V to 57V

Short-circuit Protection



AP-TAS80 Time Attendance SIP Video Door Phone

LCD Controller

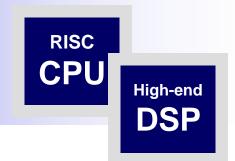
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AP-TAS80 Time Attendance SIP Video Door Phone



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Compatible to MiFare Classic

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Rx Automatic Gain Control
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external circuitry for frame level processing
Integrated signal strength indicator (SSI)
On-Chip Framing handler for supported standard

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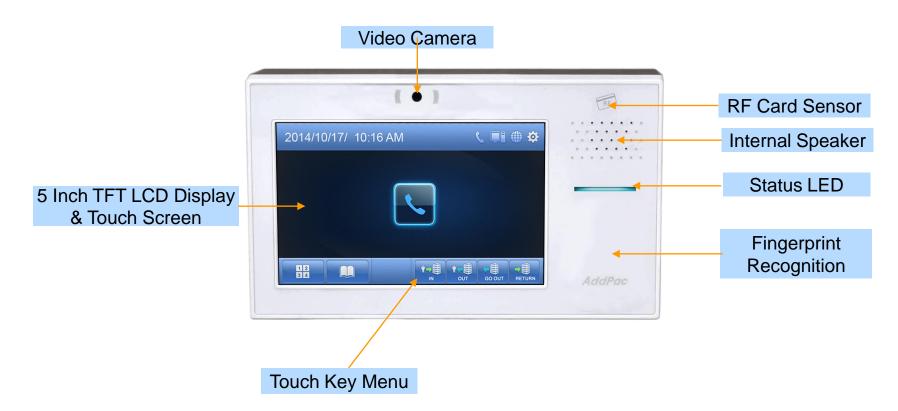






AP-TAS80 Time Attendance SIP Video Door Phone

Front Side

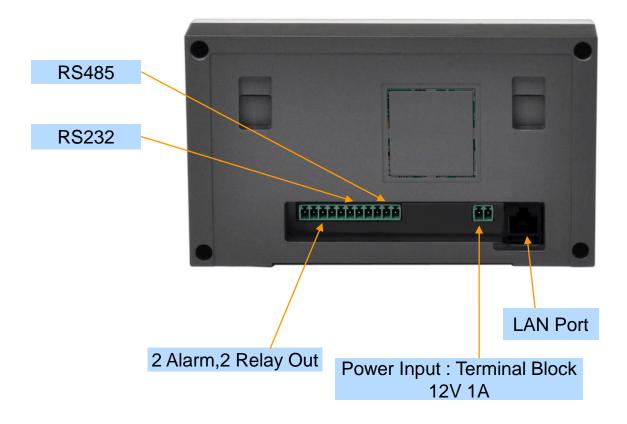






AP-TAS80 Time Attendance SIP Video Door Phone

Back Side







AP-TAS80 Time Attendance SIP Voice Door Phone

High-end DSP

Power Supply



Example





IP Video Door Phone Back-End Solution



IP Video Door Phone Backend Product Table

Backend Products	Description	Model
	IP Door Access Control Servers	AP-ACS2000
	IP Video Phone (Bidirectional two-way video)	AP-VP280, etc
THE PARTY NAME OF	IP Soft Video Phone	AP-SMP100 (Window) AP-ASH100 (Android) AP-ISH100 (IOS)
	Smart Door Phone Application	AP-SAD100



AP-ACS2000 Access Control Server



Main Features

AP-ACS2000 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
- High Performance RISC & Programmable DSP Architecture
- Smart Multimedia Manager for IP-PBX Management
- DACM(Door Access Control Manager)
- TAAM(Time and Attendance Management) Service
- IPv4/IPv6 based Dual Network Protocol Support
- Fault Tolerant and Scalability Architecture
- Firmware Upgradeable Architecture
- Dual System Redundancy Architecture
 - Two(2) 3.5 Inch Hard Disk (RAID 1) / System
 - Two(2) Gigabit Ethernet Interface / System
- Dual Redundancy Power Module



Hardware Features

AP-ACS2000 DACS (Door Access Control System)

- High-End Microprocessor Computing Power
- Main Chassis
 - Dual Redundancy CPU Boards for System Fault Tolerant
 - Two(2) 10/100/1000Mbps Gigabit Ethernet
 - One(1) RS-232C Console (RJ45)
 - Two(2) 3.5 Inch Hard Disk Interface Slot (RAID 1)
 - Dual Redundancy Power Supply Module
 - Hot-Swap Features



AP-ACS2000 DACS (Door Access Control System)

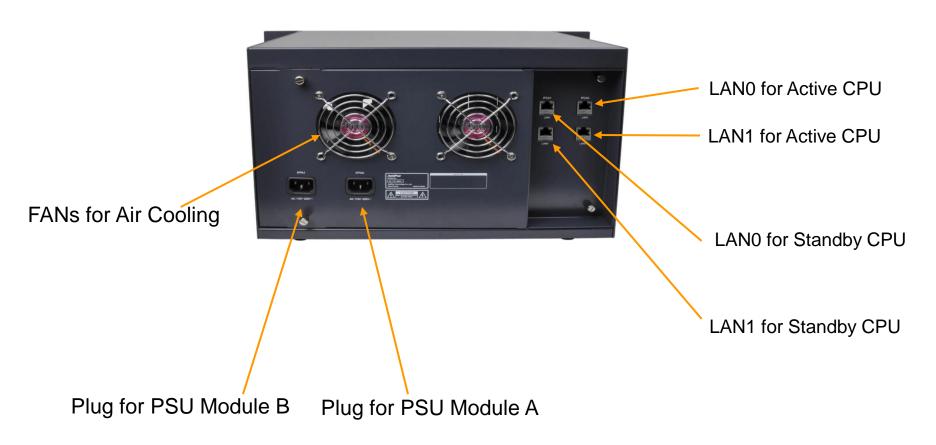
AP-ACS2000 Front Side





AP-ACS2000 DACS (Door Access Control System)

