



Cisco Data Center Strategy Improves Business Continuity for the Largest News Website in Belgium

Cisco Application Control Engine (ACE) and virtualization technology helps De Persgroep, a leading Belgium media company, deliver 30 percent plus cost and resource savings for data center operations

EXECUTIVE SUMMARY

Customer Name

De Persgroep

Industry

Media

Location

Brussels, Belgium

Number of employees

1,500 employees

Business Challenge

- Manage huge fluctuations in traffic to Belgium's leading news website and other online media channels
- Ensure optimum availability for internal business services and applications
- Manage increasing customer demand for streaming video and other multimedia content

Network Solution

- Cisco Data Center Network Architecture
- Cisco Application Control Engine (ACE) Module

Business Value

- Ensures reliable, always-available websites and services for external and internal customers
- Ensures high-profile websites deliver maximum revenue opportunities and satisfying customer experiences
- Data center resource costs reduced by 30 percent
- Reduces the cost of managing and expanding streaming video services by at least 25 percent
- Creates a platform for seamless scalability and new service deployment

Business Challenge

De Persgroep is one of the leading media organizations in Belgium. Its flagship products include Het Laatste Nieuws, the highest circulation newspaper in Belgium and Flanders with 287,000 copies a day; VTM, the largest commercial television station in Flanders; and the popular Q-music radio station. De Persgroep also manages the region's largest news website—www.hln.be—which has around 340,000 site visitors a day, 50 percent more than its nearest rival.

In addition to managing rising demand for internal business services and applications, being able to better manage the hundreds of thousands of daily hits on its flagship www.hln.be website, and various other online channels, presented De Persgroep with a significant challenge. The group's online media channels generate over 600,000 visitors every day, with traffic expected to double within two years. While internal user and network traffic is predictable, traffic to a news-driven website like www.hln.be is not and in one day, following a particular news event, hits to the site shot up by almost 60 percent to over 525,000.

De Persgroep websites also have a high volume of streamed video content, which is expected to grow considerably in the future. Without support for video streaming on the company's previous IT systems, these content services had to be outsourced, presenting De Persgroep with third party costs it wanted to remove as video became more central to its business offering.

In addition, De Persgroep's IT department acts as a service provider to various parts of the business so it needs to ensure that internal customers can communicate via email and share files and information quickly and reliably. Because De Persgroep's business is gathering, disseminating and presenting news and information 24-hours-a-day, these and other business systems need to be fully operational all the time. Any downtime could mean missing a major news scoop.

“Our online revenue model is visitor-driven and, with more than 600,000 daily hits across our online media channels it is vital that we run at 100 percent availability—every lost hit is lost revenue. Without the application infrastructure virtualization capabilities of the Cisco technology we would not be able to deliver this level of service to both external and internal customers or have the future scalability we know we will need.”

Luc Verbist, director of ICT, De Persgroep

Luc Verbist, De Persgroep director of ICT, says: “As a 24-hour news and media business we can't afford to provide our consumers with a slow web experience, or worse, a website they can't access due to downtime—but we can't predict the number of visitors to our sites. Over the next one or two years, we expect to have a million visitors a day to www.hln.be. We need to be able to manage huge fluctuations in visitor numbers in a cost efficient way, we need to be able to scale to meet demand, and we need reduce the spiralling cost of delivering streaming video.”

De Persgroep has put in place some innovative techniques to help manage web traffic. It has three probes located around the world which constantly test the company's websites for access and response times. Traffic into web servers is also monitored, so that when access times or thresholds are exceeded, SMS or email alerts to IT staff are triggered.

Verbist realised that it was at the network level where he could make changes that would have a dramatic impact on these performance, management, and cost issues. With an existing, well performing Cisco®-based network, De Persgroep turned again to Cisco to help extend its networking capabilities to support its data center operations.



Network Solution

Verbist says: “Having one partner provide all your network services is a huge benefit to us. We know the Cisco technology and we have developed a lot of in-house knowledge around it, so it made sense to work with Cisco to evolve our core network to support and enable new technologies such as virtualization.”

De Persgroep has deployed a Cisco data center and application infrastructure virtualization solution comprising Cisco foundation technologies and Cisco application network products to provide a scalable and adaptive IT services platform, to improve application performance and delivery, and improve management. Verbist says: “We’ve been surprised by a number of features of the Cisco technology, not least its scalability. Our core switches, for instance, can handle a throughput of 620 Gigabits per second, much more than we currently need but something that will enable us to keep up with rapidly increasing demand for web content, including video.”

