



## The Datasheet of xNode Series IP-PBX



Shenyang Institute of Computing Technology, Chinese Academy of Sciences

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☑ SIPSYS xNode IP-PBX Series are an embedded communication server which could be used as the portal server for new generation of 'Converged Communication' or 'Unified Communication' for small-medium enterprises (SME). The xNode IP-PBX intergraded with rich feature set of high-end PBX telephone systems, plus the convenience and cost saving advantages of Voice over IP. It is so easy to configure that a fully working system can be set up in minutes. The advantages of xNode embedded IP-PBX is simple, reliable, easy to manage, high integration of functions, and OUTSTANDING cost-performance.

xNode IP-PBX is based on the Session Initiation Protocol (SIP, RFC3261), While it will work with any SIP compatible IP phone/gateway. it does not only provides full featured PBX functions, in addition, it also provides advanced functions such as Presence/IM/File Exchange, ACD, Voice Mail, Audio Conference and Customized IVR. Pending on the type of internet connection of SME, this IP-PBX could support DMZ zone deployment, DHCP, PPPoE, Dynamic DNS (DDNS), VPN, as well as act as an Internet router. Currently, xNode IP-PBX offers most standard audio/video codec such as G.729A, GSM, Speex, G.711A, G.711U (audio); H.263, MPEG4 and H.264(video, pass through), and integrates Push-2-Talk application. Also xNode IP-PBX supports SIP trunk, FXO trunk and Enum trunk connection.

This IP-PBX is fully compliant with standard third party SIP equipments. With proper SIP hardware equipment, It also supports additional features like IP Phone auto-provisioning; IP audio broadcasting etc.

According to different product model, the xNode can support 20-35 concurrent calls and support 30 to 150 registered subscribers, and be equipped with different numbers of FXO, FXS interfaces.

No matter you are looking for a better cost-effective solution to handle your inter-branches communication or company's long distance or integrate your web site, company communication system with your voice network, look no further, SIPSYS xNode IP-PBX offers you with the best return on investment (ROI) and communication solution.

## **1. Key Industry Standards Support**

- SIP Proxy/Register/Application Server  
RFC3261 (RFC3262, 3263, 3265, 3325, 3515, 3581, 3891, 2976, 3326, 4235, 4240)
- SDP (RFC2327,4566,3264,4574,4796)
- RTP (RFC1889,3550 3984)
- DTMF: In-Band/Out-of-Band (RFC2833)/SIP INFO
- HTTP/Digest Authentication (RFC2617)
- MWI (Message Waiting Indication) RFC3842
- Presence/IM (RFC2778, 3858, 3863, 4480)
- Voice Codec: (TransCoding) G.729A,GSM, Speex, G.711U, G.711A; (Pass Through) iLBC, G.723, Video Codec: H.263, H.264, Mpeg4 [Pass Through]
- VPN: PPTP/L2TP Server, Open VPN Client
- Enum (RFC2916, 3761, 3764)
- PPPoE (RFC2516)
- Dynamic DNS (RFC2136, 2137), DHCP(RFC2131)

## **2. xNode IP-PBX Features Set**

### **2.1 Accommodation for Network Conditions of SME**

- ◆ Two Ethernet RJ45 (LAN/WAN) 10M/100M Network Ports, Router functions.
- ◆ Supports DMZ Deployment
- ◆ DHCP Client, PPPoE (ADSL), or Static IP
- ◆ Supports Dynamic DNS (DDNS) Registration
- ◆ Open VPN Client and PPTP VPN server
- ◆ Supports SIP NAT
- ◆ DHCP Server

### **2.2 QoS Control Functions**

- ◆ Compliant with Tag of VLAN, 802.1P/802.1Q
- ◆ Supports Type of Service (TOS/DSCP)
- ◆ Jitter Buffer and CNG for better voice quality
- ◆ Echo Cancellation

### **2.3 External Trunk Connections**

- ◆ SIP Trunk, Connection with ITSP(Internet Telephone Service Provider)
  - Outgoing SIP calls
  - Incoming calls with multiple registrations; every extension can have different DID number from different ITSP.
- ◆ FXO Trunk
  - Incoming or outgoing calls via FXO ports.
- ◆ Supports ENUM Trunk (Optional)

