Cigniti Technologies is the world’s 3rd largest independent software testing services company and is headquartered in Dallas, Texas. Over the last 15 years, Cigniti has helped enterprises and independent software vendors build quality software while improving time to market and keeping a lid on costs.

Cigniti was experiencing rapid business growth, spurred largely by its acquisition of other large testing outfits. This form and pace of business growth, though welcome, presented some significant IT challenges for the company. To bring its sprawling IT infrastructure under control with the performance it needed, the company turned to a solution based on Hitachi Unified Compute Platform.

It became very obvious that consolidation was the need of the hour. Hitachi Data Systems was able to provide the solution we needed, along with all the requisite parameters of access, ease of management, performance, reliability and a whole lot more.

Cigniti Technologies

INDUSTRY
IT Services

SOLUTION
Converged, Compute

HARDWARE
Hitachi Unified Compute Platform for VMware vSphere, including Hitachi Compute Blade 500 and Hitachi Unified Storage 100 family; Hitachi storage adapters and connectors

SERVICES
Provided by Hitachi Data Systems Global Solution Services

About Cigniti
Cigniti is recognized as a leader in IP-led testing services by industry analysts like Nelson Hall and Gartner, and it is also an ISO 27001:2005 certified organization. The company has taken its IP and converted it into Cigniti SMART tools, which enable speedy testing and help improve the results that are delivered to its clients. As one of the leaders in the software testing space, Cigniti Technologies’ services in this area spanned cloud and big data testing as well as functional, automation, security and performance testing.

The Challenge
Cigniti Technologies was growing rapidly as a result of its acquisition of several large testing outfits, each with their own set of servers and applications. The dispersed and sprawling infrastructure posed several operational and IT challenges for the company. In the absence of a single platform and pane for managing all these components, the Cigniti team often had to grapple with back-end IT issues in order to handle their testing tasks and responsibilities. It was difficult to manage provisioning, utilization, availability and performance, while administrative costs were increasing. The utilization of servers and storage was also not optimal and presented

Benefits at a Glance
- Cost savings in administration and virtualization.
- Scalability to manage business growth.
- Improved provisioning, performance and application availability.
- Better customer service.
an opportunity to increase efficiency and reduce costs. To sustain and enable rapid business growth, the time to market was continually being squeezed.

Given the lean structure of the team and the specialized nature of their work, Cigniti wanted to make IT management and troubleshooting as smooth and painless as possible. The company quickly identified the need to consolidate and virtualize to bring various components of its IT infrastructure, consisting of disparate servers, storage systems, network devices and software applications, under a common platform. This heterogeneous, single-pane management would help Cigniti achieve greater efficiency, rapid provisioning and improved utilization of its IT assets.

As a first step, Cigniti opted for a VMware setup to help in virtualization of its IT infrastructure and for some degree of consolidation. However, it still needed a single computing platform to access disparate systems and run multiple applications.

In essence, Cigniti needed convergence in its IT setup and a single management pane to control it. Such a converged solution would allow Cigniti to operate its servers, storage and networking devices as well as various software applications smoothly and seamlessly. For the data storage infrastructure, Cigniti needed a scalable, highly reliable and better performing platform to cater to its dynamic testing workflow and output.

The Search for a Solution

While zeroing in on the right partner and platform for solving these challenges, Cigniti was looking for some critical attributes. These included:

- Proven enterprise-grade reliability.
- Scalability to sustain and enable business growth for the next 3 years.
- Ability to manage overall infrastructure from a common interface.
- Road map to improve efficiencies further with private cloud setup.
- Ability to keep software licensing costs in check.

Hitachi Data Systems proposed Hitachi Unified Compute Platform for VMware vSphere (UCP for VMware vSphere) as a single platform to consolidate, virtualize and manage end-to-end infrastructure for host-testing applications.

After careful evaluation, Cigniti found that the HDS solution came through on most of the attributes it sought. The 50-year legacy of HDS compute offerings, originating from mainframe and evolving to x86 platforms, sealed its credentials as far as reliability, scalability and efficiency were concerned. Its reputation as a leading provider of enterprise-class information infrastructure with multiple customer endorsements made HDS a relatively easy choice for Cigniti.

