

GSM Gateway Solution



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AddPac Technology

Sales and Marketing

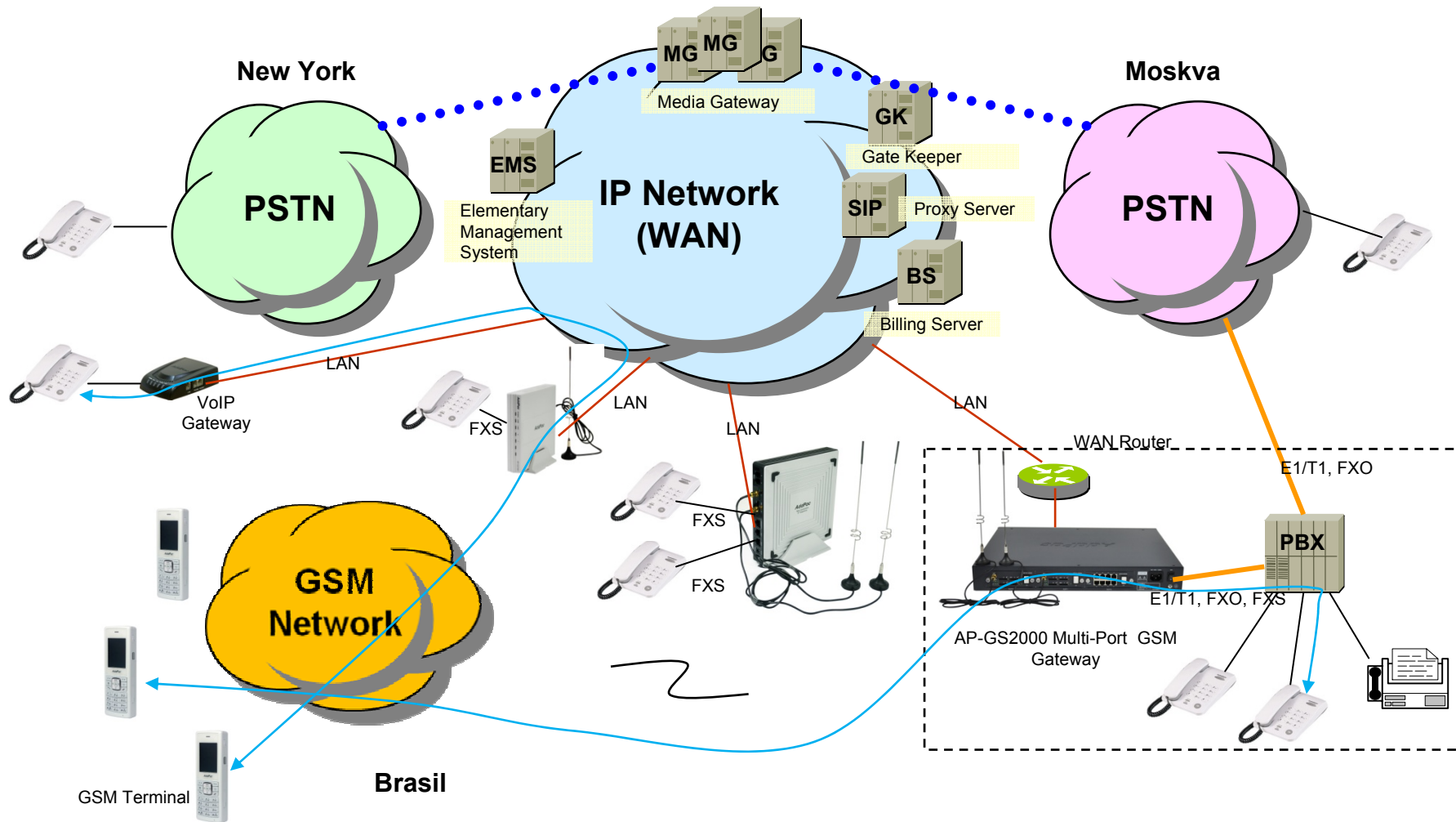
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 - AP-GS1002
 - AP-GS1004
 - AP-GS2000
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- NMS (Network Management System) for GSM Gateway








GSM Gateway Service Diagram





GSM Gateway Series

GSM Gateway Comparison Table

	AP-GS1001		AP-GS1002		AP-GS1004		AP-GS2000	AP-GS3000
								
Model	Type	VoIP	Type	VoIP	Type	VoIP	Available Modules	
	A	None	A	None	A	None	AP-N1-GSM4	AP-N1-GSM4
	B	1FXS	B	2FXS	B	4FXS	AP-N1-FXS8	AP-N1-FXS8
	C	1FXO	C	2FXO	C	4FXO	AP-N1-FXO8	AP-N1-FXO8
GSM Channel	1		2		4		Up to 12 Channel	Up to 32 Channel
GSM Antenna	1		2		1 (4ch Combiner)		One(1) / 4 Channel GSM Module (AP-N1-GSM4)	One(1) / 4 Channel GSM Module(AP-N1-GSM4)
Module Slot	N/A		N/A		N/A		3 Module Slots for GSM	8 Module Slots for GSM, CPU Module Slot, E1/T1 Module Slot
LAN Port	2		2		1		2	2
Console	N/A		1		1		1	1



AP-GS1001 GSM Gateway

GSM Gateway

AP-GS1001 One(1) Port GSM Gateway

Main Features

- One(1) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Light and Compact Design with External Power Supply

GSM Gateway

AP-GS1001 One(1) Port GSM Gateway

Hardware Specification

- RISC Microprocessor + DSP Computing Power
- 1-Port GSM Gateway
- 1-Port SIM Card Slot
- 1-Port GSM Antenna Interface
- VoIP Gateway Interface
 - AP-GS1001 Model A: Basic Configuration
 - AP-GS1001 Model B: One(1) FXS Port
- Network Interface for VoIP Direct Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply



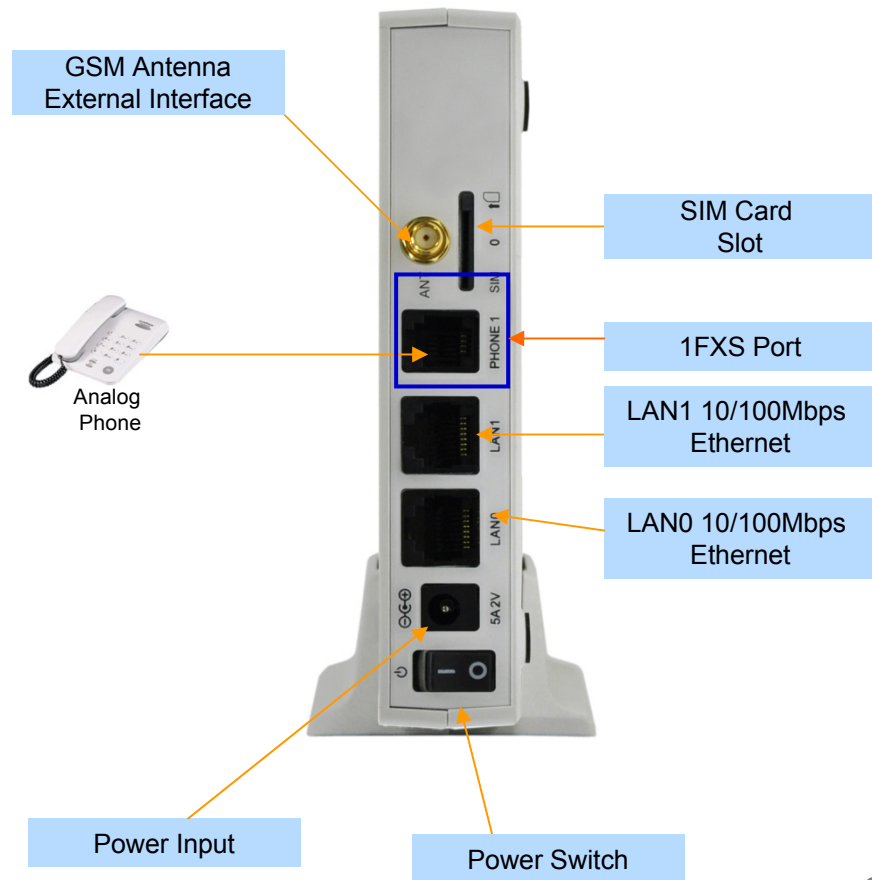
GSM Gateway

AP-GS1001 One(1) Port GSM Gateway



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Network interface Configurations



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AP-GS1002 GSM Gateway

GSM Gateway

AP-GS1002 Two(2) Port GSM Gateway

Main Features

- Two(2) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- Two(2) 10/100Mbps Fast Ethernet (IP Share ,etc)
- RS-232C Port for Command Line Interface
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug&Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Light and Compact Design with External Power Supply

GSM Gateway

AP-GS1002 Two(2) Port GSM Gateway

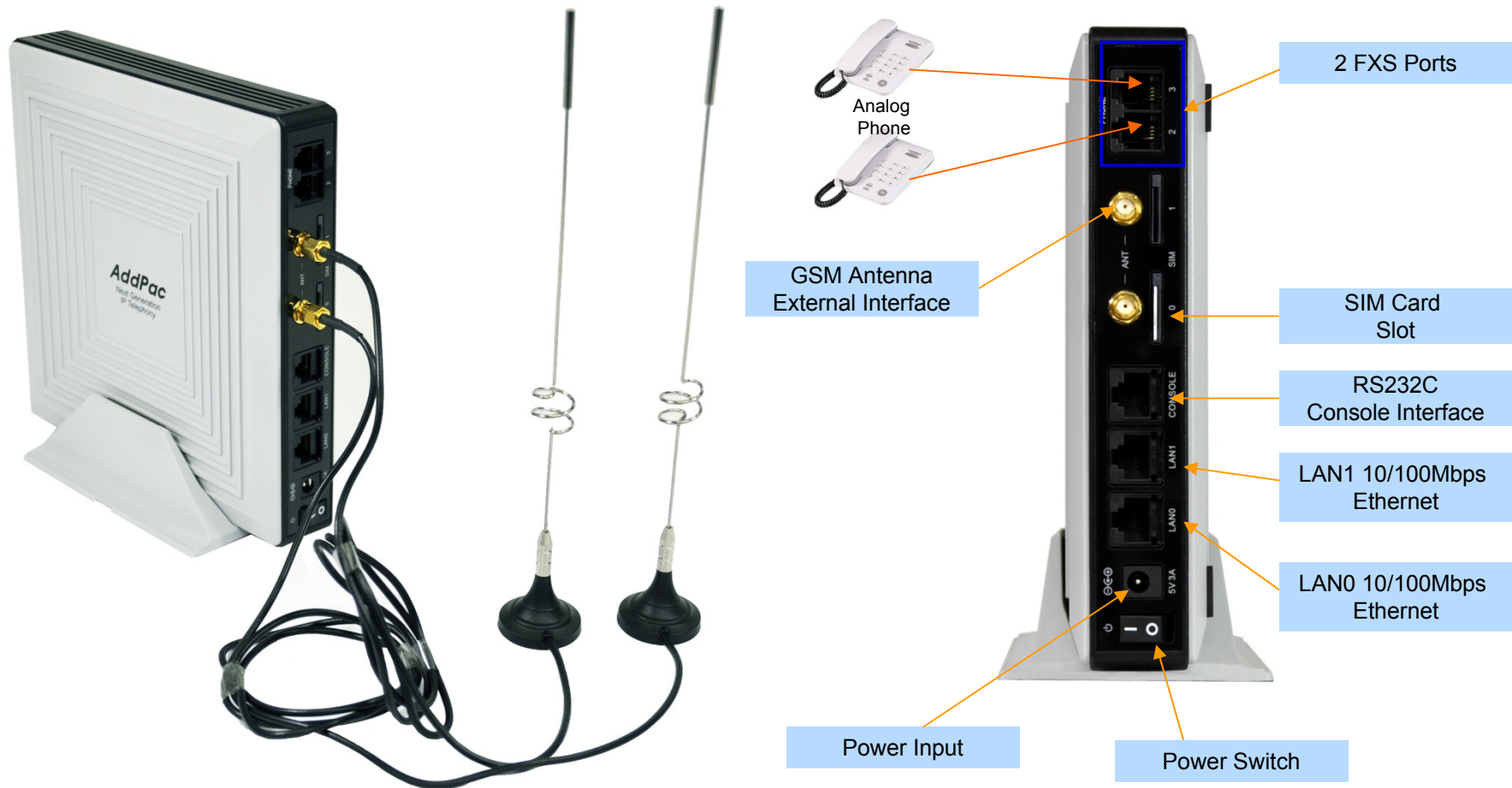
Hardware Specification

- RISC Microprocessor+DSP Computing Power
- 2-Port GSM Gateway
- 2-Port SIM Card Slot
- 2-Port GSM Antenna Interface
- VoIP Gateway Interface
 - AP-GS1002 Model A: Basic Configuration
 - AP-GS1002 Model B: Two(2) FXS Port
 - AP-GS1002 Model C: Two(2) FXO Port
- Network Interface for VoIP Direct Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Port for CLI (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply

GSM Gateway

AP-GS1002 Two(2) Port GSM Gateway

Hardware Specification





AP-GS1004 GSM Gateway

GSM Gateway

AP-GS1004 Four(4) Port GSM Gateway

Main Features

- Four(4) Port GSM Gateway Service
- Analog Interface (FXS)/VoIP Interface(LAN) Both Support
- H.323/SIP/MGCP Triple Concurrent Stack Embedded
- High Performance RISC & Programmable DSP Architecture
- One(1) 10/100Mbps Fast Ethernet (IP Share ,etc)
- RS-232C Port for Command Line Interface
- High Performance LAN-to-LAN Routing Capability
- G.711/G.726/G.723/G.729, T.38 Fax , VAD, etc
- Powerful Network Protocols (PPPoE, DHCP, Static Routing, etc)
- Firmware Upgradeable Architecture
- VPMS (VoIP Plug & Play Management System) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Light and Compact Design with External Power Supply

