

1~2 Port Analog VoIP Gateway Solution

1~2 Port Analog VoIP Gateway Solution

- AP100 1-Port VoIP Gateway
- AP100P 1-Port VoIP Gateway
- AP100B 2-Port VoIP Gateway
- AP100E 2-Port VoIP Gateway
- AP100D 2-Port VoIP Gateway
- AP100F 1-Port VoIP Gateway

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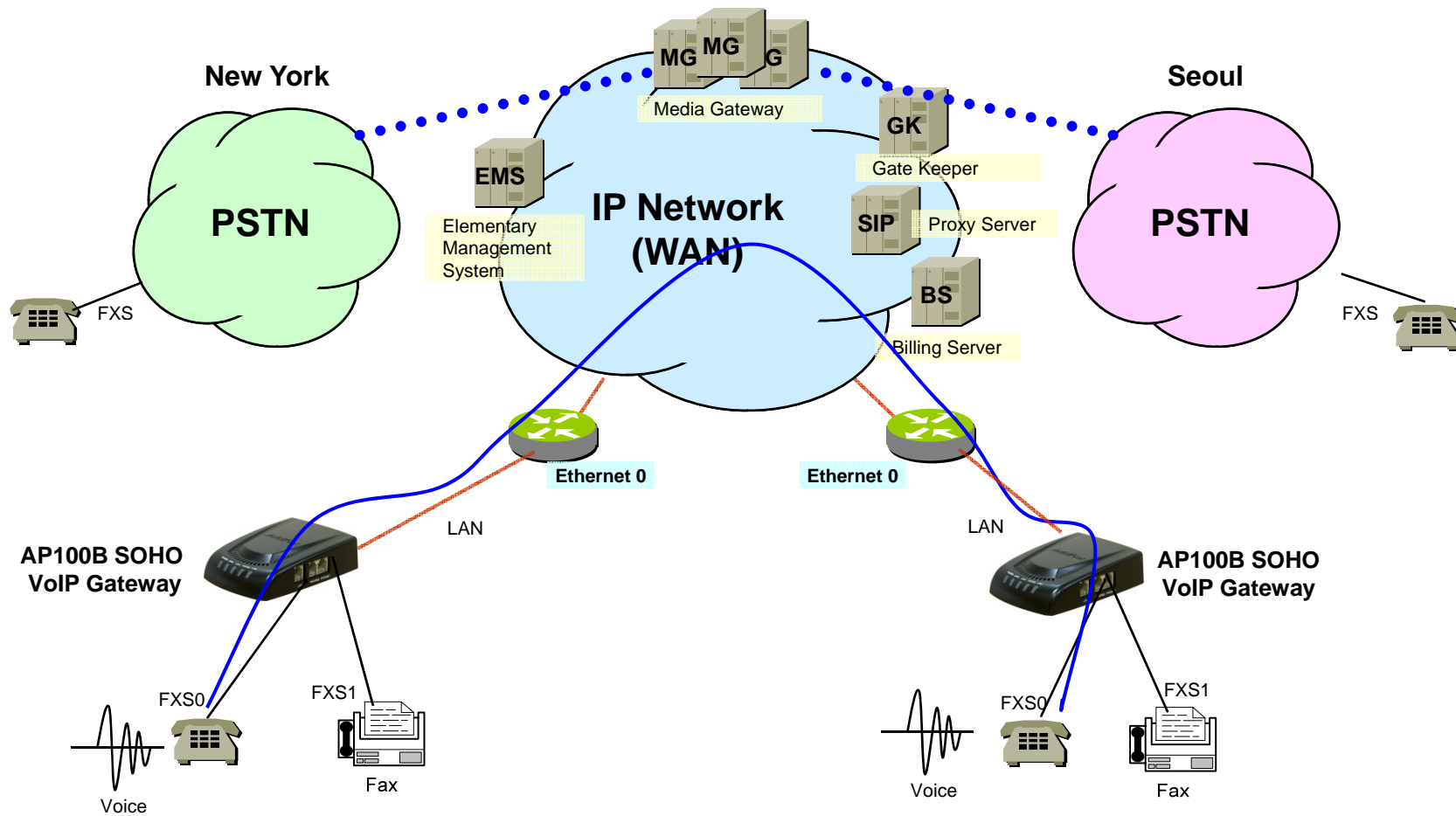
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 - AP100 : 1-Port FXS VoIP Gateway
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 - AP100E : 1-Port FXS + 1-Port FXO VoIP Gateway
 - AP100D : 2-Port FXO VoIP Gateway
 - AP100F : 1-Port FXO VoIP Gateway
- VoIP Gateway Service Features
- VoIP Gateway Smart Web Manager
- VoIP Gateway Smart Network Management (AP-SNMS)

VoIP Gateway Service Diagram (FXS Port)



AP100 Analog VoIP Gateway Series

Product	AP100	AP100P	AP100B	AP100E	AP100D	AP100F
Features						
FXS Ports	1	1	2	1	N/A	N/A
FXO Ports	N/A	N/A	N/A	1	2	1
PSTN Backup Relay	N/A	1	1	N/A	N/A	N/A
Signaling	SIP, H.323	SIP, H.323	SIP, H.323	SIP, H.323	SIP, H.323	SIP, H.323
LAN Port	2	2	2	2	2	2
Console	N/A	N/A	N/A	N/A	N/A	N/A
Power	External Adaptor	External Adaptor	External Adaptor	External Adaptor	External Adaptor	External Adaptor



AP100 1~2 Port VoIP Gateway Series



AP100 1-Port FXS VoIP Gateway

Product Overview

AP100 VoIP Gateway

- H.323/SIP Dual 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
- New Smart Easy Setup for AP100
- SNMS (Smart Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs
- Optional PSTN Backup Interface

Hardware Specification

AP100 VoIP Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power
+ High End Programmable DSP
- VoIP FXS Port
 - AP100 Model : One(1) FXS Port
 - AP100P Model : One(1) FXS Port + PSTN Backup
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Power Supply
 - External Power Adaptor (5V, 2A)
- Power On/Off Switch
- Power LED, LAN LED, FXS Port LED

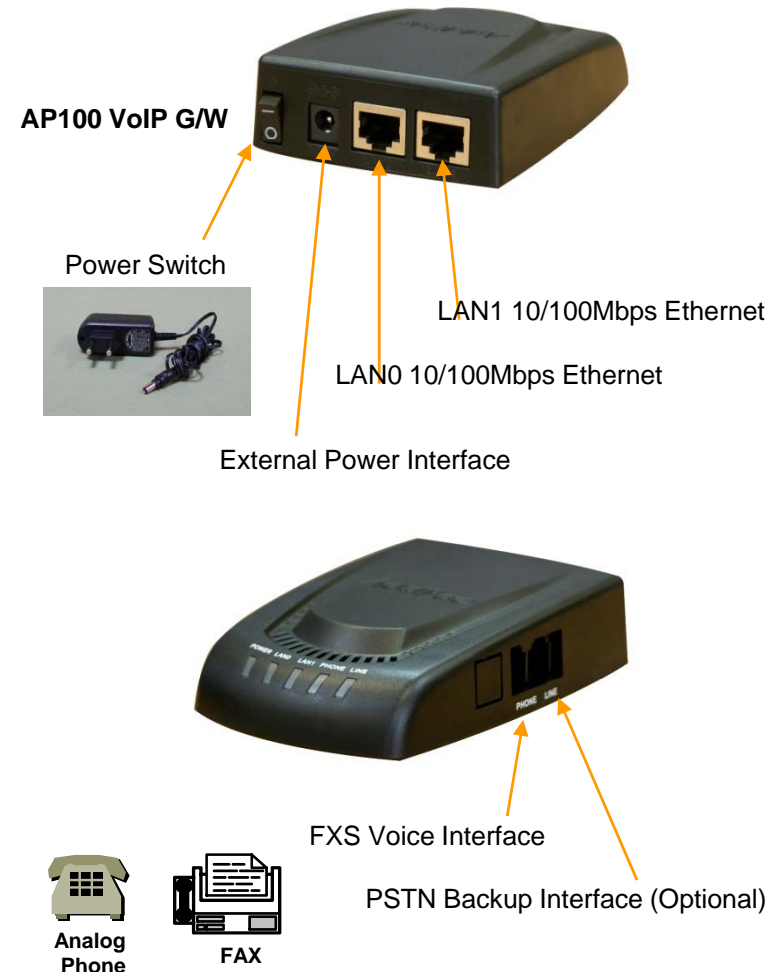
Hardware Specification


AP100 VoIP Gateway

Hardware Specifications

AP100 VoIP Gateway	Basic Specifications
CPU	32Bit RISC Microprocessor
Voice Interface	1-Ports FXS Voice Interface(RJ-11)
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
PSTN Backup Port (Optional)	1-Port PSTN Backup Port(RJ-11)
Flash Memory	2Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	28.8mm x 77mm x 111mm (H x W x D)

Network interface Configurations





AP100B 2-Port FXS VoIP Gateway

Product Overview

AP100B VoIP Gateway

- H.323/SIP Dual 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
- New Smart Easy Setup for AP100B
- SNMS (Smart Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs
- PSTN Backup Interface + Two(2) Port FXS Interface

Hardware Specification

AP100B VoIP Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power
+ High End Programmable DSP
- VoIP FXS Port
 - AP100B Model : Two(2) FXS Port + PSTN Backup
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Power Supply
 - External Power Adaptor (5V, 2A)
- Power On/Off Switch
- Power LED, LAN LED, FXS Port LED (Dual Color)

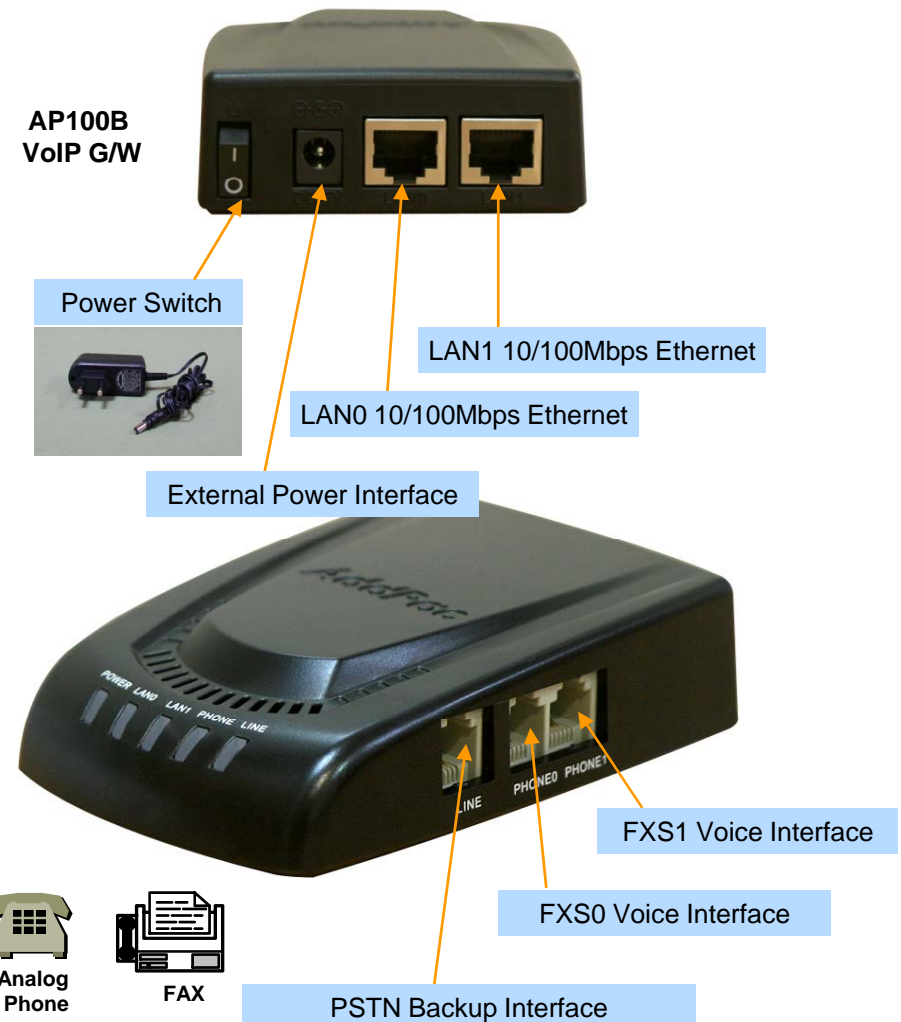
Hardware Specification

AP100B VoIP Gateway

Hardware Specifications

AP100B VoIP Gateway	Basic Specifications
CPU	32Bit RISC Microprocessor
Voice Interface	2-Ports FXS Voice Interface(RJ-11)
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
PSTN Backup Port	1-Port PSTN Backup Port(RJ-11)
Flash Memory	4Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	28.8mm x 77mm x 111mm (H x W x D)

Network interface Configurations





AP100E 1-Port FXS + 1-Port FXO VoIP Gateway

Product Overview

AP100E 1-Port FXO & 1-Port FXS VoIP Gateway

- H.323/SIP Dual 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
- Web based Smart Easy Setup for AP100E
- SNMS (Smart Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs

Hardware Specification

AP100E 1-Port FXO & 1-Port FXS VoIP Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power
+ High End Programmable DSP
- 1-Port FXO & 1-Port FXS VoIP Port
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Power Supply
 - External Power Adaptor (5V, 2A)
- Power On/Off Switch
- Power LED, LAN LED, FXO Port LED

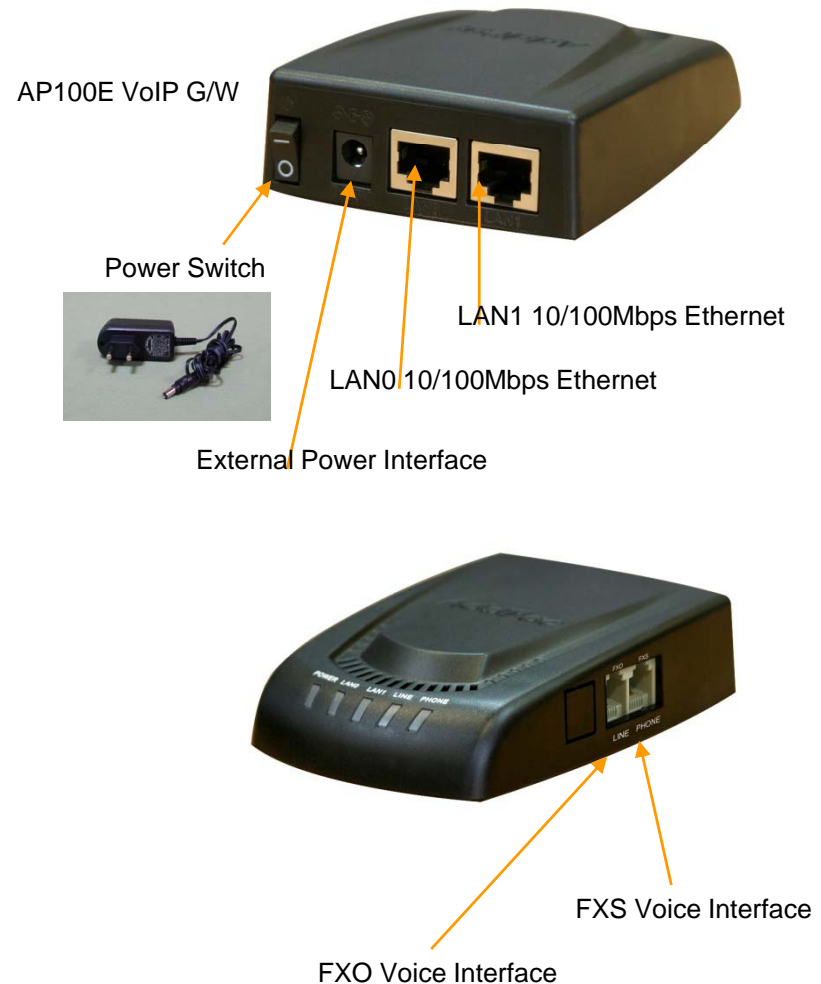
Hardware Specification

AP100E 1-Port FXO & 1-Port FXS VoIP Gateway

Hardware Specifications

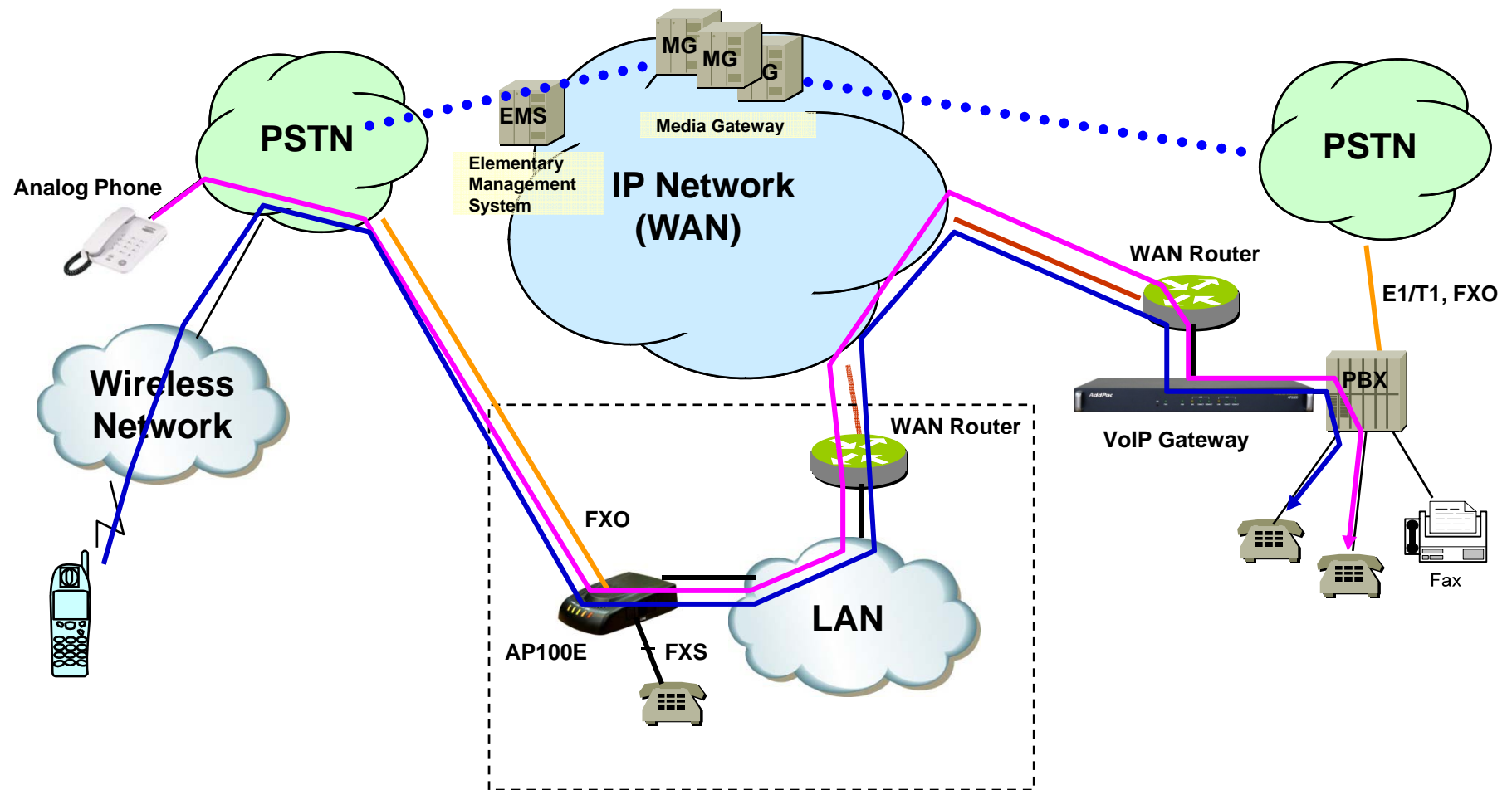
AP100E VoIP Gateway	Basic Specifications
CPU	32Bit RISC Microprocessor
Voice Interface	1-Port FXO & 1-Port FXS Voice Interface(RJ-11)
Ethernet Interface	2-Port 10/100Mbps Ethernet Interface(RJ-45)
Flash Memory	2Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	28.8mm x 77mm x 111mm (H x W x D)


