

ASPCA heals infrastructure woes to better provide for the welfare of animals.

Overview

■ Challenge

Mission-critical Windows® server crashed repeatedly, stalling ASPCA operations and threatening the operations of the nation's oldest and largest animal welfare organization

■ Why On Demand?

With new, reliable, resilient and secure infrastructure, employees would regain focus on ASPCA's humane mission, improve productivity and save money

■ Solution

Open-source platform accessible through Web browsers and built on reliable Linux cluster enables reliable communication among ASPCA staff

■ Key Benefits

100% availability since solution launch; 30% reduction in TCO; ability to focus on core mission of ASPCA, which is to help animals



One of the ASPCA's many services is a mobile clinic offering free or low-cost vaccinations and spay/neuter surgery for dogs and cats of financially needy owners.

Since its founding in 1866, the American Society for the Prevention of Cruelty to Animals (ASPCA), based in New York City, has successfully dedicated itself to promoting animal welfare in the United States. Today, approximately 300 employees in seven offices nationwide help further this cause through their efforts in a wide variety of areas—from shelter outreach and adoptions to humane law enforcement, animal poison control, government affairs and public policy, among many others.

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– John Giantelli, Senior Director of IT, American Society for the Prevention of Cruelty to Animals (ASPCA)

Rapidly deploying e-business applications in an open environment

On Demand Benefits

- 100% availability in 5 months since solution went live
- 30% reduction in TCO, including savings in maintenance, licensing, server and ISP costs
- Ability to focus on core mission of ASPCA and be responsive to employees' needs and the animals in their care
- Seamless migration to new platform due to ease-of-use of Lotus® Domino™
- Redundancy at the server and software levels with Domino clustering and xSeries OnForever™

Not too long ago, the ASPCA (www.asPCA.org) was dismayed to find that one of its servers was breaking down approximately every two weeks. Staff members had to wait hours as the IT department in New York rebooted the HP server and rebuilt the Windows operating system, which was found to be the source of the problem. All of the ASPCA's systems are vital to the organization's normal operations, but this server had a particularly important mission: to run the ASPCA's e-mail systems for approximately 200 users nationwide, including administrative personnel, veterinarians and service providers who depend on it for information on services and resources.

"Everyone's job was on hold while we recovered from these episodes," says John Giantelli, ASPCA senior director of IT. "Most of the staff use e-mail to communicate both internally and externally. This organization is a connected chain of cause and effect that in some way will impact the welfare of animals, whether it's from drafting legislation or responding to an inquiry from one of our members. We needed to be more responsive to the needs of our employees so that they could effectively utilize the technology to get their jobs done."

Not only was the Windows platform unstable for the specific requirements of the ASPCA's e-mail system, it was also insecure. Many of the ASPCA's remote staff accessed the Internet by way of local Internet service providers (ISPs) and large commercial providers. The ASPCA therefore needed to make its outgoing mail server accessible over the public Internet, so that these staff members could use it for business e-mail. But the Windows operating system did not provide sufficient protection against hackers from the Internet. "Indeed, most of the serious virus threats are targeted at Windows," says Giantelli. "We were dealing with legal and law enforcement issues and couldn't accept the risk of exposing confidential messages to the public Internet."

With a 24-hour-a-day IT environment managed from its central data center in New York, the ASPCA IT staff has many applications to maintain, but it was being called away from them regularly. The spate of calls coming into the help desk, along with the crisis mode at the data center, were draining the productivity of the IT staff as well as of the e-mail users who were on hold.

Since the ASPCA relies on charitable donations, it was obligated to find the most cost-effective and reliable solution. The costly Windows licenses and the unreliability of the system needed attention, but the gravity of the situation was not completely evident until the Windows server collapsed on a more dramatic scale. "What made me realize that there was a real issue, was when we lost the controller on the server and paralyzed the hub of the ASPCA's e-mail," says Giantelli. "We were out for a whole day. Nobody got mail, not even our ASPCA Animal Poison Control Center in Urbana, Illinois, because we were unable to forward messages to their local ISPs. The problem stemmed from memory issues on the server caused by Windows."

However regrettable, the incident provided the necessary motivation for a change. The organization realized that it needed a more resilient, reliable communications platform. The ASPCA could not tolerate service gaps, so it had to make changes in order to fulfill its basic mission. By providing bulletproof security against hackers and viruses, moreover, a new and secure system would better protect the interests of ASPCA constituents. It would also help the ASPCA save money and boost the productivity of staff members.

