

SOHO VoIP Gateway Solution



SOHO VOIP Gateway Solution

- AP100 VoIP Gateway
- AP190 VoIP Gateway
- AP200 VoIP Gateway
- AP250 VoIP Gateway
- AP700 VoIP Gateway
- AP800 VoIP Gateway
- AP1000 VoIP Gateway
- AP1002 VoIP Gateway
- AP1005 VoIP Gateway

Learn More >

The banner features a blue gradient background with five VoIP gateway devices of varying sizes and colors (black, blue, white, and blue/white) arranged in a row on a reflective surface.

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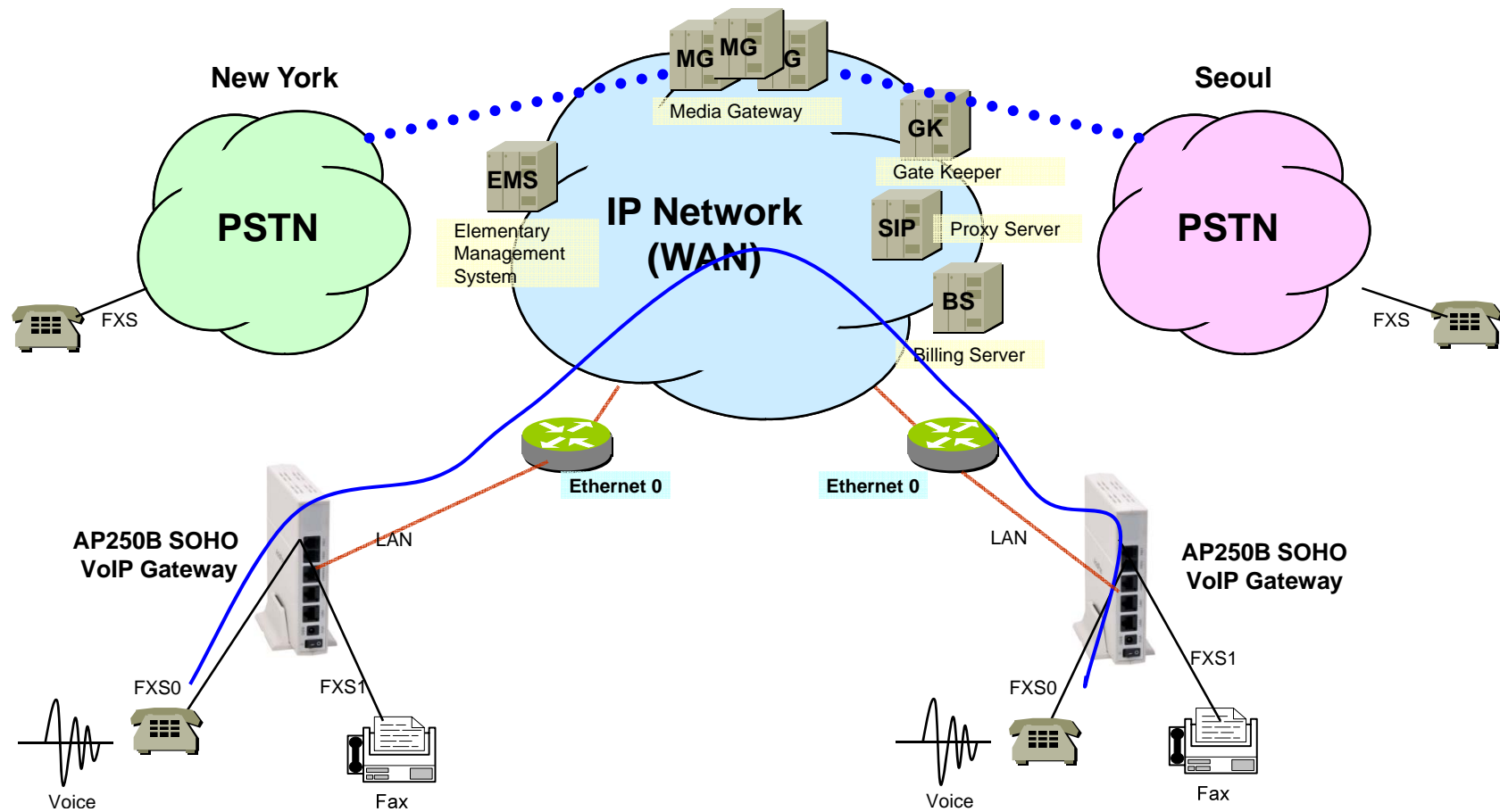
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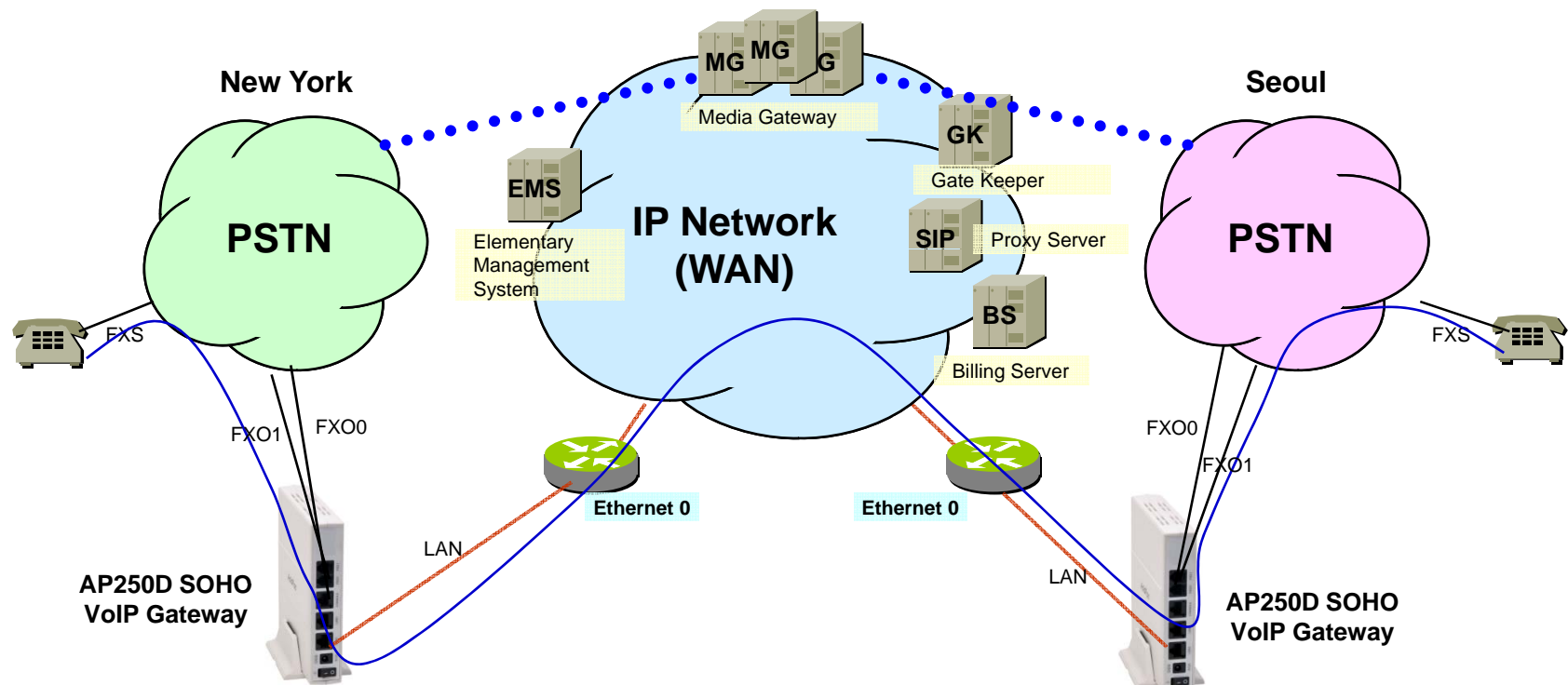
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- VoIP Gateway Service Diagram
- VoIP Gateway Comparison Table
 - VoIP Gateways for SOHO (1~2 Port)
 - VoIP Gateways for SMB (~4 Port)
- VoIP Modules for Rack Mountable Equipment
- VoIP Gateway Service Features
- VoIP Gateway Smart Web Manager
- VoIP Gateway Smart Network Management (AP-SNMS)



VoIP Gateway Service Diagram (FXS Port)



VoIP Gateway Service Diagram (FXO Port)



VoIP Gateways for SOHO(1~2Port)

Product	AP100		AP100B		AP190	AP200		AP250	
									
Model	Type	VoIP	Type	VoIP		Type	VoIP	Type	VoIP
	P	PSTN Backup	B	2FXS, PSTN Backup		B	2FXS, PSTN Backup	B	2FXS, PSTN Backup
						D	2FXO	D	2FXO
						E	1FXS, 1FXO		
VoIP Ports	1		2		1	2		2	
Signaling	SIP, H.323		SIP, H.323		SIP, H.323	SIP, H.323		SIP, H.323	
Module Slot	N/A		N/A		N/A	N/A		N/A	
LAN Port	2		2		2	2		2	
Console	N/A		N/A		Support	Support		Support	
Power	External Adaptor		External Adaptor		External Adaptor	External Adaptor		External Adaptor	

VoIP Gateways for SMB (4 Port)

