Storage Performance Testing and Validation

Features

Our goal is to help storage engineers, architects and managers confidently answer two important questions:

1) How will my storage infrastructure perform in production

2) How can I design the most cost-effective storage infrastructure for my specific application workloads?

Our storage infrastructure experts will assist you with the following capabilities to help you to make optimal decisions with the least risk:

- Assist you to evaluate the kinds of testing and where they best apply

- Characterize your existing production application workloads

- Build the most useful I/O profiles or application models for your environment

- Model the future production workload (as-is or greenfield)

- Apply simulated workloads to the storage systems that you want to evaluate, run tests and analyze results for errors and accuracy

- Iterate on workload parameters for headroom tests

- Analyze and compare results for latency, throughput, IOPS, etc.

- Make recommendations for your on-going testing best practices

Customer Challenges

Infrastructure engineers and architects are charged with helping their organizations to optimize the selection and configuration of new technologies and products. One of the key questions that must be answered is: Which product is best for my application workloads? What is the effect of software and hardware changes on my production application workloads? Doing performance testing and validation is a bit of an art and a lot of science. Virtana Professional Services engineers have decades of performance test and validation experience and we can help.

You might be evaluating several new technologies and products and wonder how each will respond to varying workload types, but using legacy tools, there's simply not enough time to write tests that cover all the possible permutations required to make an intelligent decision.

You might be trying to build a workload model that truly represents the wide range of applications running on your enterprise-class array.

You might be planning to move to a new technology, protocol, or array, and you need to know beforehand, the performance headroom you can expect. Every vendor's spec sheet looks similar, and they don't apply to your unique application workloads.

You might be considering deployment of a specific workload type, like VDI or Oracle OLTP, and you'd like to know how a given array or arrays might handle that workload type. But where do you get the workload model if you're not already running that application?

VI Storage Performance Testing and Validation Services

Virtana brings advanced workload analysis, workload modeling and performance validation to the infrastructure life cycle. The Storage Performance Testing and Validation Service delivers a custom report detailing and comparing the performance of different storage systems and configurations. We start with your specific workload, inputting your workload I/O statistics into our modeling software, and incorporating your specific deployment topology.

This service, which typically occurs over 2 – 3 weeks, enables more intelligent purchase and deployment decisions, offloads your storage team, and minimizes the impact on your own testing resources. Analysis and reports cover four test types:

- Functional
- Load
- Stress
- Performance benchmarking

To implement these services, we ship a load generation appliance to your site, your partner's site, or any site you choose, conduct the tests on your target storage systems, do the analysis, and create a detailed report on findings. Custom engagements are available and may include complex green field environments or lengthy bake-offs where the Virtana team acts as your extended project team.

Storage Performance Test and Validation Services Options

	Project			
	Custom Production Workloads	**VirtualWisdom Data Based Workloads**	**Library Workloads**	**Performance Profiling**
Description	ProServe works with customer to analyze their production workload(s) and builds a model test based on that data. Array metrics are used as inputs by ProServe. Utilizes customer's or customer's supplier's lab to generate workload, and report results.	ProServe works with customer to analyze their production workload(s) and builds a model test based on that data. Merges VirtualWisdom-derived metrics with array configuration. Utilizes customer's or customer's supplier's lab to generate workload, and report results.	ProServe uses sample workloads provided by Virtana, ProServe work done in the field with enterprise data centers (i.e. mixed, Oracle, VDI, etc.) Utilizes customer's or customer's supplier's lab to generate workload, and report results.	ProServe includes a suite of parameter variables run in combinations to generate a large quantity of results. - Permutated reads, writes, random, sequential, block/ file size, data content, etc. Utilizes customer's or customer's supplier's lab to generate workload, and report results.
Scope and Limits (Add-ons available)	Up to 2 arrays and 1 workload	Up to 2 arrays and 1 workload	Up to 2 arrays and 2 workloads – or – 3 arrays and 1 workload	2 storage targets and 500 iterations run @ 2 minutes each
Engagement	3 weeks	3 weeks	3 weeks	2 weeks

Workload Modeling Services

Once customers purchase a Virtana solution, they can take advantage of our workload modeling service. We work closely with you to custom-design a workload model that simulates your production workload, based on your own storage I/O statistics and deployment topology.

With this service, you'll get faster access to a more realistic workload model, where you can run it in WorkloadWisdom as a parameterizable project, supporting your test environment. As a deliverable, you get a report on the workload analysis with details on the model workloads so that you can make better purchase and deployment decisions.

Customer Training

Part of any successful deployment is training. Through ProServe, you will receive a custom-designed curriculum based on your projects, objectives and deployment topology. This custom knowledge transfer ensures your fastest time to productivity and enables faster and better decision-making. You'll learn how to model applications, develop tests, analyze results, perform troubleshooting, and automate test procedures.

We offer a standard one-day quickstart-style training, or custom multi-day packages, at your site or via remote learning.

Learn more about VirtualWisdom

Contact a Virtana Expert

View more Resources

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