AP-GDP120TM
GSM Desk Phone

High Performance GSM Multiservice Phone Solution

Preliminary Product Overview

(Without notice, following described technical spec. can be changed)

AddPac Technology

2011, Sales and Marketing

www.addpac.com

Contents

Product Overview

AP-GDP120 GSM Desk Phone

- GSM Desk Phone Solution
- GSM Gateway Solution
- IP Phone Solution
- VoIP Gateway Solution
- IP Phone + VoIP Gateway Solution (concurrent)
- 12 Speed-Dial Key with Presence Indication Lamp
- High-performance Audio, and Voice Service
- Firmware Upgradeable Architecture
- VoIP Solution with Outstanding Network Service Capability
- Audio Privacy Protection

Product Highlights

AP-GDP120 GSM Desk Phone

High Performance
GSM Desk Phone Solution

GSM Desk Phone +
GSM Gateway +
IP Phone

LCD Display
Function Key, Menu KEY
12 Speed Dial Key with Presence
Indication LED

Excellent Voice Quality
G726/711/G.729/G.723 etc
High Quality Speaker Phone
& Sound

Power over Ethernet
: Option

External Audio In/Out Port
for Headset

Various Call Control
Scenario Support (IP-PBX)

APOS™ Technology
Network Protocol

State-of-art Signaling
H.323, SIP Dual Stack

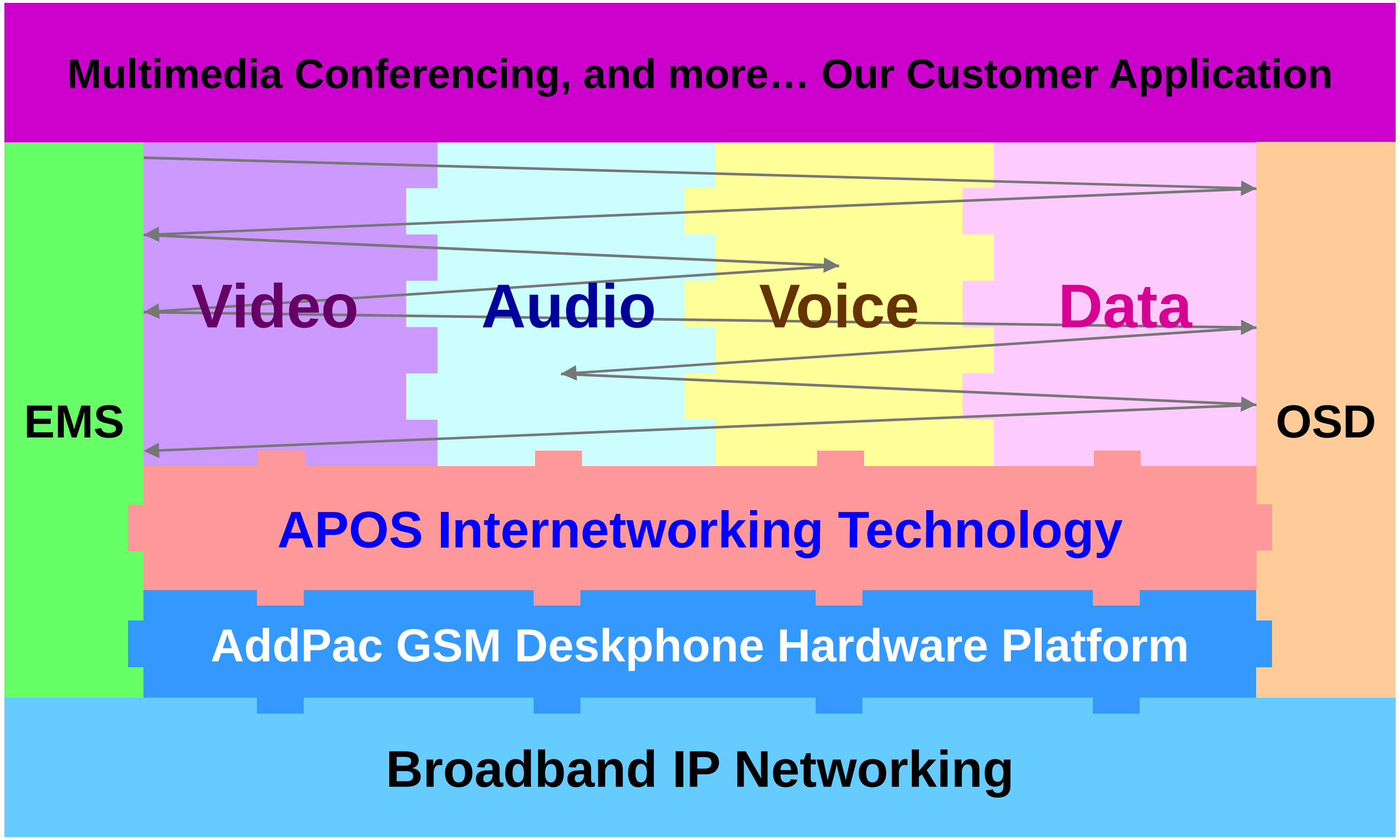
IP based Network Protocol
& Voice Traffic QoS

Broadband IP Networking
With dual 10/100Mbps Ethernet

1-Port GSM Interface
1-Port FXS Interface

Multimedia Service

AP-GDP120 GSM Desk Phone



- APOS : AddPac Internetworking Operating System
- OSD : On- Screen Display
- EMS : Element Management System

Hardware Specification

AP-GDP120 GSM Desk Phone

- RISC+DSP Microprocessor Computing Power (Dual Processor Architecture)
- 1-Port GSM Interface : Antenna, SIM Card Slot
- VoIP Gateway Interface
  - AP-GDP120 Model A: Basic Configuration
  - AP-GDP120 Model B: Additonal One(1) FXS Port
- Optional PoE (Power over Ethernet)
- High quality Audio and Voice Interface
  - Stereo Audio Input Connector
  - Stereo Audio Output Connector
- Network Interface
  - Two(2) 10/100Mbps Fast Ethernet
- LCD Window : Graphic LCD (4 Line Text)
- 12 Speed-Dial Key with Presence Indication LAMP
- Power Supply
  - External Power Adaptor (5V, 2A)

Hardware Specification

AP-GDP120 GSM Desk Phone

Hardware Specifications

AP-GDP120 GSM Desk Phone	Basic Specifications
CPU	RISC Microprocessor
Ethernet Interface	2-Ports 10/100Mbps Ethernet Interface(RJ-45)
GSM Interface	1-Port Antenna Interface, SIM Card Slot
GSM Gateway Port (Optional)	1-Port FXS Port(RJ-11)
Flash Memory	4Mbyte High-speed Flash Memory
Base Memory	32Mbyte High-speed SDRAM
Power Requirement	External Power Supply Adaptor / VAC 110~220V, 50/60Hz, 10Watt(5V,2A)
	Power over Ethernet (option)
Operating Temperature	0ºC ~ 45ºC (32 ºF ~ 122ºF)
Storage Temperature	-40ºC ~ 85ºC (-40ºC ~ 185ºF)
Relative Humidity	5% ~ 95% (Non-condensing)
Dimensions	H x W x D (70mm x 200mm x 210mm)
Weight (g)	1.2Kg