Network interface Configurations



Standard Application

AP100E 1-Port FXO & 1-Port FXS VoIP Gateway





AP100D 2-Port FXO VoIP Gateway

Product Overview

AP100D 2-Port FXO VoIP Gateway

- H.323/SIP Dual Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2)-Port FXO Analog Interface
- 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
- Web based Smart Easy Setup for AP100D
- Smart NMS(Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs

Hardware Specification

AP100D 2-Port FXO VoIP Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power + High End Programmable DSP
- 2-Port VoIP FXO Port
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Power Supply
 - External Power Adaptor (5V, 2A)
- Power On/Off Switch
- Power LED, LAN LED, FXO Port LED

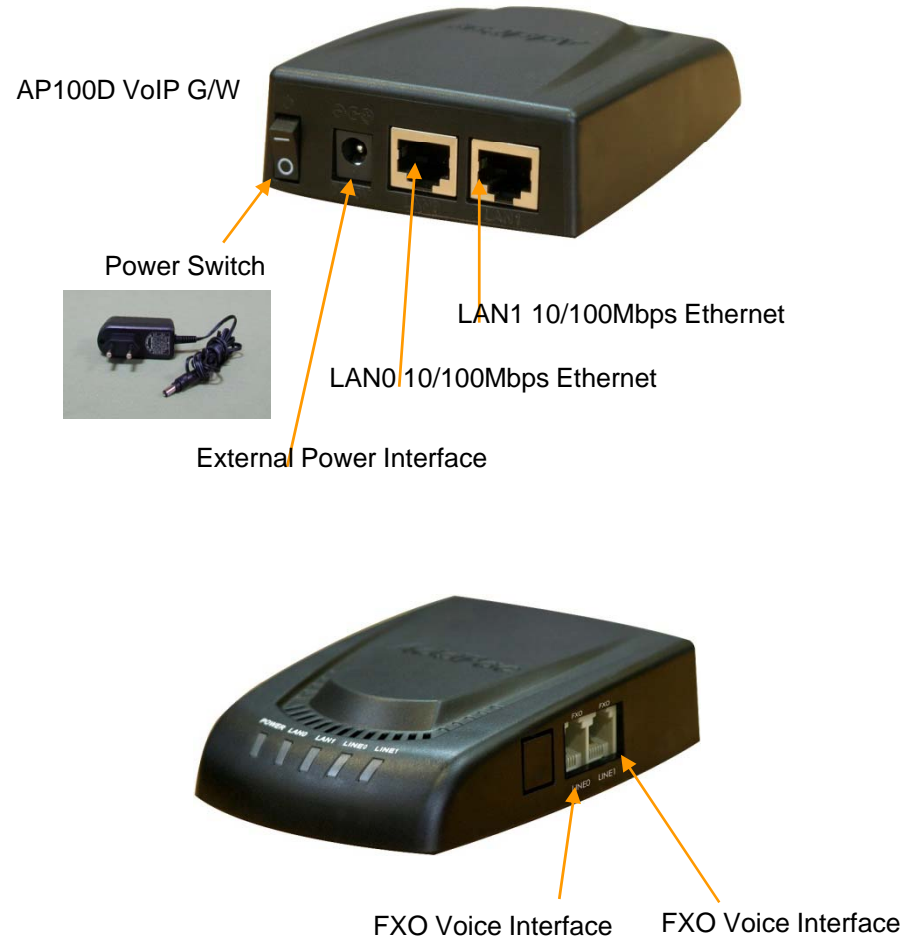
Hardware Specification

AP100D 2-Port FXO VoIP Gateway

Hardware Specifications

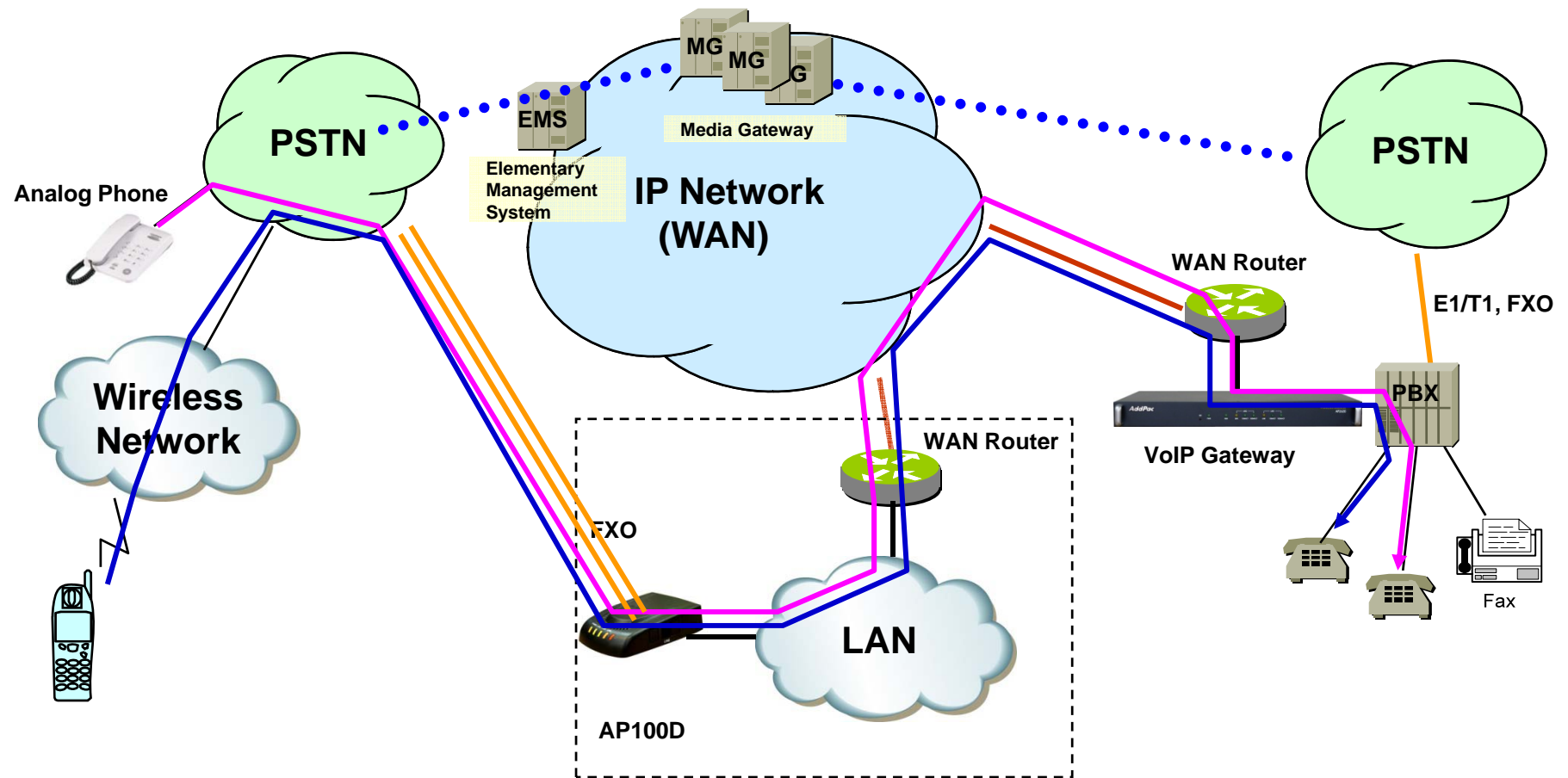
AP100D VoIP Gateway	Basic Specifications
CPU	32Bit RISC Microprocessor
Voice Interface	2-Port FXO Voice Interface(RJ-11)
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
Flash Memory	2Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	28.8mm x 77mm x 111mm (H x W x D)

Network interface Configurations



Standard Application

AP100D 2-Port FXO VoIP Gateway





AP100F 1-Port FXO VoIP Gateway

Product Overview

AP100F 1-Port FXO VoIP Gateway

- H.323/SIP Dual Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- One(1)-Port FXO Analog Interface
- 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
- Web based Smart Easy Setup for AP100F
- Smart NMS(Network Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Small, Light and Compact Design
- Power Switch for Stability and Status LEDs

Hardware Specification

AP100F 1-Port FXO VoIP Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power + High End Programmable DSP
- 1-Port VoIP FXO Port
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Power Supply
 - External Power Adaptor (5V, 2A)
- Power On/Off Switch
- Power LED, LAN LED, FXO Port LED

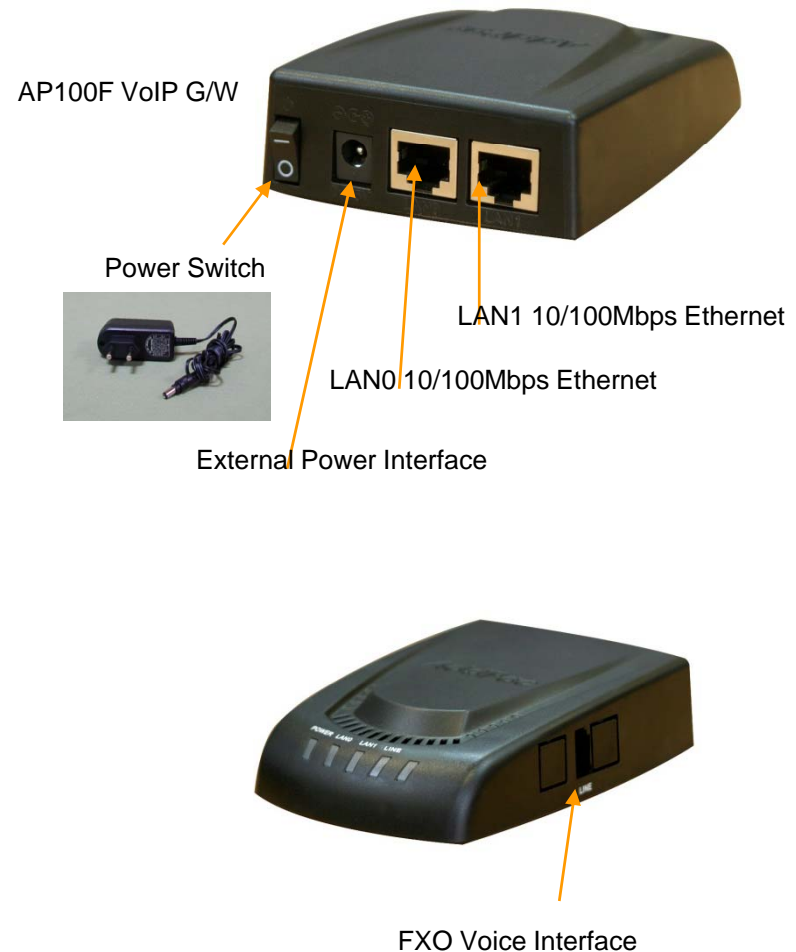
Hardware Specification

AP100F 1-Port FXO VoIP Gateway

Hardware Specifications

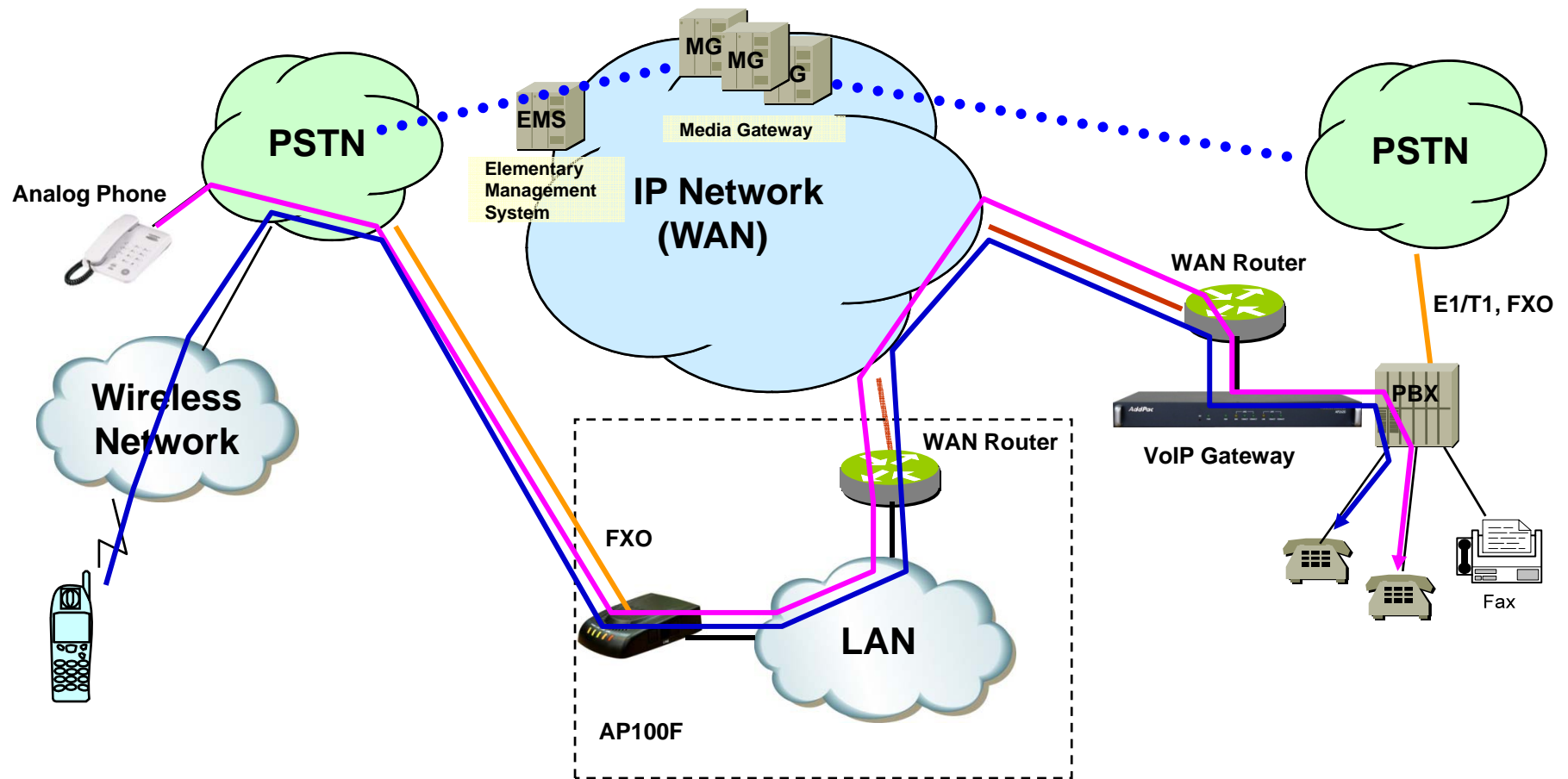
AP100F VoIP Gateway	Basic Specifications
CPU	32Bit RISC Microprocessor
Voice Interface	1-Port FXO Voice Interface(RJ-11)
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
Flash Memory	2Mbyte High-speed Flash Memory
Base Memory	16Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt
Operating Temperature	0°C ~ 45°C (32 °F ~ 122°F)
Storage Temperature	-40°C ~ 85°C (-40°C ~ 185°F)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	28.8mm x 77mm x 111mm (H x W x D)

