Mentor Graphics reduced test time by moving to Tintri

VM-Aware Storage enables test scaling to meet Mentor's software quality assurance requirements.

Industry
- High Technology

Geography
- Wilsonville, Oregon

Virtualization environment
- VMware vSphere
- Traditional storage: Multiple vendor solutions

VM profile
- High performance QA testing applications

Key challenges
- Existing storage systems could not meet the performance requirements for the test/dev environment in Mentors expanding virtual environment

Tintri solution
- 15 Tintri VMstore™ systems

Primary use case
- Tintri is now being used for all types of virtual workloads

Business benefits
- Reduced latencies in the test/dev environment
- Gained the ability to create and run tests on over 10,000 VMs per day
- Ease of management of the Tintri systems without dedicated storage expertise
- Provided the ability to choose any hypervisor in the future

Company Information

Mentor Graphics Corporation is a world leader in electronic hardware and software design solutions. The company provides products, consulting services, and award-winning support for the world's most successful electronic, semiconductor, and systems companies.

IT Challenge

The demands of Mentor Graphics test/dev environment were expanding. The critical virtual workload that caused them to search for a new storage solution was an internal high-performance computing environment targeting QA regression tests for software builds.

Mentor started looking for a higher performing storage solution that would improve developer productivity. As their development teams increased their use of continuous integration and agile methodologies, it also increased the demand on IT virtual resources to complete testing in a timely manner. Mentor moved test processes to the virtual environment to increase agility but soon found that traditional storage solutions were unable to meet the demands of this work load. "We tried four different traditional storage platforms and all of them were unable to meet our performance requirements," said Brian Alexander, Systems Architect at Mentor Graphics.

Choosing Tintri

Mentor Graphics made the decision to run a competitive POC with several different storage vendors. At the conclusion of the POC, Mentor chose Tintri for its performance and ease of management. "One of the biggest benefits of Tintri is its simplicity," noted Alexander. "Some of the other vendors could solve the performance problem, but they were far more complex—on the same level as our current legacy systems, making the environments difficult to manage and maintain. Tintri was the only solution that could meet both our high performance and management simplicity requirements."

> "Tintri is enabling us to enhance continuous integration and agility within Mentor's software development environment."

Chad McGuire, Senior Manager of Architecture and Standards, Mentor Graphics

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Improved Test Times

With Tintri, Mentor's test/dev teams are now able to create and run tests on over 10,000 VMs per day, far exceeding the capabilities of their traditional storage architectures. "Our test/dev environment is highly automated," explained Alexander. "When a software build completes, it issues a command that starts a QA run. It creates necessary VMs on demand, sends the tests to the VMs, gathers the results, deletes the VMs when the test is over, and then moves on to the next test cycle.

Adding Other Workloads

After meeting the initial performance requirement to provide more agility in the test/dev virtual environment, Tintri is now being used across the engineering resource environment; including production-build servers and systems, regression systems, test flows, benchmarking runs and virtual desktops.

Simplifying Storage Management

Mentor's traditional storage is managed by the storage team and Tintri was initially managed the same way. It quickly became apparent that there was no value-add to having the storage team manage a dedicated VM appliance so the management was moved to the Virtualization team. This team of four was able to absorb the management of Tintri storage without additional headcount.

Other Business Benefits

An attractive option Mentor discovered in Tintri is the ability to choose any hypervisor they want in their environment. "We appreciate the flexibility of not being locked into a single vendor. Tintri will allow us to run hypervisors from multiple vendors on the same storage platform if we choose to do so in the future," McGuire said. Additionally, Mentor has been impressed with Tintri support. "Tintri support has been excellent," added McGuire.

"We identified an issue that required some changes for our test/dev environment and were impressed with how quickly the Tintri team was able to meet a very specific request, even though our environment is not a mainstream use case for these devices."

Working in Partnership with Other Vendors

Mentor was also impressed with Tintri's commitment to working closely with other vendors. "We encountered a very interesting issue when we first switched over to Tintri related to cloning," said Alexander. "The Tintri team engaged directly with the other vendor and the necessary changes were made in a very short period of time."

Tintri's partnership has been key for us as well, in several areas, especially where product integration or multiple vendors may have been involved. Tintri has engaged all parties, represented the issue or needs, and ran with it, working with the other vendors for amenable resolution." noted McGuire.

Conclusion

Mentor was able to reduce test time and improve continuous integration in multiple virtual workload environments using the Tintri storage solutions. Additionally, the ease of storage management and support provided by Tintri makes it a great choice for Mentor.

Chad McGuire is Mentor Graphics' Senior Manager for IT Architecture and Standards. Chad manages a team of IT Technical Architects focused on virtualization, storage, engineering software, client and server infrastructures.

Brian Alexander is a Mentor Graphics Technical Architect for Virtualization Environments. Brian evaluates and selects technologies for Mentor's global engineering environment.