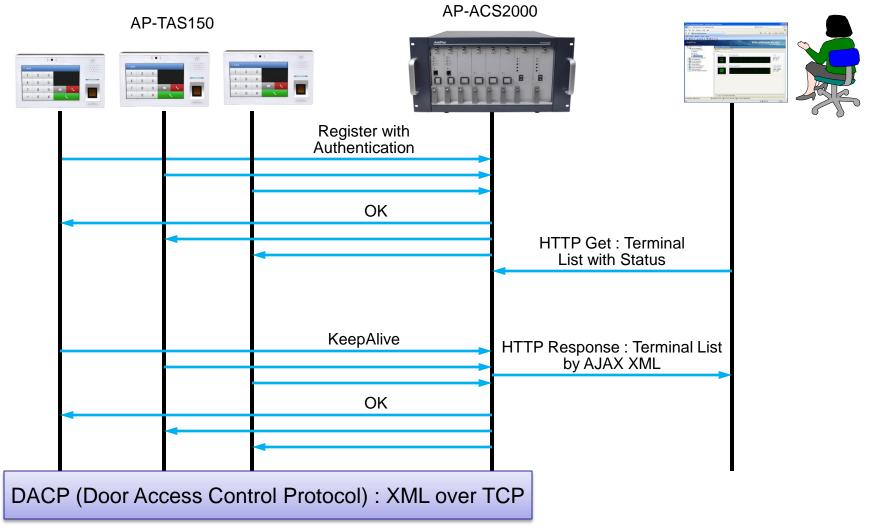
AP-ACS2000 Back Side





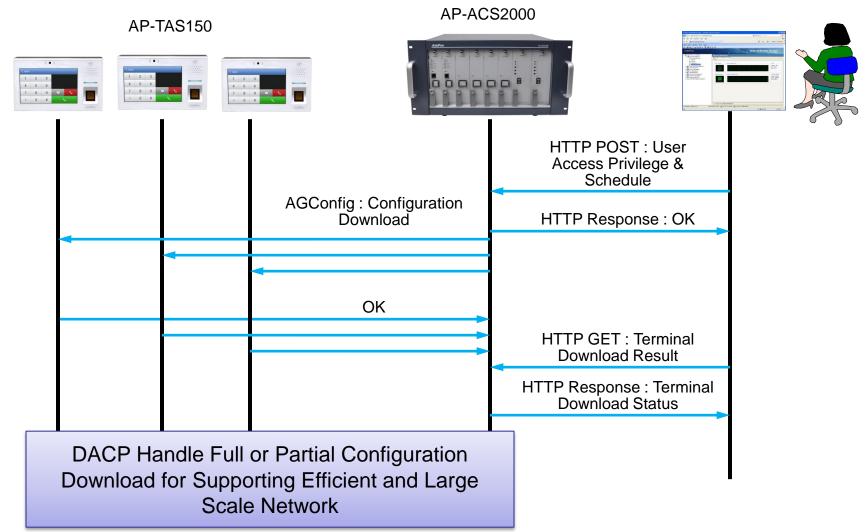


Registration and KeepAlive

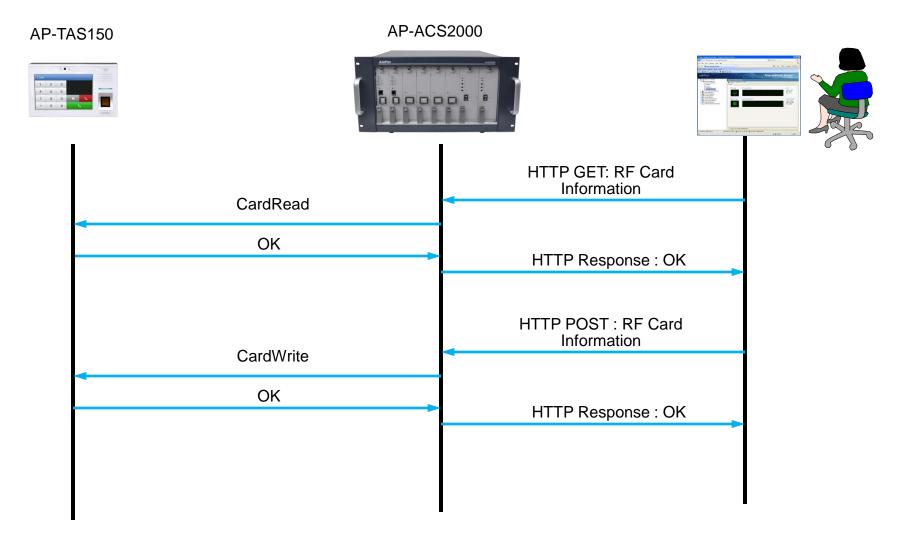




Access Privilege and Schedule Download

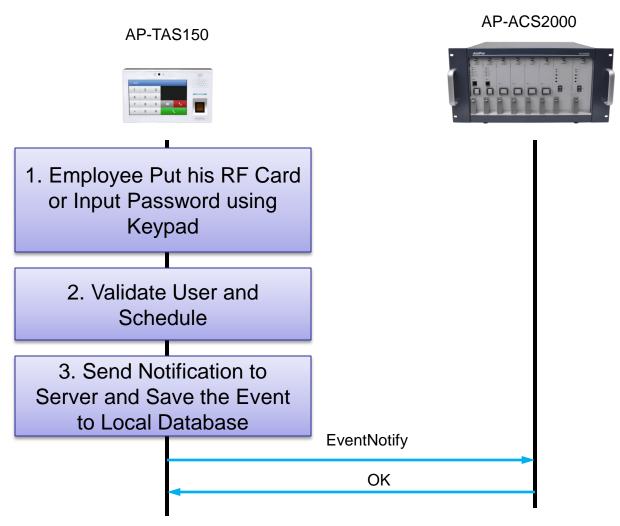


RF Card Read/Write and Registration





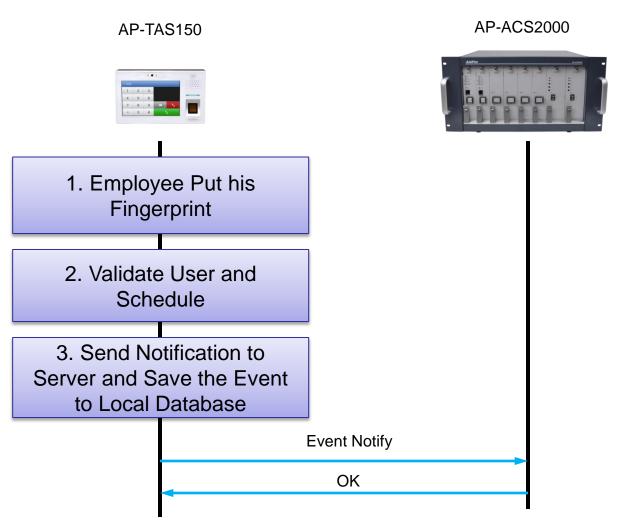
Door Open by RF Card or Password





DACS System Message Flow

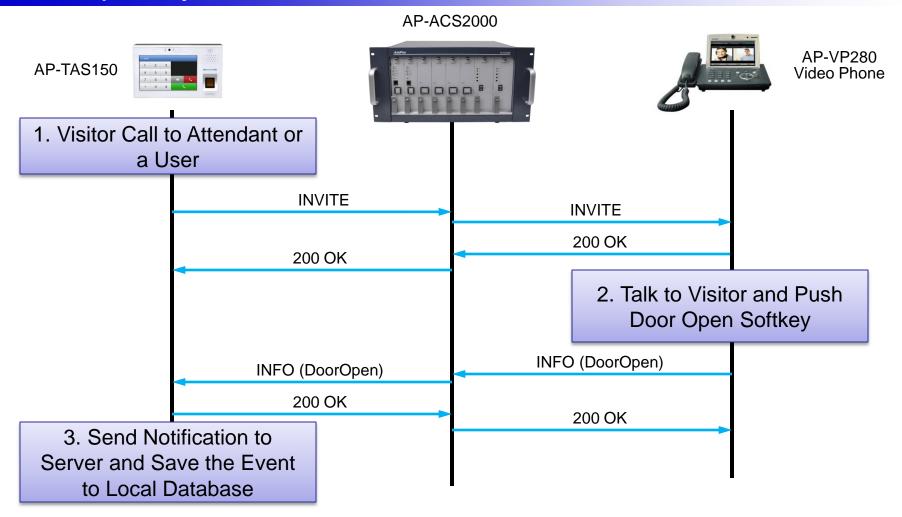
Door Open by Fingerprint





DACS System Message Flow

