# VL Series IP-PBX for SME

# **VL1100**

- Industry Standard SIP(RFC3261) Based IP-PBX
- Versatile Up-to-date Features for Productivity
- Huge Cost Savings
- PSTN Backup Service for Ensured System Operation



VL1100 is VL series IP-PBX based on industry standard SIP and especially designed for SME. It offers all the functions of a traditional PBX such as Call Hold, Call Transfer, Call Pickup and Call Forwarding. Also, it provides rich advanced features such as IVR, Voicemail to E-mail, Remote Office, BLF/BLA and more. By combining robust functionality and advanced communication features, you will be able to reduce the communication costs, and increase productivity and enhance collaboration efficiency. Providing ranges of capabilities on PSTN connection for integrating with existing PBXs or connecting analog phones, VL1100 is all the SME need to get started easily at reasonable price.

To improve its stability and reliability, all the VL series IP-PBX adopts a fully embedded technology using flash memory without spinning hard disk drives and built in temperature sensor. Also PSTN backup service proves its high stability by delivering seamless communication via fixed PSTN line in case of sudden interruption on IP network.

#### **VL1100**

# 100 Subscribers32 Concurrent CallsUp to 32 FXS/FXO

- SIP based Embedded System
- Simple Installation & Management
- Flexible Configuration
- Remote Office
- Easy Migration to VoIP

#### **Benefits**

#### • Up to 100 Extensions / 32 Concurrent Calls

VL1100 is VL series IP-PBX specially designed for small to medium sized enterprises. Accordingly, this model allows you to register up to 100 extensions and supports up to 32 concurrent calls. Also, the calls among extensions registered with VL series are free, and all the advanced features are also supported.

#### Flexible Configuration with FXO and FXS Module

VL1100 has four I/O slots and each slot can be plugged in with one of three types of I/O modules, 8FXO, 8FXS, and 4FXO x 4FXS combo modules. Hence it enables flexible configuration such as 4FXO x 4FXS, 32FXS, 16FXO x 16FXS, and so on. VL1100 will save the VoIP adaptation costs by allowing to select right module according to the company size.

#### Easy Migration to VolP

VL series IP-PBXs are designed to enable convenient adoption when installed into any existing IP networks. VL1100 not only makes it very easy installing and upgrading of the entire IP telephony network through using IPv6, but also dramatically lower voice communication costs by using VoIP service. Also, by providing optional module, VL1100 will eliminates the expansion costs as well.

#### Convenient S/W Upgrade via WEB UI

An efficient management tool is also provided through intuitive WEB user interface. This includes regular S/W upgrade, Auto-Provisioning and Diagnostic. Therefore, system upgrade and management can be so easy.

#### Increased System Reliability

Built-in backup battery ensures safe operation of system at any unexpected power failure. Also, the temperature sensor protects the system by checking the operating temperature and then cooling the system with the fan inside if the system is overheated.



SIP based SME IP-PBX



### **Specification**

#### **Basic PBX Features**

- Call Hold/Unhold
- Call Transfer (Blind/Attended)
- Call Forwarding

(Always/Busy/No-Answer/Error/Time-Based)

- Call Pickup (Direct/Group)
- Call Park/Unpark
- Intercom (Direct/Group)
- Threeway Call
- · Music on Hold
- Music on Ringback
- Group Ringing

(Hunt/Circular-Hunt/Ring-All/Random)

- Distinctive Ringing
- DTMF Relay (in-audio/rfc2833/SIP Info)
- Flexible Dialplan
- SIP Trunking
- DID/DOD
- FXO backup (in case VSP is unavailable)
- Call Screening
- DND
- Virtual Caller ID
- Anonymous Caller ID
- Phonebook

#### **Advanced PBX Features**

- Voicemail (with e-mail forwarding)
- Message Waiting Indication
- Conference
- Call Recording
- RAA
- Feature Code
- · SIP Messaging & Presence
- BI F
- PBX-to-PBX interoperability