The additional benefits promised by HDS included its support capabilities for heterogeneous hypervisors, comprising hardware-based LPARs, as well as end-to-end infrastructure orchestration.

Strong execution capabilities of the Hitachi Data Systems Global Solution Services team, illustrated by stringent service delivery timelines and technical knowledge, as well as expertise and experience in similar projects, also helped sway Cigniti toward the HDS solution.

The Solution

Hitachi Unified Compute Platform for VMware vSphere, the solution that Cigniti selected, consists of Hitachi Compute Blade 500 (CB 500), Brocade Ethernet and Fabric Switches, and Hitachi Unified Storage 100 (HUS 100) family.

Hitachi Compute Blade 500 is a highly reliable enterprise platform that is designed for virtualization and ideally suited for cloud computing applications. It delivers computing power, performance, scalability and configuration flexibility through an affordable Intel platform. Efficiency, power cooling and manageability are among the other desirable attributes of the CB 500. In addition, this blade server provided logical partitioning (LPAR) capability embedded within its blade firmware to support hosting of multiple applications on a single server without additional software cost. With this native LPAR capability that Cigniti aims to deploy in the near future, the company will keep the cost of virtualization low.

The Hitachi Unified Storage 100 family offers built-in controller virtualization with symmetric active-active capability and auto load balancing controllers to handle Cigniti’s dynamic workloads.

UCP for VMware vSphere provides plug-ins for tight integration with Cigniti’s VMware deployment and facilitates seamless management of its heterogeneous IT infrastructure. This yields a centralized structure for what had previously been a silo-based infrastructure. Some of these plug-ins are Storage Provider for VMware vCenter, Hitachi Compute Plug-in for VMware vCenter, Hitachi Storage Adapter for VMware vCenter Operations Manager Suite, Hitachi Storage Connector for VMware vCenter Orchestrator. It also places Cigniti on track for private cloud deployment with end-to-end infrastructure orchestration and improved efficiency.

Hitachi Unified Storage has an efficient and scalable unified architecture that allows Cigniti to meet its current business goals and also plan for future growth. Through dynamic provisioning, it enables an optimized and agile data infrastructure for Cigniti.

The deployment was entirely handled by the HDS Global Solution Services team and was smoothly carried out in less than a week. The team also conducted a user training and briefing session on practices that best leverage the features and functionality of the solution.

The Benefits

With UCP for VMware vSphere, the Cigniti staff can now simultaneously carry out testing, development and quality assurance tasks on an optimized server infrastructure, thus boosting their overall performance and efficiency.
The converged HDS solution provides Cigniti Technologies with the single and seamless interface that the company needs to manage its end-to-end infrastructure. The converged solution yields significant benefits for the company on both the business and technical fronts. The primary benefits included:

**Business Benefits**

- **Reduced time and effort for management.** The efficiency of a single-stop IT interface was apparent in significant time-savings for most activities. Cigniti was also able to reduce the time previously spent in troubleshooting and eliminating technical issues.
- **Cost reduction.** Better resource utilization with the right-sized infrastructure led to reduction in data center operational costs such as power consumption, cooling and rack space. The availability of native LPAR virtualization within Hitachi Compute Blades provides a strong option for future cost reduction.
- **Improved customer service.** With reduced time to provision, higher uptime, and more staff time focused on productive work, the levels of both customer service and satisfaction went up.

**Technical Benefits**

- **Reliability.** With Hitachi infrastructure as the backbone for Cigniti Applications, the new solution delivered impressive reliability and availability.
- **Performance improvement.** Under a tightly integrated and easy-to-manage IT infrastructure, Cigniti was able to cut testing times and improve accuracy significantly.
- **Scalability.** Both the server and storage components are easily scalable as Cigniti’s business expands and its needs evolve. This was especially important to the company given its current rapid pace of growth.
- **Optimization of IT assets.** UCP for VMware vSphere and the associated storage allowed for consolidation and better utilization of IT resources.
- **Simplified IT management.** The HDS solution provided a single pane of management to access and operate Cigniti’s dispersed IT infrastructure.