Network interface Configurations



Standard Application

AP100F 1-Port FXO VoIP Gateway

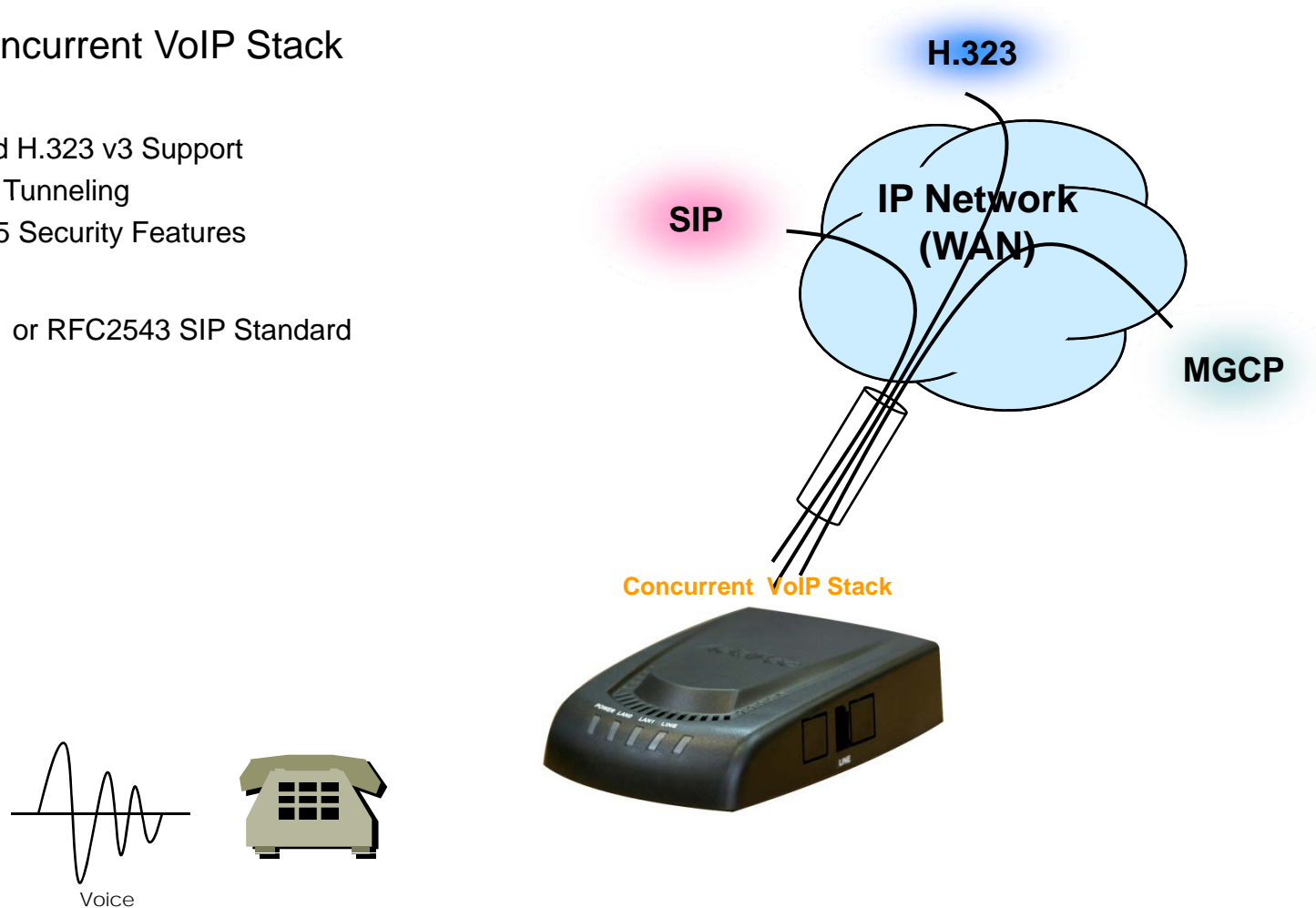




VoIP Gateway Service Features

VoIP (Voice over IP) Service

- H.323, SIP Concurrent VoIP Stack
- H.323
 - ITU-T Standard H.323 v3 Support
 - Support H.245 Tunneling
 - Including H.235 Security Features
- SIP
 - IETF RFC3261 or RFC2543 SIP Standard



VoIP (Voice over IP) Service

- H.323

- Fast connect, normal connect support
- H.245 tunneling support
- Q.931 response message setting for inbound VoIP calls
- H.245 logical channel open timing selection function
- Start H.245 procedure support
- DTMF / Hook flash relay with H.245 alphanumeric / signal
- Secondary gatekeeper support
- Gatekeeper assignment according to the domain name
- Gatekeeper discovery with multicast
- Lightweight RRQ support
- Signaling TCP port assignment
- Resource threshold setting with RAI
- H.235 clear-token, crypto-token support
- canMapAlias support
- Technical prefix (supported prefix) support
- Public IP assignment in NAT environment

- SIP

- Gateway-based / Endpoint-based registration support
- Secondary proxy-server assignment function
- SIP signaling port change function
- SIP proxy server assignment according to the domain name
- T.38 real-time fax relay support
- DTMF relay support with RFC2833 / OPTION message
- Re-INVITE support

VoIP (Voice over IP) Service

- Voice Codec

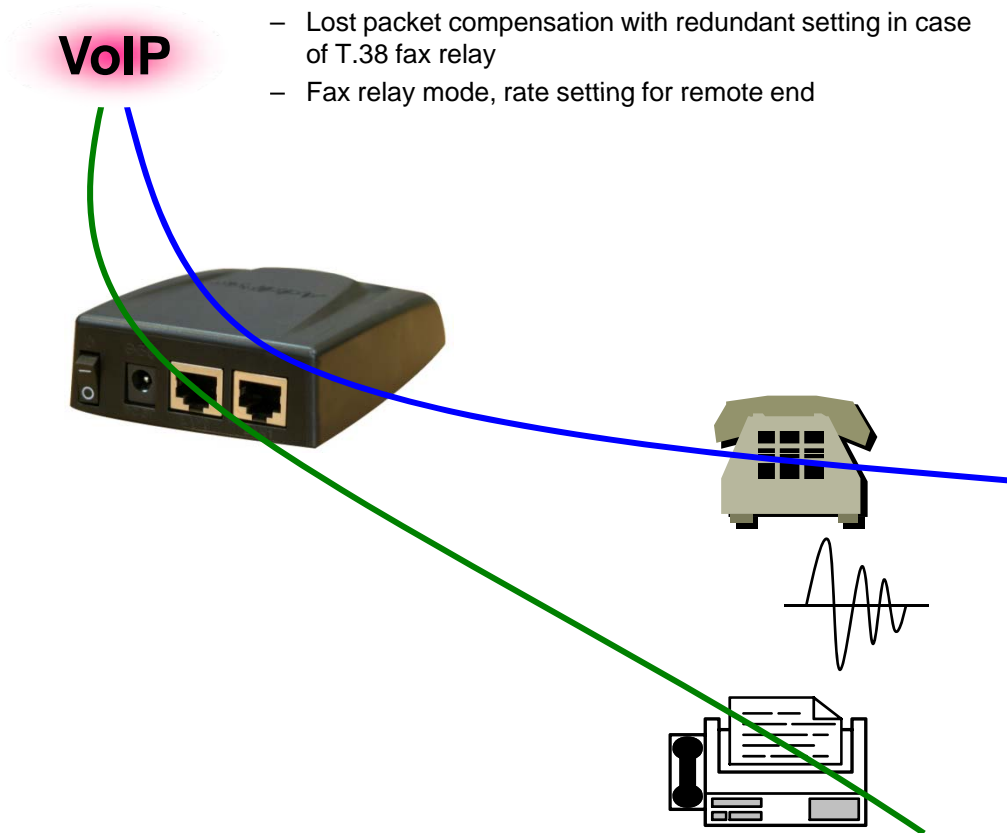
- G.711 A-Law, G.711 U-Law
- G.726 r16, G.726 r32
- G.729A
- G.723.1 r63, G.723.1 r53
- VAD (Voice Activity Detection) function support
- DTMF relay support (H.323, SIP, MGCP common) based on RFC2833

- RTP

- Redundant RTP packet transmission in case of severe packet loss
- Dynamic jitter buffer management and RTP packet jitter and loss compensation with heuristic & DSP error concealment
- Static jitter buffer setting support
- Voice frame per RTP packet number control for each codec
- In-band ring-back tone support
- Virtual ring-back tone support
- Tone parameter change support

- FAX

- Fax relay mode supporting T.38, inband-T.38, bypass mode
- Lost packet compensation with redundant setting in case of T.38 fax relay
- Fax relay mode, rate setting for remote end



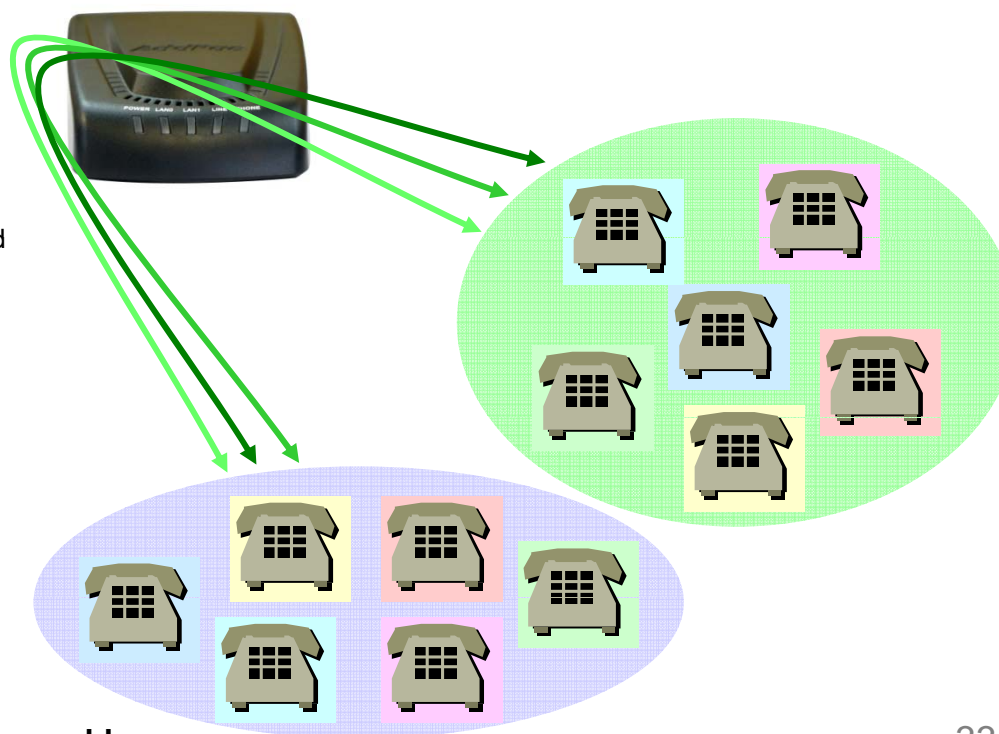
VoIP (Voice over IP) Service

• VoIP Call Controls

- Hot line connection function with PLAR (Private Line Auto Ring Down)
- Leased line emulation function
- Connection monitoring function
- Fault tolerant with Redundancy and Call Distribution among Gateways for load balancing
- Call attempt with IP address
- H.323, SIP inbound call connection for each voice port
- Multiple E.164 setting for one voice port
- One E.164 or digit pattern can be assigned to more than one voice port
- Hunting with Longest match/ priority/ sequence/ random
- One stage call setup by Digit forwarding
- Call barring with specific digit patterns
- Calling and called number conversion for PSTN outbound calls
- PSTN rerouting in case of VoIP call attempt failure

• VoIP Call Controls (cont.)

- Call transfer for internal calls
- Call pickup for internal calls
- Calling and called number conversion for VoIP outbound calls
- Calling and called number conversion for VoIP inbound calls
- Fax broadcasting call control



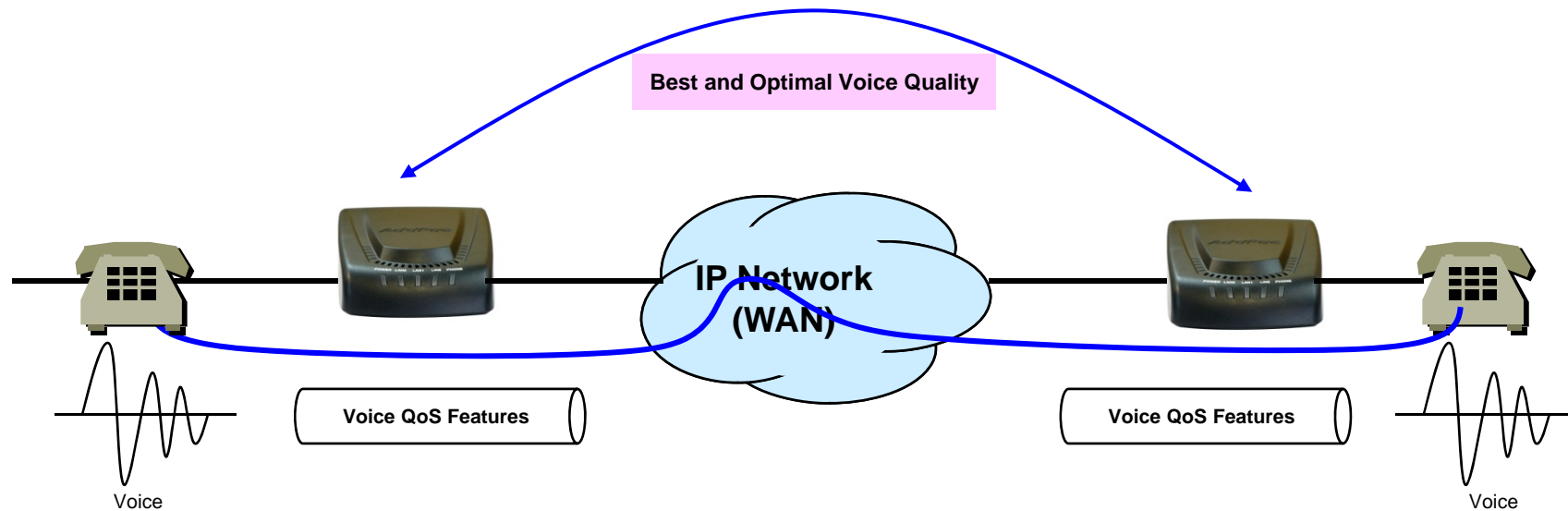
Advanced QoS Features

- Enhances Transmit Voice QoS Features

- Voice Traffic Priority Queuing
- QoS Service Profiling
- Providing Virtual Network Transmit Algorithm
- Real-time Voice Traffic QoS Support
- RTP Packet Transmit Interval Control
- Supporting RTP Packet Redundancy Scheme
- IP Header Control such as ToS, Diffserv

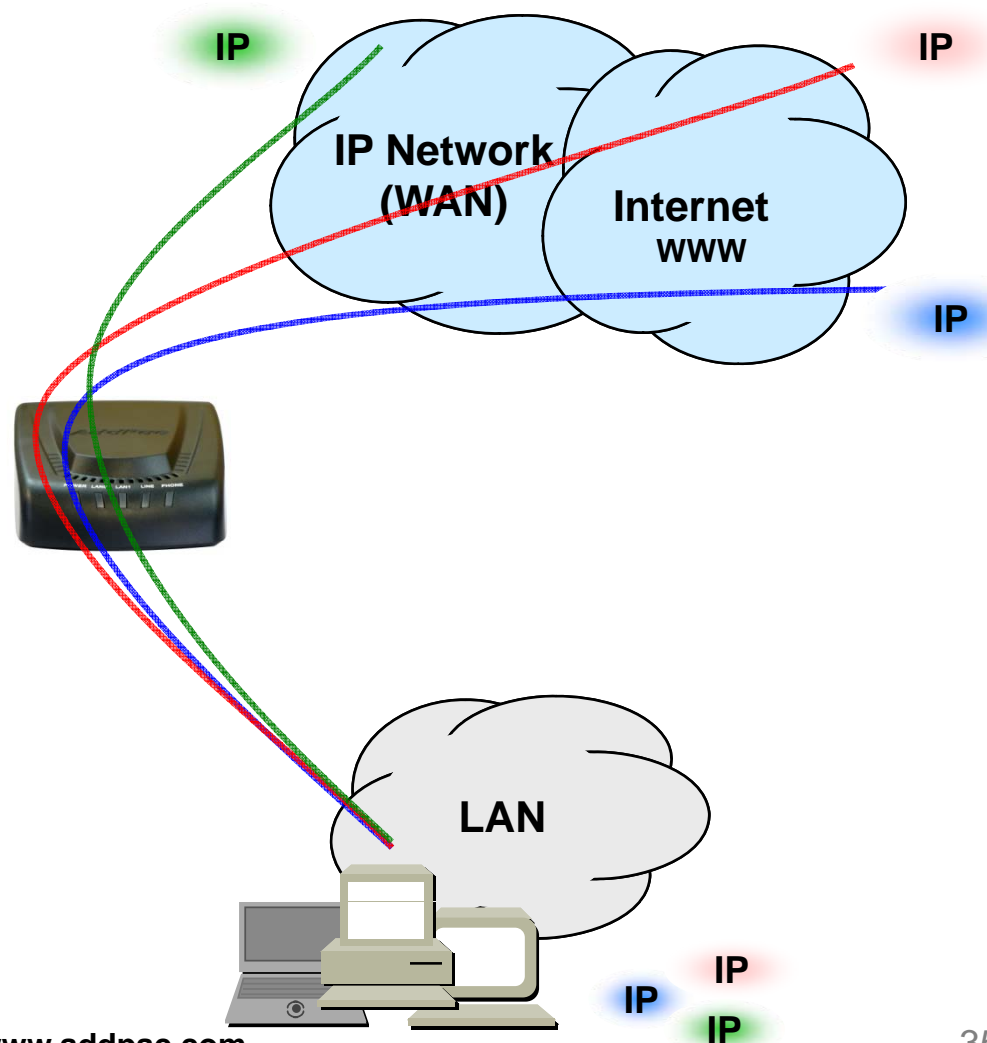
- Enhances Receive Voice QoS Features

- Dynamic Jitter Buffer Management
- Error Concealment
- Support T.38 FAX Data Error Recovery Scheme



Network Protocols

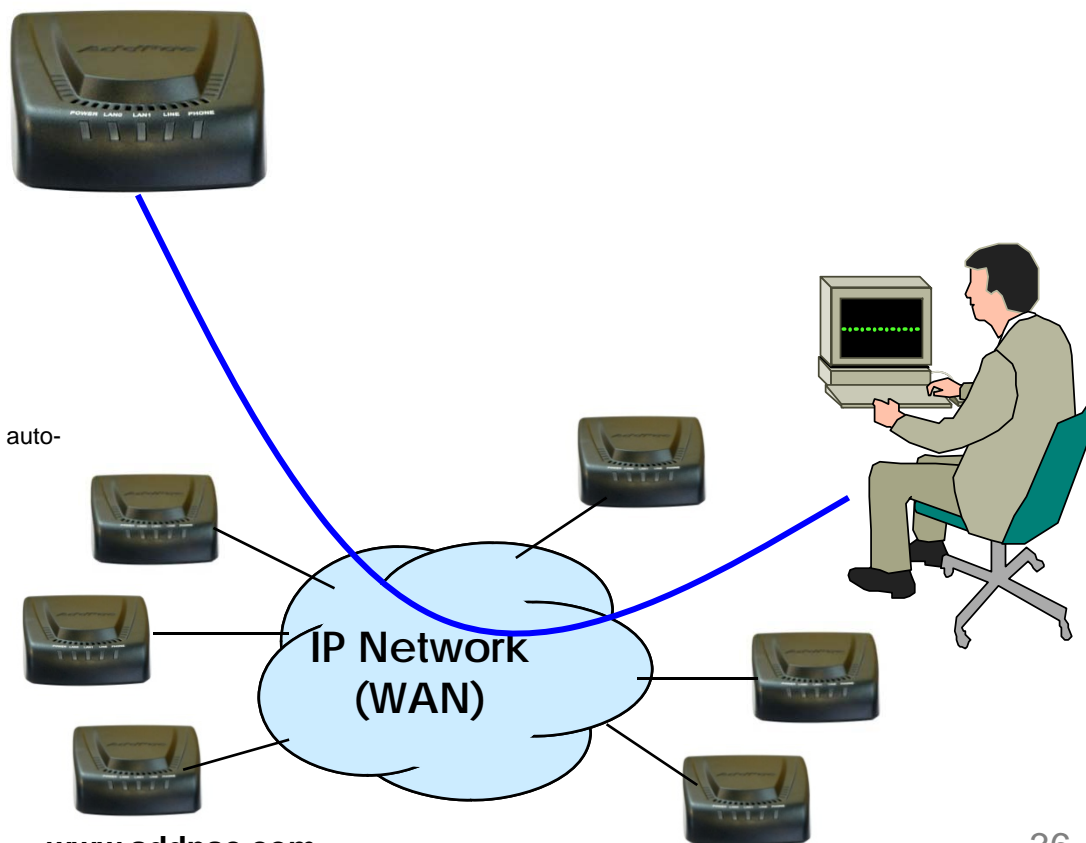
- **Basic Network Protocols**
 - ARP, IPv4, TCP, UDP, ICMP, SCTP, IGMP, MLD
- **Routing Protocol**
 - IPv4 : Static
- **Service Protocol**
 - FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
 - CDP (Cisco Discovery Protocol)
 - DNS Resolver , DDNS(nsupdate)
 - Bridge
 - Syslog
- **IPv4 Address Configuration**
 - Fixed (Static)
 - DHCP
 - PPPoE
- **Miscellaneous**
 - Cisco Style CLI
 - Standard & Extended IPv4 Access List
 - Multi-level User Account Management
 - IP accounting
 - STUN Client



