



## Storage Vendor

### Load DynamiX Named Premier Storage Testing Solution

With a product designed for massive scalability and high availability, one major storage vendor has turned to Load DynamiX. Their customers manage multiple petabytes of storage and up to a billion files in a single file system, so testing must match that capacity. With Load DynamiX, this test team can now simulate realistic customer scenarios with as many connections as needed

#### About the Company

This major storage technology vendor contains multi-petabyte scale-out NAS storage systems for information storage and distribution. Designed to store millions to billions of active files in a single namespace, the product offers operational efficiency and administrative savings for large organizations seeking to better manage their growing demand for file-based storage. It combines massive scalability with automated file management to quickly deliver information globally.

#### The Test Environment

The company's test environment includes multiple systems for customer simulation. This includes 10-20 physical storage devices under test. There may be as many as 80 white box servers simulating clients pointed at the largest of these. The lab's network mimics the variety of configurations that might be found in customer data centers, needing to anticipate and reproduce those setups.

The lab focuses testing efforts on the massive scalability of their product line. They are concerned primarily with number of files and bandwidth, trying to pump as much NFS and CIFS traffic and as many connections as possible through their systems.

## CASE STUDY

***“ I love using Load DynamiX – I can click and walk away. No one has to check to see that stress configurations are done correctly. ”***

**Chris Ruhl**  
SOFTWARE ENGINEER

***“ We're glad to have Load DynamiX in our arsenal to throw at our machines. We need as much concurrent load as we can get, and Load DynamiX allows us to generate all that's required to realistically simulate our customer use cases. ”***

**Chris Ruhl**  
SOFTWARE ENGINEER

## Challenges for the Team

Chris Ruhl is the software engineer responsible for optimizing the test environment. He tells us that concurrent load management is a priority, that they need to understand how multiple users interact with the data with maximum scalability. This customer perspective requires and flexibility to easily set up a wide variety of scenarios. Combine this need to change configurations and complete test cycles quickly, with the requirement for millions of TCP connections and GB of traffic per second, and you have a big headache.

The team has in-house tools and uses a variety of test methods, with approximately 25% of the growing test team dedicated to test tool development. But their internal tools are often clunky and Chris says that the lab is generally resource constrained.

## Load DynamiX Solution

Chris discovered that Load DynamiX had the performance, depth, and breadth of features they were seeking.

The Load DynamiX 1G Series is a high-performance load-generating system designed for comprehensive storage network testing. More than a simple load generator, the system provides protocol-level control and semantic definition that enables the broadest possible range of test cases. It features 8 singly configurable 1GE ports and an additional 1GE management port. It supports multiple authentication types and originates NFS, SMB, and iSCSI traffic, simulating a great number of clients and scenarios at once. It easily handles multiple

scenarios with varying lists of commands within each of 6 protocols (SMB v1, v2, and NFS v2, v3, v4 and iSCSI)—all running at the same time.

## Results Achieved Load DynamiX

Results were immediately realized with a 5-to-1 port reduction after using Load DynamiX to generate the equivalent traffic. Under equal workload, a single Load DynamiX interface is now the same as 5-6 previous interfaces or 5 ports on their old 2U client machines.

- Maximum load possible. Delivers all the connections needed to mimic true customer traffic flows.
- Reduced power consumption. Greater load from fewer ports.
- Improved protocol coverage. Exceptional flexibility in test configuration that covers all the bases.

## Why Buy the Load DynamiX Product Suite

- Time savings in executing multi-protocol test suites: Consistent test development methodology across all protocols.
- Ease of test case creation and control at the protocol level: Granular configuration and results are available for individual commands.
- Consistent, repeatable results: Tests start with the press of a button and deliver repeatable results.



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