Hardware Specification

AP-GDP120 GSM Desk Phone

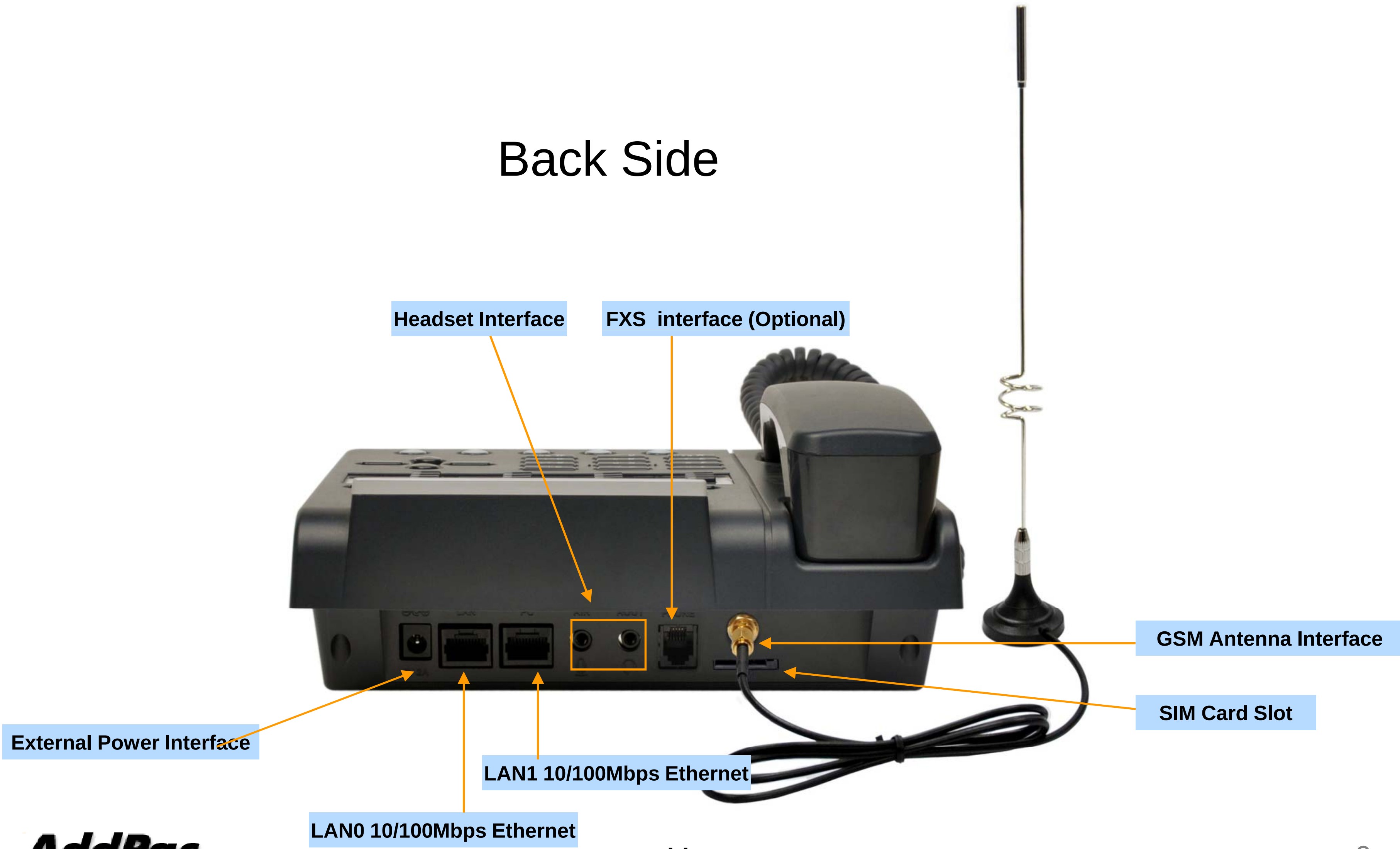
Front Side

12 Speed Dial

Hardware Specification

AP-GDP120 GSM Desk Phone

Back Side



GSM Module Specification

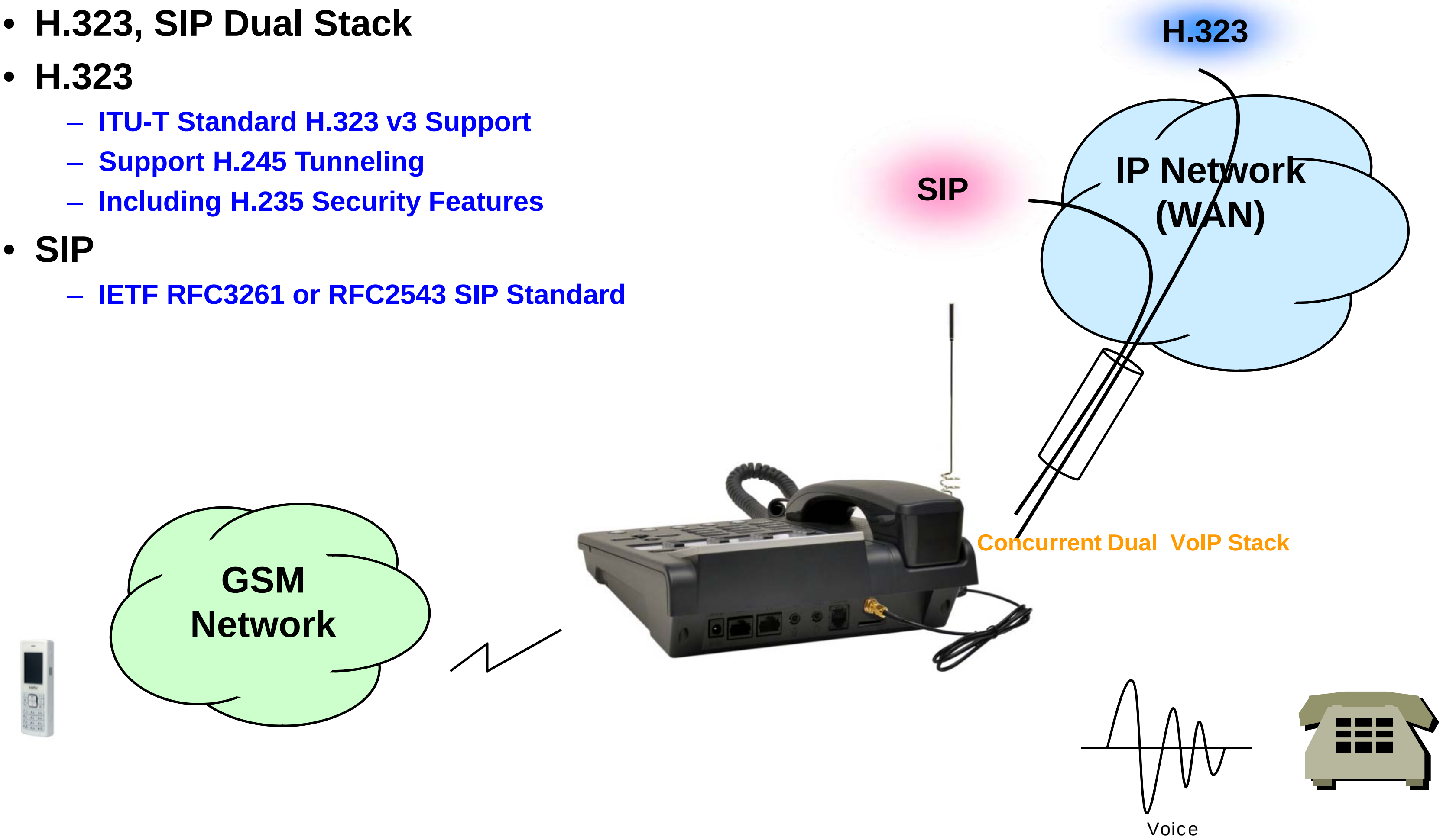
AP-GDP120 GSM Desk Phone

- Bearers : GSM + GPRS multislot class 10
- Quad-Band EGSM 850/900/1800/1900MHz
- Normal Sensitivity
  - 850MHz Rx -102 dBm (min.) -110 dBm (typ)
  - 900MHz Rx -102 dBm (min.) -110 dBm (typ)
  - 1800MHz Rx -102 dBm (min.) -109 dBm (typ)
  - 1900MHz Rx -102 dBm (min.) -109 dBm (typ)
- Tx Performances
  - 850MHz Tx +33 dBm (max.)
  - 900MHz Tx +33 dBm (max.)
  - 1800MHz Tx +30 dBm (max.)
  - 1900MHz Tx +30 dBm (max.)
- Power Class 4 (33dBm nominal maximum output power)
- Codec
  - FR-EFR-HR-AMR

VoIP (Voice over IP) Service

AP-GDP120 GSM Desk Phone

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



VoIP (Voice over IP) Service

AP-GDP120 GSM Desk Phone

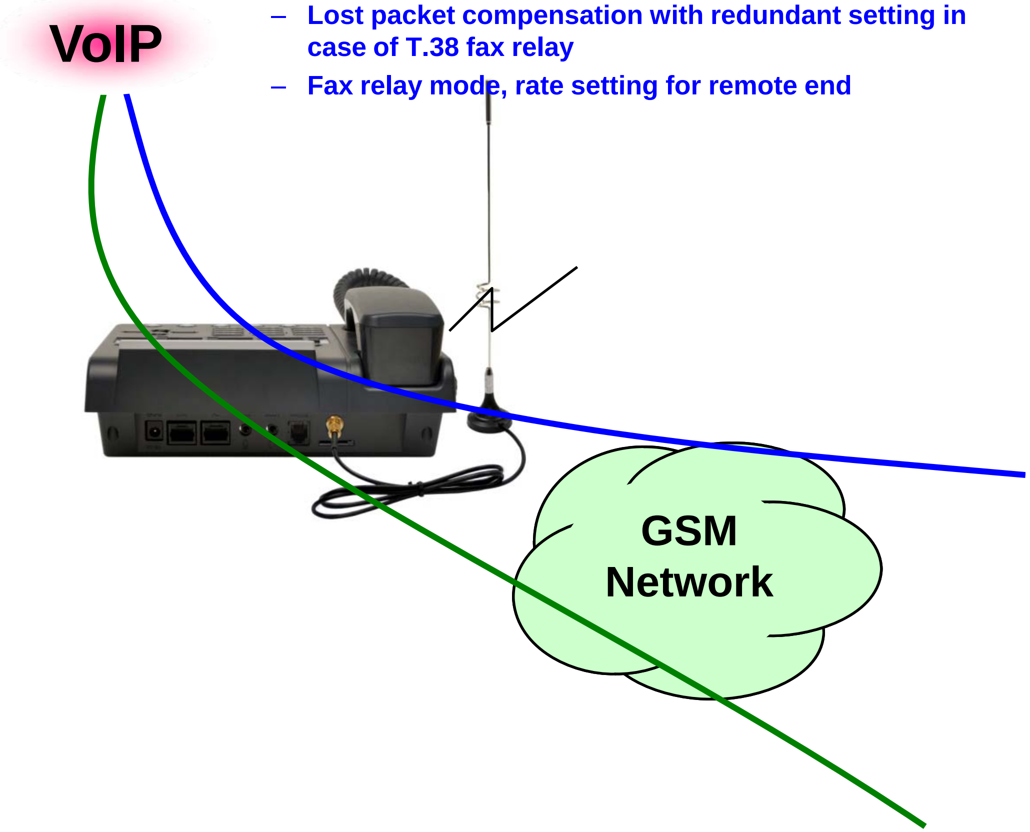
- **H.323**
  - Fast connect, normal connect support
  - H.245 tunneling support
  - Q.931 response message setting for inbound VoIP calls
  - H.245 logical channel open timing selection function
  - Start H.245 procedure support
  - DTMF / Hook flash relay with H.245 alphanumeric / signal
  - Secondary gatekeeper support
  - Gatekeeper assignment according to the domain name
  - Gatekeeper discovery with multicast
  - Lightweight RRQ support
  - Signaling TCP port assignment
  - Resource threshold setting with RAI
  - H.235 clear-token, crypto-token support
  - canMapAlias support
  - Technical prefix (supported prefix) support
  - Public IP assignment in NAT environment

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

VoIP (Voice over IP) Service

AP-GDP120 GSM Desk Phone

- **Voice Codec**
  - G.711 A-Law, G.711 U-Law
  - G.726 r16, G.726 r32
  - G.729A
  - G.723.1 r63, G.723.1 r53
  - VAD (Voice Activity Detection) function support
  - DTMF relay support (H.323, SIP, MGCP common) based on RFC2833
- **RTP**
  - Redundant RTP packet transmission in case of severe packet loss
  - Dynamic jitter buffer management and RPT packet jitter and loss compensation with heuristic & DSP error concealment
  - Static jitter buffer setting support
  - Voice frame per RTP packet number control for each codec
  - In-band ring-back tone support
  - Virtual ring-back tone support
  - Tone parameter change support
- **FAX**
  - Fax relay mode supporting T.38, inband-T.38, bypass mode
  - Lost packet compensation with redundant setting in case of T.38 fax relay
  - Fax relay mode, rate setting for remote end

