



Pragma and Panasas: Test Automation 101

The Client: Panasas

Panasas (www.panasas.com), the premier storage system for scalable Linux clusters, is leading a new wave of intelligent storage, delivering exceptional scaling in capacity and performance while extending appliance-like ease of management to a virtually boundless storage system for High Performance Computing (HPC) organizations around the world.

The core principle of the company's object-based architecture is managing data as large virtual objects in contrast with traditional storage systems that manage data in small blocks. All Panasas storage clusters contain the object-based, Panasas ActiveScale File System (PanFS), which integrates an object-based clustered architecture to orchestrate file activity across the Storage Cluster and manage system performance. The file system virtualizes data across all StorageBlades, and presents a single, cache coherent unified namespace.

Using Panasas storage solutions, organizations can achieve maximum application performance while reducing total cost of ownership (TCO) by driving cost and complexity out of their storage infrastructures. Panasas solutions break the storage I/O bottleneck and are deployed in a broad range of government, academic and Fortune 500 organizations.

The Challenge: Marry SSH with Windows-Based Testing

As part of its ongoing commitment to excellence, Panasas constantly tests its high performance, distributed file system. To accomplish that mission, the company has put in place complex, test-automation infrastructure that can run a large number of test processes in parallel – and its preferred test-automation infrastructure is based on SSH.

Given Windows' lack of support for SSH, Panasas found itself needing four separate, proprietary testing solutions for Windows testing – each of which required a separately coded set of tests. As a result, Panasas was seeking a secured computing platform that allowed it to leverage its large suite of existing SSH-based tests with its WinXP 32 and Vista 32 testing.

The Solution: Pragma Systems and Fortress SSH

With nearly 20 years of experience in solving the security, performance and testing challenges companies face daily, Pragma Systems (www.pragmasys.com) was uniquely positioned to help Panasas craft a solution for its testing processes. Panasas turned to Pragma Systems and its Fortress SSH, and enlisted Pragma to create a custom parallel testing infrastructure.

“Our department’s mission is to test our high performance, distributed file system,” states Gary Sekinger, Panasas’ Director of Information Technology. “To accomplish that mission, we have a complex test automation infrastructure that can run many test jobs in parallel, with each job directing actions on a set of clients to validate some system feature or behavior. The base communication protocol used by our test infrastructure is SSH – and, by deploying Pragma System’s Fortress, we were able to seamlessly extend our testing to the Windows platform.”

Panasas turned to Pragma because of the ease of implementing SSH. “If we had chosen something other than SSH, we would have been forced to write our own communication protocol layer,” he says. “We also would have needed to write a distinct set of tests. With Pragma, we reduced the lab's system admin time per test box.”

Pragma also won high marks for its ease of implementation. “With other solutions, we found that a nightly ‘cron’ job would be needed to sync the user list on each machine,” Sekinger explains. “By using Fortress, we eliminate the need for that overhead. Even better, our test machines have very basic setup needs: a vanilla OS install plus Fortress and we're in business!”

Pragma Delivers!

Panasas is simply the latest in a long line of companies who've come to rely on Pragma's outstanding performance, superior customer service and across-the-board reliability. Call Pragma today, and learn how we can help your company by providing:

- **Reliable, proven enterprise-grade secure connectivity software** for all Windows® environments:
 - That's highly-secure – even offering a protocol for secure remote login and other secure network services over an insecure network;
 - Facilitates **data and system management**;
 - Allows **secure file transfers**; and
 - Provides consistent, **reliable application delivery**
- Gives you and your company a **powerful, convenient** approach to protecting communications on a computer network
- Superior and **responsive customer service** – both throughout the sales process and during lifetime of usage
- Offers **peace of mind**

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