telesoft

TDAPI SIGTRAN

Telesoft Technologies TDAPI SIGTRAN is a software-based protocol stack providing SS7-based signalling protocols over next-generation IP networks

With the growing diversity of networks it is important for equipment manufacturers to provide, and operators to have, solutions that allow them to connect to other external networks and at the same time meet certain performance criteria, i.e. availability and throughput. Telesoft Technologies' signalling capability and solutions are key elements in achieving this and in providing reliable and flexible functionality.

SIGTRAN is a suite of protocols used to transport real-time signalling, e.g. SS7, over IP networks. It is controlled by the IETF which has produced a number of RFC guidelines which allow SS7 to be successfully used in IP environments.

Telesoft's high-performance TDAPI SIGTRAN stacks allow users to port signalling applications, built for SS7 networks, to IP with minimum effort. The stack supports the same layer 4 protocol stacks and APIs as the MPAC Telephony Boards, allowing simple re-configuration of existing applications. TDAPI SIGTRAN is a software-based solution that runs on standard servers and requires no specialised hardware.

New TDAPI users will find the API easy to use and ideal for rapid application development. The stack is based on M3UA, the most commonly used adaptation layer, and can be configured to work in application server mode, in signalling gateway mode, or IPSP mode. The stack is telco grade supporting high availability systems, either load-share or back-up override.

Key Features

Application server mode, IPSP mode or signalling gateway mode	Software-only solution easier to install and maintain than SS7 signalling nodes
Uses same TDAPI API's as the MPAC Telephony Boards	Easily port existing SS7 applications to SIGTRAN
High performance	No specialised hardware required
Runs on standard servers, no need for specialist hardware	High throughput
Reduce point-code requirements by distributing signalling traffic over IP	Deployed worldwide

Applications

Signalling gateways	Protocol converters
Roaming services	Cellular network modes: GMSC, SMSC, HLR, MSC VLR/EIR etc.

Technical Specifications

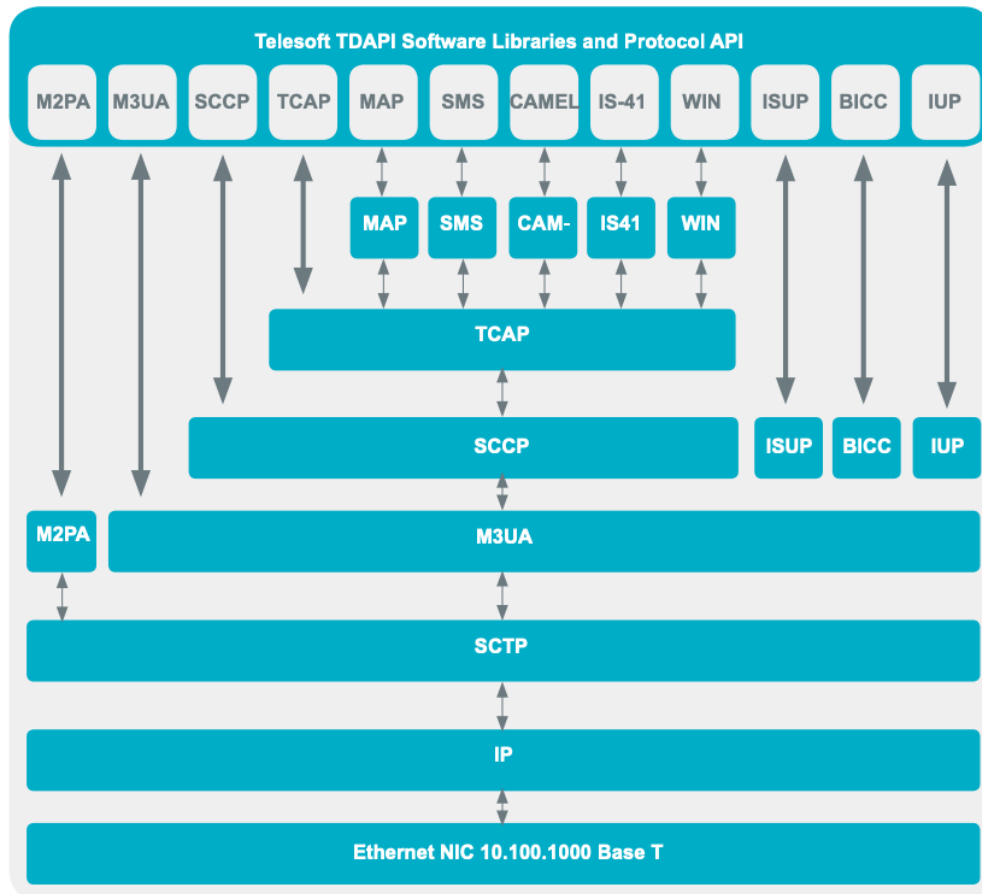|	
Protocols	• SIGTRAN protocol architecture (RFC2719) • M3UA (RFC 3332)
Performance	• 9000 TCAP transactions per second
Layer 4 Protocols Supported	• IS-41 WIN • MAP GSM • SMS • CDMA • INAP • CAMEL • BICC • ISUP
Operating System	Linux

User Applications

Telesoft TDAPI Software Libraries and Protocol API

| M2PA | M3UA | SCCP | TCAP | MAP | SMS | CAMEL | IS-41 | WIN | ISUP | BICC | IUP |

MAP | SMS | CAM- | IS41 | WIN

TCAP

SCCP   ISUP | BICC | IUP

M2PA   **M3UA**

SCTP

IP

Ethernet NIC 10.100.1000 Base T

DX-TDP-GEN-MK-DS-33047-05