

Endesa Italia aligns IT infrastructure with business



“HP has enabled us to build a robust and secure infrastructure through high-performance solutions that reduce the management effort and provide us with enhanced control capabilities.”

– Antonio Foggia, IT Operations Manager, Endesa, Italy



HP customer case study: IT infrastructure consolidation and proactive management at Endesa Italia

Industry: Power

Objective:

- Creating a high-performance and cost effective IT and network architecture from scratch.
- Setting up an IT Operations Center designed to support the evolution of Endesa’s business.
- Centralizing control and management of distributed IT assets and services.

Approach:

Consolidation of all IT system resources in data centers located in Terni and Pomezia.

Single vendor environment:

- HP ProLiant DL380 and DL580 servers
- HP EVA 3000 storage systems
- HP NX6110 and 6120 notebooks
- HP DX2000 desktops
- IPAQ 6340

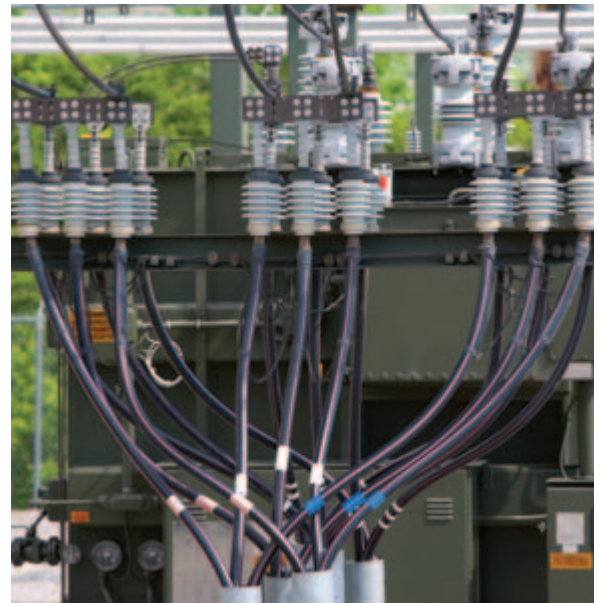
HP OpenView suite for systems, network and storage management.

IT improvements:

- 50% increase in system performance
- 70% increase in the performance of e-mail services
- Higher system availability
- Management effort reduced through simplification and automation

Business benefits:

- Business Intelligence supported by robust reporting capabilities
- Greater performance of business processes
- Ensured service continuity
- Reduced TCO
- Change readiness



Smooth migration to HP solutions

The IT systems of Italian power company Elettrogen used to be distributed across a considerable number of geographically dispersed sites. This situation prompted Endesa to launch an initiative aimed at consolidating IT resources at the new centers in the cities of Pomezia and Terni. While Pomezia was chosen as the data center for e-mail services, the Terni site was planned to serve as the central hub for office automation and to host the entire client/server environment for network and system services in the power generation and distribution arenas.

“Our primary objective was to become independent of our previous outsourcer. The idea was to relocate part of the existing system environment, to roll out new technologies and to set up a robust network infrastructure. The advantage of this approach was that we were able to align systems and architectures with our business priorities and goals,” says Antonio Foggia, IT Operations Manager, Endesa Italia.

Delivering new energy to the competitive power market in Italy and ensuring the supply of energy at contained costs – that’s the mission of Endesa Italy, founded in 2001 following the acquisition of Italy’s Elettrogen by Endesa of Spain.

With a stake of 80%, Endesa is one of the leading international power companies, generating 46,000 MW in 13 countries and serving 22 million customers. The remaining 20% are held by ASM Brescia, Italy’s second-largest multi-utility company. Today, Endesa is the third-largest power company. Annual production in 2004 reached 20,875 GWh, marking an increase of 17% over the previous year. In 2004, the company’s operative cash flow amounted to 537 million euros, up 32% compared to 2003.

The Information Technology and Communications (ITC) organization of Endesa has been instrumental to the company’s productivity growth. An IT infrastructure aligned with Endesa’s business was created from scratch and an IT operations center was established to support the evolution of Endesa’s business.

EVA 3000 supports core business processes

“First, we addressed our data storage needs,” recalls Foggia. “Based on a data storage analysis and a 5-year forecast, we decided to deploy a SAN solution built on an HP EVA 3000 with 2 TB of storage capacity. Thanks to the high scalability of this storage system, adding large amounts of data no longer gives us a headache. Data management on this storage system only requires a few simple commands. Located at our Terni data center, the EVA 3000 storage system handles all of our mission-critical data, aligned with our production needs and our ‘Energy Management’ directive for serving the electricity market. It takes a leading-edge ITC environment to ensure high reliability, a seamless information flow and consistently high data availability.

HP Adaptive Enterprise – management strategy for capitalizing on change

In 2003, Endesa Italia continued to build a new services infrastructure while phasing out its existing WAN solution and switching to a different network services provider. The two data centers in Terni and Pomezia as well as the 14 remote sites distributed across Italy, from Trapani to Sassari and from Lodi to Monfalcone, were interconnected via MPLS.

In 2004, the company rolled out its new network services, migrating the underlying authentication systems from native NT4 to Active Directory Mode.