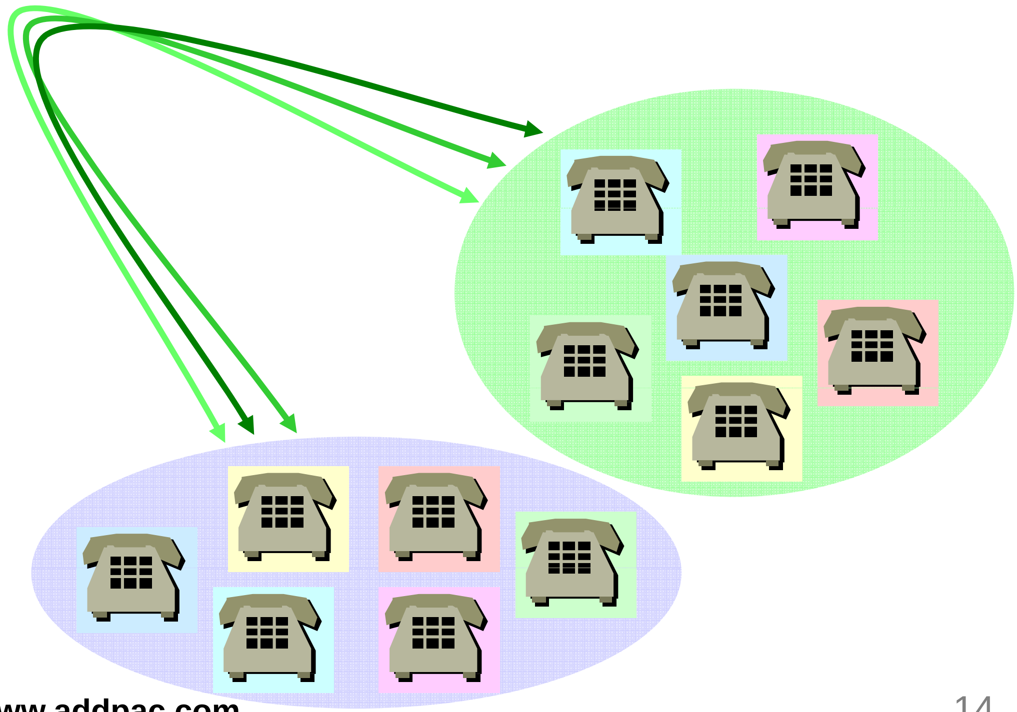


VoIP (Voice over IP) Service

AP-GDP120 GSM Desk Phone

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

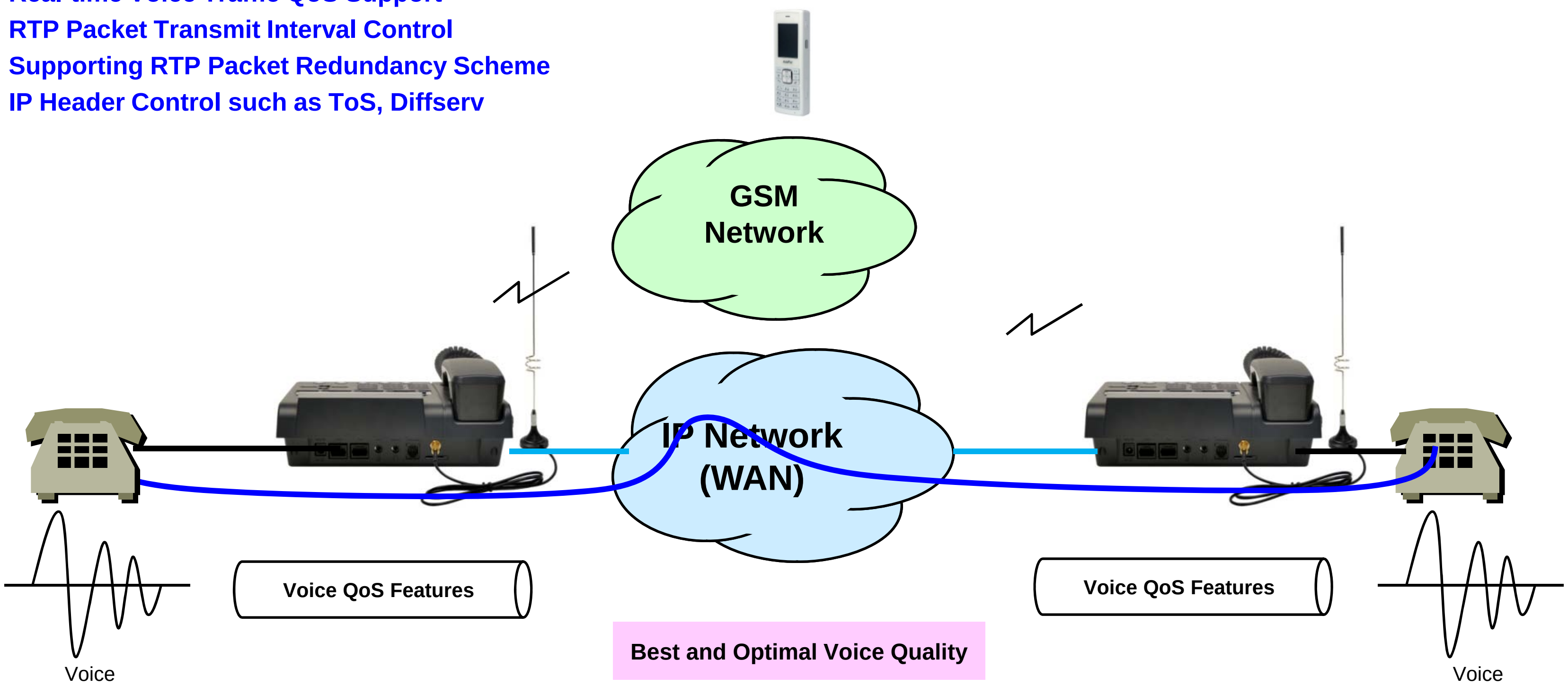
- **VoIP Call Controls (cont.)**
  - **Call transfer for internal calls**
  - **Call pickup for internal calls**
  - **Calling and called number conversion for VoIP outbound calls**
  - **Calling and called number conversion for VoIP inbound calls**
  - **Fax broadcasting call control**



Advanced QoS Features

AP-GDP120 GSM Desk Phone

- **Enhances Transmit Voice QoS Features**
  - **Voice Traffic Priority Queuing**
  - **QoS Service Profiling**
  - **Providing Virtual Network Transmit Algorithm**
  - **Real-time Voice Traffic QoS Support**
  - **RTP Packet Transmit Interval Control**
  - **Supporting RTP Packet Redundancy Scheme**
  - **IP Header Control such as ToS, Diffserv**
- **Enhances Receive Voice QoS Features**
  - **Dynamic Jitter Buffer Management**
  - **Error Concealment**
  - **Support T.38 FAX Data Error Recovery Scheme**



Network Protocols

AP-GDP120 GSM Desk Phone

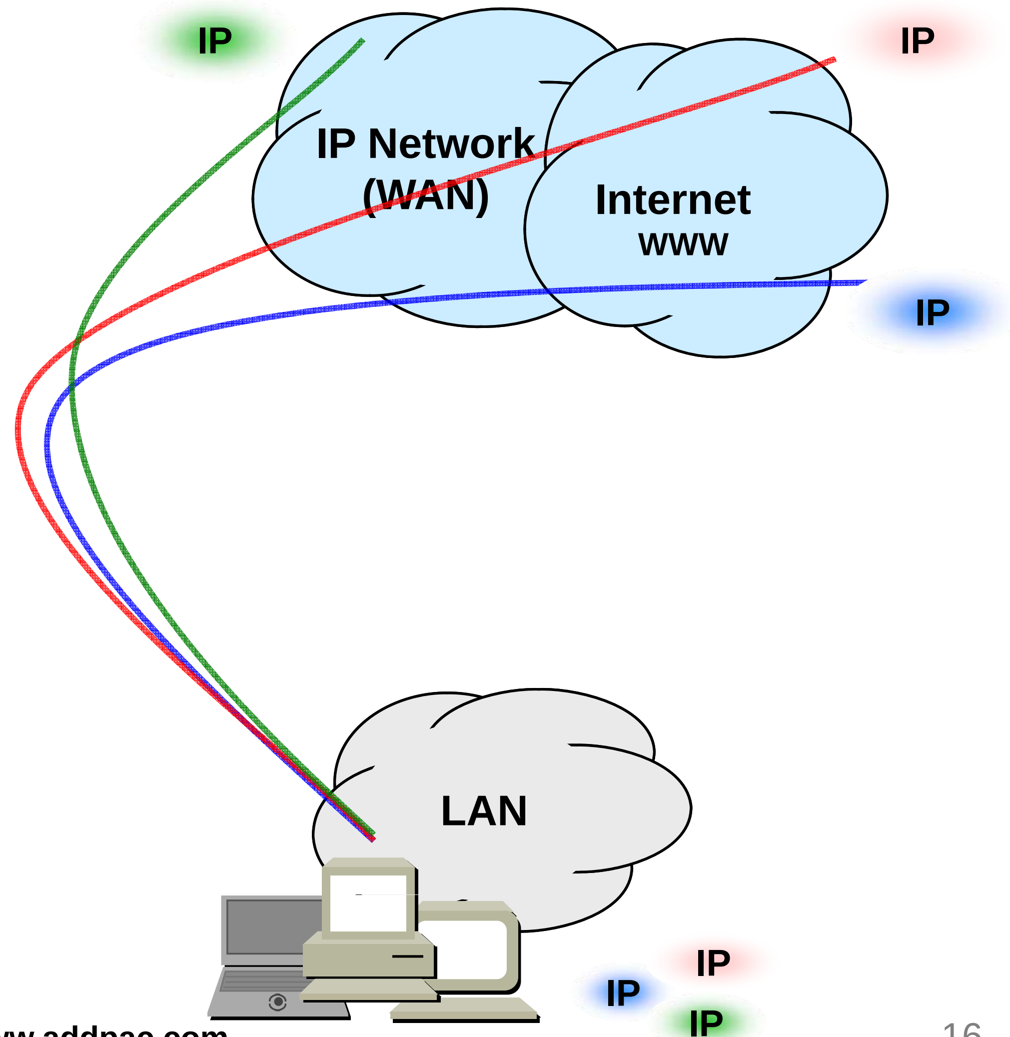
Basic Network Protocols
- ARP, IPv4, TCP, UDP, ICMP, SCTP, IGMP, MLD

