

CDMA Gateway Solution



AddPac

AddPac Technology

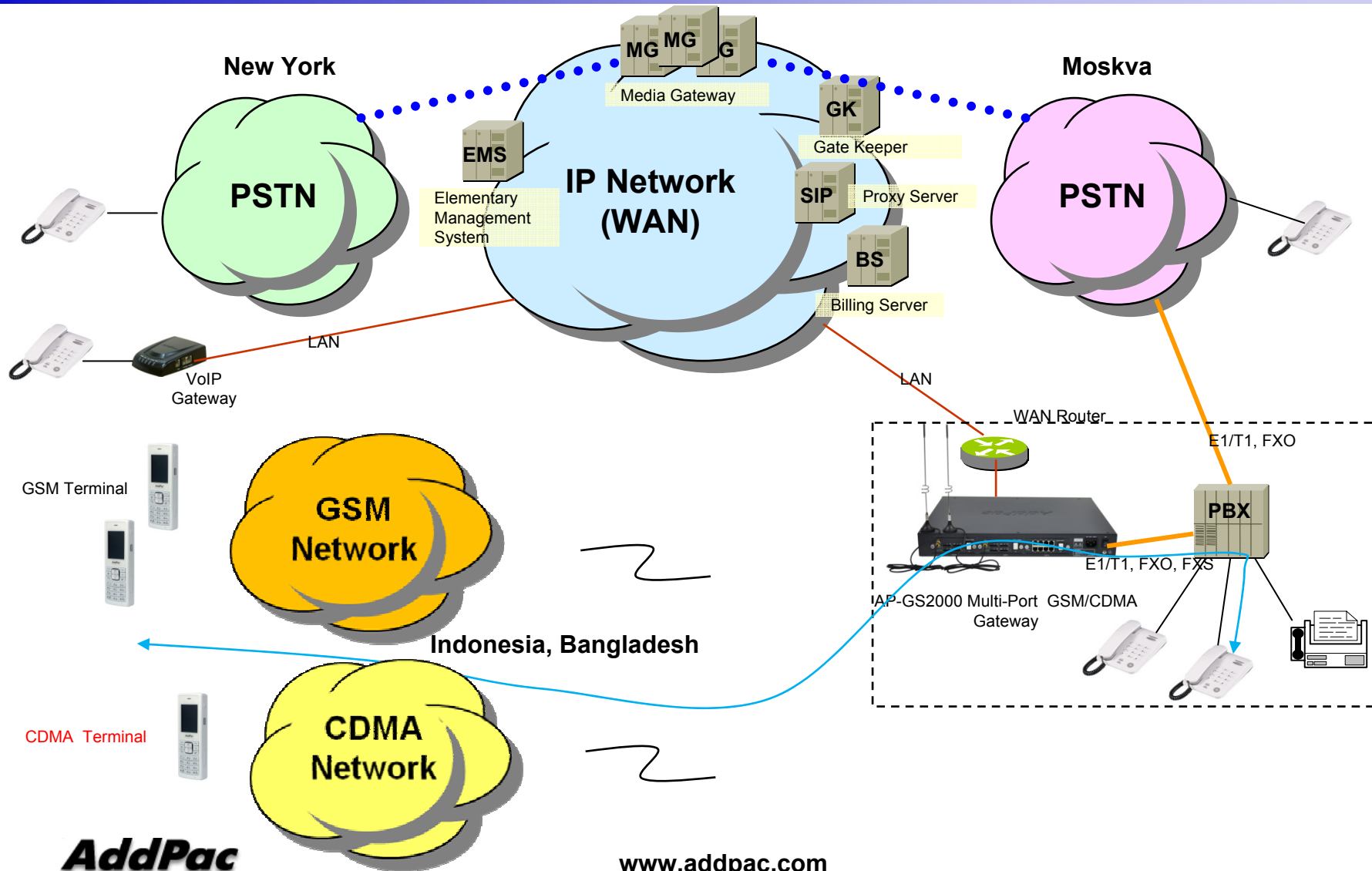
2011, Sales and Marketing

www.addpac.com

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- GSM/CDMA Gateway Service Diagram
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- CDMA Gateway Series
 - AP-GS1500(8ch)
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 - AP-GS3000(36ch)
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- Smart Web Manager for GSM/CDMA Gateway
- Smart NMS for GSM/CDMA Gateway

GSM/CDMA Gateway Service Diagram



4-Port CDMA Module



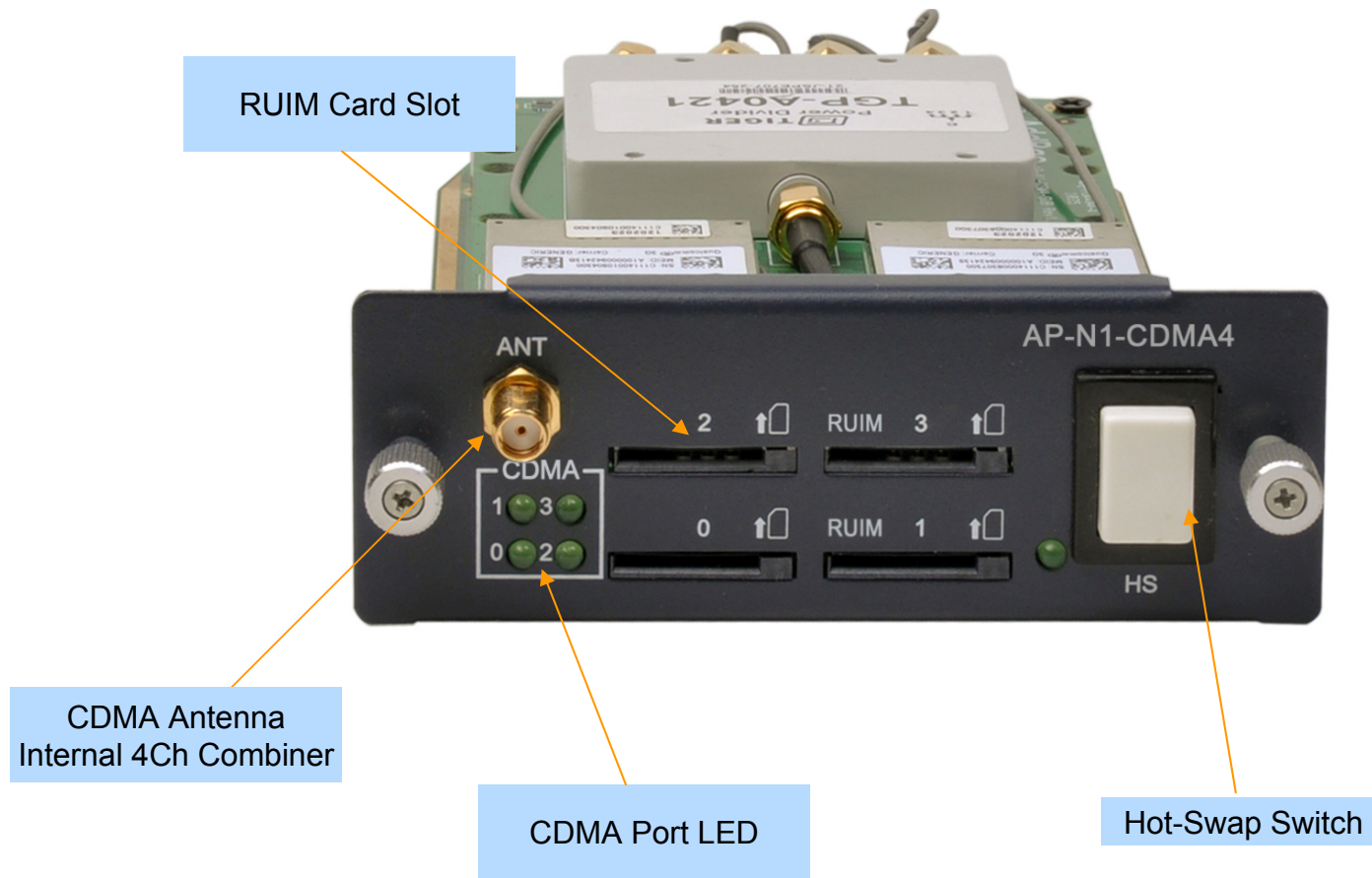
4-Port CDMA Module

AP-N1-CDMA4 4-Port CDMA Module

- CDMA2000 1xRTT (IS-2000)-(Dual Band)
- Band class0 (TX : 824~849 MHz / RX : 869~894MHz)
- Band class1 (TX : 1850~1910 MHz / RX : 1930~1990MHz)
- GPS L1 Support
- Output Power : 0.25W CDMA
- CDMA2000 Release A
- IS-637 : Short Message Service (Mobile Originated and Mobile Terminated)
- RUIM(for Asia Pacific Countries)
- 4-Port CDMA Module(AP-N1-CDMA4)
 - 4-Port RUIM Card Slot
 - Port LEDs for Link Activation Indication
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
 - Hot-Swap Button

Hardware Specification

AP-N1-CDMA4 4-Port CDMA Module











CDMA Gateway Series



CDMA Gateway Series

GSM/CDMA Gateway Comparison Table

| Model | AP-GS1500 | AP-GS2000 | AP-GS2500 | AP-GS3000 | AP-GS3500 |
|-------------------|---|--|--|--|--|
| |  |  |  |  |  |
| Available Modules | AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 | AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1 | AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1 | AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1 | AP-N1-GSM4 AP-N1-CDMA4 AP-N1-FXS8 AP-N1-FXO8 AP-N1-FXS4O4 AP-N1-E1 |
| GSM/CDMA Channel | Up to 8 Channel | Up to 12 Channel | Up to 16 Channel | Up to 36 Channel | Up to 36 Channel |
| GSM/CDMA Antenna | One(1) / 4 Channel GSM/CDMA Module | One(1) / 4 Channel GSM/CDMA Module | One(1) / 4 Channel GSM/CDMA Module | One(1) / 4 Channel GSM/CDMA Module | One(1) / 4 Channel GSM/CDMA Module |
| Module Slot | Two(2) Module Slots for GSM/CDMA | Three(3) Module Slots for GSM/CDMA | Four(4) Module Slots for GSM/CDMA | Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot | Nine(9) Module Slots for GSM/CDMA, E1/T1 Module Slot |
| LAN Port | 2 | 2 | 2 | 2 | 2 |
| Console | 1 | 1 | 1 | 1 | 1 |
| Power | Single PSU | Single PSU | Single PSU | Single PSU | Dual PSU (module) |



AP-GS1500 GSM/CDMA Gateway

GSM Gateway

AP-GS1500 Multi-Port GSM/CDMA Gateway

- Two(2) Module Slots for 4-Port GSM Module, 4-Port CDMA Module 8FXS/8FXO Analog Interface (Up to 8-Port CDMA, 4-Port GSM+4-Port CDMA, 4-Port GSM +8FXS/8FXO Module)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

GSM/CDMA Gateway

AP-GS1500 Multi-Port GSM/CDMA Gateway

- RISC Microprocessor Computing Power
- Two(2) Module Slot for GSM, CDMA, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
 - 4-Port SIM Card Slot
 - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- 4-Port CDMA Module(AP-N1-CDMA4), Hot-Swap
 - 4-Port RUIM Card Slot
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS,8-Port FXO VoIP Module (AP-N1-FXS8, etc)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