GSM Gateway

AP-GS1004 Four(4) Port GSM Gateway

Hardware Specification

- RISC Microprocessor+DSP Computing Power
- 4-Port GSM Gateway
- 4-Port SIM Card Slot
- 1-Port GSM Antenna Interface(Internal 4-Port Antenna Combiner)
- VoIP Gateway Interface
 - AP-GS1004 Model A: Basic Configuration
 - AP-GS1004 Model B: Four(4) FXS Port
 - AP-GS1004 Model C: Four(4) FXO Port
- Network Interface for VoIP Direct Interface
 - One(1) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Port for CLI (RJ45)
- Run LED, LAN LED, Port LEDs
- External Power Supply



GSM Gateway

AP-GS1004 Four(4) Port GSM Gateway



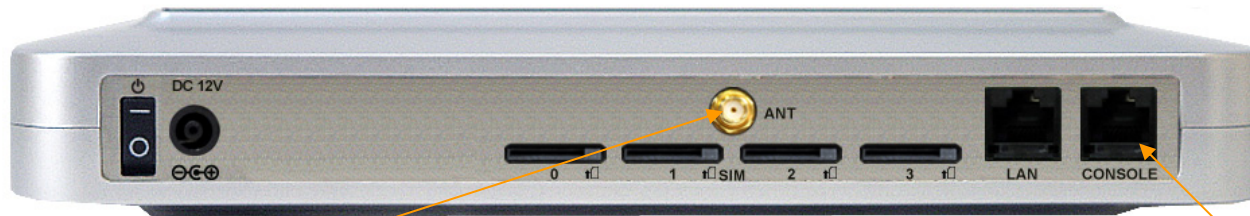
GSM Gateway

AP-GS1004 Four(4) Port GSM Gateway

Hardware Specification

Back Side View

AP-GS1004 Model A



GSM Antenna Interface

RS232C Console Port

AP-GS1004 Model B



Power Switch

Power Input

4 FXS Port

SIM Card Slot

LAN0 10/100Mbps Ethernet



AP-GS2000 GSM Gateway

GSM Gateway

AP-GS2000 Multi-Port GSM Gateway

Main Features

- Three Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 8-Port GSM +8FXS/8FXO Module, 12-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) for Large Scale Deployment
- Advanced Voice QoS Mechanism
- Rack Mountable Chassis with Internal Power Supply

GSM Gateway

AP-GS2000 Multi-Port GSM Gateway

Hardware Specification

- RISC Microprocessor Computing Power
- Three 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)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module (AP-N1-FXS8)
 - 8-Port FXO Module (AP-N1-FXO8)
 - Digital E1/T1 Module (AP-N1-E1)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply

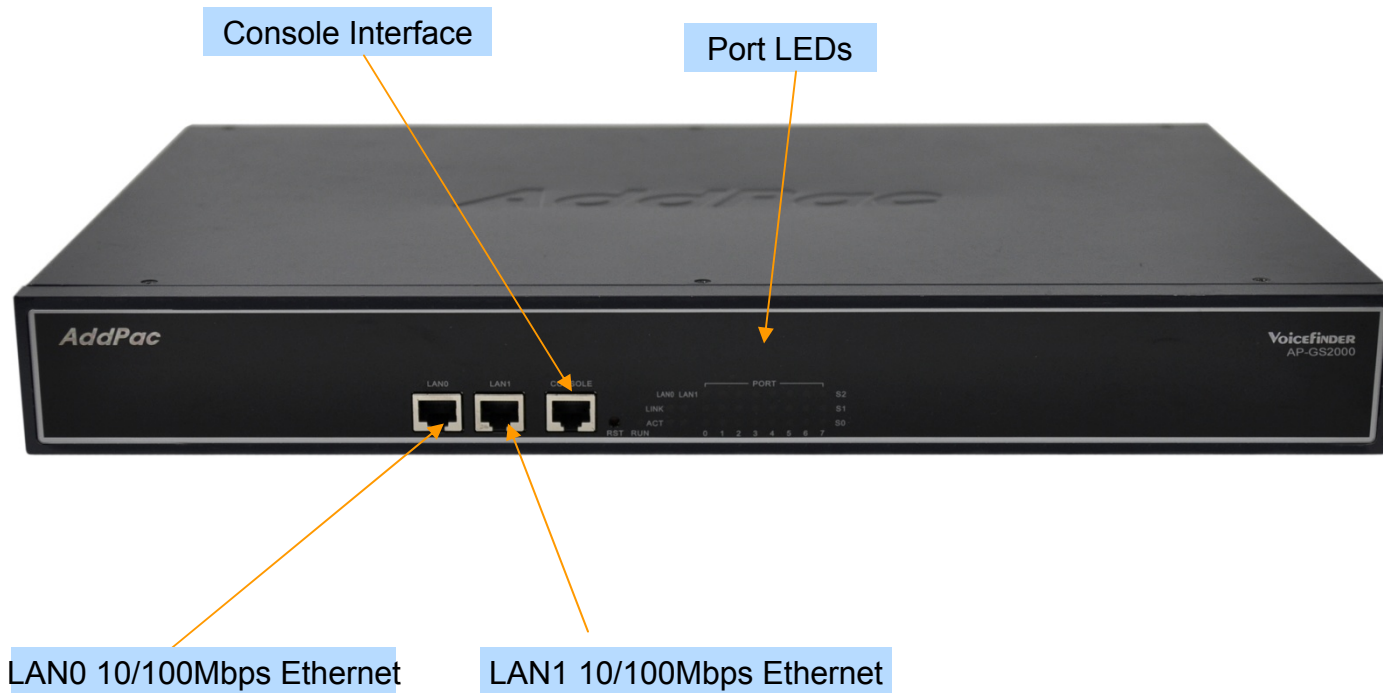


GSM Gateway

AP-GS2000 Multi-Port GSM Gateway

Hardware Specification

Front Side View

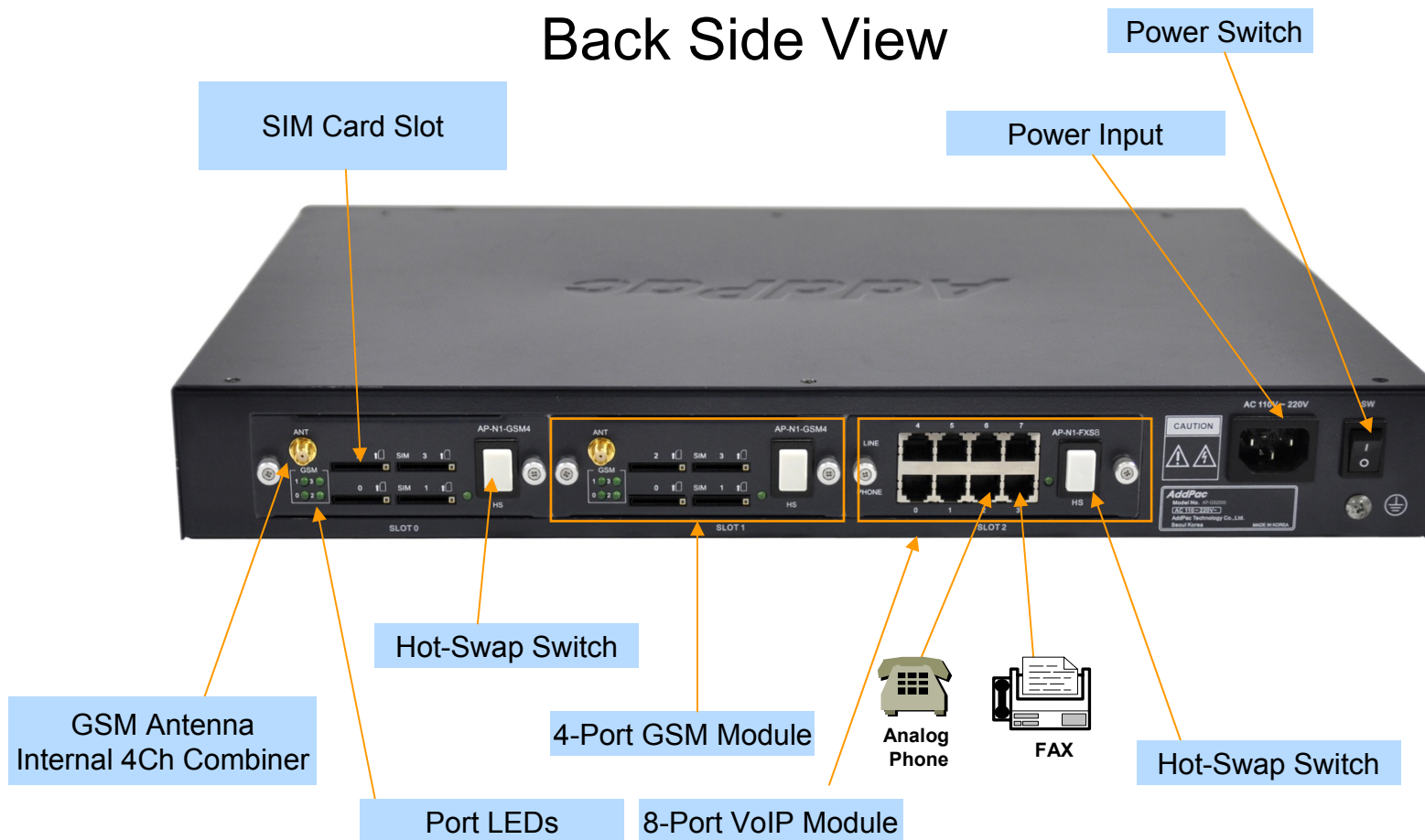


GSM Gateway

AP-GS2000 Multi-Port GSM Gateway

Hardware Specification

Back Side View



GSM Gateway

AP-GS2000 Multi-Port GSM Gateway



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GSM Gateway

AP-GS2000 Multi-Port GSM Gateway

AP-GS2000 Voice Modules

AP-N1-GSM4 4-Port GSM 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 Gateway

GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

Main Features

- Ten(10) Module Slots for 4-Port GSM Module, 8FXS/8FXO Analog Interface (Up to 32-Port GSM, 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
- Rack Mountable Chassis with Internal Power Supply

GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

Hardware Specification

- 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)
- VoIP Interface Module, Hot-Swap
 - 8-Port FXS Module (AP-N1-FXS8)
 - 8-Port FXO Module (AP-N1-FXO8)
 - Digital E1/T1 Module (AP-N1-E1)
- Network Interface
 - Two(2) 10/100Mbps Fast Ethernet (RJ45)
- RS232C Console Interface for CLI
- Run LED, LAN LED, Port LEDs
- Internal Power Supply

