IP Telephony Solution for Medium Size Enterprise









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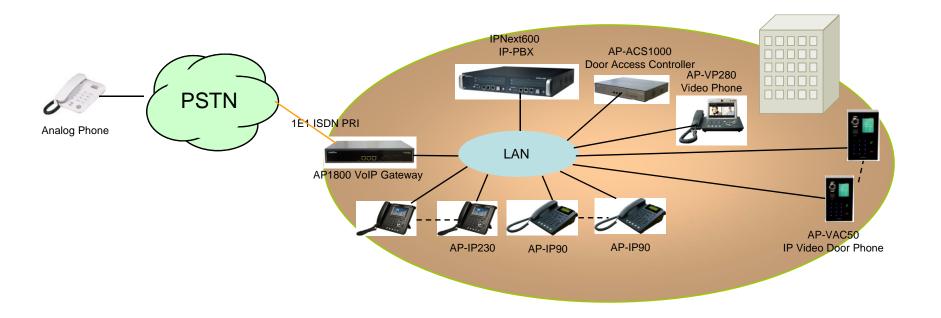
Sales and Marketing

Contents

- IP Telephony Network Diagram
- IP Telephony Solution Components (Example)
 - IPNext600 Call Manager
 - AP1800 VoIP Gateway for Digital E1 Interface
 - IP Phone (AP-IP230, AP-IP90)
 - AP-VAC50 IP Video Door Phone
 - AP-ACS1000 Access Control Server (Time and Attendance Manager)
 for IP Video Door Phone
 - AP-VP280 Video Phone



IP Telephony Network Diagram





IP Telephony Solution Components



IPNext600 Call Manager





Main Features

IPNext600 Call Manager

- SIP Application Server, Proxy, Registrar and Location Server
- Multiple ITSP Trunk with SIP & H.323 Accounts Support
- Dual System Redundancy Architecture
 - Two(2) Fast Ethernet Interface / System
- High Perfórmance RISC Architecture
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- IPv4/IPv6 Dual Stack
- RTP Proxy Function Embedded for Private IP and IPv6 Address Interworking
- User Presence Service Features for Smart Multimedia Messenger and Smart IP Phone
- IVR Scenario Editor, Voice Mail, Media Service (Coloring), Conference
- Firmware Upgradeable Architecture
- Smart Multimedia Manager for IP-PBX Management
- Smart Messenger Service (click to dial) for Unified Communication
- VPMS (VoIP Plug&Play Management System) & Smart NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Dual Redundancy Power Module



IPNext600 Call Manager



- 64bit High-End Microprocessor Computing Power
- Main Chassis
 - Dual Redundancy CPU Boards for System Fault Tolerant
 - Two(2) 10/100Mbps Gigabit Ethernet
 - One(1) RS-232C Console (RJ45)
 - Dual Redundancy Power Supply Module
 - Hot-Swap Features

