

CASE STUDY
CAMINHOS DE FERRO
PORTUGUESES

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Engº José Gaspar – IT Director, Caminhos de Ferro Portugueses



Customer's Challenge

Caminhos de Ferro Portugueses (CP) was set up as a State Owned Enterprise in 1975 to manage the railways in Portugal. Changes in domestic and community legislation led to the transport services and the infrastructure management being separated in 1997. While CP continues to run the transport operations it underwent a profound change in order to adapt itself to the market by organising itself into Business Units capable of satisfying the needs of the different types of customers – Freight Transport (CP Carga), Urban services (CP Lisboa and CP Porto), Long Distance services (CP Longo Curso and CP Regional) and High Speed services.

Since restructuring CP has invested in adding value to its services and strengthening its position in the transport sector. Engº José Gaspar, IT Director, CP, continues, *“In responding to the market, CP has made deep structural changes. We have significantly improved the quality of services, invested heavily in new rolling stock and started the process of working with other transport operators and become a much more customer-oriented company.”*

CP also implemented an institutional Enterprise Resource Planning (ERP) system which was accompanied by a profound re-engineering of its working methods and procedures. However, in the drive to become more customer-oriented, CP also wanted to implement a range of new IT systems that would streamline and enhance its customer interaction.

Fujitsu Solution

In 1999 CP chose Fujitsu to develop an On-Board Selling System for use by its Long Distance and Regional Units. Since then, Fujitsu has developed other ticketing projects, including an On-Board Selling System for CP Porto, Sales Kiosks for CP Long Distance and CP Regional and the reformulation of the basic system for long distance ticket selling and seat reservations.

Fujitsu also created the interfaces needed to enable travel agents to access CP’s travel information, so that they can now sell tickets directly by accessing the necessary information using a web-based system.

José Gaspar explains, *“With Fujitsu’s help all our ticketing systems were reformulated and new sales channels were opened. In addition to traditional ticket offices and automatic vending machine sales, new selling systems were established in all bank ATMs in Portugal – I think this is unique at an international level – plus we’ve created Internet sales and web service interfaces for travel agencies and have adapted some of these channels to provide other services, like car rentals for our customers.”*

SUMMARY OF KEY FACTS

Organisation

Caminhos de Ferro Portugueses (CP)

Service/s delivered

The development and management of ticketing solutions, including an On-Board Selling System, Kiosks and interfaces with travel agents systems, and the development of a new contactless ticketing solution

Key Metrics

- Transportation of 133 million passengers and 9.75 million tonnes of freight over the 2,830 kilometres of rail network

Benefits

- **Improved customer service** – can now sell and validate tickets in a wide variety of locations. Also, Kiosks provide a 24x7 ticketing service at the stations
- **Cost savings** – unified platform will significantly reduce operational and maintenance costs
- **Increased revenue** – can accurately measure how many people are travelling each day
- **Better resource usage** – cuts out unnecessary manual processes, delays and administration
- **Greater return on investment** – leverages existing investments in technology by reusing existing components
- **Ease of use** – provides robust and easy to use hardware and software
- **Minimal downtime** – proactive support services ensure issues are quickly identified and resolved
- **Future proofed** – can be scaled to accommodate growth

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Another notable success was the solution that Fujitsu created to help manage the growth in demand generated by the 2004 European Football Championship. CP was under mounting pressure from many football teams to help them arrange for groups of supporters to travel to Portugal, and then get to the venues that their teams were playing at. José Gaspar continues, *“In record time Fujitsu created a dedicated web portal for selling train tickets that allowed football fans to make all of their travel arrangements for the Euro 2004 event. The whole thing went very well and it gave Fujitsu a lot of credibility that it could respond effectively to CP’s needs, because it had the inside know-how to help progress the business.”*

Based on the success of the various projects Fujitsu has since been awarded a contract to provide a managed service for the kiosks and onboard vending machines, including their remote management, maintenance and break fix support for all hardware (kiosks, handheld, PCs/servers). Fujitsu also provides IT infrastructure and software support and manages the day to day operations of the ticketing systems running in CP’s data centre. *“Fujitsu has become a real business partner,”* adds José Gaspar. *“It understands everything about our systems and we trust it to run and manage them effectively for us.”*

In 2006 CP carried 133 million passengers and 9.75 million tonnes of freight over the 2,830 kilometres of the country’s rail network, with the Urban Units alone catering for 86.4% of all passengers. However, EU guidelines mean that all Europe’s railways must be privatised by 2015. So CP has had to face-up to the need to develop new strategies, structures and systems to help it face the onslaught of new competition.

José Gaspar says, *“Our aim is to deliver more efficient rail services, simpler fares and ticketing, a more integrated transport system, greater uptake of public transport and significantly more satisfied customers. Improving the quality of the customer journey is central to this effort and so we’ve started to implement ticketing systems based on contactless technology.”*

The first project of this kind was undertaken by CP Lisbon and following a competitive tender Fujitsu was awarded the contract to develop the first three components of the system:

- **Sales booths** – these will be equipped with PCs that are connected to a card reader, so that travel cards can be validated and travel information loaded
- **Onboard sales** – portable equipment will enable sales to be made onboard and also validate people’s tickets
- **Central systems** – will gather all of the relevant sales and commercial information and provide it to the central transport management organisation OPLIS.