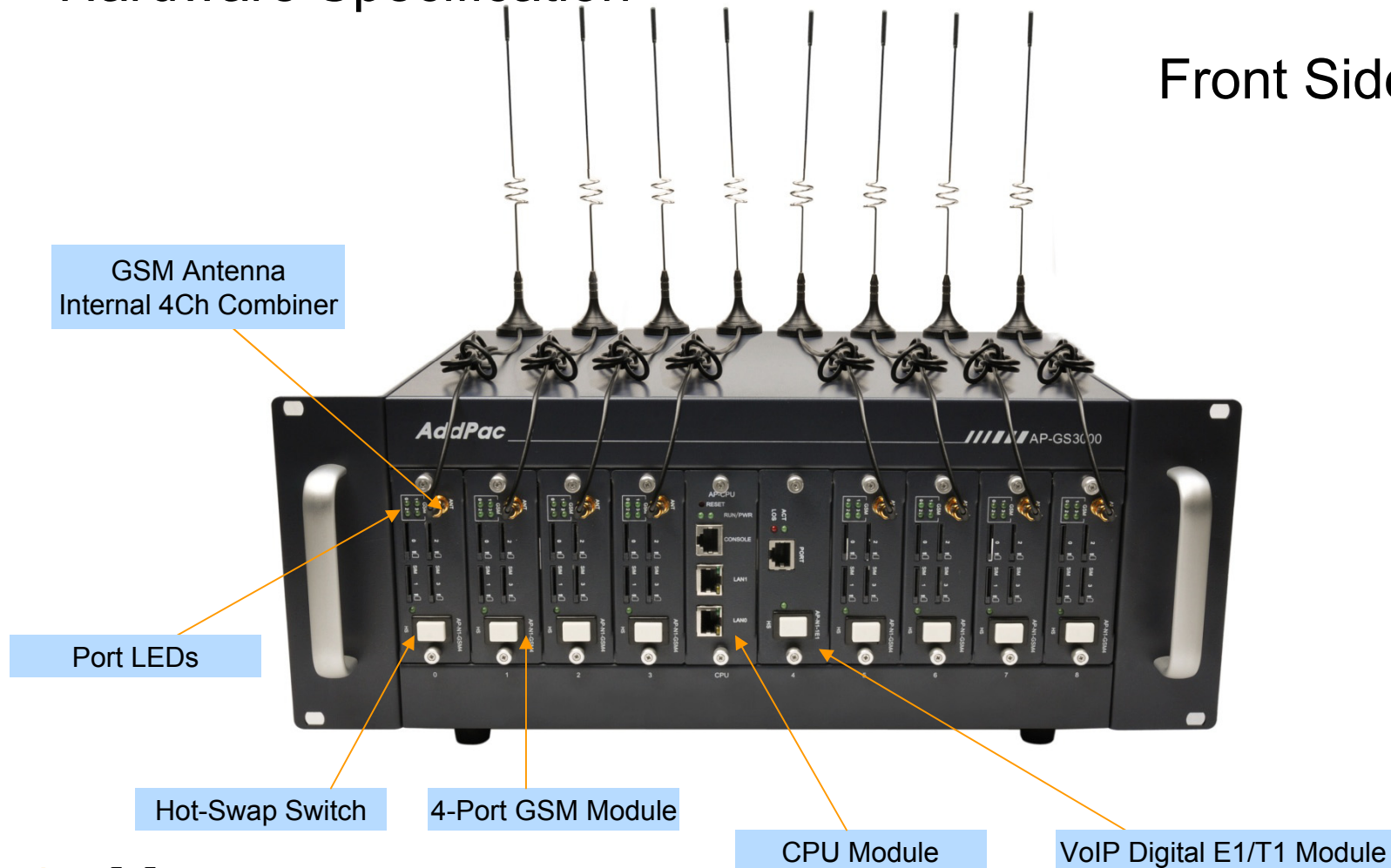


GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

Hardware Specification

Front Side View

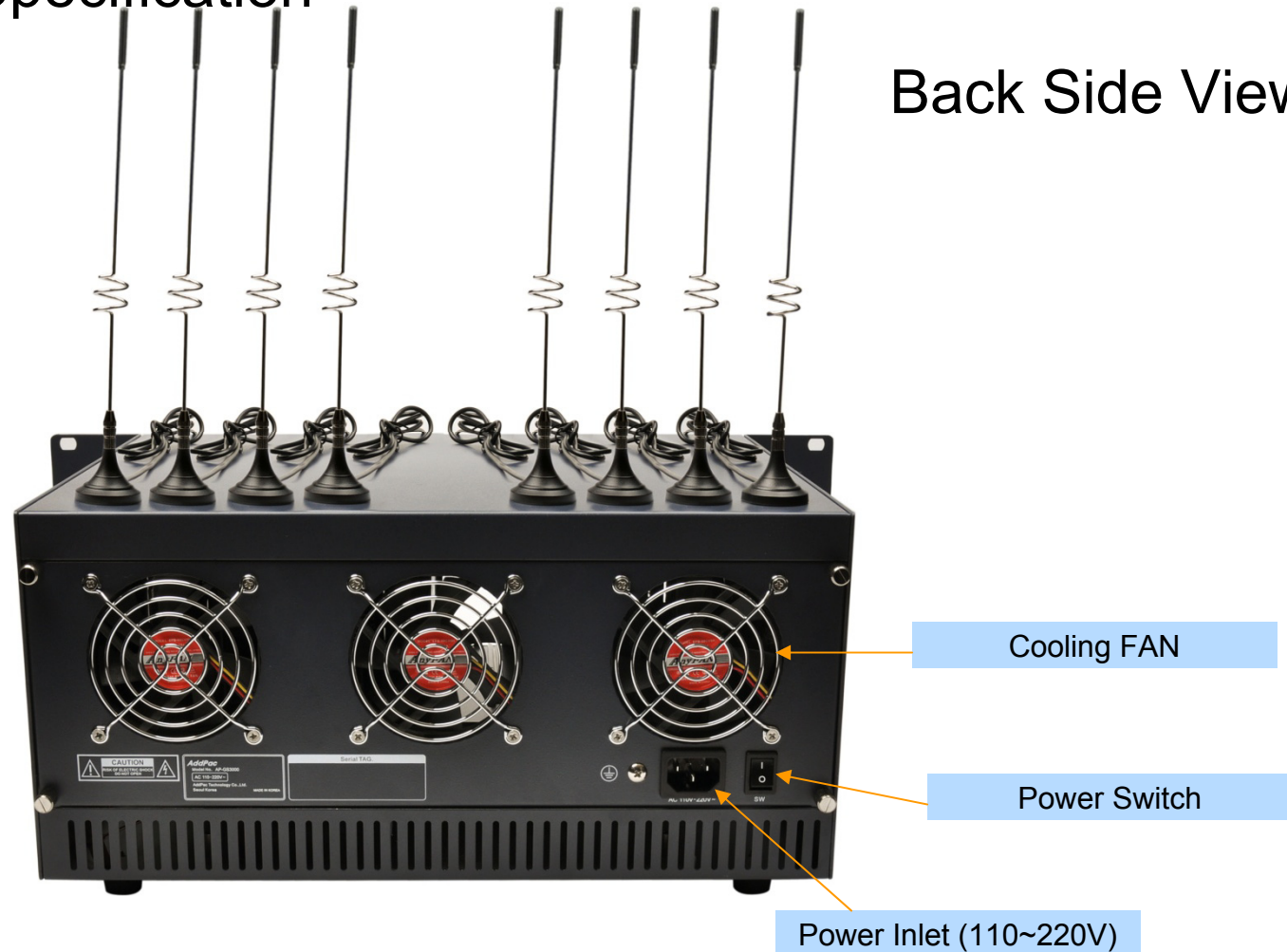


GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

Hardware Specification

Back Side View



GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

AP-GS3000 Voice Modules

AP-N1-GSM4 4-Port GSM 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



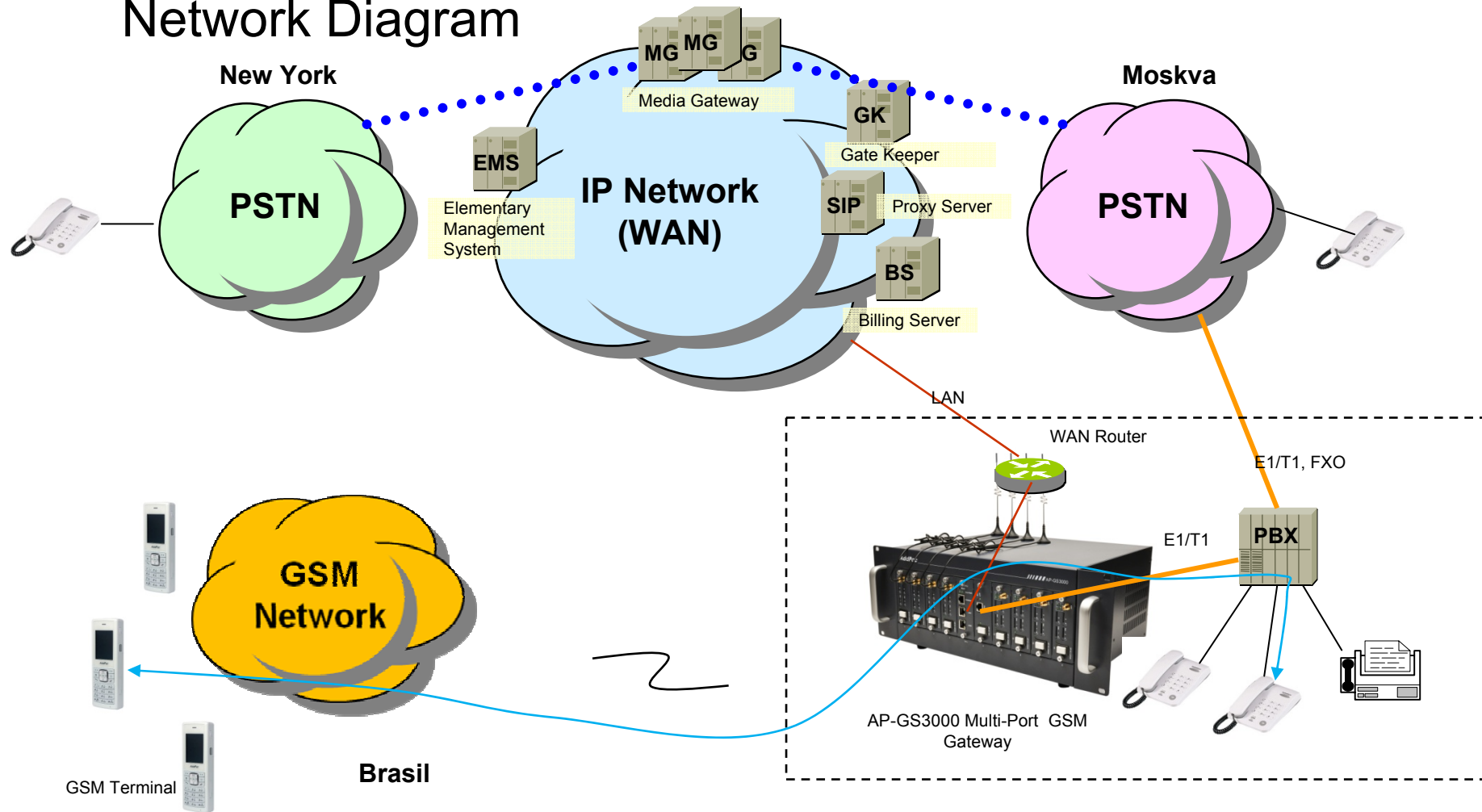
AP-N1-E1 1-Port Digital E1/T1 Module



GSM Gateway

AP-GS3000 Multi-Port GSM Gateway

Network Diagram



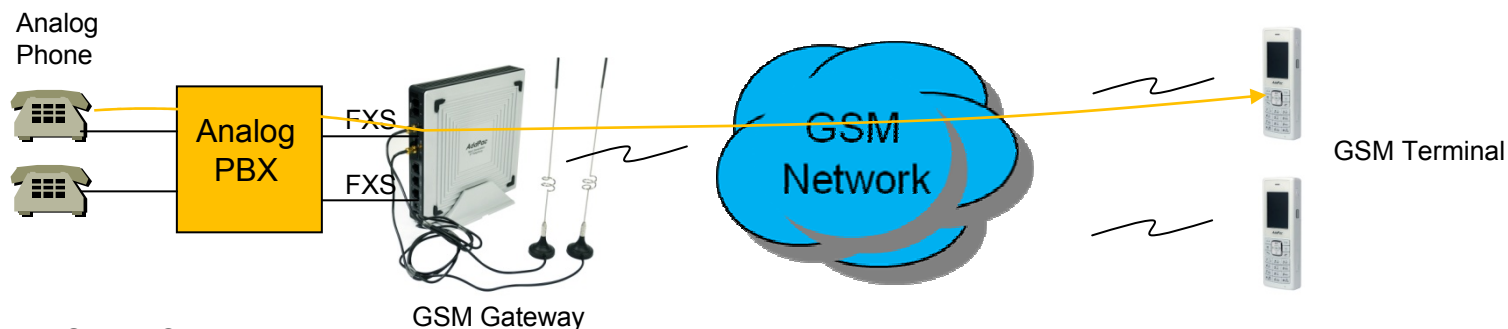


GSM Gateway Function List

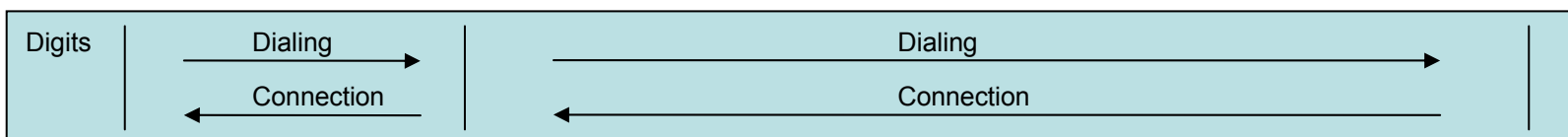
Contents

- GSM Outbound Call
- GSM Inbound Call
- VoIP to GSM Outbound Call
- VoIP to GSM Inbound Call
- GSM Inbound Black / White list
- VoIP to GSM Black / White list
- WEB Callback Service
- Callback Service
- LCR(Least Cost Routing)
- BTS(Base Terminal Station) Control
- GSM BCCH Cell Monitoring
- GSM Messaging Service
- Radius Server Interoperability

GSM Outbound Call



One(1) Stage Call



Two(2) Stage Call



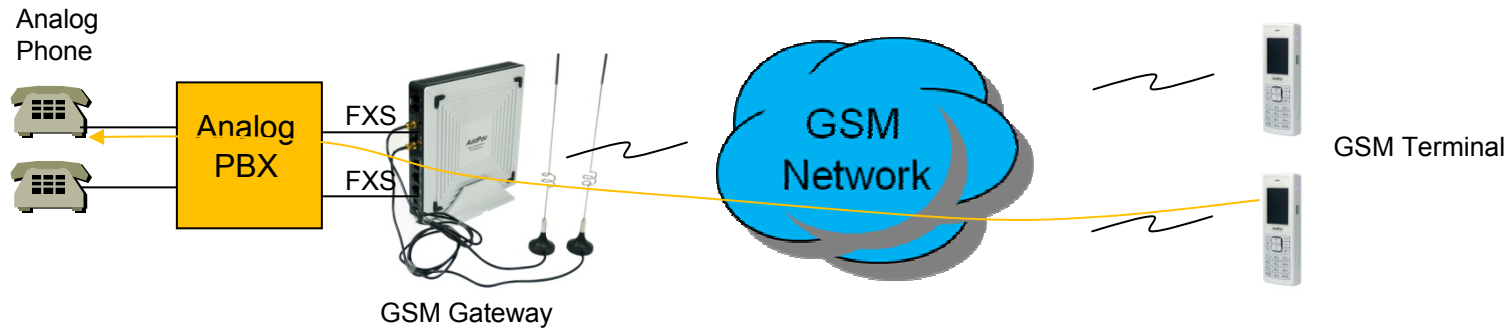
Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to FXS directly.