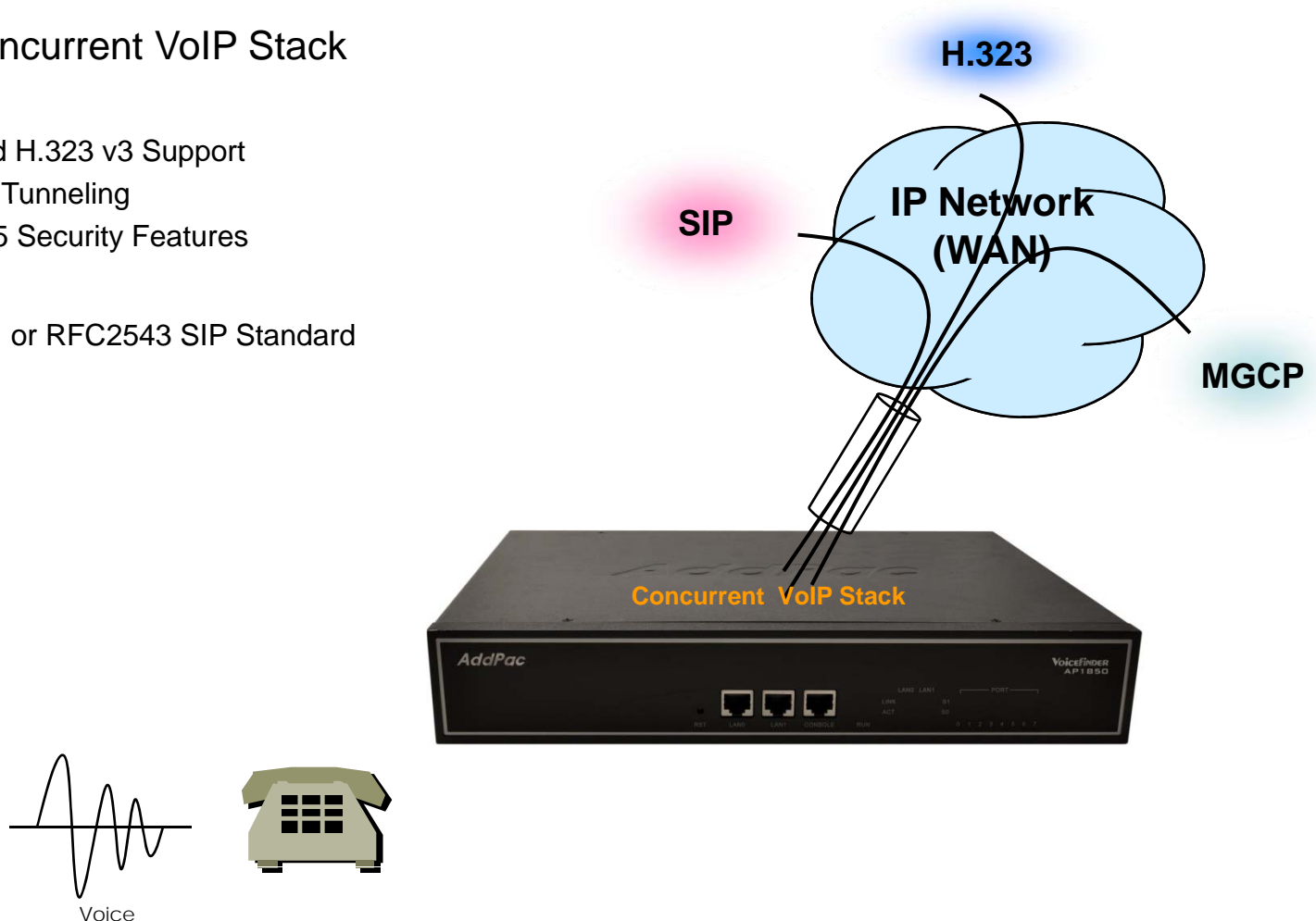
Product	AP700		AP1000	AP1002	AP1005	AP800	
							
Model	Type	VoIP				Type	VoIP
	P	1-Port PSTN Backup				A	1-Port PSTN Backup
						B	4-Port PSTN Backup
VoIP Ports	4-Port FXS		4-Port FXS	2-Port FXS & 2-Port FXO	4-Port FXO	4-Port FXS	
Signaling	SIP, H.323		SIP, H.323	SIP, H.323	SIP, H.323	SIP, H.323	
Module Slot	N/A		N/A	N/A	N/A	N/A	
LAN Port	2		2	2	2	2	
Console	Support		Support	Support	Support	Support	
Power	External Adaptor		External Adaptor	External Adaptor	External Adaptor	External Adaptor	



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

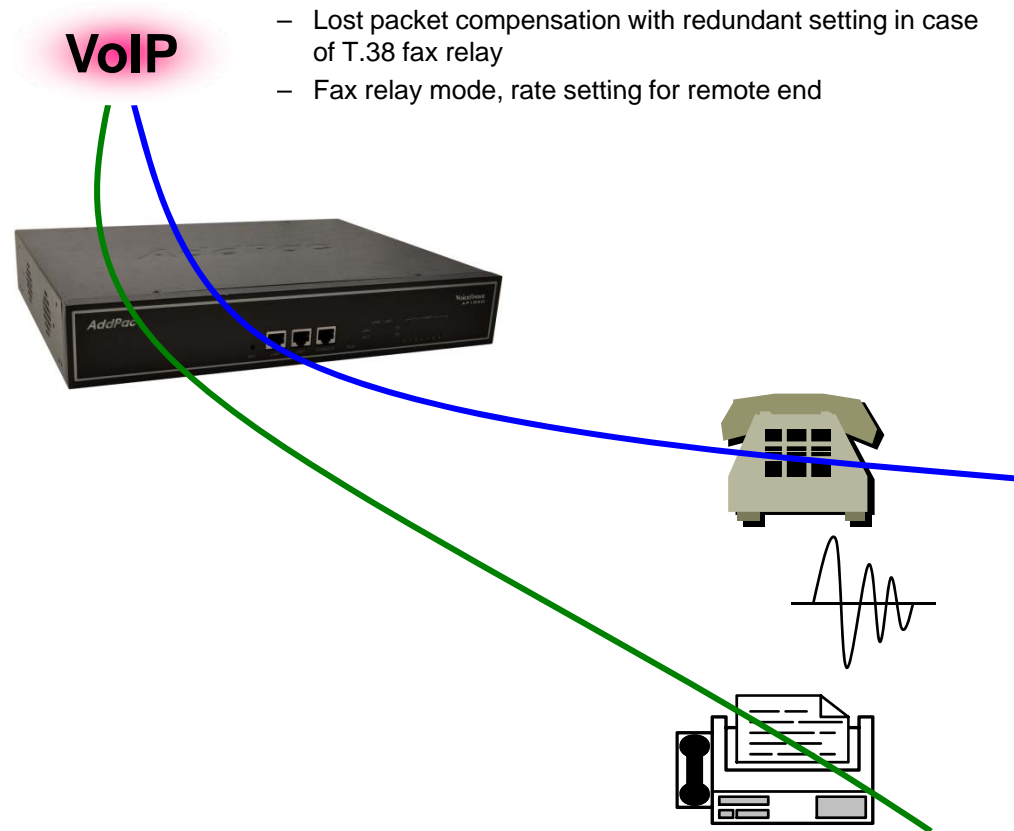
- G.711 A-Law, G.711 U-Law
- G.726 r16, G.726 r32
- G.729A
- G.723.1 r63, G.723.1 r53
- VAD (Voice Activity Detection) function support
- DTMF relay support (H.323, SIP, MGCP common) based on RFC2833

- RTP

- Redundant RTP packet transmission in case of severe packet loss
- Dynamic jitter buffer management and RPT 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



