

# Good news

News and entertainment content provider RTL Group uses Dell infrastructure to offer site visitors richer news experience around the clock



## RTL GROUP

» **CHALLENGE** Update server infrastructure to support extreme bursts of traffic associated with critical news events

» **SOLUTION** Deploy a highly available hardware architecture with no single point of failure, based on Dell™ PowerEdge™ servers and a Dell/EMC CX400 storage area network (SAN)

» **BENEFIT** Flexible scalability; high reliability; rapid hardware delivery and implementation; more effective systems management; ability to expand content and services to better serve audience

Customer Spotlight

With 26 television and 24 radio stations in 9 countries, RTL Group is Europe's largest TV, radio, and production company. The Luxembourg-based media group operates TV channels and radio stations in Germany, France, Belgium, the Netherlands, the U.K., Luxembourg, Spain, Hungary, and Croatia. It is one of the world's leading producers of television content such as game shows and soaps, including *Pop Idol*; *Good Times*, *Bad Times*; *Family Feud*; and *The Bill*.

The RTL Group's Luxembourg news Web site, RTL.lu (RTL), provides site visitors with everything from the latest news and sports results to weather and entertainment information. It serves half the Internet population of Luxembourg, which includes more than 90,000 users.

One key challenge for any news organization offering high-bandwidth services is handling traffic bursts. For example, in 2002, a commercial plane crashed in Luxembourg and the country experienced the worst traffic jams in its history. RTL users flocked to the Web site to keep abreast of breaking news. But because the IT infrastructure supporting the site was

based on outdated servers, RTL was unable to meet user demand.

"Under normal conditions, we could use our old architecture to deliver a full range of news and entertainment content with no difficulty whatsoever," says Tom Weber, head of research and development at RTL. "Unfortunately, when it came to handling exceptionally high visitor numbers, we could no longer cope. When we experienced the plane crash here in Luxembourg, the site became so slow that we had to take off most of our usual rich content and replace it with simple text pages outlining the most recent developments in the traffic situation. This seriously compromised the user experience and damaged our corporate reputation."

Not only did RTL need an infrastructure that could easily handle extreme spikes in traffic, but it also sought a centralized storage system to manage content effectively.

"Traditionally, we used one storage machine to store images and another to store data for our database servers," explains Weber. "Using direct attach storage devices in this way meant we had to transfer files

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over the network and synchronize them before uploading content to the Web site. This process was time-consuming, difficult, and costly.”

The RTL architecture also had several single points of failure, such as the database server. Because downtime represented a significant potential for customer dissatisfaction and lost revenue, RTL needed to upgrade its server and storage infrastructure to help eliminate single points of failure.

“We were at constant risk of downtime with the old infrastructure,” Weber says. “All we could do to protect our operation was mirror data to backup servers every night. In addition to being a time-consuming and difficult process, this practice failed to back up machines on the up-to-the-minute basis that we needed.”

Another problem: RTL offers several high-bandwidth streaming media services and plans to increase the volume of content available on its site over the coming years. The company’s old infrastructure could not support this growth. “Because our site attracts an enormous number of users, we knew we had come to the end of the road with the

equipment we were using,” Weber says. “We needed a new, highly reliable server and storage environment that could handle a huge growth in content volume and traffic.”

#### **Dell is source for new infrastructure**

After a careful investigation, RTL selected Dell PowerEdge servers to support its new architecture. The company used in-house technology specialists to build and configure the new Dell hardware with a Linux® operating system and the additional software required to support the company’s Web site. Engineers from Dell Professional Services also supported the deployment of a Dell/EMC CX400 storage area network (SAN) during two days of consultation.

The new architecture comprises:

- » Five Dell PowerEdge 1655MC servers
- » Two Dell PowerEdge 1650 servers
- » Two Dell PowerConnect™ 5224 switches
- » Six Dell PowerEdge 2650 servers
- » One Dell PowerVault™ 132T LTO®-2 tape library
- » One Dell/EMC CX400 storage array

In addition to the Linux operating system, the new architecture also runs the Microsoft® Windows Server™ 2003 operating system to support Microsoft Media Server. This software is used to deliver all the streamed media services on the site, including programs from the major radio station (RTL Radio Lëtzebuerg) and RTL Group’s television station in Luxembourg (RTL Télé Lëtzebuerg).

#### **RTL reports simplified scalability**

Because of the clustering functionality built into Dell hardware, RTL can simply plug in additional devices to expand processing power without redesigning its architecture. This capability helps ensure that the company can handle increased site visitors without experiencing performance issues.

The servers are based on industry-standard technologies, enabling RTL to enjoy commodity pricing and wide interoperability with other technologies that are based on industry standards.

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critical for an organization growing as quickly as RTL. It also means we have the option to plug in a server at a remote location and mirror data to it for backup purposes," Weber says. "Dell hardware represents excellent value for money all around, especially when you consider that our hardware is scalable enough to support our operations for at least the next few years."

### **RTL delivers news around the clock**

The new site includes two database servers running in parallel and five Web servers where there was previously just one. This configuration helps ensure that the site has no single point of failure and remains highly available.

"Even in the unlikely event that two of our Web servers fail, the other three servers are more than powerful enough to pick up the load," Weber says. "Failover happens dynamically, so there is virtually no downtime. We purposely designed the entire architecture in this way, ensuring excellent redundancy and the best possible levels of service to site visitors."

The performance of the Dell PowerEdge servers helps ensure that the new site will serve content faster than before—regardless of how much additional content RTL adds to meet the information needs of its growing audience.

"The hardware we have in place enables us to handle enormous bursts of traffic," says Weber. "In addition, we now have the processing power we need to provide better and more sophisticated services, such as additional media streaming features."

Dell was able to deliver all the equipment for RTL's new infrastructure within days of the order being placed. This speed enabled the online content provider to rapidly bring its new site to market and generate a high return on investment. "We very quickly had all the servers, cables, switches, and other components we needed to begin building the architecture," Weber recalls. "With two days of consultation from Dell Professional Services, we were able to deploy the SAN and get the system up and running with no problems."

With the new architecture, RTL can manage its data and services centrally, resulting in significant time and cost savings. Weber explains, "We can centrally manage the news content, images, and streamed media services. For example, we can add disks and stretch content without configuring several disparate servers. As well as saving time and money, this enables me to concentrate on the strategic task of improving the site functionality going forward."

The new site gives users access to RTL's traditional news and entertainment information with a content archive that includes information from the previous two years. In addition, the site offers new services, such as streamed radio and television broadcasts, as well as a press service focused on government activities. Because the new hardware architecture can handle a high volume of data, Weber says RTL is free to further expand its service offerings in the future. "Because our architecture will scale to demand, we are ideally positioned to make the most of each and every market opportunity." ■