TMA solutions

CLASS 4 FIXED NETWORK TRANSFORMATION

#1 telecom software company in Vietnam

TMA COMPETENCIES

Overall Telecom Competencies

- 22 Years of Experiences with NGN Solutions
- Best in Telecom Software Services in Vietnam
- Trusted by World-Class Telecom Service Providers: Ribbon, Avaya, Hitachi, Cirpack, Mitel
- From Specs/Reqs analysis, Design, Implementation, Testing to Deployment, Maintenance and Support
- Flexible business model - FTE, Project-based
- Experienced Resource Pool, Easy to Scale

Class 4 Fixed Network Transformation Competencies

- Solid knowledge about Call Session Controller, MGC, MG, SBC, CRE(Centralized Routing Engine),IMS with 10+ Years of Experiences in Fixed Network Transformation RnD
- Core Technologies: Class 4 Softswitch, IMS, Virtualization, NFV
- Standardized Model for Automation, CI/CD

WHY WE NEED TRANSFORM NETWORK

Legacy network infrastructure:
- Expensive to maintain
- Difficult to extend
- Past lifecycles, and posing risks

Network Transform

- Cost reduction
- Accelerate time to market
- Enable new IP services to stay competitive in the changing industry landscape

OUR SERVICES

Engineering, Design and Development
- Defect resolution and management
- New Features development and Releases management
- Plus CI/CD enabling in Development process

Full Testing Services
- All Testing types including Inter-opt, Performance and Security testing
- All Platforms from Appliance to Software Edition to Cloud-based
- By Manual, Automation and Continuous Testing

Professional Services
- Resolve and maintain customer issues based on SLA
- Support PoC/Demo and System/Solution Deployment on class 4 network transformation with:
  - Tandem IP network transformation
  - IP SS7 Signaling transformation
  - IMS transformation
- Develop In-Service Migration and Upgrade procedures

TECHNOLOGIES

Frameworks and Solutions

- **Automation Framework:**
  - TMA Automation Framework, Robot Automation Framework, TMA Automation Analysis Tool
- **Design Solution:**
  - Languages and Frameworks: C/C++, Java, Perl, Scripting
  - High Availability Solutions
  - Cloud/NFV Enabled
- **Standardized CI/CD model:** Jenkins, Pipelines, Docker, IaC, Coverity, Continuous Testing

Technologies

- **Domains:**
  - NGN (Softswitch, IMS), PSTN, SS7, 4G/LTE, 5G
- **New Technologies:**
  - Virtualization, NFV, Cloud
- **Protocols Stack**
  - ISUP, SCCP, TUP, TCAP
  - Sigtran, MTP2, MTP3, M3UA, M2UA, M2PA
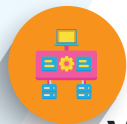 - SCTP, TCP, TLS, IPv4, IPv6, IPSec

Tools

- **Testing tools:** HP QC, Atlassian Suite (JIRA, Confluence, Crucible, BitBucket), Wireshark, TCPdump, SSH/Putty, SmartBits, SIPp, Spectra2, GLComm, FaxLab
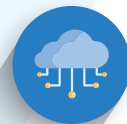- **Security tools:** Nessus, Codenomecon, NMAP
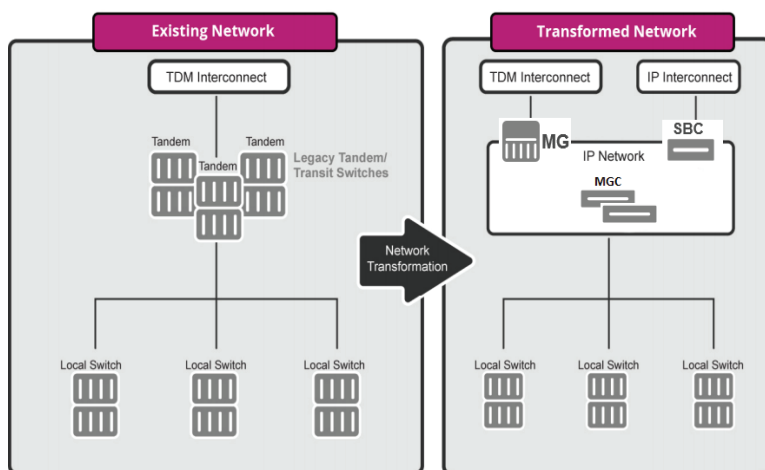
Platforms

Linux: RHEL

Virtualization: KVM

Cloud: OpenStack, AWS

CASE STUDIES
TANDEM IP NETWORK TRANSOFRMATION

Description

▸ Provides full testing services of tandem switching solutions based on powerful voice-over-IP platforms deployed globally in legacy TDM, hybrid TDM/IP, and IMS configurations

▸ Migration from TDM to IP SIP Peering

▸ Centralized routing

▸ Signaling & Media Interworking, Transcoding & Transrating

▸ Interconnect services to Communication Providers (CPs), mobile & fixed

Services

Deployment

Auto & Manual IOT Test

Regression testing

Customer Support

Technologies:

Platform:
RHEL, Openstack, NFV, VNF

Functions:
SIP, IWF, SS7, SG, SBC, CRE

Protocol Stack:
SIP, ISUP, BICC, IUP, SIGTRAN, M3UA, DNS

Tools:
Spectra2, GLComm, FaxLab, SIPp