DIGIUM VOIP GATEWAYS

digium
The Asterisk Company

The G100 and G200 are the first in a family of cost-effective VoIP gateways that simplify the process of deploying converged media networks. Built on a powerful combination of the Asterisk open source communications engine and a state of the art embedded platform, the gateways provide the best value for Asterisk connectivity.

Digium's gateways are built to support TDM-to-SIP, SIP-to-TDM and SIP-to-SIP (transcoding) applications. In a TDM-to-SIP deployment the gateway significantly reduces operating costs by connecting a legacy business phone system with dynamic SIP trunking services. SIP-to-TDM deployments use the gateway to connect a modern SIP communications system with T1/E1/PRI service from legacy carriers.

The gateway software is based on the Asterisk communications engine and is managed through Digium's intuitive point-and-click GUI interface, which allows for easy navigation and effortless setup. The gateways feature a power-saving embedded design with a highly efficient digital signal processor (DSP) handling all media-related operations.

The G100 includes a single software-selectable T1/E1/PRI interface and supports up to 30 concurrent calls. The G200 doubles the capacity with two T1/E1/PRI interfaces and up to 60 concurrent calls. Both models have integrated echo cancellation, a small footprint (1U, half-width, half-depth) and no failure-prone moving parts.

Features:

- Available in 1 or 2 Port T1/E1/PRI
- Easy to Navigate GUI
- Intelligent Call Routing
- Fax and Modem Support
- No Moving Parts
- Remote Configuration and Software Download
- Cost Effective
- Low Power Consumption
- Octasic® DSP Processor

Sample Applications:

- Connect legacy PBX systems to low-cost VoIP services
- Connect legacy PBX systems to remote sites over private VoIP links
- Connect IP PBX systems to legacy TDM services
- Phased transition from Legacy PBX to IP PBX

Models:

G100 Single T1/E1/PRI appliance:

1G100F: North America
1G101F: Europe
1G102F: United Kingdom
1G103F: Australia

G200 Dual T1/E1/PRI appliance:

1G200F: North America
1G201F: Europe
1G202F: United Kingdom
1G203F: Australia

Digium G200 (top) **and G100 Gateways**

Digium's intuitive point-and-click GUI interface allows for easy navigation and effortless setup.

Digium VoIP Gateways

Digium is the creator, sponsor, and innovative force behind Asterisk®, the industry's first and world's most popular open source telephony software. Additionally, Digium provides a variety of VoIP communication solutions that fit the needs of small, medium, and large businesses. Digium's product lines include commercial business phone systems, as well as software, hardware, and other components needed to create powerful custom communications solutions.

Custom Communications Solutions

Digium empowers users, developers and integrators to build custom telephony solutions by offering a variety of software, hardware, and third-party components. From basic voice applications to sophisticated phone systems, Digium makes it possible for the world to communicate at a fraction of the cost of proprietary solutions.

At the heart of these offerings is Asterisk, the powerful open source telephony engine. Asterisk is free software that turns an ordinary computer into a feature-rich voice communications platform. Its flexible architecture lets you configure it as an IP PBX, a voicemail server, IVR server, VoIP gateway, call recorder, automatic call distributor or virtually any other voice-enabled application that you can imagine.

Business Communications Systems

Digium's line of award-winning Switchvox IP PBX phone systems are built on a strong foundation of our open source Asterisk software. Switchvox solutions are designed to be extraordinarily easy to use and provide features that most small and medium businesses have previously considered out of their reach.

Technical Specifications:

Call Management Features:

Automatic Call Type Detection:
Voice/Modem/Fax

Answer and Disconnect Supervision

Trunk Group Support

Dial Plan Support

- Call Routing Rules
- Call Routing Groups

Pass Through Support for calls to toll free, local and emergency services numbers

Automatic appending and stripping of digits to dialed numbers

Caller ID name and number support

Fax and Modem support

Physical Interfaces:

Single 10/100/1000Base-T Ethernet connections

Single or Dual T1/E1/PRI (RJ45 connectors)

Internal Universal Power Supply for 100 – 240 VAC

USB Port for System Reload/Recovery

IP Telephony:

SIP (Support for multiple SIP endpoints)

Audio Codecs

- G.711 (Coding Support for A-law and μ-law)
- G.722
- G.729
- GSM-FR
- G.726

Auto Codec Negotiation:

Fax and Modem Support (T.38 and G.711)

T1 Signaling:

PRI Signaling protocols:

- National ISDN-1
- National ISDN-2
- 4ESS (AT&T)
- 5ESS (Lucent)
- DMS100 (Nortel)
- Q.SIG

T1 CAS:

- E&M
- E&M Wink
- Feature-Group-D (DTMF, MF)
- FXS Loop Start with Forward Battery Disconnect
- FXS Loop Start
- FXS Ground Start
- FXO Loop Start with Battery Disconnect Supervision
- FXO Loop Start
- FXO Ground Start

E1:

- PRI (EuroISDN or Q.SIG)

DTMF Signaling via RFC 2833

Echo Cancellation (G.168):

- 128ms tail length
- 1024 taps

Configuration/Management:

Admin setup options:

- Web server

Remote setup:

- HTTP
- HTTPS
- DHCP w/ Option 66

Configuration Backup and Restore

Security Protocols:

- HTTPS
- Access Control List (ACL)

Troubleshooting Tools:

- Reporting Tools
- Advanced Debugging Tools (SIP, PRI, RTP)
- Diagnostics (System, Connections, Digium Support Lifeline)
- T1 Loopback
- Syslog

Specifications:

Size:	8.6” x 9.0” x 1.72” (21.84 x 22.86 x 4.37 cm)
Weight:	2lb 12oz (1.7kg)
Style:	Wall and Rack Mount

Environment:

- Temperature: 0 to 50° C (32 to 122° F) operation
  -20 to 70° C (4 to 158° F) storage
- Humidity: 0 to 90% non-condensing

Power Requirements:

• Voltage:	100-240v AC
• Frequency:	47-63 Hz
• Current:	65mA @ 120V, 33mA @ 240V

Compliance Certification and Agency Approvals:

Safety/Telecom:

- US/CSA 60950
- FCC Part 68, ANSI/TIA-968-A
- IC CS03
- CE Mark (European Union)
- IEC 60950
- EN 60950
- AS/NZ 60950

EMC:

- FCC Part 15 Class A
- EN55022/CISPR22 Class A
- EN55024
- EN61000

Environmental:

- 2002/95/EC Restrictions on Hazardous Substances (RoHS), 2005/747/EC
- Lead free exemption (Annex C)

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