Routing Protocol
- IPv4 : Static

Service Protocol
- FTP, Telnet, TFTP, DHCP Server/Relay, SNMP Server
- CDP (Cisco Discovery Protocol)
- DNS Resolver , DDNS(nsupdate)
- Bridge
- Syslog

IPv4 Address Configuration
- Fixed (Static)
- DHCP
- PPPoE

Miscellaneous
- Cisco Style CLI
- Standard & Extended IPv4 Access List
- Multi-level User Account Management
- IP accounting
- STUN Client

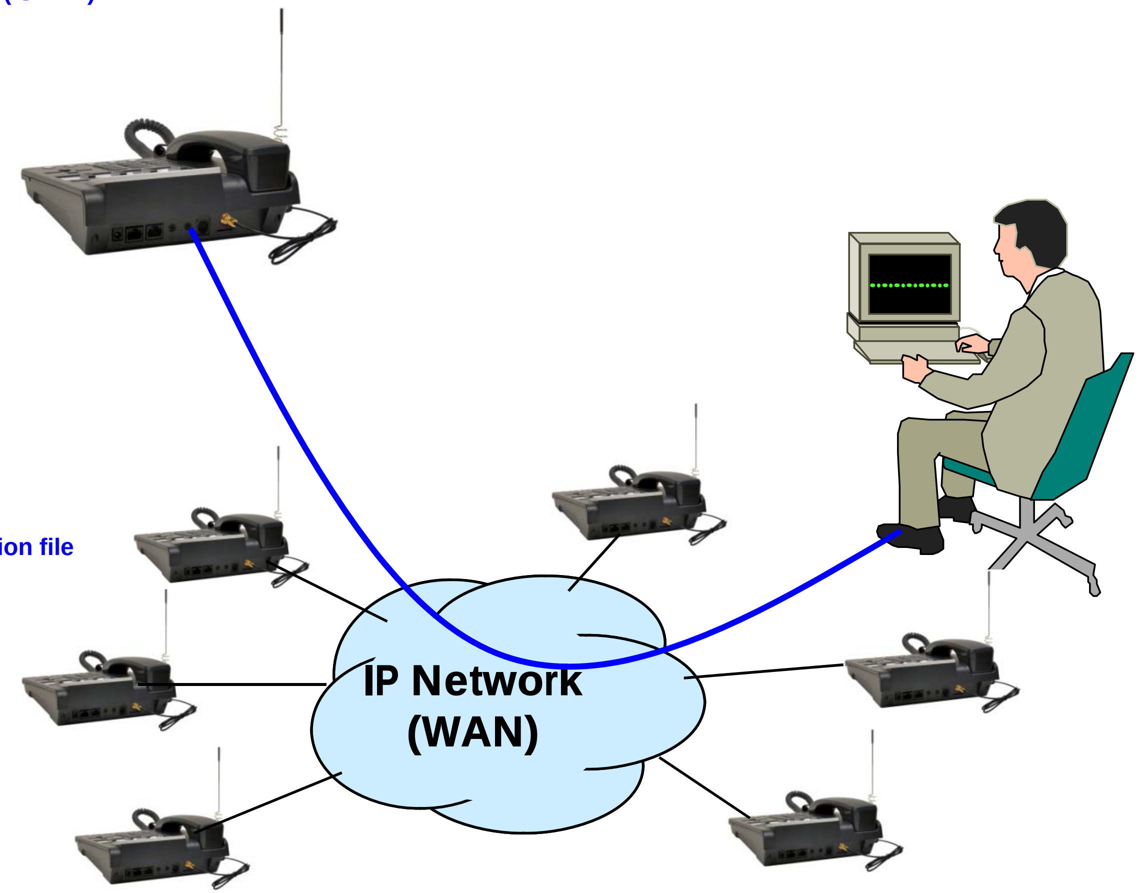


Network Management

AP-GDP120 GSM Desk Phone

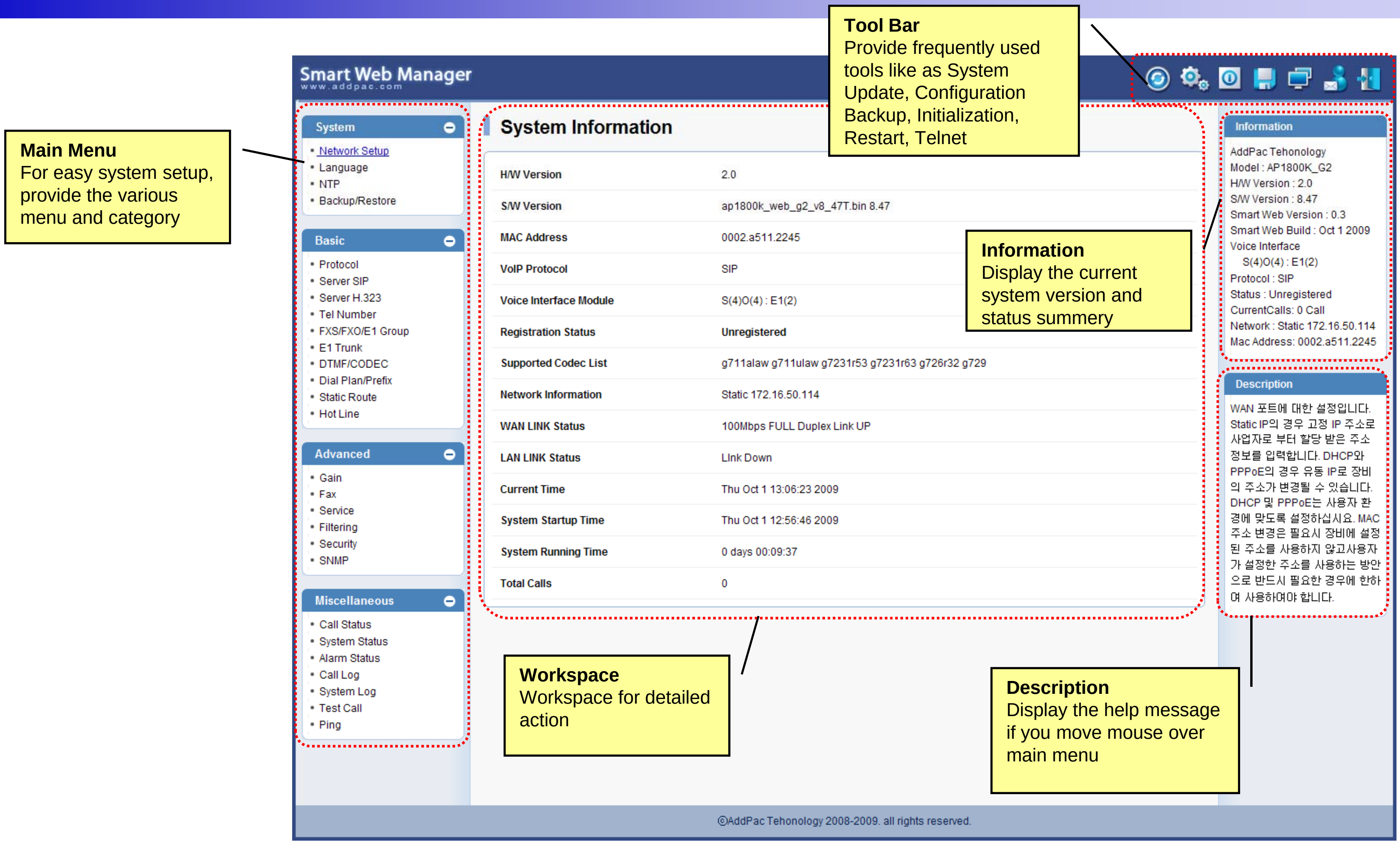
- **SNMP**
  - Standard Simple Network Management Protocol(SNMP) Agent support
  - MIB v1 and v2 Support
- **Web-based Management**
  - Smart Easy Setup
  - Standard Voice Interface
  - Standard PSTN Back-up Interface
- **Watch-dog Function**
  - Hardware, Software watch-dog services
- **Remote Management**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

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



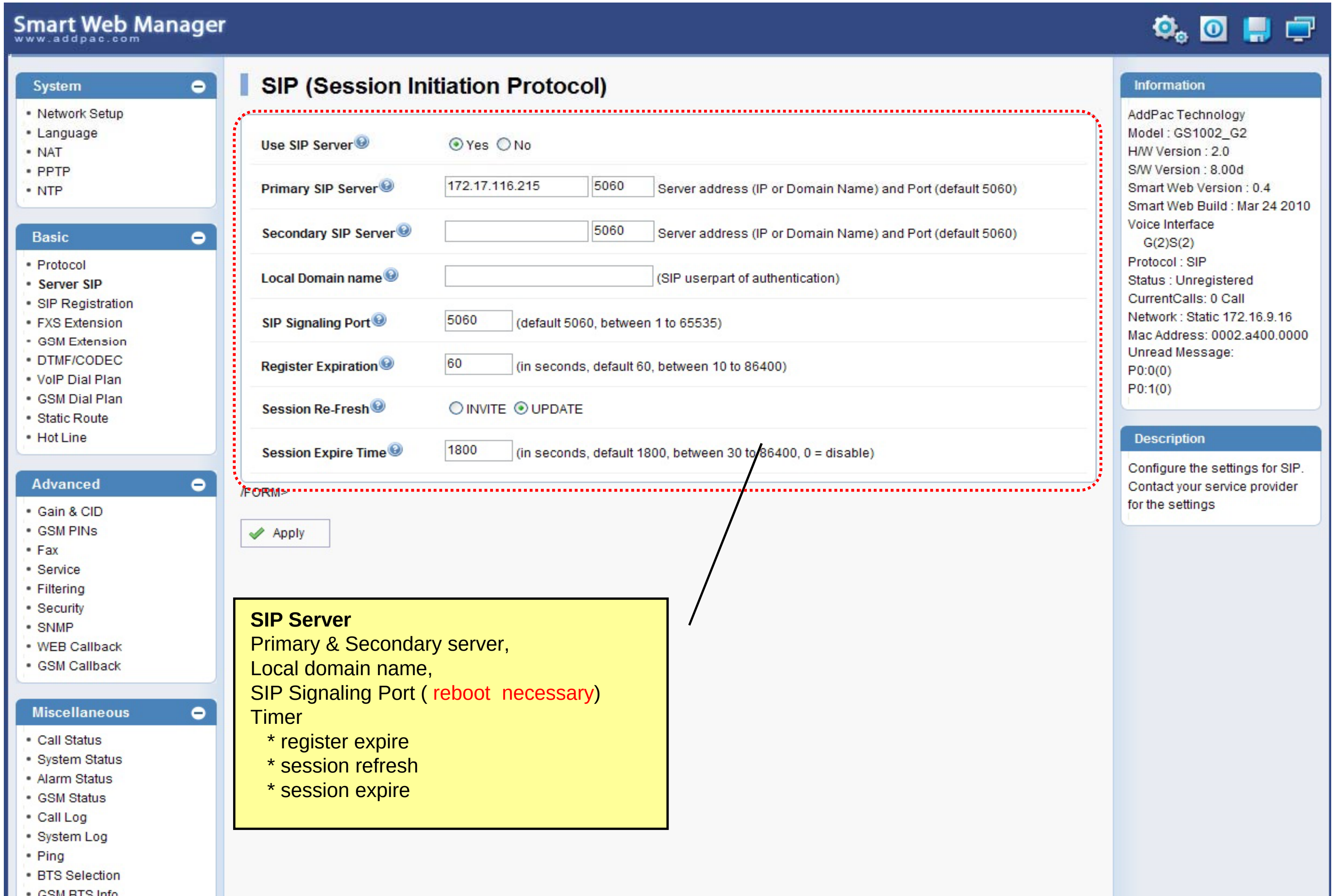
Smart Web Manager : Main Page Layout

AP-GDP120 GSM Desk Phone



Smart Web Manager : SIP Server (Example)