#### Security

- ACL
- DDoS Protection
- SIP DDoS Protection
- PBX-to-PBX interoperability thru VPN

#### SIP

- SIP Basic (RFC 3261)
- Provisional Responses (RFC 3262)
- An Offer/Answer Model (RFC 3264)
- Event Notification (RFC 3265)
- · Asserted Identity (RFC 3325)
- Instant Messaging (RFC 3428)
- Message Waiting Indication (RFC 3842)
- Presence (RFC 3856)
- Session Timers (RFC 4028)
- INFO Method (RFC 2976)

#### Codecs

- IP
- + Voice
  - G.711 u/A-Law
  - G.729 A/B (pass-thru only)
  - G.723.1 (pass-thru only)
- + Video (pass-thru only)
- H.263
- H.264
- MPEG-4 SP/ASP
- Analog
- + Voice
  - G.711 µ/A-Law
  - G.729 A/B
  - G.723.1

#### **FXO**

- LEC (G.168)
- Caller ID Detection
- Call Progress Tone Detection
- DTMF Generation & Detection
- VAD/CNG
- Packet Loss Concealment
- · Adaptive Jitter Buffer
- Dynamic Payload Support
- Adjustable Audio Frames per Packet

#### **FXS**

- Battery Feeding for Analog Telephone
- · Ringing Signal up to 3 LEN
- Type I/II FSK Caller ID Generation & Detection
- Call Progress Tone Generation
- DTMF Generation & Detection
- VAD/CNG
- FAX
- + T.30 Receiving (only with e-mail forwarding)
- · Configurable Tip/Ring impedance
- Hook Flash Signaling

#### Management

- System Configuration via WEB Manager
- · Multi Language Support (Korean/English/Turkish)
- Password Protection
- Configuration Backup/Restore thru WEB/FTP
- S/W Upgrade from Remote Place
- Direct Phone Management thru WEB
- IP-Phone Auto Provision
- Event Log
- · Call Log
- CDR
- SNMPv2

#### H/W

- CPU: Embedded 64bit Network Processor
- Memory: 256MByte DDR2 SDRAM
- · Storage: 2GByte Flash Disk

#### **Network Interfaces**

- Ethernet: 2 Ports (100/1000Mbps)
- PSTN: up to 32 Ports (4 FXO Boards)
- · Analog Telephone Interface: up to 32 Ports (4 FXS Boards)

#### Other Interfaces

- LED Status Indicators
- AC 220V Power Connector
- · Earth Connector
- · Restore Factory Defaults Button

#### **Power Consumption**

• Max. Operational Power Consumption: 240 W

#### Cooling Fan

- 3 DC Fans
- RPM: 4000, Air Flow: 4,480 CFM

#### **Battery for Power Failure**

• 1.2V x 5 x 350mAH, NiMH

#### **Physical**

- Dimensions: 440(W) x 430(D) x 45(H) mm
- · Weight: 5.5Kg (without Cables)

#### **System Capacity**

- Max. Extensions: 100 Subscribers
- Max. Call Performance: 5 call per second(CPS)
- · CDR Database: up to 20MByte records

#### **Ethernet Interfaces**

- WAN/LAN: 100Base-TX, 1000Base-T complying IEEE 802.3 Standards supports Auto-Negotiation
- RJ45 Connector:

Ethernet packets over CAT5-UTP cable

#### **PSTN** Interface

- 2 Pin(Tip-Ring) RJ11 Connector for each PSTN port
- Up to 3KV Line Isolation and Surge Protection • TX power of up to +10 dBm into 600Ohm
- Ringing Detection
- CID Monitoring and Detection
- Parallel Phone Detection

#### **Environmental**

- Operating Temperature: 0°C ~ 40°C
- Operating Humidity: 20% ~ 80% RH • Storage Temperature: -20°C ~ 60°C
- Storage Humidity: 20% ~ 95% RH

## **Application Diagram**



