



Full steam ahead with IBM and SAP.

Leading Italian transport and tourism developer, Tele Sistemi Ferroviari (TSF), is using SAP to support its major customer, the Italian state railways, Ferrovie dello Stato. As the operating division of the joint Telecom Italia – Finsiel Group, TSF develops information and communication technologies (ICT) services for the Travel & Transport industry, both in Italy and abroad, and is the exclusive ICT supplier for the Italian state railways (www.tsf.it).

TSF's mission is to expand its customer base and increase turnover. This aim is now being realised with the help of IBM and SAP: TSF has added new employees over the past year augmenting staff numbers to 500 and is projecting an increase on last year's turnover of about 1,4 million euro. The implementation highlights the security and unsurpassed reliability of IBM hardware, the great integration of applications through SAP and the ability of the combined solution to bring real business benefits to its users. Mauro Cellini, Project Manager at TSF explains, "With IBM, TSF is safe in the

knowledge that it has a robust and reliable system that is totally secure. The mySAP.com solutions allow all our systems to be integrated and provide us with real solutions that enable us to really drive our business forward."

Seamless integration

TSF is a long-term user of IBM hardware and is extremely satisfied with both the zSeries and the xSeries. Mauro Cellini confirms, "We have been a zSeries customer for a long time and are very happy with it. Its attributes of performance, reliability and security enable us to put the technology to one side and concentrate on the business aspect of our enterprise. Our xSeries servers are also great as they allow us to load more applications on to the system without any problems."

Mauro Cellini explains TSF's reasons for choosing SAP, "With a mySAP.com solution we could leverage our existing skills. In addition, having previously used SAP, we have always considered SAP

Industry	Transport
Application	mySAP.com
Software	OS/390® Microsoft®Windows® 2000 DB2® Tivoli®
Hardware	IBM @server® zSeries™ IBM @server xSeries™ IBM Enterprise Storage Server™ (ESS)

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Mauro Cellini, Project Manager, TSF



an excellent system with an unparalleled capacity for data management. SAP also offered us immediate start-up, which was essential to us."

zSeries as the heart of the implementation

TSF operates various SAP systems for Italian Railways, running on different LPARs of the zSeries database server. Load balancing on the different systems is optimized and bottle necks are avoided with the Work Load Manager functionality on OS/390. Currently 5 application projects run on 8 LPARs across 20 SAP systems, corresponding to 20 DB2 instances. Globally, the system handles 1,250 MIPS, with 40 NT-based applications servers, with a total storage capacity of 3.2 TB using hardware-assisted compression. One of the projects, called Sfinze, deals with the accounts and finances, using the SAP solutions for Financing and Controlling of Ferrovie dello Stato. As application servers for the Sfinze project TSF has chosen seven xSeries servers. Throughout the project, there have been several upgrades to the Italian railway's previous IT architecture, which migrated from SAP 3.1i to 4.5b. The system today has a capacity for 500 GB of compressed data and serves 2,400 named users, with an average of 140,000 dialog steps/hour.

Mauro Cellini comments, "The implementation of the Sfinze system has been amazing. The capacity of our system has now grown from 80 MIPS to 405 MIPS. The project took 14 months to develop and the transition to the new system was seamless, thanks to a guided IBM migration and a special team consisting of colleagues from TSF and IBM." Ferrovie dello Stato's employees – the end users of the new system – have voiced great satisfaction with the installation. Mauro Cellini explains, "The Italian state railway is a huge organisation, with 100,000 employees. Standardising delivery and optimizing business processes throughout the organisation was difficult. SAP has provided the Italian state railway with an excellent way of standardising the organizational structure and delivering the product in the best, most cost-effective way possible."

Exploring the powers of zSeries

The second big project, called Inrete, handles the Italian railways infrastructure: maintenance, logistics and warehouses

through the SAP solutions for Materials Management, Project Systems, and the Business Information Warehouse. Running on an LPAR of the zSeries database server, the SAP 4.0b system was installed in January 2000 and has more than 4,000 named users in various Ferrovie dello Stato warehouses. As application servers the choice fell again on the proven technology of xSeries.

Five xSeries servers are used for the production system, two more are in use for test and development plus quality assurance. Employees using the system work in shifts around the clock. This means the system must be available 24x7. Mauro Cellini comments, "Thanks to the high availability of our zSeries, we can fully rely on our system to work 24 hours a day, 7 days a week. This is crucial to the running of our business." Serving 4,000 users with more than 100,000 dialogsteps/hour is a challenge for any system, and with high availability a necessity. TSF wanted to make sure there were no single points of failure left. To assure smooth disaster recovery if the need should arise, a separate system has been set up in Bari, Italy.

New projects bring new challenges

After the successful completion of these two projects, TSF has moved on to the next challenge: Mauro Cellini points out: "The Italian state railway needs a powerful and reliable system for its data warehouse. With our mySAP.com solutions we have a system that gives us great accuracy, saves us days of work and ultimately generates great cost savings. To exploit the benefit of a truly integrated solution, we have now implemented the SAP Business Information Warehouse (SAP BW). Management decisions can be based on exact data, reports can be issued on a timely basis, information is ready whenever and wherever we need it."

Two other projects are also on the way: a mySAP HR solution has been put in place, managing 100,000 employees and thousands of retirees. Two smaller systems have been set up for mySAP Financials. As the systems are used from various departments of the Italian State Railways and have been implemented in steps, the operating systems are partially on different release levels. To ensure smooth and easy systems management of this complex IT environment, TSF has installed Tivoli Storage Manager. Database reliability and performance

are guaranteed by an IBM Enterprise Storage Server which is connected to the zSeries and designed for 2 x 4 TB, covering the entire IT environment. The SAP segment amounts to 3.2 TB, with the production system alone accounting for 1 TB. Mauro Cellini comments, "The ESS is a great solution, the performance is very good and we have plenty of room to grow. As we don't know yet what the future will bring, it is good to have no limitations when it comes to storage." Concluding, Mauro Cellini adds, "We have great plans and are already in development for our next projects. We are confident that with IBM and SAP our expectations for the future will be fulfilled."



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