Network Management

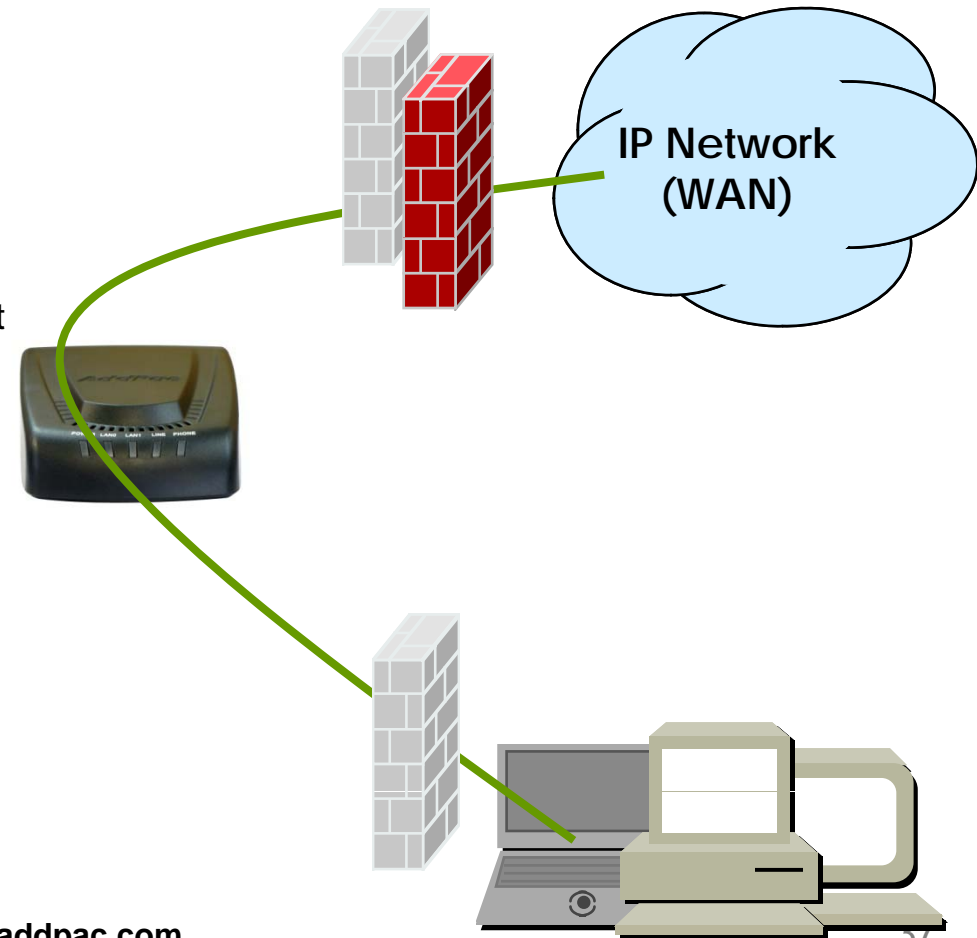
- **SNMP**
 - Standard Simple Network Management Protocol(SNMP) Agent support
 - MIB v1 and v2 Support
- **Web-based Management**
 - Smart Easy Setup
 - Standard Voice Interface
 - Standard PSTN Back-up Interface
- **Watch-dog Function**
 - Hardware, Software watch-dog services
- **Remote Management**
 - Telnet
 - Rlogin
- **Auto Upgrade Service**
 - HTTP server based APOS image and configuration file auto-upgrade support
- **Batch Job Function**
 - Text based script downloading

- **Interoperable with AP-VPMS Service**
 - AddPac VoIP Plug & Play Management System (AP-VPMS)



Security Management

- IP packet filtering
- IP access list
- User authentication function
 - Password Authentication Protocol (PAP)
 - Challenge Handshake Authentication Protocol (CHAP)
- Enable/Disable specific protocols
- Auto-square connect of Telnet session
- Account Management function for multi-level user
- SNMP/TELNET/FTP/HTTP/TFTP port assignment function
- SNMP/TELNET/FTP access list management
- Boot mode security checking function



Smart Web Manager for VoIP Gateway Series

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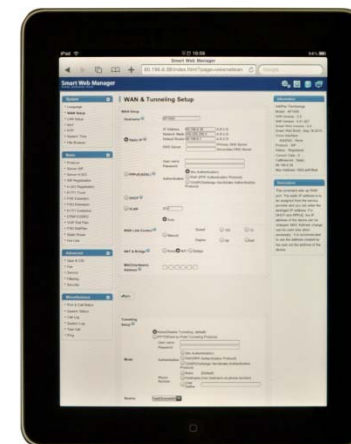
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Contents

- Web Connection
- Main Page Layout
- System Configuration
 - Language, WAN Setup, LAN Setup, NAT, NTP, System Time, File Browser
- Basic Configuration
 - Protocol : SIP Server , H.323 Server
 - Analog Port : FXS Extension, FXO Extension, FXO Dial Plan, Hot Line
 - Digital Port : E1/T1 Trunk, E1/T1 Extension
 - VoIP : DTMF/CODEC, VoIP Dial Plan, Static Route
- Advanced Configuration
 - Gain/CID, FAX, Service, Filtering, Security
- Miscellaneous Configuration
 - Port & Call Status, System Status
 - Call Log, System Log, Test Call, Ping



Web Connection

Web Connection via LAN 1 Port



1. It is the way to connect to VoIP Gateway via LAN 1 port
2. The factory default of LAN 1 port
 - IP Address : 192.168.10.1
 - Subnet mask : 255.255.255.0
3. After set PC with same IP address subnet, connect to VoIP Gateway
 - Connect PC to VoIP Gateway using Cross UTP-Cable. You may use Ethernet switch with normal UTP-cable
 - Enter IP address 192.168.10.1 on your web browser

WEB Connection

Connect to VoIP Gateway

Connect to 192.168.10.1

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User name:

Password:

Remember my password

OK Cancel

Please enter the below log-in information to access Smart Web Manager

ID : root

Password : router

Smart Web Manager

System Information

HW Version	2.0
SW Version	8.41.086
MAC Address	0002.44ff.85a4
VoIP Protocol	SIP
Voice Interface Module	S4(O4): None
Registration Status	Unregistered
Supported Codec List	
Network Information	Static 0.0.0.0
WAN LINK Status	100Mbps FULL Duplex Link UP
LAN LINK Status	100Mbps FULL Duplex Link UP
Current Time	Thu Sep 16 14:24:00 2010
System Startup Time	Thu Sep 16 14:23:19 2010
System Running Time	0 days 00:01:31
Total Calls	0

Information

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Model: AP1800
HW Version: 2.0
SW Version: 8.41.086
Smart Web Version: 0.4
Smart Web Build: Sep 15 2010
Voice Interface: S4(O4): None
Protocol: SIP
Status: Unregistered
Current Calls: 0
CallNetwork: Static 0.0.0.0
Mac Address: 0002.44ff.85a4

Main Page Layout

Main Menu
For easy system setup, provide the various menu and category

Tool Bar
Provide frequently used tools like as System Update, Configuration Backup, Initialization, Restart, Telnet

Information
Display the current system version and status summary

Description
Display the help message if you move mouse over main menu

Workspace
Workspace for detailed action

System Information

HW Version	2.0
SW Version	8.41.086
MAC Address	0002.a4ff.f6a4
VoIP Protocol	SIP
Voice Interface Module	S(4)O(4): None
Registration Status	Unregistered
Supported Codec List	
Network Information	Static 0.0.0.0
WAN LINK Status	100Mbps FULL Duplex Link UP
LAN LINK Status	100Mbps FULL Duplex Link UP
Current Time	Thu Sep 16 14:24:50 2010
System Startup Time	Thu Sep 16 14:23:19 2010
System Running Time	0 days 00:01:31
Total Calls	0

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4): None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

System - Language

Smart Web Manager
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System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan

Configure Language

한국어

English

Portugal

Apply

Configure Language
English, Korea, Portual

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Choose the basic language to be applied. English is set at default.

System – WAN Setup

- Host Name**
Create a representative name for the site to be installed
- Static IP**
This is static IP mode. Specify the addressed IP from the service provider
- PPPoE**
This is ADSL mode. This mode is used for addressing IP though authentication from the modem.
At this time, the modem must be configured in a way that the device can be authenticated.
- DHCP**
This is dynamic IP mode which is set at default. The IP can be addressed from the external DHCP server.
- VLAN**
Configure VLAN mode and ID.
- WAN Link**
Controls and recognizes WAN port
Specify the connection speed of WAN port. connection automatically.
- MAC**
Change MAC address of WAN interface. Without address entry, use the basic MAC Address.

NAT & Bridge
Configure NAT or Bridge mode

System – LAN Setup

The screenshot shows the 'LAN Setup' page in the Smart Web Manager. The interface includes a left sidebar with navigation menus for 'Basic' and 'Advanced', and a right sidebar with 'Information' and 'Description' sections. The main content area is titled 'LAN Setup' and contains three radio button options: 'None', 'IP Share (IP Connect)', and 'Static'. Each option is enclosed in a red dashed box with an arrow pointing to it. The 'None' option is selected. The 'IP Share (IP Connect)' option has fields for IP Address (192.168.10.1), Network Mask (255.255.255.0), and a checkbox for 'Enable DHCP Server'. The 'Static' option has fields for Default Lease time, Address Range, and DNS Server. An 'Apply' button is located at the bottom left of the main content area.

None
It is configured by default IP.

IP Share
This is sharing of LAN0.

Static
This is configured directly by user.

LAN Setup

None

IP Share (IP Connect)

Static

IP Address: 192.168.10.1 A.B.C.D (default 192.168.10.1)
Network Mask: 255.255.255.0 A.B.C.D (default 255.255.255.0)

Enable DHCP Server

Default Lease time: 0 (in seconds, default 43200, 1 day)

Address Range: [] - []

DNS Server: [] A.B.C.D

Apply

Information

AddPac Technology
Model: AP1800
H/W Version: 2.0
S/W Version: 8.41.086
Smart Web Version: 0.4
Smart Web Build: Sep 15 2010
Voice Interface
S(4)O(4): None
Protocol: SIP
Status: Unregistered
Current Calls: 0
CallNetwork: Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

This command sets up LAN port. This setting is used for the connected PC internally. It is recommended to use IP share for 1 PC and static for many. For static, the private address band is required. The recommended address bands are IP Address 192.168.10.1, Network Mask 255.255.255.0, Address Range 192.168.10.2 - 192.168.10.254. At this time, the internal PC must be set to [Receiving IP address automatically]

System - NAT

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT**
- NTP
- System Time
- File Browser

Basic

- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan

NAT Static Table

IP Protocol	Global Port	Local Address	Local Port	Selection
tcp	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

When many PCs are connected to LAN, create a table for delivering TCP/UDP port to PC.

NAT Static Table
When many PCs are connected to LAN, create a table for delivering TCP/UDP port to PC

System - NTP

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP**
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension

NTP

Enable Disable

Primary Server (Domain Name or IP Address)

Secondary Server (Domain Name or IP Address)

Interval (1-72 hours)

Timezone Name Offset : (-23~23 hours) : (0~60 minute)

Apply

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Setup NTP Server

NTP
Configure NTP server (s) & Options

System – System Time

The screenshot displays the 'System Time' configuration page in the Smart Web Manager interface. The page title is 'System Time'. The current time is shown as 'Thu Sep 16 14:29:54 2010'. Below this, there is a 'Set System Time' section with input fields for Year, Month (1), Day (1), Hour (1), Min (1), and Sec (1). A red dashed box highlights the current time and the set system time fields. An 'Apply' button with a green checkmark is located below the set system time fields. A yellow box with a black border contains the text 'System Time Configure Local Time', with a line pointing to the 'Set System Time' section. The left sidebar shows a menu with 'System Time' selected. The right sidebar contains 'Information' and 'Description' sections. The 'Information' section lists details such as AddPac Technology, Model: AP1800, H/W Version: 2.0, S/W Version: 8.41.086, Smart Web Version: 0.4, Smart Web Build: Sep 15 2010, Voice Interface: S(4)O(4): None, Protocol: SIP, Status: Unregistered, Current Calls: 0, CallNetwork: Static 0.0.0.0, and Mac Address: 0002.a4ff.f6a4.

Smart Web Manager
www.addpac.com

System Time

Current Time Thu Sep 16 14:29:54 2010

Set System Time Year Month Day Hour Min Sec

Apply

System Time
Configure Local Time

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

System – File Browser

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser**

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan

File Browser

Index of Root/

Name	Size	Type	Last Modified
secondary/		Directory	2010-Sep-16 14:30:09
tmp/		Directory	2007-Oct-19 00:56:02
ap1800_g2_v8_41_086.bin	3.3M	BIN	2010-Sep-16 23:13:10
apos.cfg	0.3K	CFG	2010-Sep-16 14:23:20
booter.cfg	0.4K	CFG	2009-Jul-14 10:26:23
booter.cfg~	0.2K		2009-Jul-14 10:26:23

찾아보기... Upload

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

Back up / Restore the setting of the system software and device

File Browser

Download and Upload Gateway's firmware or configuration file.

Basic - Protocol

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC

Protocol

SIP(Session Initiation Protocol)

H.323(ITU H.323 Protocol)

Configure VoIP signaling protocol SIP, H.323

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Configure the settings of the protocol to be used for VoIP communication

Basic – SIP Server

Smart Web Manager
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System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP**
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Advanced

SIP (Session Initiation Protocol)

Use SIP Server Yes No

Primary SIP Server 5060 Server address and Port (default 5060)

Secondary SIP Server 5060 Server address and Port (default 5060)

Local Domain Name (SIP userpart of authentication)

SIP Signaling Port 5060 (default 5060, between 1 to 65535)

Register Expiration 60 (in seconds, default 60, between 10 to 86400)

Session Re-Fresh INVITE UPDATE

Session Expire Time 1800 (in seconds, default 1800, between 30 to 86400, 0 = disable)

Min-SE 1800 (in seconds, default 1800, between 30 to 86400)

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

Configure the settings for SIP.
Contact your service provider for the settings

SIP Server
Primary & Secondary server,
Local domain name,
SIP Signaling Port (reboot necessary)
Timer
* register expire
* session refresh
* session expire

Basic – SIP Registration

Smart Web Manager
www.addpac.com

SIP Registration

SIP Registration Configuration

Pots Num	Port	E.164 Number	User Name	Password	DisplayName	HuntStop	Reg
1000	S0P0	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1001	S0P1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1002	S0P2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1003	S0P3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

* SIP Registration - Assigned Pots Tag Number : 1000 - 1024

SIP Registration

- E.164 Number
- User Name
- Password
- Display Name
- Hunt Stop
- Registration checking

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Set up for using FXS port to registration SIP Server

Basic – H.323 Server

Smart Web Manager
www.addpac.com

H.323 (ITU H.323 Protocol)

Use H.323 Server Yes No

Primary Gatekeeper 1719 Server address and Port (default 1719)

Secondary Gatekeeper 1719 Server address and Port (default 1719)

H.323 ID (H.323 Identifier string)

H.323 Signaling Port 1720 (default 1720, between 1 to 65535)

H.323 Call start mode Fast Slow

H.323 Tunnel mode Enable Disable

H.323 Server
Primary & Secondary server,
H.323 ID
SIP Signaling Port (**reboot necessary**)
H.323 Call start mode
H.323 Tunnel mode

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Configure the settings for H.323. Contact your service provider for the settings

Basic – H.323 Registration

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration**
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC

H.323 Registration

H.323 Registration

Pots Num	Port	Number	HuntStop	REG
1000	S0P0	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1001	S0P1	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1002	S0P2	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
1003	S0P3	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

* H323 Registration - Assigned Pots Tag Number: 1000 - 1024

H.323 Registration

- Number
- Hunt Stop
- Registration checking

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Set up for using FXS port to registration H.323 Server

Basic – Analog : FXS Extension

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

FXS Extension

Port Information

Port	P0	P1	P2	P3	P4	P5	P6	P7
SLOT 0	FXS	FXS	FXS	FXS	FXO	FXO	FXO	FXO
SLOT 1								

FXS Extension Configuration

Pots Num	Port	Numbers	Preference	HuntStop	Control
P0:0			0		Delete
					Apply

* FXS Extension - Assigned Pots Tag Number : 1512 - 2023

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Set up for using FXS port to extension number (forwarding No)

Port Information
voice port type & physical port

FXS Extension
Configure phone-number for using inter-office Preference (0 : highest)

Basic – Analog : FXO Extension

Port Information
voice port type & physical port

Port	P0	P1	P2	P3	P4	P5	P6	P7
SLOT 0	FXS	FXS	FXS	FXS	FXO	FXO	FXO	FXO
SLOT 1								

FXO Extension Configuration

Pots Num	Port	Numbers	Preference	HuntStop	Control
	P0:4		9		Apply

* FXO Extension - Assigned Pots Tag Number : 2024 - 2535

FXO Extension
Configure phone-number for using PSTN Line Preference (0 : highest)

Information
AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Basic – Analog : FXO Dial Plan

Smart Web Manager
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System

- Language
- WAN Setup

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan

FXO Dial Plan / Prefix

Port Information

Port	P0	P1	P2	P3	P4	P5	P6	P7
SLOT 0	FXS	FXS	FXS	FXS	FXO	FXO	FXO	FXO
SLOT 1								

Plan Table

Rule Num	Digits to Insert	Digits to delete	Digit Pattern	Control
	<input type="text"/>	<input type="text"/>	<input type="text"/>	Delete
				Add

FXO Table

Pots Num	FXS	FXO	Number	PlanIndex	Preference	Control
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Delete
	P0:4			N.A.	9	Apply

Assigned Translation-Rule Tag Number : 100 - 199
Assigned Pots Tag Number : 3560 - 4071

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Port Information
voice port type & physical port

Plan Table
Configure translation rule for FXO Port
- first, 'Number of Digits to Delete' option is applied.
- second, 'Digits to Insert' option is applied.