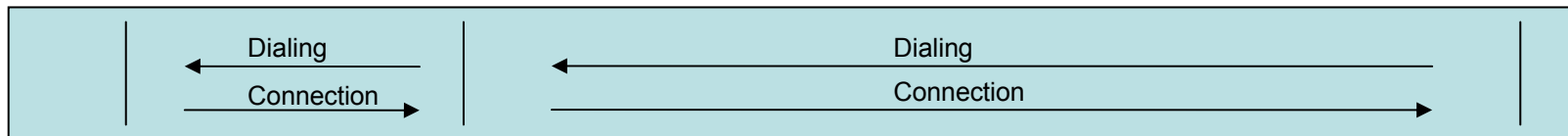
Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to FXS after hearing of 2nd dial tone from AddPac GSM Gateway

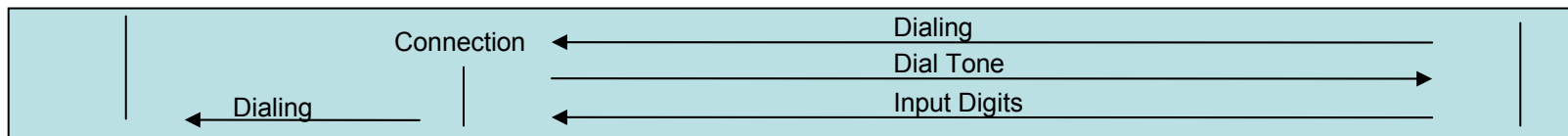
GSM Inbound Call



1 Stage Call (Baby Call)



2 Stage Call



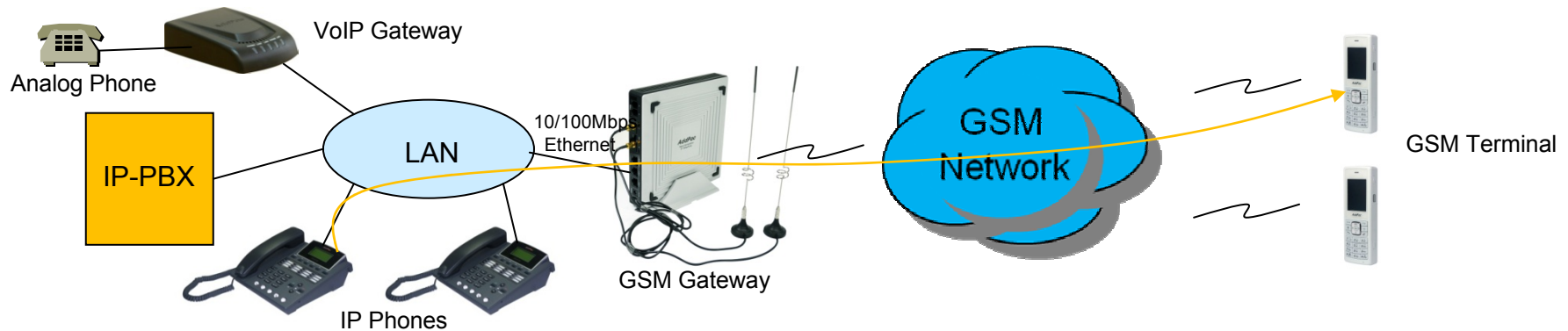
Inbound Call (1 Stage) – Baby Call

: Making call to analog phone connected to FXS directly

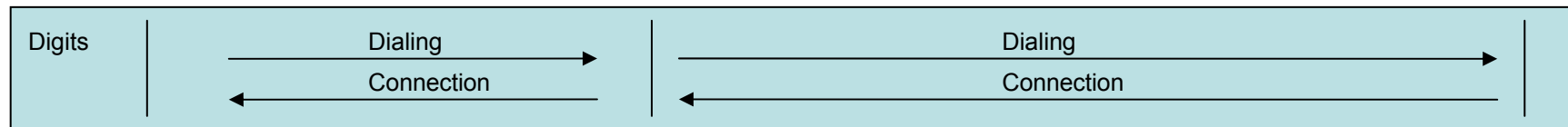
Inbound Call (2 Stage)

: Making call to analog phone connected to FXS after hearing of 2nd dial tone from AP-GS1002

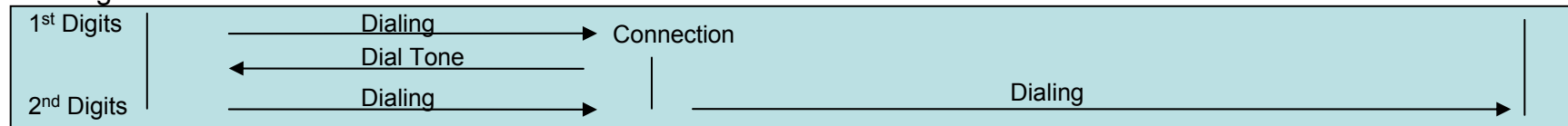
VoIP to GSM Outbound Call



1 Stage Call



2 Stage Call



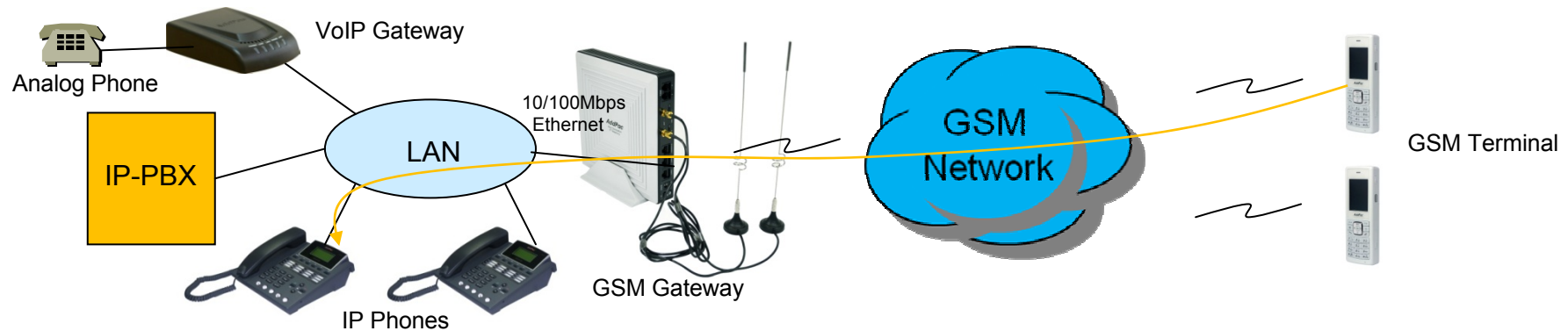
Outbound Call (1 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway or IP Phone directly

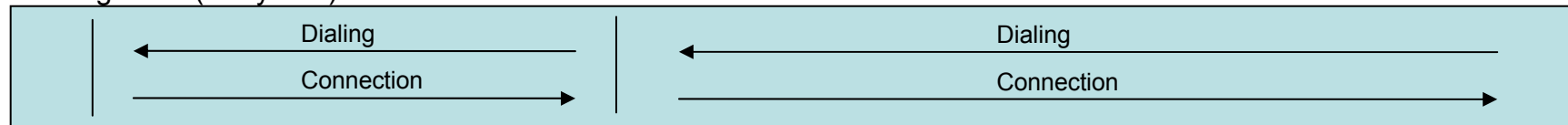
Outbound Call (2 Stage)

: Making call to mobile phone from analog phone connected to VoIP gateway after hearing of 2nd dial tone from GSM Gateway

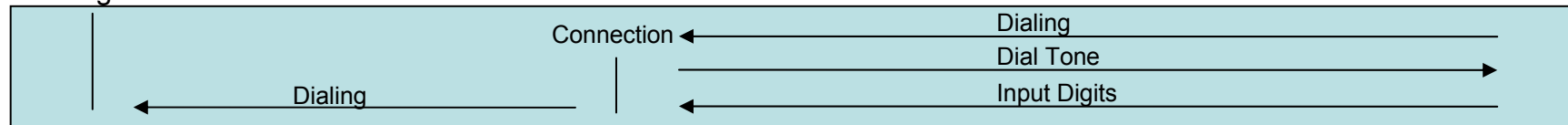
VoIP to GSM Inbound Call



1 Stage Call (Baby Call)



2 Stage Call



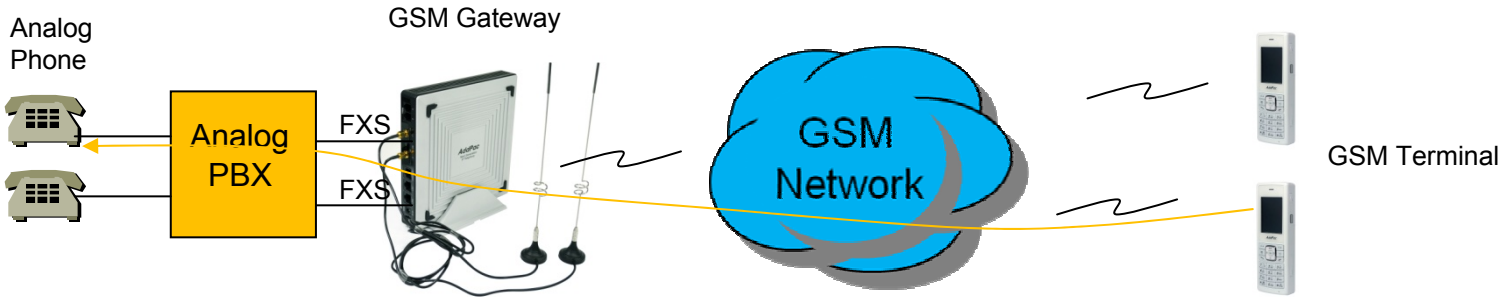
Inbound Call (1 Stage) – Baby Call

: Making call to IP phone in VoIP network directly.

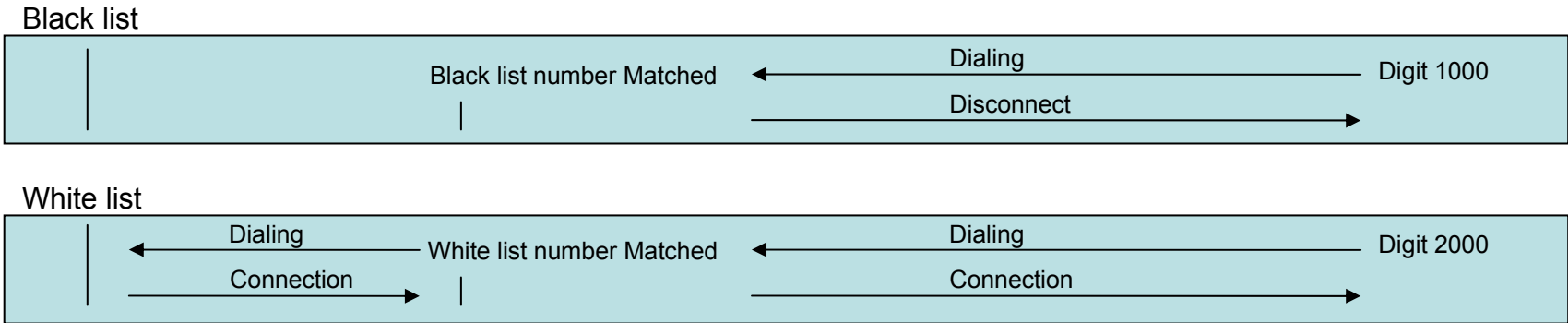
Inbound Call (2 Stage)

: Making call to IP phone in VoIP network after hearing of 2nd dial tone from GSM Gateway

GSM Inbound Call Black / White list



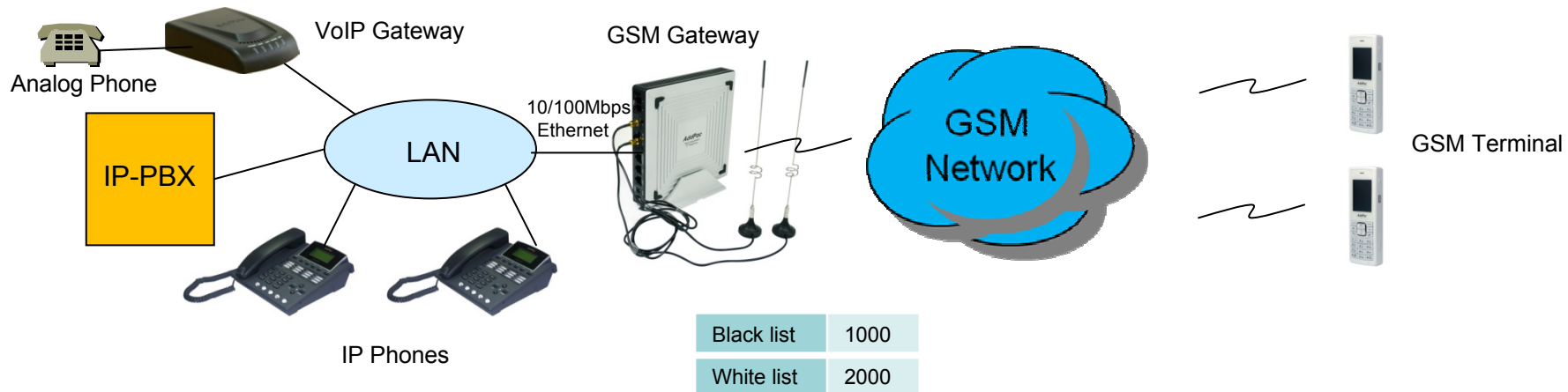
Black list	1000
White list	2000



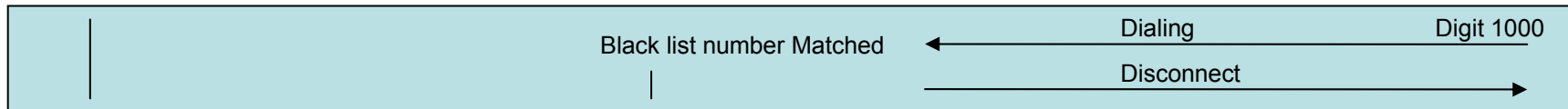
Black list
: The number on black list is restricted to receive call.

