Tropical SHIPPING
Worlds Of Service

Shipper Switches from IBM Lotus Notes to Microsoft Solution, Improves Productivity

Overview

Country or Region: United States
Industry: Transportation and Logistics

Customer Profile
Based in Riviera Beach, Florida, Tropical Shipping moves containerized freight between North America and the Bahamas and the Caribbean. It is a wholly owned subsidiary of Nicor.

Business Situation
The company wanted to improve the efficiency and cost-effectiveness of its enterprise messaging system, which was based on Lotus Notes.

Solution
Tropical Shipping deployed a communication and collaboration solution based on Microsoft® Exchange Server 2007, Office SharePoint® Server 2007, and other Microsoft software and technologies.

Benefits
- Streamlined IT administration
- Productive collaboration and project management
- Flexible application-migration path
- Cost-effective collaboration infrastructure
- Solid foundation for future enhancements

"We chose a Microsoft-based solution not just because it aligns with our strategic IT integration goals, but also because the new version of Exchange Server meets or exceeds our existing Notes functionality."

Rick Hall, Application Development and Support Manager, Tropical Shipping

Tropical Shipping provides containerized shipping services, cargo transfer, and other freight services. For many years, the company's systems for enterprise messaging and related functions were based on IBM Lotus Domino and Notes. However, Tropical Shipping wanted to better integrate these systems into the company's Active Directory®–based IT environment and to reduce Notes licensing expenses. In 2007, Tropical Shipping began deploying a comprehensive communication and collaboration solution with Microsoft® Exchange Server 2007 and Microsoft Office SharePoint® Server 2007 as its foundation. Although deployment is still in progress, the new solution is already supporting more streamlined IT management and more effective employee communication, resulting in improved productivity. It also provides a flexible, efficient path for migrating the company's Notes applications in the near future.

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Situation

Tropical Shipping is one of the largest carriers of containerized freight to the Bahamas and the Caribbean. The company operates about 20 owned and chartered vessels, as well as state-of-the-art cargo transfer facilities in various seaside ports. Headquartered in Riviera Beach, Florida, Tropical Shipping is a wholly owned subsidiary of Nicor, a natural gas distribution company based in Naperville, Illinois.

For years, Tropical Shipping has used IBM Lotus Domino server software and the Lotus Notes client for enterprise messaging, document management, and application development. The company's IT environment includes 1,000 users, 1,200 mailboxes, and about 40 Notes applications and databases. Three clustered Notes database server computers and two Notes application server computers support this environment from both a primary and a backup data center.

Tropical Shipping wanted to reduce expenses related to its Notes licenses. The company also sought to better integrate its communication and collaboration systems with the rest of its IT infrastructure, which is based on the Windows Server® 2003 operating system and the Active Directory® service. In particular, the company needed to resolve technical issues between Notes and other programs. "Notes databases are not completely relational," explains Rick Hall, Application Development and Support Manager at Tropical Shipping. "As a result, making some of our Notes application interfaces work with other key systems that require relational databases was sometimes a difficult process."

To address these issues, Tropical Shipping sought a cost-effective, easier-to-manage, and more integrated communication and collaboration solution.

Solution

In September 2006, Tropical Shipping decided to switch its Domino/Notes–based systems to Microsoft® infrastructure software and technologies, including the following:

- Microsoft Exchange Server 2007 Enterprise Edition, which offers e-mail, calendaring, unified messaging, and other enterprise messaging functionality
- The Microsoft Office Outlook® 2007 messaging and collaboration client, which displays Exchange Server 2007 information on desktop computers
- Microsoft Office Outlook Web Access, a component of Exchange Server that accesses e-mail, schedules, and other information through a Web browser
- Windows® SharePoint® Services, a technology in Windows Server 2003 that provides Web hosting, document storage, and application development functions
- Microsoft Office SharePoint Server 2007, which extends the capabilities of Windows SharePoint Services by adding organization and management tools, including out-of-the-box functionality for records management, search, workflows, portals, and personalized sites

Additionally, the Microsoft Visual Studio® 2005 Professional Edition development system is used for custom programming.

Hall says, "We chose a Microsoft-based solution not just because it aligns with our strategic IT integration goals, but also because the new version of Exchange Server meets or exceeds our existing Notes functionality."

"Another key reason we selected Exchange Server 2007 is that it has enhanced clustering and replication features," adds Michael Aback, Systems Analyst at Tropical Shipping. "Without such high reliability and rapid failover capability, we might never have started this project."

Planning and Testing the Solution
Over the next few months, Tropical Shipping planned the project and evaluated multiple vendors' tools to help with mailbox migration. In August 2007, the company chose CMT Universal, developed by Binary Tree—a Microsoft Gold Certified Partner with expertise in enterprise messaging and collaboration technologies—to migrate users' e-mail, calendars, tasks, and personal address books, as well as meeting rooms. "CMT Universal was less expensive than other migration tools, but it actually performed much better," says Hall, referring to the software's fast data migration rate, measured at two times the speed of competing products in the company's tests.

In October 2007, Tropical Shipping deployed Exchange Server 2007 on a single blade server to support the pilot program. In November, the company implemented a pilot project for mailbox migration that included 35 users in the IT department.

