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Gerd Schmitz
IT Manager



Rhine-Main Pipeline Company

Situation

The Rhine-Main Pipeline Company (RMR mbH) had a complex infrastructure problem due to multiple operating systems running various applications. Because of the sensitive nature of their operation, there was no room for error or unreliability.

RMR’s products are conveyed separately to various processing locations along the 524 km (325 mile) transportation network and then delivered to any of the eight storage facilities or Petro-Chemical factories and consumer centers in Oberhausen, Cologne, Frankfurt am Main and Ludwigshafen. The amount of liquid transported is equal to almost 400,000 railroad tank cars annually. High performance pumping stations relay the deliveries from north to south with a “travel speed” of approximately five km (3.1 miles) per hour.

CONT’D.

The operations center at RMR headquarters in Cologne-Godorf has a staff of 85 employees controlling the workflow and monitoring all processes related to the pipeline. Highly skilled engineers monitor the station around the clock to provide safe and efficient transport for each petroleum batch, whether it is heating oil or other key products.

SOLUTION

Initially, RMR decided to implement SEP for backing up the data from their Tru64 servers because SEP was one of the few companies that supported that operating system. When a comprehensive IT restructuring took place between 2004 and 2007, RMR testing and analysis began in earnest to look at various backup software alternatives. However, once again, SEP proved its value and RMR integrated SEP into the organization as their only backup solution.

“ SEP offers by far the most economical solution, while still delivering the stellar performance our customers demand. ”

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CONT'D.

To the satisfaction of senior management and IT staff, RMR found a simple solution to backup and manage vital company information, SEP. They implemented a SEP host server solution that backs up, manages and controls many servers in a heterogeneous environment; a solution no previous vendor was able to adequately deliver. The entire RMR infrastructure, running many applications from various vendors, is now backed up using one solution: SEP – functional, reliable and perfectly suited for today's multi O/S heterogeneous computing environments.

ENVIRONMENT

In the heart of the HQ is the data processing center, where servers controlling pipeline flows reside, alongside multiple servers running an additional 12 applications and performing the various activities required to run the facility. This includes communication to Global Position Monitoring, a major application, and Smallworld Geospatial Information System (GIS) from Geomagic, which runs on Tru64 Unix and manages all relevant data regarding petroleum transit below ground. The other servers are running Windows Server 2003 and many other vendor applications.

Two database servers running an Oracle interface between the process control system and the office communication system. One main Oracle Database is the repository for all data relevant to the pipeline's operational security. This includes measurements to determine pressure and temperature fluctuations, ultrasonic emission monitoring and measurements of material corrosion, which help identify potential problems and allow for scheduling and performing preventative maintenance.

The second Oracle Server collects performance data necessary to perform corporate accounting activities that flow directly to the SAP ERP system. Using a SAP/R3 system, all data from the RMR activities are recorded, from order processing to process development to maintenance contracts and institutional accounting activities. The SAP production system is mirrored by a second SAP server, which also monitors system activity.

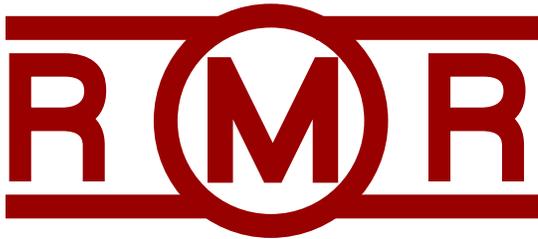
Other servers include two Citrix terminal servers, one email server, one Groupware server running IBM's Lotus Notes, an additional Oracle database used exclusively by the human resources department and a fax server rounds up the RMR server infrastructure.



RESULTS

“Since SEP already provides a world-class VMware ESX host server backup capability, no further changes to our backup strategy is required, nor do we have to invest a great deal of money to provide online backup for our VMware servers and guest VM’s.”

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IT Manager



“SEP’s reliability and the broad spectrum of products offered, as well as their support of all operating systems, databases and Groupware solutions, proved the most efficient and cost-effective solution available,” said Gerd Schmitz, IT Manager for RMR’s office communication department. Since SEP provides a centralized, integrated solution to back up Linux/Unix and Windows operating systems and has vendor certifications from SAP AG, IBM/Lotus Notes and Oracle, RMR decided to centrally secure its entire infrastructure, using a single backup and recovery solution.

“SEP offers by far the most economical solution, while still delivering the stellar performance our customers demand,” declared Schmitz. RMR utilized SEP’s Multi-Streaming technology to back up to disk and SEP, once again, outshined its competitors in speed and accuracy. Backup speeds are in excess of 400GB per hour, assuring backups are performed in the time allotted without interfering with RMR’s 24x7 service commitment.

Preparing for disaster, RMR mirrors data using SEP data replication software to a network-attached storage server at a remote site. SEP’s centralized design and additional modules allow system administrators to perform backups and restore tasks from anywhere in the network. With the weekly backup data volume hovering at 2.9 TB, RMR runs a full backup on weekends for all data servers, programs, system status and registry. After backing up to disk, RMR copies data utilizing SEP’s Disk-to-Disk-to-Tape technology to a Quantum Scalar 24 tape library, serving as the main repository for all of RMR enterprise critical data. This activity is performed simply and easily via SEP’s industry leading Java based GUI.

INFRASTRUCTURE VIRTUALIZATION

RMR has decided to further update and modernize its operations by adding virtualization to the mix. They are planning to consolidate servers and increase the number of virtual machines to enhance performance and efficiency. Using VMware ESX host server platforms, RMR is rapidly moving forward. According to Schmitz, “Since SEP already provides a world-class VMware ESX host server backup capability, no further changes to our backup strategy is required, nor do we have to invest a great deal of money to provide online backup for our VMware servers and guest VM’s.”

SEP Software is the premier technology leader providing high performance backup and disaster recovery solutions for professional IT infrastructures of all sizes. SEP delivers seamless solutions with one central interface to easily manage backups for heterogeneous environments.

SEP's software ensures that data security for both virtual and physical environments can be easily and cost-effectively achieved. SEP is the ultimate expression of German engineering and attention to detail. Design and programming originate from SEP offices in Weyarn, near Munich, Germany, where overall performance and reliability are of the utmost concern.

ABOUT RHINE-MAIN PIPELINE COMPANY

Founded in 1965, RMR is now a cooperative venture between the Shell, BP Amoco and Exxon Mobil conglomerates. RMR is responsible for transporting more than fifteen million cubic meters of petroleum products, including heating oil, fuel, naphtha and aviation fuel, to facilities throughout northern Germany. RMR receives products from the Rhine-Rotterdam Pipeline (RRP) at Venlo, on the Dutch-German border, as well as from a storage facility at Dinslaken and from the Rhineland Refinery at Gondorf near Cologne.

ABOUT SEP SOFTWARE

SEP Software has been delivering the widest range of backup and disaster recovery products for enterprise-level customers since 1996. With thousands of installations worldwide, SEP has developed the fastest and most reliable data backup solution available today. Its flagship product is ideal for businesses of all sizes and has proven its value to thousands of organizations across the globe. SEP has delivered unsurpassed performance to numerous industries including retail, education, health care and governments worldwide. Thousands of customers spanning six continents rely on SEP to attain their data protection strategies on a daily basis.