Door Open by Other Terminal

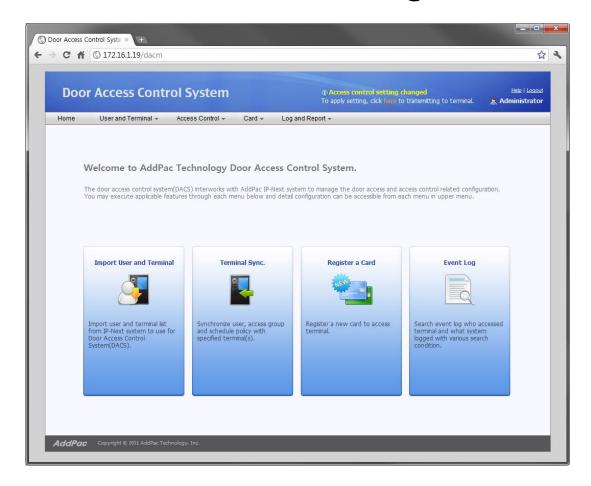




Door Access Control Manager for AP-ACS2000

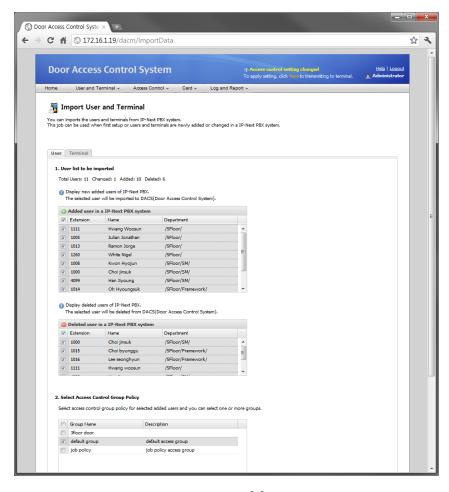


Main Web Page



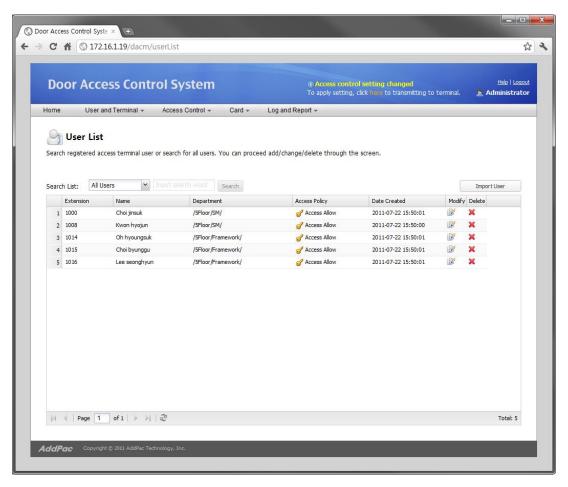


Import User and Terminal



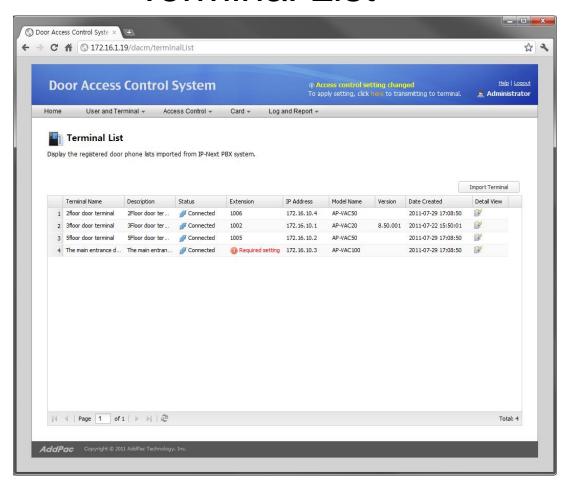


User List



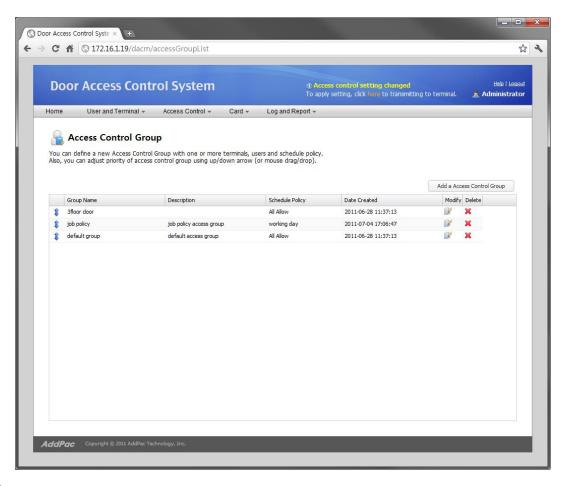


Terminal List



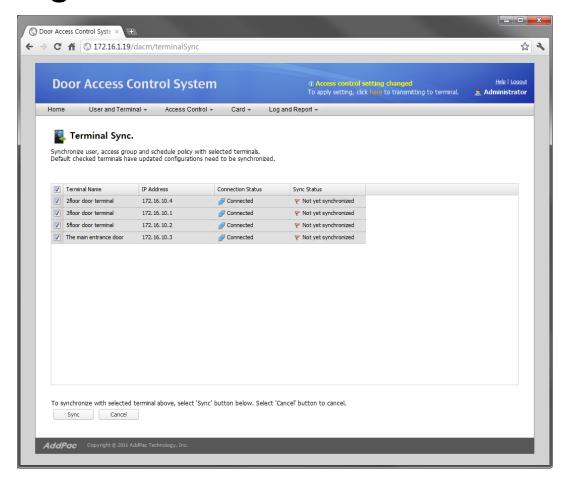


Access Control Group Management



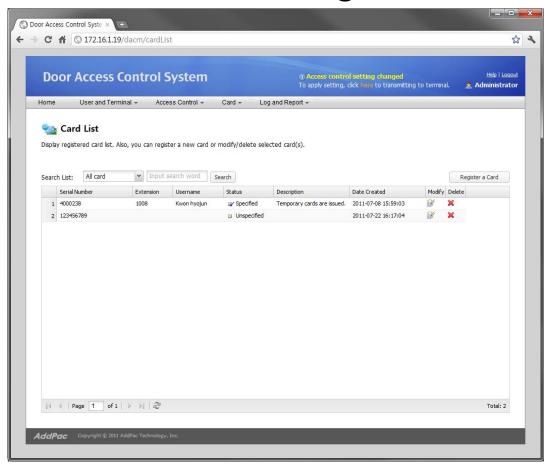