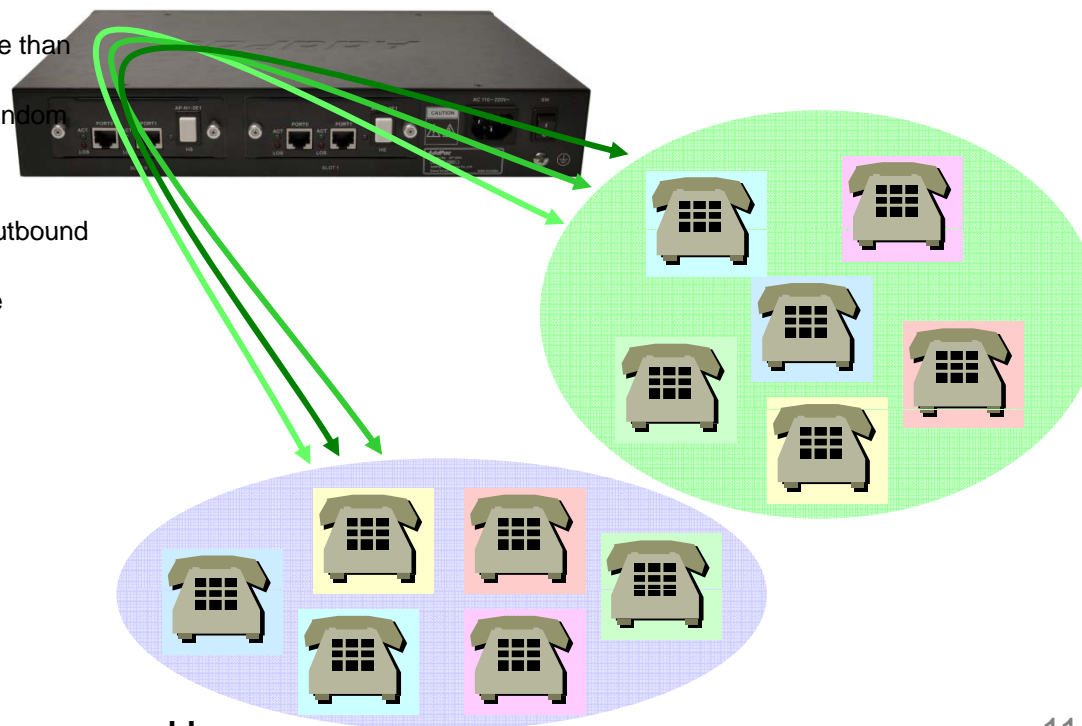
VoIP (Voice over IP) Service

• 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



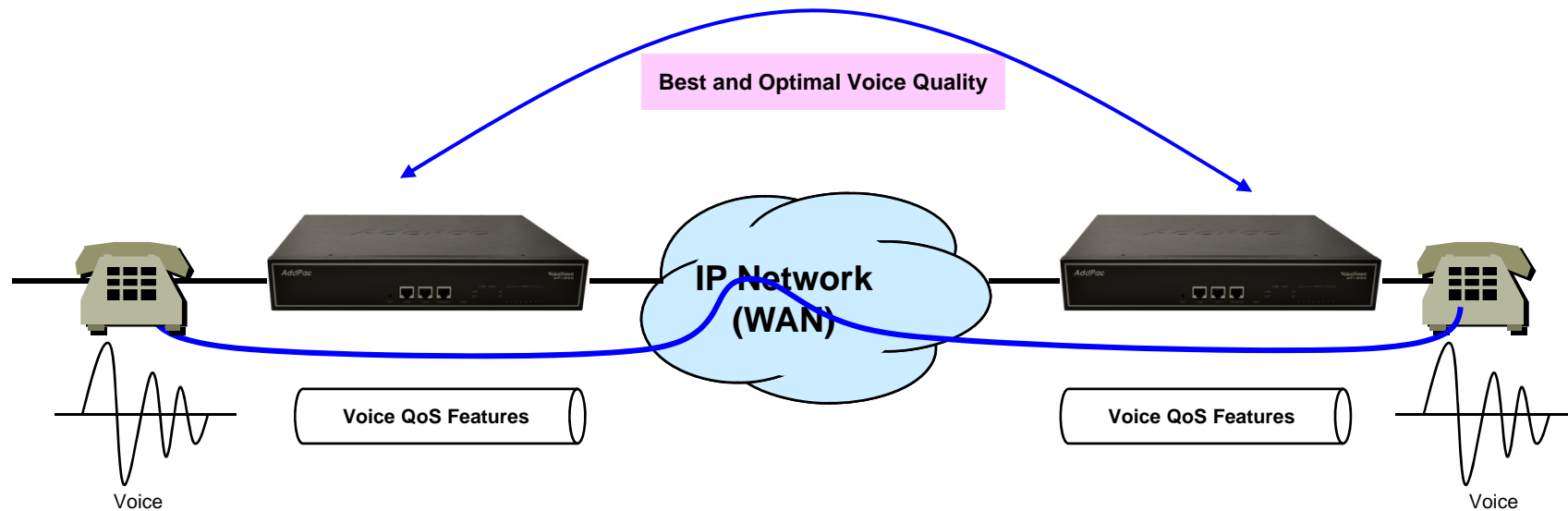
Advanced QoS Features

- 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

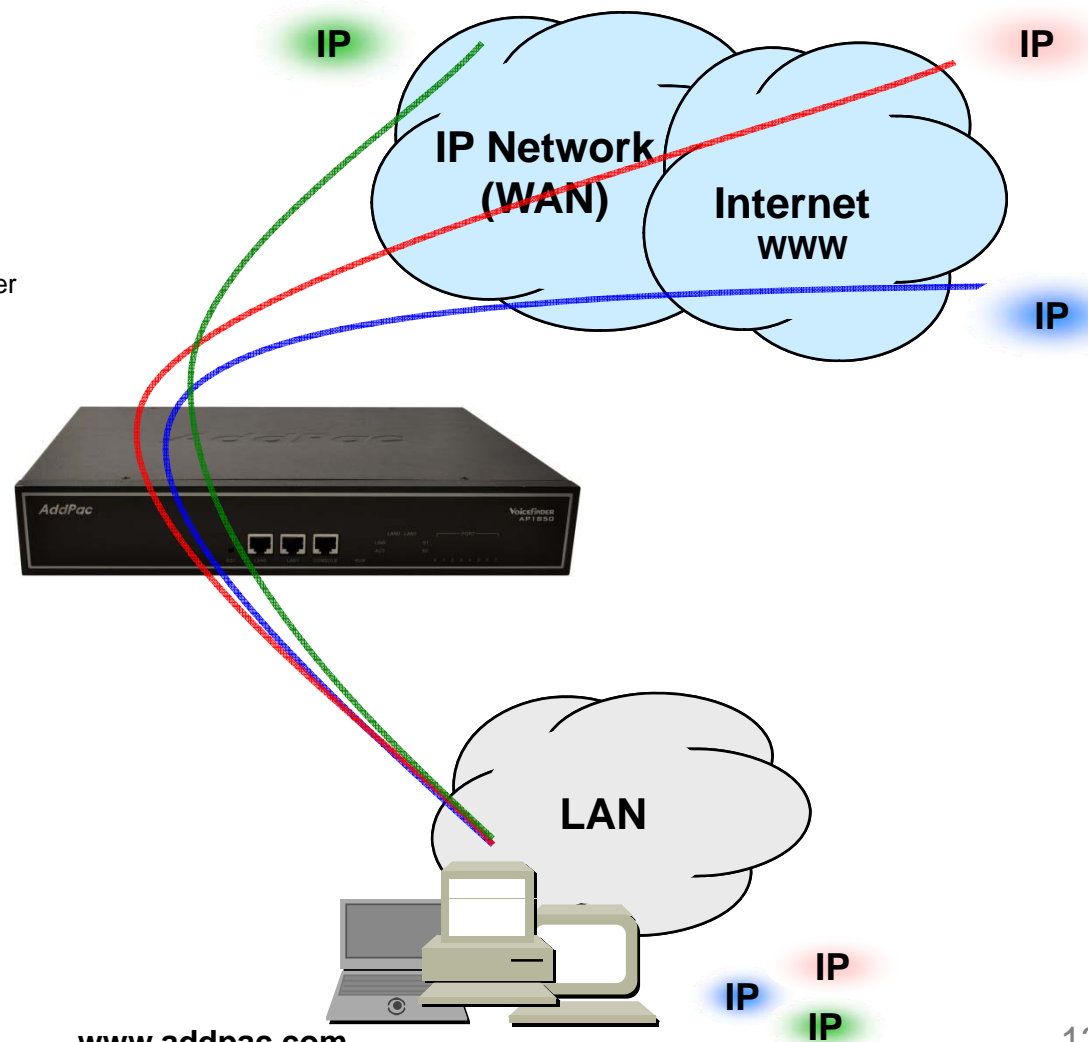
- Enhances Receive Voice QoS Features

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



Network Protocols

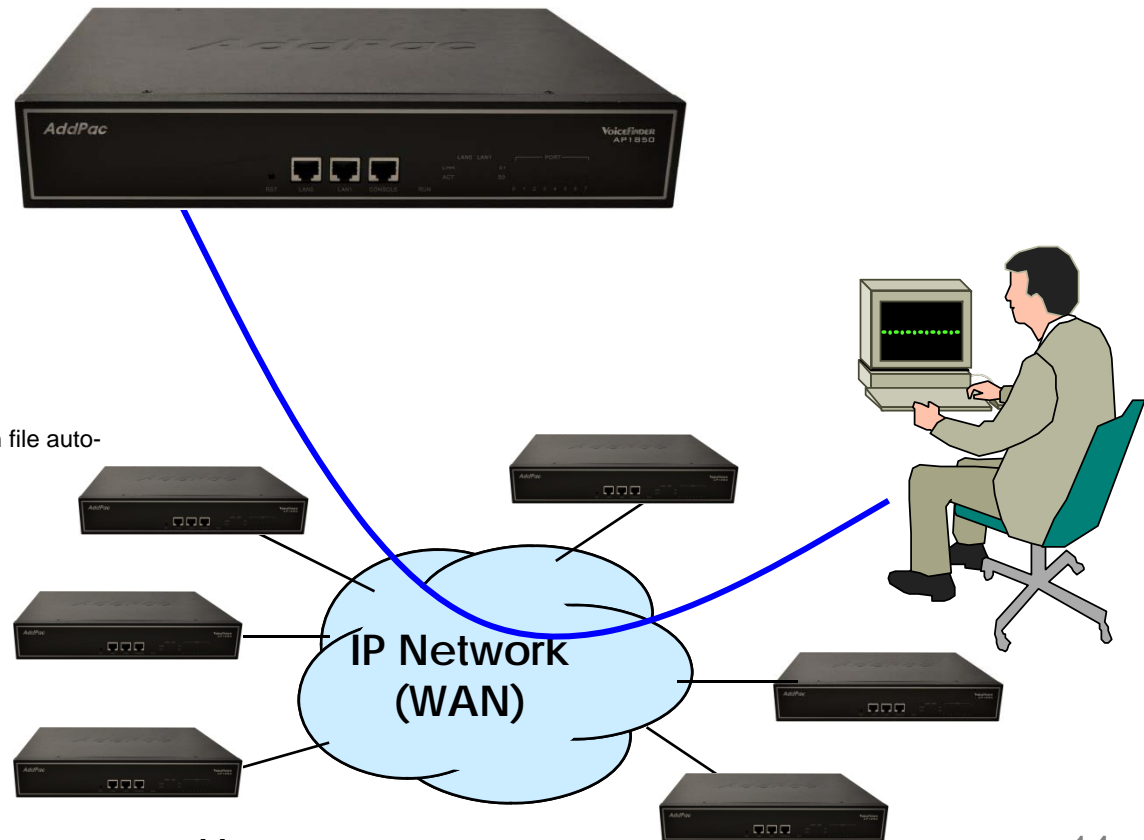
- **Basic Network Protocols**
 - ARP, IPv4, TCP, UDP, ICMP, SCTP, IGMP, MLD
- **Routing Protocol**
 - IPv4 : Static
- **Service Protocol**
 - FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
 - CDP (Cisco Discovery Protocol)
 - DNS Resolver , DDNS(nsupdate)
 - Bridge
 - Syslog
- **IPv4 Address Configuration**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