Explaining why Fujitsu was chosen José Gaspar says, *“Fujitsu showed real creativity in its approach. Instead of simply responding to the three individual tenders it thought of the project as a whole and developed an architecture for a complete ticketing system, with common software components that could be re-used in each part of the system. This will not only reduce the costs of software development and maintenance, but also be a huge benefit in terms of making it much easier to implement changes across the whole system, so we have greater flexibility to respond to changes in the market.”*

Once completed, the new ticketing system will make CP’s tickets compatible with other city operators like the bus, subway, private rail and ferry-boat operators. As a result, customers will be able to simply buy a contactless ticket once and then reuse it again and again by loading it with the required travel credits.

José Gaspar continues, *“Contactless technology is very convenient for passengers and creates better efficiency and control for CP together with reductions in operational costs. It is also opening up new business opportunities. For example, in the future contactless cards or tickets could be used for hotel reservations and car rentals - there are all sorts of possibilities - so long as these projects are implemented with maximum quality and security levels.”*

“While this system is currently only used in Lisbon, having a common ticketing system across our businesses makes real sense. So, CP is currently looking into extending its use across our Long Distance lines and even integrating it with the Northern Area Urban Line in Porto.”

Benefits to our Customer

The ticketing solutions and support service provided by Fujitsu are enabling CP to realise a number of key benefits:

- **Improved customer service** – can now sell and validate tickets in a wide variety of locations, including onboard trains, making it much simpler for customers to travel. The possible inclusion of value-adding services, such as car parking and access to leisure facilities, in the contactless ticket will further enhance the overall customer experience
- **Cost savings** – implementing a unified platform will significantly reduce operational and maintenance costs as CP no longer has to maintain four separate systems
- **Increased revenue** – the new systems will accurately measure how many people are travelling each day so that the full revenue entitlement can be claimed, rather than it being apportioned based on an average value
- **Better resource usage** – the close integration of systems and use of mobile devices cuts out unnecessary manual processes, delays and administration
- **Greater return on investment** – leverages existing investments in technology by reusing existing components
- **Ease of use** – provides a robust and easy to use hardware and software interface with automatic synchronisation of data
- **Minimal downtime** – proactive support services ensure issues are quickly identified and resolved
- **Future proofed solution** – can be scaled to accommodate growth in demand and new technologies.

“Portugal as a country is very receptive to technological innovations and generally welcomes them. That’s certainly what has happened with bank ATMs, the automatic road toll system and the advent of mobile phones. The same thing has happened now with CP’s customers. Internet sales have way exceeded expectations and, in the Lisbon and Porto urban areas, more than 80% of ticket sales are now made using automatic vending machines,” comments José Gaspar.

“Ongoing automation allows employees to be allocated to the sale of other value added services. To CP it allows other services to be available and to our employees it creates a more diversified, less monotonous and more motivating workplace. To our customers it means that they have more alternatives, greater convenience and an increase in the availability of tickets.”

Once the ticketing system is standardised across Portugal’s rail network, CP will have much more accurate information on daily rail usage, which will enable it to prioritise its investment in those stations carrying the most passengers and also reduce service in those areas where they are not required.



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Our Approach

The idea of adopting a common IT platform across CP's operations was inspired by Fujitsu's work in supporting the needs of UK train operators. This includes the development of systems such as STAR, an award-winning ticket issuing system that reduces paperwork so that station staff can focus more of their time on customer service, and RJIS, the Rail Journey Information Service that holds up-to-date timetable and fare information for all UK train operating companies and which Fujitsu operates for the rail industry as a whole.

Even though CP's services are delivered through different operating companies, each with their own ticketing support systems, Fujitsu was able to apply its knowledge and experience in developing integrated transport management systems to help satisfy CP's particular needs.

"Technology is helping us to work towards achieving our long-term business goals by providing new solutions that overcome some of our most difficult challenges," says José Gaspar. "But the proliferation of new technologies will only be successful if they are developed in a sustainable and integrated way. In other words, the front-end systems will only be successful if, in parallel, there is a powerful back-office system that controls, consolidates and integrates all the information. In my view, this is the critical factor!"

"In all of these projects, the relationship between Fujitsu and CP has been a close and efficient one and over the past few years, we've created a genuine strategic partnership that goes beyond the normal customer-supplier relationship. It works very well. In fact, it would be difficult for it to be any better, as Fujitsu's understanding of our business is very profound."

Our Expertise

In 30 years of designing, implementing and managing complex business systems, Fujitsu has amassed a wealth of experience in developing IT solutions that reduce costs, improve productivity and customer services and deliver a compelling return on investment.

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Contact us on +44 (0) 870 242 7998 or
askfujitsu@uk.fujitsu.com or visit uk.fujitsu.com