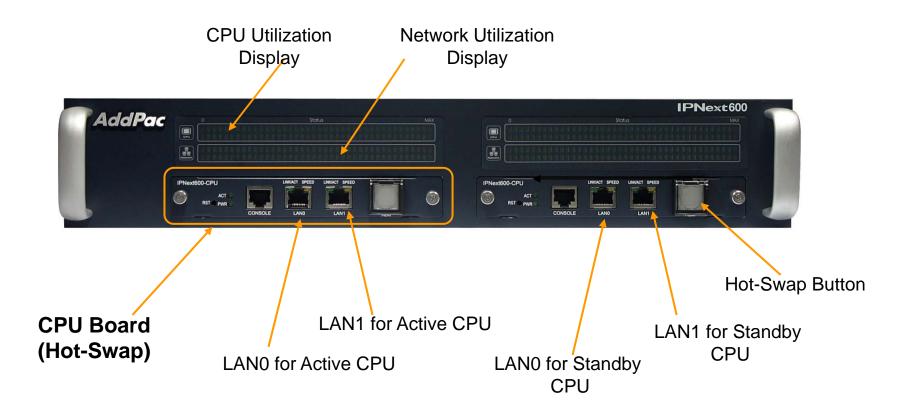




IPNext600 Call Manager



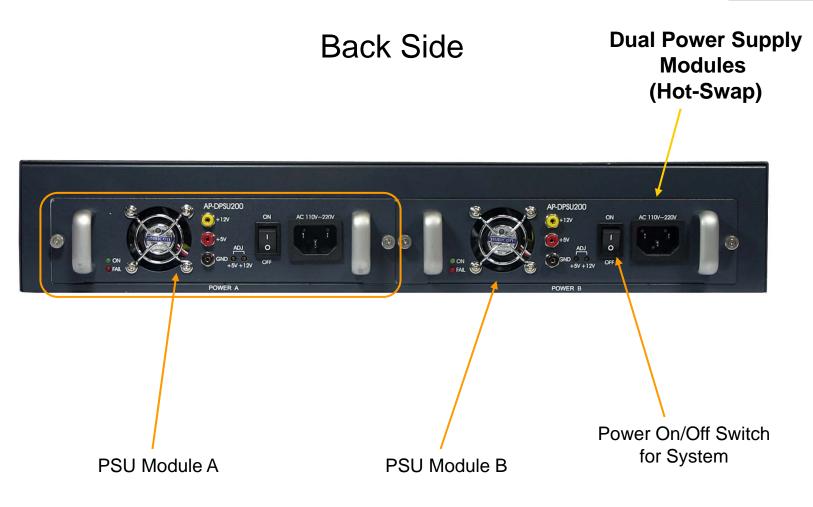
Front Side





IPNext3000 Call Manager



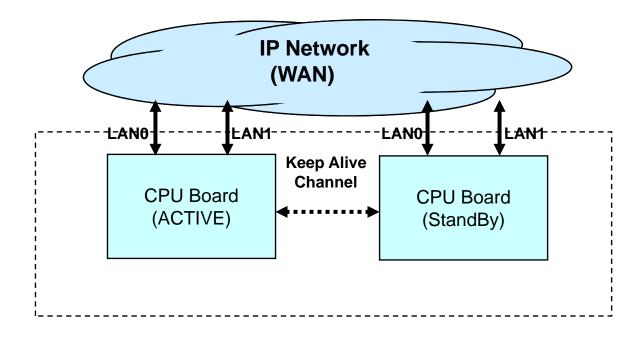




System Redundancy Features

IPNext600 Call Manager

IPNext600 System Block Diagram



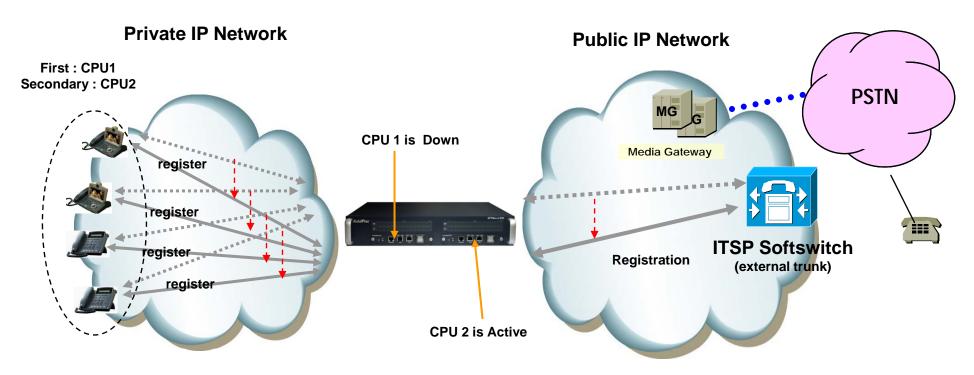
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System Redundancy Features

IPNext600 Call Manager

- Active— Active Duplication Scheme
- Active Standby Duplication Scheme
- VRRP based Duplication Scheme



Active – Standby Duplication Scheme (example)

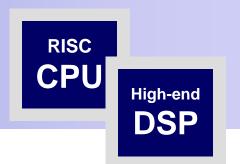




Main Features

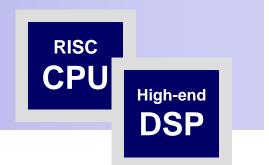
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax, VAD, etc.
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Light and Compact Design with Internal Power Supply
- Two(2) VoIP Module Slot

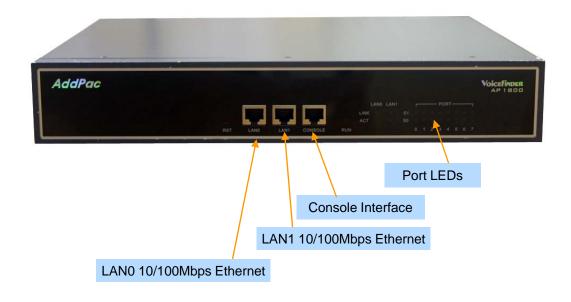




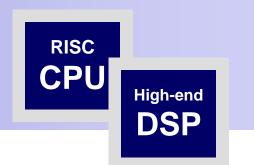
- RISC Microprocessor Computing Power
- Up to 16 Port Analog VoIP Gateway
- Two(2) VoIP Module Slots (Hot-Swap)
 - 8-Port FXS Card, 8-Port FXO Card, 4-Port FXS 4-Port FXO Card,
 Digital E1/T1 Card
- Network Interface
 - -Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface
- Run LED, LAN LED, Port LEDs
- Internal Power Supply

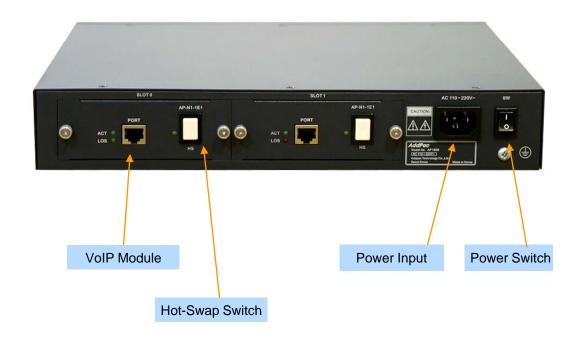














IP Phone



IP Phone Comparison Table

	AP-IP300	AP-IP230	AP-IP160	AP-IP120	AP-IP90
LCD Size	4.3 Inch Color LCD	5 Inch Color LCD	4 Text Line Graphic LCD	4 Text Line Graphic LCD	4 Text Line Graphic LCD
Touch Screen	N/A	Support	N/A	N/A	N/A
Speed-Dial Keys	25 Key with Presence LED	Touch Screen based 25 Keys	16 Key with Presence LED	12 Key with Presence LED	N/A
Voice Codec	G.711/G.726/ G.729/G.723	G.711/G.726/ G.729/G.723	G.711/G.726/ G.729/G.723	G.711/G.726/ G.729/G.723	G.711/G.726/ G.729/G.723
Signaling	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP	H.323/SIP
3-Party Conversation	Support	Support	Support	Support	Support
LAN Port	2	2	2	2	2
PoE(Option)	Support	Support	Support	Support	Support
FXO(Option)	Support	Support	Support	Support	Support