A Cisco WAN (Wide Area Network) links two “mirrored” data centers located 200 meters apart at De Persgroep’s headquarters in Brussels. The data centers house over 300 servers. There are seven other locations across Belgium and Holland, ranging in size from 50 to 900 staff. Each site has its own Cisco LAN (Local Area Network). De Persgroep has located Cisco Application Control Engine (ACE) application switches in each data center. Virtualization functionality in the Cisco ACE switches means that applications can be shared across servers, making it easier to control applications while also simplifying management and reducing costs. The Cisco ACEs use Cisco firewall software to provide network security.

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Luc Verbist, director of ICT, De Persgroep

The Cisco Data Center Network Architecture supports a large and complex portfolio of over 400 business systems. The advertising application, which counts as one system, comprises over 30 sub-systems such as advertisement booking, billing, and a customer relationship management application. Another business unit, called Mediafin, gathers financial information from stock exchanges around the world and delivers it in real-time to customers such as banks and stock brokers. De Persgroep also has two printing plants—one of which is located 50 kilometres from Brussels—integrated with editorial and back office systems so that material such as copy, photographs, and advertisements can be sent instantly to them.

The Cisco data center solution at De Persgroep has been developed with Telindus, a Cisco Gold Certified Partner.

“Virtualization is very important to us because it makes managing, controlling and supporting our business applications much easier and more efficient. Cisco's virtualization capability is very capable and easy to use, and with it we're already seeing savings of as much as 25 percent in staff time and resources for managing our firewalls.”

Luc Verbist, director of ICT, De Persgroep

Business Results

Verbist says: “The Cisco data center virtualization and application networking solution is vital to our business. We have the biggest news site in Belgium and a range of other leading media products and services, and our ambition is to grow even bigger. Our online revenue model is visitor-driven and, with more than 600,000 daily unique visitors across our online media channels, it is vital that we run at 100 percent availability—every lost hit is lost revenue. Without the application infrastructure virtualization capabilities of the Cisco technology we would not be able to deliver this level of service to both external and internal customers, or have the future scalability we know we will need.”

The Cisco Data Center Network Architecture is critical to De Persgroep because it supports many different aspects related to managing business and web applications. For example, the company has over 300 different rules for the firewalls that protect applications hosted in the data centers.

Prior to the Cisco ACE, every rule was contained in a single database making it unwieldy, difficult to manage and prone to errors whenever there were changes. Because the Cisco ACE allows virtualization, it is possible to create virtual firewalls and the need for a large rule database is removed. This makes managing firewalls much easier, faster and more flexible, because any changes, or introduction of new rules, only affects a specific firewall and the impact of any errors is limited. The virtualization capabilities of the Cisco ACE extend to other operations—such as load balancing between server farms to maximize resources—in a similar way making it easier to change, upgrade and introduce new and existing applications faster and more efficiently.

The virtualization functionality in the Cisco ACE also means that applications can be shared across servers making it easier to control applications, while also simplifying the management of applications and reducing costs through greater efficiency. Virtual partitioning provides a way to segment and isolate applications, enabling them to act like individual modules on a single server, so applications can be distributed across data center hardware. This in turn enables much more efficient use of resources such as servers.

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The Cisco technology has also allowed De Persgroep to bring its streaming video operation in-house rather than outsource it. The company expects this to save around 30 percent in costs, with more savings to come as the volume of streaming video increases. With the Cisco data center infrastructure already in place, De Persgroep only needs to pay for extra bandwidth as streaming video demand increases. With the outsourced solution, all costs increase on volume increments. At around 1Gigabit, costs for in-house versus outsourcing streaming video are the same, but as volume increases outsourcing costs start to spiral.

Cisco is also helping Verbist improve internal customer SLAs (Service Level Agreements). When website traffic increased by 60 percent on its leading news website, an undesirable side effect was slower performance for internal applications like email and file sharing. The Cisco ACE makes it possible to virtualize applications and allocate bandwidth to specific applications so that even when there is a sudden and dramatic increase in traffic other applications will be unaffected. Verbist says: “This means that whatever happens externally, I can guarantee that our internal services and applications will be available. It’s important that we can set SLAs and know we can meet them.”



Product List

Routing and Switching

- Cisco Catalyst 6500 Series Switches
- Cisco Catalyst 4500 Series Switches
- Cisco Catalyst 3750 Series Switches

Security and VPN

- Cisco PIX 500 Series Security Appliances
- Cisco Catalyst 6500 Series Firewall Services Module

Application Networking

- Cisco Application Control Engine (ACE) Module

For More Information

To find out more about Cisco Data Centre Solutions, visit www.cisco.com/go/datacentre



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