## 4-Port SIP VoIP Gateway (4 FXO)



## High-performance VoIP Gateway

To build high-performance VoIP communications at a low cost, PLANET has launched the latest VoIP gateway model, the VGW-420FO enterprise-class 4-port SIP VoIP Gateway. The VGW-420FO gateway provides added flexibility during migration to Unified Communications by supporting the traditional analog devices. For example, the remote workers can dial in through a Unified VoIP Communication System just like an extension call but no long-distance call charge would occur. It also allows call to be transferred to anyone at any location within the voice system, which enables the enterprise to communicate more effectively and is helpful to streamline business processes.


VoIP Protocol Standard Compliance
The VGW-420FO supports Session Initiation Protocol 2.0 (RFC 3261) for easy integration with general voice over IP system. The VGW-420FO is able to broadly interoperate with equipment provided by VoIP infrastructure providers, thus enabling them to provide their customers with better multi-media exchange services.

## Compliant with standard SIPv2.0 RFC 3261



## Highlights

- Supports SIP 2.0 (RFC3261)
- Supports IPv6 and IPv4 simultaneously
- Up to 32 SIP service domains
- Caller ID Support
- Supports auto HTTP provision and fax feature
- Flexible Routes Plan, Dial Plan and SIP Trunk


## Internet Features

- Supports SNMP v1/v2c/v3
- Supports VLAN 802.1P and 802.1Q
- Supports Layer 3 QoS and DiffServ
- Supports STUN (RFC 3489) and Outbound Proxy
- Supports TR069 and Auto Provisioning
- Supports TLS/SRTP Security


## SIP Applications

- IETF SIP RFC3261 based on UDP/TCP/TLS
- 4-line FXO connects to PSTN line
- Fax over T. 38 and Pass-through
- ITU-T G. 711 A-law, G. $711 \mu$-law, G. 723.1 and G. 729 voice coding
- In-band/out of band DTMF (RFC2833/SIP INFO)
- Echo cancellation exceeding ITU-T G. 168 , up to 128 ms tail length
- SIP Trunk support
- Caller ID: DTMF/FSK support


## Call Features

- Call waiting/transfer (blind transfer, attend transfer)
- Call hold/quick pick
- Call forwarding unconditional
- Call forwarding on no reply
- Hotline/speed dial/direct IP call
- Do Not Disturb (DND)/three-way conferencing

Enhanced, Full-Featured Business Gateway
The VGW-420FO is a full-featured enhanced business SIP Gateway that addresses the communication needs of the enterprises. It provides the 4-line FXO gateway with SIP protocol IP device which allows connection with 4 analog PSTN telephone lines set to make or receive VoIP call over Internet or VPN network. This VGW420FO is suitable for office PABX to enable to have VoIP call without changing cabling, dial plan and extension number, The VGW-420FO supports all kinds of SIP-based gateway feature and multiple contact filter functions, such as 4 SIP trunk accounts, both IPv6 and IPv4 protocols, flexible dial plan and route plan features, and switch analog and VoIP signal, to help both protocols to communicate.


## FXO Line Configuration

- Line ID/line phone number
- Reverse polarity detection or generation for call establish and billing
- VoIP dial to FXO/PSTN line
- Outgoing SIP caller ID selection


## Routing Plan

- Prefix match and length
- Priority/Cycle/Simultaneous Ring


## Secure, High-quality VoIP Communication

The VGW-420FO effortlessly delivers secured toll voice quality by utilizing cutting-edge 802.1 p QoS (Quality of Service), 802.1Q VLAN tagging, and IP TOS (Type of Service) technology. Using voice and data, VLAN can easily separate the data and voice, thus maintaining the best quality.


Caller ID Function
Both the FXO and FXS ports of the VGW-420 series (VGW-420FO/VGW-420FS) support caller ID function, help user identify calling number easily and verify number. It also helps to block anonymous call by filtering strange calls. The FXS port transmits Caller ID, while the FXO port receives Caller ID. The Caller ID interoperates with analog phones, public switched telephone networks (PSTN) and private branch exchanges (PBXs).


## Applications

Ideal Solution for Enterprise VoIP Applicaton
The VGW-420 series (VGW-420FO/VGW-420FS) provides the essential features you need for business-class voice communications in an easy-to-manage solution. Designed for businesses with branch offices, it helps the enterprises to save money on long-distance calls.


