



## Highlights

- >> "Load and Go" SS7/IP Signaling Gateway on a Blade
- >> Standards-Based IETF SIGTRAN IP/SS7 Protocols
- >> Reliable and Robust Software and Hardware
- >> PICMG® 2.16-Compliant
- >> H.110 Bus Support

The IPnexus™ SG5600 Signaling Gateway Blade is a robust, turnkey SS7/IP signaling gateway in a standard CompactPCI® form factor that also supports PICMG® 2.16. A true carrier-grade system-in-a-slot, the Blade provides a signaling bridge between traditional telephone networks and burgeoning packet-switched VoIP architectures. When used in conjunction with softswitches, media gateways and application servers, the Blade provides the SS7 "on ramp" functionality to enable call control or service processing capabilities. Whether your SS7 network is circuit-switched or IP-based, the Blade can meet your requirements for today and well into the future.

## Key Features

### Compact, Low-Cost System-in-a-Slot

The Blade boots locally from onboard Flash, making it independent of the system controller. It enables system designers to easily integrate signaling gateway applications yet benefit from the lower production costs associated with embedded solutions. Sized to grow with your needs, the Blade can be licensed for eight (SG5600LE) or 16 (SG5600) SS7 links using T1 or E1 SS7 interfaces. IP connectivity may be provided via the backplane to Ethernet switching equipment. Fitted with dual Ethernet ports, it can also support redundant IP external connectivity for the latest SS7/IP interworking protocols.

### Supports Latest SS7 over IP Protocols

As a stand-alone unit, it can be easily integrated into equipment vendor solutions, separately terminating up to eight or 16 SS7 links on a single unit and providing an IP interface to softswitches or service applications. Our signaling gateways support the latest IETF SIGTRAN protocol suite (SCTP, M3UA) in a redundant network architecture, which greatly enhances the reliability of SS7 transport over IP, making it comparable to the reliability expected of today's existing circuit-switched SS7 networks.

### Time-to-Market Solution

For equipment vendors developing innovative new products, reducing delivery time is critical. Having a proven turnkey SS7/IP solution reduces integration activities and allows development teams to focus their efforts on delivering the high value solutions to their customers.

### Superior Reliability

The Blade supports the same software functionality found in other Performance Technologies signaling gateways. With its distributed software architecture, the hot-swap capability of CompactPCI and proper provisioning, the Blade can provide superior reliability comparable to fault-tolerant five-nines systems.

# IPnexus™ SG5600

## Signaling Gateway Blade

This software architecture can distribute the SS7 stack across two units, allowing system and SS7 link load sharing among units, with the cluster acting as a single point code. In distributed mode, a pair of Blades can support up to 32 SS7 links, load-shared among multiple platform units so system or network failures are handled with minimal switchover delay.

### Flexible Configurations

The Blade terminates SS7 MTP-2, MTP-3 and SCCP protocol layers and delivers ISUP or any other MTP-3 user protocol messages, as well as MTP network management events via SCTP or TCP. The Blade supports SIGTRAN or UAP TCP associations for up to eight (SG5600LE) or up to 16 (SG5600) unique Application Server Processes (ASP). Up to 128 individual routing keys are available for SS7 message filtering by these ASPs.

The Signaling Gateway software offers a powerful range of configurations. Deployed as a Signaling End Point (SEP), the network provider can connect a number of softswitch and media gateway configurations in widely dispersed geographic areas with the Blade appearing as a separate network entity or "virtual switch" and acting like a single point code to the SS7 network. The software may also be set up to emulate the presence of multiple endpoints via virtual point codes to allow access to more voice trunks and greater traffic distribution.

### Exceptional Scalability

The Blade (SG5600LE and SG5600) provides the flexibility to cost-effectively grow in capacity and functionality within converged network environments. Customers can begin with a modest single or dual module deployment in non-distributed or distributed configurations and incrementally add units as SS7 message traffic grows. Customers with small-scale applications benefit from the same hot-swap reliability and software functionality used for the largest configurations.