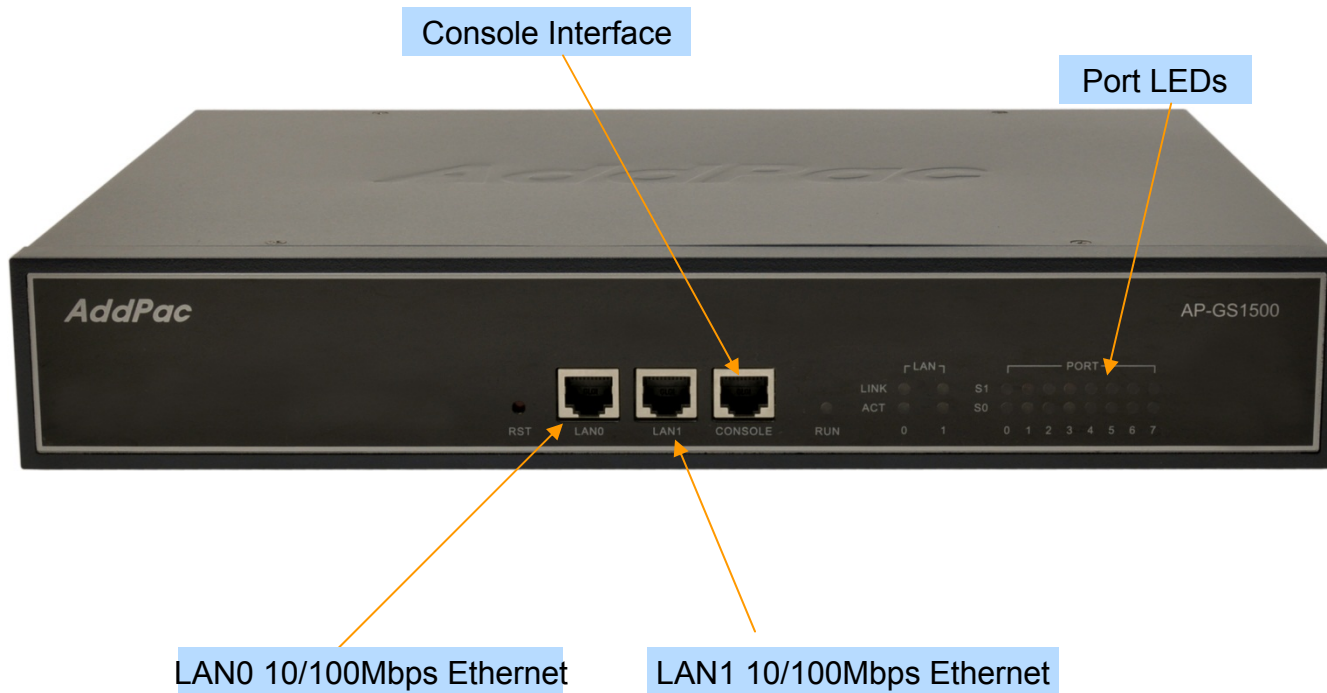
Hardware Specification

AP-GS1500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Front Side View



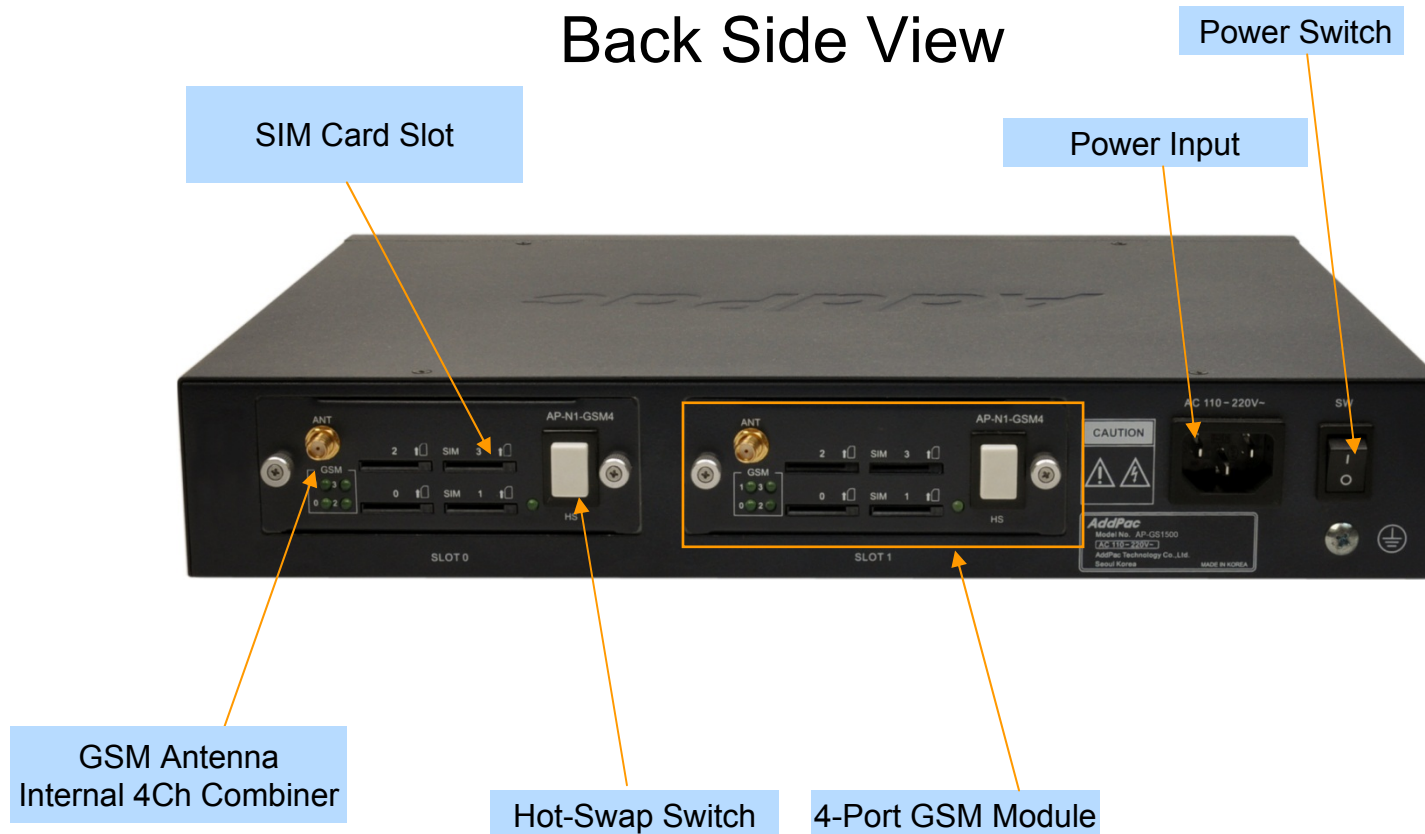
Hardware Specification

AP-GS1500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Back Side View



Hardware Specification

AP-GS1500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP



Hardware Specification

AP-GS1500 Multi-Port GSM/CDMA Gateway

AP-GS1500 Voice Modules

AP-N1-GSM4 4-Port GSM Module



AP-N1-CDMA4 4-Port CDMA Module



AP-N1-FXS8 8-Port FXS Module




AP-N1-FXO8 8-Port FXO Module



AP-N1-FXS4O4 4-Port FXS&4-Port FXO Module





AP-GS2000 GSM/CDMA Gateway

Main Features

AP-GS2000 Multi-Port GSM/CDMA Gateway

- Three Module Slots for 4-Port GSM Module, 4-Port CDMA Module, 8FXS/8FXO Analog Interface (Up to 8-Port GSM + 8FXS/8FXO Module, 12-Port CDMA, 12-Port GSM, etc)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax, VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2) 10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

Hardware Specification

AP-GS2000 Multi-Port GSM/CDMA Gateway

- RISC Microprocessor Computing Power
- Three Module Slot for GSM, CDMA, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
 - 4-Port SIM Card Slot
 - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- 4-Port CDMA Module(AP-N1-CDMA4), Hot-Swap
 - 4-Port RUIM Card Slot
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module, Digital E1/T1 Module (AP-N1-FXS8, AP-N1-FXO8, etc)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply

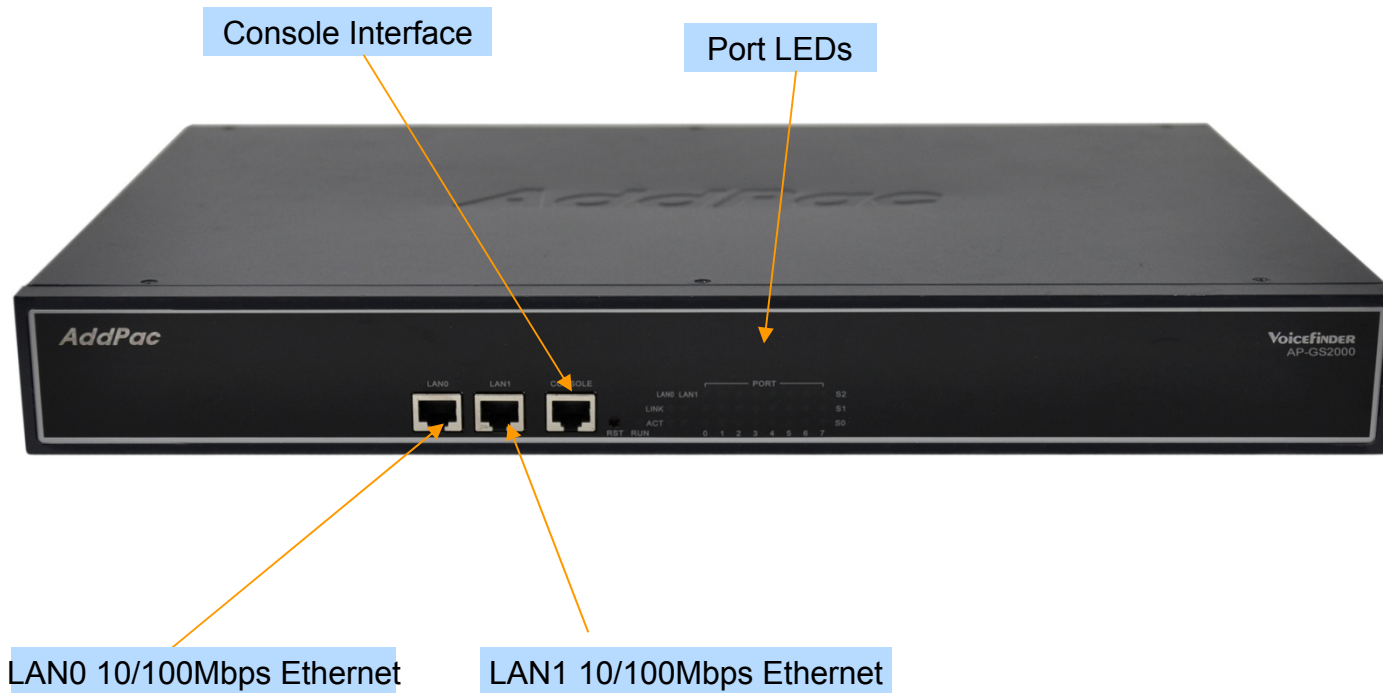


Hardware Specification

AP-GS2000 Multi-Port GSM/CDMA Gateway

Hardware Specification

Front Side View

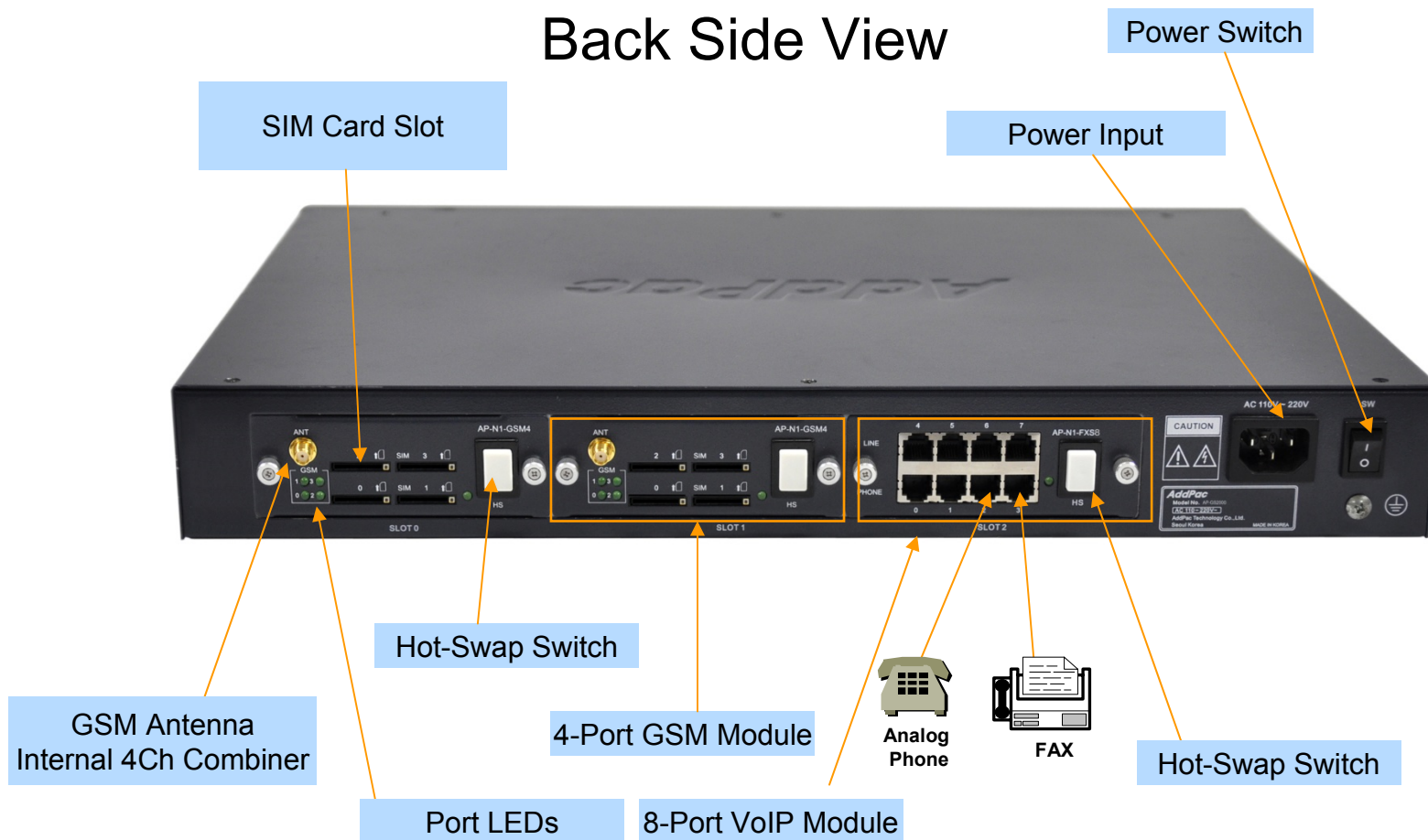


Hardware Specification

AP-GS2000 Multi-Port GSM/CDMA Gateway

Hardware Specification

Back Side View



Hardware Specification







AP-GS2000 Multi-Port GSM/CDMA Gateway



Hardware Specification

AP-GS2000 Multi-Port GSM/CDMA Gateway

AP-GS2000 Voice Modules

| | |
|--|---|
| AP-N1-GSM4 4-Port GSM Module |  |
| AP-N1-CDMA4 4-Port CDMA Module |  |
| AP-N1-FXS8 8-Port FXS Module |  |
| AP-N1-FXO8 8-Port FXO Module |  |
| AP-N1-FXS4O4 4-Port FXS&4-Port FXO Module |  |
| AP-N1-E1 1-Port Digital E1/T1 Module |  |



AP-GS2500 GSM Gateway

Main Features

AP-GS2500 Multi-Port GSM/CDMA Gateway

- Four(4) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 12-Port GSM +8FXS/8FXO Module, 16-Port CDMA, 16-Port GSM)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

- RISC Microprocessor Computing Power
- Four(4) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
 - 4-Port SIM Card Slot
 - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- 4-Port CDMA Module(AP-N1-CDMA4), Hot-Swap
 - 4-Port RUIM Card Slot
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module, Digital E1/T1 Module (AP-N1-FXS8, AP-N1-FXO8, etc)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



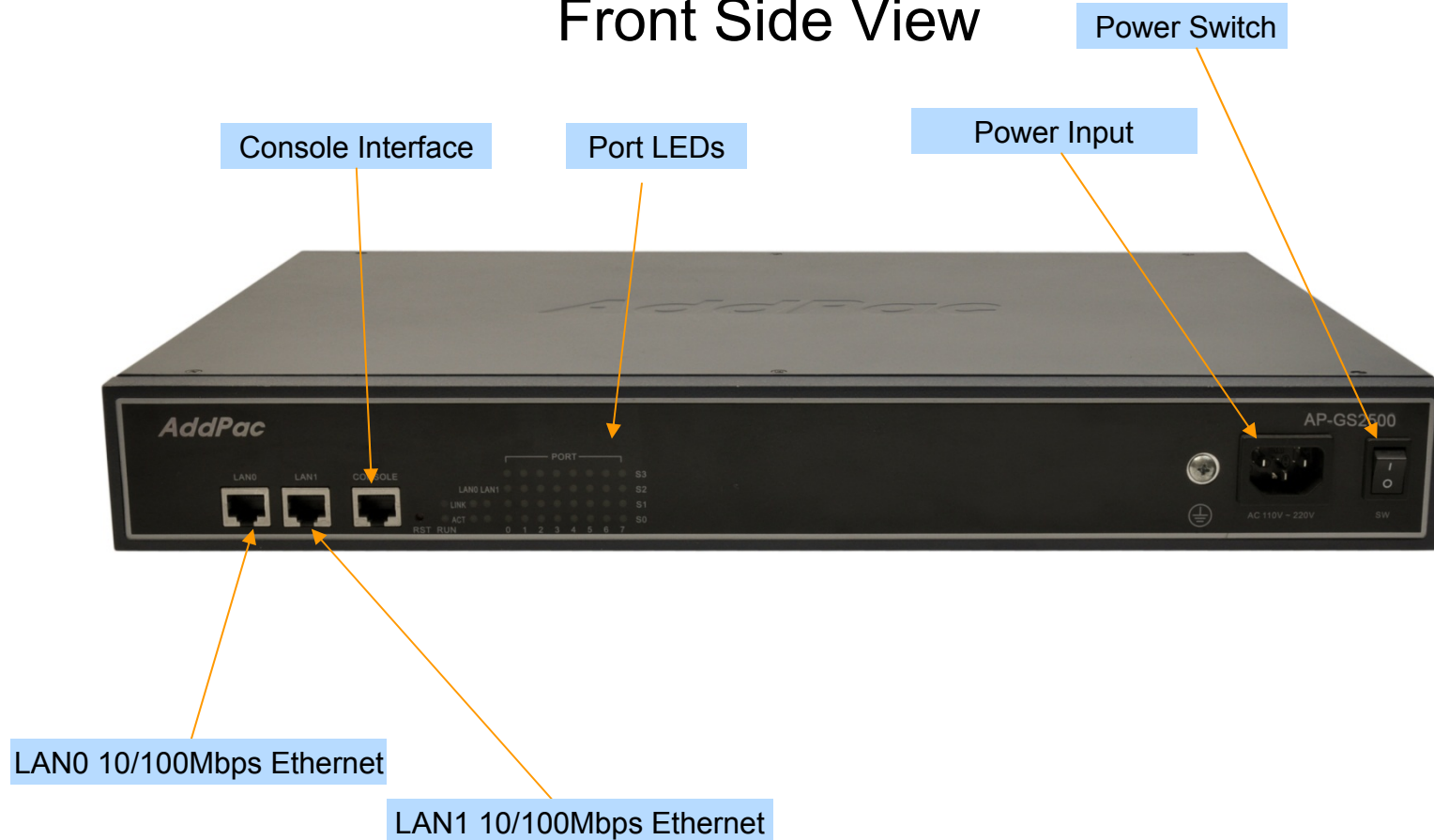
Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Front Side View



Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Back Side View (16-Port GSM, 16-Port CDMA)

SIM Card Slot



GSM Antenna
Internal 4Ch Combiner

4-Port GSM Module

Hot-Swap Switch

Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Back Side View (12-Port GSM+ 8-Port FXS)



Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

RISC
CPU







High-end
DSP




Hardware Specification

AP-GS2500 Multi-Port GSM/CDMA Gateway

AP-GS2500 Voice Modules

| | |
|--|---|
| AP-N1-GSM4 4-Port GSM Module |  |
| AP-N1-CDMA4 4-Port CDMA Module |  |
| AP-N1-FXS8 8-Port FXS Module |  |
| AP-N1-FXO8 8-Port FXO Module |  |
| AP-N1-FXS4O4 4-Port FXS&4-Port FXO Module |  |
| AP-N1-E1 1-Port Digital E1/T1 Module |  |



AP-GS3000 GSM/CDMA Gateway

Main Features

AP-GS3000 Multi-Port GSM/CDMA Gateway

- Ten(10) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 36-Port GSM, Up to 36-Port CDMA, Digital E1/T1 Module, CPU Module)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

Hardware Specification

AP-GS3000 Multi-Port GSM/CDMA Gateway

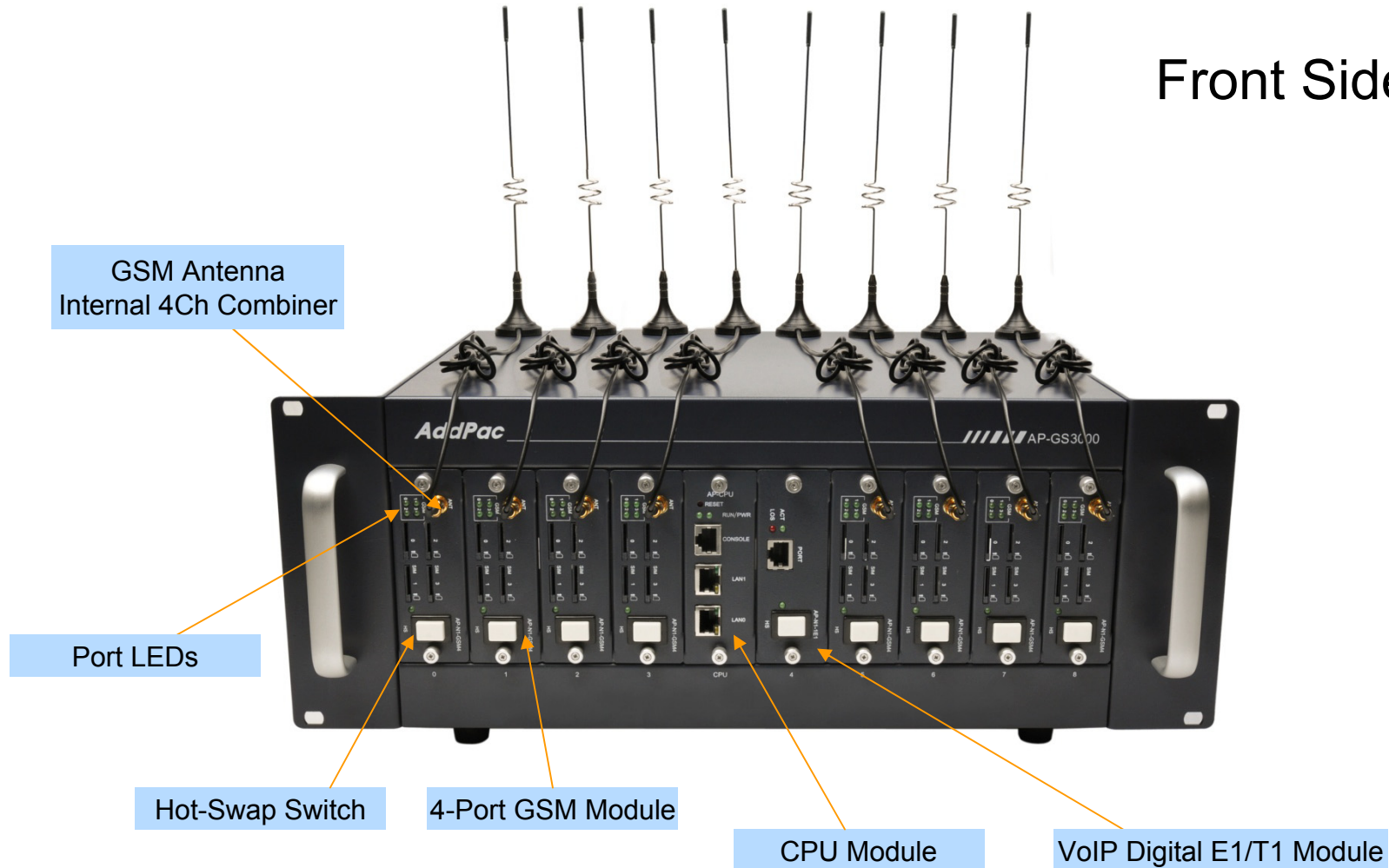
- RISC Microprocessor Computing Power
- Ten(10) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
 - 4-Port SIM Card Slot
 - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- 4-Port CDMA Module(AP-N1-CDMA4), Hot-Swap
 - 4-Port RUIM Card Slot
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module, Digital E1/T1 Module (AP-N1-FXS8, AP-N1-FXO8, etc)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply



Hardware Specification

AP-GS3000 Multi-Port GSM Gateway

Front Side View



Hardware Specification

AP-GS3000 Multi-Port GSM Gateway



Back Side View

Cooling FAN







Power Switch

Power Inlet (110~220V)

Hardware Specification

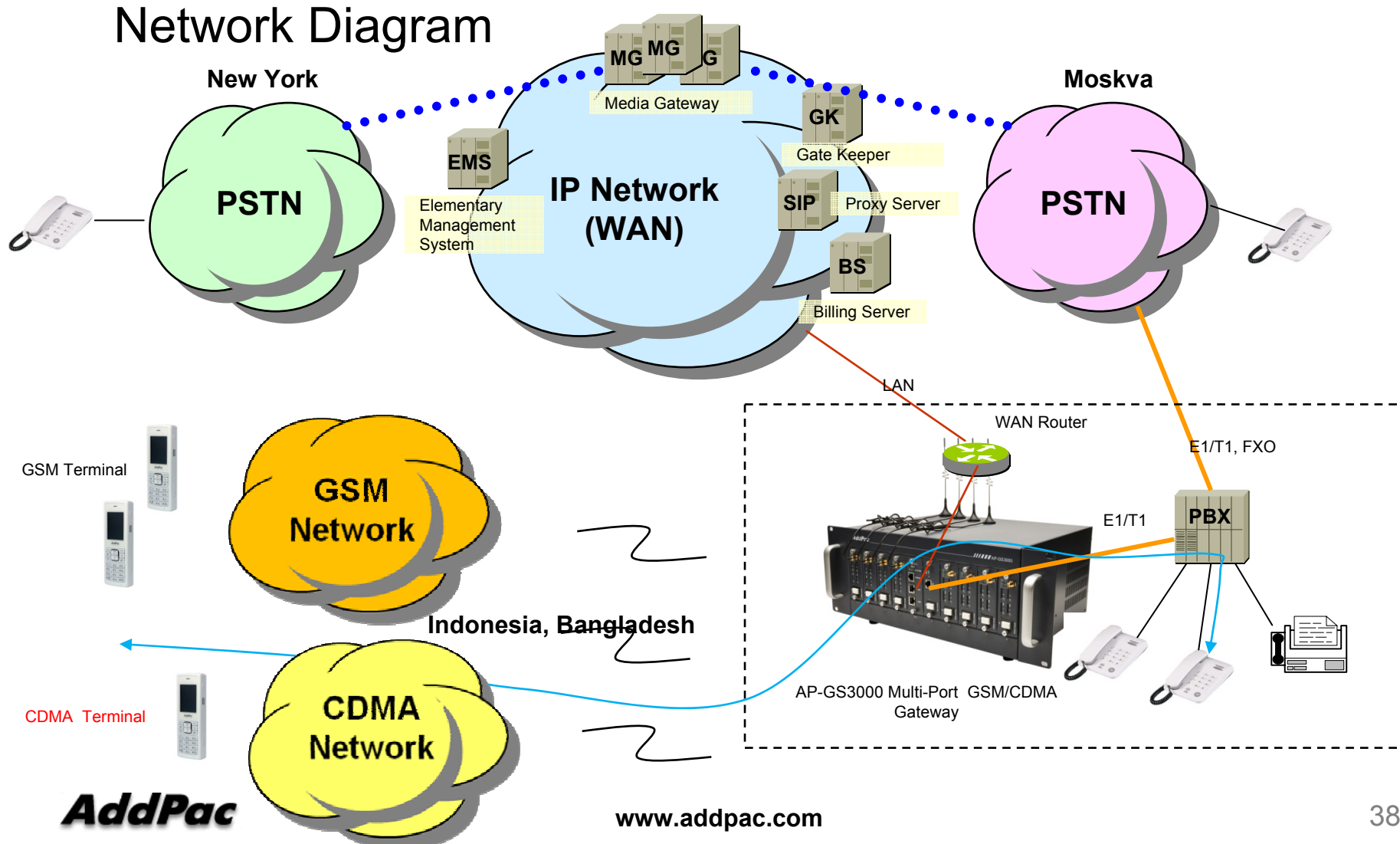
AP-GS3000 Multi-Port GSM/CDMA Gateway


AP-GS3000 Voice Modules

| | |
|--|---|
| AP-N1-GSM4 4-Port GSM Module |  |
| AP-N1-CDMA4 4-Port CDMA Module |  |
| AP-N1-FXS8 8-Port FXS Module |  |
| AP-N1-FXO8 8-Port FXO Module |  |
| AP-N1-FXS4O4 4-Port FXS&4-Port FXO Module |  |
| AP-N1-E1 1-Port Digital E1/T1 Module |  |

Network Service Diagram

AP-GS3000 Multi-Port GSM Gateway





AP-GS3500 GSM/CDMA Gateway

Main Features

AP-GS3500 Multi-Port GSM/CDMA Gateway

- Ten(10) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 36-Port GSM, Up to 36-Port CDMA, Digital E1/T1 Module, CPU Module)
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Two(2)10/100Mbps Fast Ethernet
- One(1) RS-232C Port for Command Line Interface
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) & NMS for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Powerful Web based Management
- Rack Mountable Chassis with Internal Power Supply

Hardware Specification

AP-GS3500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

- RISC Microprocessor Computing Power
- Ten(10) Module Slot for GSM, Analog/Digital Interface
- 4-Port GSM Module(AP-N1-GSM4), Hot-Swap
 - 4-Port SIM Card Slot
 - One(1) GSM Antenna Interface (Internal 4 Channel Combiner)
- 4-Port CDMA Module(AP-N1-CDMA4), Hot-Swap
 - 4-Port RUIM Card Slot
 - One(1) CDMA Antenna Interface (Internal 4 Channel Combiner)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module, Digital E1/T1 Module (AP-N1-FXS8, AP-N1-FXO8, etc)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Dual Power Supply