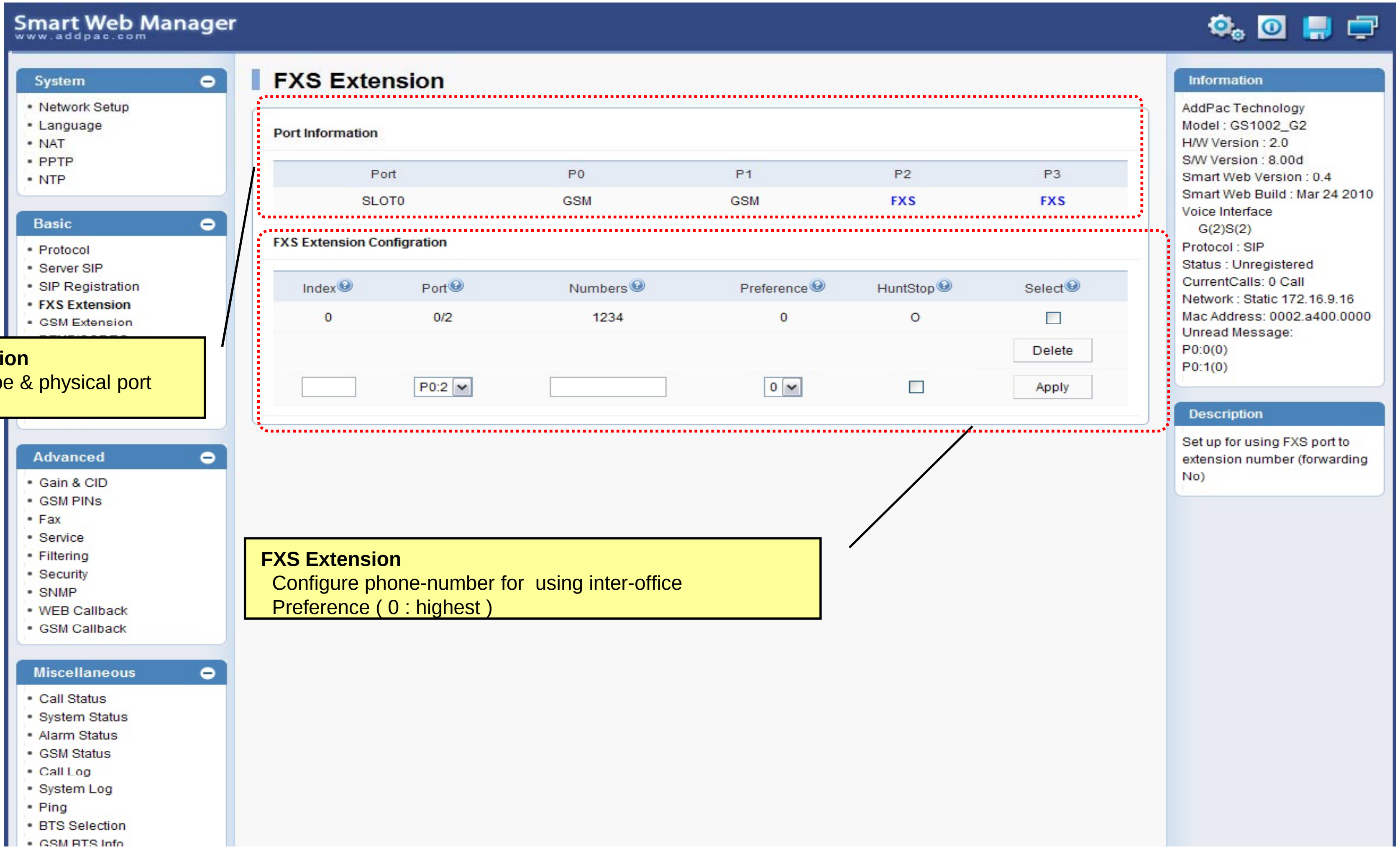
AP-GDP120 GSM Desk Phone



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

Smart Web Manager : FXS Extension (Example)

AP-GDP120 GSM Desk Phone

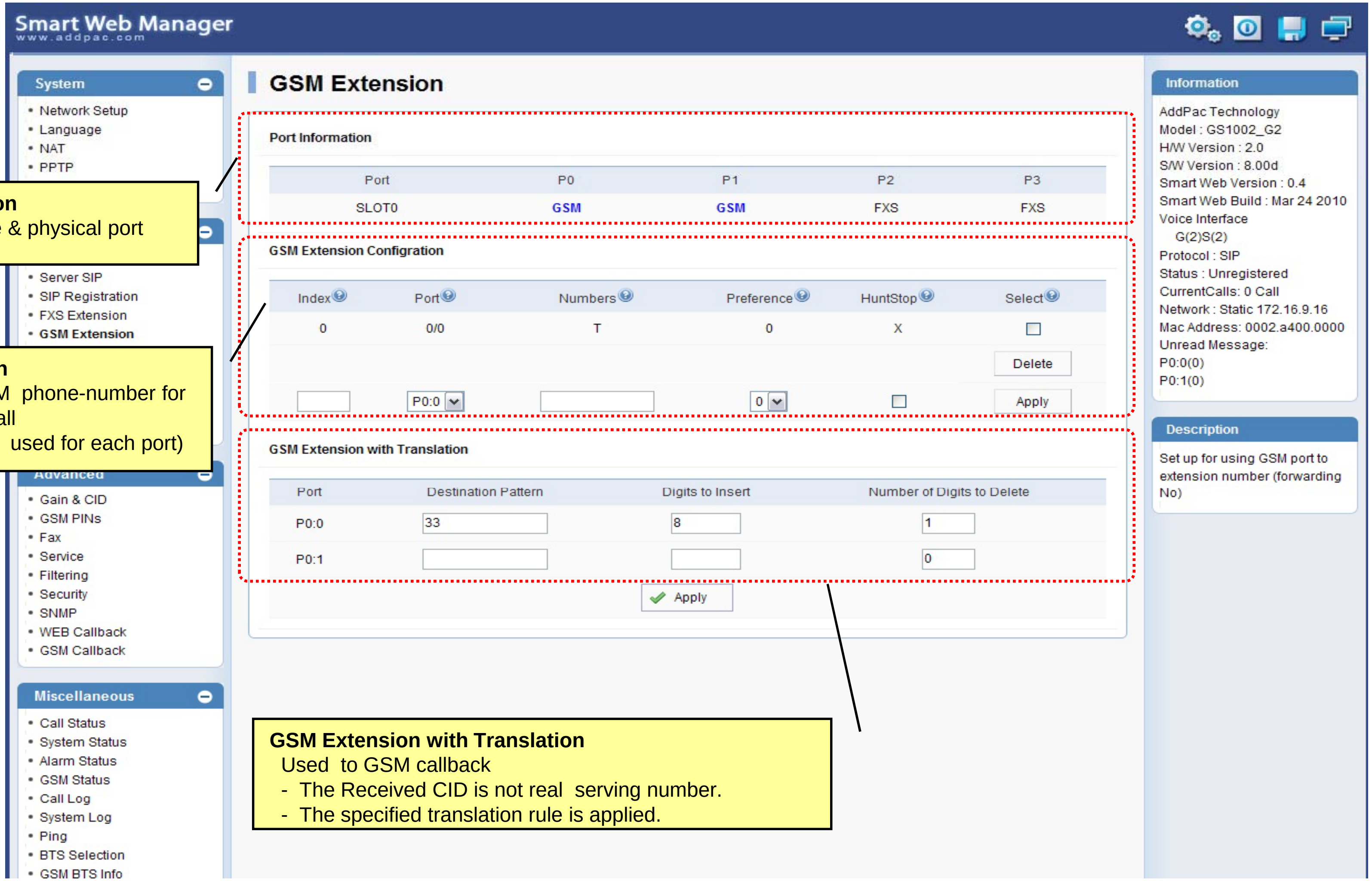


Port Information
voice port type & physical port

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

Smart Web Manager : GSM Extension (Example)