AP-IP230 IP Phone



Main Features

- 5 Inch Color LCD Display, Touch Screen
- Touch Screen based 25 Speed-Dial Keys
- 4 Soft Key for Call Control
- Various Function Keys
- H.323/SIP Concurrent VoIP Signaling Stack Embedded
- High-performance Voice Codec Support
 - G.711/G.726/G.729/G.723, etc
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Quality Speaker Phone Features (Acoustic Echo Canceller)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism





- RISC Microprocessor Computing Power
- 5 Inch Color LCD with Touch Screen
- High-end Programmable DSP Hardware Architecture
- High quality Audio and Voice Interface
 - Stereo Audio Input & Output Connector
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet
 - One(1) USB 1.0 Interface
- PSTN Interface
 - One(1) FXO(RJ11) interface
- Power Supply
 - External DC adaptor (5V)
 - Power Switch
 - PoE (Power over Ethernet)

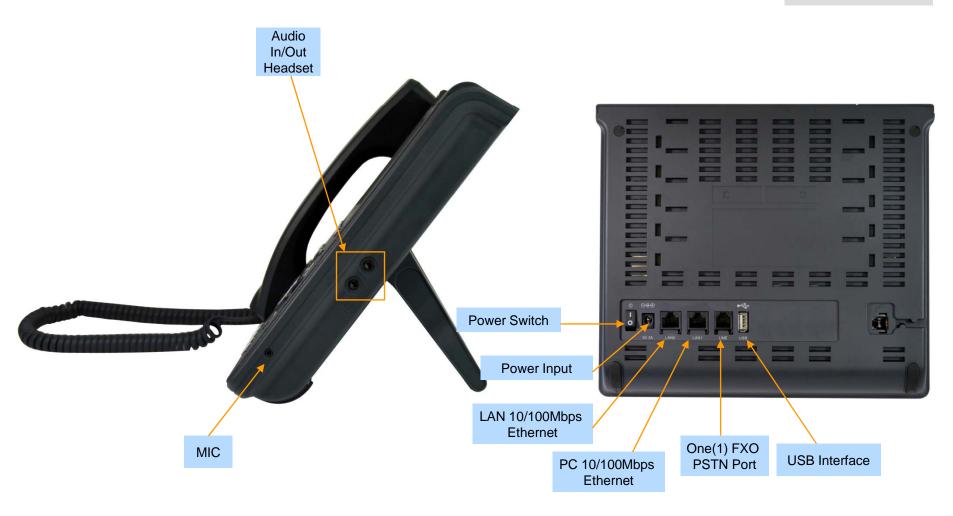














AP-IP90 IP Phone



Main Features

AP-IP90 IP Phone

- 4 Text Line Graphic LCD Display
- 4 Soft Key for Call Control
- Various Function Keys
- H.323/SIP Concurrent VoIP Signaling Stack Embedded
- High-performance Voice Codec Support
 - G.711/G.726/G.729/G.723, etc
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Quality Speaker Phone Features (Acoustic Echo Canceller)
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment

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Advanced Voice QoS Mechanism



AP-IP90 IP Phone



- RISC Microprocessor Computing Power
- 4 Text Line Graphic LCD
- Navigation Key for Menu Search
- High-end Programmable DSP Hardware Architecture
- High quality Audio and Voice Interface
 - Stereo Audio Input & Output Connector
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet
- PSTN Interface
 - One(1) FXO(RJ11) interface
- Power Supply
 - External DC adaptor (5V)
 - PoE (Power over Ethernet)



Hardware Specification AP-IP90 IP Phone









Main Features

- High Performance IP Video Door Phone Solution
- Video Camera, 3x4 Key, TFT Color LCD, Internal MIC & Speaker
- High Quality 2.4 Inch LCD, 320 x 240 Video Resolution
- SIP VoIP Signaling Stack Embedded
- High-performance Video/Voice Codec Support
 - H.264/MPEG4, 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



- RISC+DSP Microprocessor Computing Power
- Audio and Voice Interface
 - Internal MIC
 - Internal Speaker
 - 3 x 4 key PAD
- Video Camera Interface
- TFT Color LCD Interface
 - 2.4 Inch LCD, 320 x 240 Video Resolution
- Network Interface
 - One(1) 10/100Mbps Fast Ethernet
- RF Card Interface
- Alarm & Relay Out Interface (door open, etc)
- RS232/RS485 Interface
- External RCA Audio Line Out and MIC In (back side)
- Power Supply
 - Power over Ethernet (Option)
 - External Power Supply