Configuration Download to Terminal



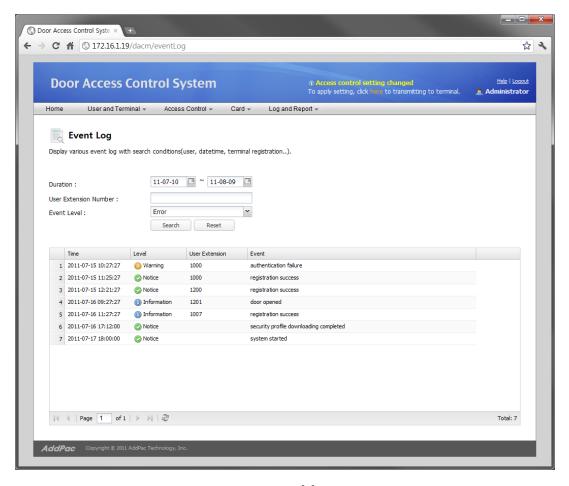


RF Card Management





Access Log Management





Time & Attendance Management



Contents

- Daily Attendance Management
- Monthly Attendance Management
- Business Trip and Vacation Management
- Time & Attendance Codes
- Attendance Report Management
- Attendance Report by Date, Month
- Attendance Daily Report by Month
- Attendance Personal Report



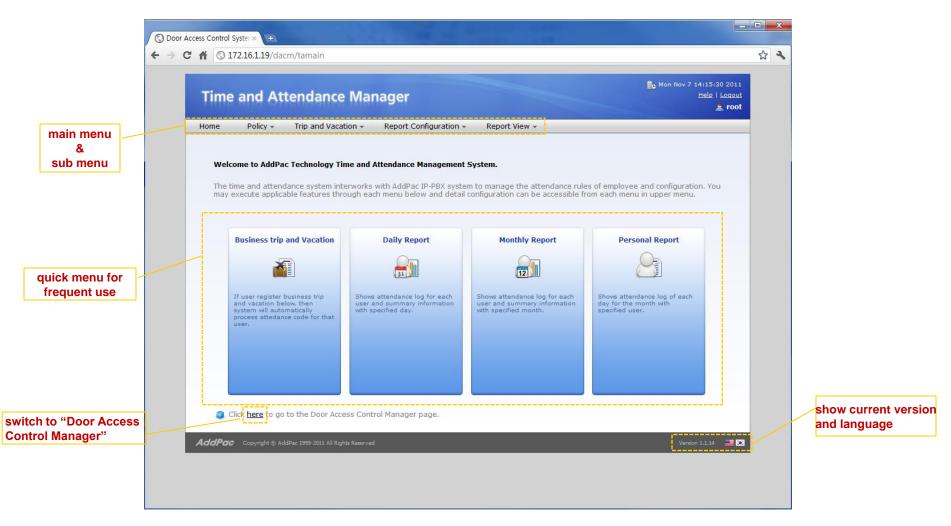
DACS (Door Access Control System)

