

## TCAP-SCCP-M3UA-SCTP stack with simplified configuration for non-distributed environments

### Overview

The Adax TCAP Microstack is available over M3UA and SCTP for a complete SIGTRAN solution for both mobile and intelligent network services. The death of SS7 as a mass market signaling protocol was predicted in the early 2000s, its headstone inscribed by industry and media commentators, but demand is growing and SS7 is resurgent due to a number of contributing factors. One major reason for this is that the reliability of SS7 has proven to be a major strength compared to that of the all-IP network and SIGTRAN (SS7 over IP) delivers the Quality-of-Service (QoS) and reliability paramount to achieving high service levels. Legacy connectivity for voice and SMS remains an absolute requirement for connecting media gateways, STPs, switches, databases and other telecom applications between legacy circuit switched architecture and IP networks and this also requires SIGTRAN.

Consequently the number of possible SIGTRAN protocol stack combinations and uses is growing for mobile and intelligent network services. In fact SS7 over IP is becoming so important that instead of being called 'legacy' SS7 is now referred to as 'traditional'!

### Adax Signaling Platform

If you are starting new application developments, perhaps for a virtualised environment or interworking product, need to upgrade to a higher-density and more reliable signaling solution, or want to add new interfaces Adax has a triple-play of Signaling Solutions:

- SS7 and SIGTRAN Protocol Software Modules and Stacks
- SS7 to IP Interworking Gateways and Appliances
- SS7 Signaling Controller Cards

All of these products meet and surpass the signaling performance and reliability requirements from POTS through 2G and 3G to 4G LTE and beyond. As a conference visitor recently commented: "The industry knows that if you want SS7 done properly you have to go to Adax".

### Features and Benefits

- Performance - the Adax TCAP Microstack delivers high performance and throughput with linear scalability, even with lots of small packets, offering a competitive price-performance ratio.
- Reliability – Adax SCTP/T provides the transport for the TCAP Microstack . No other SCTP can match it for real-time signaling applications delivering smooth and reliable service by:
  - Performing vigilant in-service quality monitoring of the signaling link
  - Detecting degradation of link quality at very short, programmable intervals
  - Providing redundancy via an enhanced version of multi-homing
- Scalability – The Adax TCAP Microstack can support up to 10,000 remote locations and up to 10,000 transactions per second, reducing cost of ownership and enabling systems to grow.
- Flexibility - the Adax TCAP Microstack can handle multiple configurations, including an MTP3 option, with easy migration from one configuration to another, enabling a whole host of interworking opportunities and providing protection of investment.
- Interoperability – The Adax TCAP Microstack is a fully integrated solution that is delivered with a comprehensive set of easy to use APIs for all protocol layers providing fast time to market for applications and services.

## Application Areas

The Adax Signaling Platform is the ideal solution for application developers providing:

- Value-Added Services
- Location-Based Services
- Number Portability
- Network and Protocol Interworking
- SMS-based applications such as mobile wallet and logistics
- IN and MAP-based applications, including HLRs, HSSs and EIRs
- NGN nodes, including MSCs, SMSCs and Softswitches
- Message Filtering and Firewall security applications
- Monitoring Tools and Probes
- Test and Measurement tools

## Standards Compliance

**SCCP** - ITU-T Q.711 (1996) including support for ETSI, ANSI, Japanese and Chinese variants

**TCAP** - ITU-T Q.771 (1997) including support for ETSI, ANSI, Japanese and Chinese variants

**M3UA** – IETF RFC 4666

**SCTP** – IETF RFC 4960

## The Adax Advantage – 30+ Years' Experience of Signaling

30 years ago Adax were the first to offload host-intensive SS7 MTP2 transactions to our board and the highly successful range of Adax HDC SS7 cards was born. Thousands of those boards are deployed today in networks worldwide and are now complemented in the field by the Adax SS7 and SIGTRAN protocol software and Signaling Gateway products.

Adax SCTP/T is the transport that powers all Adax SIGTRAN solutions and achieves levels of signaling performance and capacity that are unsurpassed in the industry. The attributes of the product that provide these levels of service include: Support for thousands of associations, protocol implementation in the OS kernel for accurate timer control and quick recovery, and multi-homing provisioning options that implement link monitoring and fail-over robustness and redundancy for IP signaling that rival the quality of SS7 narrowband and broadband networks.

SS7 isn't legacy – it's traditional! The resurgence of SS7 isn't an accident or a retrograde step, it has come about because SS7 is still the most robust, high performance, and reliable signaling solution out there and it's needed today more than ever.

## Other Products In The Adax Signaling Platform Series

Datasheets for other Adax products are available on request from [sales@adax.co.uk](mailto:sales@adax.co.uk) or visit [www.adax.com](http://www.adax.com):

- Adax SCTP/T – Robust and Reliable Transport Protocol Module
- Adax M3UA – SIGTRAN Protocol Module
- Adax M2PA - SIGTRAN Protocol Module
- Adax M2UA – SIGTRAN Protocol Module
- AdaxGW - Signaling Gateway for SS7 and IP Network Interworking
- HDC3 - 8 Trunk SS7 Signaling & I-TDM Controller

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**Adax** is an industry leader in high performance packet processing, security and network infrastructure for Legacy to LTE networks. Modular, scalable and flexible, the Adax LTE-EPC solutions, SIGTRAN and SS7 Signaling platforms, as well as the DPI, IPsec Security, and GTP acceleration products enable customers to build the solutions they need, creating a smarter network infrastructure for all.



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