(ex) Origin called Number = 123456
Number of Digits to Delete = 2
Digits to Insert = "88"

result = 883456

FXO Table
Configure FXO Port with translation rule.

Basic – Digital : E1/ T1 Trunk

Smart Web Manager
www.addpac.com

E1/T1 Trunk

E1/T1 Port
Configure E1 channel & group

E1/T1 value
Clock-Source
Framing
Line Code
Signaling type

E1/T1Sub function
ISDN-PRI
- Protocol-emulate
- virtual-Connect
- immediate-disconnect
- dial-tone generate
- Compand type
- Q931 Timer
R2-MFC
- Get calling number
Busyout
- monitoring E1/T1 port status

E1 Port (Slot 0/0)

Slot/Port	group Num (0-9)	Time slot Range(1-31,16-31,1,2,3)	Control
0/0			Add

Clock-Source: Master

Framing: CRC4

Line Code: HDB3

Signaling-type: ISDN-PRI

ISDN-PRI

Protocol-emulate	<input checked="" type="radio"/> Network	<input type="radio"/> User
Virtual-Connect	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
Immediate-disc	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
Dial-Tone-Generate	<input type="radio"/> Enable	<input checked="" type="radio"/> Disable
Compand-Type	<input checked="" type="radio"/> a-law	<input type="radio"/> u-law
Q931 Timer	T303	2 (1~10sec)
	T310	4 (1~400sec)
		10 (5~400sec)
R2-MFC	Get-Calling-number	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Busyout	Action	<input type="radio"/> PortDown <input checked="" type="radio"/> None

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
E1(2) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description
Configure the settings for VoIP
Dial Plan and Prefix table

Apply

Basic – Digital : E1/ T1 Extension

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension**
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route

E1/T1 Extension

Port Information

Port	P0	P1	P2	P3	P4	P5	P6	P7
SLOT 0	E1	E1						
SLOT 1								

E1/T1 Extension Configuration

Pots Num	Port	Group	Numbers	HuntStop	Forward Digits(0-99)	Control
P0:0					<input checked="" type="radio"/> from <input type="radio"/> last	Delete Apply

* E1/T1 Extension - Assigned POTS Tag Number : 2536 - 2737

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
E1(2) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Port Information
voice port type & physical port

E1/T1 Extension
Configure phone-number for using PABX
- Forward-Digits (from / last)

Basic – DTMF/CODEC

The screenshot displays the Smart Web Manager interface for configuring DTMF and CODEC settings. The main content area is titled "DTMF/CODEC" and contains two primary sections:

- Voice CODEC:** A section with a red dashed border containing six preference dropdown menus, all currently set to "None".
- DTMF Relay mode:** A section with a red dashed border containing four radio button options:
 - DTMF relay by In-band voice
 - DTMF relay by RTP payload defined by RFC 2833
 - DTMF relay by Out-of-band signal
 - DTMF relay by Cisco out-of-band signal

Below these sections is an "Apply" button with a green checkmark icon.

Two yellow callout boxes provide additional context:

- CODEC:** Configure voice codec preference (g711a, g711u, g729, g7231, g726)
- DTMF:** Configure DTMF relay method (in-band, RFC2833, out-of-band, CISCO type out-of-band)

The interface also features a left sidebar with "System" and "Basic" sections, and a right sidebar with "Information" and "Description" sections.

Basic – VoIP Dial Plan

VoIP PLAN
 Configure translation rule for VOIP Peer.
 - first, 'Number of Digits to Delete' option is applied.
 - second, 'Digits to Insert' option is applied.

(ex) Origin called Number = 123456
 Number of Digits to Delete = 2
 Digits to Insert = "88"

 result = 883456

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT

VoIP Dial Plan / Prefix

Plan Table

Rule Num	Digits to Insert	Digits to delete	Digit Pattern	Control
	<input type="text"/>	<input type="text"/>	<input type="text"/>	Delete
				Add

Prefix Table

Voip Num	Prefix	Called Num Plan	Calling Num Plan	Control
<input type="text"/>		N.A.	N.A.	Delete
				Apply

* VoIP Dial Plan - Assigned Translation-Rule Tag Number : 0 - 99
 * VoIP Dial Plan - Assigned VoIP Tag Number : 10000 - 10099

Information

AddPac Technology
 Model : AP1800
 H/W Version : 2.0
 S/W Version : 0.41.006
 Smart Web Version : 0.4
 Smart Web Build : Sep 15 2010
 Voice Interface
 T1(2) : None
 Protocol : H.323
 Status : Unregistered
 Current Calls : 0
 CallNetwork : Static 0.0.0.0
 Mac Address: 0002.a4ff.f6a4

Description

Configure the settings for the outbound call of main/remote and incoming E1/T1 and routing

Prefix Table
 Configure VoIP Peer with translation rule.
 (Serviced by SIP SERVER)

Basic – Static Route

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension

Static Route

Set Remote Site Call(5-digit number is set to begin *2->*2...)

Pots Num	Remote Site IP	Signaling Port	Prefix	Digits to Insert	Digits to Delete	Name of Remote Site	Answer Addr	Control
*	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Apply

* Static Route - Assigned Voip Tag Number : 10100 - 10199
* Static Route - Assigned Translation-Rule Tag Number : 10100 - 10199

Static Route
Configure Static VoIP Peer for using Inter-Office .
(Already, I know IP & phone-number)

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010

Voice Interface
E1(2) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Basic – Hot Line

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Hot Line

Hot Line Configuration

Port	Hot Line Number	Digit Input Timeout <0~10 sec>
S0P0(S)	<input type="text"/>	0
S0P1(S)	<input type="text"/>	0
S0P2(S)	<input type="text"/>	0
S0P3(S)	<input type="text"/>	0
S0P4(O)	<input type="text"/>	0
S0P5(O)	<input type="text"/>	0
S0P6(O)	<input type="text"/>	0
S0P7(O)	<input type="text"/>	0

Apply

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Hot Line

- Used as incoming direct call of FXO port(Connection PLAR)
- Timer (FXS port only : No Digit event is occurred for configured timer value, Auto-Dialing will be started)

Advanced – Gain & CID

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Gain & CID

Gain

Port	Port Type	InputGain	OutputGain	Caller ID
P0:0	FXS	0	0	<input checked="" type="checkbox"/>
P0:1	FXS	0	0	<input checked="" type="checkbox"/>
P0:2	FXS	0	0	<input checked="" type="checkbox"/>
P0:3	FXS	0	0	<input checked="" type="checkbox"/>
P0:4	FXO	0	0	<input type="checkbox"/>
P0:5	FXO	0	0	<input type="checkbox"/>
P0:6	FXO	0	0	<input type="checkbox"/>
P0:7	FXO	0	0	<input type="checkbox"/>

Apply

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.086
Smart Web Version : 0.4
Smart Web Build : Sep 15 2010
Voice Interface
S(4)O(4) : None
Protocol : H.323
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

Adjust the Input voice volume from FXS/FXO/E1/E&M to DSP and the output volume from DSP to the phone or PSTN line;

Gain & CID
Configure Input-gain, output-gain and caller-ID.

Advanced - Fax

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC

Fax

Fax Mode T.38 Inband T.38 Bypass

Fax Rate Disable 2400 4800 7200 9600 12000 14400

Apply

FAX
Configure fax mode & rate (VoIP Lines)

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address: 0002.a4ff.f6a4

Description

Enable or disable T.38/Inband T.38, which is fax internet protocol and specify Baudrate

Advanced - Service

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Advanced

- Gain & CID
- Fax
- Service**
- Filtering
- Security

Miscellaneous

- Port & Call Status
- System Status
- Call Log

Service

Application Services

- Enable Telnet Server Port: 23 (default 23, 1-65535)
- Enable HTTP Server Port: 80 (default 80, 1-65535)
- Enable FTP Control Port: 21 (default 21, 1-65535) Data Port: 20 (default 20, 1-65535)
- Enable Syslog Primary Server: [] Port: [] (default 514) Secondary Server: [] Port: [] (default 514) Log Level: 0-emergency Log Command: disable

Timer

- Inter Digit Time: 3 sec (default 3, 1-600)

Call Service

- Transfer: Hook-Flash Not-assigned
- Hold: Hook-Flash Not-assigned

SIP Transfer

- Mode: blind Attended

Skype Server

- Use: Enable Disable

Hunt

- Algorithm: (0) longest - preference - random

Change Password

- ID: root New Password: [] Confirm Password: []

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Enable or disable Telnet, HTTP, FTP and specify the access port and Call Hold/ Transfer and Timer .

Service

- Configure application service(Telnet, HTTP, ftp, syslog)
- Configure IDT(Inter Digit Time)
- Configure Call-Transfer-Mode & Hook-Flash-Usage-Type.
- Configure SIP Call-Transfer-Mode.
- Configure Skype SIP Server Use
- Hunt Algorithm
- Changing Password

Apply

Advanced - Filtering

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Filter

FTP Filter

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	Add

HTTP Filter

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	Add

Telnet Filter

Network Addr	Network Mask	Control
<input type="text"/>	<input type="text"/>	Add

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
S/W Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

For FTP, HTTP, Telnet, set up one IP or IP band for allowing access

Filter
Configure application service filter with IP & Subnet mask.

Advanced - Security

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO Dial Plan

Security

IP Filtering Enable Disable

Allowed IP Address List

WarDialing Filtering Enable Disable

Allow Digit Length(IP to PSTN) Min Max

H323 Shutdown Enable Disable

SIP Shutdown Enable Disable

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010

Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Security

- IP Filtering : Allowing only the inbound call which is registered to Call-Routing of the server by static IP.
- Allowed IP address list : Allowing only inbound call which is added ip address.
- WarDialing : Allowing only the inbound call with the number registered to Inter-Office and phone-number.
- Digit Length : Allowing only the inbound call with the number registered to Inter-Office and phone-number
- H.323 : H.323 signaling packets are filtered.
- SIP : SIP signaling packets are filtered.

Miscellaneous – Port & Call Status

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup

Port & Call Status

Port Status

SLOT	Port	Port Group							
		0(FXS)	1(FXS)	2(FXS)	3(FXS)	4(FXO)	5(FXO)	6(FXO)	7(FXO)
SLOT 0	Status	I	I	I	I	I	I	I	I
	Select	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Unblock Block

Connection State : ■ (Connected) ■ (Disconnected || Blocked)
 Call State : ■ (Idle) ■ (Ring || Dial) ■ (Called) ■ (Calling) ■ (Blocked)

Call State

Port Direction Established Time Calling Number Called Number CODEC Src/Dest. IP

Information

AddPac Technology
 Model : AP1800
 HW Version : 2.0
 SW Version : 8.41.027
 Smart Web Version : 0.4
 Smart Web Build : Sep 16 2010
 Voice Interface
 S(4)O(4) : None
 Protocol : SIP
 Status : Unregistered
 Current Calls : 0
 CallNetwork : Static 0.0.0.0
 Mac Address : 0002.a4ff.f6a4

Description

Verify port status and retrieve the present call information

Analog/Digital Port
 Real-time display about analog or digital port status (occupation, call status). Provide a specific port blocking function

Active Call Status
 Real-time display about current active call status (calling party addr, called party addr. Codec, etc)

Miscellaneous – System Status

System Status

- voice port status & information
- SIP-UA status & information
- gateway status & information
- system utilization information

System Status

Voice Port

Port	LineType	Status	InGain	OutGain	TieType	TieDigits	CallNum	Tcalled	Tcalling
0/ 0	FXS	Idle	0	0	none		-1	-1	-1
0/ 1	FXS	Idle	0	0	none		-1	-1	-1
0/ 2	FXS	Idle	0	0	none		-1	-1	-1
0/ 3	FXS	Idle	0	0	none		-1	-1	-1
0/ 4	FXO	Idle	0	0	none		-1	-1	-1
0/ 5	FXO	Idle	0	0	none		-1	-1	-1
0/ 6	FXO	Idle	0	0	none		-1	-1	-1
0/ 7	FXO	Idle	0	0	none		-1	-1	-1

SIP-UA

Proxyserver Registration Information
 proxyserver registration option = e164
 Proxyserver list :
 No Proxyserver Information.

SIP UA Timer counters
 retry counter = 10

SIP UA Timer values
 tretry (sip retry timer) = 500 msec.
 tinterval (sip retry max interval timer) = 4 sec.
 treg (sip register timer) = 60 sec.
 tregtry (sip register retry timer) = 20 sec.
 texpires (sip invite expire timer) = 180 sec.
 tsipping (sip ping timer) = 45 sec.
 tarv (sip srv retry timer) = 60 sec.
 thppolling (sip higher priority polling timer) = 30 sec.

SIP UA Session Timer value
 Min-SE = 1800 sec.
 Session-Expires = 1800 sec.

SIP DNS SRV Query : Disable
 SIP Called-Party-Number : from URL

Information

AddPac Technology
 Model : AP1800
 H/W Version : 2.0
 S/W Version : 8.41.027
 Smart Web Version : 0.4
 Smart Web Build : Sep 16 2010

Voice Interface
 S(4)O(4) : None

Protocol : SIP
 Status : Unregistered
 Current Calls : 0
 CallNetwork : Static 0.0.0.0
 Mac Address : 0002.a4ff.f6a4

Description

Verify the present port information, Server Register status, CPU and Memory usage

Miscellaneous – Call Log

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Advanced

- Gain & CID
- Fax
- Service
- Filtering
- Security

Miscellaneous

- Port & Call Status
- System Status
- Call Log
- System Log
- Test Call
- Ping

Call Log

CallNum	EventTime	Descript	CallingPartyNum	CalledPartyNum	RemoteInfo	SetupTime	Dur	Reason
---------	-----------	----------	-----------------	----------------	------------	-----------	-----	--------

Call Log
Show call history information

- * call number
- * event time
- * description
- * calling number
- * called number
- * remote IP information
- * call setup time
- * call duration
- * call clear reason

Miscellaneous – System Log

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
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- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route
- Hot Line

Advanced

- Gain & CID
- Fax
- Service
- Filtering
- Security

Miscellaneous

- Port & Call Status
- System Status
- Call Log
- **System Log**
- Test Call
- Ping

System Log

command logging buffers (messages logged)

event logging buffers (messages logged)

System Log

- command log
- system alarm log (ex : interface down)

Information

AddPac Technology
Model : AP1800
H/W Version : 2.0
S/W Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010

Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Retrieve the system log

Miscellaneous – Test Call

Smart Web Manager
www.addpac.com

System

- Language
- WAN Setup
- LAN Setup
- NAT
- NTP
- System Time
- File Browser

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF CODEC

Test Call

Port	B-Ch (1-24)	Test Phone Number	Digits	Command			
S0P0	-	<input type="text"/>	<input type="text"/>	Start	Voice	Digit	End
S0P1	-	<input type="text"/>	<input type="text"/>	Start	Voice	Digit	End
S0P2	-	<input type="text"/>	<input type="text"/>	Start	Voice	Digit	End
S0P3	-	<input type="text"/>	<input type="text"/>	Start	Voice	Digit	End

Information

AddPac Technology
Model : AP1800
HW Version : 2.0
S/W Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Make a test call remotely through web

Test Call
remote diagnose the proper operation of VoIP call
- Test Phone Number
- Digits
- Start / Voice / Digit / End Button

Miscellaneous - Ping

The screenshot shows the 'Smart Web Manager' interface with the 'Ping' page selected. The interface includes a left sidebar with 'System' and 'Basic' sections, a main content area for the 'Ping' function, and a right sidebar with 'Information' and 'Description' sections. Two yellow callout boxes provide instructions: one pointing to the 'Host address' input field and another pointing to the 'Start' button. The 'Information' section on the right lists device details such as 'AddPac Technology', 'Model: AP1800', and 'Status: Unregistered'.

Smart Web Manager
www.addpac.com

System

- Language

Basic

- Protocol
- Server SIP
- Server H.323
- SIP Registration
- H.323 Registration
- E1/T1 Trunk
- FXS Extension
- FXO Extension
- E1/T1 Extension
- DTMF/CODEC
- VoIP Dial Plan
- FXO DialPlan
- Static Route

Ping

Host address Start

PING
You can diagnose network status by PING.

PING
Show real time ping status.

Information

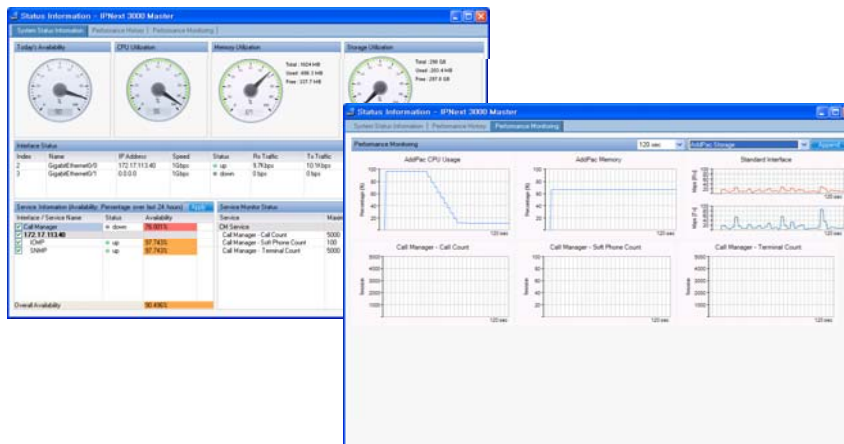
AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

Description

Verify the outgoing Ping to the outside from the device by entering IP address and URL.
Verify network status of the location in where the terminal is located.