Login page



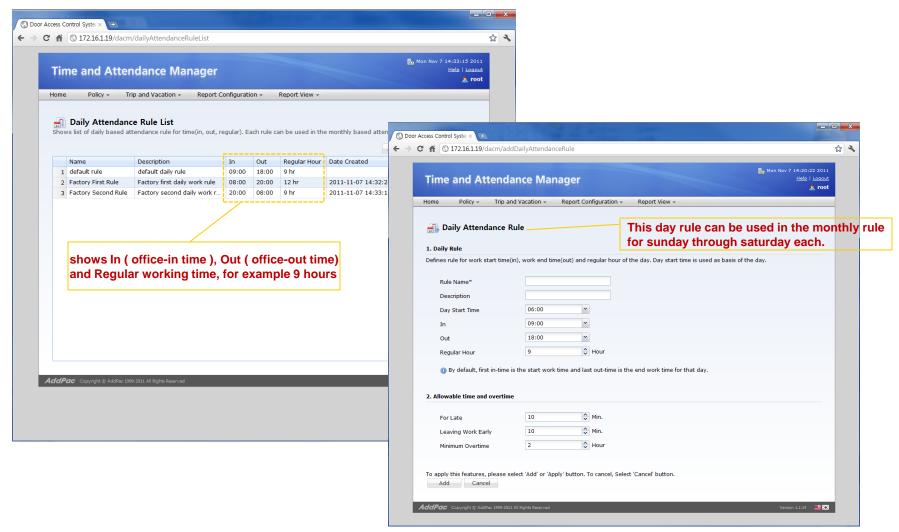


TAAM (Time and Attendance Manager) Main Web Page



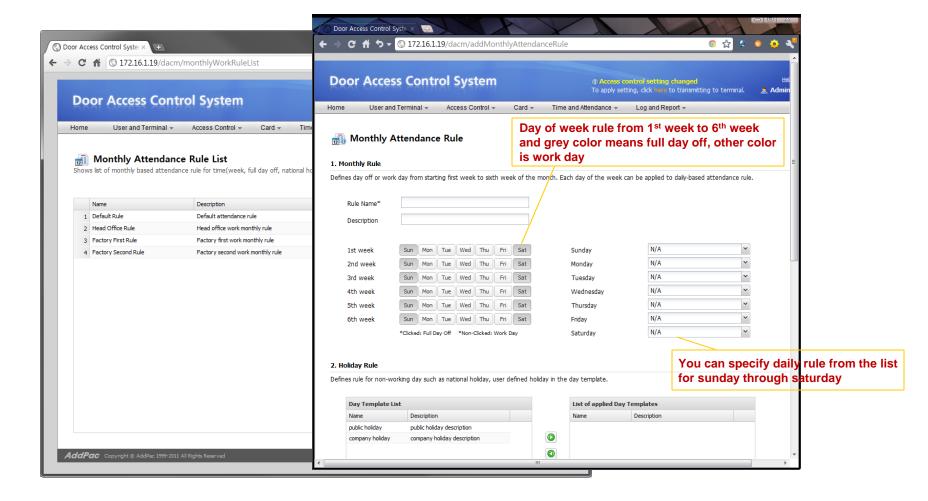


TAAM (Time and Attendance Manager) Daily Attendance Rules



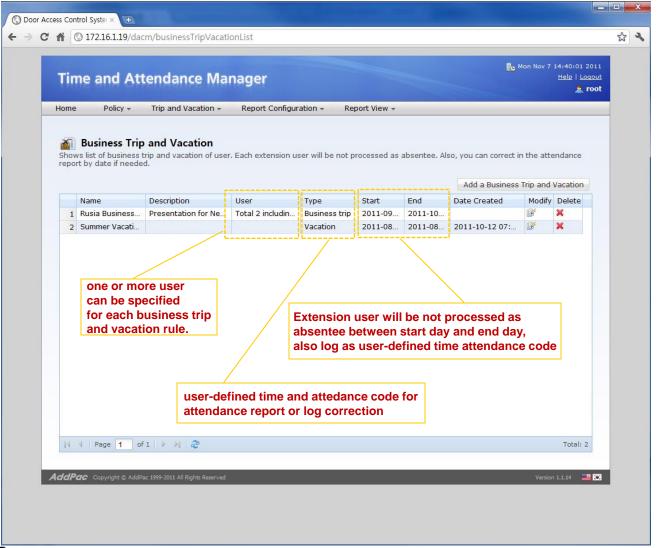


TAAM (Time and Attendance Manager) Monthly Attendance Rules

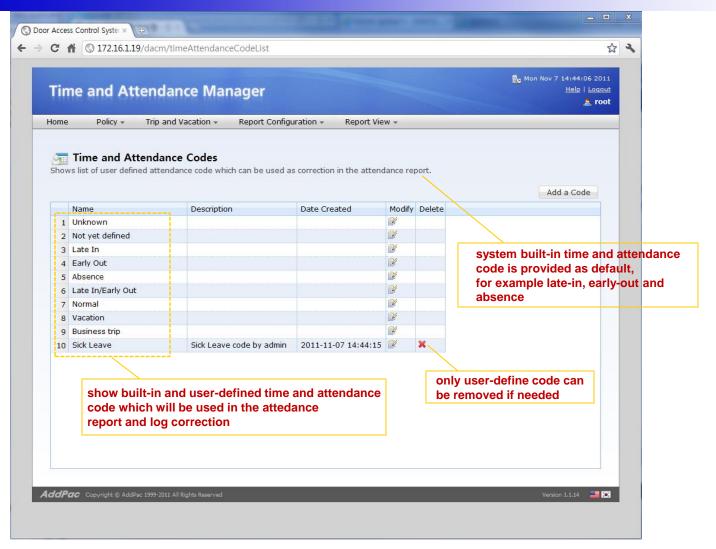




TAAM (Time and Attendance Manager) Business Trip and Vacation

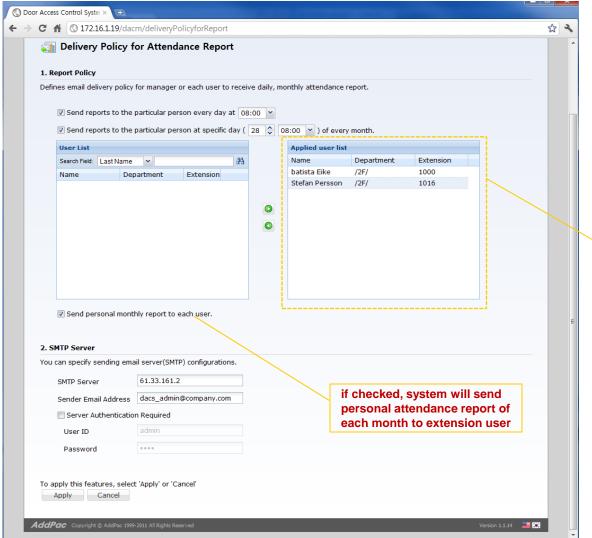