AP-VAC50 IP 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

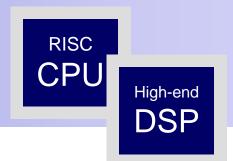








AP-VAC50 IP Video Door Phone



LCD Controller

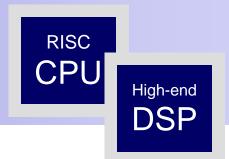
- One-Chip Solution for amorphous TFT-LCD
- Support resolution up to 240xRGBx320
- Built-in 172800 bytes internal RAM
- 6,8,16, and 18-bit RGB Interface
- Resize Function (x ½, x ¼)
- On-Chip Power Management System

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



AP-VAC50 IP 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

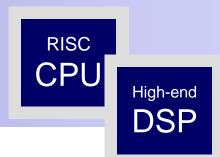
Rx Sensitivity down to 1mVrms
Rx Automatic Gain Control
Accept external baseband signal from
external circuitry for frame level processing
Integrated signal strength indicator (SSI)
On-Chip Framing handler for supported standard

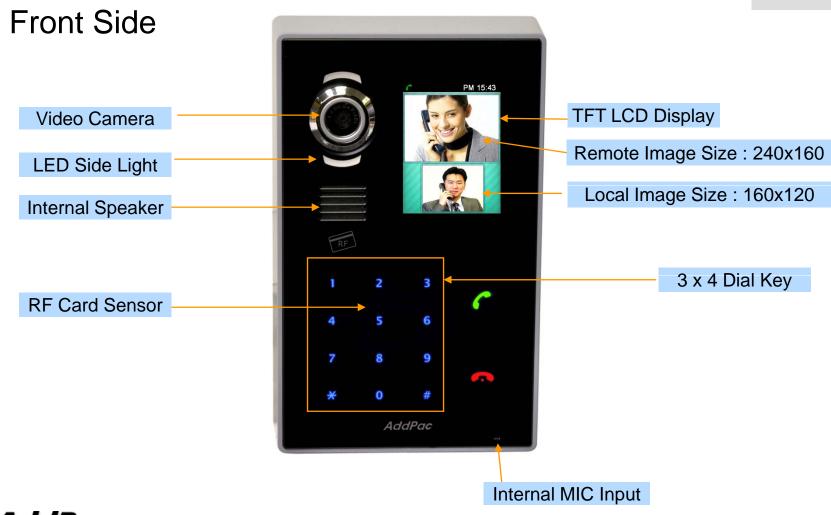
Transmitter

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



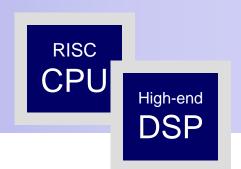








AP-VAC50 IP Video Door Phone

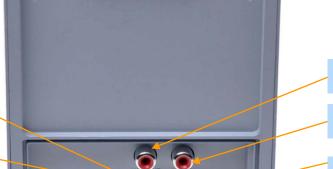


Back Side

RS485

RS232

2 Alarm,2 Relay Out



Option : Line Out

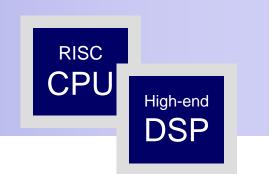
Option : MIC In

LAN Port

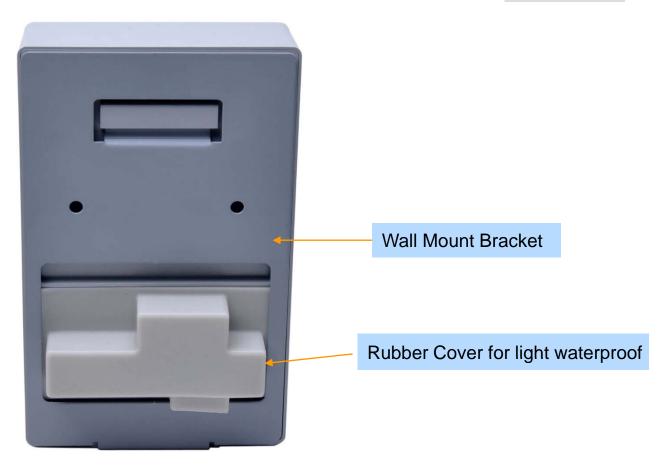
Power Input : Terminal Block 12V 1A



AP-VAC50 IP Video Door Phone



Back Side





AP-VAC50 IP Video Door Phone



High-end DSP

Power Supply



Example





AP-ACS1000 DACS (Door Access Control System)