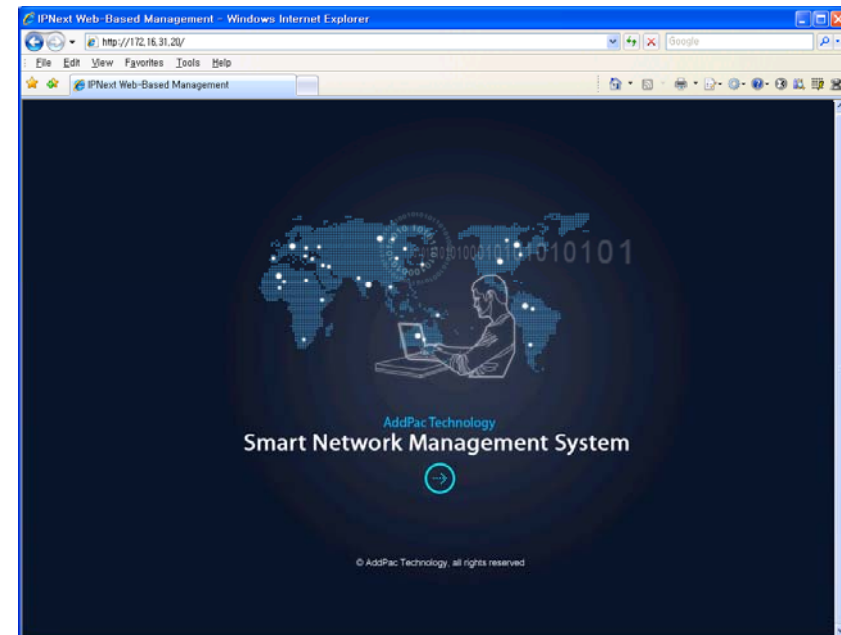
Smart NMS

Smart Network Management System for Large Scale VoIP Gateway Deployment



Contents

- System Requirement
- Smart NMS Networking Diagram
- Web-based Management
- Network Resource Management
- Device Fault Management
- Device Fault History Management
- Device Status Information
- Notification Management
- Fault Statistics
- Model & Service Management



System Requirement

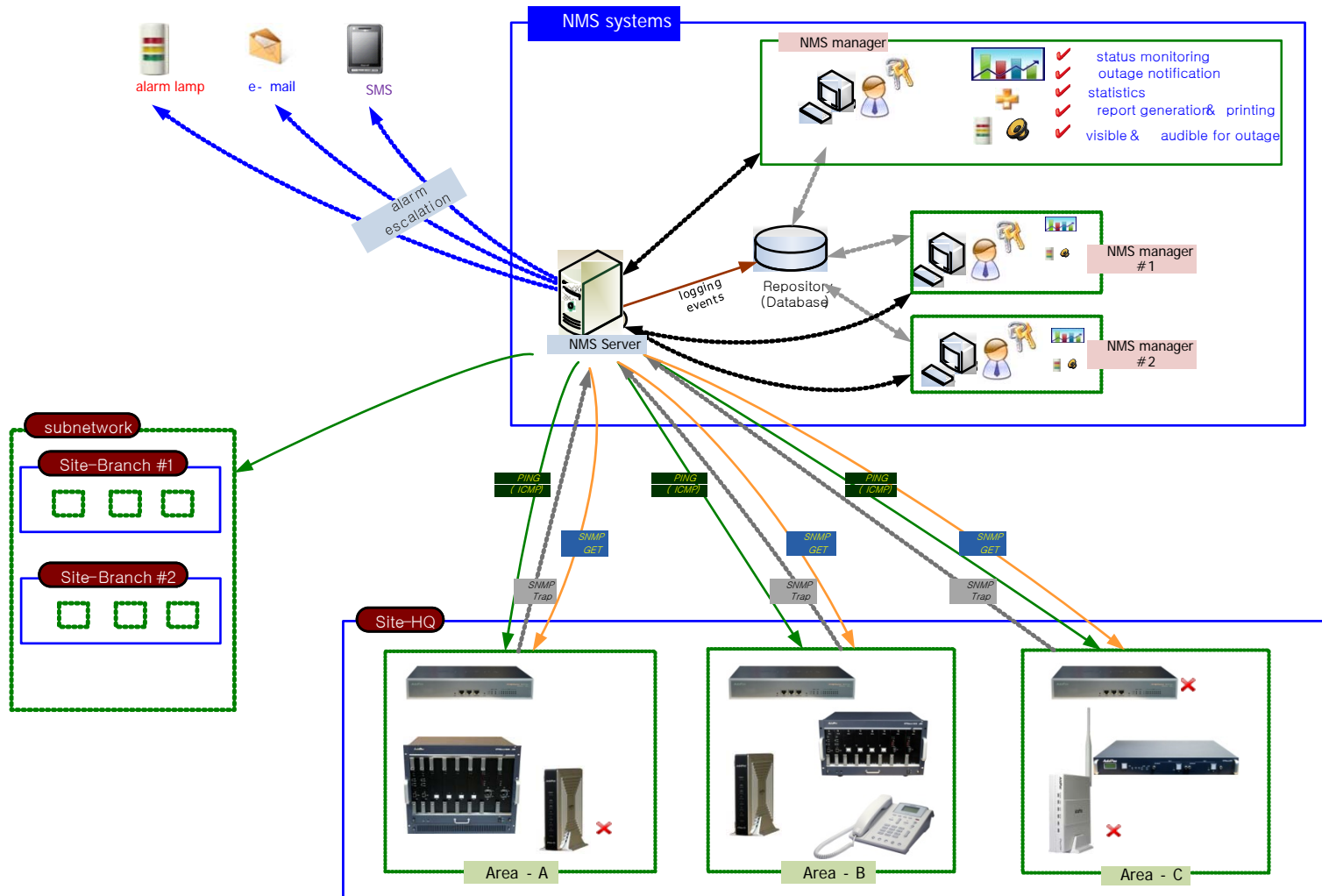
NMS Server

- OS : RHEL (Redhat Enterprise Linux) 5.0 or higher
- CPU : Quad-Core 2.0 GHz / 1333MHz FSB 2x4 MB cache
- Physical Memory : 4 GB
- HDD : 300 G
- JRE (Java Runtime Environment) 1.5.1 or Higher
- Database : PostgreSQL 8.1.11

NMS Client

- Windows XP, Vista, Windows Server 2000/2003
- Microsoft Internet Explorer 6.0 or higher

NMS Networking Diagram



Web-based Management

- **Easy Access via Web browser**
 - Microsoft Internet Explorer 6.0 or higher compatible
- **Version Control**
 - Automatic version check
 - New version software download feature
- **UI control**
 - User friendly GUI management

Version Control

The screenshot displays the IPNext Web-Based Management interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL `http://172.16.31.20/`. The main content area features a dark blue background with a world map and a person using a laptop. The text "AddPac Technology Smart Network Management System" is prominently displayed. A copyright notice at the bottom reads "© AddPac Technology, all rights reserved".

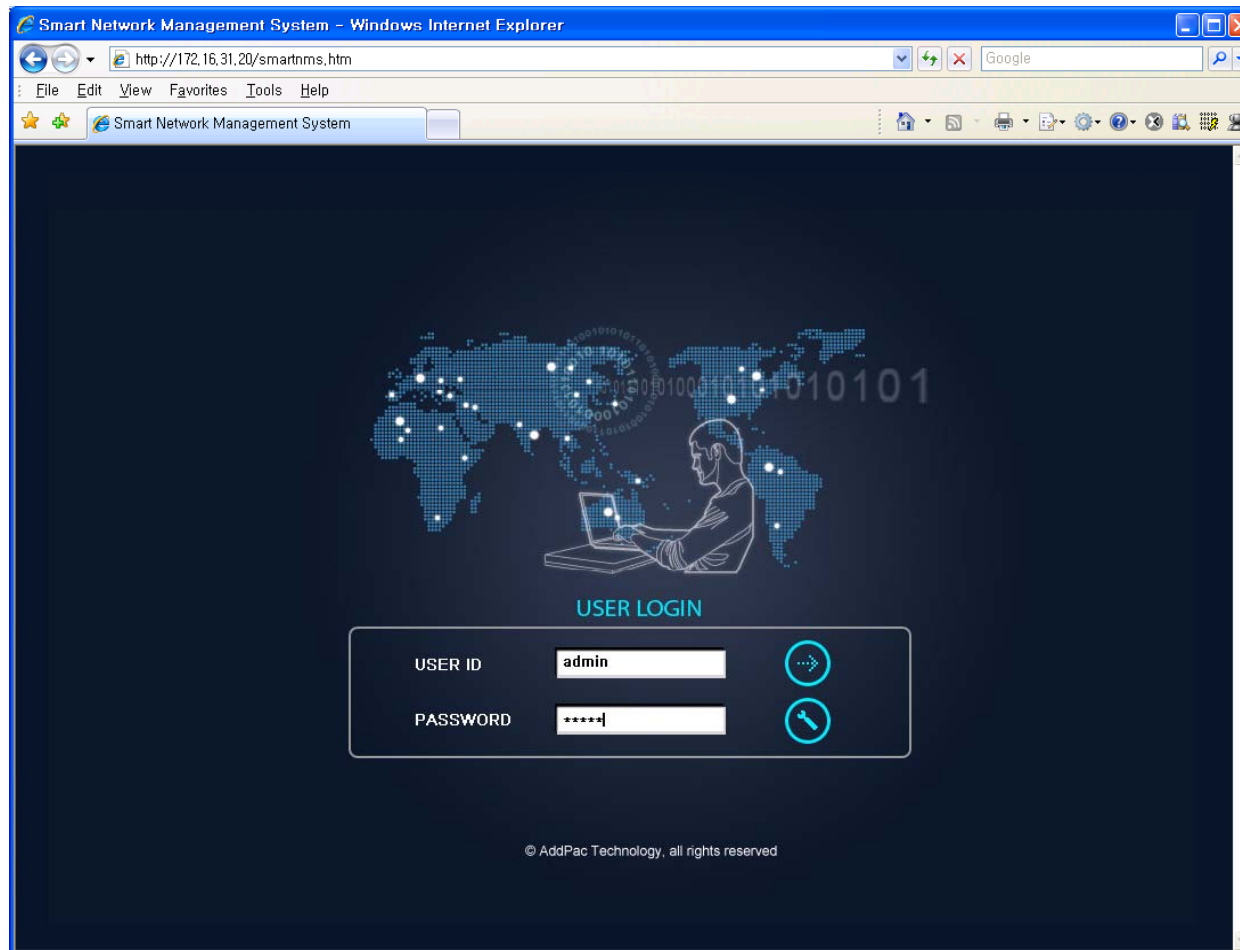
Two callout boxes highlight specific features:

- Automatic version check:** A yellow box with an arrow pointing to the top of the main interface.
- New S/W version update:** A yellow box with an arrow pointing to the bottom of the main interface.

Two Windows dialog boxes are overlaid on the interface:

- Launching Application:** A dialog box with a blue title bar and a close button. It contains a progress bar and the text: "Verifying application requirements. This may take a few moments."
- (61%) Downloading installnms:** A dialog box with a blue title bar and standard window controls. It contains the text: "Downloading installnms. This may take several minutes. You can use your computer to do other tasks during the installation." Below this, it shows the file name "Name: installnms", the source "From: 172.16.31.20", a green progress bar, and the status "Downloading: 6.29 MB of 10.1 MB". A "Cancel" button is located at the bottom right.

Web-based Login



Network Resource Management

- Network resource management with hierarchical structure
- Role-based resource management for each administrator

The screenshot displays the AddPac Network Resource Management interface. On the left, a hierarchical tree view shows the network structure, including sites like AddPac, Seoul, and various branches. A context menu is open over the 'GangNamGu' node, with options like 'Add Sub Network', 'Add Site', 'Delete', 'Execute SMM', 'Search', 'Refresh', and 'Properties'. The 'Execute SMM' option is highlighted. In the center, a table lists device categories such as Desktop, Network Camera, Phone, Server, Switch, and VoIP Gateway. On the right, a 'User Properties' dialog box is open, showing a 'Site' tab with a tree view of the same network structure, where several nodes are checked. Three orange callout boxes provide additional context: one points to the tree view stating 'manage the complex network with a structured, hierarchical form'; another points to the 'Execute SMM' option stating 'can assign the hierarchical node to the operator and manage role-based policy'; and a third points to the 'Execute SMM' option stating 'can cooperate with the application executables such as SMM'. The bottom of the interface shows a search bar with 'Total Categories : 6' and the AddPac logo.

Device Fault Management

- Centralized fault summary information in main window
- Display current fault device through tree view
- Notify administrator with detailed fault information
- Provide device availability information for 24hrs

Device Fault Management

main window

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a navigation menu with options like NMS, Account, Configuration, Monitoring, Notification, Fault, Statistics, and View. The main content area is divided into several sections:

- Current Outage Devices [111]:** A tree view showing the hierarchy of devices across different sites (AddPac, Branch AQ, Branch GX, HeadQuarter, Subnetwork #2, Center).
- Service Outages:** A table showing site-level fault statistics.

Site	Type	Outages	Availability	Description
AddPac	Sub Netw...	28 / 10 / 32	58%	AddPac Technology C...
Seoul	Sub Netw...	2 / 1 / 2	98%	Seoul subnetwork
- Device Categories:** A table showing fault statistics for various device categories.

Category	Outages	Availability
Desktop	0 / 0 / 1	100%
Network Camera	6 / 1 / 2	54%
Phone	0 / 0 / 3	98%
Server	24 / 10 / 22	58%
Switch	0 / 0 / 0	100%
VoIP Gateway	0 / 0 / 6	98%
- Overall Availability:** A summary bar at the bottom of the site table showing 30 / 11 / 34 and 78.650%.
- Your Outstanding Notices [16]:** A table listing recent fault events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

current device fault list with hierarchy view

site device fault summary

device fault summary for category (classification)

overall total device fault statistics

current device fault event message are shown as below

Device Fault Management

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Current Outage Devices (12) | Service Outages | Device Monitoring - <All>

View Mode: Large Small Refresh Import

display message icon when the device have a notification for event

device status matrix with several severity such as critical, major, minor

- * severity color
- 1) red : critical
- 2) orange : major
- 3) light blue : normal

ACK ID	Send Time	Site	Device Name	IP Address	Service	Message
9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX	00_Nr_server	172.17.111.21	SNMP	인터페이스 172.17.111.21 (172.17.111.21)의 장비명(00_Nr_server)의 서비스 SNMP가 2009년 4월 10일 금요일 오후 5시 21분 06초에 실패함.
9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Center	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down
9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed.
9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.

Your Outstanding Notices (17) | All Outstanding Notices (17)

4/10/2009 5:16:30 PM | 172.16.31.20:5101 | admin | Version 1.2,3384

Device Fault Management

The screenshot displays the Smart Network Management System (NMS) interface within a Windows Internet Explorer browser. The address bar shows the URL `http://172.16.31.20/smartnms.htm`. The interface features a top navigation menu with options like NMS, Account, Configuration, Monitoring, Notification, Fault, Statistics, and View. Below this is a toolbar with various icons for site management and monitoring.

The main content area is divided into several sections:

- Left Panel:** A tree view showing the network hierarchy under the 'Site' tab. It includes categories like 'AddPac', 'Seoul', and 'GangnamGu', with sub-items for various branches and areas.
- Top Right Panel:** A control area for the 'Device Monitoring' view, including a 'View Mode' selector (Large/Small), 'Refresh', 'Import', and 'New Tab' buttons.
- Central Panel:** A grid of device status icons. Each icon represents a device with a status indicator (green for OK, red for fault, yellow for warning). A red arrow points to a device icon labeled 'NMS Camer' with the text 'device status matrix with small view mode'.
- Bottom Panel:** A table titled 'Your Outstanding Notices (18)' listing various alerts. The table has columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message. The messages describe service outages for various devices like '00_RBT_server', 'NMS_SQHD_PBX', and 'NMS Camera 2'.

Device Fault History Management

- Provide both summary view and detailed event message
- Can Write troubleshooting job note for each event manually
- Administrator can query for a history fault with search condition
- Each fault is related to the several raw events

Device Fault History Management

The screenshot displays the Smart Network Management System (NMS) interface in Internet Explorer. The main window shows a 'Notification Summary' table on the left and a 'Device Monitoring' table on the right. An 'Advanced Search' dialog box is open over the device monitoring table.

daily fault event summary statistics information

DateTime	Outstanding	Acknowledge
2009-04-10	4	27
2009-04-09	2	76
2009-04-08	0	96
2009-04-07	0	40
2009-04-06	7	489
2009-04-05	0	722
2009-04-04	0	708
2009-04-03	1	476
2009-04-02	0	248
2009-04-01	0	19
2009-03-31	0	37
2009-03-30	0	9
2009-03-29	0	3
2009-03-28	0	1
2009-03-27	0	14
2009-03-26	0	52
2009-03-25	0	8
2009-03-24	0	19
2009-03-23	0	59
2009-03-22	0	102
2009-03-21	0	17
2009-03-20	0	21
2009-03-18	0	48
2009-03-17	0	41
2009-03-13	0	36
2009-03-07	0	1
2009-03-06	0	482
2009-03-05	0	38
2009-03-04	0	13

detail fault event history list up with filter condition (advanced search)

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message	Order	Respond Time
<input type="checkbox"/>	9528	4/10/2009 5:51:06 PM	/AddPac/Branch AQ	NMS Camera	172.16.4.180	SNMP	interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51:06 PM	auto-acknowledged	4/10/2009 5:51:35 PM
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting room phone device			device 5th floor meeting room phone device, all services are down.	auto-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9526	4/10/2009 5:33:42 PM	/AddPac/Branch GX	00_NH_server	172.17.111			auto-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX	UU_NH_server	172.17.111			auto-acknowledged	4/10/2009 5:22:43 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX	00_NH_server	172.17.111			auto-acknowledged	4/10/2009 5:17:56 PM
<input type="checkbox"/>	9522	4/10/2009 3:36:26 PM	/AddPac/HeadQuarter	IP_PBX_Slave(our company)				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9521	4/10/2009 3:36:18 PM	/AddPac/HeadQuarter	RBT server(our company)				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9520	4/10/2009 3:36:17 PM	/AddPac/HeadQuarter	RBT server(our company)				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/HeadQuarter	UMS server #2				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9518	4/10/2009 3:36:09 PM	/AddPac/HeadQuarter	Recording Server (our company)				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9517	4/10/2009 3:36:08 PM	/AddPac/HeadQuarter	company_MLU_s...				auto-acknowledged	4/10/2009 4:03:14 PM
<input type="checkbox"/>	9516	4/10/2009 3:36:00 PM	/AddPac/Branch GX	00_PS_Slave_ser...				auto-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9514	4/10/2009 3:35:50 PM	/AddPac/Branch GX	00_PS_server				auto-acknowledged	4/10/2009 4:02:54 PM
<input type="checkbox"/>	9513	4/10/2009 3:35:41 PM	/AddPac/HeadQuarter	5th floor meeting room phone device				auto-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9512	4/10/2009 3:35:41 PM	/AddPac/HeadQuarter	IP_PBX_Master (our company)				auto-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9511	4/10/2009 3:35:33 PM	/AddPac/Branch KT		172.16.51.12			auto-acknowledged	4/10/2009 4:02:43 PM

Advanced Search Dialog:

- Sub Network: <All>
- Site: <All>
- IP Address Contains: []
- Notice Status Type: <All>
- Message Contains: []
- Level (Severity): <All>
- Notices After: 11/10/2008 17:20:49
- Notices Before: 11/10/2008 17:20:49
- Sort By: ID (Descending)

Your Outstanding Notices (17)

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting ro...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Center	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_31.13			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator

Device Fault History Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a list of events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, Message, Responder, and Respond Time. A 'Troubleshooting Note' dialog box is open, allowing users to enter a note for a specific event. The dialog includes a 'Status' dropdown (set to 'Cleared'), a text area for the note, and buttons for 'Add', 'Edit', 'Delete', and 'Help'. An orange callout box with the text 'Can write troubleshooting note if needed' points to the text area in the dialog.

