



Reduce Complexity

Improve Flexibility

Service Catalogue

Enable Automation

TVM protects its business with a high-availability IBM solution from Tectrade

Challenge

Provide high-availability services to employees and customers; protect key business systems against unplanned downtime; enable rapid disaster recovery; reduce complexity and cost; support rapid growth in server numbers and data volumes; ensure no loss of data in the event of a disaster.

Solution

Worked with Tectrade to create a dual-site data centre, adding a new IBM System i 525 to mirror the production System i 520 server, and replacing 20 stand-alone servers and a disparate set of backup systems with: four IBM System x3650s running 60 virtual servers under VMware, two mirrored IBM System Storage DS6800s, an IBM Tape Library with LTO drives, and IBM Tivoli Storage Manager software

Benefits

Ultra-high availability, with multiple layers of data protection; ability to fail services over almost instantaneously to duplicate infrastructure; fast, non-disruptive scalability of storage capacity; enhanced storage reliability and performance; improved service to users; centralised control and reduced administrative costs.

TVM worked with Tectrade to centralise and virtualise its IT infrastructure, creating a compact, robust, efficient and highly available platform capable of supporting 24/7 business activities.

Transport Verzekerings Maatschappij (TVM, www.tvm.nl) is a transport insurance company founded in 1962 and headquartered in Hoogeveen. TVM employs around 300 people in five locations in the Netherlands, Belgium, Denmark, Germany and France providing insurance and related services to road transportation companies. Through its innovative My TVM service, TVM enables customers to update policy information and submit claims online, 24 hours a day.

To manage the growth of its business, TVM had steadily added new servers and storage devices to its IT infrastructure, ending up with around 20 Intel-based servers running Windows and NetWare, and an IBM System i 520 for core insurance systems. For storage, there were a number of direct-attached disk storage units and backup tape drives, with ARCserve software to manage backups. The growth of the infrastructure not only pushed up costs and management complexity; it also increased the number of potential points of failure and made it more difficult to protect against disaster.

Hans Pothof, Teamleader System Management at TVM, comments: "With growing emphasis on the ability to serve customers 24/7 on the internet, we wanted to ensure the highest possible levels of availability for our IT systems. It was also clear that we needed to be able to recover more rapidly in the event of a disaster, and to have a more resilient physical infrastructure."

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Infrastructure Objectives

Storage Consolidation

- Centralised Storage
- Enterprise Disk

Data Protection

- Enterprise Backup & Recovery

Server Consolidation

- Server Consolidation with VMware

High Availability

- Replication

Key Deliverables

- Centralised and virtualised IT systems
- Single point of control for all backup and recovery operations
- Continuous file-level backup
- Deploy new virtual servers in minutes
- Instant failover to mirrored data
- Zero tolerance of downtime

Virtualised infrastructure

TVM selected Tectrade, a leading IBM Premier Business Partner in the Netherlands and the UK, to carry out a complete refresh of its server, storage and backup infrastructure. Tectrade designed a dual-site architecture, with two data centres in different physical locations, and implemented IBM Tivoli Storage Manager to provide a single point of control for backup and recovery of all TVM's systems, alongside the existing backup and recovery strategy for System i partitions (LPARs). An IBM System i 525 Capacity Backup Unit (CBU) was introduced in the secondary data centre, to act as a backup for the production systems running on the System i 520 in the primary data centre.

Next, a fully redundant Storage Area Network (SAN) was introduced, centred on two IBM System Storage DS6800s, each with 10TB of high-speed disk capacity. Tectrade set up IBM MetroMirror software to mirror the DS6800s, creating a live copy of all enterprise data in each data centre.

In each data centre, the DS6800 provides storage for the System i landscape and for two IBM System x3650 Intel-based servers running VMware. The VMware environment currently supports around 60 virtual servers, and has enabled TVM to decommission all but two of its old Intel-based servers. An IBM Tape Library with LTO tape drives completes the new infrastructure, with IBM Tivoli Storage Manager controlling automated backups for the System x environment, alongside the existing System i backup jobs.

"Working with Tectrade, we successfully centralised and virtualised our IT systems, creating a more compact, efficient and reliable infrastructure that is also easier to manage," comments Hans Pothof. "There are very few companies with the knowledge and skills to create a single backup and recovery solution spanning IBM System i and Intel-based systems, and this was an important reason for choosing to work with Tectrade."

Zero tolerance for downtime

The new IBM infrastructure implemented by Tectrade gives TVM a robust, efficient, highly available platform for running its business-critical applications and services. In the event of unplanned downtime at the primary site, MetroMirror enables instant failover to the mirrored data in the backup site so that users can continue working uninterrupted. When an application running on a virtual server needs to be restarted, this can typically be done in a matter of seconds.

As a third layer of protection, TVM can restore complete systems from the tape backup in around one hour. The solution also provides continuous file-level backup, so that even data created after the most recent backup is protected in the event unplanned downtime.

"Many of the businesses we insure operate around the clock, at weekends and on public holidays: with this kind of customer-base, TVM has absolutely zero tolerance for downtime," says Hans Pothof. "The Tectrade and IBM solution ensures that our systems are always available, both for employees and for customers. Beyond resilience, the centralisation of the data storage architecture means easier and more efficient scalability: as any capacity we add to the DS6800s can be seamlessly shared across any of our servers."

Flexibility and responsiveness

The use of server virtualisation has enabled TVM to grow from 20 to 60 servers without increasing management workload or staffing, and without the requirement to invest in dozens of new physical machines. As well as enabling the company to keep up with natural growth in server numbers, the use of VMware allows TVM to add new test and development environments rapidly and at almost no incremental cost.

"With VMware on the x3650s, we can deploy a new virtual server in minutes, and we can easily clone an existing production server to create a development environment," says Hans Pothof. "Server virtualisation gives us much more flexibility and ability to respond to new business requirements - while ensuring that we do not run out of space and power in our data centres."

He concludes, "Tectrade delivered an excellent solution, meeting all our targets in terms of availability, scalability and robustness, and they now provide support for the whole environment, both servers and storage. We are very confident in Tectrade's technical skills and knowledge, and the highly professional attitude of their consultants makes them the ideal partner for our business."

Vendor Alliances on this project

IBM
Tivoli
VMware

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Head Office & Customer Centre
No.1&2 Godalming Business Centre
Woolsack Way
Godalming, Surrey
GU7 1XW
Tel. +44 (0)1483 861448
Fax. +44 (0)1483 861449
Email. info@tectrade.co.uk

www.tectrade.co.uk

Northern Sales Office
Harrogate, Yorkshire
Tel. + 44 (0)1423 340942
Fax. + 44 (0)1423 340945
Email. info@tectrade.co.uk

Scottish Sales Office
Edinburgh, Scotland
Tel: +44 (0)131 718 6077
Fax: +44 (0)131 718 6100
Email. info@tectrade.co.uk

Netherlands Office
Tectrade BV
Brenkmanweg 8
4105 DH Culemborg
Nederland
Tel. +31 (0)345 547040
Fax. +31 (0)345 520422
Email. sales@tectrade.nl

www.tectrade.nl