



Case Study

Microsoft .NET Technology and SAP R/3 ERP System Put Spanish Railway on Track

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FEVE, a passenger and cargo rail system, was running its financial and management operations through a collection of custom databases that didn't talk to each other. When it came time to switch over to a unified European currency, FEVE decided it was also time for a unified data system. Tecnom installed a SAP R/3 ERP system on a platform of Microsoft Windows® 2000 Advanced Server, Microsoft Windows 2000 Server and Microsoft SQL Server™ 2000. The new system has streamlined operations for FEVE, giving the railway a newfound business agility.

Need: Disparate Data Systems

FEVE, 'Ferrocarriles de Vía Estrecha' (Narrow Gauge Railways) maintains the largest network of narrow gauge rails in Europe, with more than 1,250 kilometers of track in Northern Spain. In 2001, FEVE transported more than 12.25 million passengers and ferried 468,580,899 tons of iron, steel, coal, and other goods per kilometer of track.

Over the years FEVE had built up a multi-part information system: various custom applications for Purchasing, Warehousing, and Budget Management in Microsoft Access and Microsoft SQL Server 7.0, running on a Microsoft Windows NT 4.0 platform; and separate custom Unix applications for Accounting and Treasury. The various databases didn't talk to each other, but each used some of the same data points. Thus the master data had to be entered multiple times, which inevitably led to inconsistencies. And, when the time came to close the books each month, FEVE's accountants had to manually compile and reconcile reports from the various systems, a time-consuming task.

In 2001 FEVE was faced with the prospect of having to transact in a new currency, the Euro, as of January 1, 2002. The railway's highly customized information system could not process the new currency, and it would take a considerable amount of time and money to adapt all the separate databases. Therefore, FEVE took the transition to the Euro as an opportunity to modernize and integrate its entire information system, with a view to facilitating decision making, simplifying operations, boosting its knowledge base, and establishing a base for ongoing innovation.

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The Challenge

- FEVE's various departments were running incompatible data systems. As a result, shared data were sometimes in conflict; many accounting and administrative processes had to be performed manually; and important business information was not available in real time.

Solution

Getronics installed a Microsoft .NET platform and a SAP R/3 system, and united all of FEVE's data onto a SQL Server™ 2000 database.

Benefits

FEVE has accelerated many of its management processes, gained access to realtime business intelligence, and established a foundation for growth and innovation into the future.

Microsoft Software and Services

- Microsoft Windows® 2000 Advanced Server
- Microsoft Windows 2000 Server 5.00.2195
- Microsoft SQL Server™ 2000 Enterprise SP2
- Microsoft Cluster Service
- Other Software
- SAP R/3 46c SR2
- HP OmniBack

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Solution: Joining Forces

FEVE decided that the SAP R/3 ERP system would best meet the needs of its various departments. After a competitive review, the railway selected Getronics to mastermind the transition, based on Tecnomcom's expertise in implementing large-scale information systems.

FEVE and Tecnomcom decided to run SAP R/3 on the Microsoft .NET Enterprise Servers, including Windows 2000 Server, Windows 2000 Advanced Server, and SQL Server 2000. "We chose these Microsoft products for the stability they would provide to the solution, their total integration with the existing systems, the scalability they provided, security in data maintenance and ease of administration and management," says Carmen Velasco, SAP Consultant for Tecnomcom.

In six months' time, Tecnomcom Consulting completed installation of FEVE's new information system, through the following steps:

- Installing and configuring the .NET Enterprise Servers. Because FEVE wanted to keep downtime to an absolute minimum, Getronics deployed Microsoft Clustering Service, establishing an architecture of two Windows 2000 Servers and two Windows 2000 Advanced Servers in cluster.
- Adapting the standard SAP R/3 system according to FEVE's particular business processes in finance, purchasing and warehousing.
- Building a 13 Gigabyte SQL Server 2000 database for 120 users.
- Filtering and uniting the data from the company's existing Access and Unix databases for migration to the new SQL Server 2000 database.
- Installing the following R/3 modules:
 - FI – Financials CO – Controlling TR – Treasury
 - PS – Projects IM – Investments AM – Fixed assets
 - MM – Purchasing and Warehousing
- Installing interfaces to FEVE's Ticket Sales, Payslip and Telemat systems.
- Validating the configuration once it was operational to insure that user needs had been met.
- Individually training FEVE personnel to carry out their everyday work in the new system.



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Benefits: An Agile Enterprise

Unifying FEVE's disparate data systems has resulted in much newfound operating efficiency:

- Data no longer has to be entered multiple times, reducing labour as well as the risk of error.
- Because data inconsistencies have been eliminated, the company no longer has to spend time reconciling reports from separate systems.
- Departmental cross-analysis can now be performed automatically, rather than manually.
- Without disparate custom applications, maintenance requirements have been greatly reduced.
- FEVE now has the flexibility to increase its number of users and to implement additional SAP applications, through the proven scalability of the .NET Server applications on SAP R/3.

The new system has increased productivity in other ways as well. Previously, nearly all the documentation required from FEVE had to be completed by typewriter; now it is generated automatically by the SAP R/3 system. The system has eliminated the necessity of reconciling bank statements manually. FEVE has also gained an automated payment system for the first time.

Finally, FEVE is finding that the Microsoft .NET/SAP system is giving the company a newfound business agility. Prior to installing the system, for example, accounting of assets and expenditures was not completed until the end of each month. Now, FEVE executives can track actual balances online at any time, which allows them to make faster, more informed business decisions. And, FEVE knows that they are now equipped to keep pace with the market, easily scaling up, integrating with other applications, and adding new functionalities as they become available.

"Having modern software with the flexibility to accommodate FEVE's structure has allowed us to improve many of our business processes," comments Javier Batlló Ripoll, Business Director for FEVE. "We believe that we have hit the mark with our choice of this system, as well as of the team that has helped us to get it running, and we trust that new business management challenges will confirm this view."

"The choice of SAP R/3 software on the Windows 2000 platform is fostering the total integration of FEVE's information systems into a single system with facilitated maintenance and expanded usefulness."

*Javier Batlló Ripoll
Director Económico
Comercial
FEVE*