

The Client

Telecommunications Company

Industry

Telecommunications

The Business Challenge

During the development cycle of a L2/3 Ethernet Switch, the product verification takes up a considerable part of the overall project time. It starts in the early stages of the project with the formulation of the test strategy, test planning and continues with the execution of the test plans, defect analysis and risk assessment. The Product Verification (PV) team works closely with the development team to understand and validate the requirements and come up with the appropriate types of testing, test environments requirements, key milestones etc.

The PV team starts working after the unit testing is completed by the development team and certain criteria are met, as specified in the test strategy. The stages of the verification comprise the functional testing, system testing, regression testing and other non-functional testing like performance, scalability, stress etc. The progress/productivity reports are generated on a weekly basis to monitor the quality and risks as well as meeting the milestones.

After each feature of a product is verified against the specification files, provided by the development team, and the existing standards, it is very important to test the system interaction of all the features that make up a client solution under normal and overloaded traffic conditions.

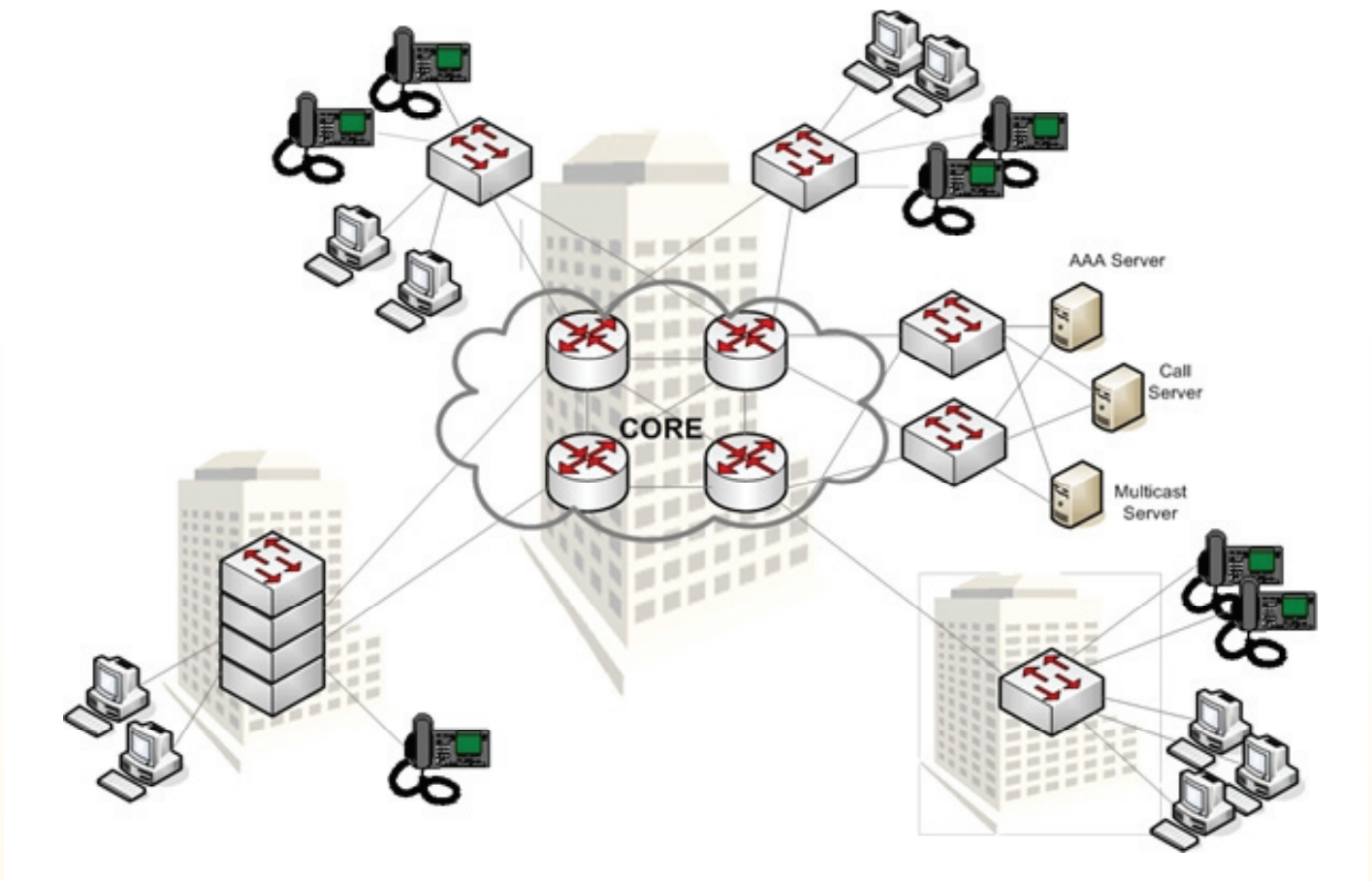
Luxoft was selected to work jointly on developing the testing setups for the product verification process.

The Solution

PV team, together with the client designed and built several test system setups to verify:

- System interaction of all the features and interoperability with other products
- End-to-End Solution meets the customer expectations and demands
- System behavior under heavy traffic; capacity and overload conditions

These setups are simulation of real networks, involving the devices under test (L2&3 Network Switches), IP phones, servers, PCs and, if necessary, traffic generators (Spirent or Ixia). The network design is done with respect to a solution architecture which is usually requested by the client, the ultimate goal of the system testing being to replicate a customer setup.



Benefits

- The testing is performed in the same, or very similar conditions to the actual client's site, validating the design of the solution and verifying the system interaction of all the features involved
- The product resiliency and reliability are evaluated in a true customer solution configuration
- Upgrade, backwards compatibility and rollback procedures as well as robustness and stress testing are performed in a 'real life' network
- Issues reproducible only in complex/customer specific scenarios can be detected easier in the simulated system network and addressed before the release of the product
- Once being built, the system setups are easy to be modified or expanded for future software releases of the same product

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