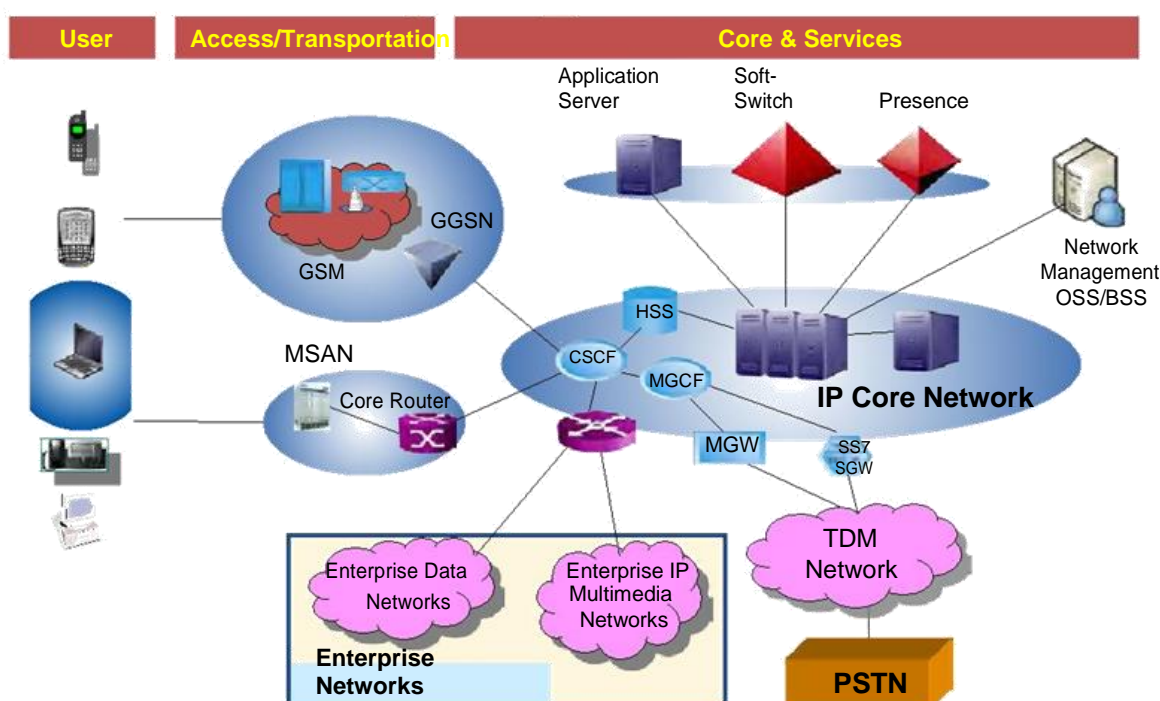


Telecom Testing Services

- ✓ **800+** telecom test engineers
- ✓ **19+** years of experience providing telecom testing services
- ✓ Clients include many world leading telecom companies such as: Avaya, Alcatel – Lucent, Genband, Amdocs, Shoretel, Nortel, IBM, NTT, NEC
- ✓ Many projects involving:
 - 50 – 300 engineers
 - Teams in different time zones
 - Demand for a diverse set of skills and technologies
 - High availability and reliability for mission critical applications
 - Multi-year engagement



Technologies

VoIP Technologies	VoIP, NGN, IMS, MPLS, ISDN, PSTN, VRRP, MGCP, SIP, RTP
Wireless Technologies	GSM, GPRS, CDMA, UMTS, 802.11-WiFi, 802.16-WiMAX
Signaling & Protocols	SIP, H.323, H.248/MEGACO, SS7/CCS7, Codecs, ISDN
Network Management	SNMP
Applications/Services	IMS Core, SIP, RTP, RTSP, HTTP, SSH, DHCP, SNMP, Unified Communication, Contact Center, Audio Voice Services
Layer3 Protocols/Routing	ICMP, BGP, ISIS, MPLS, OSPF
Layer2 Protocols	1483 Bridge Group, ARP, STP, L2TP, PPP
Infrastructure/Security	ATM, TCP/IP, LAN/VLAN, NGN, MPLS, IPv6, IPSec, SSH

Test Tools

Test Case Tracking Bug/Defect Tracking	<ul style="list-style-type: none"> • TCAT, Quality Center, Clarify, Remedy • Team Track, ClearQuest, Bugzilla • JIRA, Redmine, Problem Reporting System (PRS)
GUI Test	<ul style="list-style-type: none"> • QTP, Silk Test, QA Run, Robot Test
CLI Test	<ul style="list-style-type: none"> • TCL/Tk/Expect, Perl, Awk, Java, Unix shell, Fanfare
Automated Testing Tools	<ul style="list-style-type: none"> • LoadRunner, Apache Workbench, Test Director • Mimic, Nessus
Test Tools	<ul style="list-style-type: none"> • IXIA, SmartBits, Ameritec, Hammer • SIPP, Hurricane, NES, Fortissimo
Instrument Control	<ul style="list-style-type: none"> • MatLab, Labview
CATT Automation Tools	

Testing Services

Test Strategy

- Testing approach
- Objective
- Resource
- Environment

Test Solution, Planning and Design

- Test lab building
- Test plan and test suite definition
- Test case generation
- Test script development

Test Execution and Reporting

- Sanity test and first level of verification
- Feature Test
- Integration & system test
- Performance test
- Regression test
- Compatibility test
- Acceptance test
- Installation & upgrade test
- Localization test
- Bug/defect support
- Optimization and report

Full Product Verification Support

- Manage all aspects of product testing

Sample Telecom Testing Projects

- Enterprise Communication Systems
- Carrier VoIP and Applications
- Multimedia Applications
- Service Edge Router
- Access Management System
- Element Management System
- Network Management System
- Network Performance System
- Common Element Management System
- Blade Networks
- Broadband Access
- Firewall & Web Switching



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