Syscom USA

Syscom USA , a system integrator that provides IT infrastructure, networking solutions and value-added products to U.S companies, relies on continuous uptime of its Web and email servers to satisfy their U.S customers. But with traffic and data volumes increasing rapidly, server availability was becoming an issue. Failover capabilities and data mirroring were necessary to provide reliable access to information, services and applications at all times. Since implementing NEC's ExpressCluster™ high-availability solution for Linux, the company achieved up to 99.999% continuous uptime, thereby meeting their customer's demands for non-stop operations, while maintaining a lower total cost of ownership.

CHALLENGE

Syscom USA provides Web and mail hosting services to roughly 500 customers in the U.S., Syscom was feeling the pressure of increasing data loads and customer demand for continuous availability. But achieving such high availability without driving up operational and maintenance costs would be difficult. The company searched for a solution that was easy to install and maintain but did not put undue strain on the budget, and provided system failover and data mirroring capabilities to ensure that customers had reliable access to data, applications and services.

Another challenge was interoperability. The company's setup included two pairs of HP servers running RedHat® Enterprise Edition 3.0 OS. One pair served the email hosting application while the other served the Web hosting application. These servers were clustered with Courier POP email servers and Apache Web servers. Because of the multi-vendor mix, any overlaying clustering solution had to provide maximum flexibility and comprehensive management capabilities. Simplified maintenance was a critical requirement, as the engineers managing the system varied in their IT expertise.

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Syscom evaluated solutions from both HP and RedHat, but found that they were either too expensive or lacked data mirroring capabilities that would enable the company to implement a disaster recovery solution in the future.

SOLUTION

Syscom selected NEC ExpressCluster® LAN, a powerful solution for application failover and data mirroring in both Windows® and Linux® cluster environments. ExpressCluster helps Syscom keep downtime to a minimum and helps ensure continuous application and resource availability for its customers.

NEC ExpressCluster supports both 32- and 64-bit Windows and Linux configurations on general purpose, fault tolerant and Itanium servers. It delivers near-instant recovery after system failure, even over distances of up to 200 miles, and expands from 2 to 16 nodes for Windows and 32 nodes for Linux to enable high data and application availability in any LAN, WAN or shared storage clustering environments. The solution simplifies shutdown procedures and provides robust cluster startup processes that help reduce maintenance and support. Additionally, ExpressCluster simplifies server cluster deployment and management, reducing total cost of ownership.

"NEC ExpressCluster provides us with a high-availability clustering solution for our LAN today and can easily be expanded to provide the same capabilities over a WAN in the future," said Mark Yamaura, senior system engineer of Syscom (USA) Inc. "This flexibility was a key factor in our decision to go with NEC."

ExpressCluster automatically executes failover procedures if a server on the network fails to receive a signal from another server. The backup system takes over all processes and resources, so that business-critical applications and data are recovered within minutes, instead of hours or days. NEC's proven synchronous clustering technology protects against both hardware and software failure, without increasing IT complexity or system integration costs. An intuitive Web-based GUI and remote management capabilities work to streamline cluster control and improve visibility into the system.

"ExpressCluster allows us to customize system startup, processing, recovery/failure and resource re-allocation based on our business requirements," said Yamaura. "Such customization helps us meet customers' needs while reducing time and money spent on support and maintenance."

BENEFITS

Syscom began implementing the solution in April 2005. In just one week, NEC ExpressCluster was up and running, ensuring high-availability of servers and applications within the cluster.

"Our customers are now able to access email and Web services at any time, with reliable availability," said Yamaura. "Since implementing NEC ExpressCluster, we have not experienced any downtime, and maintaining the system is extremely simple. Our customers are very happy, and we have gained significant competitive advantage by achieving high availability of our hosted applications."

Over time, Syscom plans to deploy NEC ExpressCluster in a WAN configuration, providing reliable disaster recovery for customer data and services. "NEC gives us the flexibility to meet changing customer needs and business initiatives moving forward, without an infrastructure overhaul, so we can deploy new services quickly and at a lower cost."

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