Deploying the Solution
With the success of the pilot, the company began a phased deployment of Exchange Server to its production environment at a rate of 50 mailbox migrations per week. The Enterprise Migration Manager feature in CMT Universal helped Tropical Shipping manage and distribute all migration-related communications to users, informing them of the changes that were going to take place. The company also used this feature to simplify the provisioning of user accounts in Exchange Server and to prepare the new mailboxes to receive migrated data. Tropical Shipping expects to conclude this phase in the summer of 2008.

The company runs Exchange Server on a total of four HP ProLiant dual-core blade servers in a clustered configuration—one client access and one mailbox server in its primary data center, and an identical failover setup in its backup data center. One additional server is currently in production to support Office SharePoint Server 2007.

The migration of Notes applications will take place in a separate project after all the mailboxes have been moved to the new environment. Planning is already underway, and two applications have been converted as a proof of concept. The company expects to use third-party tools, which may include CMT for SharePoint from Binary Tree, to help with the application migration process.

Benefits

Deployment of the new solution is still underway, but Tropical Shipping is already experiencing the benefits of streamlining IT management processes and of promoting more effective communication, collaboration, and project management. These efficiencies, combined with reduced Notes licensing expenses, give the company a cost-effective collaboration infrastructure. The new solution also offers a flexible path for migrating the company's Notes applications and provides a foundation for other future enhancements.

Streamlined IT Administration
The new solution simplifies IT management by supporting a more integrated, secure, and reliable environment. This is especially important to Tropical Shipping because it has a small IT staff. Hall says, "With Exchange Server 2007, Office Outlook 2007, and Office SharePoint Server 2007, our environment is much more tightly integrated than it ever was using Notes. Specifically, the integration of core Microsoft products with Active Directory makes it easier to set up, enable, and disable employee accounts from one place and at one time. This is a great timesaver and promotes better security."
Additionally, the new environment is highly reliable. With the cluster continuous replication (CCR) feature in Exchange Server,

configuration information and data are copied continuously from the active server node to the passive node. By not requiring shared storage, these nodes can be located in separate geographical locations while maintaining high performance. "When our few failovers occur, Exchange Server handles them faster and with less impact on users than Notes did," says Aback. During the transition period, Exchange Server has provided more than 99.5 percent uptime, and that number is expected to increase as the environment's configuration is refined.

Productive Collaboration and Project Management
Because the new solution is easy for employees to use and is helping them better share information and manage projects, overall communication and collaboration are more effective. As a result, productivity is up.

Hall cites reduced training requirements as evidence of the usability benefit: "In the past, we had to train new workers on how to use Notes, but now, most people we hire are so comfortable with Office Outlook 2007 that they don't need training on it. And our existing employees who have been migrated to the new Exchange Server environment are also able to adapt quickly. They're very happy with it."

As an example of how the new solution contributes to improved project management, Hall notes that, for years, many tasks and projects were tracked on spreadsheets, which became cumbersome as the company grew. Now, his and other departments use SharePoint lists, calendars, and so on, to track this information. "After using Office SharePoint Server 2007 for a year, our teams have become more productive," Hall says. "It takes less time to review everyone's projects because people can update their own tasks and documents. Now, managers can know at a glance the status of all the different projects in their area."

Flexible Application-Migration Path
Tropical Shipping has evaluated several of its Notes applications to determine whether they will likely be replaced with a new product, with customized software, or with functionality in Office SharePoint Server 2007. The company is particularly impressed with out-of-the-box features in SharePoint Server 2007 that will greatly simplify the migration process.

Hall says, "We have several workflow approval applications, such as travel request, capital budgeting request, and similar key systems that are currently based on Notes but can be easily moved over to Office SharePoint Server 2007. We're especially interested in the new solution's built-in workflow features that will simplify our migration and development work. We will also be able to use application migration tools to automatically port documentation stored in Notes databases over to the new environment."

Cost-Effective Collaboration Infrastructure
Based on its financial analysis, Tropical Shipping expects the new solution to offer a cost-effective replacement of its Domino/Notes environment over the long term. "We looked at the true costs of our Notes licenses and determined that discontinuing them would offer immediate savings," says Hall. "And, we'll be able to avoid the cost of upgrading storage systems for our Notes servers, which were running out of space." The company expects the new solution, and Exchange Server in particular, to support ongoing growth with only modest investments in time and equipment.

Solid Foundation for Future Enhancements
Based on the positive results it has seen so far, Tropical Shipping is looking at ways to further enhance its communication and collaboration solution. "Unified communications features in Exchange Server 2007 have the potential to offer important business benefits," says Hall.

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"In particular, the ability to connect Office Outlook 2007 directly to our telephone and other core business systems and to integrate voice mail into the e-mail inbox will help people access information faster."

In looking at the migration project overall, he concludes, "Some folks have been here for a really long time, and they've become very entrenched in the Notes environment. It was very important that we migrate these employees to Exchange Server without making their jobs difficult in the process. The fact that we've been able to do this with so few issues and so few IT staff tells us that we chose the right solution."

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