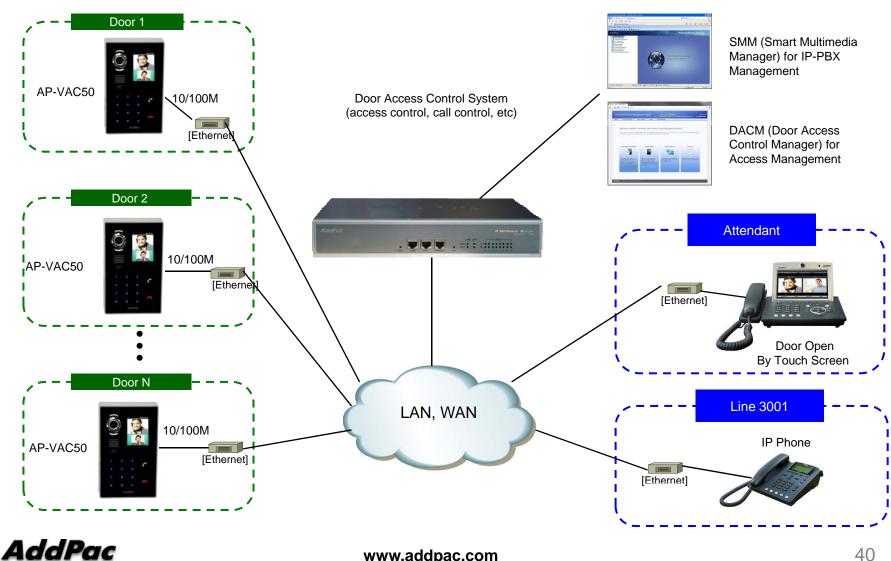
Contents

- DACS Network Service Diagram
- Login Web Page
- Time & Attendance Management
 - 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)

Integrated Door Access Control and Call Control



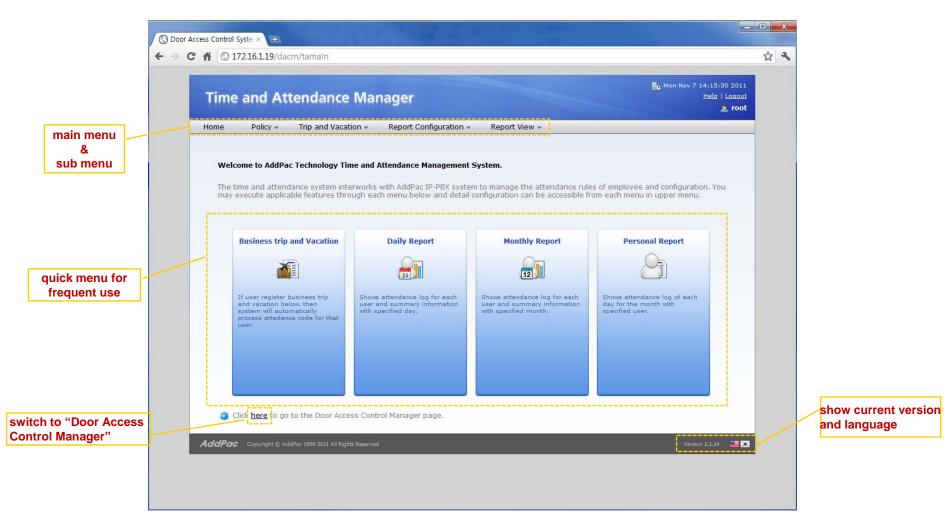
DACS (Door Access Control System)

