RUTLEDGE ENGINEERING
AUDIO VISUAL SYSTEMS

Unified Server Environment Connects Audio-Visual Specialist Nation-Wide

Overview

Country or Region: Australia
Industry: Electronics Systems

Customer Profile

Rutledge is a leading provider of professional audio-visual equipment. It designs, integrates, and installs solutions for major government and corporate clients across Australia.

Business Situation

Having grown office-by-office, Rutledge's servers did not communicate efficiently with each other. Inter-office email was unreliable, file version control was inadequate, and project management suffered.

Solution

Windows Server 2003 gave Rutledge a shared document space that replicated quickly across all sites. Migrating email to Microsoft Exchange Server 2007 gave staff an efficient, remotely accessible mail service that helped project teams collaborate.

Benefits

- Easier access to shared files.
- Faster, more reliable email.
- Remote access for mobile staff.
- Dependable version control.
- Improved IT management.

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Rutledge Engineering designs and builds specialist audio-visual suites for large corporate and government customers. With offices across Australia, Rutledge's design and installation teams manage complex project management documentation while working separately, often on client sites. As it expanded, the company had created separate IT environments for each office, with files stored locally. As a result, version control became erratic and teamwork suffered. Separate email domains meant inter-office communication was not fast or reliable. Using Windows Server® 2003 and Microsoft® Exchange Server® 2007 enabled Rutledge to establish a shared file space that all employees could access, including those at client sites. Staff found it easier to communicate and share project documentation, while IT administrators spent less time maintaining servers.

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Situation

Headquartered in Melbourne, Australia, Rutledge Engineering designs and installs audio-visual systems for large government and corporate clients. Founded in 1979, the company expanded across Australia from 1999–2006. It now has 185 employees at head office, and branches in Adelaide, Brisbane, Perth, and Sydney.

Most of Rutledge's business comprises bespoke installations, which require teamwork and skilled project management. Some of its projects are very large-scale, requiring integrated audio-visual suites at global company headquarters and large public institutions, such as hospitals.

"We do most of our work onsite and clients rarely visit us, so most of our communication is by email," says Chris Deegan, IT Manager, Rutledge Engineering. "We are a very document-centric company; we do a lot of designs, quotations, and tenders. Email is fundamental to how we work."

However, Rutledge's email and file servers were not designed to meet the needs of a multi-office company. The company installed a new server each time it opened a new office. Because it had used a Linux operating system, these branch office servers could not collaborate effectively.

Critically, Rutledge lacked the means for sharing documents with effective version control. Information for each project would be stored on one of four office file servers, each with its own file structure. Without efficient data synchronization, interstate projects became difficult to manage.

"Information was often inaccurate, because people were looking at the wrong versions of files," says Deegan. "As a result, we were constantly in danger of double-ordering goods, working off non-updated drawings, or

losing client information. In addition, staff working on client sites found it difficult to locate the files they needed, because they had to search through up to four different servers."

In addition, Rutledge's email system was slow and unreliable. To expedite growth, the company had commissioned separate email servers in Sydney and Melbourne that used different domains and addresses. Inter-office email was channeled through internet service providers; however these providers' email filters would block or lose some messages.

Says Deegan, "The end result was that email could take a long time. An email to Brisbane could take 15–20 minutes. My IT staff frequently took calls from employees who needed assurance that their email would arrive."

The IT department spent a lot of time on user administration tasks such as resetting passwords. This was exacerbated because each machine had its own set of usernames and passwords. At least twice a week, staff would call on the IT team to restore documents they had accidentally erased.

With multiple mail systems, the IT team was prone to make errors in configuration, or to set up machines differently. As a result, machines could break down unexpectedly. Even when the IT team fixed problems, the solutions could not necessarily be replicated to other servers across the business.

By mid 2007, the challenges of trying to share information effectively and back up files in an orderly manner were becoming overly burdensome.

"Our systems no longer suited the way our teams worked," says Deegan. "In IT terms we were working as four separate businesses. We had to work very hard to make sure that

technology issues did not have a serious negative impact on the business."

Solution

Rutledge's IT staff had a clear idea of how they wanted to centralize their file and mail systems, but were unsure which route to take.

"We did a lot of research and looked at Novell and Linux solutions," says Deegan. "However, our biggest issue was business continuity: 'what would happen if we lost internal expertise?' One of the main worries with our Linux system was that it has been built by one person. If that person left, it would be hard for someone else to pick up the pieces.

"One of the attractions of Microsoft was that we knew the industry expertise was out there. If anything went wrong, there was a whole range of companies that could help. Plus Windows Server 2003 and Microsoft Exchange Server 2007 were designed to work easily together.