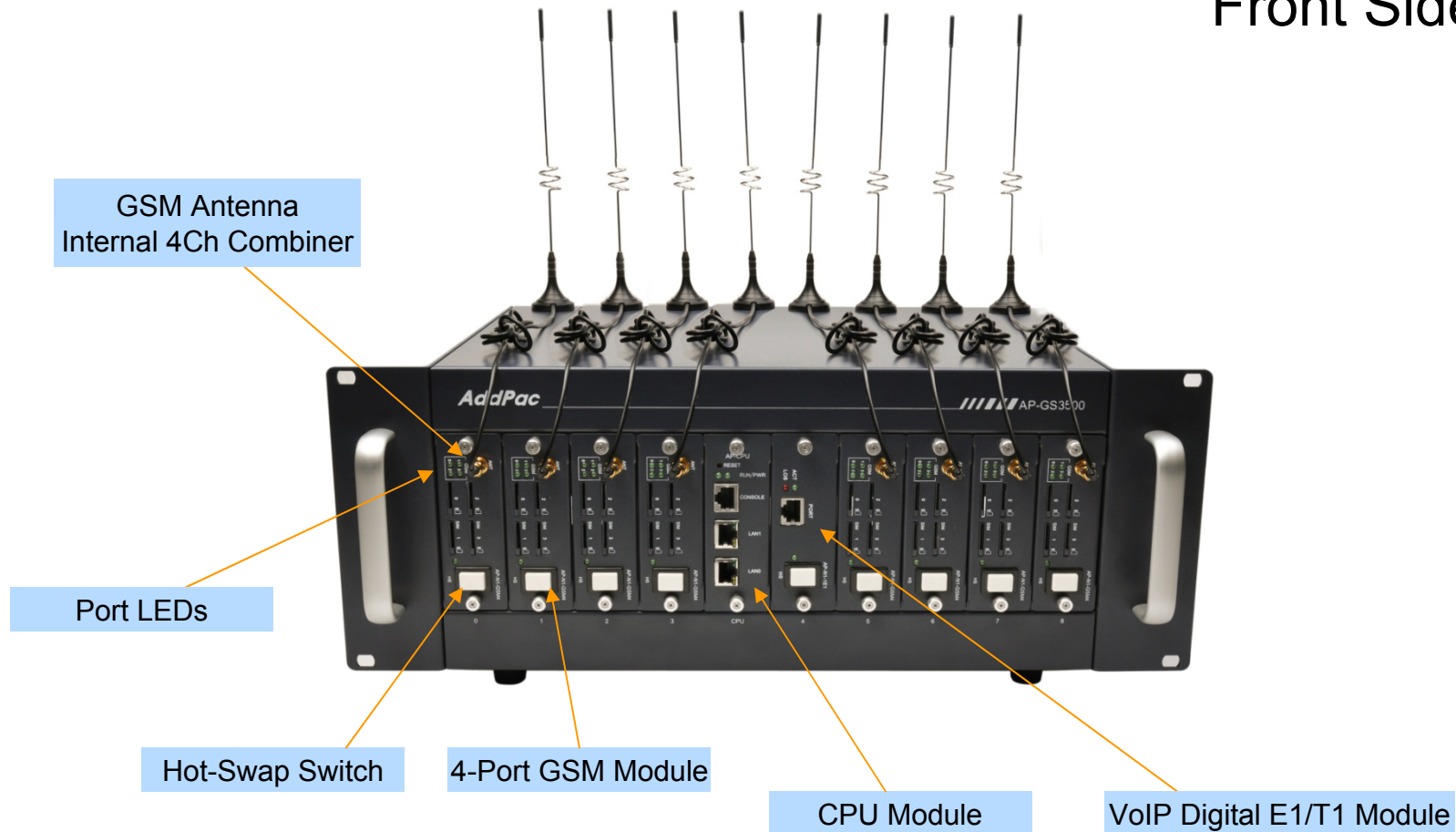
Hardware Specification

AP-GS3500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Front Side View



Hardware Specification

AP-GS3500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

Back Side View









Hardware Specification

AP-GS3500 Multi-Port GSM/CDMA Gateway

RISC
CPU

High-end
DSP

AP-GS3500 Voice Modules

| | |
|--|---|
| AP-N1-GSM4 4-Port GSM Module |  |
| AP-N1-CDMA4 4-Port CDMA Module |  |
| AP-N1-FXS8 8-Port FXS Module |  |
| AP-N1-FXO8 8-Port FXO Module |  |
| AP-N1-FXS4O4 4-Port FXS&4-Port FXO Module |  |
| AP-N1-E1 1-Port Digital E1/T1 Module |  |



Smart Web Manager for GSM/CDMA Gateway

Contents

- Main Page Layout
- System Configuration
 - Network Setup, Language, NAT, PPTP, NTP
- Basic Configuration
 - Protocol, SIP Server , FXS Extension, GSM Extension
 - DTMF/CODEC, VoIP Dial Plan, GSM Dial Plan, Static Routing, Hot Line
- Advanced Configuration
 - Gain/CID, GSM PINs, FAX, Service, Filtering, Security
 - GSM Web Callback, GSM Callback
- Miscellaneous Configuration
 - Call Status, System Status, Alarm Status, GSM Status
 - Call Log, System Log, Ping, BTS Selection, GSM BTS Info
- LCR(Least Cost Routing)
 - Black & White List, Time Interval, Tariff Group, LCR Test
- SMS
 - Inbox, SMS New Message

Main Page Layout

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

- System
 - Network Setup
 - Language
 - NAT
 - PPTP
 - NTP
- Basic
 - Protocol
 - Server SIP
 - SIP Registration
 - FXS Extension
 - GSM Extension
 - DTMF/CODEC
 - VoIP Dial Plan
 - GSM Dial Plan
 - Static Route
 - Hot Line
- Advanced
 - Gain & CID
 - GSM PINs
 - Fax
 - Service
 - Filtering
 - Security
 - SNMP
 - WEB Callback
 - GSM Callback

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

Information
Display the current system version and status summary

| | |
|------------------------|-----------------------------|
| H/W Version | 2.0 |
| SW Version | 8.00d |
| MAC Address | 0002.a400.0000 |
| VoIP Protocol | SIP |
| Voice Interface Module | G(2)S(2) |
| Registration Status | Registered |
| Supported Codec List | |
| Network Information | Static 172.16.9.16 |
| WAN LINK Status | 100Mbps FULL Duplex Link UP |
| LAN LINK Status | Link Down |
| Current Time | Fri Jan 1 01:49:57 2010 |
| System Startup Time | Fri Jan 1 00:00:00 2010 |
| | 0 days 01:49:57 |
| | 0 |

Workspace
Workspace for detailed action

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

Information
AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Registered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

System – Network 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.

Smart Web Manager Network Setup

Hostname: GS1002

Static IP

IP Address: 172.16.9.16 A.B.C.D
Network Mask: 255.255.0.0 A.B.C.D
Default Router: 172.16.1.1 A.B.C.D
DNS Server: Primary DNS Server, Secondary DNS Server

PPPoE(ADSL)

Username:
Password:
Unread Message: P0:0(0), P0:1(0)

DHCP

VLAN ID: 0

Auto

Speed: 100 10
Duplex: full half

WAN Link Control: Manual

MAC(Hardware) Address: [][][][][][]

Apply

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Registered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message: P0:0(0), P0:1(0)

Description

This command sets up WAN port. The static IP address is to be assigned to the WAN port. The static IP address of the device can be changed. MAC Address change can be used only when necessary. It is recommended to use the address created by the user not the address of the device

UnRead SMS Messages

System - Language

Smart Web Manager
www.addpac.com

System

- Network Setup
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs

Configure Language

한국어

English

Apply

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Registered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

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

Configure Language
English, Korea

System - NAT

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

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

NAT Static Table

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

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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 - PPTP

The screenshot shows the 'Smart Web Manager' interface for configuring PPTP. The left sidebar contains a 'System' menu with 'PPTP' selected and a 'Basic' menu. The main content area is titled 'Tunneling' and contains three sections: 'Mode', 'Source & Destination', and 'Service'. The 'Mode' section has radio buttons for 'None (Disable Tunneling, default)', 'PPTP (Point-to-Point Tunneling Protocol)', and 'Authentication' options. The 'Source & Destination' section has a dropdown for 'Source' (FastEthernet0/0) and a text field for 'Destination' (A.B.C.D). The 'Service' section has radio buttons for 'Voice and Data Use Tunnel Interface (default)', 'Voice Use Tunnel Interface, Data Use Ethernet Interface', and 'Data Use Tunnel Interface, Voice Use Ethernet Interface'. The right sidebar shows 'Information' and 'Description' sections. Three yellow callout boxes are present: 'Tunneling Mode', 'Tunneling source & destination', and 'Tunneling Service', each pointing to its respective section in the main content area.

System

- Network Setup
- Language
- NAT
- **PPTP**
- NTP

Basic

- PPTP
- NAT
- NTP
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line
- Fax

Tunneling Mode
Configure Tunneling mode

Tunneling source & destination
Source LAN port & destination IP

Tunneling Service
Service mode

Tunneling

Mode

- None(Disable Tunneling, default)
- PPTP(Point-to-Point Tunneling Protocol)

Username

Password

Authentication

- None (No Authentication)
- PAP (PPP Authentication Protocol)
- CHAP(Challenge Handshake Authentication Protocol)

Phone Number

- None (default)
- Hostname (Use hostname as phone number)
- User Define

Source

Destination A.B.C.D (Tunnel End Point Address)

Service

- Voice and Data Use Tunnel Interface (default)
- Voice Use Tunnel Interface, Data Use Ethernet Interface
- Data Use Tunnel Interface, Voice Use Ethernet Interface

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

This is the settings for using PPTP(Point-to-Point Tunneling Protocol). For the setting to be used for tunneling, please contact the manufacturer of the device

System - NTP

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- **NTP**

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route

NTP

Enable Disable

Primary Server (Domain Name or IP Address)

Secondary Server (Domain Name or IP Address)

Interval (1~72 hours)

Hours Offset : (-23~23 hours) : (0~60 minute)

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

NTP
Configure NTP server (s) & Options

Basic - Protocol

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- **Protocol**
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Protocol

SIP(Session Initiation Protocol)

Apply

Configure VoIP signaling protocol SIP , H.323 (optional)

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

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

Basic – SIP Server

Smart Web Manager
www.addpac.com

SIP (Session Initiation Protocol)

Use SIP Server Yes No

Primary SIP Server Server address (IP or Domain Name) and Port (default 5060)

Secondary SIP Server Server address (IP or Domain Name) and Port (default 5060)

Local Domain name (SIP userpart of authentication)

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

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

Session Re-Fresh INVITE UPDATE

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

Apply

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

Information
AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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

Basic – FXS Extension

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- **FXS Extension**
- GSM Extension

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

FXS Extension

Port Information

| Port | P0 | P1 | P2 | P3 |
|-------|-----|-----|-----|-----|
| SLOT0 | GSM | GSM | FXS | FXS |

FXS Extension Configuration

| Index | Port | Numbers | Preference | HuntStop | Select |
|-------|------|---------|------------|----------|--------------------------|
| 0 | 0/2 | 1234 | 0 | 0 | <input type="checkbox"/> |

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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 – GSM Extension

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP

System

- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension**

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

GSM Extension

Port Information

| Port | P0 | P1 | P2 | P3 |
|-------|-----|-----|-----|-----|
| SLOT0 | GSM | GSM | FXS | FXS |

GSM Extension Configuration

| Index | Port | Numbers | Preference | HuntStop | Select |
|-------|------|---------|------------|----------|--------------------------|
| 0 | 0/0 | T | 0 | X | <input type="checkbox"/> |

GSM Extension with Translation

| Port | Destination Pattern | Digits to Insert | Number of Digits to Delete |
|------|---------------------|------------------|----------------------------|
| P0:0 | 33 | 8 | 1 |
| P0:1 | | | 0 |

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

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

Port Information
voice port type & physical port

GSM Extension
Configure GSM phone-number for receiving a call (usually 'T' is used for each port)

GSM Extension with Translation
Used to GSM callback

- The Received CID is not real serving number.
- The specified translation rule is applied.

Basic – DTMF/CODEC

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- **DTMF/CODEC**
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

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

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)

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

VoIP Dial Plan / Prefix

Plan Table

| Index | Digits to Insert | Number of Digits to Delete | Digit Pattern | Control |
|-------|------------------|----------------------------|---------------|--------------------------|
| 0 | 2 | 0 | T | <input type="checkbox"/> |

Prefix Table

| Index | Prefix | PlanIndex | Control |
|-------|--------|-----------|--------------------------|
| 0 | T | 2 | <input type="checkbox"/> |

Information

AddPac Technology
 Model : GS1002_G2
 H/W Version : 2.0
 S/W Version : 8.00d
 Smart Web Version : 0.4
 Smart Web Build : Mar 24 2010
 Voice Interface
 G(2)S(2)
 Protocol : SIP
 Status : Unregistered
 CurrentCalls: 0 Call
 Network : Static 172.16.9.16
 Mac Address: 0002.a400.0000
 Unread Message:
 P0:0(0)
 P0:1(0)

Description

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

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

Basic – GSM Dial Plan

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Port Information
voice port type & physical port

| Port | P0 | P1 | P2 | P3 |
|-------|-----|-----|-----|-----|
| SLOT0 | GSM | GSM | FXS | FXS |

Plan Table

| Index | Digits to Insert | Number of Digits to Delete | Digit Pattern | Control |
|-------|------------------|----------------------------|---------------|--------------------------|
| 0 | 1 | 1 | 2T | <input type="checkbox"/> |

Prefix Table

| Index | Prefix | 2nd Prefix | PlanIndex | Slot/Port | Control |
|-------|--------|------------|-----------|-----------|--------------------------|
| 0 | 33 | 2T | 0 | 0/0 | <input type="checkbox"/> |

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Hot Line Setup

Miscellaneous

- WEB Callback
- GSM Callback
- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

VoIP PLAN
Configure translation rule for GSM 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

Prefix Table
Configure GSM Peer with translation rule.

Basic – Static Route

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- **Static Route**
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Static Route

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

| No | Remote Site IP | Prefix | Insert Digit | Delete Digit | Name of Remote Site | Answer Addr | Control |
|----|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------------------|
| 0 | 172.16.1.1 | 2... | 172.16.9.16 | 0 | Factory | T | <input type="checkbox"/> |
| * | <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"/> |

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

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

Basic – Hot Line

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- **Hot Line**

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Hot Line

Hot Line Configuration

| Port | Hot Line Number | Digit Input Timeout <0~10 sec> |
|---------|-----------------------------------|-----------------------------------|
| S0P0(G) | <input type="text"/> | <input type="text" value="n.a."/> |
| S0P1(G) | <input type="text"/> | <input type="text" value="n.a."/> |
| S0P2(S) | <input type="text" value="8888"/> | <input type="text" value="5"/> |
| S0P3(S) | <input type="text"/> | <input type="text"/> |

Apply

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Hot Line

- Used as baby-call(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

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- **Gain & CID**
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM RTS Info

Gain

| Port | Port Type | InputGain | OutputGain | Caller ID |
|------|-----------|-----------|------------|-------------------------------------|
| P0:0 | GSM | 0 | 0 | <input checked="" type="checkbox"/> |
| P0:1 | GSM | 0 | 0 | <input checked="" type="checkbox"/> |
| P0:2 | FXS | 0 | 0 | <input checked="" type="checkbox"/> |
| P0:3 | FXS | 0 | 0 | <input checked="" type="checkbox"/> |

Apply

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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 – GSM PINs

Smart Web Manager
www.addpac.com

GSM PINs

PINs ⓘ

| Port | PIN for SIM card |
|------|----------------------|
| P0:0 | <input type="text"/> |
| P0:1 | <input type="text"/> |

GSM PIN
Configure GSM PIN(Personal Identification Number)

Information

AddPac Technology
Model : GS1002_G2
H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Configure GSM PINs

Advanced - Fax

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- **Fax**
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

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 : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- **Service**
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Service

Applicaton Services

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

Timer

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

Call Service

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

SIP Transfer

- Mode: blind Attended

Apply

Information

AddPac Technology
Model : GS1002_G2
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S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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 Call-Transfer-Mode.

