NETSCOUT™

The Economic Benefit of NetScout Network Infrastructure for Test Automation and Testing as a Service (TaaS) Applications

Overview

Business Challenge

- Perform critical testing while working within the confines of a limited budget and existing resources
- Improve poor utilization of existing resources, often below 20%
- Find a solution that will scale for future speeds and test lab expansion
- Increase investment protection of expensive test infrastructure

Solution

- nGenius® 3900 series packet flow switch and Horizon™ Management Software

Business Results

- Reduced testing expenses by more than 44%, achieving ROI in less than 6 months
- Increased equipment sharing
- Decreased test cycle times by more than 75%
- Enabled a 3x increase in potential test throughput to release more products in less time
- Implemented a scalable platform for future growth

Testing hardware and software can be a very time consuming and resource-intensive process. The underlying network infrastructure must be agile and able to meet the most rigorous operational and business demands. The optimal test automation solution increases reliability and availability while significantly accelerating time to market and reducing costs.

Business Challenge

Test infrastructure poses significant operational and business challenges for most organizations. From an operational perspective, manual testing is cumbersome, slow, and inefficient. Expensive test tools are often poorly utilized. Manual operations are especially error prone and require a significant amount of intervention. As the number of configurations or size of the test environment grows, the resulting complexity can increase to unmanageable proportions. Providing for remote access and follow-the-sun operations with a manual infrastructure is a huge scheduling challenge, requiring resources to be available on-demand, regardless of the day or time.

From a business perspective, manual testing is expensive in terms of both operating and capital equipment costs. Manual operations are inefficient, because expensive resources are consumed with simple repetitive operations. Furthermore, with the wide variety of hardware and software required, manual test environments demand multiple, separate teams to configure, operate, and maintain the test infrastructure. Because manual-based systems don't allow for effective sharing of equipment, enterprises must maintain and manage extensive, often redundant inventories of expensive equipment to support the testing organization.

Solution

Deploying an automated test infrastructure enables enterprise testing environments to achieve new levels of efficiency in test automation while realizing significant operational and financial benefits.

Test network infrastructure is made more agile and simple using automation software that conforms to existing workflow procedures. By providing for the programmatic configuration of test infrastructure, enabling automated moves, adds, and changes to the test environment results in streamlined operations, reduced test times, and greater test throughput.

Having a secure, reliable, and automated network infrastructure is critical for testing environments ranging from dozens to thousands of connections. Embedded instrumentation provides monitoring, logging, and diagnostic capabilities with the ability to quickly save and restore network configurations (connection sets), making test operations much more agile, while ensuring reliability and repeatability.

An automated test infrastructure provides very significant business benefits. Providing for the sharing of equipment and resources reduces redundancy and dramatically increases utilization and the return on equipment investments.

The ability to efficiently scale to larger configurations as well as support current and future testing is required in order to deliver significant long-term investment protection.

Analysis

To automate their medium-sized test environment, an equipment vendor utilizes nGenius 3900 series packet flow switch, 144-port solution for test automation. Prior to the nGenius 3900 series packet flow switch, it took one test engineer approximately 13 hours per test configuration.

Results

Implementing the nGenius 3900 series packet flow switch saves the firm considerable expense by significantly improving their testing efficiency while reducing both OPEX and CAPEX. Reducing test cycle times by over 75% (from 13 hours to 3 hours) enables them to more than triple their test throughput. The resulting 47% reduction in expenses results in a payback period of less than 6 months.

Conclusion

The nGenius 3900 series packet flow switch delivers significant operational and financial savings for high-performance test automation applications. By utilizing the industry's most scalable and secure technology, the efficiency, productivity, quality, and scale of an automated test infrastructure can be dramatically improved – saving valuable time, space, power, and money.

Input	Before (Manual)	After (with NetScout)
Number of tests per month	48	48
Number of connections per test	144	144
Test run-time	55	55
Dedicated testing staff per shift	1	1
Planning and layout time (minutes/connection)	1.00	0.17
Set-up/connect/verify time (minutes/connection)	3	0.03
Equipment CAPEX (value under test)	$600,000	$750,00

Output	Before (Manual)	After (with NetScout)
Total elapsed time per test (planning, layout, connection, run, diagnose, repair)	13 hour(s)	3 hour(s)
Total cost per test	$882	$466
Total monthly expense	$38,909	$10,650
Total yearly expense	$666,906	$377,803
ROI / PAYBACK PERIOD WITH NETSCOUT	5 month(s)	

NETSCOUT™

Americas East
310 Littleton Road
Westford, MA 01886-4105
Phone: 978-614-4000
Toll Free: 800-357-7666

Americas West
178 E. Tasman Drive
San Jose, CA 95134
Phone: 408-571-5000

Asia Pacific
17F/B
No. 167 Tun Hwa N. Road
Taipei 105, Taiwan
Phone: +886 2 2717 1999

Europe
One Canada Square
29th floor, Canary Wharf
London E14 5DY, United Kingdom
Phone: +44 207 712 1672

NetScout offers sales, support, and services in over 32 countries.

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