

# SOFTWARE TESTING

## ■ End-to-End Testing Services

QA Solutions End-to-End Testing	<ul style="list-style-type: none"><li>• Testing consulting</li><li>• Product quality assessment</li><li>• Full product verification support</li><li>• Test solution and strategy</li><li>• Test plan and test case development</li><li>• Test lab/test environment setup</li><li>• Defect management</li></ul>
Test Planning & Execution	<ul style="list-style-type: none"><li>• Unit Test</li><li>• Integration Test</li><li>• Functional Test</li><li>• Regression Test</li><li>• Traffic Test</li><li>• Performance and Robustness Test</li><li>• Installation, Upgrade and Migrate Test</li><li>• Configuration Test</li><li>• Usability and Accessibility Test</li><li>• Security Test</li><li>• Compatibility Test</li><li>• Localization Test</li><li>• Platform Test</li><li>• Integrated System Test</li></ul>
Test Automation	<ul style="list-style-type: none"><li>• Test automation design</li><li>• Test script development</li><li>• Test scripts execution and result analysis</li><li>• Test automation framework customization</li></ul>

## ■ Why TMA?

- **17+** years of experience in providing software testing services for leading companies worldwide
- **700+** test engineers
- Available test automation frameworks for **Web, Mobile, Telecom/Networks**
- **Independent** test center
- Experience in **large & complex projects**

## ■ Areas of Expertise

<b>Telecom &amp; Networks</b>	<ul style="list-style-type: none"> <li>• Soft Switch, Carrier VoIP</li> <li>• PBX and IP Telephony Systems</li> <li>• Unified Communications</li> <li>• Unified Messaging, Contact Center</li> <li>• Billing, BSS/OSS, Network Management</li> <li>• SIP, IMS, IPv6, WebRTC, 4G LTE</li> </ul>
<b>Business Applications</b>	<ul style="list-style-type: none"> <li>• CRM</li> <li>• E-commerce, Retail and Distribution</li> <li>• Finance &amp; Insurance</li> <li>• Healthcare</li> <li>• Education</li> <li>• Hospitality</li> <li>• Media &amp; Publishing</li> <li>• Logistics &amp; Transportation</li> </ul>
<b>Mobile Applications</b>	<ul style="list-style-type: none"> <li>• iOS, Android, Windows Phone 8, BlackBerry, HTML5</li> </ul>
<b>Cloud Applications</b>	<ul style="list-style-type: none"> <li>• Windows Azure, Google App Engine, Force.com</li> <li>• Amazon Web Services, Amazon EC2, Rackspace</li> </ul>

## ■ Test Tools

### Test case tracking & Bug/ Defect tracking

- TCAT, Quality Center, Clarify, Remedy
- Team Track, ClearQuest, Bugzilla
- JIRA, Redmine, Problem Reporting System (PRS)

### GUI test

- QTP, WinRunner, Silk Test, QA Run, Robot Test
- Selenium, Sikuli, AutoIT

### Instrument control

- MatLab, Labview

### Automated testing tools

- LoadRunner, Apache Workbench, Test Director
- Mimic, Nessus

### Mobile testing

- Calabash, LogCat, Mobile Log, Device Log Viewer
- SOAPUI, REST Client, SBSetting, Pylot, Grinder

### Performance and Traffic test tools

- IXIA, SmartBits, Ameritec, Hammer
- Hurricane, NES, Fortissimo

### CLI test

- TCL/Tk/Expect, Perl, Awk, Java, Unix shell, Fanfare

**YOUR QUALITY PARTNER FOR SOFTWARE SOLUTIONS**