"Another attraction was the range of other capabilities we could introduce with other integrated products such as Microsoft SharePoint Server or Microsoft Systems Center Essentials. Finally, there was the cost factor."

Rutledge engaged Microsoft Gold Certified Partner Total Network Support to implement a completely new server infrastructure.

"Windows Server 2003 was the basis for our solution," says Mark Ryan, Solutions Consultant at Total Network Support. We put in five new servers – one each in Melbourne, Sydney, Perth, and Brisbane, and another off-site for backup. We set up a single domain, so all company documentation could be stored in one file structure. Moving to a central domain meant that identity

management and access control were centralized."

The Distributed File System (DFS) functionality built into Windows Server 2003 ensured that files stored on the Sydney, Perth, and Brisbane servers were automatically replicated to the central server housed in Melbourne. To increase data protection, all three sites would replicate overnight to the offsite backup server.

Because business continuity was important and Rutledge relied so heavily on email, TNS installed Microsoft Exchange Server 2007 servers in Melbourne and Sydney. This ensured Rutledge staff could enjoy continuous email access, even if one of the servers went down or required maintenance.

"With all the email and messaging data stored at Exchange Server level, business users have common access to services such as public folders, calendars, and contacts," says Ryan. "And the company has central control over all this information."

Benefits

The unified server environment brought Rutledge immediate business benefits. Many of the IT department's administration burdens were eliminated. Business users enjoyed the ease and confidence of an accessible and dependable file sharing environment, email became quick and reliable, and remote access capabilities meant staff on client sites remained fully engaged with project management.

Comprehensive file sharing

"Accuracy is the big business gain – our staff can execute projects more adroitly, because they know they are working with up-to-date and accurate information," says Deegan. "And people are getting to the information they need faster. Instead of having to

navigate through four different file systems, they just have one.

"Moving to a single file-sharing environment has also helped us better organize our documentation. The folder hierarchy is now structured to suit the business. It is much more intuitive and we can make sure it stays that way."

In addition, staff can recover lost or deleted documents without calling the IT department. The new document retrieval process is simple enough for business users to handle on their own and does not require access to backup tapes or software.

Simplified user management

Rutledge's IT managers and business users benefit from simplified network access. With Active Directory®, a component of Windows Server 2003, a new user added in one location automatically gains access to files, email, and terminal services across the company with a single username and password.

"Just having a single point of interaction for password resets significantly reduced calls to our help desk and saved my IT staff about five hours per week in user management," says Deegan. "Of course, our business users are freed from needless hassle and save about the same amount of time as well."

Dependable email

Consolidating email into a single domain and an internally managed environment improved performance and user satisfaction.

"Now, email is instantaneous and there has been a massive increase in business confidence," says Deegan. "Staff hardly ever contact us to check up on mail, and if they do, we can track it without having to look through six or seven systems or phone the internet service provider.

"Troubleshooting is also easier, because my IT guys know that the email system works, so almost all the problems are due to user errors. In fact we have had no system email faults since the new servers went in."

Rutledge staff also use the groupware functionality of Microsoft Office Outlook 2007 to facilitate project management. This is particularly important because staff and teams spend significant amounts of time working remotely from each other.

"People are assigning tasks for each other and using the calendar function to arrange meetings," says Deegan. "We don't have to be proactive about this: staff encourage each other to use these features but the business derives huge benefit from people being more organized."

Reliable remote access

Outlook Web Access has given staff dependable remote access to email and files.

"The staff are completely rapt," says Deegan. "They are amazed at the technology. Outlook Web Access makes it easier for staff to work for long periods of time on client sites.

"They don't have to return to the office routinely to collect email and documents. It saves many employees 2–4 hours per week."

Lighter administrative burden

Although the business benefits have been significant, a major driver to implement a unified server environment was the need to relieve pressure on the Deegan's IT team.

"Being able to do our IT administration from one place has resulted in a massive time saving," says Deegan. "With one console I have everything at my fingertips. For example, backing up mail is an integrated task, I just have to change the tapes. This

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takes me one minute per week instead of five hours. The entire IT environment is now much more robust and easy to manage.

"I have been able to reduce my team from three people to two, while improving the quality of the service we provide," says Deegan. "We are no longer playing catch-up all the time. Now we can make real productivity improvements and have confidence in the services we provide."

Microsoft Server Product Portfolio

For more information about the Microsoft server product portfolio, go to: www.microsoft.com/servers/default.mspx

For more information about Microsoft Exchange Server, go to: www.microsoft.com/exchange

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