TAAM (Time and Attendance Manager) Time and Attendance Codes





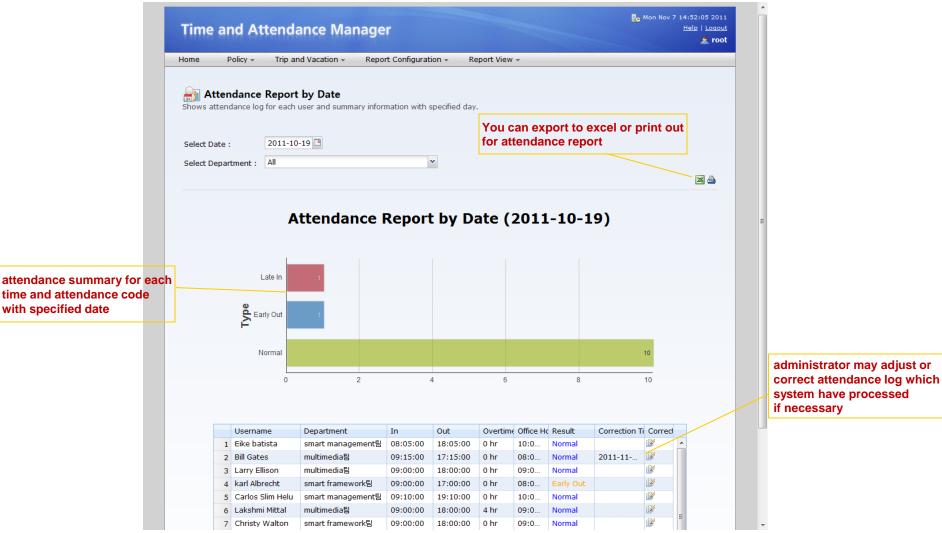
TAAM (Time and Attendance Manager) Delivery Policy for Attendance Report



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

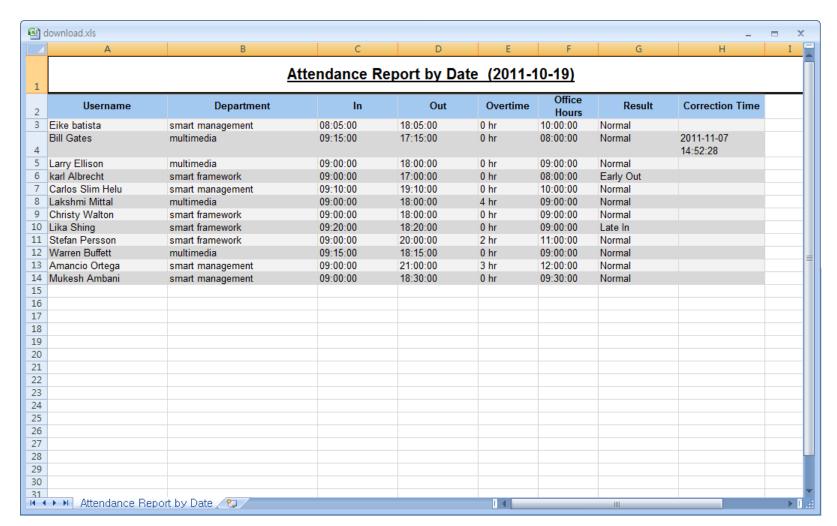


TAAM (Time and Attendance Manager) Attendance Report by Date





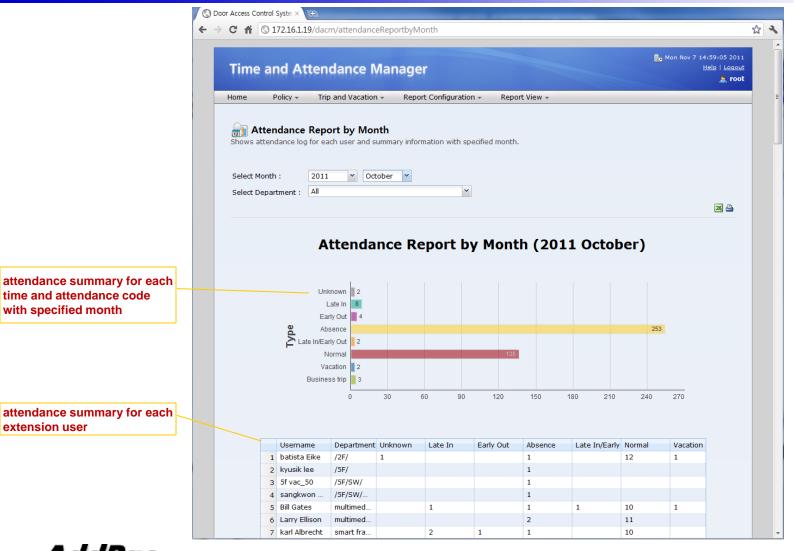
TAAM (Time and Attendance Manager) Attendance Report Excel Export