AP-GDP120 GSM Desk Phone



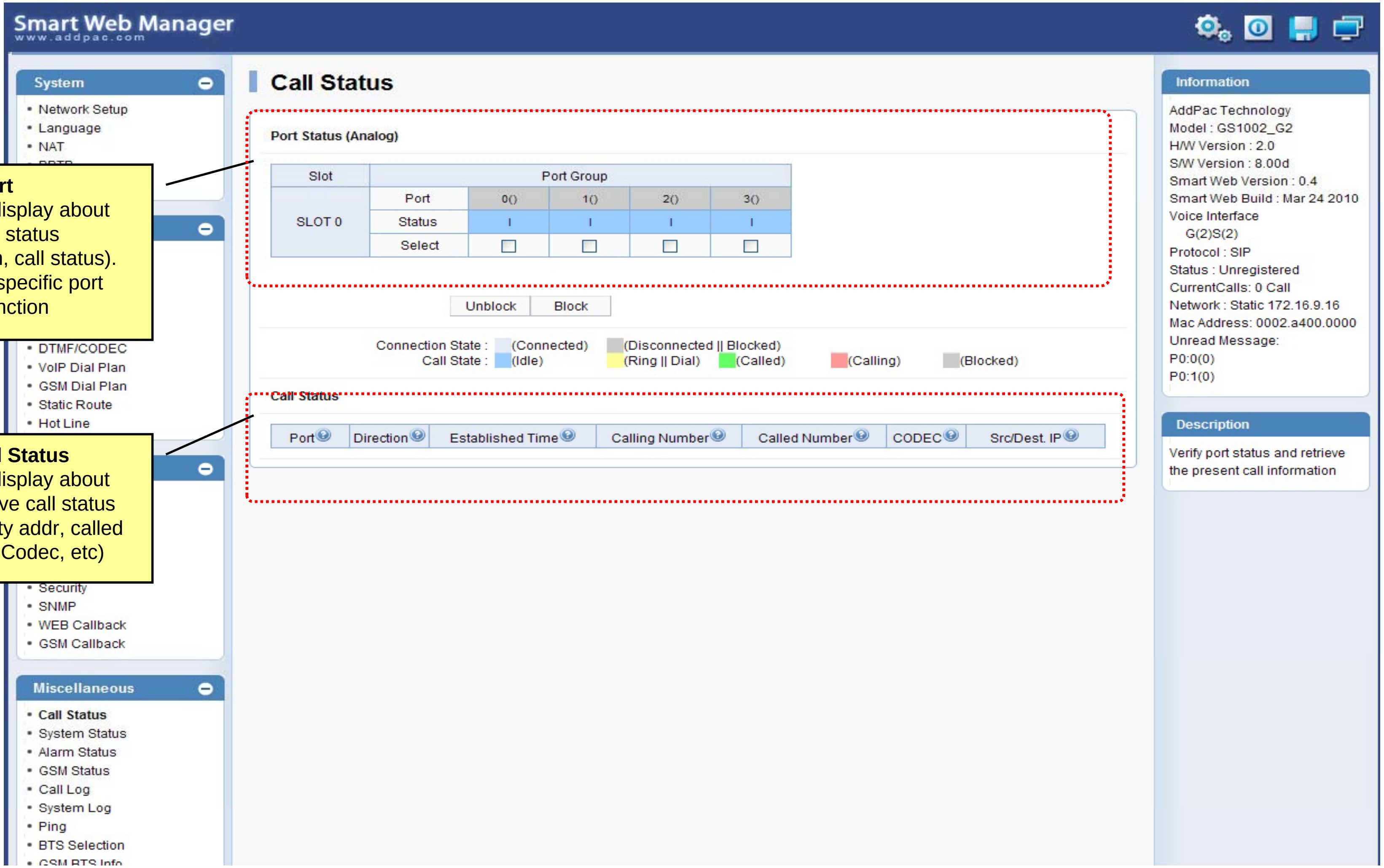
Port Information
voice port type & physical port

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.

Smart Web Manager : Call Status (Example)

AP-GDP120 GSM Desk Phone



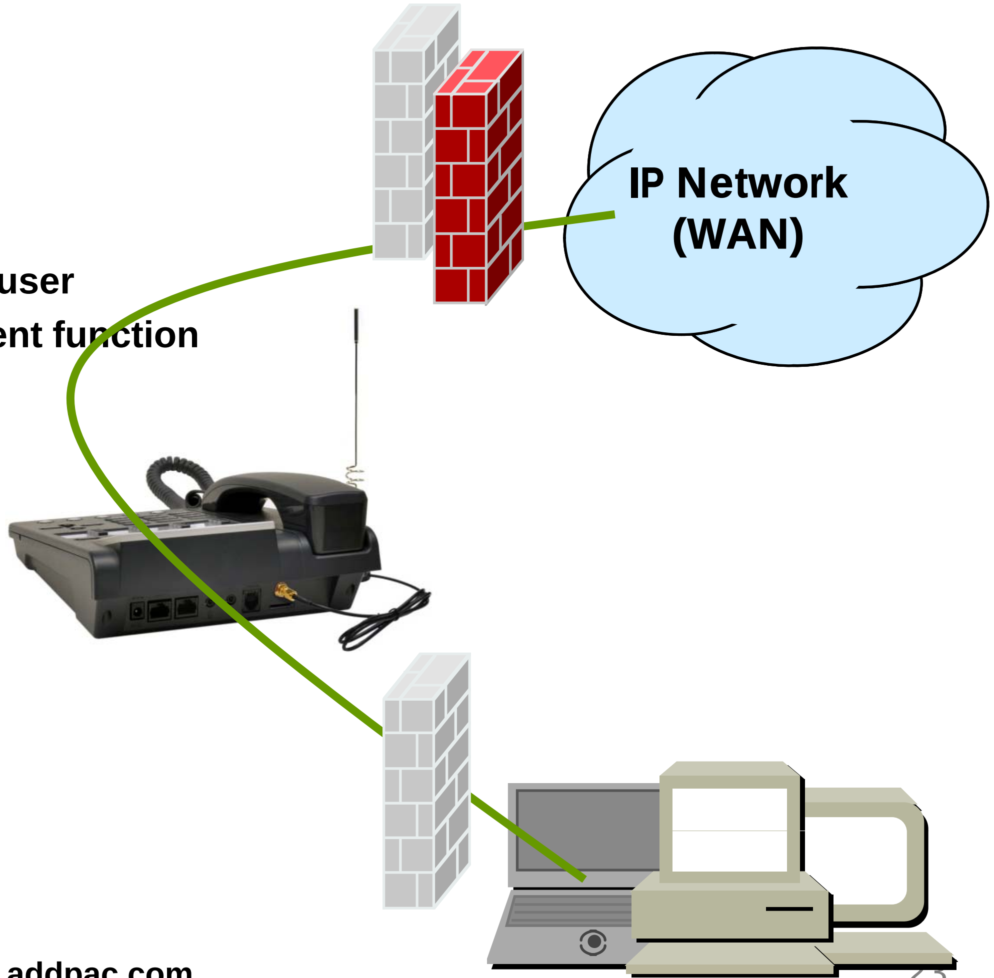
Analog Port
Real-time display about analog port status (occupation, call status). Provide a specific port blocking function

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

Security Management

AP-GDP120 GSM Desk Phone

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



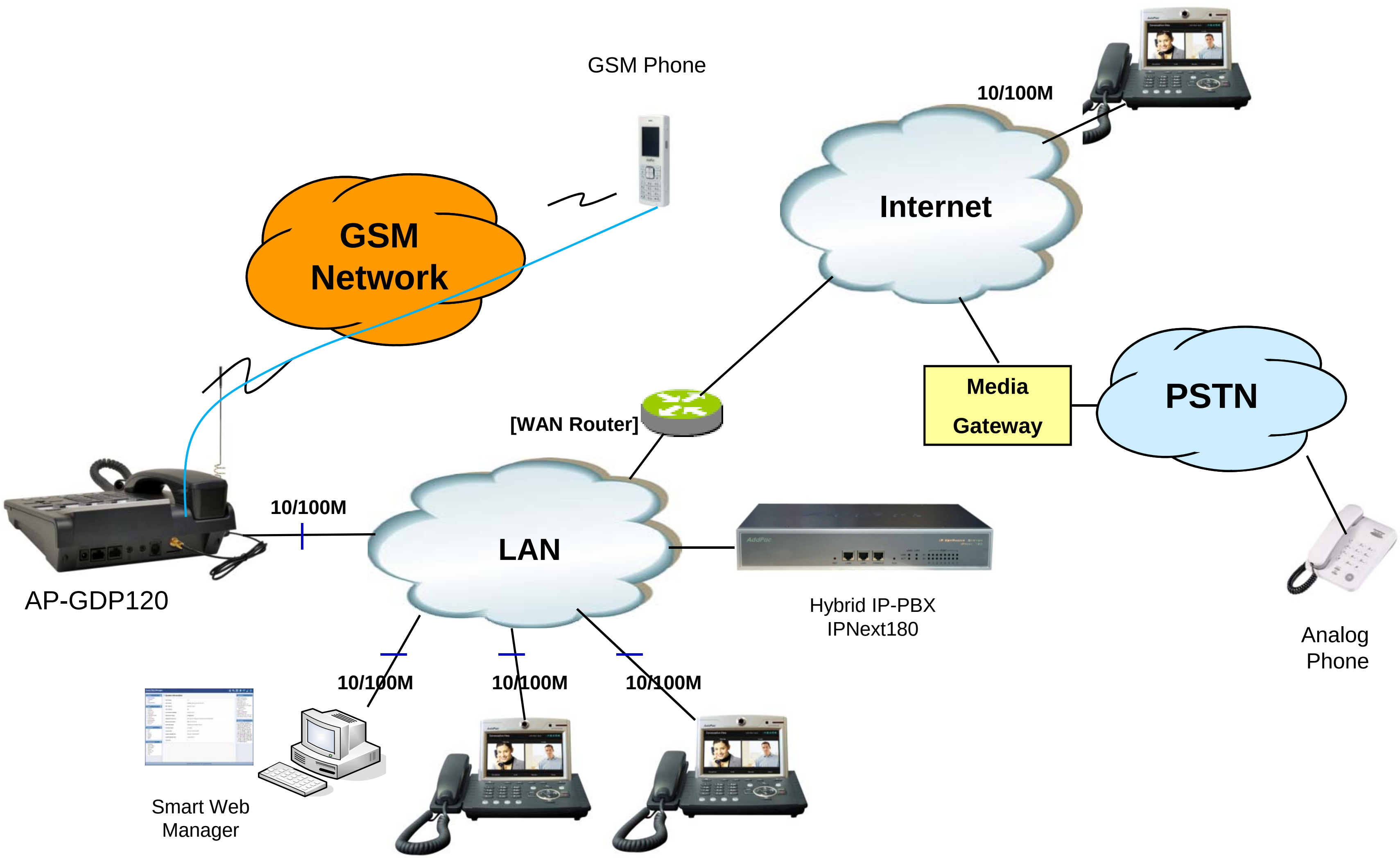
Application Area

AP-GDP120 GSM Desk Phone

- GSM Desk Phone Application
- GSM Gateway Application (FXS to GSM)
- GSM Gateway Application (IP to GSM)
- IP Phone Application (IP-PBX Application)
- VoIP Gateway Application
- GSM Desk Phone + VoIP Gateway