## Specifications

| Product | VGW-420FO |
| :--- | :--- |
| Hardware | $1 \times 10 / 100$ BASE-TX RJ45 port |
| WAN | $2 \times 10 / 100$ BASE-TX RJ45 port |
| LAN | $4 \times$ RJ11 connection $(4 \times$ FXO $)$ |
| Voice | 853 g |
| Weight | $242 \times 152 \times 35 \mathrm{~mm}$ |
| Dimensions (W x D x H) | $100-240 \mathrm{VAC}, 50-60 \mathrm{Hz@DC12V} 2 \mathrm{~A}$ |
| Power Requirements | 12 W <br> Power Consumption <br> Protocols and Standard <br>  <br> FXO Mode: DTMF/Pulse Dialing |


| Voice \& Fax | G.711A/U law, G.723.1, G.729A/B, G. 726 <br> Silence Suppression <br> Comfort Noise Generation (CNG) <br> Voice Activity Detection (VAD) <br> Echo Cancellation(G.168), with up to 128 ms <br> Adaptive (Dynamic) Jitter Buffer <br> Programmable Gain Control <br> T.38/Pass-through <br> Modem/POS <br> DTMF mode: Signal/RFC2833/INBAND <br> VLAN 802.1P/802.1Q <br> Layer3 QoS and DiffServ |
| :---: | :---: |
| VoIP | Protocol: SIP v2.0 (UDP/TCP),RFC3261,SDP,RTP(RFC2833), RFC3262, 3263,3264,3265,3515,2976,3311 <br> SIP TLS/SRTP <br> RTP/RTCP, RFC2198, 1889 <br> RFC4028 Session Timer <br> RFC3266 IPv6 in SDP <br> RFC2806 TEL URI <br> RFC3581 NAT,rport <br> Outbound Proxy <br> DNS SRVIA Query/NATPR Query <br> SIP Trunk <br> Early Media/Early Answer <br> NAT:STUN, Static/Dynamic NAT |
| Network | Static/Dynamic IP <br> PPPoE <br> DHCP Client <br> IPv4/IPv6 <br> TCP, UDP,TFTP, FTP, ARP,RARP, Ping, NTP, SNTP, HTTP/HTTPS, DNS <br> Ping/Tracert <br> DHCP Option 66,120,121 <br> OpenVPN |
| Software Features | Port Group <br> Web ACL <br> Telnet ACL <br> Action URL <br> Digitmap <br> Routing Rules based Prefixes <br> Caller/Called Number Manipulation <br> Speed Dial |
| Management | SNMP v1/v2c/v3 <br> TR069, TR181 <br> Auto Provisioning <br> Web/Telnet <br> Configuration Backup/Restore <br> Firmware Upgrade via Web <br> CDR <br> Syslog <br> Network Capture <br> NTP/Daylight Saving Time <br> IVR Local Maintenance |
| Environments |  |
| Operating Temperature | 0 ~ 50 degrees C |
| Storage Temperature | -20 ~ 80 degrees C |
| Operating Humidity | 10\% $\sim 90 \%$ relative humidity, non-condensing |
| Emission | CE, FCC |

## Ordering Information

VGW-420FO 4-Port SIP VoIP Gateway (4 FXO)

## Related Products

| VGW-420FS | 4-Port SIP VoIP Gateway (4 FXS) |
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| VGW-820FS | 8-Port SIP VoIP Gateway (8 FXS) |
| VGW-1620FS | 16-Port SIP VoIP Gateway (16 FXS) |
| VGW-2420FS | 24-Port SIP VoIP Gateway (24 FXS) |
| VGW-3220FS | 32-Port SIP VoIP Gateway (32 FXS) |
| VIP-1140PT | High Definition Color PoE IP Phone with (4-line) |
| VIP-1260PT | High Definition Color PoE Gigabit IP Phone |
| ICF-1900 | High Definition Touch Color Screen Smart Media Android SIP Conference Phone |
| VIP-462DG | 802.11 g SIP DECT VoIP Router |
| HDP-1260PT | 1080p SIP Vandalproof Door Phone with RFID and PoE |
| HDP-1261PT | 1080p SIP Vandalproof Door Phone with RFID and PoE |
| HDP-5260PT | 720p SIP Multi-unit Apartment Vandalproof Door Phone with RFID and PoE |
| VTS-700WP | 7-inch SIP Indoor Touch Screen PoE Video Intercom with Built-in Wi-Fi |
| IPX-330 | Internet Telephony PBX System (30 user registrations) |
| IPX-1800N | Internet Telephony PBX system with ISDN support (30 user registrations, 4 x ISDN) |
| IPX-2100 | Internet Telephony PBX System (100 user registrations) |
| IPX-2200 | Internet Telephony PBX System (200 user registrations) |