### **2.4 Flexible and Manageable Dial Plans or Calling Route**

- ◆ Use a prefix to select different route (ITSP, FXO, Inter-xNode) to make call.
- ◆ Least Cost Routing (LCR) for better cost management
- ◆ Trusted host function for better security and multi-locations interconnection
- ◆ Supports grouping of extensions

### **2.5 Typical PBX Features**

- ◆ Basic extension call functions
- ◆ Create or Remove an Extension
- ◆ Call Forward (Always, On Busy, No answer, Offline)
- ◆ Call Transfer / Call on Hold
- ◆ Call Park
- ◆ Fall Back
- ◆ Follow Me
- ◆ Call Pick-Up
- ◆ Extension acts as an operator
- ◆ Auto Attendant
- ◆ Call Restricted
- ◆ Music on Hold or Personalized Greeting
- ◆ Call Detail Records (CDR), Supports customized calling rate.
- ◆ T.38 Fax (Pass Through)
- ◆ Supports Voice Mail with personal greeting (with MWI)
- ◆ Caller ID (FXO ports support FSK and DTMF Caller ID)

## **2.6 Advanced IP-PBX Features**

- ◆ Supports Automatic Call Distribution
  - Random, Rotation, Longest Idle, Ring All, Least answered
- ◆ Supports Conference Bridge (supports 6 to 12 participants per conference)
- ◆ Video Communication (Supports H.264 /Pass Through)
- ◆ Tight up an extension with mobile phone
- ◆ Supports Group ringing
- ◆ Supports Customized IVR Call Flow (XML describe IVR)
- ◆ Presence/Instance Messaging
- ◆ Built-in Push2Talk Function (Microsoft IE/Firebox Plug-In), Supports Web800

## **2.7 Additional Features when used with DGP Series IP Phone**

- ◆ Auto-provisioning of IP Phone
- ◆ Group IP audio broadcasting
- ◆ IP audio broadcasting /Talk-back

## **2.8 Additional Management Software for PC Windows**

- ◆ Extension status display
- ◆ Session monitor and recording (Record and store to PC with admin privileges)
- ◆ Supports IP PBX Voice Conference management functions

## **2.9 Management and Maintenance**

- ◆ Built-in Web interface for management
- ◆ User self-services with Web interface
- ◆ Web based system upgrade
- ◆ Hardware Reset button to change system back to default factory setting

## **2.10 Enclosed SIP Client Software Package**

- ◆ SIPHello Soft phone for Windows
- ◆ SIPHello Soft phone for Windows Mobile

## **3. Hardware Specifications**

### **3.1 Product Model**

- ◆ A50: 50 User Licenses, Built-in 4xFXO, Plastic Case, External AC power adapter.
- ◆ B50: 50 User Licenses, Built-in 4xFXO, Metal Case, External AC power adapter.
- ◆ C50: 50 User Licenses, 2 x FXO, 2 x FXS, Metal case, External AC power adapter.
- ◆ B120:120 User Licenses, 4 x FXO, 1U Standard Rack Mount, Built-in AC Power Adapter.

### **3.2 Status LED**

- ◆ Network Condition Status LED (Link/Activity)
- ◆ FXO/FXS Ports Status LED
- ◆ Power LED

### **3.3 Security Compliance**

- ◆ FCC and CE Certified.
- ◆ RoHS & Lead (Pb)-Free.

### **3.4 Physical Dimensions**

- ◆ A50/B50/C50 Dimensions: 212\*132\*50mm(Plastic)/ 260\*150\*44mm (Metal)
- ◆ B120 Dimensions: 441\*240\*44mm
- ◆ Power Adapter: DC12V/1000mA (A30/C30), AC100-240V(B120)
- ◆ Operating Temperatures: 0°C-40°C

◆ Humidity: 10%-90%RH (Non-condensing)

Contact us:

Network & Communication Department  
Shenyang Institute of Computing Tech. CAS  
100 Sanhao Street, Heping District  
Shenyang 110004, China

Phone: +86-24-23894894, 62475678

Email: [sipsys@sict.ac.cn](mailto:sipsys@sict.ac.cn)

Website: <http://www.sipsys.com>