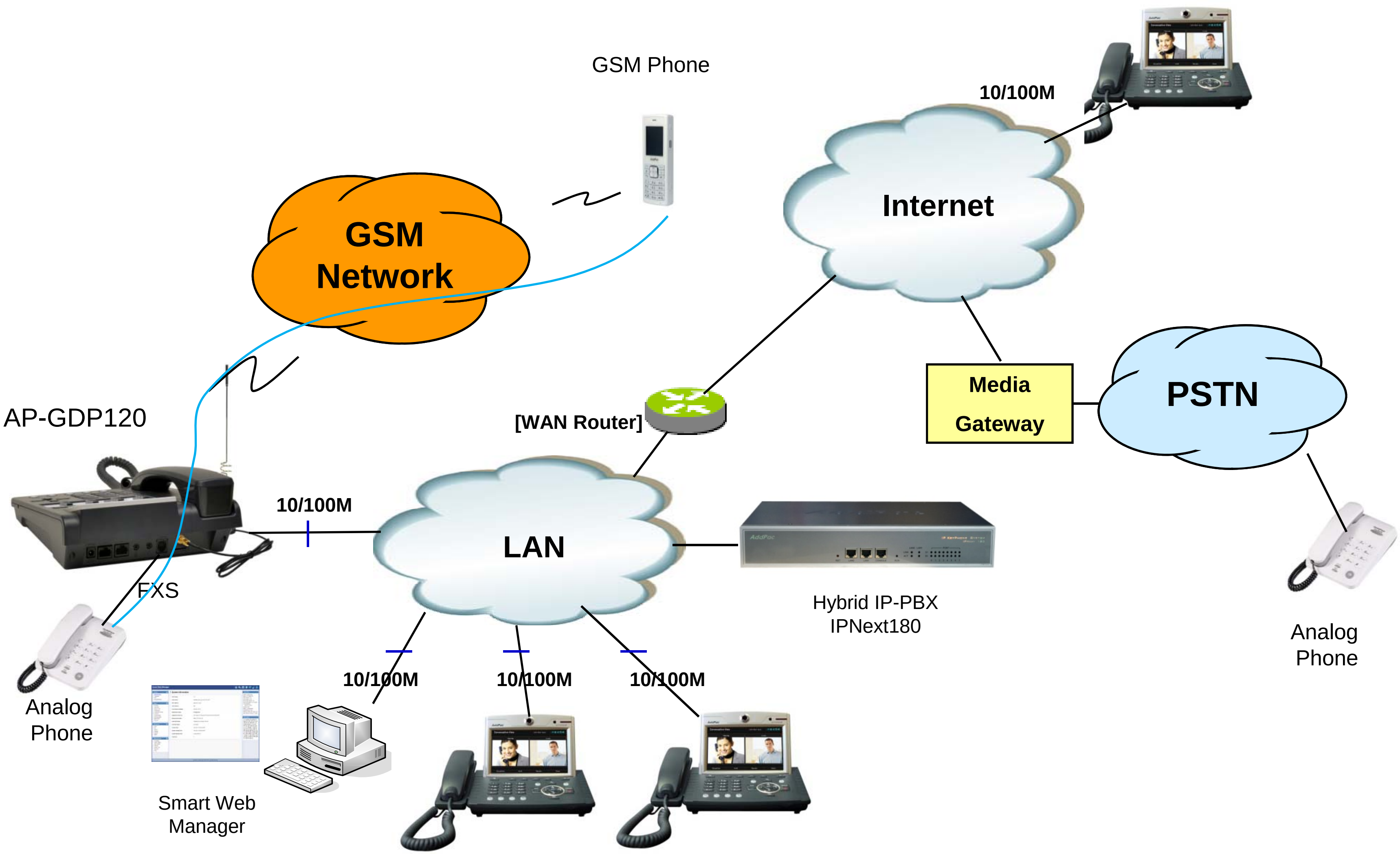
GSM Desk Phone Application

AP-GDP120 GSM Desk Phone



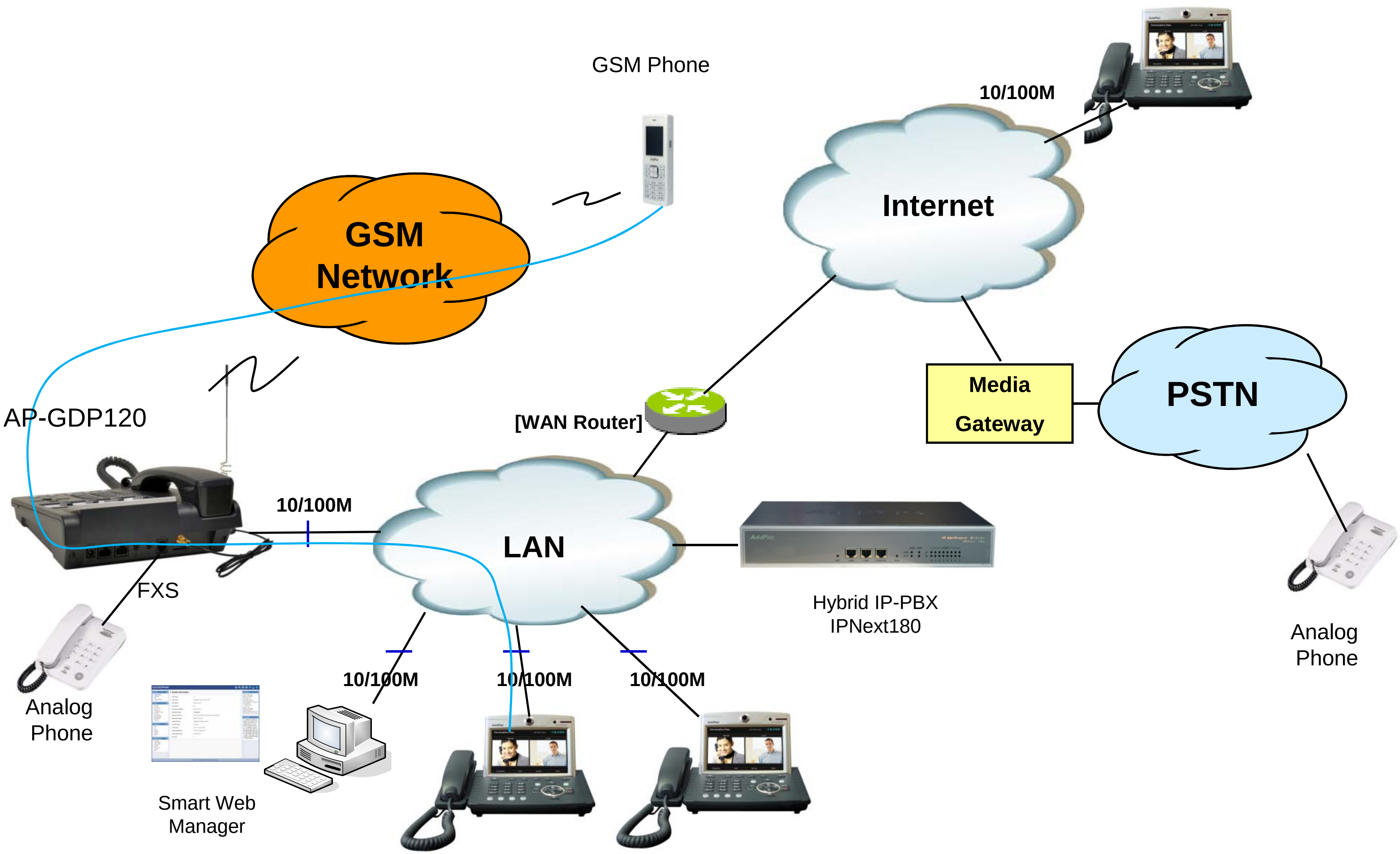
GSM Gateway Application (FXS to GSM)

AP-GDP120 GSM Desk Phone



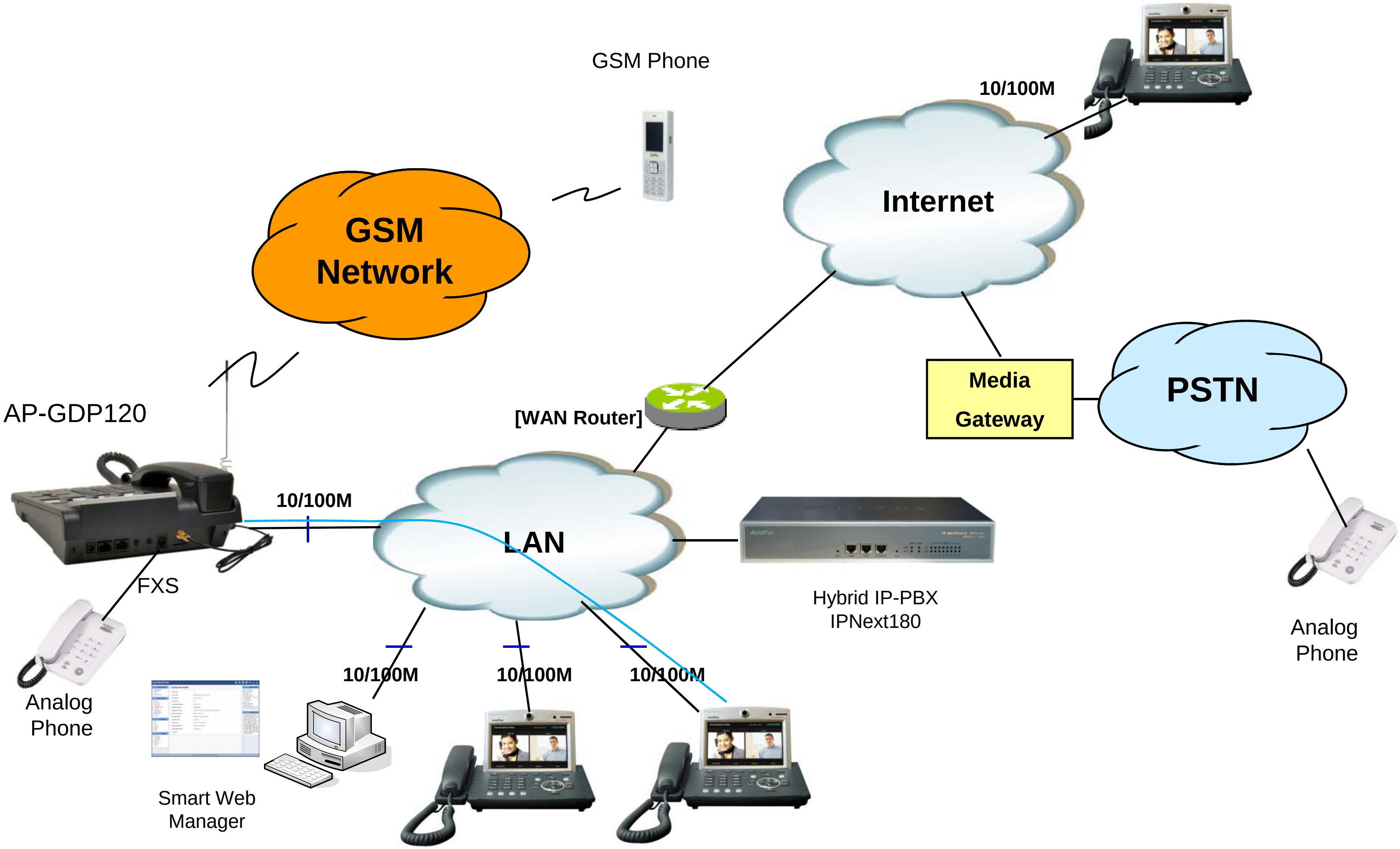
GSM Gateway Application (IP to GSM)

