Case Study

A large manufacturing company recovers their Microsoft® Exchange Server after several setbacks

The Background

Businesses that experience an email system outage can lose days of productivity, and as IT staff scramble to troubleshoot the issue, costs rise exponentially during each minute of downtime.

Most business continuity plans exist only to satisfy an internal compliance policy. When the absence of a business continuity plan affected an entire organization, the cost was far greater than management expected. The failure of an email server illustrates how a data management and restoration tool could have assisted the IT staff in a faster recovery.

The Situation

A large manufacturing company experienced an unexpected data loss with its email system resulting from a series of failures. A clustered server system was in place using an Exchange server supporting over 1,000 users, but due to local logfile storage, one of the cluster servers began exhibiting performance issues as it was running out of disk space. Shortly thereafter, a second node in the server array failed and it would not mount the Information Store. Microsoft's support team assisted the IT staff by bringing the server offline, and after performing Information Store repairs and then an Information Store backup, the server was back online.

The server worked well for about a day, but users started to notice issues with appointment scheduling and message corruption. As a remedy, IT set up another Exchange server and started moving user mailboxes to the new server, which seemed to stabilize the clustered servers. A few days later, the clustered server system crashed again. IT set up yet another temporary messaging server so that users could continue to send and receive messages, however, the users' archived message data was not available.

With the users at least able to function with their email, IT started working on getting the users' archived email out of the original Information Store. Unfortunately, a restore of the backup created after the second system crash did not bring back any usable data. At this point, the IT team was struggling with the circumstances, and users were frustrated after almost two weeks of intermittent email issues. The executive management team began requiring daily updates of the situation from the IT director, and the frustration and tension continued to increase among the entire messaging team.

The backup software vendor was called onsite and their experts began examining backup logs for a solution. It was determined that a faulty tape machine within the backup library system corrupted the backup. Unfortunately, this also corrupted the other backups kept onsite—the organization only maintained a limited number of

backup tapes in rotation. This left the unmountable Information Store from the clustered message servers as the only way to restore users' archived email messages.

The messaging team executed the Exchange repair application (ESEUtil) on a copy of the 100GB Information Store. After 12 hours, there was no indication if there was going to be a successful repair to the Information Store, or what would be recoverable.

The Solution

This company did not know what to trust—the hardware was failing, their recovery and restoration attempts were going nowhere, and their IT team was exhausted.

Finally at their wits end, they brought in a professional data recovery company to start mailbox data extraction. In less than 24 hours, users' message data—over 1,400 mailboxes—was successfully restored and merged into the existing messaging server. (A portion of these mailboxes were part of the organization's VoIP phone system.)

The Resolution

IT administrators know that having access to original data is critical. Backup data can never be as current as original data but in this case, the IT team ran out of options.

In hindsight, a data management tool such as Ontrack® PowerControls™ could have been used to process the original Information Store and extract mailboxes directly to the temporary email server. Unlike ESEUtil, Ontrack PowerControls accesses the Information Store without changing any of the internal database contents. ESEUtil also has the tendency to overwrite critical areas of the Information Store's meta-data and message tables if it discovers unreadable corruption.

In this case, the IT team did everything it could to rescue their system; they called in all of their vendors and involved Microsoft's support services early on. From a business continuity standpoint, they did everything right—despite challenges and roadblocks from a continually failing system.

In the end, the IT department rebuilt their Exchange server environment while the users worked from the temporary server, and future maintenance moved users to the permanent system.