Login page



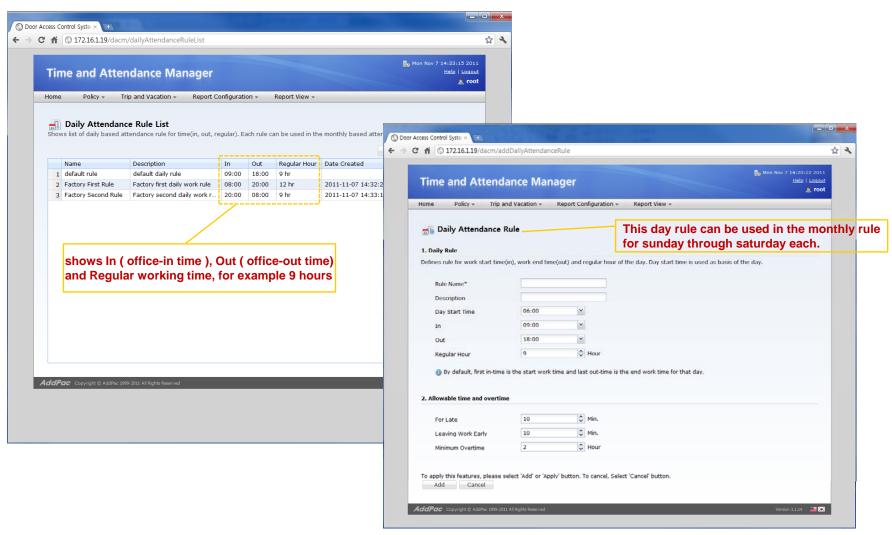


TAAM (Time and Attendance Manager) Main Web Page



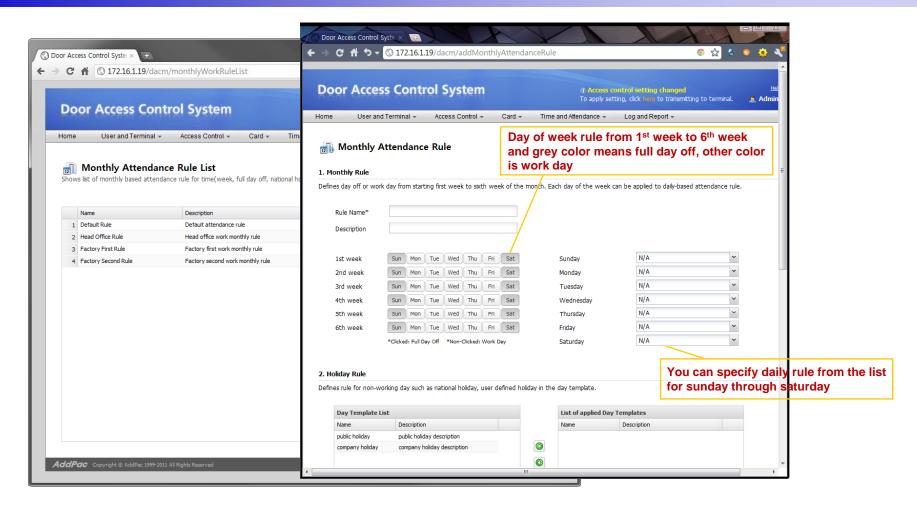


TAAM (Time and Attendance Manager) Daily Attendance Rules



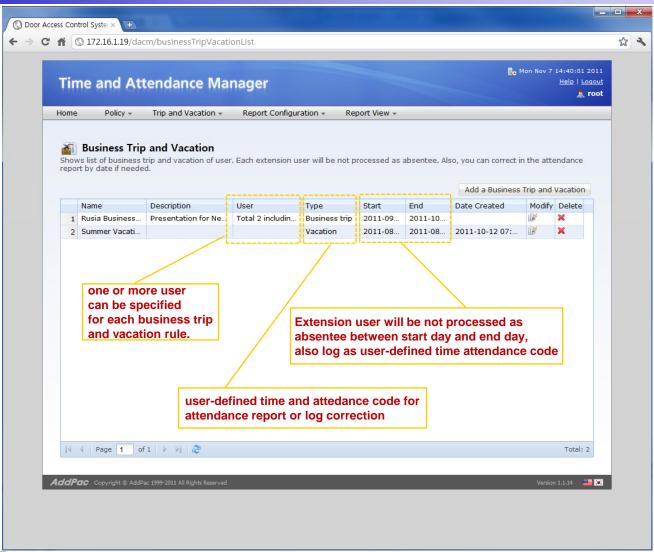


TAAM (Time and Attendance Manager) Monthly Attendance Rules

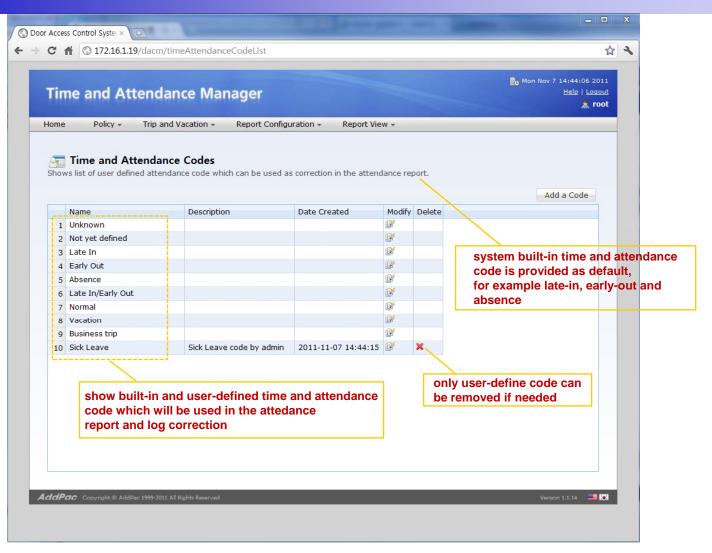




TAAM (Time and Attendance Manager) Business Trip and Vacation

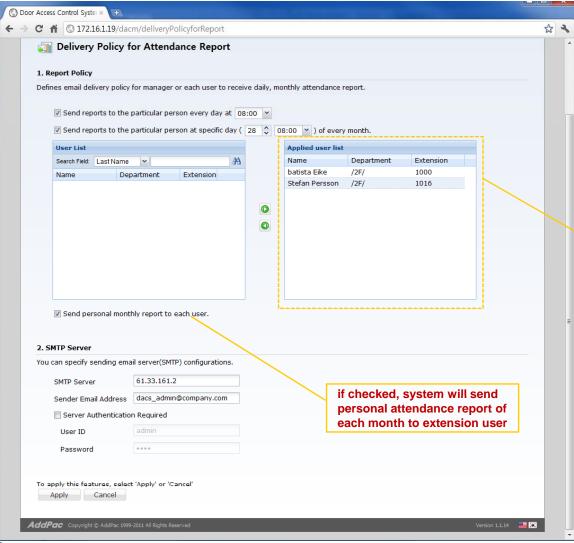


Time and Attendance Codes





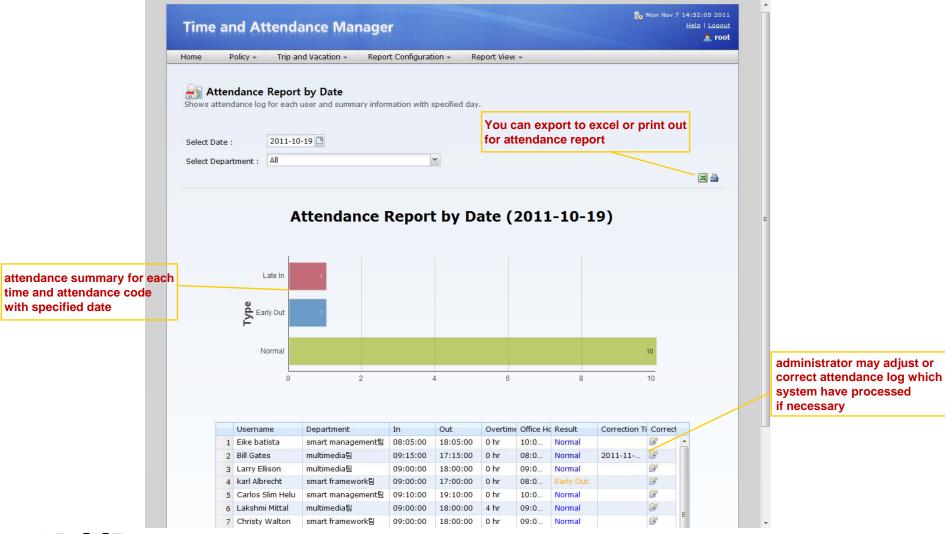
Delivery Policy for Attendance Report



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

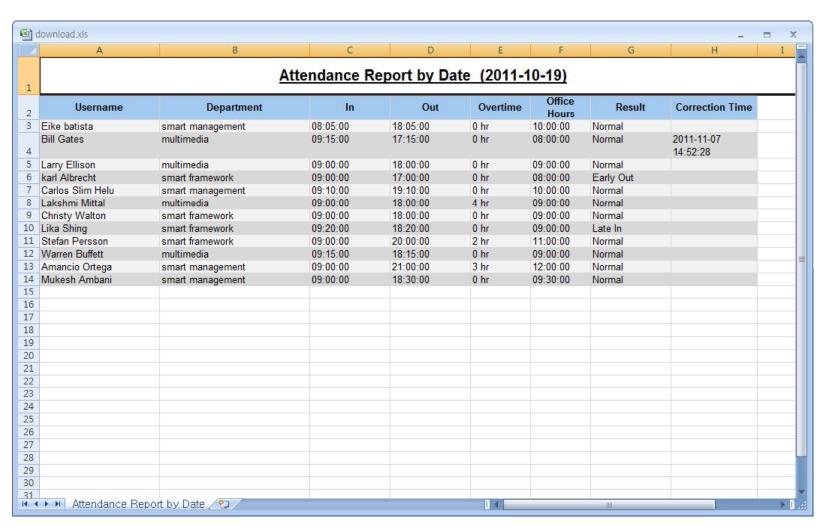


TAAM (Time and Attendance Manager) Attendance Report by Date



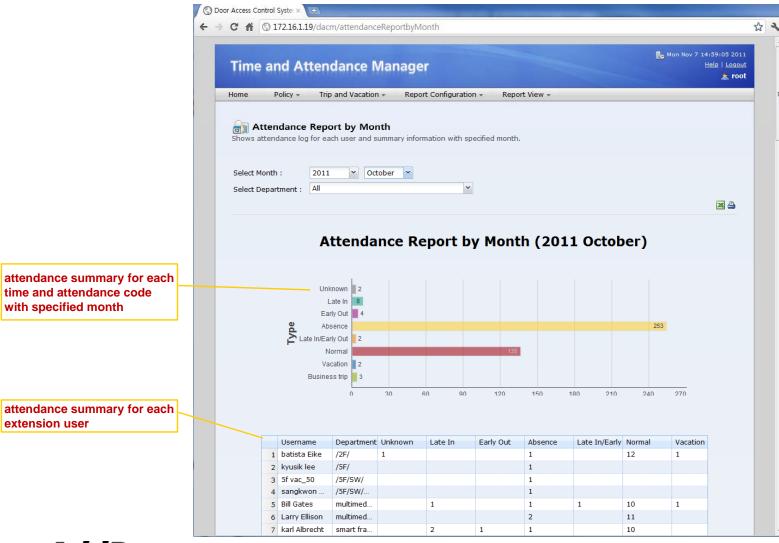


TAAM (Time and Attendance Manager) Attendance Report Excel Export



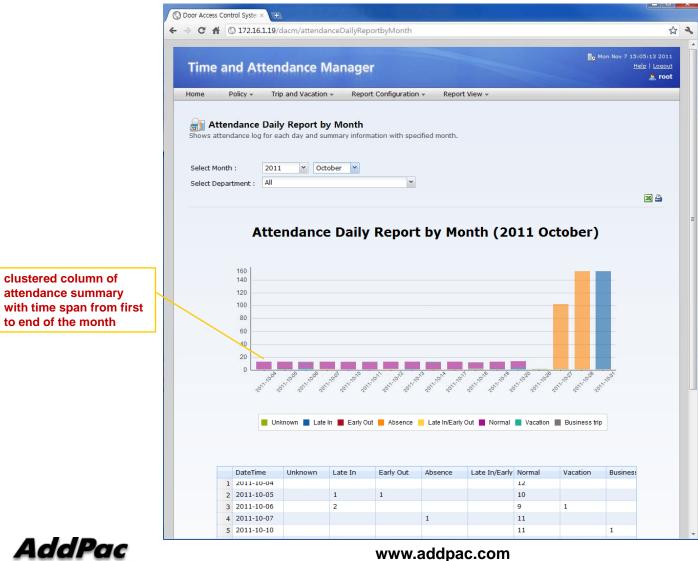


Attendance Report by Month



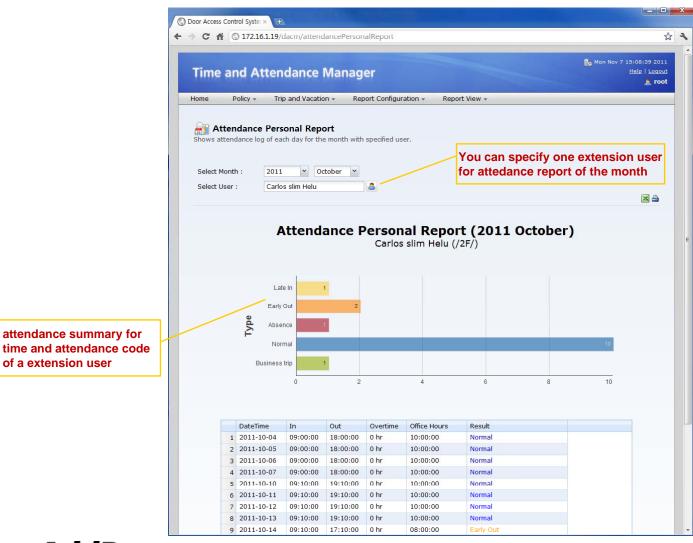


Attendance Daily Report by Month





Attendance Personal Report





of a extension user