Advanced - Filtering

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- **Filtering**
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Filter

FTP Filter

| Network Addr | Network Mask | Control |
|----------------------|----------------------|------------------------------------|
| <input type="text"/> | <input type="text"/> | <input type="button" value="Add"/> |

HTTP Filter

| Network Addr | Network Mask | Control |
|----------------------|----------------------|------------------------------------|
| <input type="text"/> | <input type="text"/> | <input type="button" value="Add"/> |

Telnet Filter

| Network Addr | Network Mask | Control |
|----------------------|----------------------|------------------------------------|
| <input type="text"/> | <input type="text"/> | <input type="button" value="Add"/> |

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

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
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System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- **Security**
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Security

IP Filtering Enable Disable

WarDialing Filtering Enable Disable

Allow Digit Length(IP to PSTN) Min Max

SIP Shutdown Enable Disable

Apply

Information

AddPac Technology
Model : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Configure the settings for IP authentication and protocol and incoming number

Security

- IP Filtering : Allowing only the inbound call which is registered to Call-Routing of the server by static IP.
- 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
- SIP : SIP signaling packets are filtered.

Advanced – GSM Web Callback

Smart Web Manager
www.addpac.com

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Calling Number White List
The employee working at the out of office are usually registered.

WEB Callback
The employee working at the out of office can use web call agent.

Status Viewer
Display real-time call status.

GSM WEB Callback

Calling Number Whitelist

| index | DialPattern | Control |
|-------|-------------|--------------------------|
| 0 | 01023234444 | <input type="checkbox"/> |

0 [input type="text" value=""/> [Delete] [Add]

WEB Callback

| Destination Numbers | Source Numbers | Control |
|---------------------|----------------|---------|
| 8888 | 9999 | [Apply] |

Information

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Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Execute GSM call service function and Configure call service whitelist

Call Fail

System

- WEB Callback
- GSM Callback

Advanced – GSM Callback

GSM Callback
 The employee working at the out of office can use this function.

- The Call received from GSM network is automatically disconnected.
- GSM gateway calls to the calling number.

Calling Number White List
 The employee working at the out of office are usually registered.

Callback
 The white list group is adapted to specific GSM port

Smart Web Manager
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System

- FXS Extension
- GSM Extension
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback**

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

GSM Callback

Calling Number Whitelist

| Group | Index | DialPattern | Control |
|-------|-------|-------------|--------------------------|
| 3 | 0 | 123T | <input type="checkbox"/> |

3 | 0 | [] | [Delete] | [Add]

Callback

| GSM Port | My Number | WhiteList Group |
|----------|-----------|-----------------|
| P0:0 | | 3 |
| P0:1 | | N.A. |

[Apply]

Information

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 G(2)S(2)
 Protocol : SIP
 Status : Unregistered
 CurrentCalls : 0 Call
 Network : Static 172.16.9.16
 Mac Address : 0002.a400.0000
 Unread Message:
 P0:0(0)
 P0:1(0)

Description

Execute GSM callback function and Configure callback whitelist

Miscellaneous – Call Status

Smart Web Manager
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System

- Network Setup
- Language
- NAT
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Call Status

Port Status (Analog)

| Slot | Port Group | | | | |
|--------|------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Port | 0() | 1() | 2() | 3() |
| SLOT 0 | Status | I | I | I | I |
| | Select | <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 Status

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

Information

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Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
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Unread Message:
P0:0(0)
P0:1(0)

Description

Verify port status and retrieve the present call information

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

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

Miscellaneous – System Status

System Status

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

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System Status

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Information

AddPac Technology
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S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010

Voice Port

| Port | LineType | Status | InGain | OutGain | TieType | TieDigits | CallNum | Tcalled | Tcalling |
|------|----------|--------|--------|---------|----------|-----------|---------|---------|----------|
| 0/ 0 | GSM | Idle | 0 | 0 | none | | -1 | -1 | -1 |
| 0/ 1 | GSM | Idle | 0 | 0 | none | | -1 | -1 | -1 |
| 0/ 2 | FXS | Idle | 0 | 0 | hot-line | 8888 | -1 | -1 | -1 |
| 0/ 3 | FXS | Idle | 0 | 0 | none | | -1 | -1 | -1 |

SIP-UA

Proxyserver Registration Information
proxyserver registration option = e164
Proxyserver list :

| Server address | Port | Priority | Domain | Status (LastFailReason) |
|----------------|------|----------|--------|-------------------------|
| 172.17.116.215 | 5060 | 128 | any | Failed (Rx:OtherMsg) |

Proxy Server registration status :

| E.164 | UserName | Password | Port | Status |
|-------|----------|----------|------|------------|
| 1005 | 1005 | NONE | 0/ 2 | Registered |
| 33 | 33 | NONE | 0/ 0 | Failed |

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.

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

SIP DNS SRV Query : Disable
SIP Call Transfer Mode : Basic
SIP Media Channel Start Mode : Default
SIP Reliable Provisional Response Option : Supported with value <100rel>
SIP Response Option : default
SIP Local Domain : NULL
SIP Special Char : NULL
SIP Routing Method of Incoming Call : Default
SIP Remote-Party-ID : Disabled

Advanced

- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line
- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- **System Status**
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

Description

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

Miscellaneous – Alarm Status

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Alarm Status

Interface Down Counter = 0
H323 Register Fail Counter = 0
SIP Register Fail Counter = 0

Clear

Alarm Status

- Interface Down count
- H323 register fail counter
- SIP register fail counter

Information

AddPac Technology
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H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Verify the physical failure of LAN, H.323 / SIP Register Fail by increasing counter

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- **Alarm Status**
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM RTS Info

Miscellaneous – GSM Status

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GSM Status

GSM Port Status & Information

| Port | My Phone Number | Device Information | | Accounting (Used/Quota/Free) | |
|------|-----------------|--------------------|-----------------|------------------------------|-----------------|
| | | Register Status | Signal Strength | Voice Quota(secs) | SMS Quota(E.A.) |
| P0:0 | | REG | 0dB | 0 / 36000 / 36000 | 0 / 300 / 300 |
| P0:1 | | REG | 0dB | 0 / -1 / -1 | 0 / -1 / -1 |

Information

AddPac Technology
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S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Diaplay GSM wireless status

GSM Status

- my number
- GSM register status
- GSM signal strength
- Account information
 - * voice quota (used / quota / free)
 - * SMS quota (used / quota / free)

Miscellaneous – Call Log

Smart Web Manager
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System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP

Registration

- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping

Call Log

| CallNum | EventTime | Descript | CallingPartyNum | CalledPartyNum | RemoteInfo | SetupTime | Dur | Reason |
|---------|----------------|----------|-----------------|----------------|------------|-----------|-----|-----------------|
| < 1> | Jan 1 02:49:50 | local | 8888 | 9999 | : | | 0 | Local:CallClear |

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
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System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

Miscellaneous

- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- **System Log**
- Ping
- BTS Selection
- GSM BTS Info

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 : GS1002_G2
HW Version : 2.0
SW Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Retrieve the system log

Miscellaneous - Ping

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System

- Network Setup
- Language
- NAT

Advanced

- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

Miscellaneous

- Call Status
- System Status
- [Alarm Status](#)
- GSM Status
- Call Log
- System Log
- **Ping**
- BTS Selection
- GSM BTS Info

Ping

Host address Start

Information

AddPac Technology
Model : GS1002_G2
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S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Verify the physical failure of LAN, H.323 / SIP Register Fail by increasing counter

PING
You can diagnose network status by PING.

PING
Show real time ping status.

Miscellaneous – BTS Selection

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GSM / BTS Control

| Port | BTS Selection Mode | BCCH | RSSI & Timer |
|------|--------------------|------|--------------|
| P0:0 | Auto | 72EA | -25B -1(sec) |
| P0:1 | Auto | 72EA | -25B -1(sec) |

P0:0 Auto BCCH RSSI & Timer
-10 dB 0 sec
Apply

BTS control
Configure BTS selection option
* Auto mode
* forced BCCH
* forced RSSI level

Information
AddPac Technology
Model : GS1002_G2
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Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description
Configure BTS selection mode

Miscellaneous – GSM BTS Info

Smart Web Manager
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- System**
- Network Setup
- Language
- NAT
- PPTP
- NTP

- Basic**
- Protocol
- Server SIP
- SIP Registration
- FXS Extension
- GSM Extension
- DTMF/CODEC
- VoIP Dial Plan
- GSM Dial Plan
- Static Route
- Hot Line

- Advanced**
- Gain & CID
- GSM PINs
- Fax
- Service
- Filtering
- Security
- SNMP
- WEB Callback
- GSM Callback

- Miscellaneous**
- Call Status
- System Status
- Alarm Status
- GSM Status
- Call Log
- System Log
- Ping
- BTS Selection
- GSM BTS Info

GSM BCCH Cell Information

PORT 0:0

PORT 0:1

Information

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G(2)S(2)
Protocol : SIP
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Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Verify GSM wireless signal status

BCCH Cell Information
Shows serving cell information (center circle) and neighboring cell information.
* LAC : Location Area Code
* CI : Cell ID
* BSIC : Basic Station ID Code
* BCCH : Broadcast Control Channel
* RSSI : Receiver Signal Strength

LCR – Black & White List

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GSM LCR / Black List & White List

BlackList

| Index | DialPattern | Control |
|-------|----------------------|--------------------------|
| 0 | 888T | <input type="checkbox"/> |
| | | Delete |
| 0 | <input type="text"/> | Add |

WhiteList

| Index | DialPattern | Control |
|-------|----------------------|--------------------------|
| 0 | 2... | <input type="checkbox"/> |
| | | Delete |
| 0 | <input type="text"/> | Apply |

Information

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Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls : 0 Call
Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Configure black & white list

LCR Black & White List
Black List : The patterns are disallowed GSM outbound call.
White List : The patterns are allowed GSM outbound call.

LCR – Time Interval

The screenshot displays the 'Smart Web Manager' interface for configuring GSM LCR / Time Interval Groups. The main content area is titled 'GSM LCR / Time Interval Group' and contains a 'TimeInterval' section. This section features a table with the following data:

| Group | Days | StartTime(hh:mm) | EndTime(hh:mm) | Control |
|-------|----------|------------------|----------------|--------------------------|
| 0 | Weekdays | 00:00 | 23:59 | <input type="checkbox"/> |

Below the table, there are input fields for adding a new group: a dropdown for 'Group' (set to 0), a dropdown for 'Days' (set to 'weekend'), two dropdowns for 'StartTime(hh:mm)' (set to 0 and 0), and two dropdowns for 'EndTime(hh:mm)' (set to 0 and 0). There are 'Delete' and 'Add' buttons.

A yellow callout box points to the table with the text: **Time Interval**
GSM outbound call is restricted by Time Interval

The left sidebar contains a navigation menu with categories: System (Network Setup, Language, NAT, PPTP, NTP), Basic (Protocol, Server SIP, SIP Registration, FXS Extension, GSM Extension, DTMF/CODEC, VoIP Dial Plan, GSM Dial Plan, Static Route, Hot Line), Advanced (Gain & CID, GSM PINs, Fax, Service, Filtering, Security, SNMP, WEB Callback, GSM Callback), and Miscellaneous (Call Status, System Status, Alarm Status, GSM Status, Call Log, System Log, Ping, BTS Selection, GSM BTS Info).

The right sidebar contains 'Information' and 'Description' sections. The 'Information' section lists: AddPac Technology, Model: GS1002_G2, HW Version: 2.0, SW Version: 8.00d, Smart Web Version: 0.4, Smart Web Build: Mar 24 2010, Voice Interface: G(2)S(2), Protocol: SIP, Status: Unregistered, CurrentCalls: 0 Call, Network: Static 172.16.9.16, Mac Address: 0002.a400.0000, Unread Message: P0:0(0), P0:1(0). The 'Description' section contains: Configure time interval group.

LCR – Tariff Group

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GSM LCR / Tariff Group

Tariff Group

| Group | Time Group | Restore Call Limit | | Accounting Period | | Free Quota | | Control |
|-------|------------|--------------------|-------------|-------------------|-----------|------------|-----|--------------------------|
| Type | RestoreDay | First(sec) | Others(sec) | Voice(min) | SMS(E.A.) | | | |
| 0 | 0 | monthly | 15 | 30 | 10 | 600 | 300 | <input type="checkbox"/> |
| 0 | 0 | daily | 1 | | | | | Delete Add |

TariffPort

| Port | TariffGroup |
|------|-------------|
| P0:0 | 0 |
| P0:1 | N.A. |
| P0:2 | N.A. |
| P0:3 | N.A. |

Information

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G(2)S(2)
Protocol : SIP
Status : Unregistered
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Network : Static 172.16.9.16
Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

Configure tariff group

Time Interval Group
Time interval Group is adapted to this tariff group.

Restore call limit
Quota restore time

Accounting Period
Used to voice call.
(ex)
- configured as First (30 seconds) Others(10 seconds)

first connect -- 30 seconds are accounted.
after 30 seconds -- 10 seconds are additionally accounted.
after 10 seconds – 10 seconds are additionally accounted.
and so on.

Tariff Group
Tariff group is adapted to specific GSM port.

Free quota
Free quota information.
Current Usage information is supported at GSM Status.

LCR – LCR Test

The screenshot shows the 'Smart Web Manager' interface for an LCR Test. The main area is titled 'LCR Test' and contains input fields for 'Caller:' (8888) and 'Called Number:' (9999), along with a 'Start' button. Below these is a log window showing the simulation results. Two yellow callout boxes provide additional context: one identifies the 'LCR Test LCR simulator' and the other states 'Show real time simulation status.' The log output shows a failed attempt to route the call from 8888 to 9999.

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

LCR Test
LCR simulator

- SIP Registration
- FXS Extension
- GSM Extension

LCR Test
Show real time simulation status.

- Static Route
- Hot Line

Advanced

- Gain & CID
- GSM PIN

LCR Test

Caller:

Called Number:

```
< 1> LCR : =====
< 2> LCR : == GSM LCR(Least Cost Route) Simulator Start ==
< 3> LCR : =====
< 4> LCR : -- src digits : 8888(GSM) -> dst digits : 9999(GSM)
< 5> LCR : -- MatchAllProcess After Sorted
< 6> LCR : <0> id(3048) dest(T) prefer(0) selected(0)
< 7> LCR : -- Trying : <0> id(3048) dest(T)
< 8> LCR : -- Error: Outbound White Group(id:1) UnMatched
< 9> LCR : -----
< 10> LCR : -- Result : Fail
< 11> LCR : =====
< 12> LCR : == GSM LCR(Least Cost Route) Simulator End ==
< 13> LCR : =====
```

Information

AddPac Technology
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H/W Version : 2.0
S/W Version : 8.00d
Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
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Mac Address : 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

LCR Test

SMS – Inbox

Smart Web Manager
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GSM SMS / InBox

number of messages are 0 P:0:0 OK

| Index | Sender | Received | Message | Select |
|------------|--------|----------|---------|--------|
| < > Delete | | | | |

Information

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Smart Web Version : 0.4
Smart Web Build : Mar 24 2010
Voice Interface
G(2)S(2)
Protocol : SIP
Status : Unregistered
CurrentCalls: 0 Call
Network : Static 172.16.9.16
Mac Address: 0002.a400.0000
Unread Message:
P0:0(0)
P0:1(0)

Description

GSM SMS / In Box

- total message
- unread messages (Blue color)
- received time
- content

SMS – SMS New Message

The screenshot shows the 'Smart Web Manager' interface for sending an SMS message. The main content area is titled 'GSM SMS / New Message'. It contains a form with the following fields:

- Phone Number:
- Message:
- Port:

A red dashed box highlights the form fields. Below the form is a 'Send' button. A yellow callout box with a black border contains the text: 'New Message send a new message to the other GSM mobile phone.' An arrow points from this callout box to the form area.

