Product Specification

Internet Telephony PBX System

IPX-1980

Version 1.0

Change History:

Revision	Date	Author	Change List
Version 1.0	5/13/2012	David Yao	Initial release

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Reviewed by:	Jonas Yang	Approved by:	Tom Shih

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1. PRODUCT DESCRIPTION

PLANET IPX-1980 IP PBX telephony systems are designed and optimized for the small business in daily communications. The IPX-1980 are able to accept 100 user registrations, and easy to install and manage a fully working system with the convenience and cost advantages. The PLANET IPX-1980 is also designed to operate on a variety of VoIP applications; it provides centralized call control, auto-attendant, voice conferencing, and PSTN access, digital and IP-based communications.

Based on state-of-the-art embedded technology, the IPX-1980 provides a solid, uniform platform for voice communications as well as data network communications. The IPX-1980 offers a seamlessly integrated solution for the up-to-date telecommunication needs. The future IP PBX telephony system offers all of the essential features of telephony which is required by small business/enterprise users for their telecommunication/data needs.

Being more flexible, the IPX-1980 integrates up to 8 FXO ports to become a feature-rich PBX system that supports seamless communications between existing PSTN calls, analog, IP phones and SIP-based endpoints.

The IP PBX is the feature-rich SIP based IP PBX telephony system that integrates NAT functions to make it perfect for small business usage. The IP PBX integrates traditional PBX system functions and provides many advanced functions including voice mail to email, web management etc.

Designed to run on a variety of VoIP applications, the IP PBX provide IP-based communications, voice conferencing, support paging/intercom, call monitoring and BLF(Busy Lamp Field) function, it also support call detailed record (CDR), centralized Auto-Attendant (AA), and Interactive Voice Responses (IVR). The IP PBX utilizes standard PSTN lines via the interfaces of gateway to become a feature-rich IP PBX telephony system that supports seamless communications among existing local calls, SIP-based endpoints including low cost of long distance service, telephone number portability and one network for both voice and data.

With the IP PBX, standard SIP phones can be easily integrated in your office. Users may integrate PLANET IP Phone VIP-256 series, VIP-255PT/ 361PE/ 362WT, the VIP-156/ 157 of ATA (analog telephone adapter) series and Gateway series VIP-281/ 281GS/ 480 to build up the VoIP network deployment in minutes. Allowing distributed IP technology to meet traditional voice services with proactive managed interface, the IP PBX for enterprises in the daily business processes can make people more productive, more intelligent tasks and more customer satisfaction.

2. PRODUCT FEATURES
- **PBX Features**
    30 Concurrent calls/ Up to 100 registers
    BLF(Busy Lamp Field)
    DID(Direct Inward Dialing Number)
    Conference Room
    Automated Attendant (AA)
    Interactive Voice Responses (IVR)
    Build-in voice mail server
    DISA(Direct Inward System Access)
    User Management via Web Browsers
    Display 100 Registered User's Status: Unregistered / Registered / On-Call
    Multiple Service Providers Lines / SIP Accounts (10)
    Simultaneous Trunk Links: 10 concurrent trunk calls
    Analog/GSM, VoIP Trunk, Peer Trunk Management
    Two-stage / One-stage call to Trunk by Trunk Group Configuration
    Build in 8 port FXO
    By adding external FXO analog gateway to use Terminal trunk Line
    By adding external GSM VoIP gateway to use GSM trunk line
    Built-in SIP Proxy Server Following RFC-3261

- **Call Features**
  Call Paging and Intercom
  Call Forward Immediate
  Call Forward on Busy
  Call Forward on No Answer
  Call Pickup / Call Park
  Call / Pickup Group
  Caller ID / T.38 (Pass Through)
  Music on Hold / Music on Transfer
  Call Transfer / Call Hold / Call Waiting
  Call Queue
  Three-way conference with feature phones
  Call Monitoring

- **Other Features**
  Support Skybe for SIP
  DDNS Client(Support Planet DDNS /Dyndns.org /Zoneedit.com)
  Trouble Shooting (Ping, Traceroute)
  Auto Provision
  VPN Client(Support N2N /L2TP)
  Black List/ Phone Book

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

CPU:400MHz ADSP-BF533
RAM: 128M SDRAM IS42S86400B-7TL
FLASH: 1G NandFlash K9K8G08U0D-SCB0

LAN	1 RJ-45 (10/100Base-TX, Auto-Sensing/Switching)
WAN	1 RJ-45 (10/100Base-TX, Auto-Sensing/Switching)
Protocols and Standards	RFC 793 TCP RFC 826 ARP RFC 1034, 1035 DNS RFC 1631 NAT RFC 2068 HTTP RFC 2131 DHCP RFC 2516 PPPoE RFC 3261, RFC 3311, RFC 3515 RFC 3265, RFC 3892, RFC 3361 RFC 3842, RFC 3389, RFC 3489 RFC 3428, RFC 2327, RFC 2833 RFC 2976, RFC 3263
Management	HTTP Web Browser
Internet Connection Type	Fixed IP, PPPoE, DHCP client
Call control	SIP 2.0 (RFC3261) , SDP (RFC 2327), Symmetric RTP
Registration	Max. 100 nodes / SIP IP phones/ ATA / gateways/ Video phone
Calls	Max. 30 concurrent calls
Voice CODEC Support	G.711-Ulaw,G.711-Alaw,G.726,G.729GSM,SPEEX,
Video Codec	H.261,H.263,H.263+,H.264
Voice Processing	DTMF detection and generation In-Band and RFC 2833, SIP INFO
PBX features	30 Concurrent calls/ Up to 100 registers BLF(Busy Lamp Field) DDNS Client(Support Planet DDNS /Dyndns.org /Zoneedit.com /No-ip.com)