AP-VP280 Video Phone for IP Video Door Phone Service



IP Video Phone Comparison Table

	AP-VP500	AP-VP350	AP-VP300N	AP-VP280	AP-VP250	AP-VP230	AP-VP150	AP-VP120
LCD Size	12.1 Inch Touch Screen	7Inch Touch Screen	7Inch Touch Screen	7Inch Touch Screen	4.3Inch Touch Screen	5Inch Touch Screen	4.3Inch Touch Screen	4.3Inch
Camera	CCD	CCD	CCD	CMOS	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	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	H.323/SIP	H.323/SIP	H.323/SIP
Video MCU	N/A	4-Party Video MCU	N/A	N/A	N/A	N/A	N/A	N/A
Voice MCU	3-Party	3-Party	3-Party	3-Party	3-Party	3-Party	3-Party	3-Party
LAN Port	2	2	2	2	2	2	2	2
PoE	N/A	N/A	Support	N/A	Support	Support	Support	Support



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Main Features

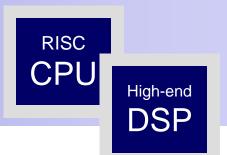
AP-VP280 Video Phone

- 7 Inch LCD Display, Touch Screen
- H.323/SIP Concurrent VoIP Signaling Stack Embedded
- High-performance Video Codec Support
 - H.263, MPEG-4, JPEG, and H.264
- Powerful Image Resolution Support
 - QCIF(176x144), CIF(352x288), QVGA(320x240), and VGA(640x480)