“To prepare for the migration from our legacy NT4 systems to the Windows Server 2003 operating platform, we had to switch to a ‘mixed mode’ architecture that allowed us to consolidate on Active Directory on Windows Server 2003. For our server infrastructure, we chose DL380 ProLiant, a server series that had proven to deliver excellent performance,” notes Foggia.

“For our mail cluster, we chose even more powerful machines of the HP ProLiant DL580 series. Just to give you an example: At Pomezia, we added two HP ProLiant DL580 machines running Windows Server 2003 Enterprise to a storage cluster using an MSA1000. This cluster is used primarily for messaging as well as for general mail purposes. I may sound like an HP sales rep now, but: I am a very happy customer – and HP was the right choice for our data center needs. The key advantage of having a single-brand solution in place is that there is a single point-of-contact to ensure excellent support for the entire systems environment: storage, network services, e-mail, intranet, etc. – all relying on an HP ProLiant DL580 cluster.”

The architecture designed by the ITC (Information Technology and Communications) organization of Endesa Italia also embraces HP software: The entire environment is monitored by means of the HP OpenView suite. HP OpenView Storage Data Protector serves for managing data backup and restore. Across all sites, the domain controller is supported by HP ProLiant servers linked to the central console in Terni, from where the data backup of all remote sites is managed.

“HP OpenView Storage Data Protector offers a number of advantages. Above all, this application fully integrates with the HP EVA 3000 and with the entire HP storage stack. Storage Data Protector supports virtually any current-generation storage platform, including tape libraries and fibre optic links. For instance, we deploy two MSL 6030 LTO Ultrium libraries,” says Foggia.



HP OpenView for proactive management

"We chose HP OpenView based on real-life experience. For instance, HP OpenView proved its worth when I worked in the telecommunications industry. Due to its modularity, HP OpenView offers the right set of tools for each specific requirement, even on the application side. It's easy to configure via an intuitive user interface, and it provides an excellent price/performance ratio."

"Thanks to a combination of HP solutions, we have been able to streamline and optimize processes, we have centralized our IT service management, and we are able to ensure consistently high service levels due to the high availability of the servers we deploy."
Antonio Foggia, IT Operations Manager, Endesa Italia

"In addition to a maintenance and support agreement, we have signed a service contract with HP that ensures a 2-hour response time in the event of any mission critical server failure."

Endesa Italia uses HP OpenView to monitor its entire systems environment, including e-mail systems. Network connectivity is managed by means of HP OpenView Network Node Manager.

In 2005, consolidation was extended to the client side. In total, 700 desktop and mobile PCs were migrated to Windows XP.

Performance boost supports business

As the manager of IT Operations, Foggia is in charge of all ITC maintenance activities, ranging from cabling to services. "We used to lack data management capabilities – simply because data were maintained at remote sites and we had no knowledge of where which set of data was kept," notes Foggia.

"Today, we are an independent organization with robust management capabilities. We know exactly where data are located. We define, implement and control security as well as backup policies, and we have a 360 degree monitoring view due to HP OpenView. In short: we have achieved a quantum leap in quality. Our performance levels have improved in the front-end as well as in the back-end areas. We have eliminated all process performance bottlenecks."

"System performance has increased by 50%, and our productivity has improved significantly. The performance of our mail server has grown by 70%, delivering a faster and more stable workflow."

"In the past, the e-mail of thousands of users was handled by servers that were not under our control. Today, we are the owners of a secure and efficient server environment. In collaboration with Microsoft and HP, we developed mobile access services that allow our users to receive their mail via handheld devices and to connect to the mail server in line with our emergency alerting and response policy."

"Endesa corporate management are very pleased with the results we have achieved in terms of performance improvements and reduced Total Cost of Ownership."

"IT systems are of strategic importance to our company. Our business depends on fast response times – and the resources we now have in place reliably deliver on performance expectations."

HP Partner at a glance

Comedata specializes in the planning, implementation and management of IT and telecommunications solutions. Integrating commercial components with internally developed software, Comedata delivers complete solutions, ranging from network infrastructure to custom applications.

Leveraging best-in-class products, Comedata delivers value-added solutions that are integrated, right-sized and reliable.

In the project and IT systems management arenas, Comedata uses innovative and internationally recognized methodologies. Comedata's project management is based on the Microsoft Solution Framework (MSF). Comedata's IT systems management methodology is based on the ITIL process model and leverages the Microsoft Operation Framework (MOF).

Comedata is an HP Select Partner. An HP Authorized Service Delivery Partner, Comedata is entitled to deliver HP Care Pack services. As an HP OpenView Authorized Reseller Business Partner, Comedata draws on technical and commercial expertise in the HP OpenView solution suite.

Customer at a glance

Name of company: Endesa Italia SpA

Industry: Generation of electrical power, gas, related services

Founded: 2001

Headquarters: Rome, Italy

Data centers: Terni, Pomezia

Sites: Tavazzano, Ostiglia, Monfalcone, Terni, Fiume Santo, Calabria, Trapani

Staff: 1055

Installed capacity: 6.590 MW, 33% generated by oil-fired power stations, 36% by gas (combined heat and power), 15 % by coal and other fuels, 16 generated by hydroelectric plant

Annual revenues: 537 million euros (2004)

HP Partner: Comedata

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