DateTime	Outstanding	Acknowledge
2009-04-10	4	27
2009-04-09	2	76
2009-04-08	0	96
2009-04-07	0	40
2009-04-06	7	489
2009-04-05	0	722
2009-04-04	0	708
2009-04-03	1	476
2009-04-02	0	248
2009-04-01	0	19
2009-03-31	0	37
2009-03-30	0	9
2009-03-29	0	3
2009-03-28	0	1
2009-03-27	0	14
2009-03-26	0	52
2009-03-25	0	8
2009-03-24	0	19
2009-03-23	0	59
2009-03-22	0	102
2009-03-21	0	102
2009-03-20	0	102
2009-03-19	0	102
2009-03-18	0	102
2009-03-17	0	102
2009-03-16	0	102
2009-03-15	0	102
2009-03-14	0	102
2009-03-13	0	102
2009-03-12	0	102
2009-03-11	0	102
2009-03-10	0	102
2009-03-09	0	102
2009-03-08	0	102
2009-03-07	0	102
2009-03-06	0	102
2009-03-05	0	102
2009-03-04	0	102

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message	Responder	Respond Time
<input checked="" type="checkbox"/>	9528	4/10/2009 5:51:06 PM	/AddPac/Branch AQ	NMS Camera	172.16.4.180	SNMP	interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51 06 PM	auto-acknowledged	4/10/2009 5:51:35 PM
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/Branch AQ	5th floor meeting room phone device			device 5th floor meeting room phone device, all services are down.	to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9526	4/10/2009 5:33:42 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:22:43 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:17:56 PM
<input type="checkbox"/>	9522	4/10/2009 3:36:26 PM	/AddPac/Branch AQ	IP cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9521	4/10/2009 3:36:18 PM	/AddPac/Branch AQ	PS RB cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9520	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	IP cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	IP cor				to-acknowledged	4/10/2009 4:03:13 PM

Current Device Fault (Outage)

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices on the left and a table of 'Current Outage Devices' on the right. The table lists various devices and their availability status. A red box highlights the 'Current Outage Devices' table with the text 'Display the current all device faults'. An 'Event Detail' window is open, showing details for event ID 45412, including the event time, site, device name, and a description of the fault: 'device 00_RBT_server's all interface down. A new Outage record has been created and service level availability calculations will be impacted until this outage is resolved.' A red box highlights the 'Event Detail' window with the text 'Can view the event data related to the current device fault and can write troubleshooting note if needed'. Below the event detail window, there is a 'Troubleshooting Note List' table with columns for Time, User, Status, and Note.

Outage ID	Site	Device Name	IP Address	Service	Time Down
13968	/AddPac/Branch GX	00_RBT_server	172.17.114.60	Media	4/10/2009 9:26:04 PM
13967	/AddPac/Branch GX	00_RBT_server	172.17.114.60	ICMP	4/10/2009 9:26:04 PM
13966	/AddPac/Branch GX	00_RBT_server	172.17.114.60	ICMP	4/10/2009 9:26:04 PM
13948	/AddPac/BranchGX	5th floor meeting room p...	172.17.114.60	SNMP	4/10/2009 9:26:04 PM
13907	/Subnetwork #2/Cent.	NMS_SOHO_PBX	172.16.53.101	ICMP	4/10/2009 5:34:10 PM
13906	/Subnetwork #2/Cent.	NMS_SOHO_PBX	172.16.19.50	ICMP	4/10/2009 3:34:29 PM
13896	/AddPac/Branch GX	IPNext 3000 Slave	172.16.19.50	SNMP	4/10/2009 3:34:29 PM

Event Time	IP Address	Severity
4/10/2009 9:26:04 PM		Critical

Time	User	Status	Note

Device Event History

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smatnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Site Event Summary Service Outages Event Notification Destination Paths Users View Current Outages View Outages View Events

Limit 20 Refresh Advanced Search Acknowledge Events Troubleshooting Note

Event Time	Outsta...	Ackno...	Not Clea...	Cleared	In Pr...
2009-04-13	40	0	40	0	0
2009-04-12	6	0	6	0	0
2009-04-11	314	0	314	0	0
2009-04-10	182	0	182	0	0
2009-04-09	290	0	290	0	0
2009-04-08	412	0	412	0	0
2009-04-07	448	0	448	0	0
2009-04-06	1453	0	1453	0	0
2009-04-05	1704	0	1704	0	0
2009-04-04	1712	0	1712	0	0
2009-04-03	1276	0	1276	0	0
2009-04-02	799	0	799	0	0
2009-04-01	271	0	271	0	0
2009-03-31	277	0	277	0	0
2009-03-30	212	0	212	0	0
2009-03-29	17	0	17	0	0
2009-03-28	2	0	2	0	0
2009-03-27	108	0	108	0	0
2009-03-26	292	0	292	0	0
2009-03-25	46	0	46	0	0
2009-03-24	121	0	121	0	0
2009-03-23	1904	0	1904	0	0
2009-03-22	2643	0	2643	0	0
2009-03-21	354	0	354	0	0
2009-03-20	172	0	172	0	0
2009-03-19	1	0	1	0	0
2009-03-18	1294	0	1294	0	0
2009-03-17	788	0	788	0	0
2009-03-16	14	0	14	0	0
2009-03-15	3	0	3	0	0

Ack	ID	Severity	Event Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	45786	Critical	4/13/2009 11:24:42 AM	/AddPac/Branch GX	SE_MG3000N_A	172.17.111.25		Agent Up with enterprise.1.3.6.1.4.1.4855.3.2.255 args [1].1.3.6.1.6.3.1.1.4.3.0="1.3.6.1.4.1.4855.3.2.255"
<input type="checkbox"/>	45785	Cleared	4/13/2009 11:15:59 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	SNMP data collection on interface 172.17.111.21 previously failed and has been restored.
<input type="checkbox"/>	45784	Cleared	4/13/2009 11:15:52 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21		Node 00_NR_server is up.
<input type="checkbox"/>	45783	Critical	4/13/2009 11:15:51 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21		Agent Up with Possible Changes (coldStart Trap) enterprise.1.3.6.1.4.1.4855.3.2.10 [1].1.3.6.1.4.1.4855.3.2.10 args [1].1.3.6.1.6.3.1.1.4.3.0="1.3.6.1.4.1.4855.3.2.10"
<input type="checkbox"/>	45782	Critical	4/13/2009 11:15:13 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21		Node 00_NR_server is down.
<input type="checkbox"/>	45781	Warning	4/13/2009 11:14:57 AM	/AddPac/Branch GX	00_NR_server	172.17.111.21	SNMP	SNMP data collection on interface 172.17.111.21 failed.
<input type="checkbox"/>	45780	Warning	4/13/2009 10:00:15 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP thresholding on interface 172.16.31.13 failed.
<input type="checkbox"/>	45779	Warning	4/13/2009 10:00:15 AM	/Subnetwork #2/Center	NMS_IP_PBX_31...	172.16.31.16	SNMP	SNMP thresholding on interface 172.16.31.16 failed.
<input type="checkbox"/>	45778	Warning	4/13/2009 9:59:51 AM	/AddPac/Branch GX	UMS slave	172.17.113.201	SNMP	SNMP data collection on interface 172.17.113.201 failed.
<input type="checkbox"/>	45777	Warning	4/13/2009 9:59:46 AM	/AddPac/Branch GX	UMS slave	172.17.113.201	SNMP	SNMP data collection on interface 172.17.113.201 failed.
<input type="checkbox"/>	45776	Warning	4/13/2009 9:59:42 AM	/AddPac/HeadQuarter	UMS server(our co...	61.33.161.43	SNMP	SNMP data collection on interface 61.33.161.43 failed.
<input type="checkbox"/>	45775	Warning	4/13/2009 9:59:41 AM	/AddPac/HeadQuarter	UMS server(our co...	61.33.161.43	SNMP	SNMP data collection on interface 61.33.161.43 failed.
<input type="checkbox"/>	45774	Warning	4/13/2009 9:59:36 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45773	Warning	4/13/2009 9:59:33 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45772	Warning	4/13/2009 9:59:32 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45771	Warning	4/13/2009 9:59:27 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45770	Warning	4/13/2009 9:59:24 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45769	Warning	4/13/2009 9:59:23 AM	/Subnetwork #2/Center	NMS_SOHO_PBX	172.16.19.50	SNMP	SNMP data collection on interface 172.16.19.50 failed.
<input type="checkbox"/>	45768	Warning	4/13/2009 9:59:18 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP data collection on interface 172.16.31.13 failed.
<input type="checkbox"/>	45767	Warning	4/13/2009 9:59:15 AM	/AddPac/Branch AQ	NMS_IP_PBX_31...	172.16.31.13	SNMP	SNMP data collection on interface 172.16.31.13 failed.

Results : 1 to 20 of 25346 Search Constraints : user=admin

Site	Device Name	IP Address	Service	Message
/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
/Subnetwork #2/Cent...	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave 172.17.113.41
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master 172.17.113.40
<input type="checkbox"/>	9419	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2 172.16.253.118

Your Outstanding Notices (18) All Outstanding Notices (18)

4/13/2009 11:46:45 AM 172.16.31.20:5101 admin Version 1.2.3384

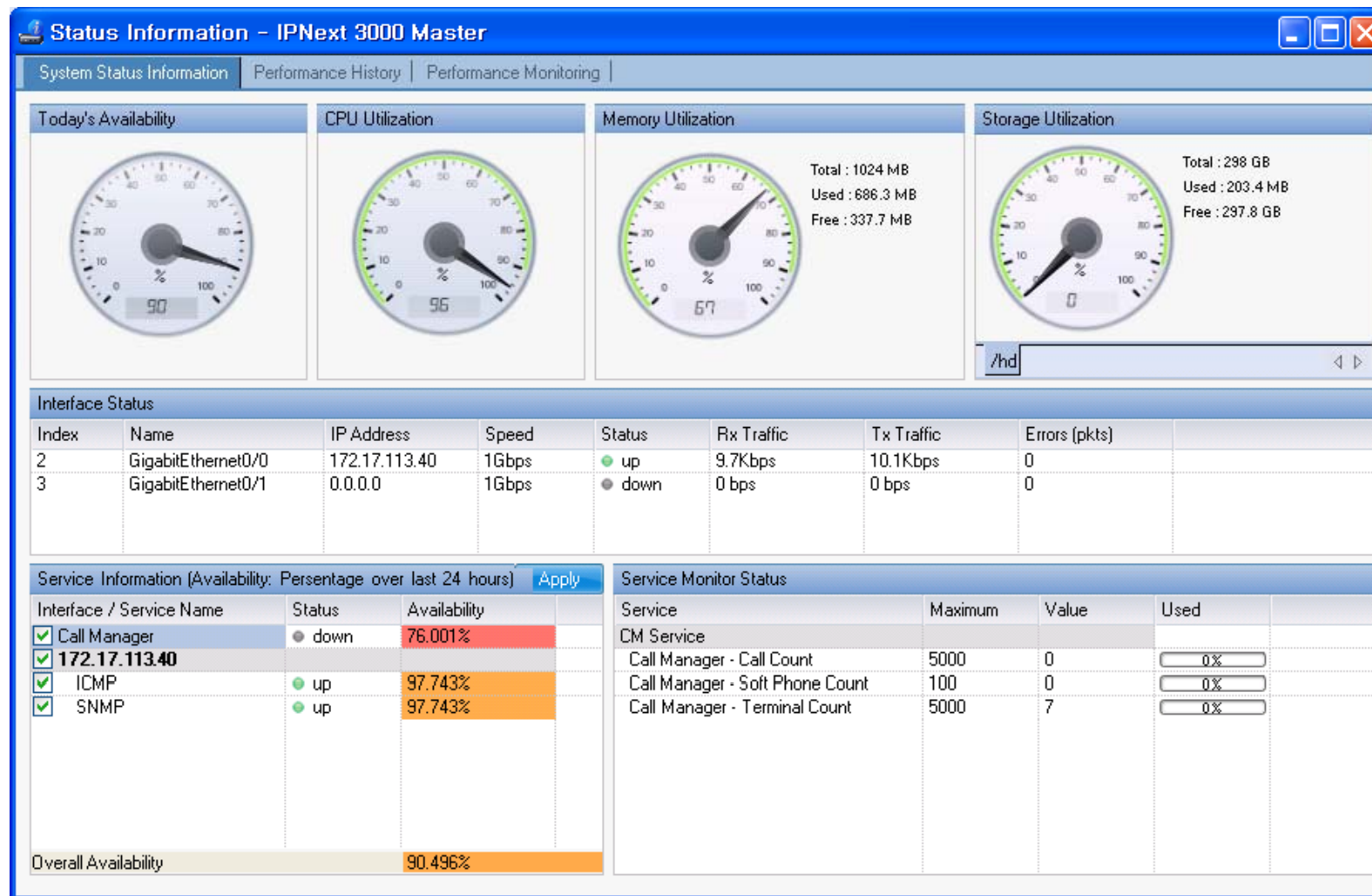
Can view all events for devices with search condition

summarize daily event statistics data

Device Status Information

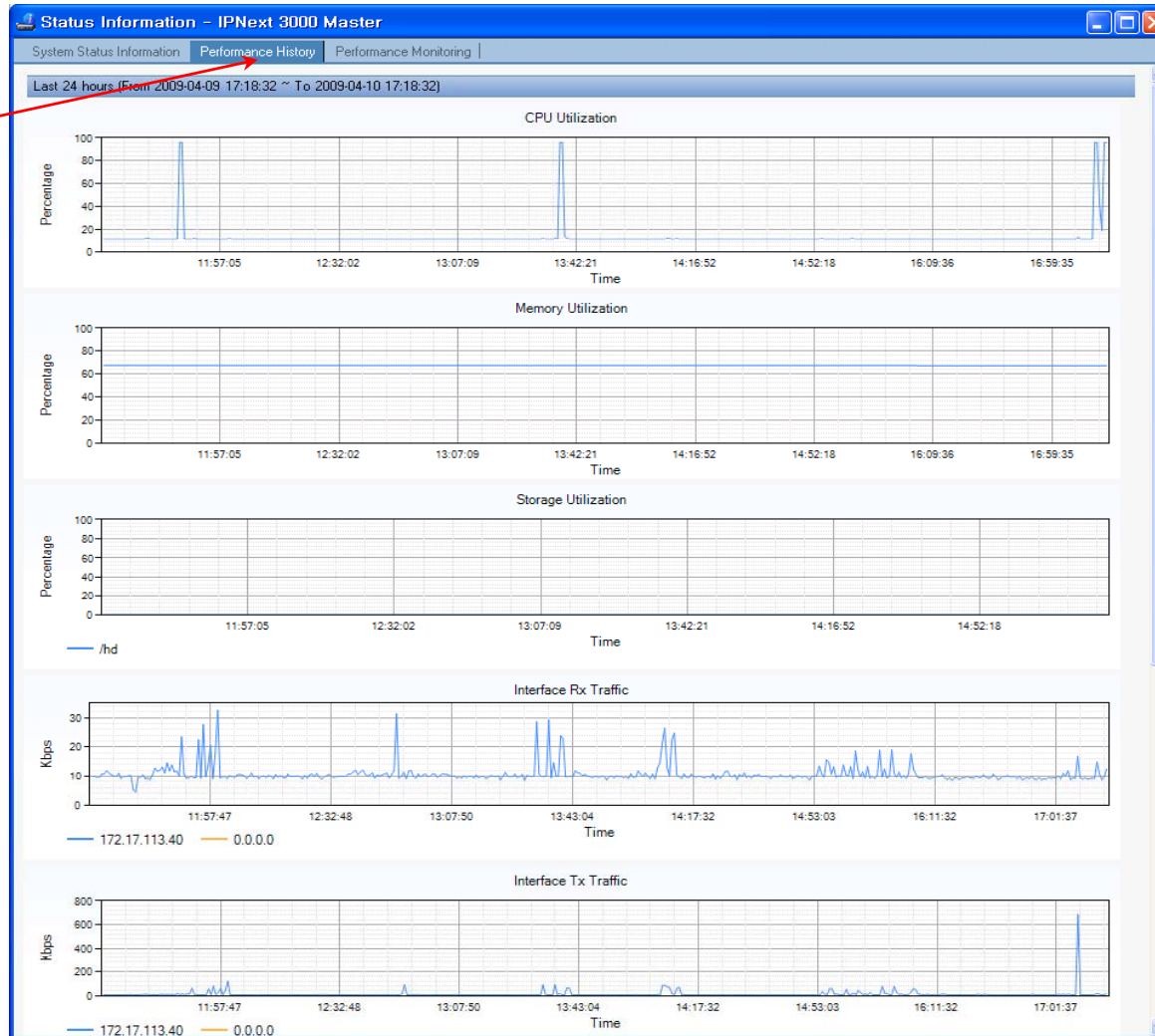
- System Performance Information (CPU, HDD, Memory,...)
- Provide device current service status (up/down)
- Provide device main status (max value vs current value)
- Display Graph Series with System Performance Information
- Monitor Main Status Flow with System Monitoring View