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	VPN Client(Support N2N /L2TP) DID(Direct Inward Dialing Number) Conference Room Automated Attendant (AA) Interactive Voice Responses (IVR) Build-in voice mail server DISA(Direct Inward System Access) User Management via Web Browsers Display 100 Registered User's Status: Unregistered / Registered / On-Call Multiple Service Providers Lines / SIP Accounts (10) Simultaneous Trunk Links: 10 concurrent trunk calls Analog/GSM, VoIP Trunk, Peer Trunk Management Two-stage / One-stage call to Trunk by Trunk Group Configuration Build in 8 FXO PSTN trunk By adding external FXO analog gateway to use Terminal trunk Line Built-in SIP Proxy Server Following RFC-3261 Fax Support using T.30 or T.38 Pass-Through ** Multiple Language: Chinese, English, Portugal
Call features	Call Paging and Intercom Caller ID Call Group Call Hold Call Waiting Call Transfer Call Forward (Always, Busy, No Answer) Call Pickup Call Park Call Resume Call Queue Music on Hold Three-way conference with feature phones VIP-256 series, VIP-255PT/ 361PE/ 362WT, the VIP-156/ 157 of ATA (analog telephone adapter)
Internet Sharing	
Protocol	TCP/IP, UDP/RTP/RTCP, HTTP, ARP, NAT, DHCP, PPPoE, DNS
Other Function	DDNS, Ping test, Auto Provision
Connection Type	Static IP, PPPoE, DHCP
Management	HTTP Web Browser
LED Indications	System: 1, PWR, 1, SYS, 8 FXO Port WAN: 1, LNK/Off LAN: 1, LNK/Off
Environment	
Dimension (W x D x H)	240 x 368 x 82 mm (W x D x H)
Operating Temperature	-10°C-45°C degree C, 10~80% humidity
Power Requirement	12V DC
EMC/EMI	CE, FCC Class B, RoHS
Remark: T.30/ T.38 support is dependent on fax machine, SIP provider and network / transport resilience	

3.2 PHYSICAL SPECIFICATION
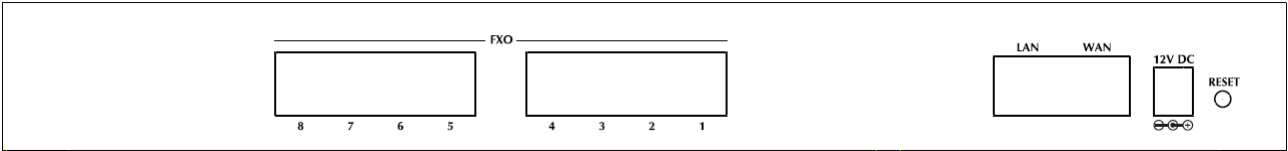
Dimensions

240 x 368 x 82 mm (W x D x H)

Weight

1800g

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Front Panel

Internet Telephony PBX System

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Rear Panel

LED definitions

Front Panel LED	State	Descriptions
PWR	On	PBX Power ON
	Off	PBX Power OFF
SYS	On	System is working
	Off	System is off
LAN	Flashing	LAN is connected successfully
	Off	Ethernet not connected to PC
WAN	Flashing	PBX network connection established
	Off	Waiting for network connection
FXO Port	On	Port is connection
	Flashing	Actived.
	Off	Port is not enabled.

1	**12V DC**	12V DC Power input outlet
2	**Reset**	The reset button, when pressed, resets the IP PBX without the need to unplug the power cord.
3	**WAN**	The WAN port supports auto negotiating Fast Ethernet 10/100 Base-TX networks. This port allows your IP PBX to be connected to an Internet Access device, e.g. router, cable modem, ADSL modem, through a CAT.5 twisted pair Ethernet cable.
4	**LAN**	The LAN port allows your PC or Switch/Hub to be connected to the IP PBX through a CAT.5 twisted pair Ethernet cable.
5	**FXO Port**	Connect to PBX or CO line with RJ-11(Write) analog line. FXO port was connected to the extension port of a PBX or directly connected to a PSTN line of carrier

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3.3 ENVIRONMENTAL SPECIFICATION

Operating
Temperature: -10~45°C
Relative Humidity: 10~80% (non-condensing)

3.4 ELECTRICAL SPECIFICATION

Input Voltage: AC100V-240V, DC12V/2A,50/60 Hz
Power Consumption: 24 watts

3.5 REGULATORY COMPLIANCE

FCC   Part 15 Class B

CE
Safety: EN60950-1:2006+A11:2009+A1:2010
EMC: EN300386 V1.5.1
Radio: ETSI ES 203 021-2 V2.1.2(2006-01)
        ETSI ES 203 021-3 V2.1.2(2006-01)

3.6 RELIABILITY

MTBF > 50,000Hrs @25degree C MIL-STD-781C

3.7 BASIC PACKAGING

- Internet Telephony PBX system unit
- Power Adapter
- Quick Installation Guide
- User's Manual CD
- RJ-45 Cable

3.8 PACKAGE INFORMATION

- **Gift Box Dimension**
    365 x 240 x 83 mm (W x D x H)
- **Gift Box Weight**
    2 Kg (gross weight)
- **Carton Dimension**
    510 x 380 x 260 mm (W x D x H)
- **Carton Weight**
    13 Kg (gross weight)
- **Carton Units**
    6 units