TAAM (Time and Attendance Manager

Attendance Report by Month



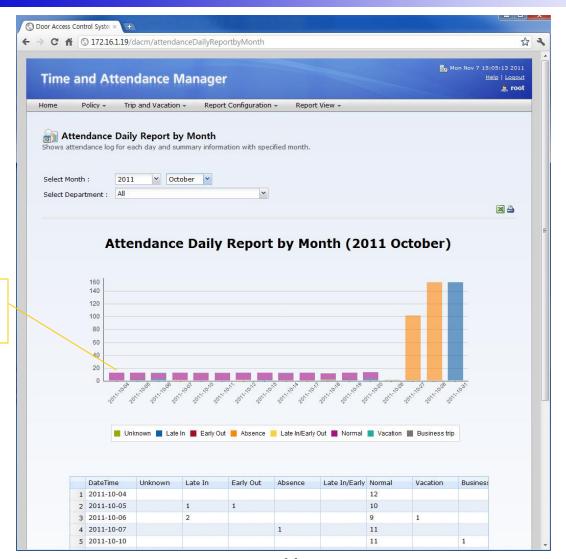


time and attendance code

with specified month

extension user

TAAM (Time and Attendance Manager) Attendance Daily Report by Month



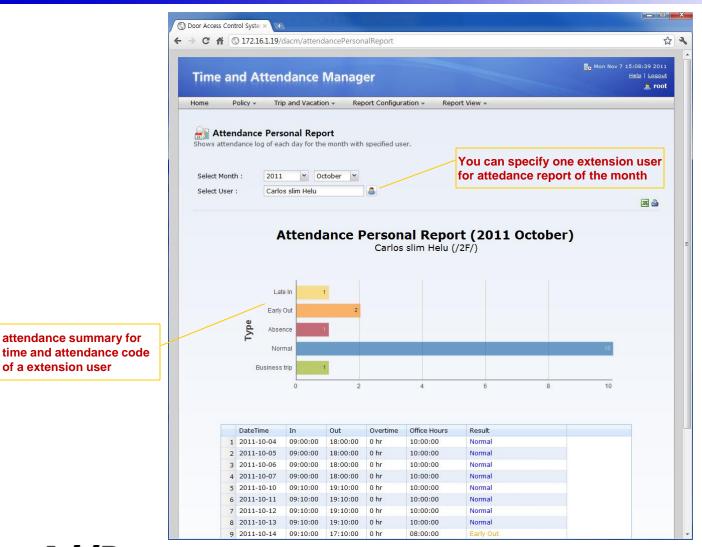


clustered column of

attendance summary

with time span from first to end of the month

TAAM (Time and Attendance Manager **Attendance Personal Report**





attendance summary for

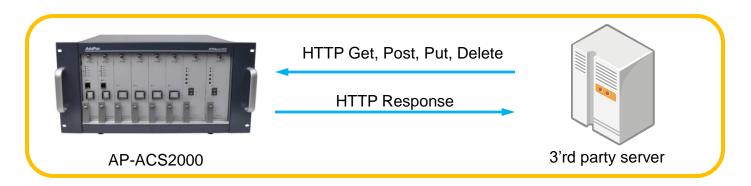
of a extension user

AP-ACS2000 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



IP Video Phone Solution

	AP-VP500	AP-VP300N	AP-VP280
LCD Size	12.1 Inch Touch Screen	7Inch Touch Screen	7Inch Touch Screen
Camera	CCD	CCD	CMOS
Video Codec	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
Video MCU	N/A	N/A	N/A
Voice MCU	3-Party	3-Party	3-Party
LAN Port	2	2	2
PoE	N/A	Support	Support



IP Soft Video Phone AP-SMP100





Product Overview

AP-SMP100 Smart Multimedia SoftPhone



AP-SMP100

Main Features	MS-Window based IP Soft Video Phone		
	IP Real-time Audio/Video Broadcasting Terminal Solution		
	Up to 30fps with VGA-Resolution(MPEG-4)		
	Video Conference Call Support (AddPac External MCU Interworking) Advanced Voice/Video Traffic QoS		
	Advanced Voice/Video Traffic QoS		
	SIP, H.323* Signaling Support		
	Support Various Call Signal via AddPac IP-PBX Inter-working		
	High-performance Video/Voice Codec Support - H.263, MPEG-4, JPEG, and H.264 - G.711,G.726		
A/V Service	Powerful Image Resolution Support -QCIF(176x144), CIF(352x288), QVGA(320x240), 4CIF and VGA		
Features	64Kbps to 4Mbps Operating Video Traffic Bandwidth		

Rate Control for Video Traffic QoS

Ensuring Optimized Quality

Frame Rate with Limited Bandwidth

High-end Error Resilient Against Various Packet Error

MS-Window based ID Soft Video Phone

OSD Software Features

AP-SMP100 Smart Multimedia SoftPhone





OSD Software Features

AP-SMP100 Smart Multimedia SoftPhone







OSD Software Features

AP-SMP100 Smart Multimedia SoftPhone









Contents

- AddPac AP-SAD100 Android Video Door Phone Appl.
 - AP-SAD100 Android Door Phone Appl. Overview
 - AP-SAD100 Network Service Diagram
 - AP-SAD100 SIP Register Diagram
 - AP-SAD100 SIP Video Call Flow Diagram
 - AP-SAD100 UI Design
 - AP-SAD100 Setting and Configuration
- 3'rd Party Video Phone Appl.(ex: Linphone)

AddPac Smart Door Phone (Android Appl.)





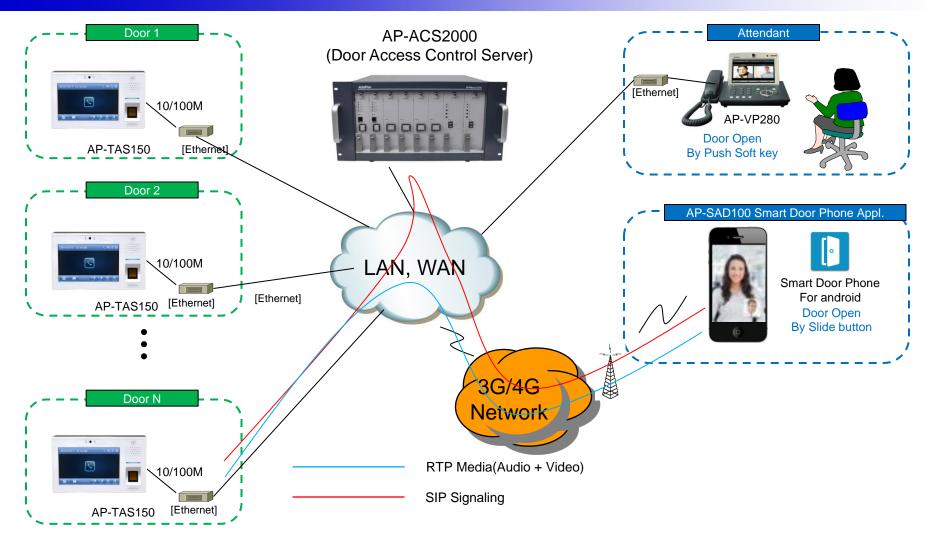


AP-SAD100 Overview

- It supports receiving a video call from door side video door phone by visitor.
- It supports opening the door optionally with password.
- It supports making a video call to door side video door phone to see door side.
- It supports unidirectional video stream from door phone or bidirectional video stream to door phone optionally.
- It supports standard based SIP signaling protocol.
- It supports below voice and video codecs
 - Voice Codec : G.711ulaw/alaw, G.726
 - Video Codec : H.264, H.263. MPEG4



