Company Delivers High Availability and Client Satisfaction

With Cisco ACE 4710 and private cloud, Hay Group achieves global reach and 100 percent uptime.

EXECUTIVE SUMMARY
HAY GROUP
• Industry: Management Consulting
• Location: Headquartered in Philadelphia, PA, U.S.A.
• Number of Employees: 2600
CHALLENGE
• Provide load-balancing for newly virtualized environment
• Protect security and confidentiality of client traffic
• Rapidly recover following emergency
SOLUTION
• Cisco ACE 4710 Application Control Engine
RESULTS
• Achieved noticeable application performance improvements
• Reduced CPU loads by 20 percent
• Achieved 100 percent uptime and rapid failover to secondary data center

Challenge

Hay Group is a global management consulting firm that works with corporate leaders in more than 48 countries to transform their business strategies into reality. Clients represent the private, public, and not-for-profit sectors and span all major industry groups, each with its own set of diverse business challenges. Hay Group has developed its data center infrastructure to give clients on-demand access to analysis and reports, collect confidential data, and support collaboration. Research and other data are delivered through online subscriptions supported by high-availability service-level agreements (SLAs).

In 2010, Hay Group teamed with IPR International, a leader in managed data center and data protection services, to build a private cloud environment based on a Cisco Unified Computing System™ (UCS™) so that it could more easily deliver the high availability and security needed by its clients. With a private cloud in place, Hay Group fully virtualized its servers and other infrastructure.

Virtualization required a new way to load-balance incoming traffic and virtual workloads, maximize performance, and help ensure transparent failover from its primary data center location to a secondary "warm" site. The Cisco® ACE 4710 Application Control Engine appliance fit the bill perfectly.

Solution

The Cisco ACE 4710 is an essential element of Hay Group's virtualized infrastructure. It provides flexibility in managing application traffic, with scalability up to 4 Gbps in a one-rack-unit (1RU) form factor to deliver powerful capabilities while conserving rack space. Load-balancing and content-switching functions provide granular traffic control based on customizable Layer 4 through 7 rules with support for both IPv4 and IPv6 addresses, virtual IP addresses (VIPs), and server farms.

Through virtualization, the Cisco ACE 4710 enables IT to provision and deliver a broad range of applications from a single Cisco ACE appliance. Delivering new services, scaling existing services, and maintaining high performance is much simpler than in nonvirtualized environments.

> "The Cisco ACE 4710 appliance has helped improve web server performance by approximately 20 percent. In addition, we have experienced 100 percent uptime. The Cisco ACE 4710 in a private cloud environment is making it much easier to meet our clients' SLAs."
>
> **– Tuan Ngo, Director, Global Infrastructure & Data Center Services Group**

The Cisco ACE 4710 greatly improves server efficiency through highly flexible application traffic management and the offloading of CPU-intensive tasks such as Secure Socket Layer (SSL) encryption and decryption processing. Encrypted traffic comes into the Hay Group over the Internet and is terminated on the Cisco ACE 4710 appliance. With deep protocol inspection capabilities, the Cisco ACE 4710 imports the appropriate authentication certificate to further secure mission-critical applications and protect against targeted attacks by professional hackers. Encrypted traffic is decrypted and sent to Cisco UCS servers. Return data passes back to the Cisco ACE 4710 for re-encryption before being delivered to a client.

Sticky sessions are used frequently, enabling specific clients to maintain multiple simultaneous or subsequent TCP or IP connections with the same real server for the duration of a session.

PRODUCT LIST
• Cisco ACE 4710 Application Control Engine • Cisco Unified Computing System • Cisco Nexus® Series Switches

The Cisco ACE 4710 also serves other IPR International customers, segmenting Hay Group and others into their own virtual contexts. With virtual contexts, IPR International can segment and isolate resources and provide defined levels of service for up to 20 business departments, applications, or customers from a single Cisco ACE appliance.

Results

Hay Group's clients have noticed a difference in application accessibility and performance with the private cloud infrastructure. Hay Group's internal IT team has noticed a difference in manageability and responsiveness.

"The Cisco ACE 4710 appliance has helped improve web server performance by approximately 20 percent," says Tuan Ngo, director, Global Infrastructure & Data Center Services Group for Hay Group. "In addition, we have experienced 100 percent uptime. The Cisco ACE 4710 in a private cloud environment is making it much easier to meet our clients' SLAs."

Management of the Cisco ACE 4710 is done by the data center, but Ngo simply communicates Hay Group's desired configurations and they are executed quickly. His group also has deep visibility into traffic, workloads, and server connections.

"It is easy to quickly replicate Cisco ACE 4710 sessions to our secondary network in the event of an emergency," says Ngo. "Within approximately two hours, we can be in full operation from the secondary site."

Hay Group now has the global uptime and reach that it needs to serve its clients and employees around the world. The Cisco ACE 4710 appliance and its private cloud environment have enabled the company to transform its own strategy into an ability to deliver on its business mission.

For More Information

To find out more about Cisco ACE 4710 Application Control Engine visit:
www.cisco.com/en/US/products/ps6906/index.html.

To learn more about Hay Group, visit http://www.euronetworldwide.com.