# TNS Communication Application Server – (CAS) NGIN Platform

Communications service providers (CSP) continue to evolve their networks through digital transformation from legacy TDM to IP and from 3G to 4G LTE/5G resulting in rapid increases in significant bandwidth consumption and complex call volume.

Networks continue to carry more data and video traffic in order to cater to the needs of IP, video and mobile smartphone subscribers. This phenomenal growth is challenging and significantly altering core network requirements. Application Servers are the key components to meet these ever-transforming requirements and allow service providers to carry on monetizing their network investment.

TNS CAS is a unique multi-network intelligent network (IN) platform which communication service providers (CSPs) can deploy in their core networks offering a host of real-time use cases and provides robust solution to complex problems faced by them today.
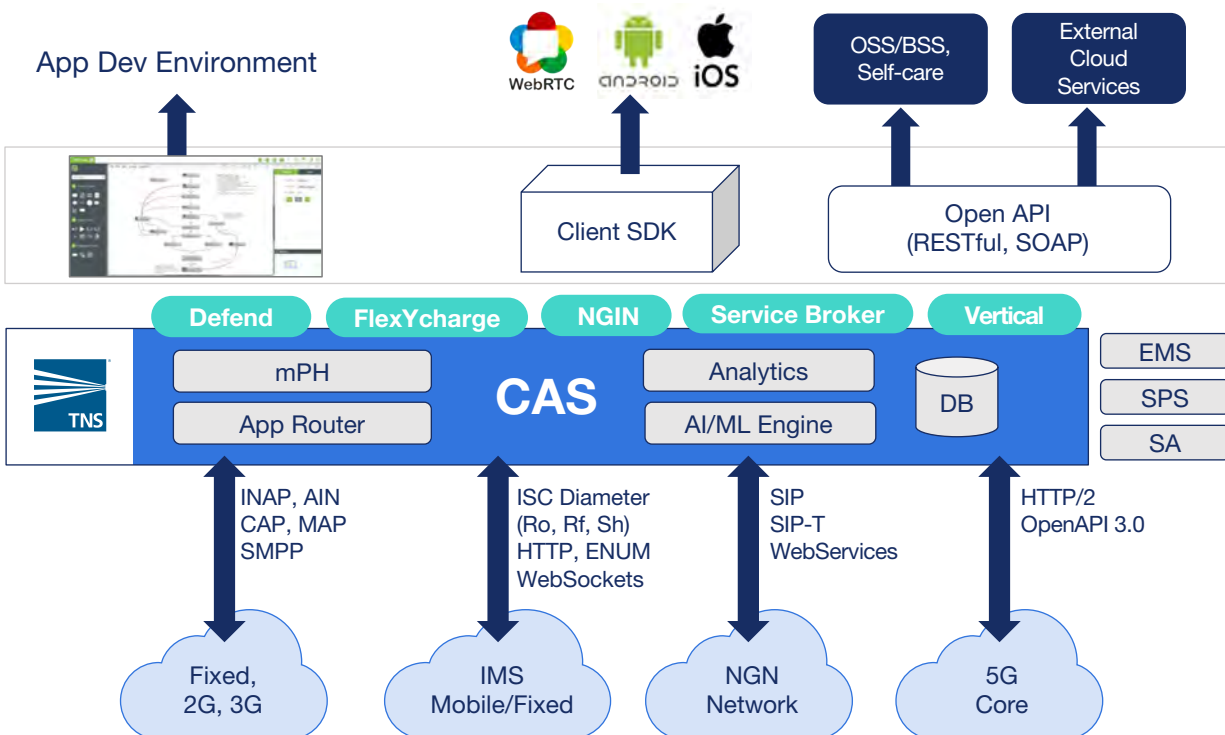
CAS Platform Highlights

Open Standard and Extensible Network

With multi-network and multi-application platform built using the open standards such as JSR289 and JAIN TCAP1.1, TNS CAS can be enhanced with new protocol interfaces enabled by its extensible connector layer.

Multi-Protocol Handler Support

Multi-protocol handler feature of CAS hides the protocol level complexity by providing abstract APIs to the application developers. This feature helps simplify and accelerate converged application development.

Application Router Support

Multiple applications may be deployed on a single instance of CAS. The Application Router controls the application triggering rules, and application chaining through the *Application Router*.

NFV and Cloud Native

Designed to run in NFV supporting multi-VNFs via generic VNFM. In addition, The CAS is hardware and cloud agnostic by packaging the platform components in Docker containers and container orchestration is accomplished using Kubernetes.

Artificial Intelligence Enabled

Robust AI engine coupled with machine learning components are supported by TNS CAS for deploying the AI-enabled applications.

Scalability/Reliability

Horizontal and vertical scalability is supported for call processing and component-provisioning nodes with high availability through local redundancy by N-active or 1+1 active/standby mode of deployment. A geo-redundant deployment in supported in both Active-Active and Active-Standby configurations.

Interfaces

TNS CAS supports these interfaces:

- SIGTRAN (M3UA), Electrical SS7 (MTP)
- INAP CS1, INAP CS2, NTT-INAP
- AIN 0.1, AIN0.2
- CAMEL v2, v3
- MAP
- ISC, SIP, SIP-T
- MSML, VXML (for MRF, IVR, ASR, TTS)
- Diameter (Sh, Rf, Ro)
- WebSocket
- HTTP
- SMTP
- SMPP
- ENUM
- LDAP
- SOAP XML APIs
- RESTful API

TNS CAS in Use Cases in Service Provider Networks

SCP Replacement

One of the most deployed of the TNS CAS use case is for legacy SCP replacement. CSPs can seamlessly retire their existing SCP in a very flexible and cost-effective manner, achieving 100% feature parity with existing applications and position their network for future NGIN expansion.

IMS Network Deployment

TNS CAS supports full integration with the core IMS. CSPs deploy NGIN and converged applications on the platform. Converged applications provide a path to service providers for seamless user migration from legacy to IMS networks.

Network Transformation

CSPs can deploy CAS as a single multi-purpose platform for hosting the converged and future NGIN applications. This deployment strategy consolidates applications from multiple disparate platforms to a single common platform simplifying on-going network maintenance and reducing operational cost.

Service Broker Support

The service brokering feature of TNS CAS allows CSPs to extend the life of their legacy platforms by providing mediation and orchestration function between old legacy SCP and IMS network entities.

Open API Support

TNS CAS has an extensible framework through northbound REST APIs for third party development. Utilizing this capability, the CSP can orchestrate app development using telecom network resources.

Vertical and Custom Applications

CSPs can create customized and vertical applications that are specific to a particular industry by using the extensible connector framework of the TNS CAS.

NFV and Cloud Native

TNS CAS flexibility to deploy as VNF in NFV stack or as container orchestrated using Kubernetes. Integrates with generic VNFM for elastic scaling and self- healing.

To find out more about how TNS can help you with a wide range of telecom solutions:

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