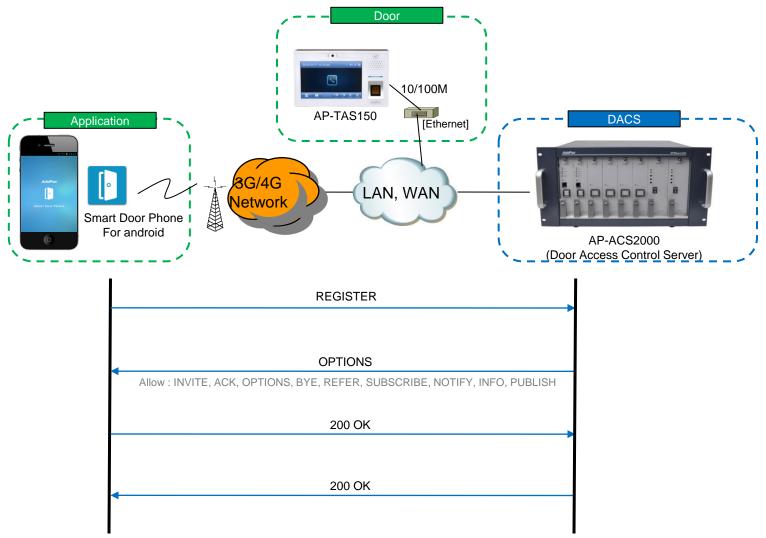
AP-SAD100 Network Service Diagram





SIP Register

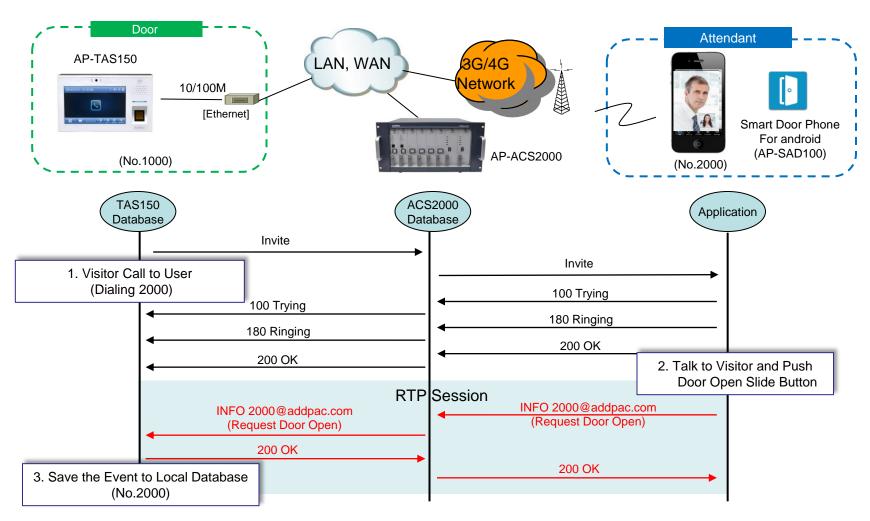
Smart Door Phone Application Register to AP-ACS1000





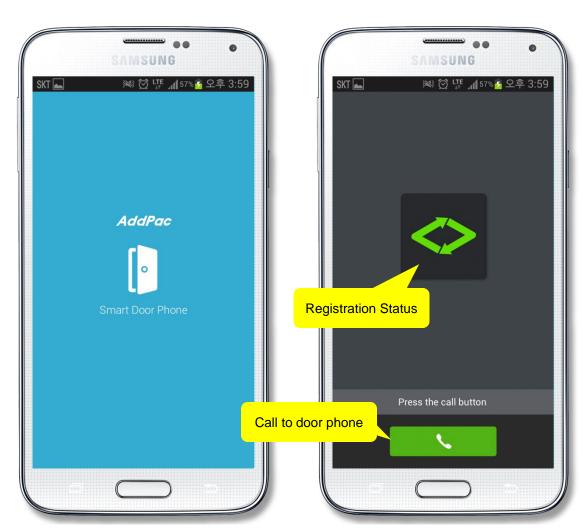
SIP Video Call Flow

Door Open Flow





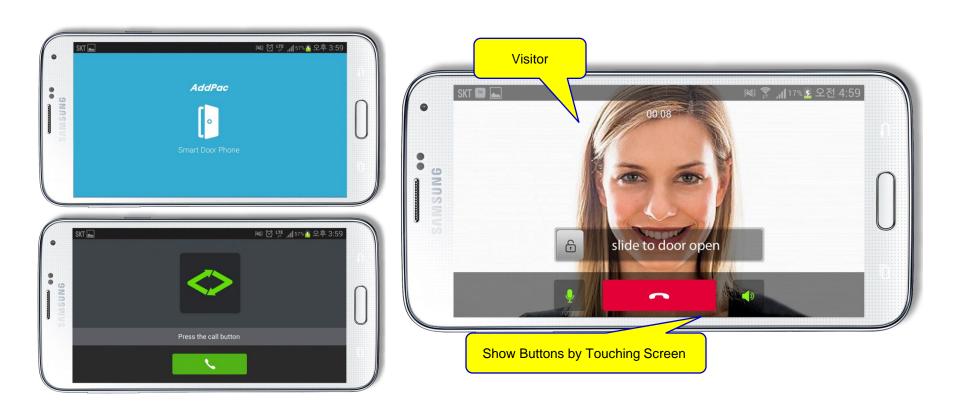
Main screen (portrait)







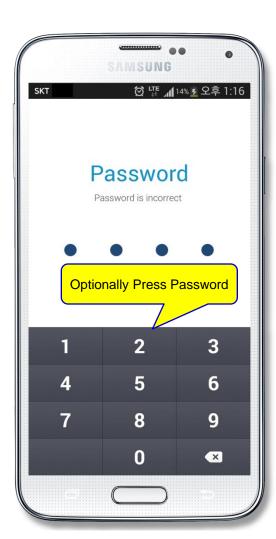
Main screen (landscape)





Main screen (open the door)

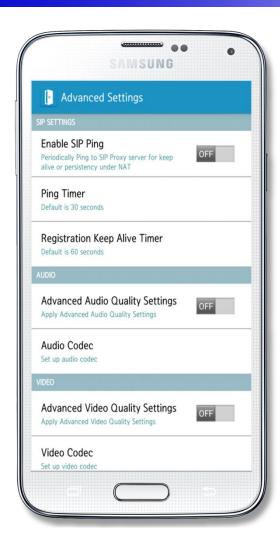


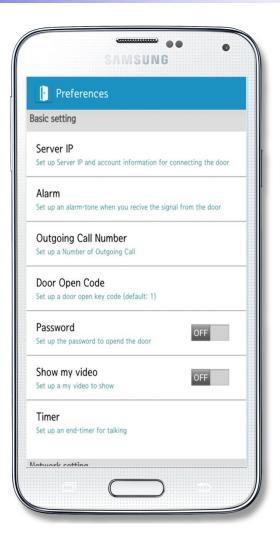






Application Settings







Thank you!

AddPac Technology Co., Ltd. Sales and Marketing

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