

NOUS INFOSYSTEMS

Capability Document – Router Testing

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ABOUT NOUS

Nous Infosystems (Nous) is an SEI CMMi Level 4 and ISO 9001:2000 certified Global Information Technology Solutions Company, with expertise in providing quality software solutions across a broad spectrum of technologies. Since its inception in 1996, Nous has grown into a multinational company that focuses on deploying technology to meet customer's business needs. Nous provides its services through its offices in New Jersey, London, Mainz and Sydney, and supports these services from its offshore center in Bangalore.

Nous has been a proven and reliable partner for its clients; offering services in multiple facets of software development including application development, software product development, re-engineering, database transformations, application upgrades and data processing. Nous also provides 24*7 remote support services for monitoring, troubleshooting and general administration of databases, systems and networks, in addition to application / product support. Nous also has a Testing services division and has expertise in testing Client-Server, Internet/E-Commerce, and Networking & Telecom Software.

The main focus area for Nous is offshore services, which would offer cost effective and flexible solutions to clients looking for software development, maintenance and support services.

TESTTREE – NOUS' TESTING DIVISION

Testtree is a team of software testing professionals which has extensive expertise in software testing automation and performance engineering. Testtree has worked with a variety of software product development companies in the Banking and Finance, Telecom, Gaming and Healthcare verticals to effectively plan and execute their software testing strategies. Being a Mercury Gold Partner, Testtree has been adept at adding value by automating a large part of the testing lifecycle.

TesTree's range of services includes:

- Framework driven Test Automation
- Load and Stress Testing using open-source and industry standard tools
- Online Games Testing
- Security Testing & Network Testing
- Compatibility Lab Services
- Software Verification (Design & Code review) and Consulting Services

NOUS' TESTING TOOLS EXPOSURE

Nous' expertise with Routers and Router Testing

Nous' resource pool on Router testing consists of 3-6 years experienced testers with various certifications such as CCNA, CCPA.

Nous' resources has worked on several projects and has the expertise on the following routers:

- TCP/IP, RTP, MGCP, STP, RSTP, Softswitch, SCP, Cisco Routers, RIP, IGRP, EIGRP, OSPF, BGP, WAN Protocols like Frame-relay, PPP and ISDN, IPSEC, SNM

Router Testing skills:

Network Testing, Testing & QA of Networking products, CCNA, CCNP, Linux, HP-UX, Switching, Routing. Layer-2 and Layer-3 standards and protocols, RMON, SNM, cisco pix, Checkpoint ng, ipsec, and VPN.

Other Testing Tools

Below is a list of industry standard tools that Nous' resources have exposure in. Other than this, Nous' resources also have extensive experience in Open Source tools.

TYPE OF TOOL	TOOLS TO WHICH EXPOSED
Test Results management	Rational Test Manager Test Director
Defect Logging and Tracking & Analysis	Rational ClearQuest PVCS Tracker
Load Testing	Load Runner (Mercury) Team Test (Rational) Web Load (RadView) JMeter/OpenSTA WAS (Web Application Stress) Tool
Regression Testing	WinRunner (Mercury) QTP (Mercury) Team Test (Rational) Silk Test (Segue)
Automation Testing Tool	Test Complete
Test Coverage	Jester PurifyPlus

Debugging Tools	Platform specific debugging tools like Eclipse & NetBeans
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SAMPLE CASE STUDY

Router Testing Services

This IPv6 Router from a leading fortune 500 company is specifically designed for Korea Telecom Company.

Testing of the IPv6 Router were based on the following features

- Routing Information Protocol [RIP]v1, V2, ng
- Open Shortest Path First [OSPF]v2, v3
- Border Gateway Protocol [BGP4+]
- Network Address Translation - Protocol Translation [NAT-PT]
- Access Control Lists [ACLs]
- TAHI - IPv6 Conformance testing
- IPv6 Ready Logo
- IPv4 and IPv6 Packet Filtering

The testing covered:

- Functional testing
- Protocol conformance testing
- Interoperability testing
- Regression testing
- Performance testing

Nous team was involved in setting up Test Environment for Unit and System Testing. The team prepared the Test plan and the Test cases for all the features mentioned. Nous' team was involved in Design and Review of System Test Schedule for execution Lab set-up (router setup and configuration) and actual system testing of Routing protocols, Transition mechanisms, Packet Filters and IPv6 Applications.

For interoperability testing the following Routers and Router Testers has been used:

- CISCO GSR
- CISCO 7200 Series
- CISCO 3600 Series, CISCO 6500 series, CISCO 7600 series
- Hitachi GR2000
- AX/4000
- Smart Bits 2000, 600 for Packet Generation and Routes generation
- Juniper M5 Series, IXIA 1600T
- Tera Routing Tester (Spirent communications)

The tests were executed based on various network scenarios given by the end client. Nous' team was a part of the all the reviews and discussions with the development team on the project. The team prepared a special list of WLAN features supported by different companies such as Aruba, Airespace, CISCO, Logitech, Lucent to the client for the next project in IP Lab.

Critical bugs were identified and reported the same in Distributed Defect Tracking System (DDTS) time to time, which brought client accolades to the team.