

# Sonus STP Solution Sheet

The Sonus STP paves the way for service providers to finally take charge of their SS7 networks and gain competitive advantages as they look to grow their networks and rollout new value-added services. Sonus STP supports any-to-any connectivity (SS7, IPSIGTRAN, ATM) for maximum flexibility and protects a service provider's investment by integrating existing and future nodes and applications to meet evolving telecommunication infrastructure requirements.

Sonus STP is well suited for deployment in existing TDM and IP-based networks. Today's networks are expanding exponentially to address the increase in traffic due to mobile services, network convergence, and new applications; Sonus STP is built to be scalable to meet these needs. Our flexible approach to feature activation and capacity expansion ensures that Sonus STP can easily adapt to the demands of the market without the costly deployment of additional platforms.

## Carrier Grade Product Offerings

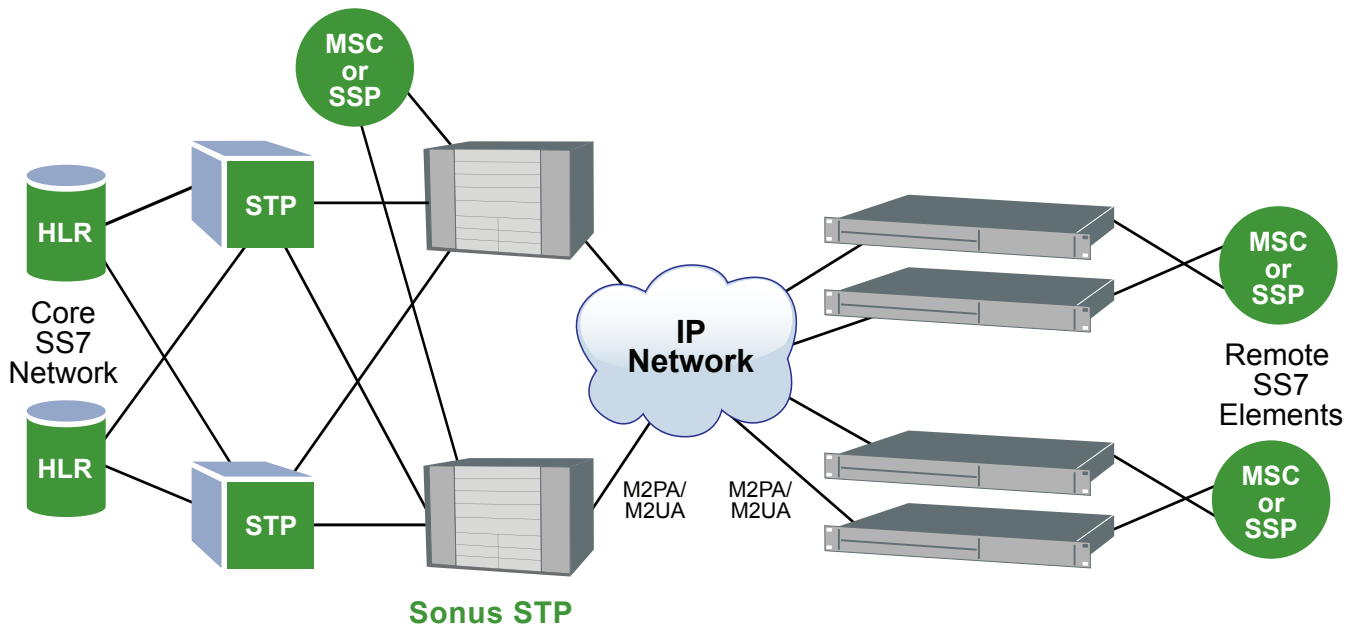
Sonus STP offers all the standard features and functionality expected of an STP solution, including Gateway Screening and Global Title Translation, while also offering extended capabilities and features, such as Signaling Gateway (M3UA/SUA) and Point Code Emulation™.

With five-nines (99.999%) reliability, these systems include redundant CPUs, switches, and shelf controllers, as well as dedicated processors with onboard storage for system management and OA&M features.