The left sidebar contains a navigation menu with the following sections:

- System
 - Network Setup
 - Language
 - NAT
 - PPTP
 - NTP
- Basic
 - Protocol
 - Server SIP
 - SIP Registration
 - FXS Extension
 - GSM Extension
 - DTMF/CODEC
 - VoIP Dial Plan
 - GSM Dial Plan
 - Static Route
 - Hot Line
- Advanced
 - Gain & CID
 - GSM PINs
 - Fax
 - Service
 - Filtering
 - Security
 - SNMP
 - WEB Callback
 - GSM Callback
- Miscellaneous
 - Call Status
 - System Status
 - Alarm Status
 - GSM Status
 - Call Log
 - System Log
 - Ping
 - BTS Selection
 - GSM BTS Info

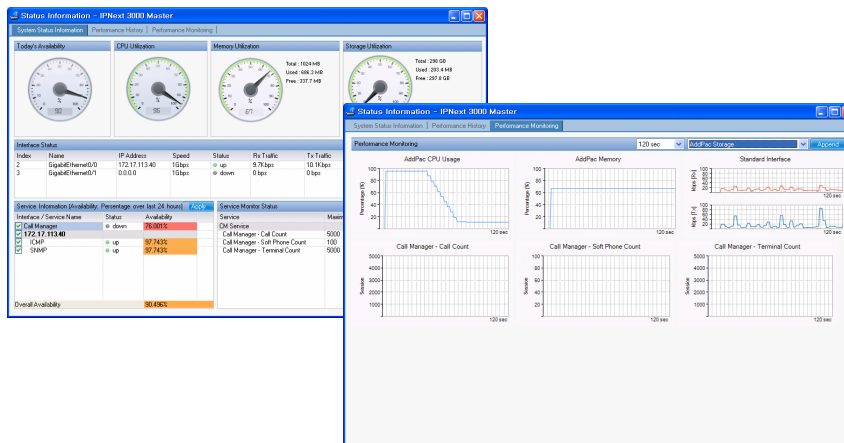
The right sidebar contains an 'Information' section with the following details:

- AddPac Technology
- Model: GS1002_G2
- HW Version: 2.0
- SW Version: 8.00d
- Smart Web Version: 0.4
- Smart Web Build: Mar 24 2010
- Voice Interface
 - G(2)S(2)
- Protocol: SIP
- Status: Unregistered
- CurrentCalls: 0 Call
- Network: Static 172.16.9.16
- Mac Address: 0002.a400.0000
- Unread Message:
 - P0:0(0)
 - P0:1(0)

Below the information section is a 'Description' section with a text area.

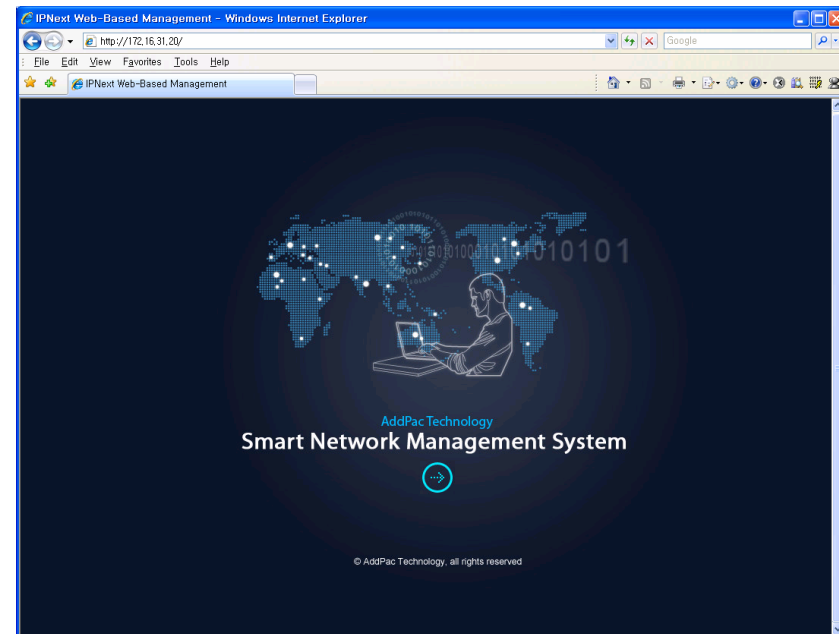
Smart NMS

Smart Network Management System for GSM/CDMA Gateway



Contents

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



System Requirement

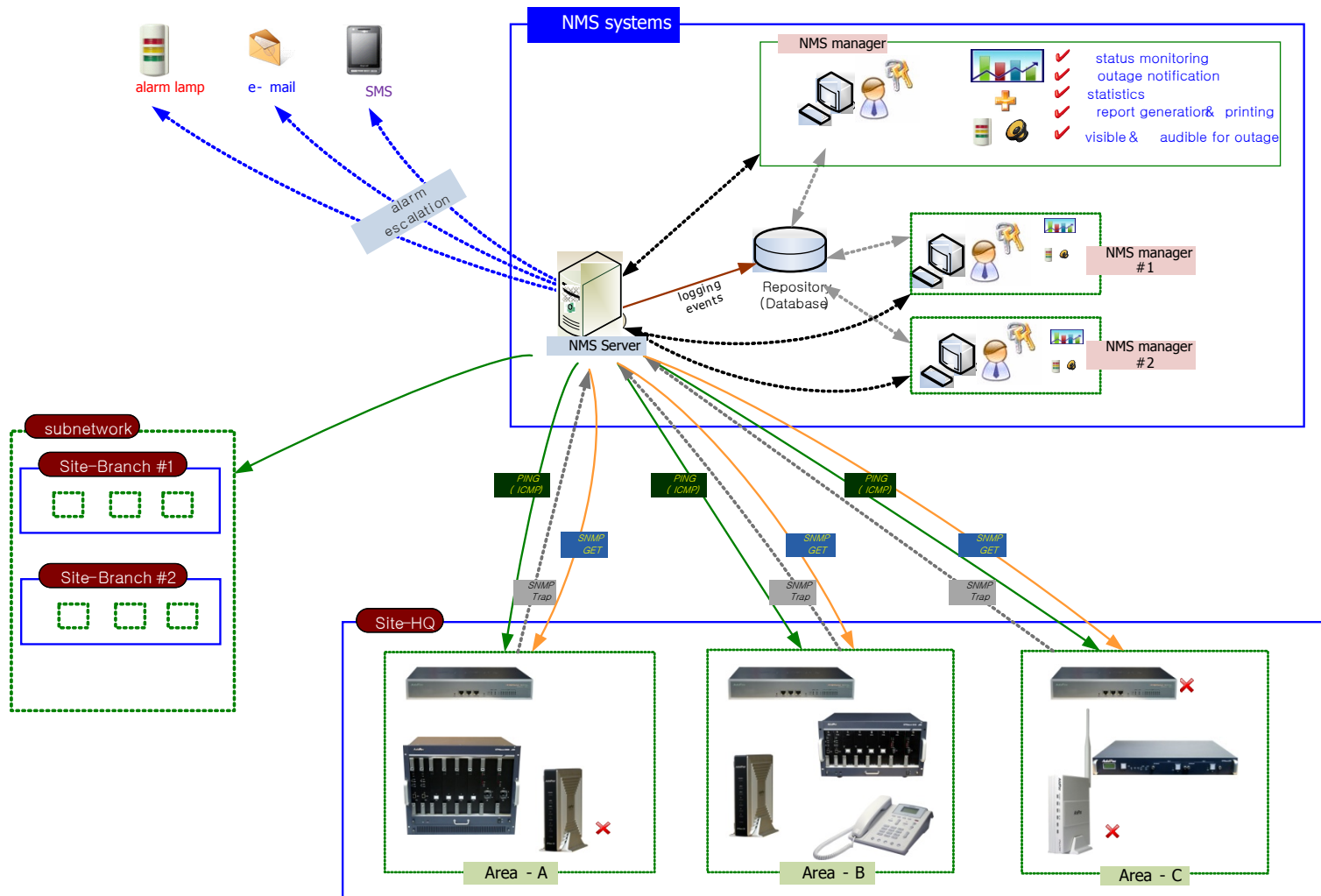
NMS Server

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

NMS Client

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

NMS Networking Diagram



Web-based Management

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

Version Control

The screenshot displays the IPNext Web-Based Management interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL `http://172.16.31.20/`. The main content area features a dark blue background with a world map and binary code, and the text "AddPac Technology Smart Network Management System".

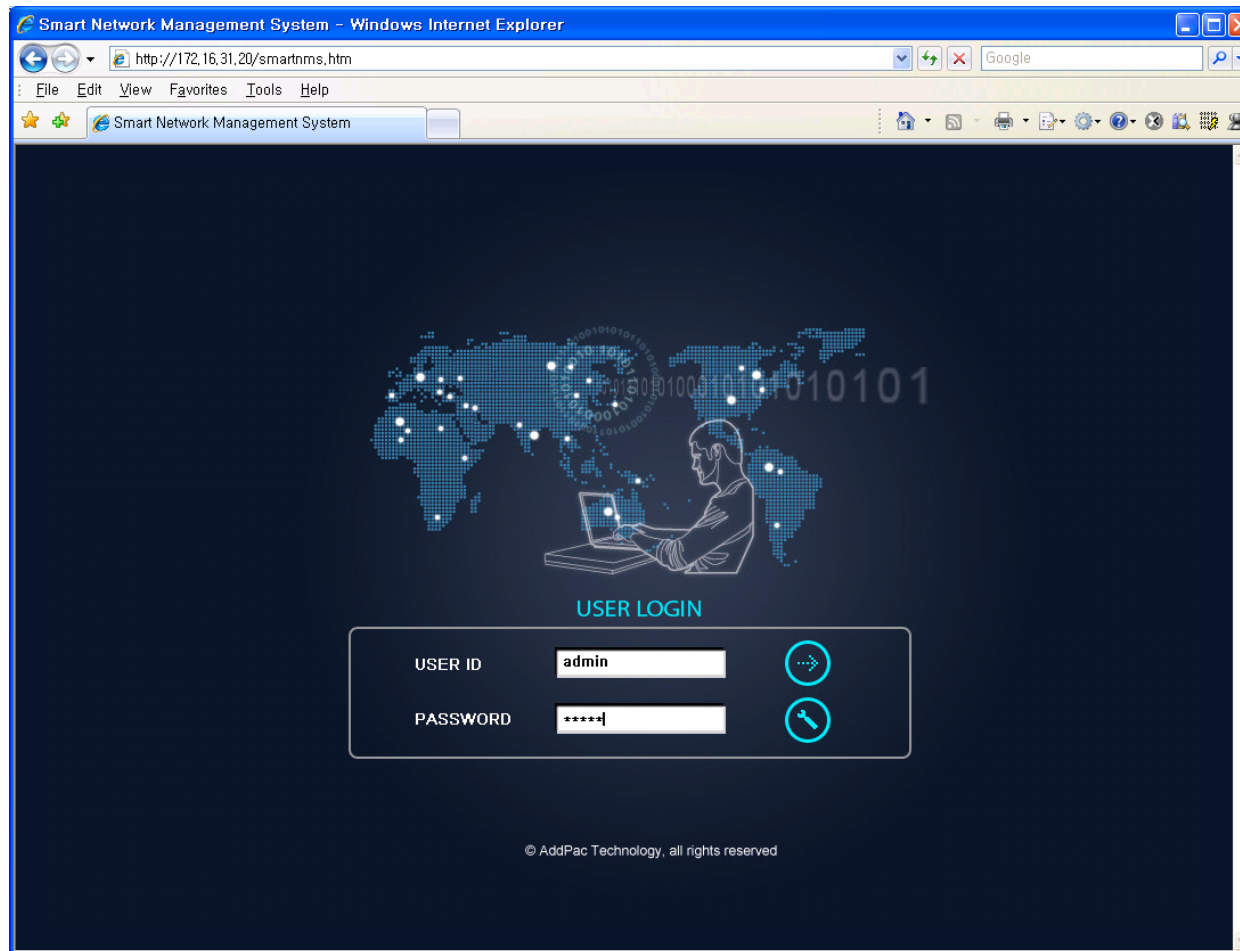
Two yellow callout boxes highlight specific features:

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

Two Windows-style dialog boxes are overlaid on the interface:

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

Web-based Login



Network Resource Management

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

The screenshot displays the AddPac Network Resource Management interface. On the left, a hierarchical tree structure shows the organization of network resources, including sites like 'AddPac', 'Seoul', and 'GangNamGu'. The main area shows a list of categories such as Desktop, Network Camera, Phone, Server, Switch, and VoIP Gateway. A context menu is open over the tree, highlighting 'Execute SMM'. A 'User Properties' dialog is also visible, showing a selection of site nodes for assignment to a user.

manage the complex network with a structured, hierarchical form

can assign the hierarchical node to the operator and manage role-based policy

can cooperate with the application executables such as SMM

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

Current Outage Devices [11]

| Name | Service... | Availability |
|------------------|------------|--------------|
| AddPac | | |
| Branch AQ | | |
| NMS Camera | 6 of 12 | 46.937 % |
| 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 | 32.740 % |
| IPNext 3000 ... | 1 of 3 | 90.608 % |
| IPNext 3000 S... | 1 of 3 | 90.623 % |
| UMS slave | 3 of 3 | 0.000 % |
| HeadQuarter | | |
| UMS server(o... | 3 of 3 | 0.000 % |
| Subnetwork #2 | | |
| Center | | |
| NMS_SOHO_... | 2 of 2 | 98.115 % |

Site

| Site | Type | Outages | Availability | Description |
|--------|-------------|--------------|--------------|------------------------|
| AddPac | Sub Netw... | 28 / 10 / 32 | 53% | AddPac Technology C... |
| Seoul | Sub Netw... | 2 / 1 / 2 | 98% | Seoul subnetwork |

Overall Availability 30 / 11 / 34 78.650 %

Device Categories

| Category | Outages | Availability |
|----------------|--------------|--------------|
| Desktop | 0 / 0 / 1 | 100% |
| Network Camera | 6 / 1 / 2 | 54% |
| Phone | 0 / 0 / 3 | 98% |
| Server | 24 / 10 / 22 | 58% |
| Switch | 0 / 0 / 0 | 100% |
| VoIP Gateway | 0 / 0 / 6 | 98% |

Overall Categories Availability 30 / 11 / 34 61.282 %

Your Outstanding Notices [16]

| Ack | ID | Send Time | Site | Device Name | IP Address | Service | Message |
|--------------------------|------|-----------------------|-----------------------|--------------------|----------------|--------------|---|
| <input type="checkbox"/> | 9502 | 4/10/2009 3:34:29 PM | /Subnetwork #2/Center | NMS_SOHO_PBX | | | device NMS_SOHO_PBX, all services are down |
| <input type="checkbox"/> | 9495 | 4/10/2009 11:37:12 AM | /AddPac/Branch GX | IPNext 3000 Slave | 172.17.113.41 | Call Manager | interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service 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 Camera 2) interface 172.16.253.118 (172.16.253.118) not response or deleted by administrator |
| <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) service ICMP 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 SNMP 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 ICMP 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 |

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) Site

Service Outages Device Monitoring - <All>

View Mode Large Small Refresh Import

display message icon when the device have a notification for event

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

* severity color

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

| Name | Service... | Availability |
|------------------|------------|--------------|
| Branch AQ | | |
| NMS Camera | 6 of 12 | 48.994 % |
| 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_NR_server | 1 of 2 | 98.015 % |
| 00_PS_server | 3 of 3 | 0.000 % |
| 00_PS_slave... | 2 of 3 | 32.703 % |
| IPNext 3000 ... | 1 of 3 | 90.536 % |
| IPNext 3000 S... | 1 of 3 | 90.584 % |
| UMS slave | 3 of 3 | 0.000 % |
| HeadQuarter | | |
| UMS server(o... | 3 of 3 | 0.000 % |
| Subnetwork #2 | | |
| Center | | |
| NMS_SOHO_... | 2 of 2 | 92.939 % |

Total Monitoring Devices : 34

| PK | 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 |

4/10/2009 5:16:30 PM 172.16.31.20:5101 admin Version 1.2.3384

Device Fault Management

The screenshot displays the Smart Network Management System (NMS) interface within a Windows Internet Explorer browser. The main area shows a 'device status matrix with small view mode' containing various network devices such as servers, routers, and cameras, each with a status icon (green for OK, red for fault). A red arrow points to a specific 'NMS Camera' device that is highlighted with a red box.

