



Highlights

- >> Critical Baseline Technology for the Creation of SS7 Applications and Systems

- >> A T1/E1 WAN Controller Board Fully Embedded with Field-Proven SS7 MTP-2 Link Layer Functionality

- >> Configurable Link Density Counts
 - PCI384 (PowerQUICC II™) 4 links, 8 links, 16 links, 32 links, 64 links, High Speed Link (Annex A of ITU 703)

- >> Distributed Processing Architecture Allows the Addition of SS7 “Processors” without Compromising Overall Host Performance

- >> Open, Fully Documented API

- >> Ideal Data Link Layer for:
 - SS7 Signaling Gateways
 - Home Location Registers
 - Visitor Location Registers
 - Service Control Points
 - Service Switching Points
 - Signal Transfer Points

- >> Operating System Support
 - Solaris™
 - Linux®

A Simplified SS7 Starting Point

Channel7™ is a comprehensive hardware and software Signaling System 7 (SS7) MTP-2 platform that provides telecom equipment manufacturers and applications developers with a baseline hardware/software solution for the creation of SS7 applications and systems.

The combined Channel7 hardware/software solution reduces time-to-market by providing a field-proven foundation for the integration of MTP-3 networking layers and subsequent upper level SS7 stack products. The unique design architecture eliminates the amount of time needed to integrate diverse hardware and software elements at the physical and link layers.

Designed as the integral part of a total SS7 solution, Channel7 delivers the highest density, performance, and configurability for telecom developers and upper level stack vendors when compared to other SS7 MTP-1/MTP-2 level offerings.

Configurability and Scalability

Channel7 is a highly configurable, scalable, and high-performance solution for developing SS7 network equipment. System designers have the option of choosing systems built around the PCI or the CompactPCI® standards.

Designed around an intelligent T1/E1 controller, Channel7 provides extensive system scalability. The distributed processing architecture of Channel7 hardware allows the addition of SS7 links into existing equipment without compromising overall host system performance.

A Hardware and Software Bundle

Channel7 is delivered as a bundled hardware/software solution. By combining Performance Technologies' PowerQUICC II™-based T1/E1 hardware as the MTP-1 physical interface with specifically developed onboard MTP-2 link layer software, developers can realize higher link density and sustained operation of up to 3,000 messages per second over all active channels.

Interoperability with Upper Level Stacks

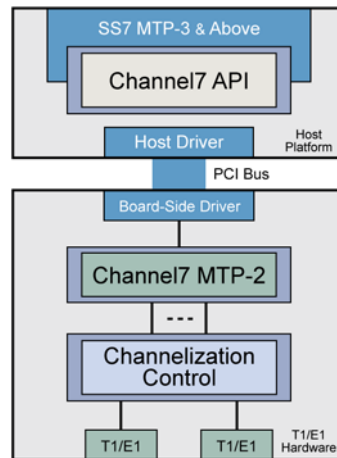
Upper level stacks, such as TCAP, ISUP, and TUP, from any SS7 software vendor can be integrated with the Channel7 platform through a well-defined Application Programming Interface (API). The API allows for the easy integration of any MTP-3 to the Channel7 MTP-2 link layer.

Ordering Information

>> For Solaris or Linux configurations, contact sales@pt.com.

Target Applications

Target telecom equipment applications for Channel7 include Service Control Points (SCP), Service Switching Points (SSP), Signal Transfer Points (STP), Intelligent Peripherals (IP), Home Location Registers (HLR), and Visitor Location Registers (VLR). Additional applications include SS7 signaling gateways, multimedia gateway controllers, and any SS7-based broadband or narrowband network element. SS7 stack vendors can also use Channel7 to satisfy application needs for MTP-2 and MTP-1.



Channel7 Software Architecture

Consistent and Open API

The open aspect of Channel7 comes from its fully documented API. The Channel7 API provides a set of services that can be called on by the MTP-3 layer, which resides in the host. The Channel7 API includes the following routines:

MTP2_BindAPI

- Binds the API to the T1/E1 adapter and performs relevant set-up.

MTP2_UnbindAPI

- Closes the T1/E1 adapter and frees allocated memory.

MTP2_WaitForCall

- Waits until the driver returns a message from the adapter.

MTP2_DispatchCall

- Analyzes calls from MTP-2 and dispatches them.

MTP2_MgtRequest

- Builds and sends a management request to MTP-2.

MTP2_MgtGetResponseStatus

- Retrieves the last request global status.

MTP2_MgtClearAttributeList

- Clears the attribute list and associated data, prepares API to accept a new request.

MTP2_MgtAddItemToAttributeList

- Adds an item to the attribute list.

MTP2_MgtNextItemOfAttributeList

- Reads the next item of the attribute list.

MTP2_SubmitCommand

- Builds and sends an MTP command to the MTP-2 layer.

Channel7 Kit Contents

Channel7 is a complete SS7 MTP-2 kit for developing SS7 systems and applications. Every Channel7 SS7 MTP-2 kit includes:

- One PCI or CompactPCI T1/E1 communications hardware adapter
- MTP-2 channelized firmware (hardware resident)
- Host operating system driver
- Host API module for integration to Channel7 MTP-2 link layer
- Hardware/software user manuals
- Channel7 licensing agreement

Channel7 Stack Partners

Channel7 link layer interface modules have been developed for, and compatibility tested with the leading SS7 MTP-3 and higher stack level products.

Certifications

The Channel7 product is in full compliance with the Q.703 (ITU) and T1.111.3 (ANSI) recommendations.

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