### A Perfect Solution for SS7/IP Interworking

Performance Technologies' signaling gateways are flexible, compact, highly reliable and feature state-of-the-art SS7/IP software functionality. Available in platforms that can accommodate the smallest to largest networks and budgets, it's the perfect solution for SS7/IP interworking.

## Contact Information

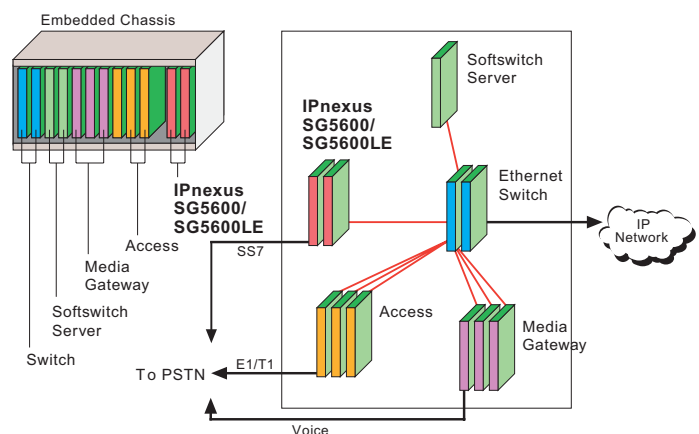
### Performance Technologies

205 Indigo Creek Dr.  
Rochester, NY 14626  
Tel: 585-256-0200  
Fax: 585-256-0791  
E-mail: sales@pt.com

### PICMG 2.16-Compliant

The Blade is PICMG 2.16-compliant and capable of operating in packet-switched backplane configurations or in a conventional CompactPCI chassis.

The IPnexus™ SG5600 and SG5600LE Signaling Gateway Blade in an Embedded VoIP Architecture Environment





IPnexus™  
**SG5600**  
 Signaling Gateway Blade

**Ordering Information**

>> To discuss specific requirements and/or pricing, contact sales@pt.com.

**Contact Information**

**Performance Technologies**

205 Indigo Creek Dr.  
 Rochester, NY 14626  
 Tel: 585-256-0200  
 Fax: 585-256-0791  
 E-mail: sales@pt.com

[www.pt.com](http://www.pt.com)

**Specifications**

**Processor**

- Motorola MPC8260 PowerQUICC II™ (MPC603e core)
- 64-bit data and 32-bit address bus

**PMC**

- PowerPC 750fx SBC

**SS7 Protocols**

- MTP Layer2, MTP Layer3, SCCP

**IP Protocols**

- SCTP, M3UA, M2PA, TCP, UAP (Proprietary)

**SS7 Links**

- Non-distributed: Eight or 16 SS7 Links
- Distributed: 16 or 32 SS7 Links

**Management Interfaces**

- SNMP, command line interface, Web UI

**Network Interfaces**

- SS7: Eight or 16 (distributed configuration) T1/E1 ports
- IP: Ethernet backplane or two 10/100 Mbps Ethernet ports

**Operating System**

- NexusWare™-based on Linux v2.44

**Power**

- 16.83W maximum (5.1A @ 3.3V)

**Memory**

- 128MB dedicated DRAM
- 16MB flash PROM
- PMC
  - 512MB SDRAM, 8MB flash, 512KB boot flash

**Agency Certifications**

- FCC class A, CE, UL 1950 (pending), designed to meet NEBS Level 3 requirements

**Dimensions**

- 6U Eurocard form factor

**Temperature**

- Operating: 32° to 50° C (32° to 122° F)
- Non-operating: 20° to 80° C (-4° to 176° F)

**IPnexus SG5600 and SG5600LE Comparison Chart**

Capacity	SG5600LE	SG5600
SS7 Links	8	16
SS7 Linksets	8	16
Routesets	64	64
Routes per Routeset	8	8
Routes	256	256
M2PA Links	0	8
M2PA Linksets	0	4
Virtual Point Codes	8	8
UAP TCP Associations (proprietary)	8	16
SIGTRAN Associations (M3UA)	8	16
ASP Routing Keys	128	128
Network Appearances	4	4
Redundant Peers	2	2