



Founded in 1998, SigmaX began as a system management partner for medium-sized organizations. It has since expanded to five business units covering the design and management of IT infrastructure, software for law enforcement, field service organizations, custom mobile solutions and software for security companies. It employs 200 people, including more than fifty IT specialists and eighty software developers, and services 350 customers worldwide.

The Challenges: Poor Virtual Machine Performance

A large part of SigmaX's business involves developing software for customers in the public and government sectors. This requires a significant number of daily builds in the production environment and testing, running on up to 200 virtual machines (VMs). Some of those VMs are hosted for customers that require high performance.

The company's existing storage was struggling to provide the speed and power to match SigmaX's production and testing requirements. It was suffering from performance issues because the storage could not keep up with the pace of the I/O demands.

The Solution: Tintri VMstore

SigmaX began looking for an alternative storage solution that was better suited to the demands of a virtualized environment. It was faced with a choice between a hyper-converged infrastructure (HCI) solution and VMstore. The company rejected the HCI option because scaling out was problematic as it involved purchasing extra compute and memory power that it did not need as well as storage. Instead, it decided to install VMstore.

There was no proof of concept. As Maarten Kalkema, ICT specialist at SigmaX ICT Specialisten, puts it: "We bought the system and that was our PoC. We were convinced it would work."

The Results: Performance Meets Needs for Development and Testing

The difference between standard infrastructure and Intelligent Infrastructure was readily apparent as the VMstore solution was up and running in less than twenty minutes and the results have been very impressive. SigmaX now has visibility of storage at the VM-level and the ability to see I/Os and latency on a per-VM basis. This enables it to address performance at a VM level. In addition, the time between builds has halved, allowing SigmaX to test more frequently and produce more reliable software.

Kalkema says VMstore also integrates very well with vCenter. With the all benefits VMstore has delivered to SigmaX, he would happily recommend it to other people.

Visibility of storage performance at the VM level has enabled SigmaX to assign and cap I/Os to development builds. If one development team is using too much I/Os and affecting the overall performance, SigmaX can identify the culprit with VMstore and take the necessary steps to redress the balance of I/O performance. "If they are running I/Os of 15,000 to 20,000, we can cap them at 5,000 to 10,000 and set the Quality of Service (QoS) and it works perfectly for us. And it's still fast."

Improvements in performance have accelerated the time it takes between software builds. Under the previous system, it could take up to twenty minutes for a software build. Because it is optimized for VMs, VMstore has halved the time required for software builds. This means SigmaX can run more tests in a day, speeding up the development process and improving the reliability of its software.

Challenges

- Poor virtual machine performance
- Legacy systems could not keep up with workload requirements
- Unable to provide the performance required for development and testing

Solution

- Tintri VMstore

Results

- Better visibility of storage performance
- Faster builds for development and testing
- Simple installation
- Improved utilization of resources



VMstore not only provides better visibility of storage resources at the VM-level, it also enables better utilization of those resources and scale-out capabilities without having to add more compute and memory to the equation.

VMstore can be up and running in minutes making it reliable and easy to run. Despite implementing the VMstore solution without running a PoC, Sigmax has had no issues with the system in the twelve months since it was installed. In all that time, it has had no cause to contact Tintri's support team.

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Maarten Kalkema, ICT specialist, Sigmax

Experience Different! For more information on how Tintri IntelliFlash can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/vmstore.