



Clarent® MPSS

SS7/C7 Signaling for Global Connectivity.

The **Clarent MPSS** sets the new standard for reliability, availability and scalability for seamless interoperability between IP and PSTN networks.



Tradition of excellence

Since 1997 Clarent customers have been successfully deploying SS7/C7 solutions, and that standard of excellence continues with the Clarent MPSS (Multipoint Signaling Server). As an element of Clarent's proven distributed softswitch solution, this flexible, highly scalable Clarent MPSS delivers carrier grade, global PSTN signaling connectivity. The feature rich, adaptable Clarent MPSS is designed to grow hand in hand with Clarent's customers, from the most basic network configurations to the evolving demands of highly robust networks.

What is Clarent MPSS?

Traditional circuit-switched PSTN network relies on SS7/C7 as a signaling transport protocol to establish call setup. Circuit-switched networks use SS7 signaling and Packet-switched networks generally use IP as a base. Clarent MPSS is an enabling technology translation device that provides signaling inter-working between circuit-switched (PSTN) and packet-switched (IP) telephony networks and can provide a consistent IP interface regardless of the SS7 variants.

Unique features

The distributed SS7 software architecture is the cornerstone for the Clarent SS7/C7 MPSS' reliability and availability. This robust architecture eliminates the possibility of a single point of failure and in fact, provides reliability and redundancy comparable to fault-tolerant "5-nines" systems. Onboard protocol conversion of SS7 stack supports multiple standards and national variants e.g., ANSI SS7, ITU C7, China TUP/ISUP, Argentinean ISUP may co-exist on a single machine.

Flexible configuration

The Clarent SS7/C7 MPSS can be connected in both associated and quasi-associated modes, operating directly connected to Signaling End Points (SEP) or Signaling Transfer Points (STP) as well as support for A, B/D, C and F links. Point code conservation

is supported via the enhanced traffic distribution algorithm and the distributed stack architecture allows assigning same point code to multiple signaling gateways.

The Clarent MPSS is managed through its provisioning/monitoring interface, as well as the system's logging/alarming output. The provisioning and monitoring interface is accessible via text or web-based user interface accessed from local console or remote telnet and SNMP based monitoring.

Scalability and reliability

The Clarent MPSS caters to service providers through several crucial features and is available on a Compact PCI Bus (cPCI), NEBS compliant model with hot-swappable T1, E1 or V.35 cards with capable of supporting up to 24 SS7 links for a single platform or up to 96 SS7 links for a redundant quad-configuration platforms. Every cPCI I/O card is hot swappable and can be replaced while the system is running, without disrupting operations.

Increase productivity; lower costs; increase revenue

The Clarent MPSS serves as the basis for all the major SS7 related protocols including TUP, ISUP and IN (Intelligent Network) services. The Clarent MPSS strengthens overall solution scalability through its compatibility with Clarent gateways. In addition, The Clarent MPSS is based on POSIX compliant Real Time Operating System (RTOS) Lynx OS. This provides service providers a smooth, seamless transition from the traditional PSTN switching model to the next generation networks of tomorrow.

- Carrier grade reliability
- Distributed softswitch
- NEBS compliance (level 3 certification)
- High density and scalability
- UNIX
- Global connectivity
- High availability
- Fully redundant





Features & Benefits

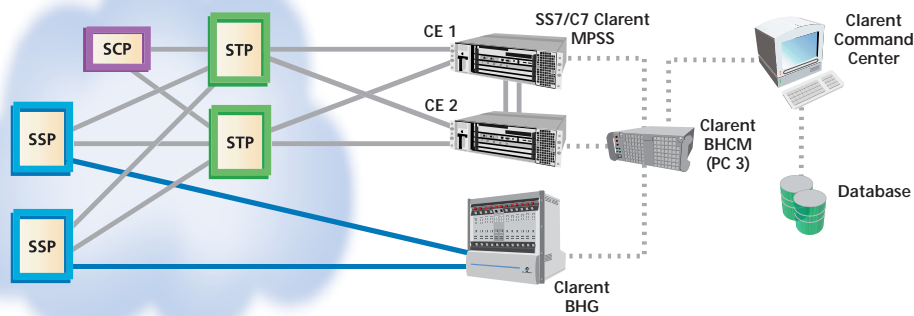
- NEBS Level 3 compliant
- Embedded OS platform
- Compact PCI (cPCI) with "hot swappable" I/O
- A distributed SS7 software architecture
- Point code conservation
- High density (support for 2 to 96 SS7/C7 links)
- Supports both Signaling End Point (SEP) and Signaling Transfer Point (STP) configurations
- Support A, B/D, C and F links
- Support 4096 CICs for ITU, 16384 CICs for ANSI per destination point code
- ANSI/ITU SS7 ISUP support
- High availability and redundancy
- Up to 2 servers support per call manager, providing geographical mated pair configuration
- Support for multiple destination signaling end points
- The Clarent MPSS is compatible with other Clarent products, including Clarent gateways.

Hardware Features

- 366 MHz MCP750 Series Compact PCI PowerPC system controller CPU board
- Maximum up to 3 hot swappable I/O boards per Compact PCI Hot Swap Specification per computing element, with each card supporting up to 8 links
 - E1 – 120ohm - 4 RJ48C ports, up to 2 links per port.
 - 75ohm – 4 BNC ports, up to 2 links per port
 - T1 – 100ohm - 4 RJ48C ports, up to 2 links per port
 - V.35 – 8 M34 ports
- H.110 backplane support
- 150W power supply with over 300,000-hour MTBF
- Wide-ranging AC and DC input versions
- Hot swappable fans with filter option
- Front-access service and installation of boards, drives, fans and power supplies
- Rear connection of power and I/O for easier access to hot-swap components
- Detection and remote reporting of power, temperature and fan fail conditions

Compliance

- Supports both ANSI & ITU SS7/C7 ISUP messages:
 - MTP2 – ANSI T1.111, ITU Q.703
 - MTP3 – ANSI T1.111, ITU Q.704
 - ISUP – ANSI T1.113.3, Q763, GR-317
- GR-246-CORE
- GR-394-CORE



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