In a transitional network configuration, SS7 linksets may be a combination of traditional circuit-switched links and IP links for maximum flexibility.

### Benefits

- Cost-Effective, Carrier Grade STPs
- Exceptional Flexibility - TDM, ATM, and IP-Based SS7 Links
- Support Latest SIGTRAN Protocols
- Robust High Availability Platforms
- Network-Proven Solutions
- Highly Scalable Platforms



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### Reduced SS7 Facility Leasing and Connectivity Costs

Customers who take control of their SS7 network by deploying a Sonus STP quickly realize significant savings on leased SS7 facility charges through traffic consolidation and local routing. Adding STPs also enables the carrier to deploy services like LNP, ENUM, or CNAM within their networks, thus further reducing costs for transaction-based services charged by the hub providers.

### Broaden the Reach of SS7 with IP

In SS7 networks, the addition of network elements to provide circuit-to-packet conversion may require additional point codes, which can be in short supply. Translations for these additional point codes must then be propagated network-wide, which increases operational expenses and complexity. With Sonus STP's standard IETF SIGTRAN interfaces, link facility costs can be lowered.

### Flexible Interface Modules

Sonus STP offers the ability to physically connect with circuit switched (T1/E1/V.35) and ATM legacy networks, and with IP (SIGTRAN) networks for maximum flexibility.

### Multiple Protocol Support

Sonus STP solution offers the full suite of SS7 protocols, including ANSI/ETSI/ITU and SIGTRAN (M2PA, M2UA, M3UA, SUA). With this flexibility, Sonus STP can seamlessly bridge disparate networks.

### Flexible, Proven Solutions for Growing Networks

Sonus STP has been deployed by carriers in wireless and wireline configurations worldwide and conforms to ANSI and ITU standards, with additional country-specific protocol variants available upon request. Field-proven for over ten years, our products conform to the latest IETF SIGTRAN protocols, ensuring interoperability.

### Optional Global Title Translation (GTT)

GTT is available in basic, enhanced, or expanded configurations, and frees originating signaling points from the burden of having to know every potential destination to which a message for services, such as wireless roaming, toll-free calling, or CLASS, might have to be routed.

### Optional Gateway Screening (GWS)

GWS is an optional security feature available on the Sonus STP. This capability gives network administrators control of the flow of SS7 messages into or through a signaling network. Gateway Screening determines if inbound and outbound messages should be discarded based on given criteria. If a message is accepted, it continues its MTP or SCCP processing (e.g., routing). Measurements and statistics are kept for rejections and screening validations to monitor the GWS configuration.

### Optional Signaling Gateway (SG)

Sonus STP also has a Signaling Gateway option that serves as a signaling bridge between SS7 and VoIP networks. Typically this is used in conjunction with softswitches, media gateways, and application servers. Interoperability is assured with IETF M3UA and SUA protocol support for connection-oriented and connectionless (SCCP) services.

### Optional Point Code Emulation™ (PCE)

PCE is a powerful feature that enables service providers to transparently configure and manipulate SS7 nodes without disrupting or reconfiguring the public SS7 network. This is a cost-effective solution for expanding networks where new point codes are rare and expensive, and where minimizing the number of direct SS7 links is an asset. For more information, please see the Point Code Emulation™ datasheet.

### Onboard Protocol Conversion

Sonus STP is able to translate between global SS7 variants with their onboard protocol conversion feature, thereby allowing customers to transparently deploy their own IP network solution throughout the world.

## Technical Specifications

### Protocols

- Protocols
- GR82-Core (Telcordia®)
- SIP

### MTP Specifications

- ITU-T Q.700 through Q.707
- ITU-T Q.703 Annex A
- ANSI T1.111-1992 Message Transfer Part GR246-Core T1.111 (Telcordia)

### SCCP Specifications

- ITU-T Q.711 through Q.714
  - Connectionless: Class 0 and 1
  - Connection-Oriented: Class 2
- ETSI ETS 300 589
- ANSI T1.112
- SCTP: RFC2960 RFC3309
- M2PA: RFC4165
- M3UA: RFC4666

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