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- G.711/G.726/G.723/G.729, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Rate Control for Video Traffic QoS
 - Ensuring Optimized Quality, Frame Rate with Limited Bandwidth
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism



AP-VP280 Video Phone

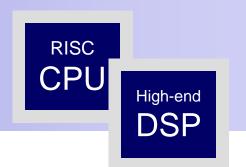
- RISC Microprocessor Computing Power
- CMOS Image Sensor, Samsung LCD, Touch Screen
- High-end Programmable DSP Hardware Architecture
- Powerful Video Interface
 - RCA Video Input/Output, S-Video Output
- High quality Audio and Voice Interface
 - Stereo Audio Input & Output Connector
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet
 - One(1) RS-232C Console
 - One(1) USB 1.0 Interface
- PSTN Interface
 - One(1) FXO(RJ11) interface
- Power Supply
 - External DC adaptor (5V)





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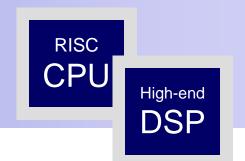
AP-VP280 Video Phone

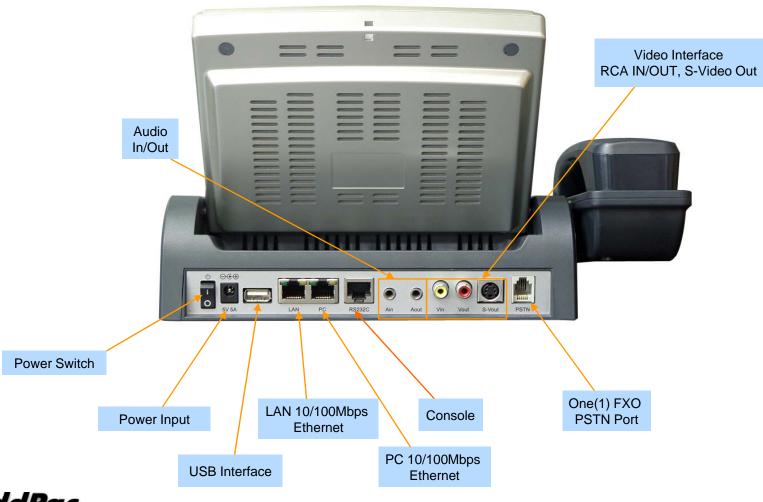






AP-VP280 Video Phone







Thank you!

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