Network Management

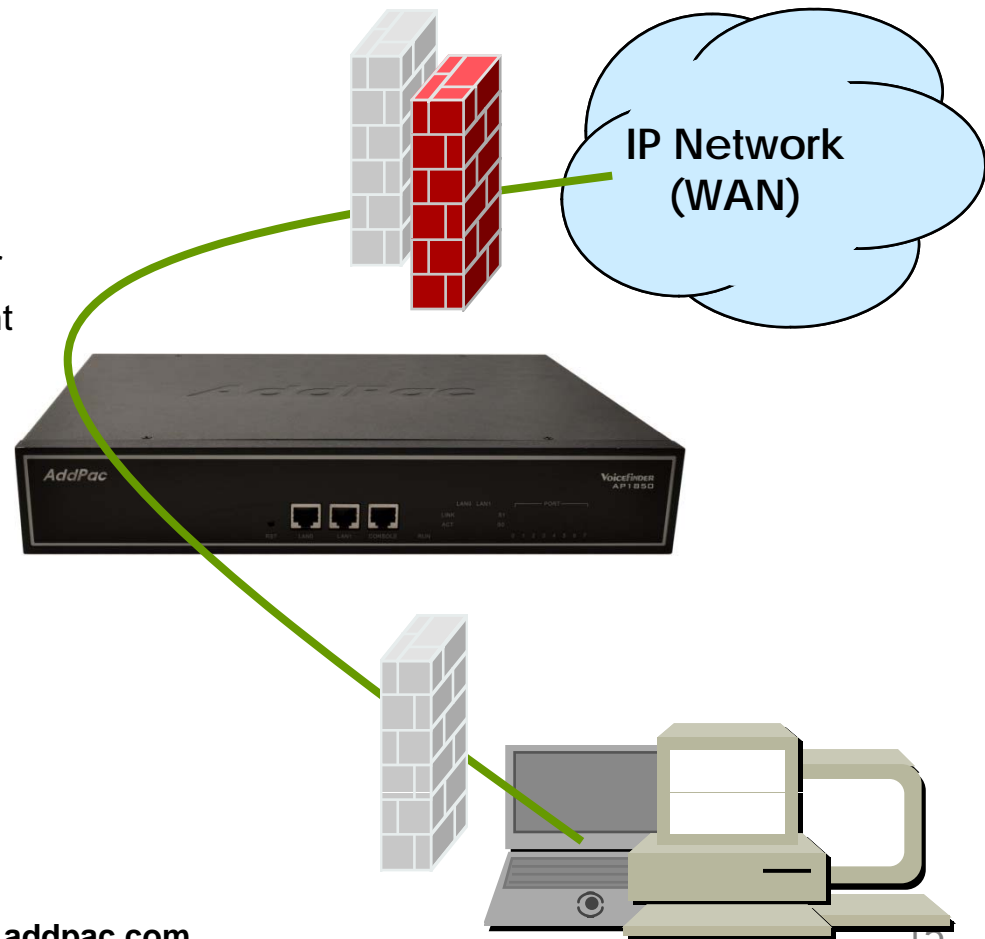
- **SNMP**
 - Standard Simple Network Management Protocol(SNMP) Agent support
 - MIB v1 and v2 Support
- **Web-based Management**
 - Smart Easy Setup
 - Standard Voice Interface
 - Standard PSTN Back-up Interface
- **Watch-dog Function**
 - Hardware, Software watch-dog services
- **Remote Management**
 - 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

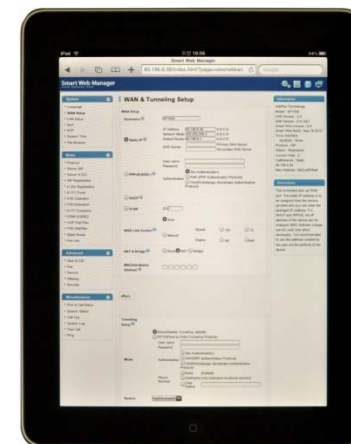
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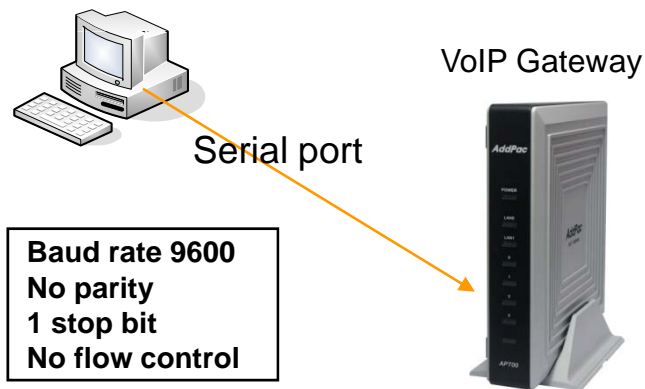
Contents

- 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

IP Address Configuration via RS232C Console Port



Login ID/Password :
root/router

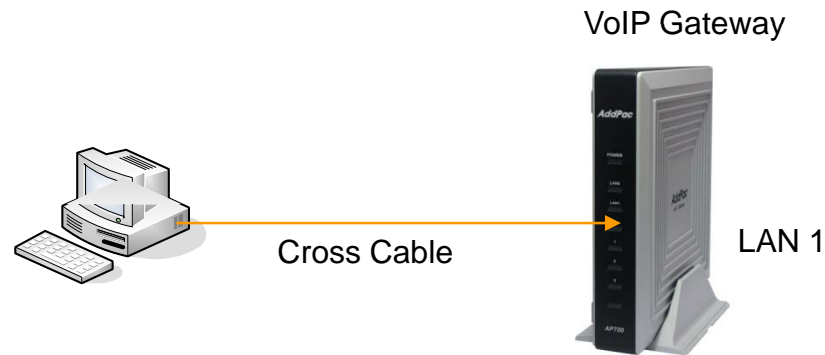
1. Connect to VoIP Gateway via console port to enter IP address in order to set Interface 0/0
2. Input IP address of interface 0/0 using below command
3. Connect to the IP address via web after saving

```
Router> enable
Router# configure terminal
Router(config)# interface FastEthernet 0/0
Router(config-if)# ip address <IP Address> <Subnet Mask>
Router(config-if)# exit
Router(config)# ip route 0.0.0.0 0.0.0.0 <Default Gateway>
Router(config)# write
Proceed with write? [confirm]
```

=> Enter the enable mode
=> Enter the configuration mode
=> Ex) ip address 172.17.109.1 255.255.0.0
=> Ex) ip route 0.0.0.0 0.0.0.0 172.17.1.1
=> saving

Web Connection

Web Connection via LAN 1 Port



LAN 1 Default IP address
IP Address : 192.168.10.1
Subnet mask : 255.255.255.0

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

AddPac

User name:

Password:

Remember my password

OK Cancel

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

ID : root

Password : router

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

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: 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
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

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, a main configuration area, and an information panel on the right. Three yellow callout boxes provide additional context for the configuration options:

- None**: It is configured by default IP.
- IP Share**: This is sharing of LAN0.
- Static**: This is configured directly by user.

The main configuration area is titled 'LAN Setup' and contains three radio button options: 'None' (selected), 'IP Share (IP Connect)', and 'Static'. The 'IP Share' and 'Static' sections are enclosed in red dashed boxes. The 'IP Share' section includes fields for 'IP Address' (192.168.10.1) and 'Network Mask' (255.255.255.0). The 'Static' section includes a checkbox for 'Enable DHCP Server', a 'Default Lease time' field (0), an 'Address Range' field, and a 'DNS Server' field. An 'Apply' button is located at the bottom left of the configuration area.

The right sidebar contains an 'Information' panel with the following details:

- AddPac Technology
- Model : AP1800
- H/W 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

Below the information panel is a 'Description' panel with the following text:

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
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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
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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

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 shows the 'System Time' configuration page in the Smart Web Manager interface. The page title is 'System Time'. The current time is displayed 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. Below the set system time fields is an 'Apply' button with a green checkmark. A yellow box with a black border contains the text 'System Time Configure Local Time' and is connected to the 'Set System Time' fields by a black line. The left sidebar shows a menu with 'System Time' selected. The right sidebar shows 'Information' and 'Description' sections.

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

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
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 – File Browser

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
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- 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
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System

- Language
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- LAN Setup
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- NTP
- System Time
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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

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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

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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

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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

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"/>	<input type="button" value="Delete"/> <input type="button" value="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"/>	<input type="button" value="Delete"/> <input type="button" value="Apply"/>

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

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
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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
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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

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

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

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 shows the Smart Web Manager interface for configuring DTMF and CODEC settings. The main content area is titled "DTMF/CODEC" and contains two sections: "Voice CODEC" and "DTMF Relay mode".

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)

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

DTMF/CODEC

Voice CODEC

Preference 1	None
Preference 2	None
Preference 3	None
Preference 4	None
Preference 5	None
Preference 6	None

DTMF Relay mode

- 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

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

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 GSM Dial Plan and Prefix table

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

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"/>	<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

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

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
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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

Smart Web Manager
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System

- Language
- WAN Setup
- LAN Setup
- NAT

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

System Status

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

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
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- SIP Registration
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- 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

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

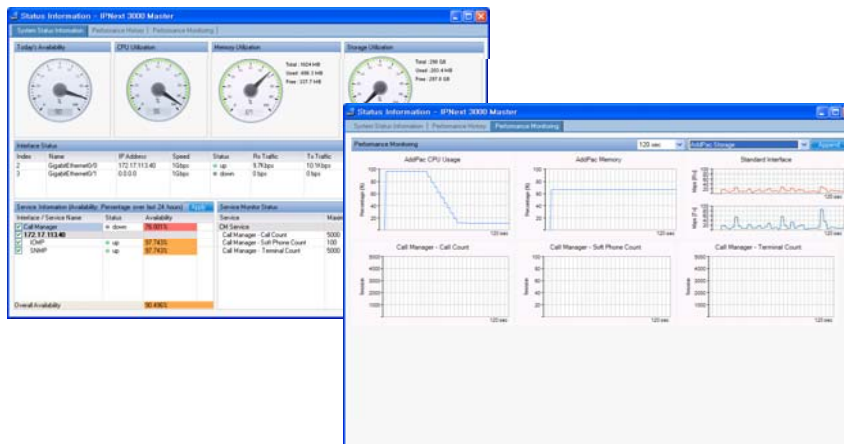
AddPac Technology
Model : AP1800
HW Version : 2.0
SW Version : 8.41.027
Smart Web Version : 0.4
Smart Web Build : Sep 16 2010
Voice Interface
S(4)O(4) : None
Protocol : SIP
Status : Unregistered
Current Calls : 0
CallNetwork : Static 0.0.0.0
Mac Address : 0002.a4ff.f6a4

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.

