

## TTBS migrates to **Alepo's FIN platform** to power its enterprise voice services

The platform helps TTBS handle fixed-voice services like DNC and FPH/UAN three to five times more effectively.

### Operator Requirements

Alepo was charged with migrating TTBS's current production functionalities to a more responsive and scalable platform capable of supporting multiple fixedline services. Key requirements included:

- Migrating the 230-million subscriber base seamlessly with zero downtime
- Upgrading TTBS's platform to support a wide range of fixed-line IN services
- Rectifying errors raised due to non-compliance with Next Generation Networks (NGN)
- Adding more services to its portfolio, such as Click to Dial and CloudPBX
- Ensuring faster and more reliable data processing with a local and geo-redundant database
- Supporting smooth functioning with 24x7 technical assistance

### Project Background

Tata Tele Business Services (TTBS) is India's leading enabler of digital connectivity and cloud solutions to enterprises, with a wide portfolio of ICT services in the country and operations in more than 60 cities. Its offerings also include collaboration, security, IoT, and marketing solutions.

TTBS provides a range of fixed-line enterprise voice services like Toll-Free Phone (FPH), Universal Access Number (UAN), Do Not Call (DNC), International Long Distance (ILD). To bolster these services, TTBS decided to upgrade its Fixed-Line Intelligent Network (FIN) platform that had reached end-of-support and end-of-life. The service provider wanted to implement a robust platform that delivers geo-redundancy to avoid reliance on a single site.

TTBS was in need of a partner to secure core investment protection. It wanted to migrate existing subscribers, features, and functionalities seamlessly while expanding its capabilities to meet evolving business needs. After evaluating several partners, TTBS chose an advanced and scalable FIN platform from Alepo.

### Alepo Solution

Alepo's FIN platform supports a wide range of enterprise voice services. With Service Control Point (SCP) as a core

component, it includes universal access number, do-not-call, and toll-free facility including interactive voice recognition (IVR). The solution also includes web-based administration, which can self-monitor and is further supported by Alepo's technical assistance center.

Alepo deployed the following components:

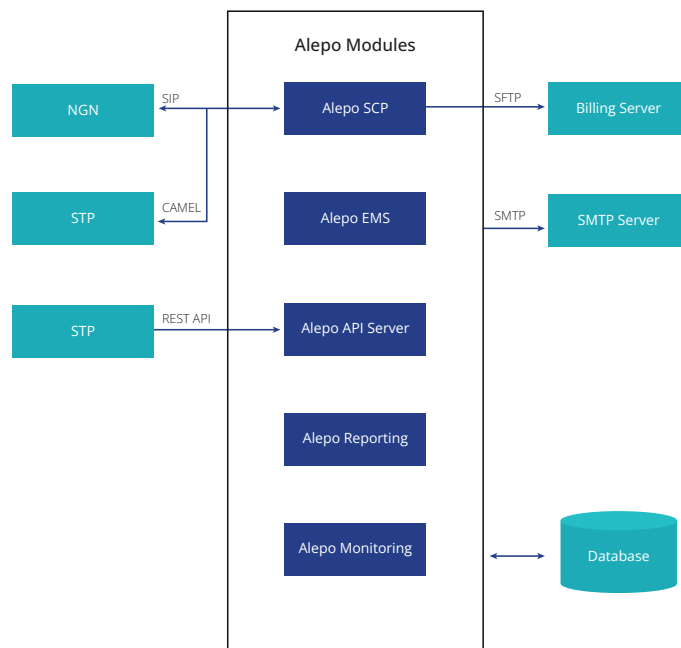
- Alepo SCP handles:
  - Toll-free phone services with a host of call routing features
  - UAN for chargeable phone services
  - Do-not-call service for scrubbing data for the operator's large telemarketing clientele
  - ILD services to allow or restrict call functionality to certain countries
- Alepo IVR and media gateway (MGW) to handle IVR announcements
- CloudPBX to manage call hunting, conferencing, CLID, call recording, IVR, and more
- Click to Dial to initiate calls and patch two parties – usually a customer and a customer service agent – by a button click from the website GUI

Other key modules include:

- Alepo Enterprise Management System (EMS)
- Reporting and extensive all-in-one-screen monitoring using ICINGA
- API server
- Redis in-memory database for the SCP to process calls rapidly
- Integrations with legacy billing server, SMTP server, and IT provisioning system

## Solution Highlights

TTBS migrated its massive subscriber base to the new FIN platform to secure its future business. The seamless migration and upgrade helped meet the evolving demands of enterprise/SMEs and market, enhancing its flexibility to introduce new services. With increased capabilities in web-based administration and self-monitoring, Alepo's India-based technical assistance



**Solution Architecture**

center ensures the smooth functioning of TTBS's fixedline network services. Solution highlights include:

### **Local and geo-redundant database**

Locally redundant database asynchronously replicates data to three different storage nodes, ensuring a more reliable processing system, seamless backups, and faster recovery from common issues such as disk or node failure.

### **Seamless integration with NGNs**

Alepo SCP addressed all the changes that occurred due to the non-compliance of NGNs with different behaviors. With the end of support for NGNs, Alepo tailored changes to SCP endpoints for each NGN instead of modifying NGNs to introduce a standard behavior, making the SCP compliant with all NGNs to enable smooth integrations.

### **Upgraded call routing**

Nine different types of routing logic based on various scenarios or call conditions such as time of day, area group, and ratiobased routing have been added to the system.

## ***No major network or ecosystem upgrades***

Alepo's API access to TTBS's CRM helped quickly define routing changes, service configuration, and other settings without any major changes to the existing network ecosystem.

## **Project Outcomes**

### ***Improved scalability and responsiveness***

The Alepo FIN platform can handle three times the previous DNC load and five times the FPH/UAN enterprise subscriber base. At thrice its previous capacity, the platform can handle 1,000 CAPS (call attempts per second). Also, the regular DNC updates in the legacy program that took up to six hours are now updated in under five minutes.

### ***Seamless database migration***

The entire subscriber base of 230 million was seamlessly migrated to Alepo SCP. The database of 15K toll-free enterprise subscribers was migrated without any drop in connectivity.

### ***New service capabilities***

TTBS is future-ready to introduce services like CloudPBX and Click to Dial, which will help generate more revenue.

## **Glossary**

**SCP:** Service Control Point

**IVR:** Interactive Voice Response

**FIN:** Fixed-Line Intelligent Network

**MSC:** Mobile Switching Center

**STP:** Signal Transfer Point

**HLR:** Home Location Registrar

**BTS:** Base Transceiver Station

**BSC:** Base Station Controller

**PBX:** Private Branch Exchange

**MG:** Media Gateway

**EMS:** Element Management System

**NGN:** Next-Generation Network

**FPH:** Free Phone

