Implementing High Performance Test Labs

Test Optimization Solutions for High Performance Test Labs

Introduction

High performance network and application test labs are critical for equipment manufacturers, service providers, and enterprises. These test labs often represent the last step before a new product or service is released and can begin producing revenue. Left unchecked, high performance test labs run the risk of becoming inefficient in terms of resource utilization, test cycle time, and capital and operational expenditures. This is due to the inherent complexity in maintaining a lab where the latest technology is validated and previous revisions need to be regression tested. By reversing this natural tendency toward inefficiency with a test optimization solution, high performance test labs can operate at peak efficiency, which results in significant savings in both CAPEX and OPEX.

Challenges Faced by High Performance Test Labs

High performance test labs become more complex over time. As new products and services are developed, the lab requires test tools and infrastructure to meet the testing demands of higher bandwidth and more feature rich applications. Additionally, the high performance lab is often tasked with validating products and services on a variety of platforms. This mix of expensive test tools and platforms drives the need for efficient tool sharing, fast topology changes, and innovative ways to conduct more thorough testing.

NetScout High Performance Test Lab Solution

NetScout delivers a proven solution for optimizing high performance test labs. By providing easy to use, intelligent, scalable technology at the lab’s logical core, high performance labs can increase test tool utilization, reduce cycle time, and reduce CAPEX and OPEX.
This innovative approach combines layer 1 switching with layer 2-4 intelligence in order to provide functions such as test stream aggregation and rate conversion, or providing a tap with a filtered data feed for analysis. This functionality can be provided via a software interface and without requiring physical access to the lab.

NetScout Test Optimization Benefits

The NetScout nGenius® 3900 Series Packet Flow Switch, along with our TestStream™ Management Software, provides the ideal platform to enable high performance test labs to meet the key objectives of increasing utilization of all resources, reducing cycle time for tests, and realizing significant savings on CAPEX and OPEX.

A Test Optimization Solution from NetScout Can Help:

Increase Utilization
- Effective sharing of test tools across all test beds
- Fewer devices, higher efficiency, and optimized packet flow
- Less downtime and reduced errors during testing and reconfiguration

Reduce Time
- Execute topology moves, adds and changes instantly and reliably
- Reduce personnel time and prevent errors during reconfiguration and troubleshooting
- Enable troubleshooting and diagnostics on demand

Save Money
- Reduce capital costs with more equipment and tool sharing
- Lower operating costs through increased performance and automation
- Improve quality of lab tests to discover problems before going live

Traditional Labs

![Traditional Labs Diagram](image1)

NetScout Solution

![NetScout Solution Diagram](image2)

Figure 1: As requirements grow in traditional labs, significant investment is required to support additional equipment to satisfy multiple protocol and speed requirements. As complexity continues to increase, allotted timeframes and resources are shrinking.

Figure 2: A NetScout High Performance Test Lab solution enables increased utilization of existing resources and remote configuration and management. Such a solution increases the efficiency of test tools and lab resources. It also enables layer 2-4 functionality to further increase lab performance.

For more information, please visit www.netscout.com or contact NetScout at 800-309-4804 or +1 978-614-4000