Below the device matrix, there is a section for 'Your Outstanding Notices (18)'. The table below contains the following data:

| Ack | ID | Send Time | Site | Device Name | IP Address | Service | Message |
|--------------------------|------|-----------------------|----------------------|--------------------|----------------|--------------|--|
| <input type="checkbox"/> | 9535 | 4/10/2009 9:26:04 PM | /AddPac/Branch GX | 00_RBT_server | | | device 00_RBT_server'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 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 |
| <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 delete by administrator |

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. The main window shows a list of fault events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, Message, and Respond Time. An 'Advanced Search' dialog box is open, allowing users to filter events based on Sub Network, Site, IP Address, Notice Status Type, Level (Severity), Message Contains, Notices After, Notices Before, and Sort By.

daily fault event summary statistics information

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

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

| Ack | ID | Send Time | Site | Device Name | IP Address | Service | Message | 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 | 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. | 4/10/2009 5:35:25 PM |
| <input type="checkbox"/> | 9526 | 4/10/2009 5:33:42 PM | /AddPac/Branch GX | 00_NR_server | 172.17.11.1 | | | 4/10/2009 5:22:43 PM |
| <input type="checkbox"/> | 9525 | 4/10/2009 5:21:06 PM | /AddPac/Branch GX | 00_NR_server | 172.17.11.1 | | | 4/10/2009 5:17:56 PM |
| <input type="checkbox"/> | 9524 | 4/10/2009 5:17:29 PM | /AddPac/Branch GX | 00_NR_server | 172.17.11.1 | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9522 | 4/10/2009 3:36:26 PM | /AddPac/HeadQuarter | IP_PBX_Slave(our company) | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9521 | 4/10/2009 3:36:18 PM | /AddPac/HeadQuarter | PS_server(our co... | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9520 | 4/10/2009 3:36:17 PM | /AddPac/HeadQuarter | RBT server(our company) | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9519 | 4/10/2009 3:36:17 PM | /AddPac/HeadQuarter | UMS_server #2 | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9518 | 4/10/2009 3:36:09 PM | /AddPac/HeadQuarter | Recording Server (our company) | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9517 | 4/10/2009 3:36:08 PM | /AddPac/HeadQuarter | company_MCU_s... | | | | 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... | | | | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9514 | 4/10/2009 3:35:50 PM | /AddPac/Branch GX | 00_PS_server | | | | 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 | | | | 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) | | | | 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 | | | | 4/10/2009 4:02:43 PM |

Results: 1 to 20 of 6701 Search Constraints: user=admin

Your Outstanding Notices (17)

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

Device Fault History Management

The screenshot shows the Smart Network Management System (NMS) interface in a Windows Internet Explorer browser. The main window displays a list of service outages 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 text area with a note: "Fixed it manually. 2009-04-10 10:51:06 PM by Administrator." and buttons for 'Add', 'Edit', 'Delete', and 'Help'. An orange callout box points to the text area 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 5:35:25 PM |
| <input type="checkbox"/> | 9525 | 4/10/2009 5:21:06 PM | /AddPac/Branch GX | | | | | to-acknowledged | 4/10/2009 5:22:43 PM |
| <input type="checkbox"/> | 9524 | 4/10/2009 5:17:29 PM | /AddPac/Branch GX | | | | | to-acknowledged | 4/10/2009 5:17:56 PM |
| <input type="checkbox"/> | 9522 | 4/10/2009 3:36:26 PM | /AddPac/Branch HQ | IP: cor | | | | to-acknowledged | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9521 | 4/10/2009 3:36:18 PM | /AddPac/Branch HQ | 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 HQ | UW Re (ou | | | | to-acknowledged | 4/10/2009 4:03:13 PM |
| <input type="checkbox"/> | 9519 | 4/10/2009 3:36:17 PM | /AddPac/Branch HQ | co | | | | to-acknowledged | 4/10/2009 4:03:13 PM |

Current Device Fault (Outage)

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of the network structure on the left and a table of current outages in the center. A red box highlights the 'Service' column in the outage table, with an annotation: "Display the current all device faults".

| 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 |

An "Event Detail (ID: 45412)" dialog box is open, showing the following information:

- Event Time: 4/10/2009 9:26:04 PM
- Site: /AddPac/Branch GX
- Device Name: 00_RBT_server
- IP Address: [Empty]
- Severity: Critical
- 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.

Below the description is a "Troubleshooting Note List" table with columns for Time, User, Status, and Note.

At the bottom of the main window, there is a "Your Outstanding Notices (18)" section with a table of notices:

| Ack | ID | Send Time | Site | Device Name | IP Address | Service | Message |
|-------------------------------------|------|----------------------|------------------------|----------------------|------------|--------------|---|
| <input checked="" type="checkbox"/> | 9535 | 4/10/2009 9:26:04 PM | /AddPac/Branch GX | 00_RBT_server | | Call Manager | 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... | | Call Manager | 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"/> | 9502 | 4/10/2009 3:34:29 PM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | | Call Manager | 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. |

Annotations in orange boxes provide additional context:

- "Display the current all device faults" points to the red box in the outage table.
- "Can view the event data related to the current device fault and can write troubleshooting note if needed" points to the Event Detail dialog box.

Device Event History

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

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

Limit 20 Refresh Advanced Search Acknowledge Events Troubleshooting Note

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

| Acc ID | Severity | Event Time | Site | Device Name | IP Address | Service | Message |
|--------|----------|-----------------------|------------------------|----------------------|----------------|---------|--|
| 45786 | Critical | 4/13/2009 11:24:42 AM | /AddPac/Branch GX | SE_MG3000N_A | 172.17.111.22 | | Agent Up with enterprise: 1.3.6.1.4.1.4855.3.2.255 args [1.3.6.1.4.1.4855.3.2.255]" |
| 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. |
| 45784 | Cleared | 4/13/2009 11:15:52 AM | /AddPac/Branch GX | 00_NR_server | | | Node 00_NR_server is up. |
| 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 [1.3.6.1.4.1.4855.3.2.10] args [1.3.6.1.6.3.1.1.4.3.0="1.3.6.1.4.1.4855.3.2.10]" |
| 45782 | Critical | 4/13/2009 11:15:13 AM | /AddPac/Branch GX | 00_NR_server | | | Node 00_NR_server is down. |
| 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. |
| 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. |
| 45779 | Warning | 4/13/2009 10:00:15 AM | /Subnetwork #2/Cent... | NMS_IP_PBX_31... | 172.16.31.16 | SNMP | SNMP thresholding on interface 172.16.31.16 failed. |
| 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. |
| 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. |
| 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. |
| 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. |
| 45774 | Warning | 4/13/2009 9:59:36 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 45773 | Warning | 4/13/2009 9:59:33 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 45772 | Warning | 4/13/2009 9:59:32 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 45771 | Warning | 4/13/2009 9:59:27 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 45770 | Warning | 4/13/2009 9:59:24 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 45769 | Warning | 4/13/2009 9:59:23 AM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | 172.16.19.50 | SNMP | SNMP data collection on interface 172.16.19.50 failed. |
| 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. |
| 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. |

| 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. | | |
| 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. |
| 9396 | 4/9/2009 10:57:37 AM | /AddPac/Branch AQ | NMS_IP_PBX_3... | | | device NMS_IP_PBX_31 all services down. |
| 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 |

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

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

4/13/2009 11:46:45 AM 172.16.31.20:5101 admin Version 1.2,3984

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

Status Information - IPNext 3000 Master

System Status Information | Performance History | Performance Monitoring

Today's Availability

90

CPU Utilization

95

Memory Utilization

67

Total : 1024 MB
Used : 686.3 MB
Free : 337.7 MB

Storage Utilization

0

Total : 298 GB
Used : 203.4 MB
Free : 297.8 GB

/hd

Interface Status

| Index | Name | IP Address | Speed | Status | Rx Traffic | Tx Traffic | Errors (pkts) |
|-------|--------------------|---------------|-------|--------|------------|------------|---------------|
| 2 | GigabitEthernet0/0 | 172.17.113.40 | 1Gbps | ● up | 9.7Kbps | 10.1Kbps | 0 |
| 3 | GigabitEthernet0/1 | 0.0.0.0 | 1Gbps | ● down | 0 bps | 0 bps | 0 |

Service Information (Availability: Percentage over last 24 hours) [Apply](#)

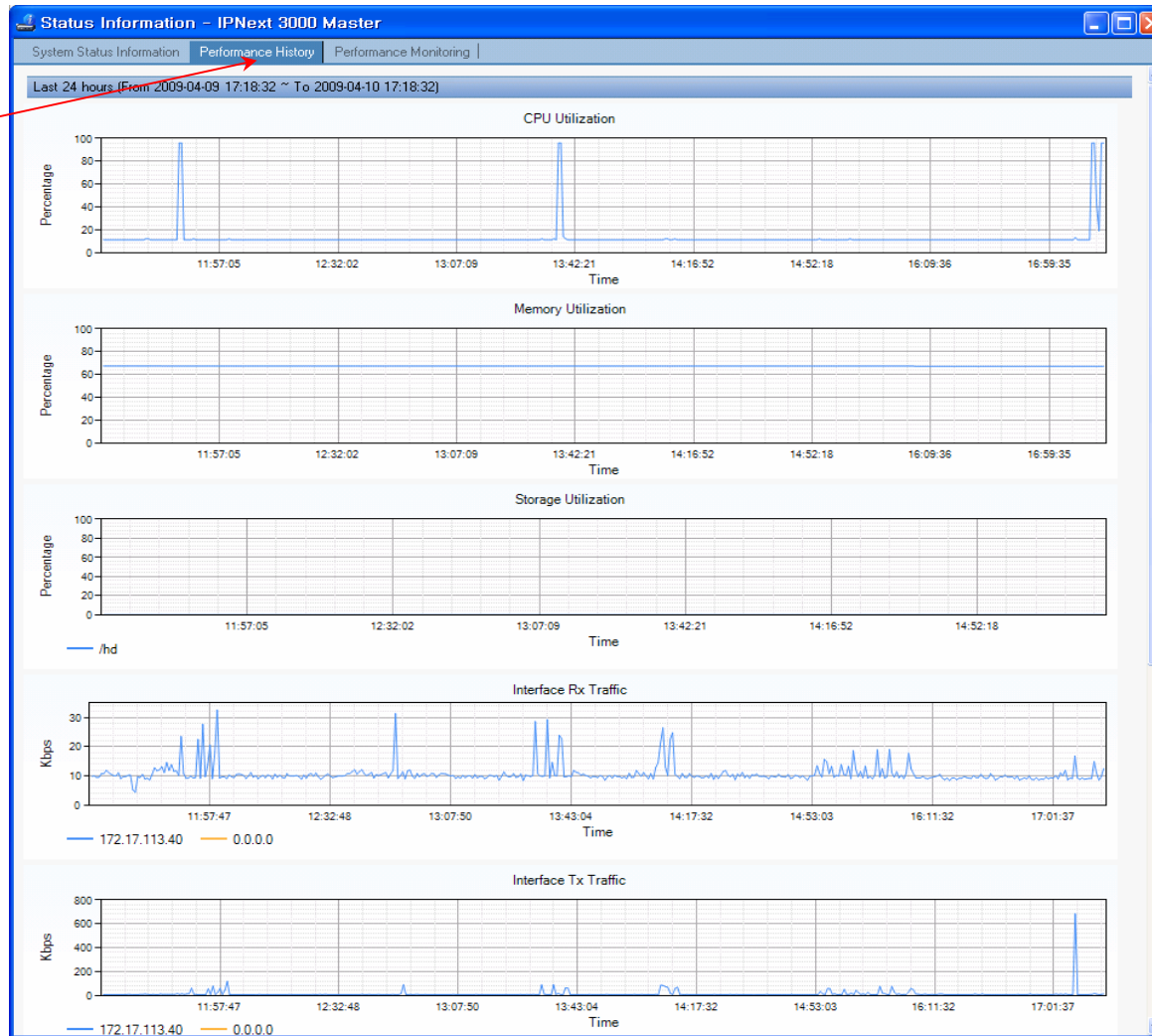
| Interface / Service Name | Status | Availability |
|---|--------|----------------|
| <input checked="" type="checkbox"/> Call Manager | ● down | 76.001% |
| <input checked="" type="checkbox"/> 172.17.113.40 | | |
| <input checked="" type="checkbox"/> ICMP | ● up | 97.743% |
| <input checked="" type="checkbox"/> SNMP | ● up | 97.743% |
| Overall Availability | | 90.496% |