A better deal for dogs and cats

To resolve its problems, the organization began looking for an IBM Business Partner with experience in IBM Lotus Notes® 6 and Lotus Domino 6, the e-mail software that the ASPCA knew and trusted from past experience. IBM Premier Business Partner Siwel Consulting (Siwel), based in New York City, fit the ASPCA's requirements. Siwel worked with the ASPCA to develop an information infrastructure that has become essential to supporting the organization and its mission. Running continuously without interruptions, with an availability rate of 100 percent for the past eight months, the system is proving to be the reliable solution that ASPCA needed.

More than just a time saver, the system is helping employees focus on their core business issues by enabling them—even the remote employees who previously needed ISPs to receive ASPCA e-mail—to log on to their Lotus Notes e-mail using the IBM Lotus Domino Web Access client. The IT department, meanwhile, can direct its attention to optimizing systems or addressing other issues, now that it no longer has to deal with infrastructure problems or the phone calls that accompanied them.

Siwel performed an assessment of the e-mail system and recommended extending its platform with Lotus Domino Web Access on two clustered IBM @server® xSeries® 225 systems running Red Hat Linux, Version 7.3 and Lotus Domino. In addition, Siwel proposed using IBM WebSphere® Edge Server as a reverse proxy server in the DMZ to prevent hackers from gaining access to the system, in essence fixing the security gaps that existed before.

A fortress built with IBM, Lotus and Linux

The ASPCA had ported its Simple Mail Transfer Protocol (SMTP) server to Linux several months before this change, and the results had been so encouraging that it was ready to consider another proposal based on Linux. "Seeing the stability of the SMTP appliance on Linux, when Siwel approached us with the Linux solution, I was ready to look into it deeper. We've now had our Linux cluster running Domino 6, for over eight months, and I haven't had to touch it," says Giantelli.

Key Components

Software

- IBM WebSphere Edge Server
- IBM Lotus Notes 6
- IBM Lotus Domino 6
- IBM Lotus Domino Web Access
- Red Hat Linux, Version, 7.3

Servers

- IBM @server xSeries 225

Business Partner

- Siwel Consulting, Inc.
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–John Giantelli

The outstanding reliability of the ASPCA solution derives in part from the servers and software used to create it. The cluster of two xSeries systems provides redundancy at both the hardware and software levels. Domino creates multiple replicas of application databases and distributes them among the xSeries nodes, which provide redundancy at the software level. At the same time, the OnForever clustering feature of the xSeries X-Architecture™ provides high availability clustering at the server level.

“We have actually done several tests for failover, and the system didn't even hiccup,” says Giantelli. “It failed over immediately, and I attribute that to the way Domino as well as the servers were designed. If you're running this with a different platform — Microsoft Exchange, for example — the failover is not built in. You have to buy third-party software to make it happen.”

ASPCA migrated the e-mail system to the Linux cluster over the course of a single evening. “It was totally seamless to my users. They went home one night connected to one server, came in the next day, typed their name and password, and did not even know they were migrated to a Linux box running Domino 6,” says Giantelli. “This is another instance of IBM having done its homework with Domino. In my career, I have not seen a smoother conversion.”

The best servers for less money

ASPCA management questioned the Siwel proposal, at first assuming that IBM servers represented a level of quality that the not-for-profit organization couldn't afford. Then they learned the price — their two xSeries systems would cost less than one HP server. “It woke us up to recognizing that IBM's pricing is competitive,” says Giantelli. “It's so attractive that we're looking at IBM for our next desktop solution. And we're also looking for other ways to use Linux.”

For now, however, the ASPCA is enjoying its e-mail solution, estimating that with lower maintenance, licensing and server costs and the elimination of ISP accounts, the organization has reduced its total cost of ownership by 30 percent. The increase in productivity is difficult to estimate, but employees agree that they have more time to devote to the job, and that's good news for animals. “This organization is very communication intensive,” says Giantelli. “People are devoted, and they're here after business hours and on weekends using e-mail to communicate both internally and externally. Thanks to our new solution, everyone is able to focus on making the world a better place for animals, not rescuing a struggling operating system. We're all grateful for that.”

For more information

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