



# Staying on track

Ferrovalle, Mexico's leading railroad terminal, uses an integrated server and networking solution to ensure quick and reliable switching cars, freight delivery and intermodal operations



## Customer profile



**Company** Ferrovalle  
**Industry** Transportation  
**Country** Mexico  
**Employees** 900  
**Website** [ferrovalle.com.mx](http://ferrovalle.com.mx)

## Business need

Ferrovalle sought reliable new server and networking technologies to support its critical software applications, ensure high availability and offer real-time information to customers.

## Solution

The company implemented Dell PowerEdge servers and Dell Networking switches as the underlying infrastructure for dozens of critical applications.

## Benefits

- Business-critical customer applications run reliably 24 hours a day, seven days a week
- Updated train-location information is delivered to customers in real time
- Millions of dollars saved in software development and hardware support costs
- Reduces energy consumption by 15 percent

## Solutions at a glance

- [Campus Solutions](#)
- [Storage](#)

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*Rubén Castillo, CIO, Ferrovalle*

Each year, more than 60 million gross tons of freight move through Ferrovalle, Mexico's largest railroad terminal. Everything from grains and lumber to toys and electronics is received at the Ferrovalle terminal and shipped to customers in Mexico City and across the country. The terminal also receives 380,000 containers and dispatches 20,000 trains and one million vans annually.

It takes quite an effort to handle this kind of capacity and manage the terminal's operations, including 190 miles of track, a 19-track receiving yard, a central dispatching facility, and auxiliary tracks and yards. The organization relies heavily on technology to control it all. For example, Ferrovalle uses internally developed software applications to control freight reception, sorting and dispatch. The company also uses a web-based container-tracking system that provides real-time updates so customers can see exactly where their shipments are.

For Ferrovalle, it is critical to have the right technology infrastructure in place to support its applications. "Our applications can't go down, because if they do, the supply chain stops and our customers are impacted," says Rubén Castillo, CIO of Ferrovalle. "High availability is essential for us, so we need to support our applications with the best hardware." However, the company's previous server and networking environment was not getting the job done.

#### **Integrated solution based on Dell servers and networking technologies**

More than a decade ago, Ferrovalle chose to replace its IBM servers with Dell servers. "The cost and the quality of the hardware were the main factors for our choice of Dell," says Castillo. "Over time, we have also received excellent support from Dell. Because of all these reasons, we continue to integrate more Dell technologies into our infrastructure."

Most recently, Ferrovalle implemented Dell PowerEdge R910 servers to complement its existing PowerEdge servers. The servers are divided into two data centers linked by optical fiber and connected with Dell Networking 6248, 6024, 5524, 4224 and 2816 switches. Additionally, data backup is handled by Dell PowerVault MD1220 direct-attached storage arrays.

Ferrovalle also deployed Dell Precision Workstations with four monitors in the central train dispatch system.

The new infrastructure supports key business applications, including the organization's enterprise resource planning (ERP) system, a train dispatch system, a logistics intermodal system, a web-based tracking tool, and other applications.

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*Rubén Castillo, CIO, Ferrovalle*

#### **Products & Services**

##### **Services**

Dell ProSupport

##### **Hardware**

Dell Networking 6248, 6024, 5524, 4224 and 2816 switches

Dell PowerEdge R910 rack servers

Dell PowerVault MD1220 direct-attached storage arrays

Dell Precision workstations

Dell Venue 11 Pro tablets



### Keeping critical customer applications running around the clock

Ferrovalle can make sure its critical systems are highly available with the Dell infrastructure. "It is essential that we maintain continuous business operations for our customers, so our applications need to run 24 hours a day, seven days a week," says Castillo. "We can ensure that happens with the reliable Dell servers." As an example, Castillo cites the company's logistic intermodal terminal application, which automates terminal operations. "This is one of our most important applications, and we trust Dell servers to support it," he says.

In addition, the Dell infrastructure supports the company's ERP system, which processes all customer transactions and dozens of other important applications.

### Delivering train information to customers in real time

The organization has seen an increase in application performance with each successive generation of Dell servers and networking switches deployed. "Overall, we have seen a 40 percent increase in application performance with the Dell solution," says Hector Lopez, the organization's infrastructure manager. "This is partly due to the solid-state disk technology and also because of the latest Intel processors used in Dell PowerEdge servers."

With faster performance, Ferrovalle can get the latest information on freight location to its customers. "We can get real-time train location data to our customers faster using the Dell solution," says Castillo. "Specifically, our web-based tracking system operates faster and more efficiently, so our customers quickly receive the important

operational information they need to monitor the exact time and location their freight will be delivered. Recent surveys we have conducted showed a 94 percent customer satisfaction rate. We are definitely meeting our customers' expectations with the Dell server and networking infrastructure."

### Saving millions of dollars and using 15 percent less energy

The company is reducing both operating costs and energy use with the Dell solution. "We have saved millions of dollars through a combination of deploying cost-effective Dell hardware and creating our own software applications internally," says Castillo. "Also, we have reduced our power consumption by 15 percent with the Dell solution. That's a very important benefit to us."

Ferrovalle is also taking advantage of Dell ProSupport for its PowerEdge and Dell Networking technologies. "We have had a great experience with Dell ProSupport," says Lopez. "Whenever we have any hardware issues, the response time from Dell is very fast, and the technical expertise is excellent."

Additionally, the organization continues to work closely with Dell to develop new solutions that will further improve operational efficiency. For instance, it is piloting a mobile solution using Dell Venue 11 Pro tablets, which will be used in the intermodal terminal. "We will have even more operational flexibility using the Dell Venue 11 Pro tablets," says Castillo. "It's another example of how we will work with Dell in the future. Dell is a very important strategic partner for us, and we will continue relying on them to ensure efficient, timely and reliable information for our customers and also to help us grow our business."

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*Hector Lopez, Infrastructure Manager, Ferrovalle*

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