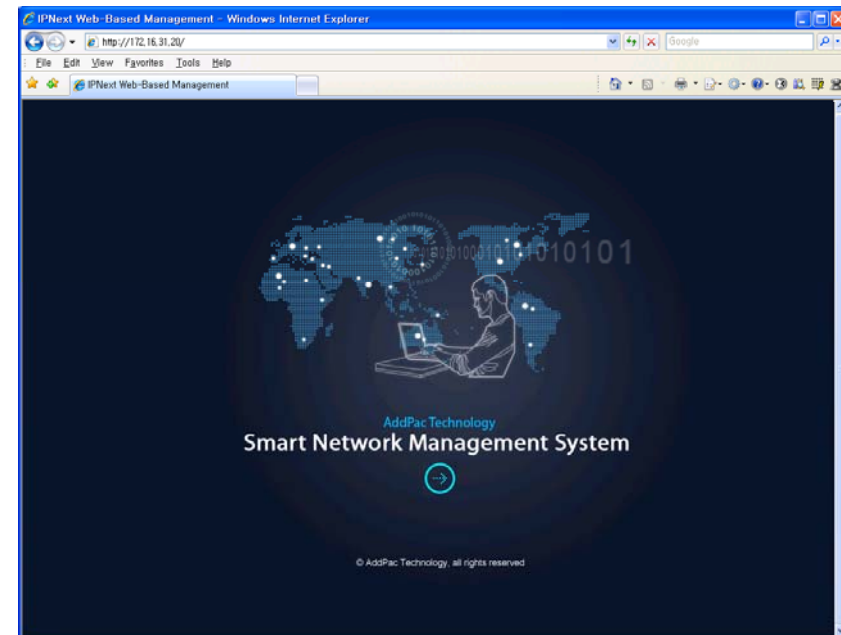
Smart NMS

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

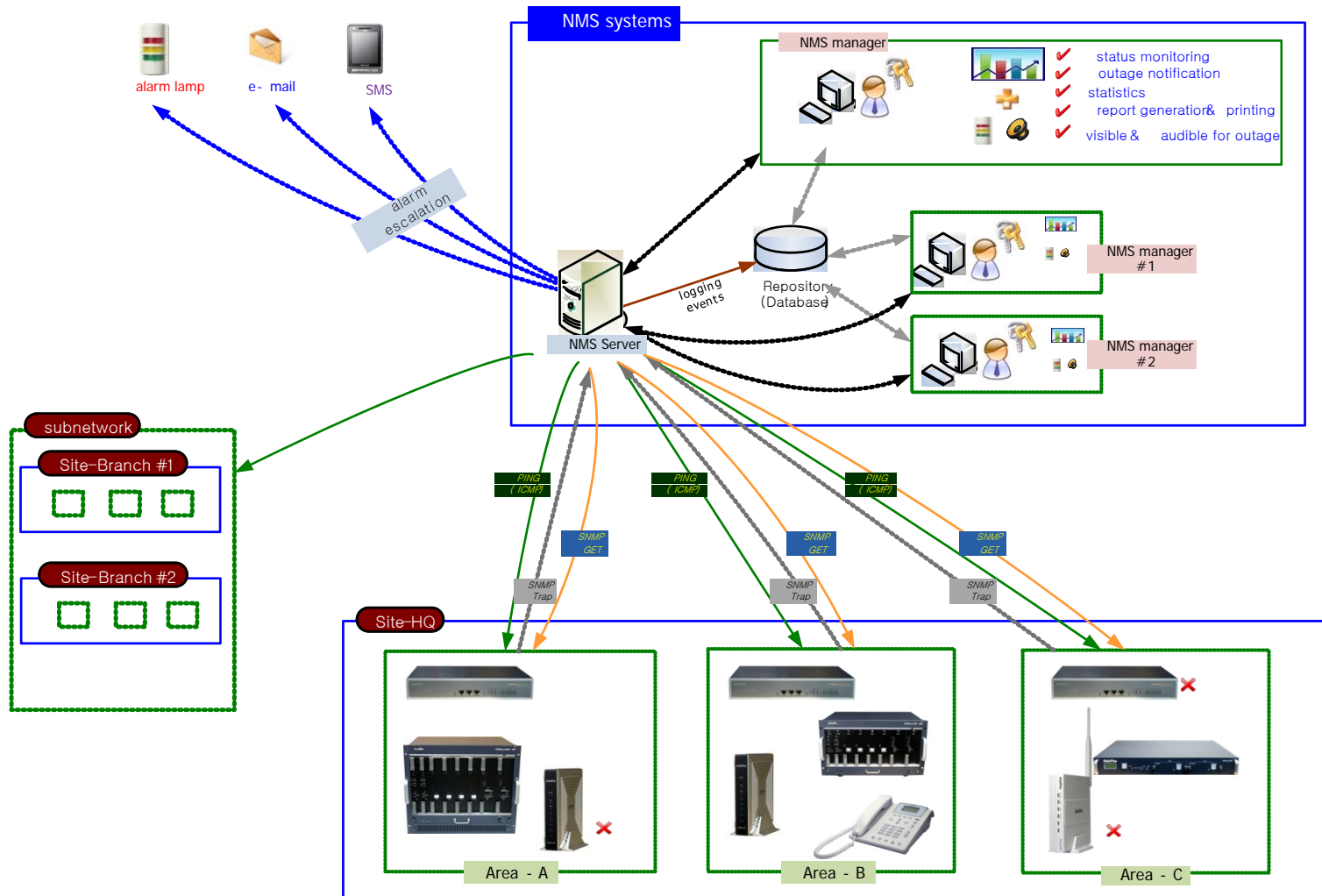
NMS Server

- 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

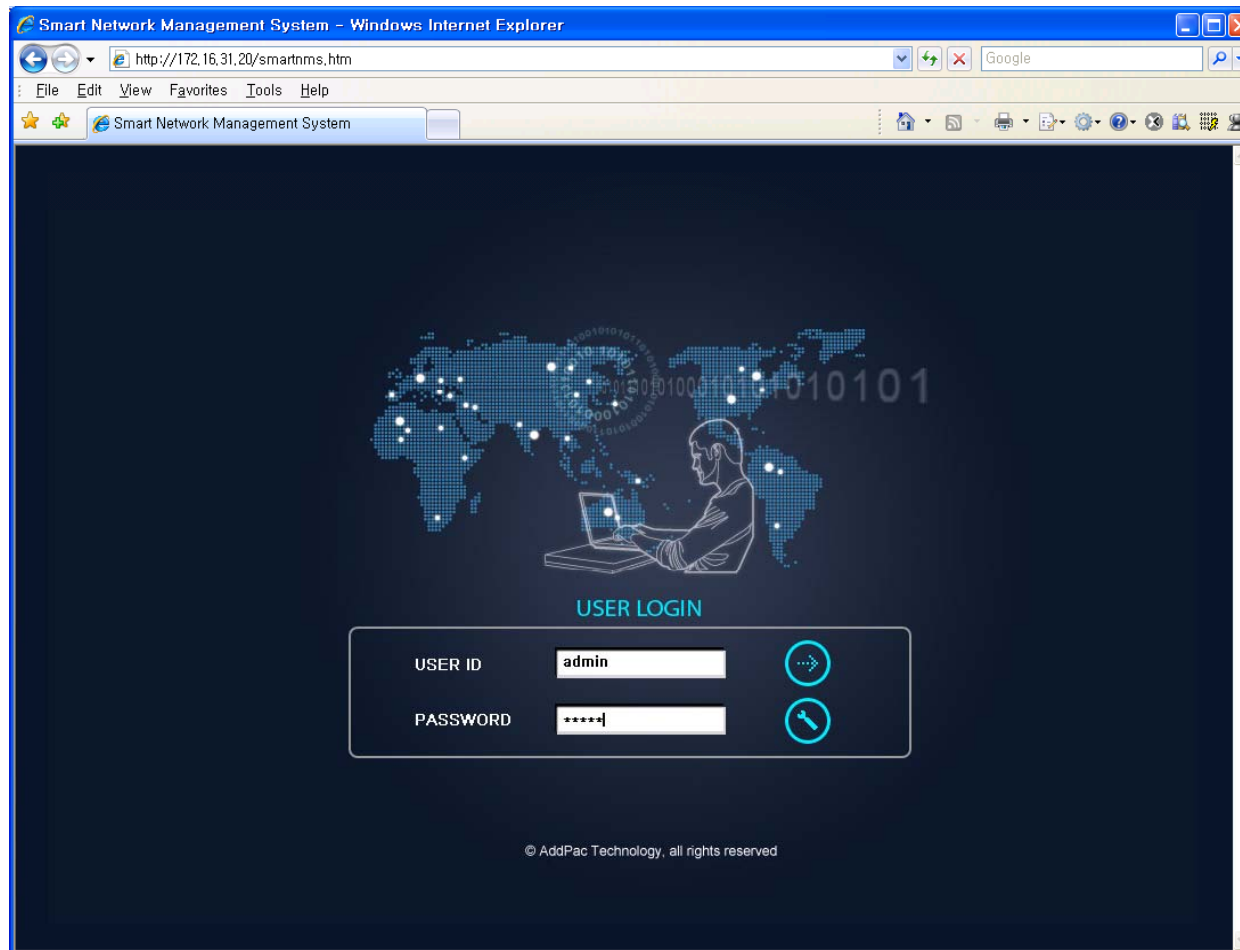
The screenshot displays the IPNext Web-Based Management interface within a Windows Internet Explorer browser window. The browser address bar shows the URL `http://172.16.31.20/`. The main content area features a dark blue background with a world map and a person using a laptop, with the text "AddPac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

Two callout boxes highlight specific features:

- Automatic version check:** A yellow callout box with an arrow pointing to the top of the browser window.
- New S/W version update:** A yellow callout box with an arrow pointing to the "Downloading installnms" dialog box.

