TNS Nipo prevents its network from becoming a performance bottleneck by future-proofing its infrastructure with Intel® Gigabit Ethernet.

By implementing Intel® Gigabit Ethernet between its file servers, TNS Nipo has taken the first step towards overcoming the limitations of its existing 100Mbps network connections.

Case Highlights

Profiled Organisation	TNS Nipo BV
The Challenge	Predicting a requirement for much higher levels of throughput, availability and network performance in the years ahead, TNS Nipo was anxious to future-proof its network by increasing significantly the speed of connectivity between the file servers on its Local Area Network.
The Solution	Implement Intel® Gigabit Ethernet in its 45 Dell* PowerEdge file servers to overcome any future limitations of 100Mbps connectivity and thereby provide the additional bandwidth and performance required to cope with new applications and increased volumes of data.
Benefits	The Intel Gigabit Ethernet solution has increased the availability of vital business data, thereby improving staff productivity and facilitating the introduction of new applications in the future. TNS Nipo also believes the increased performance of its network infrastructure will enable employees to handle a higher volume of business. The solution pre-empts the possibility of time-outs for users when accessing business-critical information held on the file servers. It also offers immediate staff productivity gains, because data can now be downloaded and copied much faster from file servers to the desktop.

Summary

Founded in 1945, and today part of the Taylor Nelson Sofres international market-research organisation, TNS Nipo was previously known as the Dutch Institute for Public Opinion and Market Research. With offices in Amsterdam, the Hague and Luxembourg, it offers consultancy services, and also develops and sells specialised software. The company is the market leader in the Netherlands and distinguishes itself from other market-research companies by offering a broad range of integrated services, which can be used together or implemented separately.

TNS Nipo derives its revenue from the conduct of surveys and research projects for clients throughout the Benelux countries, either directly over the telephone, by email or over the Internet, using questionnaires available through its website. TNS Nipo also provides a service whereby clients can use the company's systems and servers remotely to conduct their own surveys and research.

Conscious of TNS Nipo's heavy reliance on the stability and efficiency of its network for its ongoing success, Head of IT, Edwin Been, was keen to make it as future-proof as possible. He decided to begin by increasing performance at the very heart of the infrastructure—the central file servers—which contain all the vital information needed by every member of the organisation on a 24x7 basis. For this he turned to Intel Gigabit Ethernet as a long-term solution.

Challenge: The need for fast, reliable connectivity

Because TNS Nipo depends so heavily on technology, the company's IT team, headed by Edwin Been, plays a critical role. His task is to ensure that, whatever method is being used to collect survey data, fast and effective network communications are available for the purpose at all times. Rather than waiting for potential problems to impact the business, Been's strategy is to anticipate them well in advance and to stay at least one step ahead by providing the company's 350 employees and many hundreds of customers with the reliable network performance they require.

TNS Nipo's end users are spread across a number of departments, each with its own share of the fibre optic network for accessing, processing and storing information. The company's main applications are based on the latest versions of Microsoft* server products such as Office, SQL and Exchange, which are all linked to an SQL database cluster. With fast applications running on high-performance PCs, Edwin Been says the last thing he and his team want is for the network to become the bottleneck. His main task as Head of IT is therefore to prevent any such eventuality at all costs, and certainly before users ever become aware of it.

TNS Nipo gains an increasing share of its revenues from the conduct of online surveys over the Internet. This means that when participants in a survey log onto the company's servers via the Internet, they require fast access to the questionnaire. If they find, for example, that the server is down or responding too slowly, the likelihood is they will abandon their visit and, worse still, may possibly never return to the site, claims Edwin Been.

"This is just one example of why it is essential that the links to our servers are 100 percent fast, efficient and reliable," he says. "Downtime of any duration is unthinkable, which is why we were determined to ensure all our servers are fully redundant. Our back-office systems are equally important, because our Internet applications are connected to an SQL server, which, in turn, is connected to a web server. Because everything works together over the network, the connections must be totally stable and offer the highest levels of redundancy wherever possible."

Process: Implementing a solution ahead of the problem

Early in 2004, Edwin Been and his team therefore began investigating possible solutions to the problem and finally decided to link the company's 45 Dell* PowerEdge servers with Intel PRO/1000 T Server Adapters cards.

Been could foresee the existing 100Mbps network connections would inevitably cause bottlenecks in the long run, and he was also anxious to build some redundancy into the architecture: "It's no use having the very latest applications and sophisticated desktop technology if the network itself can't provide the necessary throughput," he says.

"For this reason, we decided to upgrade our file server connections from 100 Mbps to Gigabit Ethernet performance. Each of the servers is now equipped with two network cards connected to two switches. Either of these can perform load balancing or take over from the other in the event of an outage, thereby providing the redundancy we require in the network. At the same time, you could say that by implementing Intel Gigabit Ethernet on our servers, we have discovered the solution before encountering the problem."

Solution: Avoiding bottlenecks while improving productivity

Intel Gigabit Ethernet will not only allow TNS Nipo to avoid bottlenecks before they even occur, but also enable its end-users to access the data they require much faster, because they will not have to wait as long for applications to download. As a result, Edwin Been believes that the introduction of Intel Gigabit Ethernet and the increased productivity it offers will enable the company's employees to handle more business each day with the time saved.

Future: Plans to implement Gigabit Ethernet on the desktop

Based on the success of linking its servers with Intel Gigabit Ethernet, Edwin Been says TNS Nipo is now planning to move from using fibre optic cables in the network to using a Gigabit Ethernet switch to link devices. He says the company is also looking to upgrade all its Dell* Optiplex desktop PCs to Intel Gigabit performance by 2006.

"In the meantime, we believe the move to Intel Gigabit Ethernet at the server level has laid foundations that will ensure our network infrastructure remains future-proof for many years to come," he concludes.

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