



## Product Brief

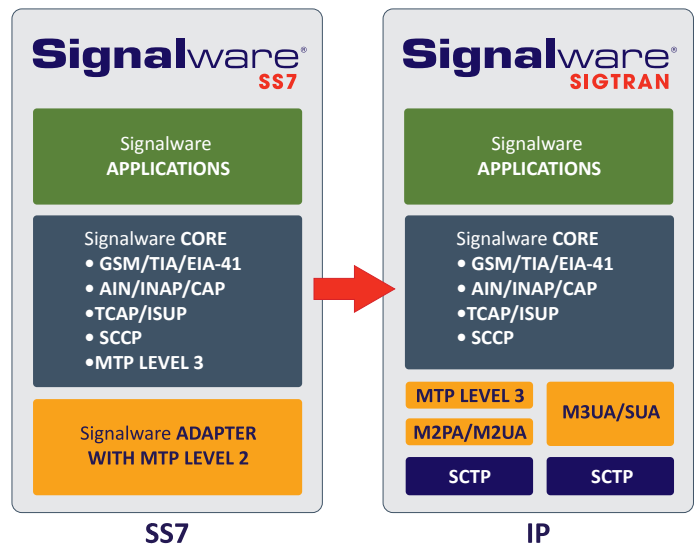
### Overview

Networks are changing to support new services such as broadband access, multimedia content, and web services. This means that network services and signaling must evolve to support new and enhanced IP-based services while providing interoperability with today's networks and applications. Signalware SS7/SIGTRAN signaling technology enables network elements to deliver 2G, 3G, 4G and hybrid services.

Signalware SS7/SIGTRAN is a middleware-based advanced signaling services platform for application creation and delivery. Signalware SS7/SIGTRAN enables many of the most important services in hundreds of fixed and wireless networks.

Compliant with standards including IETF, 3GPP, 3GPP2, ANSI, ETSI, ITU, NTT, TTC, Telcordia, TIA, and assorted variants, Signalware SS7/SIGTRAN provides a unified framework for delivering carrier-grade Messaging, Payment, IN, Roaming, Mobility, Mobile Data, Subscriber Data Management, Authentication, and Location services for 2G, 3G, and HSPA/HSPA+ networks. Compliant to IETF

standards, Ulticom's SIGTRAN software enables customers to maximize the benefits of converging SS7 and IP technology. By providing a common interface across both SS7 and SIGTRAN, Signalware SS7/SIGTRAN enables application developers to write an application once and move it effortlessly between variants of standards, major operating systems, and hardware platforms. Further, when used in conjunction with Ulticom's Signalware Diameter, hybrid SIGTRAN/Diameter applications can be created to bridge legacy networks with 4G (LTE/EPC, WiMAX and IMS). Some of the network elements enabled by Signalware SS7/SIGTRAN include: SMSC, SMLC, GMLC, Prepaid Charging System, Online Charging System, SCP, SDP, SGSN, SG, MSC, IM-SSF, Softswitch, Voice Application Server, Service Broker, HLR, EIR, GLR, AAA Server, and WLAN Gateway.



- Key Benefits**
- Signalware offers **Network Equipment Providers** an unparalleled combination of scalability, global interoperability, fault tolerance, and carrier-grade reliability on open computing platforms.
  - **Service Providers** can protect their core network investments and reduce OpEx by extending, adapting, and optimizing signaling solutions independent of the underlying signaling technology.
  - **System Integrators** can use Signalware SS7/SIGTRAN to create new enhanced services including mobile communications service integrations.
  - **Independent Software Vendors** benefit by developing on the most widely deployed signaling application development platform in the industry.

Using Ulticom's Signalware SS7/SIGTRAN gives you the reliability of an established industry leader for your signaling needs, allowing you to focus your efforts on the creation of new applications. This lowers your internal costs and reduces your time to market, delivering competitive advantage.

### Key Advantages

#### Complete Development Environment

- Rapid time to market
- Comprehensive protocol and platform APIs

#### Reliability and Fault Resiliency

- Clusters of multiple computing elements
- Active-Active computing element configurations (Performance, Reliability, Network Connectivity)
- Active and Standby Management processes for Reliability

#### Scalability

- Start small and grow as your needs grow
- Multiple computing element clusters
- Multiple boards and links per computing element (Active-Active)
- Multiple SIGTRAN associations
- Capacity-based licensing

#### Portability

- The same APIs are supported on both Solaris and Linux (Provides maximum application portability and maintains your investment during OS migration)

- SS7 and SIGTRAN utilize the same APIs (Provides the ability to deploy the same application on SS7 and SIGTRAN and maintains your investment during SS7 to SIGTRAN migration)

#### Interoperability

- 6,000+ Deployments worldwide
- 300 Networks
- 100 Countries

#### Maintainability

- Online upgrades
- World class Ulticom Services (Maintenance and Support, Educational Services, and Professional Services)
- Global, Follow-the-Sun Maintenance and Support coverage
- North America, EMEA, and APAC-based support staff
- Scalable SLA Tiers
- Instructor led and Web-based Training
- Onsite and Remote Professional Services including Design/Development Mentoring, Installation Support, Trial Support, and Upgrade Support

### Feature Summary

#### Capabilities include:

- **SS7:**
  - MTP (including SS7 boards for PCI-Express and AMC)
- **SIGTRAN:**
  - SCTP, M2PA, M2UA, M3UA, SUA
- **SS7/SIGTRAN Common Upper Layers and Libraries:**
  - SCCP (Class 0, 1, 2)
  - ISUP
    - TIA/EIA-41
  - TCAP
    - CAP
  - BSSAP-LE
    - INAP
  - GSM MAP
    - AIN
- **Up to 4 Computing Elements per cluster (Active-Active)**
- **Up to 4,096 signaling links (1024 per CE)**
- **1,024 signaling linksets per logical node**
- **10,000 routesets (destination point codes) per logical node**
- **8 routes per routeset**
- **64,000 CIC ranges**
- **8 combined linksets**
- **8 separate network appearances (logical nodes)**
- **Global Title Translation (GTT)**
  - 200 inbound and 20,000 outbound
- **32,000 concurrent TCAP dialogs per application process instance**
- **Hybrid Stacks:**
  - ANSI TCAP over Japanese MTP/SCCP
  - ANSI TCAP over ITU-T MTP/SCCP
  - ITU TCAP over ANSI MTP/SCCP
  - ITU TCAP over Japanese MTP/SCCP (16 bit point codes)
  - ITU TCAP over Chinese MTP/SCCP (24 bit point codes)
  - Alarms, events, and measurements support
  - Provisioning support via SNMP, MML, GUI, or API

### SPECS

#### Compliant with standards including:

- IETF, 3GPP, 3GPP2, ANSI, ETSI, ITU, NTT, TTC, Telcordia, TIA, and assorted variants

#### Operating Systems include:

- Solaris 10 SPARC
- Solaris 10 x86-64
- Red Hat Enterprises Linux 5
- Red Hat Enterprises Linux 6

\*Please see Ulticom for the most current set of compliance tables.