The "Launching Application" dialog box shows a progress bar and the text: "Verifying application requirements. This may take a few moments." The "Downloading installnms" dialog box shows a progress bar at 61% completion and the text: "Name: installnms", "From: 172.16.31.20", and "Downloading: 6.29 MB of 10.1 MB".

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 tree view of the same network structure with checkboxes next to each node, indicating which resources are assigned to the user. 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 interface is divided into several sections:

- Current Outage Devices [111]:** A tree view showing the hierarchy of devices. The 'AddPac' branch is expanded, showing various devices like NMS Camera, NMS_IP_PBX, and various servers. A red arrow points to the 'NMS_IP_PBX_31.13' device, labeled 'current device fault list with hierarchy view'.
- Site Device Fault Summary:** A table showing the overall status of devices across different sites. A red arrow points to the 'AddPac' site row, labeled 'site device fault summary'.

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 the overall status of devices across different categories. A red arrow points to the 'Server' category row, labeled 'device fault summary for category (classification)'.

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 Total Device Fault Statistics:** A summary row at the bottom of the site device fault summary table, labeled 'overall total device fault statistics'.

Overall Availability	30 / 11 / 34	78.650%
----------------------	--------------	---------
- Current Device Fault Event Messages:** A list of outstanding notices at the bottom of the interface, labeled 'current device fault event message are shown as below'. A red arrow points to the first entry (ID 9502).

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>

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.

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 bar with tabs for 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, including sites like AddPac, Seoul, and MokDong Area.
- Top Right Panel:** A search and filter area with dropdown menus for Site and Value, and buttons for Refresh, Import, and New Tab.
- 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 Camera" with IP address 172.16.253.118.
- Bottom Panel:** A table of "Your Outstanding Notices (18)", listing various alerts with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

An orange callout box with a red arrow points to the "NMS Camera" device icon in the status matrix, containing the text: "device status matrix with small view mode".

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.

Notification Summary Table:

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

Advanced Search Dialog:

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

Device Monitoring Table (Partial):

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	PS 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

Your Outstanding Notices (17) Table:

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	172.16.253.119	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 in a Windows Internet Explorer browser. The main window shows a list of device faults 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, showing a log message and a table for the note list. An orange callout box points to the note input field with the text 'Can write troubleshooting note if needed'.

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 5:22:43 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:17:56 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 4:03:13 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	UW				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	Re (ou				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9518	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	co				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9517	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9516	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9515	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9514	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9513	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9512	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9511	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9510	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9509	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9508	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9507	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9506	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9505	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9504	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9503	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9502	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9501	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9500	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9499	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9498	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9497	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP. cor				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9496	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9495	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:43 PM
<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	to-acknowledged	4/10/2009 11:37:12 AM
<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.	to-acknowledged	4/10/2009 11:37:12 AM
<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.	to-acknowledged	4/10/2009 4:02:54 PM
<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	to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9230	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.110	ICMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service ICMP not response or deleted by administrator	to-acknowledged	4/10/2009 4:02:44 PM
<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	to-acknowledged	4/10/2009 4:02:43 PM

Troubleshooting Note (Event ID : 45393)

Log Message
interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51 06 PM

Troubleshooting Note List

Time	User	Status	Note
------	------	--------	------

Buttons: Add, Edit, Delete, Help, Close

Troubleshooting Note

Status: Cleared

Fixed it manually.
2009-04-10 PM
by Administrator.

Operator : admin

Buttons: Ok, Cancel

Can write troubleshooting note if needed

Current Device Fault (Outage)

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices and a table of current outages. An 'Event Detail' dialog box is open, providing information about a specific outage event.

Current Outage Devices Table:

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_PS_server	3 of 3	0.000 %
00_PS_slave...	2 of 3	33.333 %
00_RBT_server	3 of 3	0.000 %
IPNext 3000 S...	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 ID...	2 of 2	0.000 %

Service Outages Table:

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/HeadQuarter	5th floor meeting room p...	172.16.53.101	ICMP	4/10/2009 5:34:10 PM
13907	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	ICMP	4/10/2009 3:34:29 PM
13906	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	4/10/2009 3:34:29 PM
13896	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	2009-4-10 11:37:12 AM
13895	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	2009-4-10 11:37:12 AM
13802	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device	00_IVR_server all services are down
13801	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device	00_IVR_server all services are down
13800	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device	00_IVR_server all services are down
13773	/AddPac/Branch AQ	NMS_IP_PBX_31.13	172.16.253.118	device	NMS_IP_PBX_31.13 all services down
13772	/AddPac/Branch AQ	NMS_IP_PBX_31.13	172.16.253.118	device	NMS_IP_PBX_31.13 all services down
13771	/AddPac/Branch AQ	NMS_IP_PBX_31.13	172.16.253.118	device	NMS_IP_PBX_31.13 all services down
13611	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
13610	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
13609	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
13608	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
13607	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
13606	/AddPac/Branch AQ	NMS Camera	172.16.253.118	device	NMS Camera 2 interface 172.16.253.118 (172.16.253.118) not response or delete by administrator
9021	/AddPac/Branch GX	UMS slave	172.17.113.41	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.
9020	/AddPac/Branch GX	UMS slave	172.17.113.41	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.
9019	/AddPac/Branch GX	UMS slave	172.17.113.41	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.
6489	/AddPac/Branch GX	00_PS_server	172.17.113.41	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.

Event Detail (ID: 45412) Dialog Box:

- Event Time: 4/10/2009 9:26:04 PM
- Site: /AddPac/Branch GX
- Service: 00_RBT_server
- Severity: Critical
- Device Name: 00_RBT_server
- Device Model: AP-RBT1000
- Log Message: device 00_RBT_server down
- Description: 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.

Outstanding Notices Table:

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	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.
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...		device	device 00_IVR_server all services are down
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX		device	device NMS_IP_PBX_31.13 all services down
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	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"/>	9419	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server		device	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	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	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

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

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

Event Summary

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

Limit: 20 Refresh Advanced Search Acknowledge Events Troubleshooting Note

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

summarize daily event statistics data

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

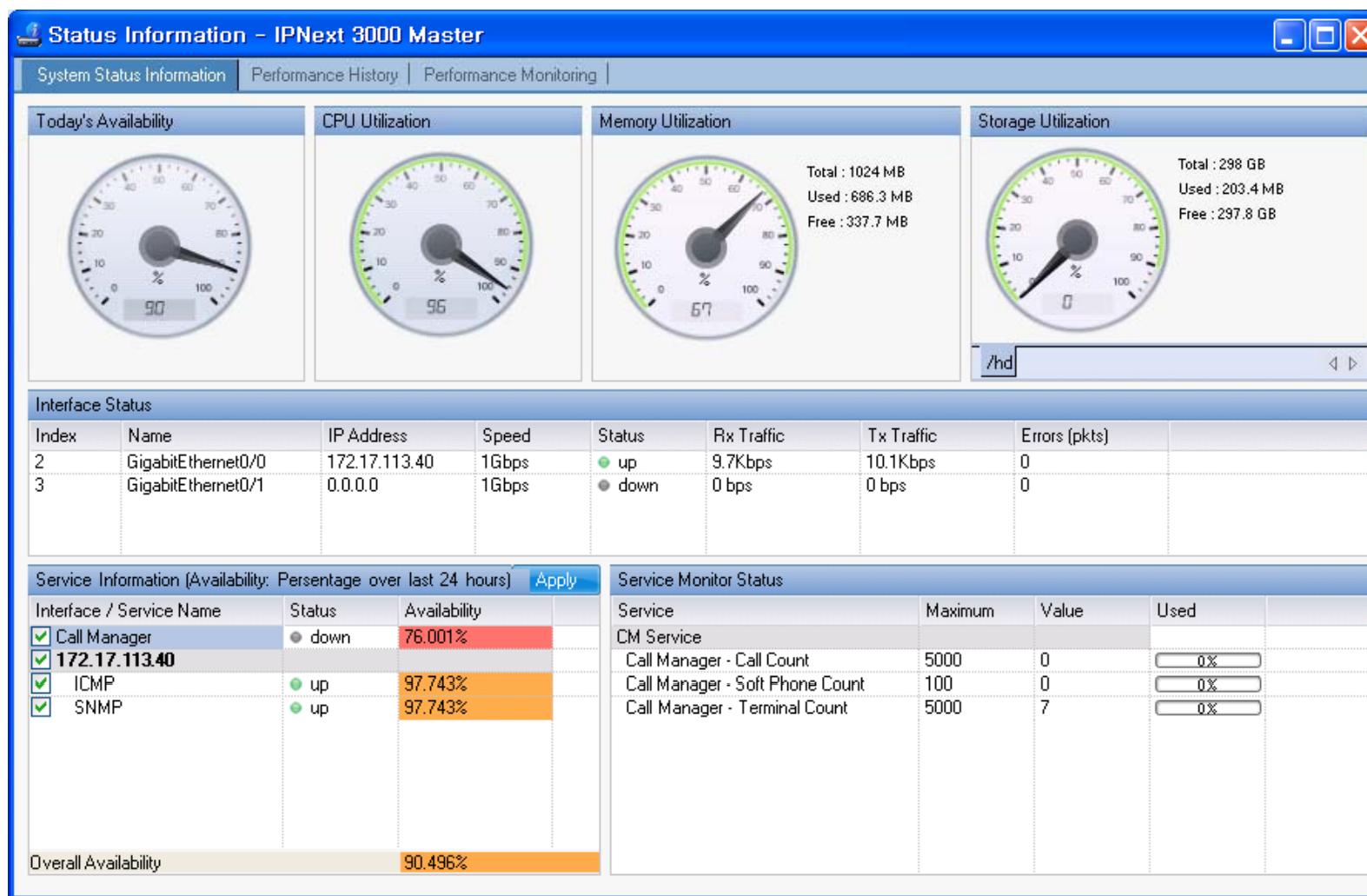
Can view all events for devices with search condition