AP-GDP120 GSM Desk Phone



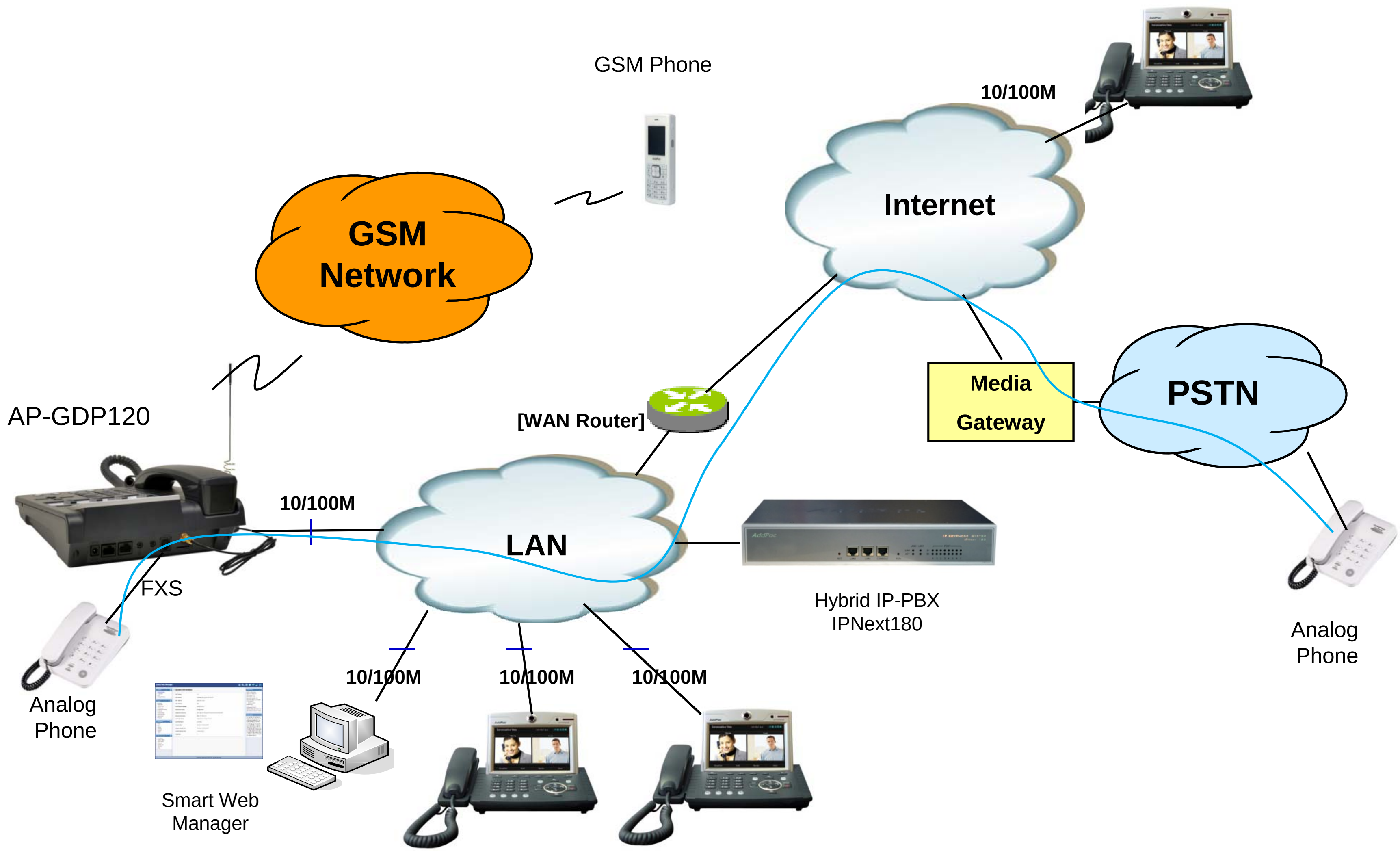
IP Phone Application

AP-GDP120 GSM Desk Phone



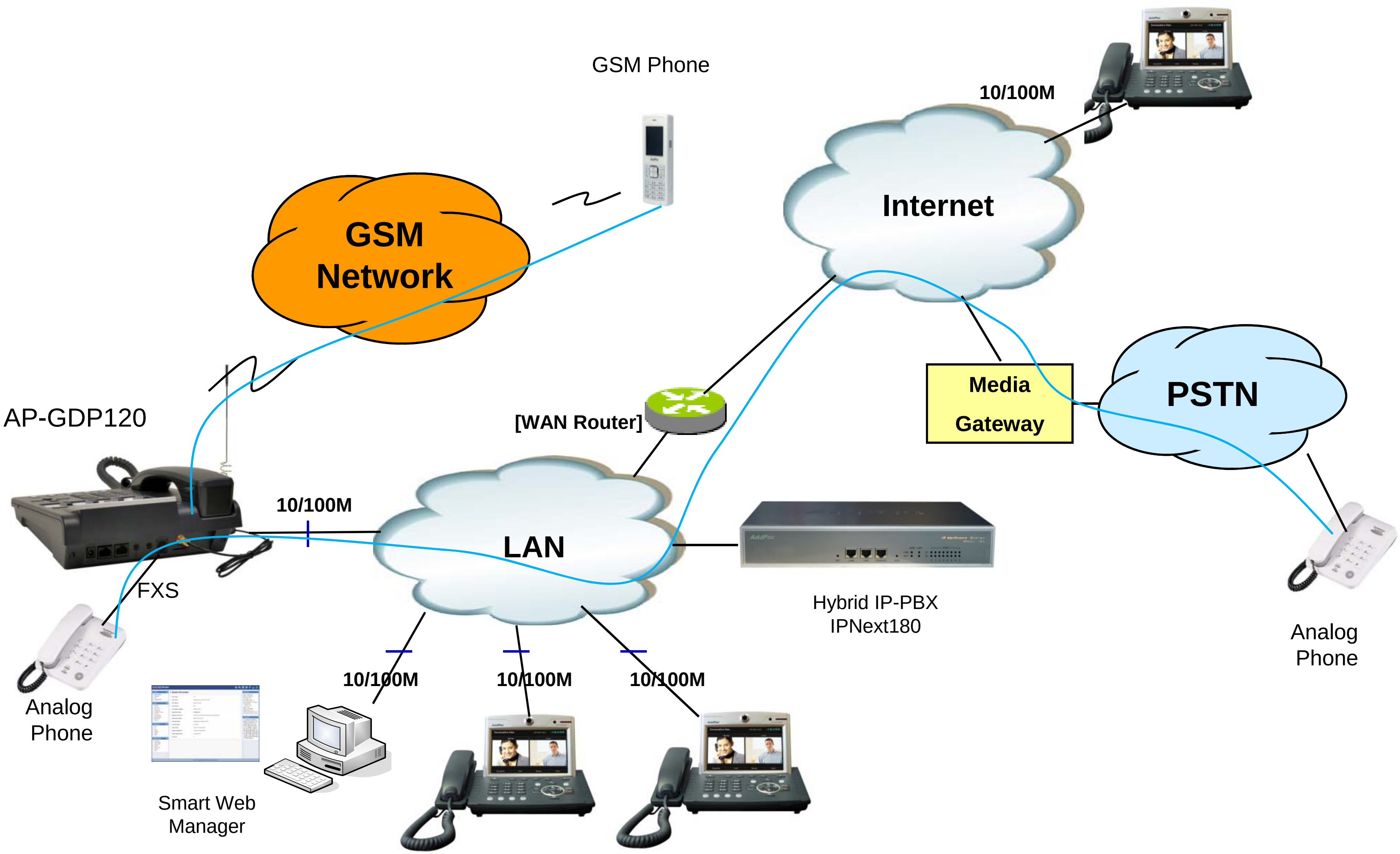
VoIP Gateway Application

AP-GDP120 GSM Desk Phone



GSM Desk Phone + VoIP Gateway Application

AP-GDP120 GSM Desk Phone



Ordering Information

- **AP-GDP120 IP Phone Hardware**
  - AP-GDP120 IP Phone Main Body
  - 12 Speed-Dial Key with Presence Indication LAMP
  - External 3.5mm Audio Input/Output
  - 2-ports 10/100Mbps Fast Ethernet
  - 1-Port GSM Antenna Interface, SIM Card Slot
  - Optional FXS Interface Port for GSM Gateway
  - Optional PoE (Power over Ethernet)
  - Including Network Cable Set & Ext. Power Supply, etc.
- **Built-in APOS Internetworking Software for AP-GDP120**
- **Including 1 Year Hardware Warranty**
- **Product Documents**
  - Install and Operation Guide (PDF)
- **Pricing**
  - AddPac Technology Regional Sales Manager
  - Authorized Sales and Marketing Representatives
  - Please Contact www.addpac.com

Thank you!

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Sales and Marketing

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