White list
: The only number on white list is allowed to receive call

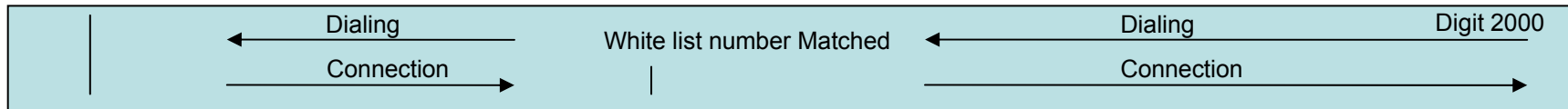
VoIP to GSM Black / White list



Black list



White list



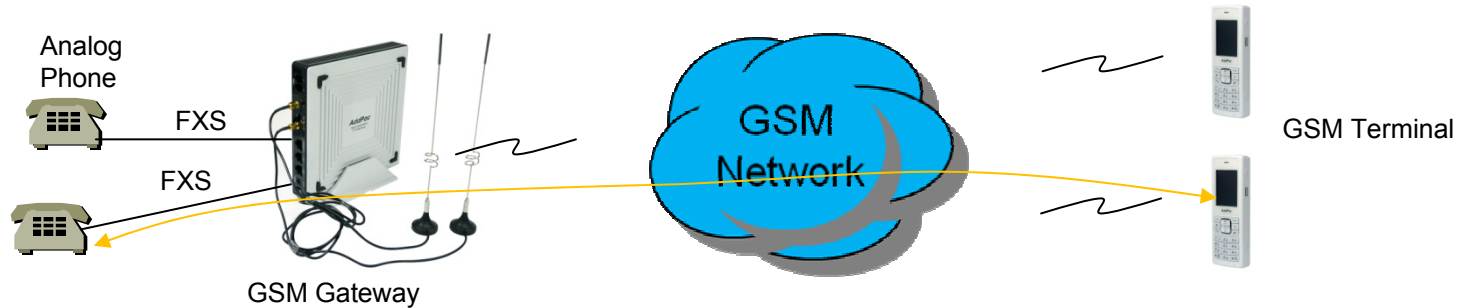
Black list

: The number on black list is restricted to receive call.

White list

: The only number on white list is allowed to receive call

WEB Callback Service



Origination number(1000)

WEB Call back White list	1000
-----------------------------	------

Destination number(2000)

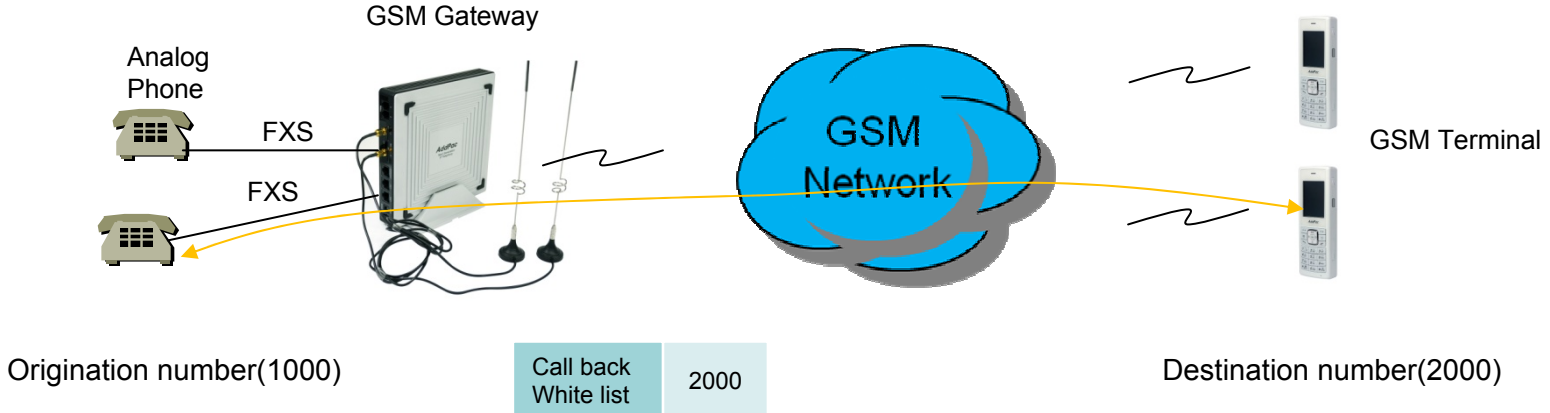
WEB Callback Service



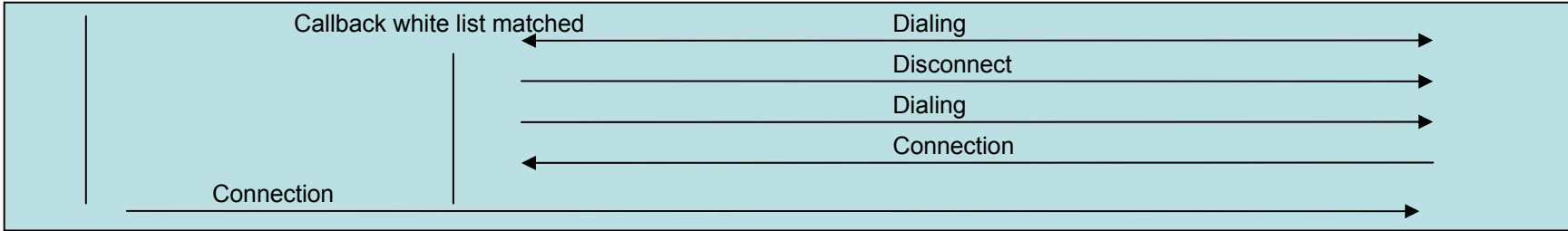
WEB Callback Service

- : The remote call is made by user's control by WEB Interface.
- The WEB callback number on white list must be the same of source number.

GSM Callback Service



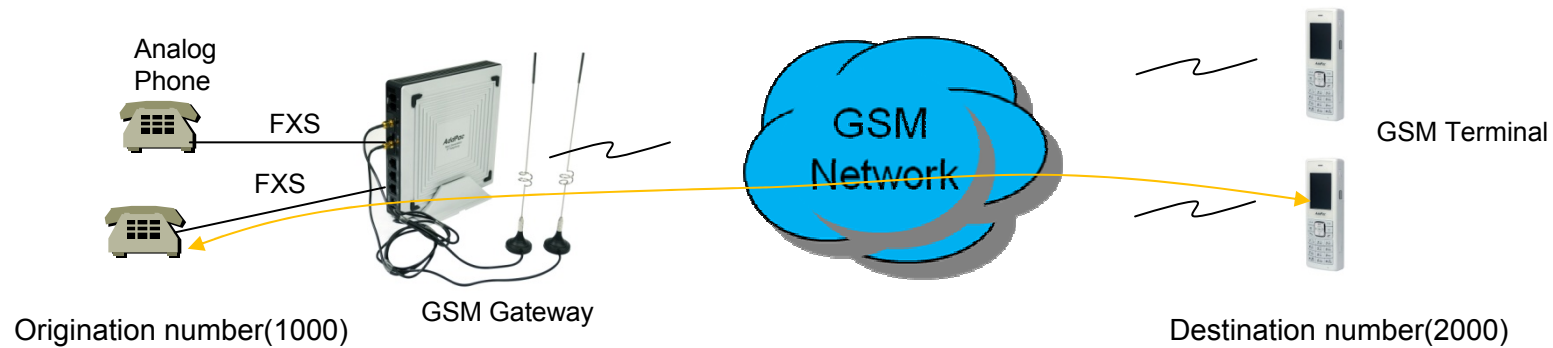
GSM Callback Service



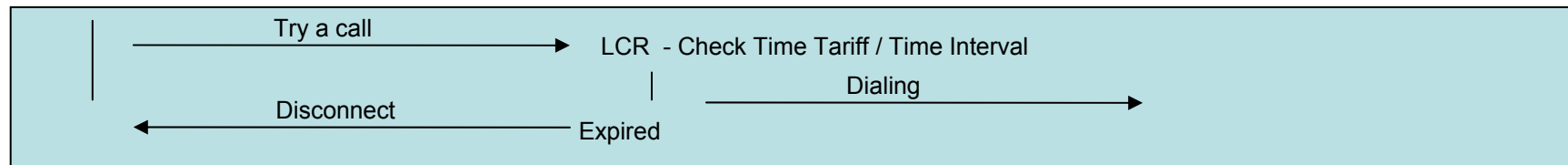
GSM Callback Service

: When the user on the callback white list makes call, GSM Gateway disconnects it and makes call back to the user

LCR(Least Cost Routing)



LCR(Least Cost Routing)



GSM LCR Time Interval

: The only registered user is allowed to use GSM call in the rule of date, week, and time

GSM LCR Time Tariff

: User is able to check remained time, used time listed on LCR, etc

GSM LCR Simulator

: GSM Gateway supports virtual call simulation used on WEB

BTS(Base Terminal Station) Control

Smart Web Manager
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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 [v] Auto [v] [] [-10 dB] [0 sec] [v]
Apply

BTS control
Configure BTS selection option

- * Auto mode
- * forced BCCH
- * forced RSSI level

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 BTS selection mode

BTS(Base Terminal Station)

: User is able to choose Cell ID or RSSI of cell by GSM Gateway.

- (1)The most powerful signal of cell is chosen.
- (2)User selects BTS through Cell ID in cell.
- (3)The cell listed is found periodically by user

GSM BCCH Information

Smart Web Manager
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GSM BCCH Cell Information

PORT 0:0

PORT 0:1

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

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

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

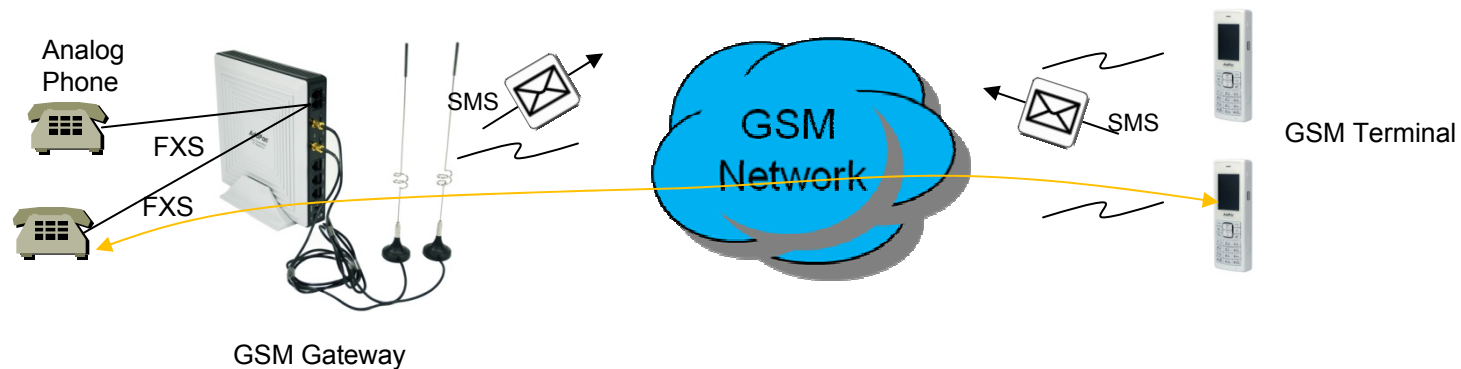
Advanced

- 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 Messaging Service



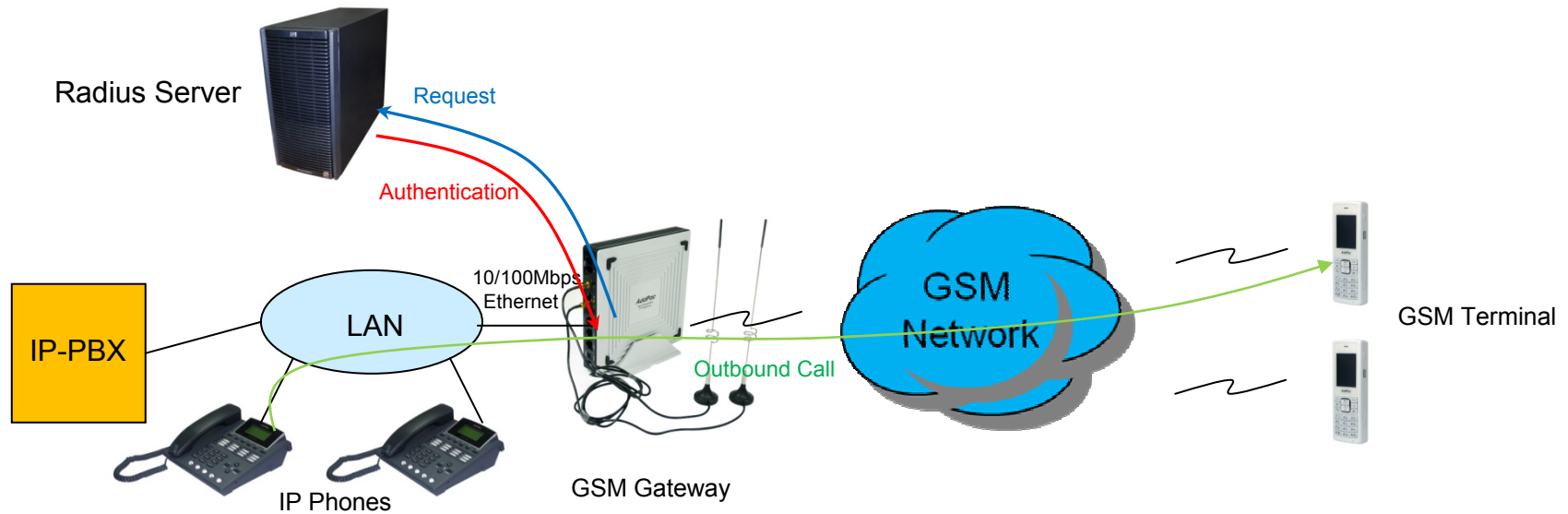
GSM Messaging Service

- : SMS is able to send and receive by GSM Gateway's WEB Interface
- : English, Korean, Spanish, Russian, Portuguese

USSD

- : In case of using Pre-paid SIM card, checking and recharging is allowed by GSM Gateway

Radius Server Interoperability



Radius Server Interoperability

: When billing system is required, GSM gateway supports radius server interoperability



Smart Web Manager for GSM 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

Smart Web Manager
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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

Manual

WAN Link Control

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 PIN

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"/>	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 main content area is titled 'Tunneling' and contains three sections: 'Mode', 'Source & Destination', and 'Service'. Three yellow callout boxes provide additional context:

- Tunneling Mode:** Configure Tunneling mode. This callout points to the 'Mode' section where 'None(Disable Tunneling, default)' is selected.
- Tunneling source & destination:** Source LAN port & destination IP. This callout points to the 'Source' dropdown (set to 'FastEthernet0/0') and the 'Destination' text input field.
- Tunneling Service:** Service mode. This callout points to the 'Service' section where 'Voice and Data Use Tunnel Interface (default)' is selected.

