

# Second Foundation, Inc.

## *Representative Project Summaries*



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### Systems Software, Internetworking and Telecommunications QA

#### SVR4.2 OS

Formulated Test Plan, and performed test automation for functional, load/ stress and regression testing of OS for major server / OS manufacturer.

Also responsible for Third party compatibility QA of new SMP compliant SVR4.2 releases. This meant testing of actual third party applications on the OS. Worked with customer to establish a typical profile of applications that would be deployed on the server. Generated overall systems test plan. Obtained QA suites (usually in a very preliminary form) from the manufacturers. Significantly modified and enhanced the test suites and automated them for "push button" regression-testing.

#### RDBMS

Responsible for QA of RDBMS components and tools which were ported across multiple UNIX platforms. Formulated test plans, and developed automated tests. Did extensive debugging of ported code, including identifying whether problems encountered were global (i.e. across all platforms) or platform-specific (i.e. specific to one or more platforms).

#### Routers

Responsible for QA of routers for major internetworking and telecommunications equipment manufacturer. Formulated test plans and devised test procedures. Set up router test bed. Tested RIP at protocol level. Performed test automation using C, Tcl/Tk, Expect and shell scripts.

#### IP over ATM

Performed QA and test automation for Sun's classic IP over ATM. Configured Cisco switches, and verified successful operation of routing packets via RIP and HELLO.

Analyzed RIP packets at protocol level. Also diagnosed / tested ARP, RARP, IP, ICMP, IP,

etc. packets for both IP and IPv6.

#### SS7

For major European Telecom company, studied the ITU standards for Transaction Capabilities layer of SS7 stack. Designed the test plan for the Application Specific Entity for the Completion of Call to Busy Subscriber. Coded the test cases according to the test plan. Validated the messages and various parameters for ISUP, INAP, TCAP and DSS1. Prepared the test plan conforming to France Telecom specification and ITU standards for INCS1. Used TCAP standards Q.771-Q.775.

#### Q.931

For major European Telecom company, Verified test plan in conformance with customer specs and Q.931 for layer 2 and layer 3 messages. Validated DSS1 protocol messages for ISDN subscribers.

#### GSM

Developed software to test the performance of a GSM network using a fixed line network as a comparison. PSTN connectivity was through MSC. The failure rate of the GSM network was calculated following a counter update and was subtracted from the total failure rate to output the desired result.

#### Second Foundation

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