

# Signaling ASE<sup>®</sup> System

## One Platform, No Point Code, Many Solutions

### Architecture

Each Sevis solution utilizes the patented **Signaling ASE System**, a proven, carrier grade system that enables both Sevis and partner-developed applications to be deployed “transparently,” without an SS7 point code, on a carrier’s signaling network, eliminating the need for operators to re-engineer their signaling network upon installation and allowing any ASE-enabled solution to operate independent of the provider’s existing vendor infrastructure.

The Signaling ASE System is comprised of the *Signaling ASE Platform* (the “transparent” signaling network element) and the *Signaling ASE Manager*.



### Unique Platform



Unlike other SS7 network elements or application delivery systems, the **ASE Platform** does not require an SS7 point code, eliminating the need for network re-engineering and enabling

rapid system deployment. The ASE Platform supports a diverse set of wireless, wireline and IP protocols and has an open architecture for rapid development of new software applications. With the ASE Platform, carriers can run multiple applications simultaneously to avoid deploying new devices.

The ASE Platform is NEBS certified and was designed from the ground up for five nines availability. High availability is achieved with automatic link protection features and redundant, hot-swappable components. This provides multiple layers of protection in both hardware and software, ensuring your signaling links stay “up and running” under any and all conditions. Platform clustering enables a distributed architecture that can support the largest global networks.

The **ASE System** can be utilized in either “listening” or “active” mode. In “listening” mode, it acts much like a probe in that it can copy all or select SS7 messages and route them over IP to another device for processing (useful in visibility and diagnostic apps, location services, etc.). In “active mode,” the ASE System can perform comprehensive message control, to include being able to on a message-by-message basis:

- Stop messages
- Threshold messages (allow X of N)
- Modify messages
- Respond to messages
- Re-route or offload messages (over IP for example)
- Insert messages (such as SMS messages)

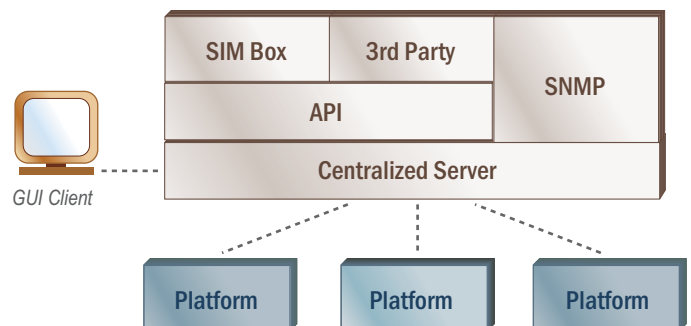
### Centralized Management

The **ASE Manager** provides centralized system and application management. Its distributed client/server architecture allows carriers to simultaneously administer one or more *ASE Platforms*.

Alerts are sent via broadcast, pager or e-mail to inform clients of any alarm situation, and the management interfaces to any ASE Platform or ASE Client can be encrypted to protect system integrity.

The **ASE Client** ensures an intuitive provisioning experience with its menu-driven, point and click graphical user interface. System management is performed with user-friendly features including: configuration wizards, multi-level security access and intuitive visual status indicators. With the ASE Client, network engineers do not have to go out into the field to analyze or troubleshoot any issues.

The Java-based ASE client can be loaded on any Windows or Linux computer.



## Enabling Innovative Solutions

The **Signaling ASE System** is the cornerstone of all of Sevis' solutions, and once deployed it can act as the foundation upon which you can address a diverse range of issues to include:

- Ensuring your SS7 network—one of your most critical assets—is sufficiently protected against the risks associated with the widespread interconnection and SS7-IP convergence (to learn more, please inquire about Sevis' *Signaling Defense*).
- Reducing the financial and operational impact of SMS Spam (to learn more, please inquire about Sevis' *SMS Defense*).
- Near-real-time prevention of illegal roaming and SIM Box calls (to learn more, please inquire about Sevis' *Active Fraud Eliminator*).
- Resolving call completion and network interoperability issues (to learn more, please inquire about Sevis' *Network Mediator*).

Because of the Signaling ASE System's flexible architecture, carriers and 3rd-party developers can also utilize it to develop their own innovative applications.

If you are interested in potentially utilizing the Signaling ASE System for your own development efforts, please call us at **877.517.3847** or visit our website at [www.sevis.com](http://www.sevis.com). New partners are always welcome.

## Technical Specifications: Carrier-grade, high availability, flexible

### Protocols

#### ANSI

- T1.111 MTP
- T1.113 ISUP
- T1.112 SCCP
- T1.114 TCAP

- AIN 0.1/0.2
- IN
- ANSI-41 D
- WIN

#### ITU/ETSI/3GPP

- Q.701 – Q.705, Q.707 MTP
- Q.761 – Q.764 ISUP
- Q.711 – Q.714 SCCP
- Q.771 – Q.774 TCAP
- Q.721 – Q.724 TUP
- INAP CS-1/CS-2
- GSM MAP
- CAMEL

#### Sigtran

- M3UA
- M2PA

#### Application

- SMPP
- SS7oIP

### Platform Specifications

#### Chassis

- 2 U high, rack-mountable chassis
- 19" (482.6 mm) or 23" (584.2 mm) rack mount
- Packet switching backplane
- 3 trunk interface module slots
- Up to 12 T1/E1s per platform
- Up to 48 transparent low speed SS7 links per chassis
- Up to 3 transparent ATM high speed links per chassis
- Chassis clustering
- Alarm status display module

- Telco alarm interface (dry/wet contact relay)
- 5 10/100 Base-T Ethernet ports
- Hardware/software status reporting

#### Power Supplies and Fans

- N+1 redundancy
- Hot swappable
- DC (-48V)
- A and B DC power feed

#### Trunk Interface Module

- Up to four T1/E1s
- Up to 16 transparent low speed SS7 links
- Up to 1 transparent ATM high speed link
- A, B, C, D, E, F links
- Channel associated signaling
- T1/E1, RJ-48C
- Hot swappable
- 3 10/100 Base-T Ethernet ports
- Drop and insert grooming
- Automatic link protection

- LED status indicators
- Rear transition module

#### Regulatory Compliance

- NEBS Level III certified
- ETSI 300 019 2-1 to 2-4
- CE
- FCC Part 15, Class A (CSA)

#### Temperature Range

- Operating: -5°C to +55°C (23°F to 131°F)
- Storage: -40°C to +70°C (-40°F to +158°F)

### Management Server

#### Architecture

- Centralized client/server
- Dual processor
- RAID 5
- Hot-plug hard drives
- Hot-plug redundant power supplies
- Java-based GUI client

#### Event Management

- Event filtering with audible event notification
- Hardware/software status reporting

#### Performance Management

- CPU and memory utilization monitoring
- Link status monitoring
- Detailed platform/server statistics

#### Security Management

- User-configurable multi-level security access
- User authentication and activity timeout
- Encrypted management interfaces

#### User management

- Concurrent users
- User messaging

## The Company: Helping carriers protect their revenue, subscribers and network

Sevis Systems helps communications service providers protect their revenue, subscribers and network through innovative signaling solutions. Founded in 1999, Sevis is an employee owned and operated company that is headquartered in Plano, Texas. Sevis' solutions have been purchased by some of the largest service providers in the world and are resold by globally-recognized equipment suppliers including Alcatel-Lucent. To find out more about Sevis and our unique solutions, please call us at **877.517.3847** or visit our website at [www.sevis.com](http://www.sevis.com). We look forward to working with you.