The 'Information' sidebar on the right provides system details:

- 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)

System - NTP

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

GSM Dial Plan / Prefix

Port Information

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

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Miscellaneous

- 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

Port Information
voice port type & physical port

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="checkbox"/>

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

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

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)

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

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
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

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
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

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

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System

- Network Setup
- Language
- NAT
- PPTP
- NTP

Basic

- Protocol
- Static Route
- Hot Line

GSM WEB Callback

Calling Number Whitelist

index	DialPattern	Control
0	01023234444	<input type="checkbox"/> Delete
0		Add

WEB Callback

Destination Numbers	Source Numbers	Control
8888	9999	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

Execute GSM call service function and Configure call service whitelist

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 staus.

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
www.addpac.com

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

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

Execute GSM callback function and Configure callback whitelist

Miscellaneous – Call Status

Smart Web Manager
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System

- Network Setup
- Language
- NAT
- DTMF

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"/>
	<input type="button" value="Unblock"/> <input type="button" value="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

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 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)

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

Miscellaneous – System Status

System Status

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

Smart Web Manager
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System

- Network Setup
- Language
- NAT
- PPTP
- NTP

System Status

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

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

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

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

Miscellaneous – Alarm Status

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 RTS Info

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
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

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

Miscellaneous – GSM Status

Smart Web Manager
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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

GSM Status

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

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

Diaplay GSM wireless status

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 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

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

Miscellaneous - Ping

Smart Web Manager
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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
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

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)

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

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 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

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

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

Verify GSM wireless signal status

LCR – Black & White List

Smart Web Manager
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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

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 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' (set to 0 and 0), two dropdowns for 'EndTime' (set to 0 and 0), and an 'Add' button. A 'Delete' button is also present next to the table row.

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

The interface includes a left sidebar with navigation menus for System, Basic, Advanced, and Miscellaneous. The right sidebar contains 'Information' and 'Description' sections. The 'Information' section lists system details such as AddPac Technology, Model: GS1002_G2, and Smart Web Version: 0.4. The 'Description' section contains the text: 'Configure time interval group'.

LCR – Tariff Group

Smart Web Manager
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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

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 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 points to the 'Start' button and the log window, stating 'LCR Test LCR simulator', and another points to the log window, stating 'LCR Test Show real time simulation status.' The left sidebar has a 'System' menu with options like Network Setup, Language, NAT, PPTP, and NTP, and an 'Advanced' menu with Gain & CID and GSM PIN. The right sidebar shows '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)) and a 'Description' section with 'LCR Test'.

System

- Network Setup
- Language
- NAT
- PPTP
- NTP

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
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

LCR Test

SMS – Inbox

Smart Web Manager
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GSM SMS / InBox

number of messages are 0 P0:0 OK

Index	Sender	Received	Message	Select
< > Delete				

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

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 with the 'GSM SMS / New Message' page. The left sidebar contains a navigation menu with categories: System, Basic, Advanced, and Miscellaneous. The main content area features a form for sending a message, with fields for 'Phone Number', 'Message', and 'Port' (set to P0:0), and a 'Send' button. A red dashed box highlights the form fields, and a yellow callout box points to the form with the text: 'New Message send a new message to the other GSM mobile phone.' The right sidebar displays system 'Information' and a 'Description' section.

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GSM SMS / New Message

Max size is 80 characters

Phone Number:

Message:

Port: P0:0

Send

New Message
send a new message to the other GSM mobile phone.

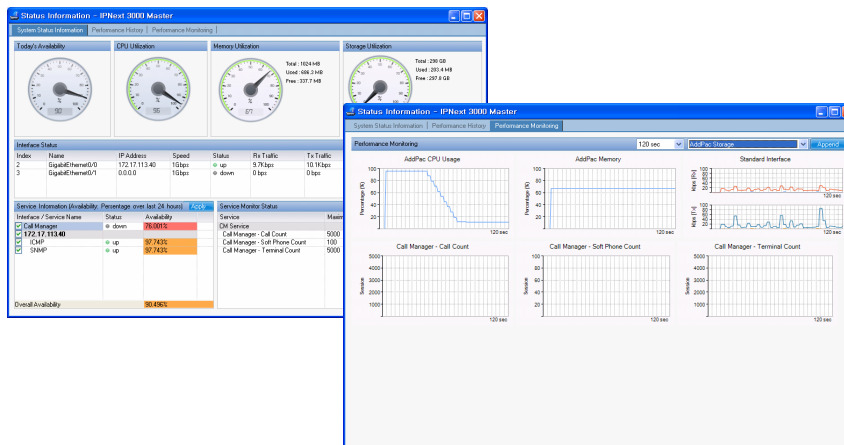
Information

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

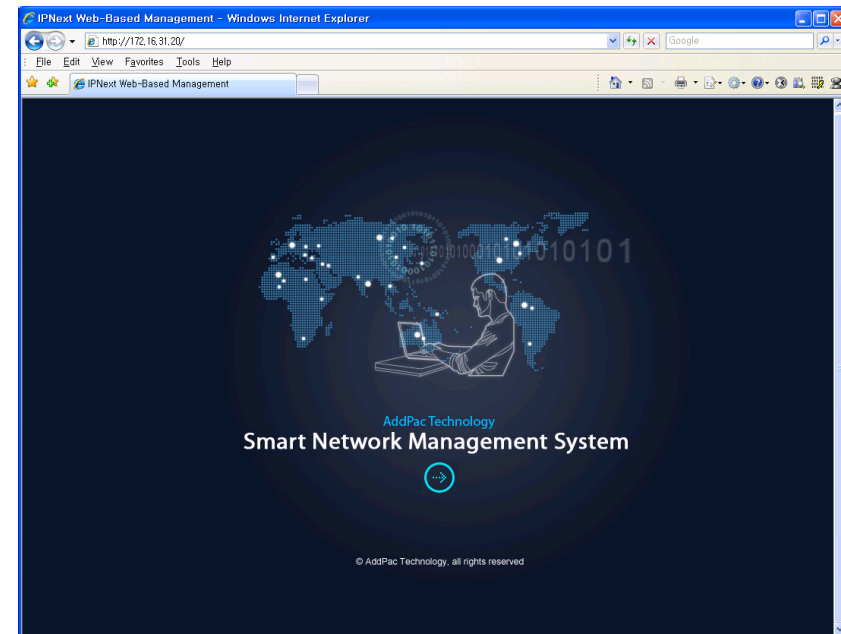
Smart NMS

Smart Network Management System for GSM 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

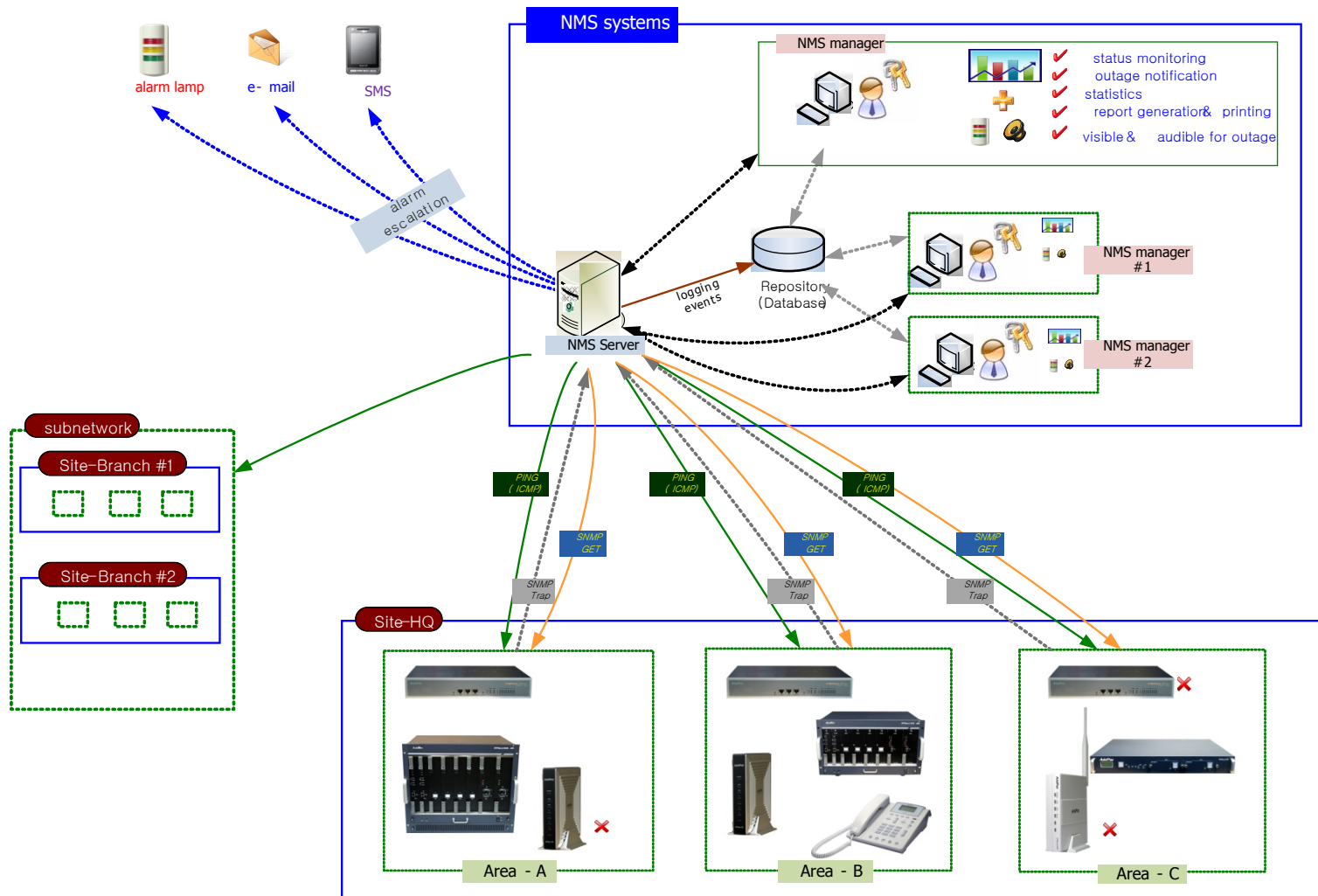
NMS Server

- 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

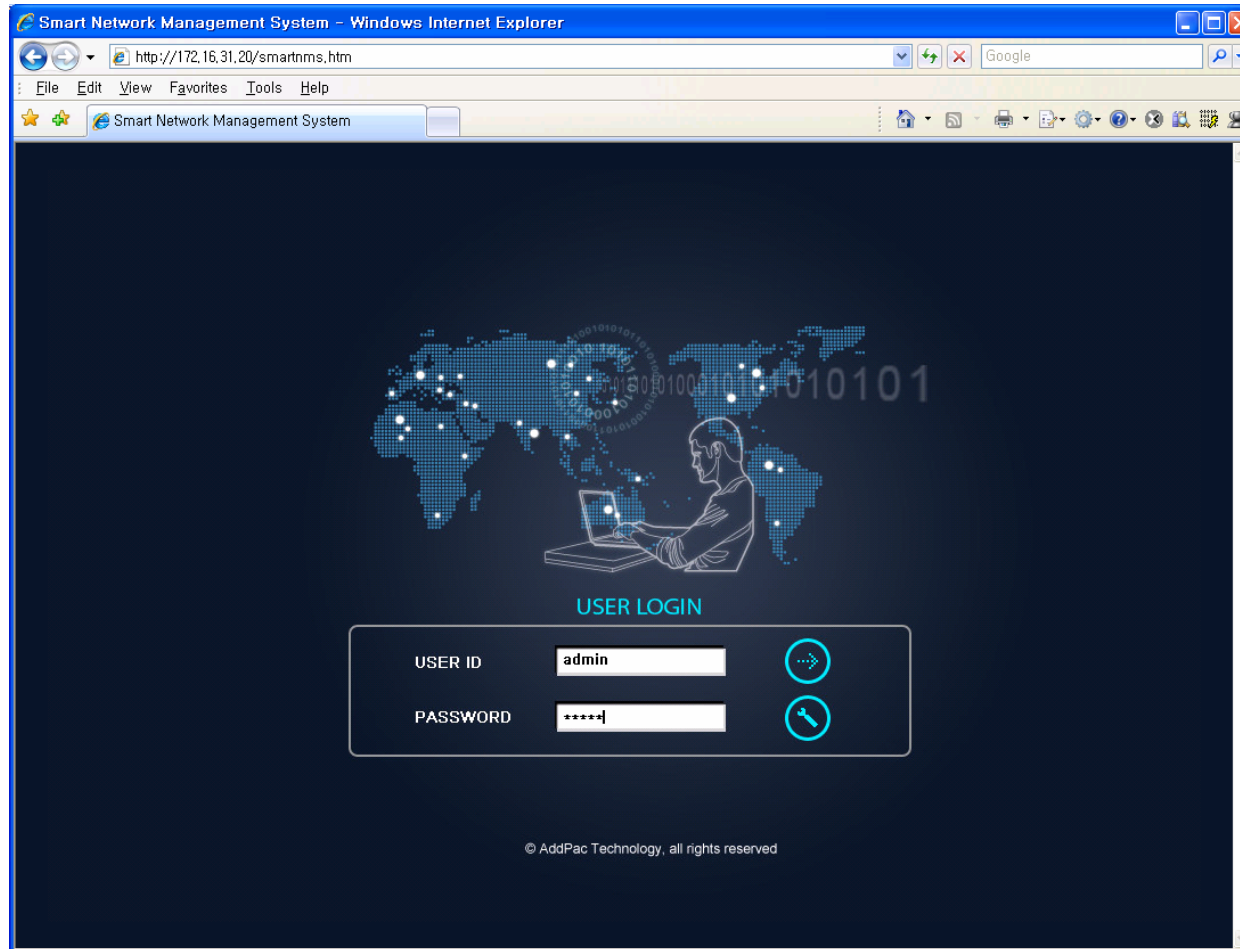
The screenshot displays the IPNext Web-Based Management interface within a Windows Internet Explorer browser window. The browser's address bar shows the URL `http://172.16.31.20/`. The main content area features a dark blue background with a world map and a person using a laptop, with the text "AddPac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

