



itecPlus

itecPlus has implemented Novell® Business Continuity Clustering to assure high availability for vital file system and network services. With two independent clusters running in separate data centres, itecPlus can restore all services within two hours of a complete failure, giving its customers excellent protection against unforeseen downtime.

Overview

itecPlus GmbH is an IT services provider in Nuremberg, Germany, with around 95 employees and annual revenues of approximately €23 million. Its two principal customers are N-ERGIE—a multi-utility business that supplies electricity, natural gas, heating services and drinking water to around 650,000 customers—and VAG, which provides the majority of public transport services to the city of Nuremberg and its suburbs.

Challenge

Hundreds of thousands of households, businesses and public institutions depend on the services supplied by N-ERGIE, VAG and other companies supported by itecPlus. These companies' core business systems were fully protected against unforeseen downtime, with the key applications and infrastructure replicated across two independent data centres.

Although these core systems could be restarted almost immediately, the underlying file systems and network services were less well protected. Any loss of these foundational systems—supporting the technologies required for communications, user manage-

ment and Web services—would leave employees unable to interact effectively with the core systems.

Solution

Working with Novell Consulting®, itecPlus implemented a Novell Business Continuity Cluster solution to assure the availability and resilience of its file systems and network services, and integrated it with the existing mirrored disk storage architecture from IBM.

The Novell solution spans the two itecPlus data centres, which are 14 kilometres apart, balancing workload across two independent NetWare® clusters. The solution provides file services (some 12TB of assigned disk space), DNS services, DHCP and FTP services, an SLP directory agent, as well as Novell ZENworks® for desktop management. Under normal operational conditions, each cluster provides approximately half of these resources.

If any of the nodes in either cluster fails, its workload is seamlessly recovered on the remaining nodes. The Business Continuity Clustering solution also keeps resource configurations synchronised across the two

itecPlus at a glance:

IT services provider for utility and public transportation companies

■ Industry:

Utilities

■ Location:

Germany

■ Solutions:

Novell Business Continuity Clustering

■ Results:

- *Time to restore network services cut from up to two weeks to just two hours*
- *High availability and resilience for crucial file systems and network services*
- *Excellent scalability: new storage volumes can be added to clusters quickly and easily*

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Werner Moschner

*Team Leader IT-Operation Network
itecPlus GmbH*



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clusters, so in the unlikely event that one entire cluster fails, its workload can be restarted on the remaining cluster within two hours.

“File systems and network services may not seem very important compared with the mission-critical data held in our enterprise SAP systems,” said Werner Moschner, Team Leader IT-Operation Network, itecPlus. “However, when you consider that our customers’ e-mail systems and other front-end applications cannot function without such services, it would clearly be disastrous to lose them. The Novell Business Continuity Clustering solution enables us to provide the same high levels of availability for our Intel-based systems as for our enterprise systems.”

With no command line interface (CLI) available in NetWare to control N-ERGIE’s IBM ESS800 storage servers from the cluster nodes, Novell Consulting and itecPlus developed a system of Windows command files and configuration files to fulfil this task.

Adding additional nodes to the clusters, increasing the capacity of existing resources or adding new resources to the solution requires only the creation of the corresponding configuration files or additions to existing ones, making it quick and simple for itecPlus to adapt the Novell clusters to changing business needs.

“The Novell consultant who worked on integration with the ESS800 is a real expert on clustering solutions,” said Moschner. “He showed excellent competence and created an effective solution to manage the storage in exactly the way we needed.”

Results

With the Novell solution in place, itecPlus has significantly improved the resilience of crucial file systems and network services, and brought their availability into line with that of core business applications running on enterprise server platforms.

With the former single-cluster solution, a disaster might have led to two weeks of downtime while itecPlus procured, installed and configured new servers in the secondary data centre. In contrast, the Novell Business Continuity Clustering solution enables the company’s customers to recover from the loss of an entire data centre in just two hours.

As a secondary benefit, the Novell solution has eliminated scheduled downtime. itecPlus can now failover all services to one cluster in order to carry out routine maintenance on the other, without any disruption to users.

“It is difficult to put a figure on the monetary implications of a complete loss of file systems and network services, but it’s clear that our customers would not be able to function effectively without them,” said Moschner. “Users would be unable to access e-mail or histories of customer interaction, and the business-critical data in SAP would not be of much use without these secondary systems.

“Furthermore, the loss of DNS services would damage our IT services and could lead to lost business,” said Moschner. “With the Novell clustering solution, we have full confidence that our business—and our customers’ businesses—would be safe in the event of a major failure in one of our data centres.”



Contact your local Novell Solutions Provider, or call Novell at:

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