Service Monitor Status

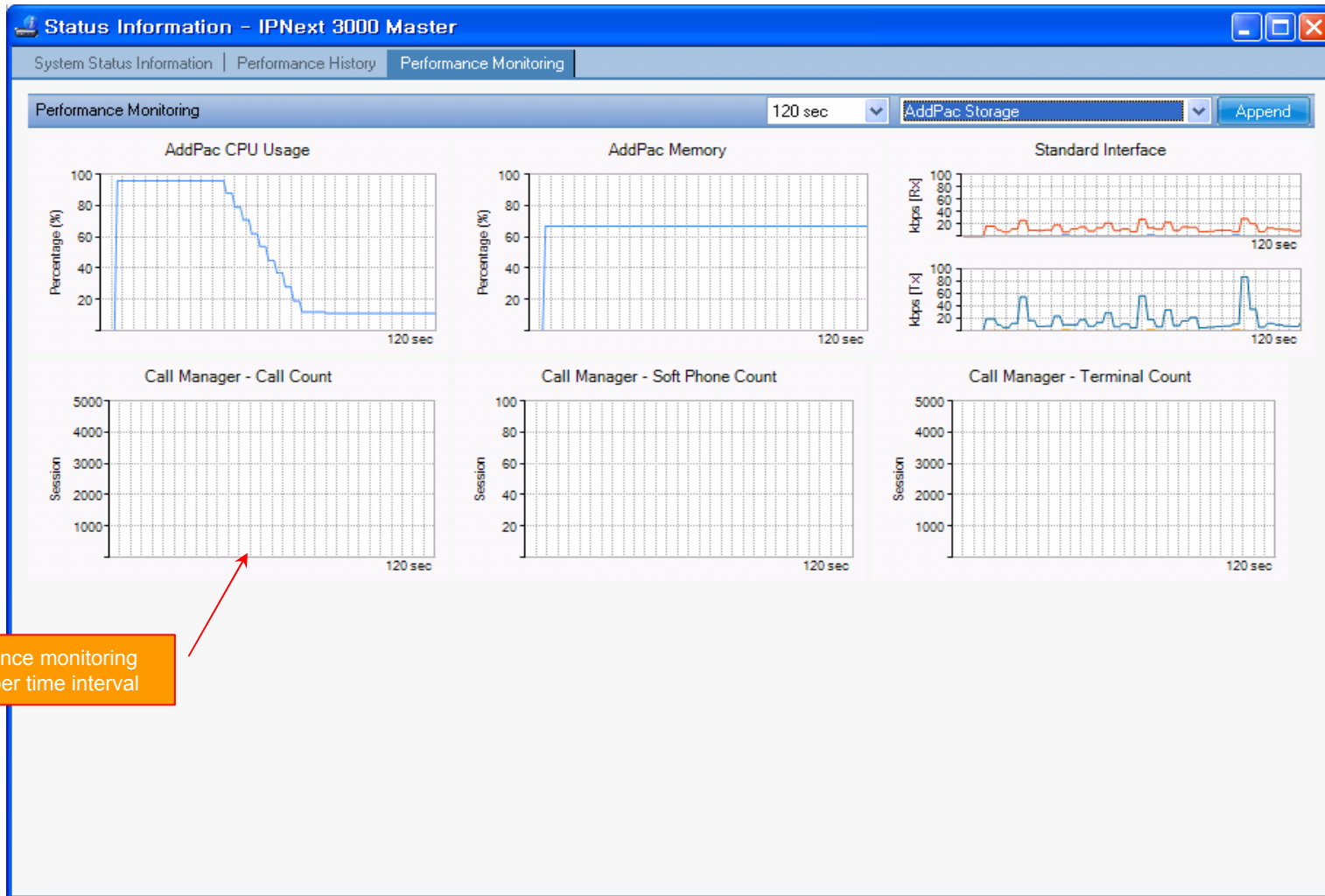
| Service | Maximum | Value | Used |
|---------------------------------|---------|-------|------|
| CM Service | | | |
| Call Manager - Call Count | 5000 | 0 | 0% |
| Call Manager - Soft Phone Count | 100 | 0 | 0% |
| Call Manager - Terminal Count | 5000 | 7 | 0% |

Device Status Information

performance analysis graph for last 24 hours



Device Status Information



performance monitoring with proper time interval

Notification Management

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

Event Notification Management

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of devices and a table of event notifications. A dialog box titled 'Event Notification Properties' is open, showing configuration details for a notification named 'serviceUnresponsive'. Three orange callout boxes provide instructions:

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

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

- Notification Name: serviceUnresponsive
- Description: test
- Event: Node event: serviceUnresponsive
- Destination Path: default
- Notification Type: sms, alarmLamp, email
- Current Rule: IPADDR IPLIKE ****
- Apply Category: Desktop, Network Camera, Phone, Server, Switch
- Email Subject: Notice #%noticeid%: %service% service on %interface% (%interface%)
- Text Message: The %service% poll to interface %interface% (%interface%) on node %nodename% successfully completed a connection to the service listener on the remote machine. However, the synthetic transaction failed to complete within %parm[timeout]% milliseconds, over %parm[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, %nodename% = may be IP address or empty, %interface% = IP address, may be empty, %service% = service name, may be empty, %eventid% = event ID, may be empty.
- Note: If the alert exceeds 80 bytes then the notification will be dispatched in two or more sms.
- Enable Notification:

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

| Ack | ID | Send Time | Site | Device Name | IP Address | Service | Message |
|--------------------------|------|-----------------------|------------------------|----------------------|----------------|------------------------------------|---------|
| <input type="checkbox"/> | 9535 | 4/10/2009 9:26:04 PM | /AddPac/Branch GX | 00_RBTT_server | | device.00_RBTT_server.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 displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices and their service availability. A dialog box titled "Destination Path Properties" is open, showing configuration options for a destination path named "default". The dialog includes 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 "alarmLamp" entry in the table. The dialog also includes an "Escalation" section with a similar table and "Add", "Delete", "Help", "Ok", and "Cancel" buttons.

At the bottom of the interface, there is a "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_RB_T_server | | | device 00_RB_T_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 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 |

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 availability. The 'Event Notification' section is active, and the 'Target Properties' dialog is open. The dialog allows configuration of notification types and target information. The 'Send to select user' option is selected, and the user is set to 'Account Administrator'. An orange callout box highlights this setting, stating: "user account (administrator) setting for SMS, E-mail Notification or specify e-mail address or SMS phone number".

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

| Ack | ID | Send Time | Site | Device Name | IP Address | 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 meeti... | | device 5th floor meeting room phone device, all services are down. |
| <input type="checkbox"/> | 9502 | 4/10/2009 3:34:29 PM | /Subnetwork #2/Cent... | NMS_SOHO_PBX | | device NMS_SOHO_PBX, all services are down |
| <input type="checkbox"/> | 9495 | 4/10/2009 11:37:12 AM | /AddPac/Branch GX | IPNext 3000 Slave | 172.17.113.41 | 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 | 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 |

Configuration

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 [13] Site

| 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_FBT_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 % |

Destination Path Name: default, onlyAlarmLamp

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

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_FBT_server | | | device 00_FBT_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 1.2.3984

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 | 92% | 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% |
| VoIP 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/Cent... | NMS_S0HQ_PBX | | | device NMS_S0HQ_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 delete 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 main content area is divided into several sections:

- Search Condition:** A panel at the top right allows filtering by 'Hour' (4/ 9/2009) and 'Site' (Branch A, Branch AQ, B).
- Fault Statistics (Site):** A bar chart showing fault counts over time (01:00 to 23:00) for various sites. The legend includes Seoul, HeadQuarter, Center, Branch TG, Branch KT, Branch GX, Branch B, Branch AQ, and Branch A.
- 4/9/2009 Data Table:** A detailed table showing fault counts for each hour across different sites. The total count for the day is 118.
- Your Outstanding Notices (18):** A table at the bottom showing system messages and alerts.

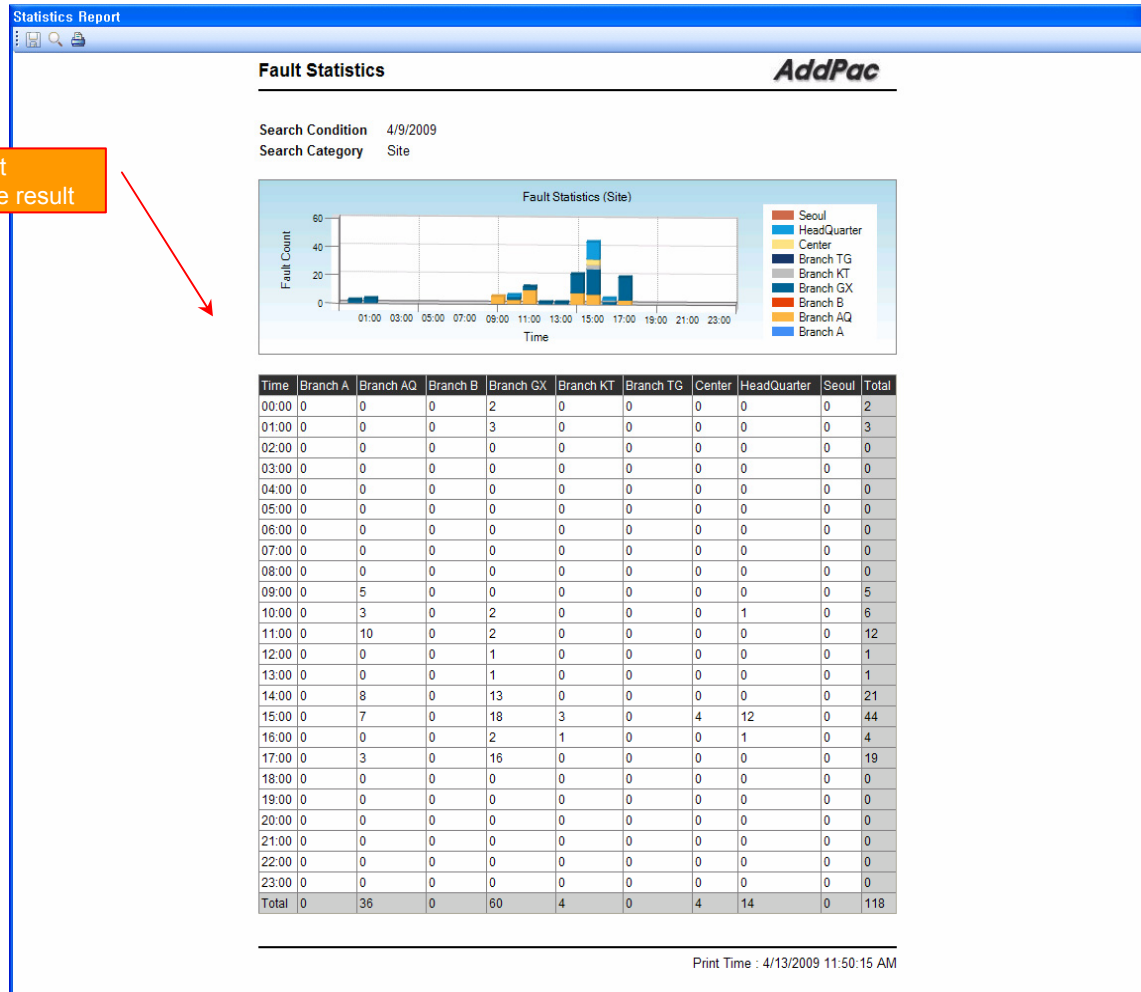
Two orange callout boxes provide additional context:

- display graph for fault statistics with various search condition:** Points to the 'Fault Statistics (Site)' bar chart.
- display detailed data for fault statistics:** Points to the detailed data table for 4/9/2009.

| 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

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

Network Management System Smart NMS

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

| Name | Description |
|---------------------|-------------------------|
| AddPac | AddPac Technology C... |
| Branch AQ | Branch AQ |
| Branch GX | Branch GX description |
| Branch KT | Branch KT |
| HeadQuarter | Main HeadQuarter Cen... |
| Seoul | Seoul subnetwork |
| Seoul East Area | Seoul East Area |
| SongPaGu Area Ce... | SongPaGu Area Center |
| Subnetwork #2 | Subnetwork #2 |
| Branch 1G | Yeoksam Area |
| SeoChoGu | seoul seocho district |
| Seoul West Area | Seoul West Area |
| Gangseo Area | Gangseo 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 |
| IPNext100 | Server |
| IPNext1000 | Server |
| IPNext180 | Server |
| IPNext200 | Server |

Device Model Properties

General Service Availability System Monitoring Service Monitoring

Model Name: AP-IPC250M

Category: Network Camera

Management by SSCP:

SSCP Port: 5061 (1~65535)

Model Image:

Model Image Management

| 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 se... |
| <input type="checkbox"/> | 9502 | 4/10/2009 3:34:29 PM | /Subnetwork #2/Cent... | NMS_S0H0_PBX | | | device NMS_S0H0_PBX, all services are down |
| <input type="checkbox"/> | 9495 | 4/10/2009 11:37:12 AM | /AddPac/Branch GX | IPNext 3000 Slave | 172.17.113.41 | Call Manager | interface 172.17.113.41 (172.17.113.41) device (IP... |
| <input type="checkbox"/> | 9494 | 4/10/2009 11:37:12 AM | /AddPac/Branch GX | IPNext 3000 Master | 172.17.113.40 | Call Manager | interface 172.17.113.40 (172.17.113.40) device (IP... |
| <input type="checkbox"/> | 9418 | 4/9/2009 2:20:01 PM | /AddPac/Branch GX | 00_IVR_server | | | 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... |
| <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... |
| <input type="checkbox"/> | 9237 | 4/6/2009 7:49:20 PM | /AddPac/Branch AQ | NMS Camera 2 | 172.16.253.11 | | response or delete by administrator |
| <input type="checkbox"/> | 9236 | 4/6/2009 7:41:25 PM | /AddPac/Branch AQ | NMS Camera 2 | 172.16.253.11 | | ICMP not response or deleted by administrator |

Your Outstanding Notices (18)

4/13/2009 1:42:39 PM 172.16.31.20:5101 admin Version 1.2,3984

Service Definition

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of sites and a table of services. A red arrow points from an orange callout box to the 'Camera Operation Status' service in the table. 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: 1.3.6.1.4.1.4855.7.51.1.3.0
- Service Condition: Operator = Operand 1

Service Table (Bottom):

| Service Name | Protocol | Port |
|-------------------------|----------|------|
| Call Manager | SNMP | 161 |
| Presence | SNMP | 161 |
| Media | SNMP | 161 |
| IPX | 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 (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_serv |
| <input type="checkbox"/> | 9527 | 4/10/2009 5:34:10 PM | /AddPac/HeadQuarter | 5th floor meeting... | | | device 5th floor meet |
| <input type="checkbox"/> | 9502 | 4/10/2009 3:34:29 PM | /Subnetwork #2/Cent... | NMS_SDHD_PBX | | | device NMS_SDHD_ |
| <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 |
| <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 |
| <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 |
| <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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