Your Quality Partner for Software Solutions

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

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

<table>
<thead>
<tr>
<th>Test Case Tracking</th>
<th>Bug/Defect Tracking</th>
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</thead>
<tbody>
<tr>
<td>TCAT, Quality Center, Clarify, Remedy</td>
<td>JIRA, Redmine, Problem Reporting System (PRS)</td>
</tr>
<tr>
<td>Team Track, ClearQuest, Bugzilla</td>
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<tr>
<td>GUI Test</td>
<td>QTP, Silk Test, QA Run, Robot Test</td>
</tr>
<tr>
<td>CLI Test</td>
<td>TCL/Tk/Expect, Perl, Awk, Java, Unix shell, Fanfare</td>
</tr>
<tr>
<td>Automated Testing Tools</td>
<td>LoadRunner, Apache Workbench, Test Director, Mimic, Nessus</td>
</tr>
<tr>
<td>Test Tools</td>
<td>IXIA, SmartBits, Ameritec, Hammer</td>
</tr>
<tr>
<td>Instrument Control</td>
<td>SIPP, Hurricane, NES, Fortissimo</td>
</tr>
<tr>
<td>CATT Automation Tools</td>
<td>MatLab, Labview</td>
</tr>
</tbody>
</table>

## 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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