Two yellow callout boxes highlight key features:

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

The "Launching Application" dialog box is titled "Launching Application" and contains the text "Verifying application requirements. This may take a few moments." The "Downloading installnms" dialog box is titled "(61%) Downloading installnms" and contains the text "Downloading installnms. This may take several minutes. You can use your computer to do other tasks during the installation." It also displays the file name "installnms", the source "From: 172.16.31.20", and a progress bar showing "Downloading: 6.29 MB of 10.1 MB".

Web-based Login



Network Resource Management

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

The screenshot displays the AddPac Network Resource Management interface. On the left, a hierarchical tree structure shows the organization of network resources, including sites like 'AddPac' and 'Seoul', and various sub-networks and branches. A context menu is open over the 'GangNamGu' node, with 'Execute SMM' highlighted. An orange callout box points to this menu with the text: 'can cooperate with the application executables such as SMM'. In the center, a table lists device categories such as 'Desktop', 'Network Camera', 'Phone', 'Server', 'Switch', and 'VoIP Gateway'. An orange callout box points to this table with the text: 'manage the complex network with a structured, hierarchical form'. On the right, a 'User Properties' dialog box is open, showing a 'Site' tab with a tree view of the same hierarchical structure. An orange callout box points to this dialog with the text: 'can assign the hierarchical node to the operator and manage role-based policy'. At the bottom, a status bar indicates 'Total Categories : 6'.

Device Fault Management

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

Device Fault Management

main window

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

- Current Outage Devices (11):** A tree view on the left showing a hierarchy of devices under 'AddPac', including Branch AQ, Branch GX, HeadQuarter, and Subnetwork #2. Each device has a status indicator (e.g., 6 of 12, 3 of 3) and an availability percentage.
- Service Outages:** A table in the center showing site device fault summaries. It includes columns for Site, Type, Outages, Availability, and Description. The overall total device fault statistics are shown at the bottom: 30 / 11 / 34, 78.650%.
- Device Categories:** A table on the right showing device fault summary for category (classification). It lists categories like Desktop, Network Camera, Phone, Server, Switch, and VoIP Gateway, along with their respective Outages and Availability percentages.
- Your Outstanding Notices (16):** A table at the bottom showing current device fault event messages, including columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

current device fault list with hierarchy view

site device fault summary

device fault summary for category (classification)

overall total device fault statistics

current device fault event message are shown as below

Device Fault Management

Smart Network Management System - Windows Internet Explorer

http://172.16.31.20/smartnms.htm

NMS Account Configuration Monitoring Notification Fault Statistics View Help

Current Outage Devices (12) 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

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

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 content area shows a 'device status matrix with small view mode' containing a grid of device icons. Each icon is accompanied by a status indicator (green checkmark for healthy, red 'X' for fault, yellow warning triangle for degraded) and a small device image. A red arrow points to a device icon labeled 'NMS Camera' with IP address 172.16.253.118, which has a red 'X' status indicator.

Below the device status matrix, there is a section titled 'Your Outstanding Notices (18)'. This section contains a table of alerts:

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, and time range. Below the main list, there is a section for 'Your Outstanding Notices (17)' with a detailed table of active faults.

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

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

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 displays the Smart NMS interface with the following components:

- Navigation Menu:** NMS, Account, Configuration, Monitoring, Notification, Fault, Statistics, View, Help.
- Notification Summary Table:**

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

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message	Responder	Respond Time
<input checked="" type="checkbox"/>	9528	4/10/2009 5:51:06 PM	/AddPac/Branch AQ	NMS Camera	172.16.4.180	SNMP	interface 172.16.4.180 (172.16.4.180) device(NMS Camera) service SNMP failed at 2009-4-10 5:51 06 PM	auto-acknowledged	4/10/2009 5:51:35 PM
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/Branch AQ	5th floor meeting room phone device			device 5th floor meeting room phone device, all services are down.	to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9526	4/10/2009 5:33:42 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:35:25 PM
<input type="checkbox"/>	9525	4/10/2009 5:21:06 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:22:43 PM
<input type="checkbox"/>	9524	4/10/2009 5:17:29 PM	/AddPac/Branch GX					to-acknowledged	4/10/2009 5:17:56 PM
<input type="checkbox"/>	9522	4/10/2009 3:36:26 PM	/AddPac/Branch AQ	IP: cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9521	4/10/2009 3:36:18 PM	/AddPac/Branch AQ	PS RB cor				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9520	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	UW				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9519	4/10/2009 3:36:17 PM	/AddPac/Branch AQ	Re (ou				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9518	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	co				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9517	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	00				to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9516	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	5th floor meeting room phone device				to-acknowledged	4/10/2009 4:02:54 PM
<input type="checkbox"/>	9515	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:44 PM
<input type="checkbox"/>	9514	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9513	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9512	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9511	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9510	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9509	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9508	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9507	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9506	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9505	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9504	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9503	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9502	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9501	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9499	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9498	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9497	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9496	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9495	4/10/2009 3:36:09 PM	/AddPac/Branch AQ	IP: 172.16.4.180				to-acknowledged	4/10/2009 4:02:43 PM
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager 2009-4-10 11:37:12 failed	to-acknowledged	4/10/2009 4:03:14 PM
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			device 00_IVR_server all services are down.	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9396	4/9/2009 10:57:37 AM	/AddPac/Branch AQ	NMS_IP_PBX_31.13			device NMS_IP_PBX_31.13 all services down.	to-acknowledged	4/10/2009 4:02:54 PM
<input type="checkbox"/>	9239	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118		device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) not response or deleted by administrator	to-acknowledged	4/10/2009 4:03:13 PM
<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	to-acknowledged	4/10/2009 4:03:13 PM
<input type="checkbox"/>	9237	4/6/2009 7:49:20 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.118	SNMP	device (NMS Camera 2) interface 172.16.253.118 (172.16.253.118) service SNMP not response or deleted by administrator	to-acknowledged	4/10/2009 4:02:43 PM
- Pop-up Windows:**
 - Add Troubleshooting Note:** A dialog box with a text area containing "Fixed it manually. 2009-04-10 PM by Administrator." and buttons for "Add", "Edit", "Delete", and "Help".
 - Edit Troubleshooting Note:** A dialog box with a text area containing "Fixed it manually. 2009-04-10 PM by Administrator." and buttons for "Ok" and "Cancel".
- Callout:** An orange box with the text "Can write troubleshooting note if needed" pointing to the text area in the 'Add Troubleshooting Note' window.

Current Device Fault (Outage)

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

Current Outage Devices Table:

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

Service Outages Table:

Outage ID	Site	Device Name	IP Address	Service	Time Down
13968	/AddPac/Branch GX	00_RBT_server	172.17.114.60	Media	4/10/2009 9:26:04 PM
13967	/AddPac/Branch GX	00_RBT_server	172.17.114.60	ICMP	4/10/2009 9:26:04 PM
13966	/AddPac/Branch GX	00_RBT_server	172.17.114.60	ICMP	4/10/2009 9:26:04 PM
13948	/AddPac/HeadQuarter	5th floor meeting room p...	172.16.53.101	ICMP	4/10/2009 5:34:10 PM
13907	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	ICMP	4/10/2009 3:34:29 PM
13906	/Subnetwork #2/Cent...	NMS_SOHO_PBX	172.16.19.50	SNMP	4/10/2009 3:34:29 PM
13896	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	2009-4-10 11:37:12 failed.
13895	/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
13802	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device 00_IVR_server all services are down.	
13801	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device NMS_IP_PBX_31.13 all services down.	
13800	/AddPac/Branch GX	00_IVR_server	172.17.113.40	device [NMS Camera 2] interface 172.16.253.118 (172.16.253.118) not response or delete by administrator	

Event Detail (ID: 45412) Dialog Box:

- Event Time: 4/10/2009 9:26:04 PM
- Site: /AddPac/Branch GX
- Service: /AddPac/Branch GX
- Time Acknowledge: [Empty]
- 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.
- Troubleshooting Note List: [Empty table]

Your Outstanding Notices (18) Table:

Ack	ID	Send Time	Site	Device Name	IP Address	Service	Message
<input type="checkbox"/>	9535	4/10/2009 9:26:04 PM	/AddPac/Branch GX	00_RBT_server		device	device
<input type="checkbox"/>	9527	4/10/2009 5:34:10 PM	/AddPac/HeadQuarter	5th floor meeting...		device	device
<input type="checkbox"/>	9502	4/10/2009 3:34:29 PM	/Subnetwork #2/Cent...	NMS_SOHO_PBX		device	device
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave	172.17.113.41	Call Manager	Call Manager 2009-4-10 11:37:12 failed.
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master	172.17.113.40	Call Manager	interface 172.17.113.40 (172.17.113.40) device (IPNext 3000 Master) service Call Manager: 2009-4-10 11:37:12 failed
<input type="checkbox"/>	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

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

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

Limit: 20 Refresh Advanced Search Acknowledge Events Troubleshooting Note

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

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

summarize daily event statistics data

Site	Device Name	IP Address	Service	Message
/AddPac/Branch GX	00_RBT_server			device 00_RBT_server's all services are down.
/AddPac/HeadQuarter	5th floor meeting...			device 5th floor meeting room phone device, all services are down.
/Subnetwork #2/Cent...	NMS_SOHO_PBX			device NMS_SOHO_PBX, all services are down.
<input type="checkbox"/>	9495	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Slave 172.17.113.41
<input type="checkbox"/>	9494	4/10/2009 11:37:12 AM	/AddPac/Branch GX	IPNext 3000 Master 172.17.113.40
<input type="checkbox"/>	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

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

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

Can view all events for devices with search condition

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](#)

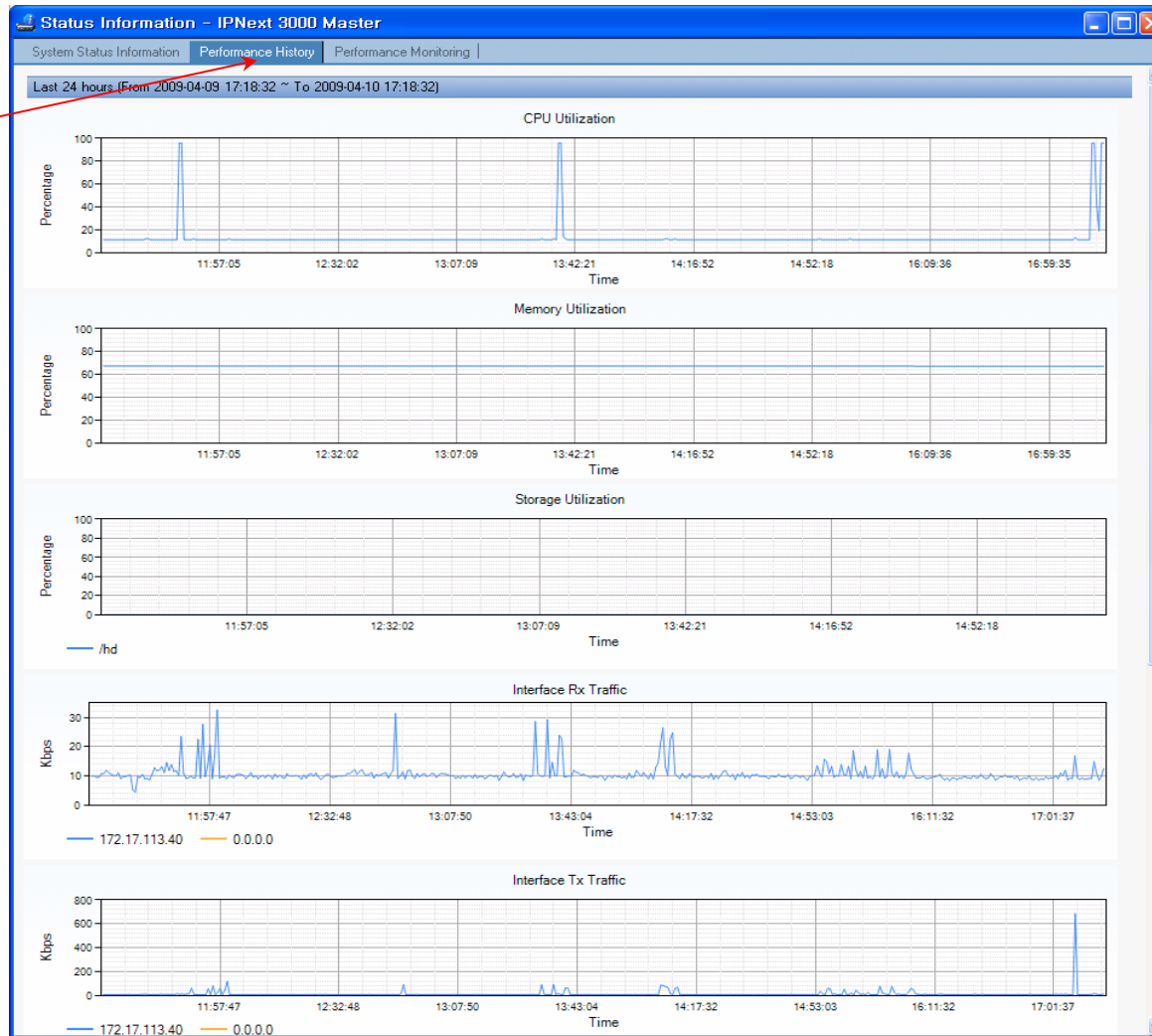
Interface / Service Name	Status	Availability
<input checked="" type="checkbox"/> Call Manager	● down	76.001%
<input checked="" type="checkbox"/> 172.17.113.40		
<input checked="" type="checkbox"/> ICMP	● up	97.743%
<input checked="" type="checkbox"/> SNMP	● up	97.743%
Overall Availability		90.496%

