

# Digium® VoIP Gateways

Robust features and effortless set-up at a great price

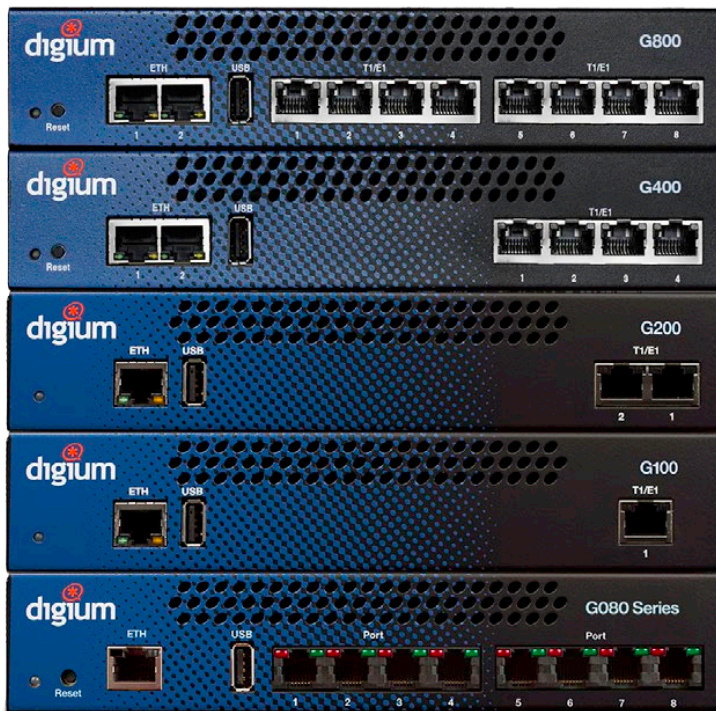


**Built on a powerful combination of the Asterisk Open Source communications engine and a state-of-the-art embedded platform,** Digium VoIP Gateways provide the best value for connecting traditional digital (T1/E1/PRI) and analog (Loopstart FXS and FXO) to IP (SIP).

The gateway software is based on Asterisk and is managed through Digium's intuitive point-and-click graphical user interface (GUI), which allows for easy navigation and effortless setup. All models feature a power-saving embedded design, and the T1/E1 units include a highly efficient digital signal processor (DSP) to handle all media-related operations.

The Digium Gateways' robust feature set includes the ability to configure calling rules for connecting many combinations of telephony providers (traditional and VoIP) and PBXs (legacy and VoIP), failover routing to ensure calls won't fail, codec and fax licensing for the maximum number of calls each appliance supports, and VLAN tagging.

Deployed in any application, Digium gateways will provide proven reliability for a fraction of the cost of other gateway platforms on the market. They are easy to set up and include an API that reduces administration and troubleshooting costs for any organization, from a small business to a large enterprise.



The Digium family of gateways

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## Features:

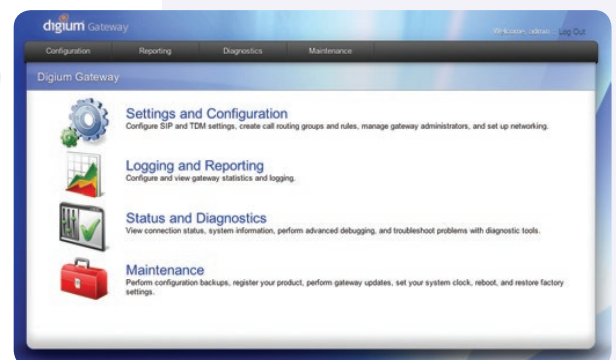
- Available in 1, 2, 4, or 8-port T1/E1/PRI and 8-port FXO, 8-port FXS and 4-port FXO + 4-port FXS
- Easy-to-navigate GUI
- Intelligent call routing
- Fax and modem support
- No moving parts
- Remote configuration and software download
- Cost-effective
- Low power consumption
- T1/E1 units feature Octasic® 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
- Connect virtualized systems to legacy TDM services
- Transcoding by connecting systems using varying codecs
- Lync connectivity to SIP or legacy TDM providers and SIP or Legacy PBX

## Models:

- G080 Multi-port Analog appliance:** Supports up to 8 concurrent calls
- G100 Single T1/E1/PRI appliance:** Supports up to 30 concurrent calls
- G200 Dual T1/E1/PRI appliance:** Supports up to 60 concurrent calls
- G400 Quad T1/E1/PRI appliance:** Supports up to 120 concurrent calls
- G800 Octal T1/E1/PRI:** Supports up to 240 concurrent calls



**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 communications 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 voice-mail 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.

### 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 (G080, G100 & G200) or Dual (G400 & G800)  
RJ45 Ethernet connectors  
Single, Dual, Quad or Octal T1/E1/PRI  
RJ45 connectors (G100, G200, G400 & G800)  
8 x 4P4C connectors (2P2C for analog, G080 models)  
Internal Universal Power Supply for 100 – 240 VAC  
USB Port for System Reload/Recovery

### IP Networking

- 10/100Base-T Ethernet (G080)
- 10/100/1000Base-T Ethernet (G100, G200, G400, G800)
- 802.1Q VLAN Tagging

### IP Telephony:

SIP (Support for multiple SIP endpoints)

### Audio Codecs

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

### Auto Codec Negotiation:

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

### Analog Signaling:

- FXS Loop Start with Forward Battery Disconnect
- FXS Loop Start
- FXO Loop Start with Battery with Disconnection Supervision
- FXO Loop Start

### T1 Signaling:

PRI Signaling protocols:

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

### 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

### DTMF Signaling via RFC 2833

### Echo Cancellation (G.168):

- 32ms tail length (G080)
- 128ms tail length (G100, G200, G400, G800)

### Configuration/Management:

Admin setup options:

- Web server
- RADIUS (except G080)

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 (G100, G200, G400, G800)
- Syslog

### Specifications:

Size: 8.6" x 9.0" x 1.72" (21.84 x 22.86 x 4.37cm)

Weight: 3lb (1.36kg)

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 (G100, G200, G400, G800)  
110mA @ 120V, 55mA @ 240V (G080)

### Compliance Certification and Agency Approvals:

Safety/Telecom:

- US/CSA 60950
- FCC Part 68, ACTA/TIA-968-B
- IC CS03
- CE Mark (European Union)
- IEC 60950
- EN 60950
- AS/NZ 60950
- TBR21
- AS/CA S002
- AS/CA S003
- ETSI TBR4/TBR12/TBR13
- AS-ACIF S016/S038

EMC:

- FCC Part 15 Class A
- EN55022/CISPR22 Class A
- EN55024
- EN61000
- IC ES 003

Environmental:

- European Union RoHS Recast Directive  
2011/65/EU Compliant