summarize daily event statistics data

Device Status Information

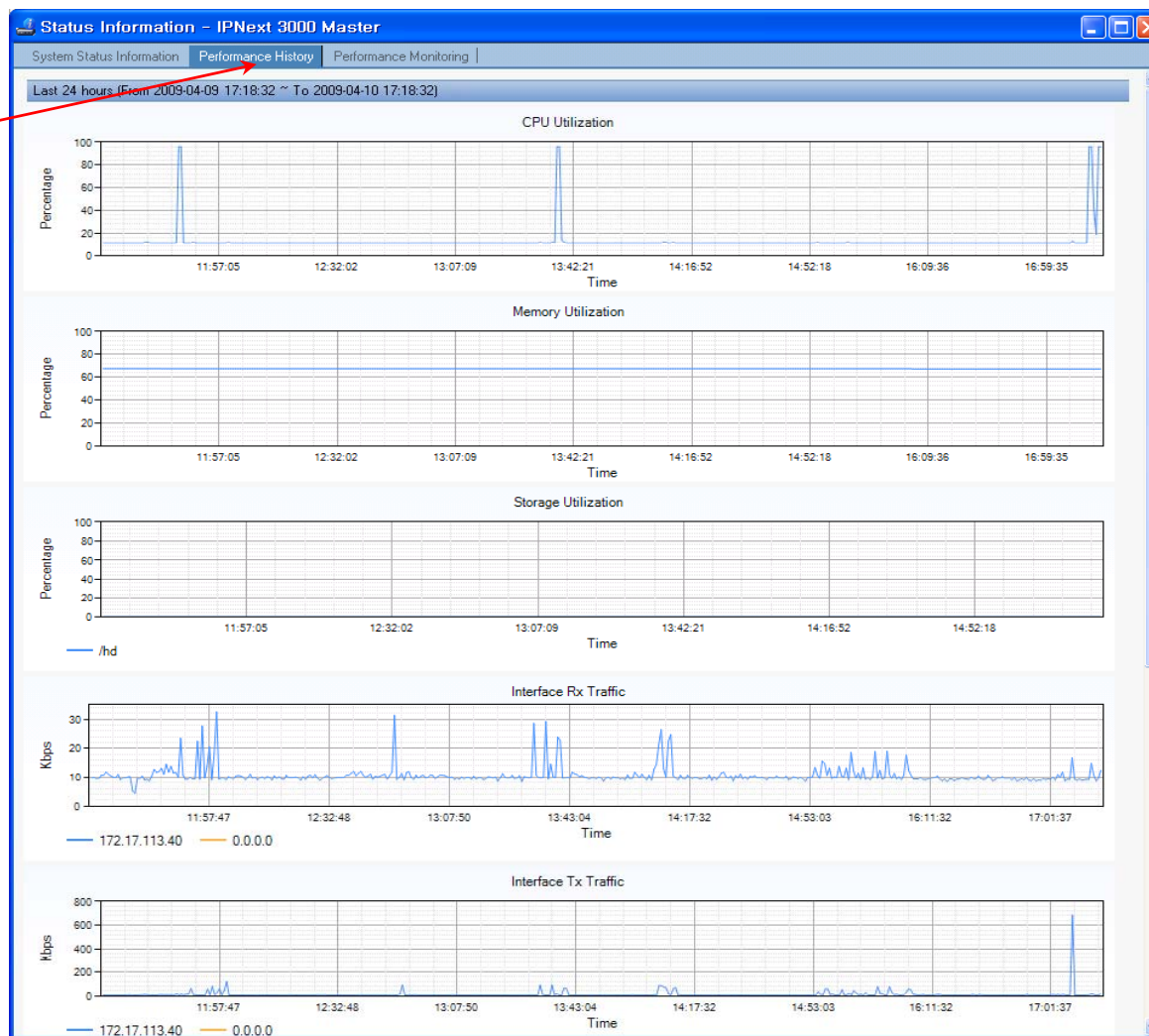
- System Performance Information (CPU, HDD, Memory,...)
- Provide device current service status (up/down)
- Provide device main status (max value vs current value)
- Display Graph Series with System Performance Information
- Monitor Main Status Flow with System Monitoring View

Device Status Information

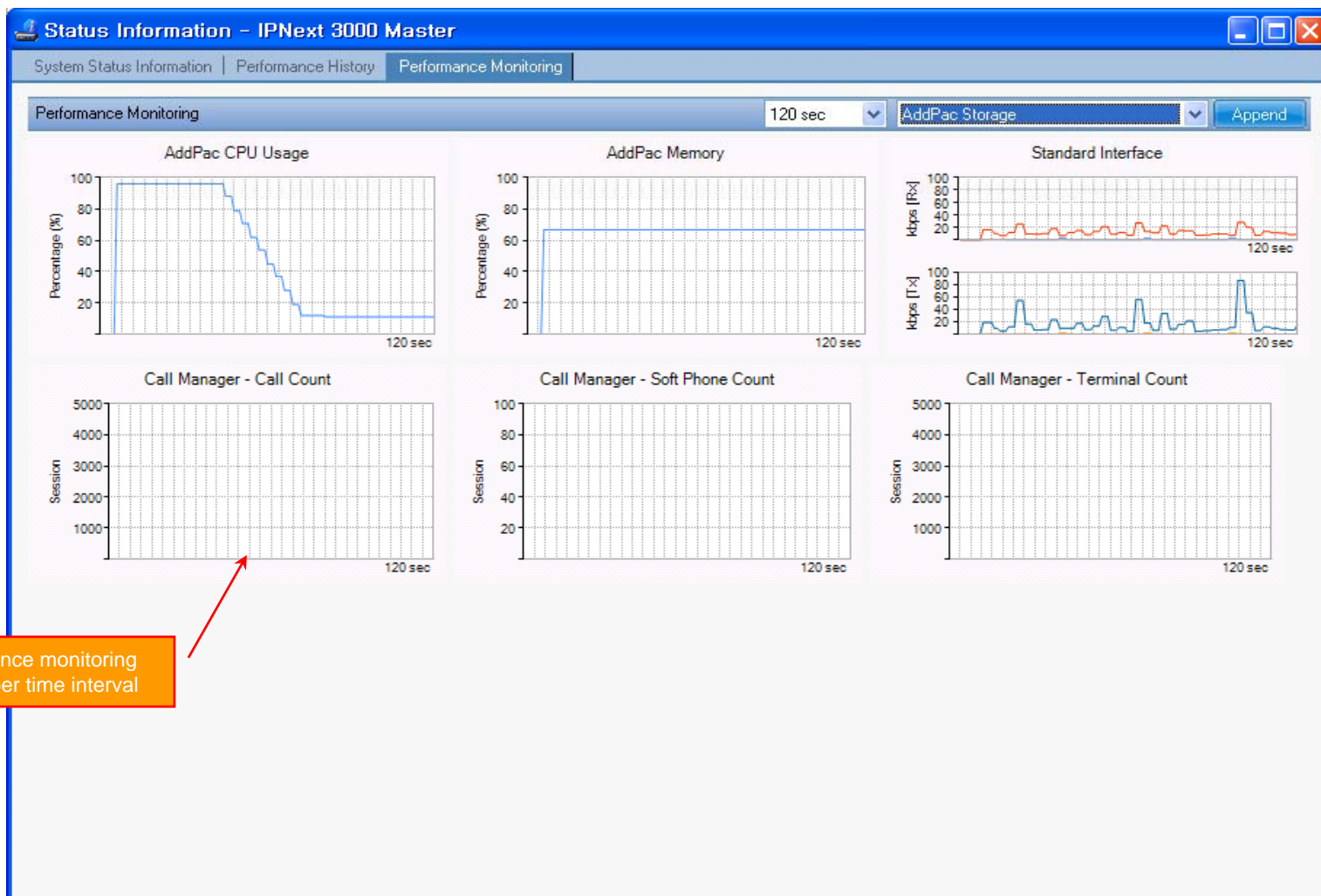


Device Status Information

performance analysis graph for last 24 hours



Device Status Information



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 and a table of event notifications in the center. A dialog box titled 'Event Notification Properties' is open on the right, showing configuration details for a specific event notification.

Event Notification Properties Dialog:

- 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 synthetic connection to the service listener on the remote machine. However, the synthetic transaction failed to complete within %iparm(timeout)% milliseconds, over %iparm(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:

Callout Boxes:

- 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**

Table of Event Notifications:

Notification Name	Event	Destination Path	Description
serviceUnresponsive	Node event: serviceUnresponsive	NMS Admin	test
serviceResponsive	Node event: serviceResponsive	NMS Admin	
interfaceDown	Node event: interfaceDown	NMS Admin	
nodeDown	Node event: nodeDown	NMS Admin	
interfaceUp	Node event: interfaceUp	NMS Admin	
nodeUp	Node event: nodeUp	NMS Admin	
nodeLostService	Node event: nodeLostService	NMS Admin	
nodeRegainedService	Node event: nodeRegainedService	NMS Admin	
coldStart	SNMP Cold Start	NMS Admin	
warmStart	SNMP Trap: SNMP Warm Start	NMS Admin	
authenticationFailure	SNMP Trap: SNMP Authn Failure	NMS Admin	
serviceDeleted	Node event: serviceDeleted	NMS Admin	
nodeAdded	Node event: nodeAdded	NMS Admin	
nodeInfoChanged	Node event: nodeInfoChanged	NMS Admin	
interfaceDeleted	Node event: interfaceDeleted	NMS Admin	
High Threshold	highThresholdExceeded	NMS Admin	
Low Threshold	lowThresholdExceeded	NMS Admin	
Low Threshold Rearmed	lowThresholdRearmed	NMS Admin	
High Threshold Rearmed	highThresholdRearmed	NMS Admin	

Your Outstanding Notices (18) Table:

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 contains a table for defining notification channels:

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

A red callout box with the text "define notification channel such as e-mail, sms, or alarmlamp" points to the 'Notification Type' column in the table.