Service Monitor Status

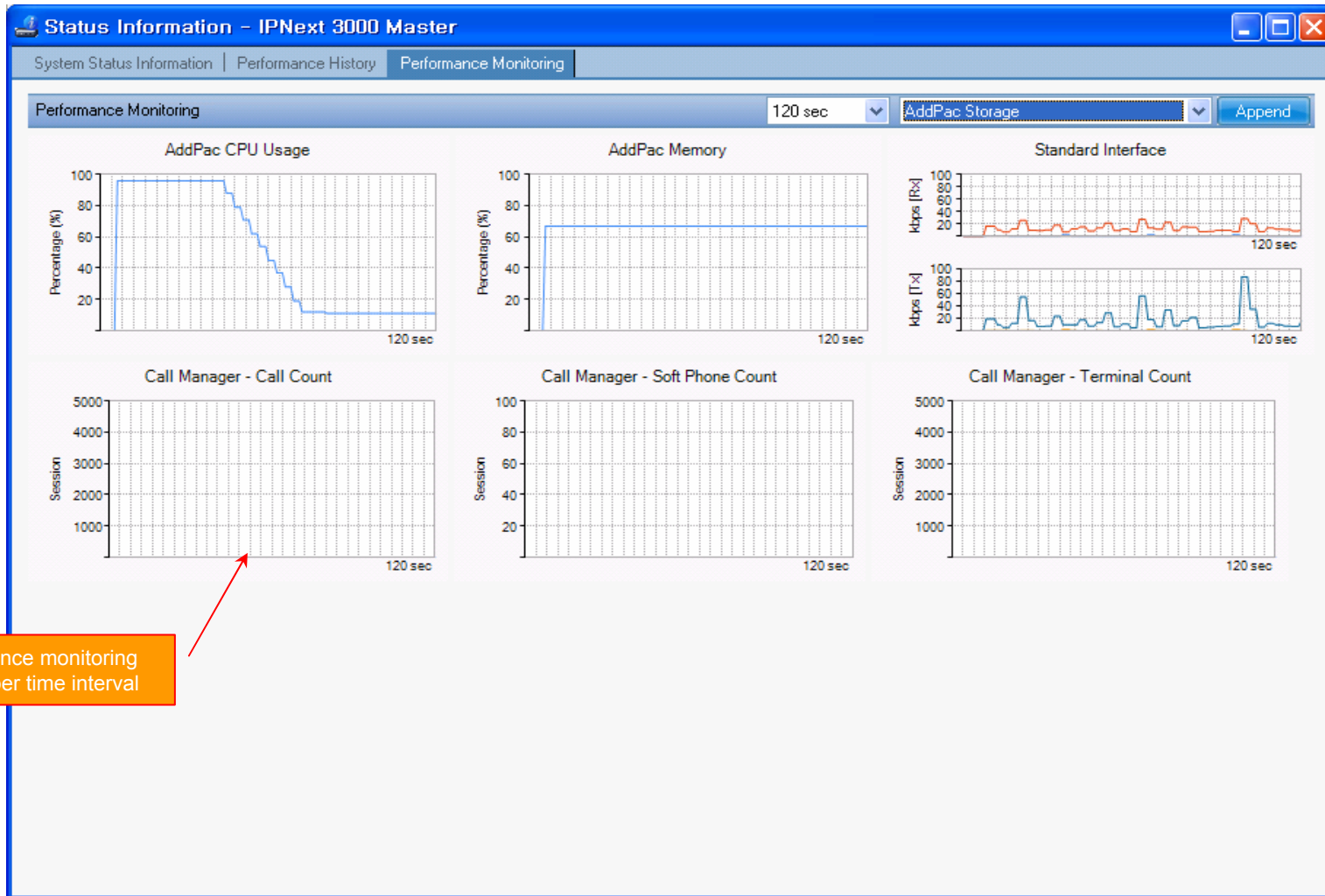
Service	Maximum	Value	Used
CM Service			
Call Manager - Call Count	5000	0	0%
Call Manager - Soft Phone Count	100	0	0%
Call Manager - Terminal Count	5000	7	0%

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'.

Event Notification Properties Dialog:

- Notification Name: serviceUnresponsive
- Description: test
- Event: Node event: serviceUnresponsive
- Destination Path: default
- Notification Type: sms, alarmLamp, email
- Current Rule: IPADDR IPLIKE ****
- Apply Category: Desktop, Network Camera, Phone, Server, Switch
- Email Subject: Notice #%noticeid%: %service% service on %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:

Callout Boxes:

- 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

Table: 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_RBTT_server		device.00_RBTT_server's 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 screenshot, a table titled "Your Outstanding Notices (18)" is visible, showing a list of events with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

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. Two dialog boxes are open: 'Destination Path Properties' and 'Target Properties'. The 'Target Properties' dialog is the primary focus, showing the configuration for event notifications. It includes a dropdown for 'Choose the notification type:' set to 'sms', a 'Target Information' section with 'Send to select user:' selected and 'Account Administrator' chosen, and a 'Mobile Number' field. A red arrow points to the user selection dropdown. An orange callout box contains the text: 'user account (administrator) setting for SMS, E-mail Notification or specify e-mail address or SMS phone number'. The 'Your Outstanding Notices' table at the bottom shows a list of events with columns for Ack, ID, Send Time, Site, Device Name, and IP Address.

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

Configuration

The screenshot displays the Smart Network Management System (NMS) interface. The main window shows a tree view of network devices and their service availability. A 'Configure Notification' dialog box is open, showing settings for an external notification channel (E-Mail) with fields for Sender Email Address, SMTP Server Host, and Authentication options. An orange callout box points to the dialog with the text 'global notification channel configuration'.

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 server(o...	3 of 3	0.000 %
Subnetwork #2		
Center		
NMS_S0HD_...	2 of 2	0.000 %

Device Name	IP Address	Service	Message
00_FBT_server		Call Manager	device 00_FBT_server's all services are down.
5th floor meeting room phone device		Call Manager	device 5th floor meeting room phone device, all services are down.
NMS_S0HD_PBX		Call Manager	device NMS_S0HD_PBX, all services are down
interface 172.17.113.41 (172.17.113.41)		Call Manager	interface 172.17.113.41 (172.17.113.41) device (IPNext 3000 Slave) service
interface 172.17.113.40 (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		Call Manager	Call Manager 2009-4-10 11:37:12 failed
device 00_IVR_server		Call Manager	device 00_IVR_server all services are down.
device NMS_IP_PBX_31.13		Call Manager	device NMS_IP_PBX_31.13 all services down.
device (NMS_Camera 2) interface 172.16.253.118		Call Manager	device (NMS_Camera 2) interface 172.16.253.118 (172.16.253.118) not response or delete by administrator

Audible & Visible Alarm

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

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

Device Categories	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_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 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 fault count for the day is 118.
- Your Outstanding Notices (18):** A table at the bottom listing various system notices.

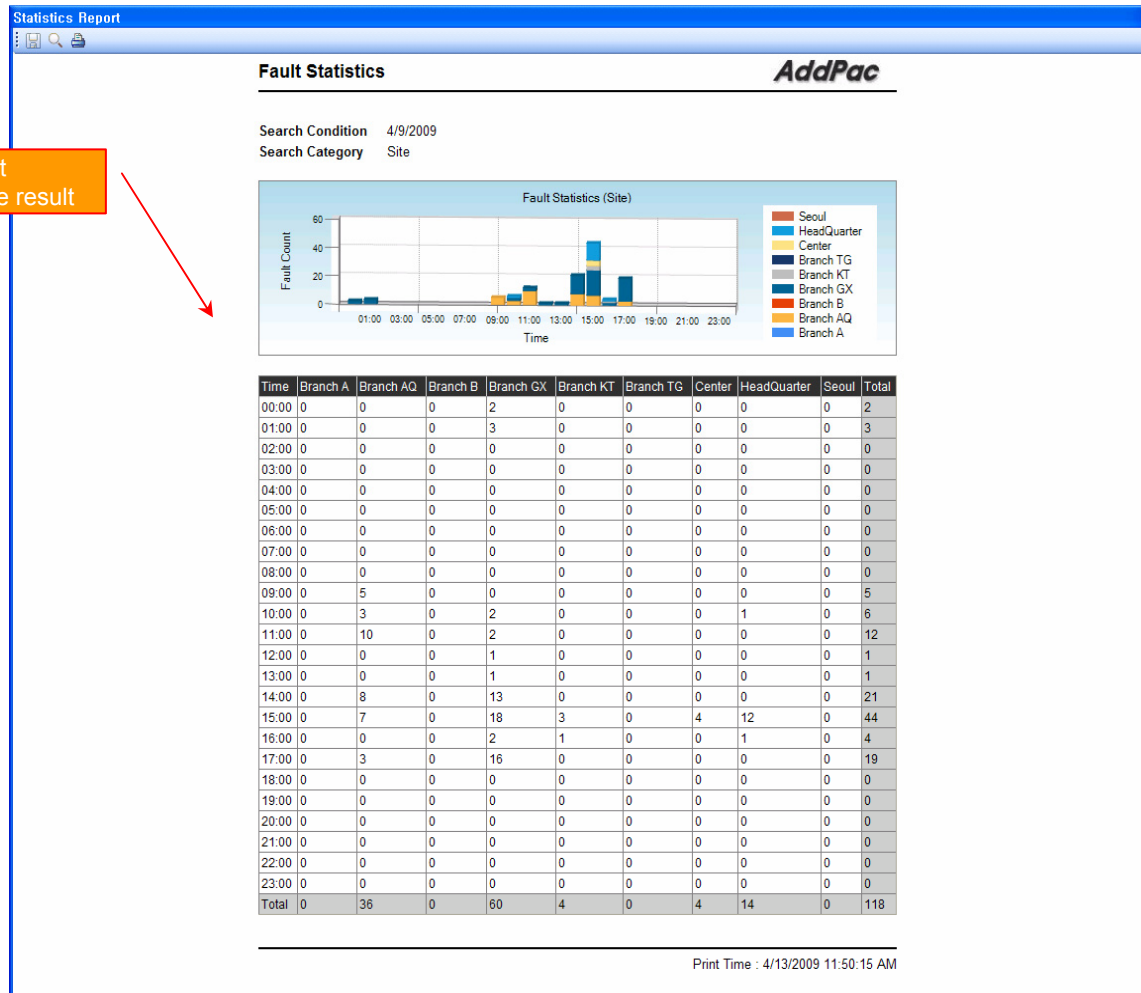
Two orange callout boxes provide additional context:

- 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 '4/9/2009' data table.

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

Fault Statistics – Report Generation

report generation for fault statistics and print out the result



Model & Service Management

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

Device Model Management

manage device model with various properties such as model image

model image repository for selection

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	
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_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 (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		
<input type="checkbox"/>	9236	4/6/2009 7:41:25 PM	/AddPac/Branch AQ	NMS Camera 2	172.16.253.11		

Your Outstanding Notices (18)

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

Service Definition

The screenshot displays the Smart NMS web interface. On the left, a tree view shows the network hierarchy under 'AddPac'. The main area shows a list of services with columns for Name, Protocol, and Port. The 'Camera Operation Status' service is highlighted. A 'Service Properties' dialog box is open, showing the configuration for this service. The 'General' tab is active, and the 'SNMP' protocol is selected. The 'Service Name' is 'Camera Operation Status', and the 'Port' is '161'. The 'Interval' is set to '30000' (msec), 'Timeout' is '3000' (msec), and 'Retry' is '3'. A second 'Service Properties' dialog box is also visible, showing the 'Service Condition' tab with 'Operator' set to '=' and 'Operand' set to '1'. At the bottom, a table shows 'Your Outstanding Notices (18)' with columns for Ack, ID, Send Time, Site, Device Name, IP Address, Service, and Message.

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

Service Name	Protocol	Port
Call Manager	SNMP	161
Presence	SNMP	161
Media	SNMP	161
UPL	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

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	Call Manager 2009-4
<input type="checkbox"/>	9418	4/9/2009 2:20:01 PM	/AddPac/Branch GX	00_IVR_server			interface 172.17.113
<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 o
<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



Thank you!

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