Device Status Information

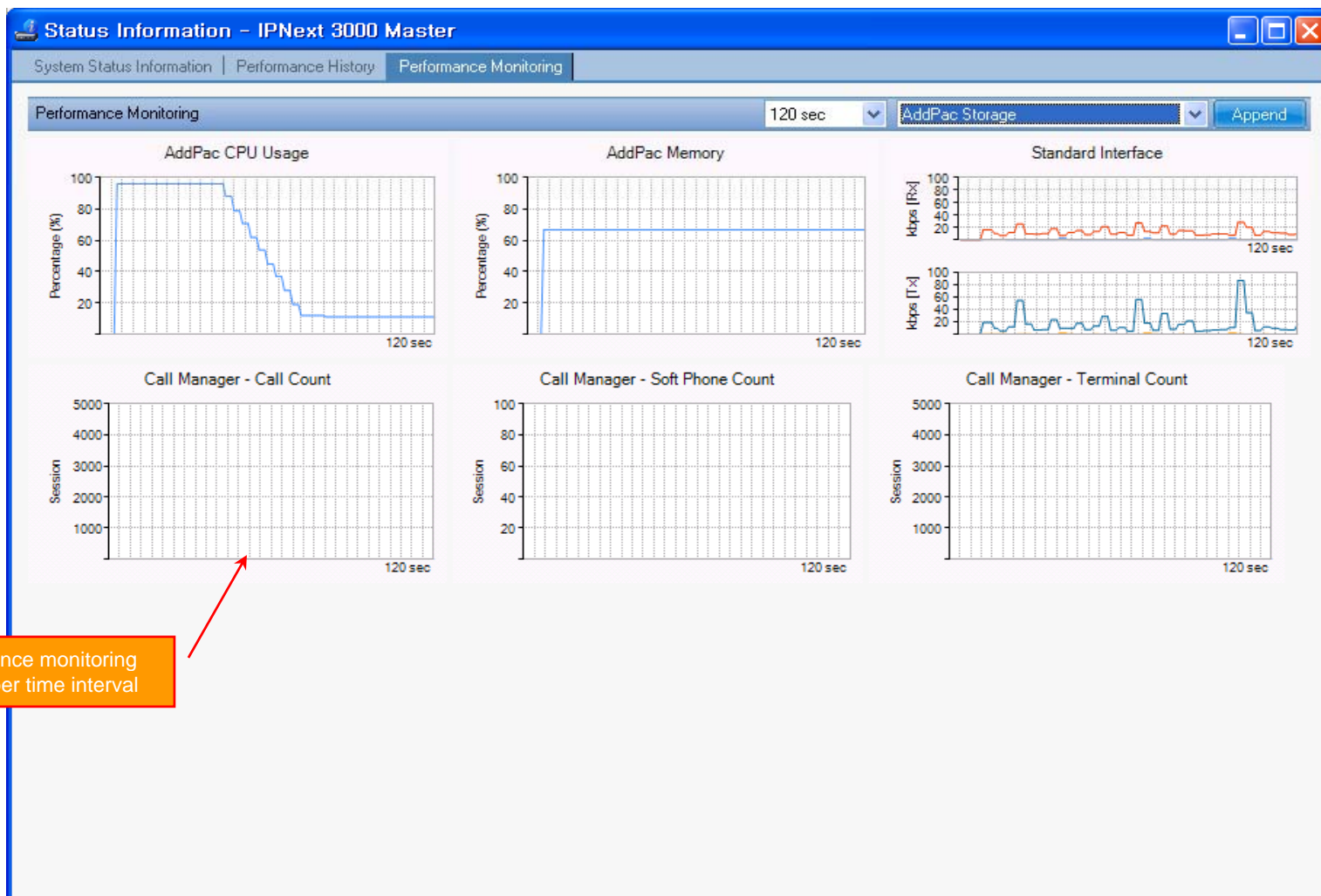


Device Status Information

performance analysis graph for last 24 hours



Device Status Information



performance monitoring with proper time interval

Notification Management

- Notify administrator for important event such as critical device fault when proper action needs
- Provide several notification channel such as SMS, e-mail, alarm lamp
- Notification channel configuration for each event
- Manage notification with device category such as Server, Terminal, PC, etc
- Provide Alarm with audible (play sound), visible (alarm lamp) form

Event Notification Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of devices on the left, a table of event notifications in the center, and a detailed 'Event Notification Properties' dialog box on the right. Three orange callout boxes provide instructions:

- apply notification policy with event-based filter** (example : notify me when network link of device is down through SMS, e-mail)
- specify category when each event occurs**
- describe notification message content for e-mail or SMS**

The 'Event Notification Properties' dialog box shows the following configuration:

- Notification Name: serviceUnresponsive
- Description: test
- Event: Node event: serviceUnresponsive
- Destination Path: default
- Notification Type: sms, alarmLamp, email
- Current Rule: IPADDR IPLIKE ****
- Apply Category: Desktop, Network Camera, Phone, Server, Switch
- Email Subject: Notice #noticeid% :service% service on %interfaceresolve% (%interface%)
- Text Message: The %service% poll to interface %interfaceresolve% (%interface%) on node %nodelabel% successfully completed a connection to the service listener on the remote machine. However, the synthetic transaction failed to complete within %iparam[timeout]% milliseconds, over %iparam[attempts]% attempts. This event will NOT impact service level agreements, but may be an indicator of other problems on that node.
- Special Values: Can be used in both the text message and email subject: %noticeid% = notification ID number, %time% = time sent, %severity% = event severity, %nodelabel% = may be IP address or empty, %interface% = IP address, may be empty, %service% = service name, may be empty, %eventid% = event ID, may be empty.
- Note: If the alert exceeds 80 bytes then the notification will be dispatched in two or more sms.
- Enable Notification:

The 'Your Outstanding Notices (18)' table at the bottom shows the following data:

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server is all services...
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...			
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent.	NMS_SOHO_PBX			
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		

Event Notification Management

The screenshot shows the Smart NMS interface with the 'Destination Path Properties' dialog box open. The dialog is titled 'Destination Path Properties' and has a 'Destination Path Name' field set to 'default'. Below this is a table for 'Initial Target' with columns for 'Notification Type', 'Target', and 'Auto Notify'. The table contains three entries: 'alarmLamp' with target 'alarmLamp' and 'Auto Notify' set to 'on'; 'email' with target 'admin' and 'Auto Notify' set to 'on'; and 'sms' with target 'admin' and 'Auto Notify' set to 'on'. A red callout box with the text 'define notification channel such as e-mail, sms, or alarmLamp' points to the 'alarmLamp' entry. There are 'Add' and 'Delete' buttons below the table. At the bottom of the dialog are 'Help', 'OK', and 'Cancel' buttons.

Notification Type	Target	Auto Notify
alarmLamp	alarmLamp	on
email	admin	on
sms	admin	on

Below the dialog, the 'Your Outstanding Notices (18)' table is visible, showing a list of events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch &N	NMS_IP_PBX_3			device NMS_IP_PBX_3 13 all services down
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

Event Notification Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices and their service availability. Two dialog boxes are open for configuration:

- Destination Path Properties:** Shows a table of notification types and their targets.

Notification Type	Target	Auto Notify
alarmLamp	alarmLamp	on
email	admin	on
sms	admin	on
- Target Properties:** Shows the configuration for a specific target. The 'Send to select user' option is selected, and 'Account Administrator' is chosen from the dropdown menu. A red arrow points to this dropdown.

An orange callout box contains the text: "user account (administrator) setting for SMS, E-mail Notification or specify e-mail address or SMS phone number".

At the bottom of the interface, there is a table of 'Your Outstanding Notices (18)'. The table has columns for Ack, ID, Send Time, Site, Device Name, and IP Address. The following table shows the first few rows of data:

Ack	ID	Send Time	Site	Device Name	IP Address
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server	
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeti...	
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX	
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server	
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...	
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118

Configuration

The screenshot displays the Smart Network Management System (NMS) configuration interface. The main window shows a tree view of devices and a 'Configure Notification' dialog box. The dialog box is titled 'Configure Notification' and has tabs for 'External Notification' and 'Alarm Lamp'. The 'External Notification' tab is active, showing fields for 'Sender Email Address' (nms@addpac.com), 'SMTP Server Host' (61.33.161.2), and an 'Authentication' section with 'Username' and 'Password' fields. A red arrow points from an orange callout box labeled 'global notification channel configuration' to the dialog box. The background shows a table of 'Current Outage Devices' and a 'Your Outstanding Notices' list at the bottom.

Name	Service...	Availability
AddPac		
Branch AQ		
NMS Camera	6 of 12	50.000 %
NMS_IP_PBX...	3 of 3	0.000 %
Branch GX		
00_IVR_server	3 of 3	0.000 %
00_IVR_slave...	3 of 3	0.000 %
00_FS_server	3 of 3	0.000 %
00_IPS_slave...	2 of 3	33.333 %
00_RBT_server	3 of 3	0.000 %
IPNext 3000 ...	1 of 3	66.667 %
IPNext 3000 S...	1 of 3	66.667 %
UMS slave	3 of 3	0.000 %
HeadQuarter		
5th floor meeti...	1 of 1	0.000 %
UMS serverfo...	3 of 3	0.000 %
Subnetwork #2		
Center		
NMS_SOHO_...	2 of 2	0.000 %

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS_Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

Audible & Visible Alarm

notify operator (or administrator)
 1. Alarm lamp blink (on&off) (visible)
 2. play alarm sound (audible)

can synchronize with alarm lamp equipment

Site	Type	Outages	Availability	Description
AddPac	Sub Netw...	32 / 12 / 32	52%	AddPac Technology C...
Seoul	Sub Netw...	2 / 1 / 2	33%	Seoul subnetwork

Category	Outages	Availability
Desktop	0 / 0 / 1	100%
Network Camera	6 / 1 / 2	57%
Phone	1 / 1 / 3	66%
Server	27 / 11 / 22	42%
Switch	0 / 0 / 0	100%
WiFi Gateway	0 / 0 / 6	100%

Overall Availability		34 / 13 / 34	27.690 %
Overall Categories Availability		34 / 13 / 34	49.470 %

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuater	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cont...	NMS_SDHO_PBX			device NMS_SDHO_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or deleted by administrator
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator
<input type="checkbox"/>	9236	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device(NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator
<input type="checkbox"/>	9235	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device(NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator

Fault Statistics

- analyze for a fault event with graph and detailed list data
- Report form generation and print out for statistics result

Fault Statistics

The screenshot displays the Smart Network Management System (NMS) interface. The top navigation bar includes 'NMS', 'Account', 'Configuration', 'Monitoring', 'Notification', 'Fault', 'Statistics', 'View', and 'Help'. The main content area is divided into several sections:

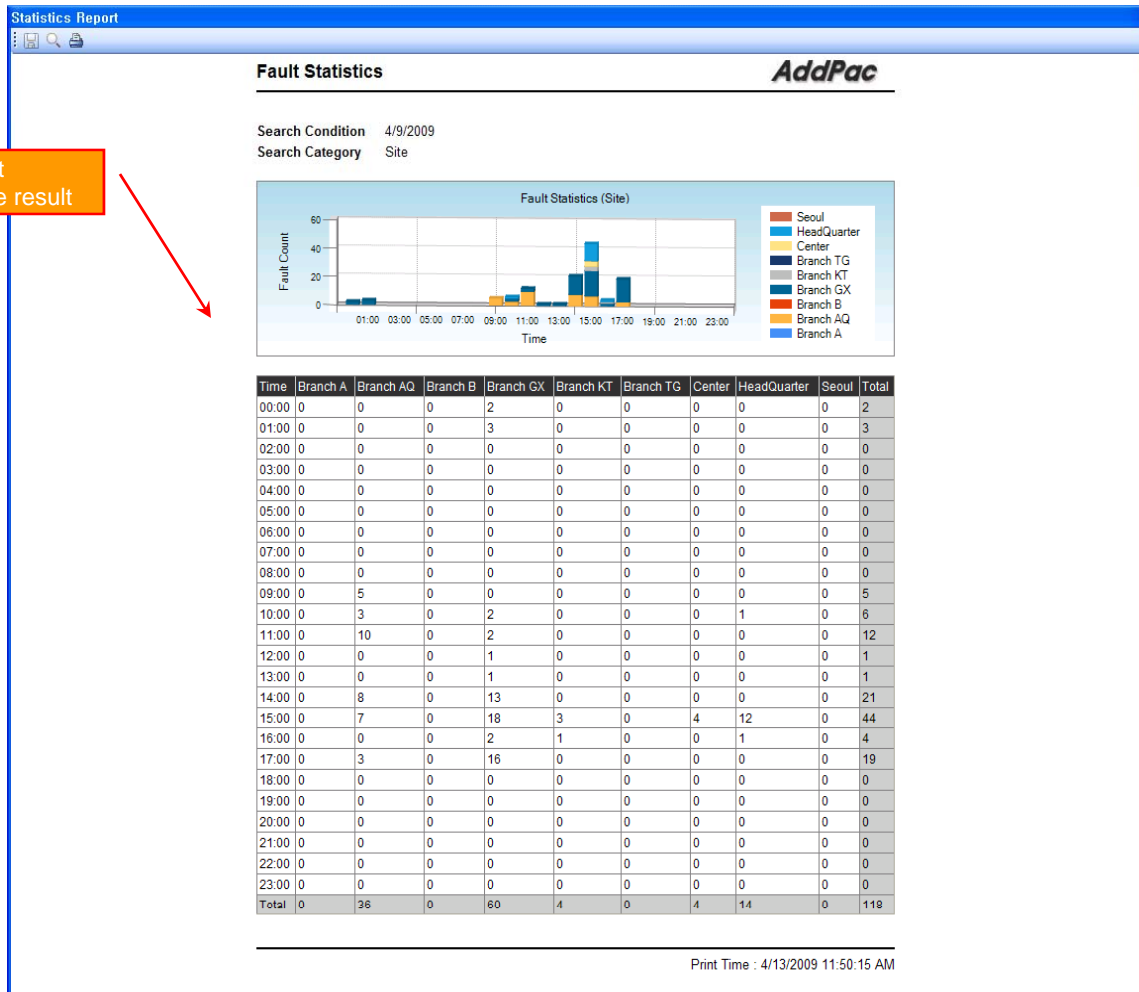
- Event Summary Table:** A table on the left showing event details with columns for Event Time, Outsta..., Ackno..., Not Clea..., Cleared, and In Pr... The data spans from 2009-04-04 to 2009-04-13.
- Search Condition:** A search bar with 'Hour' selected, a date range of '4/ 9/2009' to '3/30/2009', and a 'Site' dropdown set to 'Branch A, Branch AQ, B'.
- Fault Statistics (Site):** A bar chart showing fault counts over time (01:00 to 23:00) for various sites. The legend includes Seoul, HeadQuarter, Center, Branch TG, Branch KT, Branch GX, Branch B, Branch AQ, and Branch A.
- 4/9/2009 Detailed Data Table:** A table showing fault counts for each hour of the day across different sites. The total fault count for the day is 118.
- Your Outstanding Notices (18):** A table at the bottom showing notification details including Ack ID, Send Time, Site, Device Name, IP Address, Service, and Message.

Two orange callout boxes provide additional context:

- Top Callout:** 'display graph for fault statistics with various search condition' (with a red arrow pointing to the search bar).
- Bottom Callout:** 'display detailed data for fault statistics' (with a red arrow pointing to the detailed data table).

Fault Statistics – Report Generation

report generation for fault statistics and print out the result



Model & Service Management

- Define new model with provided template image & properties
- Customize data collection with standard protocol such as TCP, SNMP

Device Model Management

manage device model with various properties such as model image

model image repository for selection

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

Smart Network Management System

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Site Event Summary Service Outages Event Notification Destination Paths Users View Current Outages View Outages View Events Fault Statistics Device Model

Name Description

AddPac	AddPac Technology C...
Branch AQ	Branch AQ
Branch GX	Branch GX description
Branch KT	Branch KT
HeadQuarter	Main HeadQuarter Cen...
Seoul	Seoul subnetwork
Seoul East Area	Seoul East Area
SongPaGu Area Ce...	SongPaGu Area Center
Subnetwork #2	Subnetwork #2
Branch TG	Yeoksam Area
SeoChoGu	seoul seocho district
Seoul West Area	Seoul West Area
Uangseo Area	Uangseo Area
Seoul	
MokDong Area	MokDong Area

Model Name Category

AP-IP200	Phone
AP-IP300	Phone
AP-IPC	Network Camera
AP-IPC250M	Network Camera
AP-IVR1000	Server
AP-MC1000	Server
AP-MC3000	Server
AP-MC5000	Server
AP-NR2000	Server
AP-PS2000	Server
AP-RBT1000	Server
AP-RS2000	Server
AP-UMS1000	Server
AP-UMS2000	Server
AP-VC2000	Phone
AP-VP200	Phone
AP-VP300	Phone
AP-VP350	Phone
AP-VP500	Phone
IPNext1000	Server
IPNext1800	Server
IPNext200	Server

Device Model Properties

General Service Availability System Monitoring Service Monitoring

Model Name AP-IPC250M

Category Network Camera

Management by SSCP

SSCP Port 5061 (1*65535)

Model Image

Model Image Management

Your Outstanding Notices (18)

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting			device 5th floor meeting room phone device, all services are down
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHD_PBX			device NMS_SOHD_PBX, all services are down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41 (172.17.113.41) device (IP
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IP
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			Call Manager 2009-4-10 11:37:12 failed
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device 00_IVR_server all services are down.
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device NMS_IP_PBX_31.13 all services down.
<input type="checkbox"/>	9238	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera 2) interface 172.16.253.118 response or delete by administrator
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118
<input type="checkbox"/>	9236	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118

Total models : 30

4/13/2009 1:42:39 PM 172.16.31.20:5101 admin Version 1,2,3384

Service Definition

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of sites on the left and a list of services in the center. A red arrow points from an orange callout box to the 'Camera Operation Status' service in the list. Two 'Service Properties' dialog boxes are open, showing configuration details for this service.

Service Properties (Top Dialog):

- General | SNMP
- Service Name: Camera Operation Status
- Protocol: SNMP
- Port: 161
- Interval: 30000 (msec)
- Timeout: 3000 (msec)
- Retry: 3

Service Properties (Bottom Dialog):

- General | SNMP
- Service OID: 1.3.6.1.4.1.4895.7.51.1.3.0
- Service Condition:
 - Operator: =
 - Operand: 1

Service List (Bottom Table):

Site	Device Name	IP Address	Service	Message
/AddPac/Branch GX	00_RBT_server		Call Manager	device 00_RBT_serv
/AddPac/Branch AQ	00_IVR_server		Call Manager	device 00_IVR_serv
/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	interface 172.17.113.41
/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40
/AddPac/Branch GX	00_IVR_server		Call Manager	Call Manager 2009-4-
/AddPac/Branch AQ	NMS_IP_PBX_3		Call Manager	interface 172.17.113.113
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	Call Manager	device NMS_IP_PBX_3
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera response or delete by
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera response or delete by
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera response or delete by
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera response or delete by
/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	ICMP	device (NMS Camera response or delete by

define the service for data collection, current status with standard protocol such as TCP or SNMP



Thank you!

AddPac Technology Co., Ltd.
Sales and Marketing

Phone +82.2.568.3848 (KOREA)

FAX +82.2.568.3847 (KOREA)

E-mail : sales@addpac.com