Below the dialog, the 'Your Outstanding Notices (18)' table is visible:

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_PRX_3			device NMS_IP_PRX_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: 'Destination Path Properties' and 'Target Properties'.

The 'Destination Path Properties' dialog shows the 'Destination Path Name' as 'default' and a table of notification types:

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

The 'Target Properties' dialog is open, showing the 'Choose the notification type' dropdown set to 'sms'. The 'Target Information' section has 'Send to select user' selected, with the user set to 'Account Administrator'. The 'Send to Email or Mobile' option is unselected. The 'Mobile Number' field is empty.

An orange callout box with a red arrow pointing to the 'Send to select user' dropdown 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 NMS 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 first few rows are:

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	

Configuration

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

Current Outage Devices [13] Site

Service Outages Event Notification Destination Paths Users

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_S0HD_... 2 of 2 0.000 %

Configure Notification

External Notification Alarm Lamp

E-Mail SMS

Sender Email Address nms@addpac.com

SMTP Server Host 61.33.161.2

Authentication

Username

Password

Help Ok Cancel

global notification channel configuration

Total destination paths : 2

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_S0HD_PBX			device NMS_S0HD_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

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

4/13/2009 11:26:16 AM 172.16.31.20:5101 admin Version 1.2.3384

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%
IP 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

4/13/2009 11:52:14 AM 172.16.31.20:5101 admin Version 1.2.3384

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 search condition is set to 'Hour' for '4/ 9/2009' from '00:00' to '23:00'.
- Fault Statistics (Site) Graph:** A bar chart showing the fault count over time for various sites. The Y-axis is 'Fault Count' (0 to 60) and the X-axis is 'Time' (01:00 to 23:00). The legend includes: Seoul, HeadQuarter, Center, Branch TG, Branch KT, Branch GX, Branch B, Branch AQ, and Branch A.
- Detailed Data Table:** A table for the date '4/9/2009' showing fault counts for each hour across different sites. The total fault count is 118.
- Your Outstanding Notices (18):** A table at the bottom showing notices with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

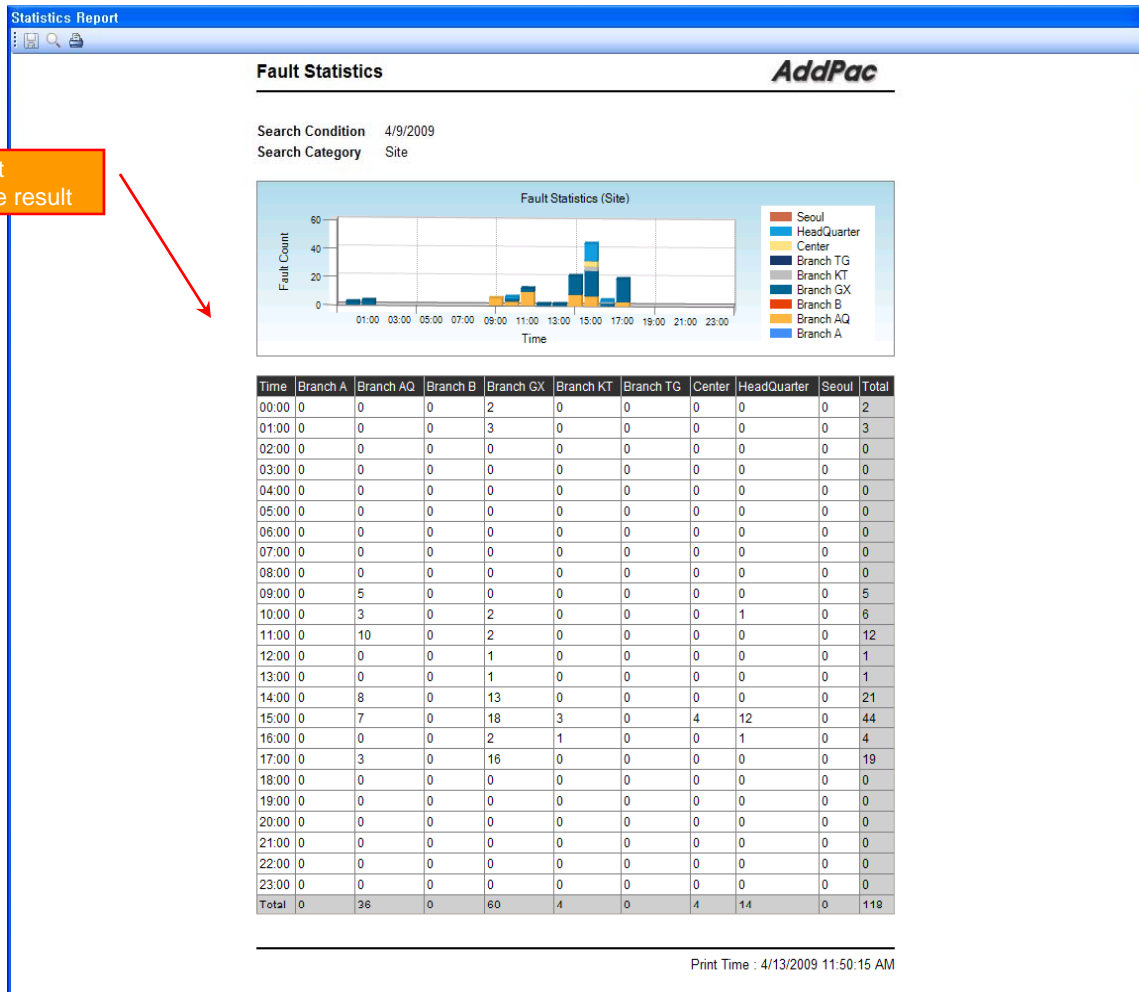
Two orange callout boxes provide additional information:

- display graph for fault statistics with various search condition:** Points to the search bar and the bar chart.
- display detailed data for fault statistics:** Points to the detailed data table.

Time	Branch A	Branch AQ	Branch B	Branch GX	Branch KT	Branch TG	Center	HeadQuarter	Seoul	Total
07:00	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
09:00	0	5	0	0	0	0	0	0	0	5
10:00	0	3	0	2	0	0	0	1	0	6
11:00	0	10	0	2	0	0	0	0	0	12
12:00	0	0	0	1	0	0	0	0	0	1
13:00	0	0	0	1	0	0	0	0	0	1
14:00	0	8	0	13	0	0	0	0	0	21
15:00	0	7	0	18	3	0	4	12	0	44
16:00	0	0	0	2	1	0	0	1	0	4
17:00	0	3	0	16	0	0	0	0	0	19
18:00	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0
Total	0	36	0	60	4	0	4	14	0	118

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

Name	Description
AddPac	AddPac Technology C...
Branch AQ	Branch AQ
Branch GX	Branch GX description
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

Model Name	Category	SSCP Port
AP-IPC250M	Network Camera	5061 (1*65535)

Model Image Management
Grid of device images for selection, including various server, phone, and camera models.

Device Model Properties
Model Name: AP-IPC250M
Category: Network Camera
Management by SSCP: <input type="checkbox"/>
SSCP Port: 5061 (1*65535)
Model Image:

Your Outstanding Notices (18)
Ack ID Send Time Site Device Name IP Address Service Message
9535 4/10/2009 9:26:04 PM /AddPac/Branch GX 00_RBT_server
9527 4/10/2009 5:34:10 PM /AddPac/HeadQuarter 5th floor meeting
9502 4/10/2009 3:34:29 PM /Subnetwork #2/Cent. NMS_SOHD_PBX
9495 4/10/2009 11:37:12 AM /AddPac/Branch GX IPNext 3000 Slave 172.17.113.41 Call Manager
9494 4/10/2009 11:37:12 AM /AddPac/Branch GX IPNext 3000 Master 172.17.113.40 Call Manager
9418 4/9/2009 2:20:01 PM /AddPac/Branch GX 00_IVR_server
9396 4/9/2009 10:57:37 AM /AddPac/Branch AQ NMS_IP_PBX_3
9239 4/6/2009 7:49:20 PM /AddPac/Branch AQ NMS Camera 2 172.16.253.118
9238 4/6/2009 7:49:20 PM /AddPac/Branch AQ NMS Camera 2 172.16.253.118 ICMP
9237 4/6/2009 7:49:20 PM /AddPac/Branch AQ NMS Camera 2 172.16.253.118
9236 4/6/2009 7:41:25 PM /AddPac/Branch AQ NMS Camera 2 172.16.253.118

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 (Table):

Service Name	Protocol	Port
Call Manager	SNMP	161
Presence	SNMP	161
Media	SNMP	161
UP	SNMP	161
RtpProxy	SNMP	161
MCU	SNMP	161
IVR	SNMP	161
Recording	SNMP	161
Tomcat	TCP	8080
FTP	TCP	21
Camera Pan	SNMP	161
Camera Tilt	SNMP	161
Camera Zoom	SNMP	161
Camera Operation Status	SNMP	161

Your Outstanding Notices (Table):

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_serv
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeti...			device 5th floor meet
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHD_PBX			device NMS_SOHD_
<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
<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
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_serv
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_3...			device 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		device (NMS Camera response or delete by
<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 ICMP not response o
<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 SNMP not response
<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 ICMP not response o

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



Thank you!

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