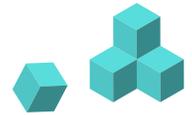


Adif moves at high-speed with real-time intelligence



Case study

40+

operational applications

1

centralized data warehouse



Challenge

Adif manages enormous amounts of information from various sources. “For years we suffered from a lack of information,” admits Eduardo Saiz, the information systems cabinet manager for the Conventional Lines Infrastructure Maintenance Unit in Adif’s Control, Administration, and Information Systems Management Department.

“Nowadays, our problem – like most companies – is that we have too much data, which is unstructured and resides in a variety of very different applications.”

The scenario is indeed complex, as there are hundreds of applications within the organization. “In the Infrastructure Maintenance area alone, we have over 40 operational applications working,” says Saiz. “Further problems are caused by the fact that, in most cases, these systems are run without any corporate strategy or governance in place. Rather, they are often used to address the specific functional requirements of their sponsors.”

The disparate environments complicated the information-collection process. “We have the same kind of information repeated in different systems, but the data is presented according to each application’s profile,” Saiz explains. “So, when we need specific information, we need to go through every system in the organization to find it. This approach has created confusion and inaccuracy.”

Solution

With these challenges in mind, and while still a part of the extinct public railway monopoly, the Information Systems Department of the Infrastructure Maintenance area embarked on an ambitious project to build a data warehouse with short- and long-term objectives.

“In the short-term, the objective was to upload all the information from the different applications into a single database, and the longer-term objectives included defining unified guidelines for maintaining and analyzing that information,” claimed Saiz. “In order for information to be useful, it needed to be homogenous, integrated with the same criteria, and structured according to the dimensions that would allow it to be easily analyzed for decision-making purposes.”

Adif International

Industry: Transportation & Logistics

Adif, a railway systems administrator based in Madrid, Spain, is a public corporation that was born from the passing of the Railway Industry Law in January 2005.



The organization reached a key achievement when it established the upload function that would move application data to the data warehouse. Adif used Oracle technology as the foundation for this data warehouse, and MicroStrategy tools for the front end.

“At first, MicroStrategy was used to address information analysis requirements in the area of applications for preventive and corrective production and maintenance,” Saiz says. “The data warehouse currently encompasses 3,000 users with different profiles: operational, technical, management, etc.”

Other units chose different tools. The Regional Transport department used Oracle Discovery and the department that oversees interurban trains selected MicroStrategy. At the corporate level, Adif chose the ibi analytics platform because of its successful history with Adif’s client, Renfe. With the corresponding reorganization carried under the new legislation promoted by the European Union, Adif was born. In collaboration with Sopra Profit, Adif prepared a systems plan and began its search for homogenous solutions.

Taking into consideration the significant benefits experienced with ibi analytics platform, Adif chose it as its corporate business intelligence standard. It upgraded its installation, which offered improvements in information analysis, as well as advanced functionalities and a higher level of user friendliness.

Adif initiated a project that included the creation of an analysis system within an administered environment, allowing its employees to access information without the need for technical knowledge. Users would also be able to carry out highly detailed advanced analysis, generate reports and graphs, and make decisions based on business indicators displayed on control panels and dashboards.

“The objective we have set for ourselves is for each person with managerial responsibilities to have all the information that he or she needs to make a decision, in a single tool,” Saiz states. The creation of control panels was one of the key components of Adif’s advanced analysis system.

A database with well-structured, high-quality information – including the current definition and identification of the indicators that would appear on each dashboard – turned out to be essential.

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Eduardo Saiz, Information Systems, Cabinet Manager, Adif

Benefits

The project was broken down into five stages. The first was to provide services to the financial unit. The second entails the complete migration of production processes from MicroStrategy to the ibi analytics platform. The third stage includes the accounting and human resources departments, and the fourth will reach the materials logistics application. The fifth stage will extend ibi to the rest of their systems to guarantee maximum data-warehouse quality.

The Adif data warehouse contains integrated information generated by Adif’s financial management and production systems – which were developed in PL1 and DB2 – as well as information from the infrastructure maintenance module and the company’s logistics application.

Technology used

> Omni, WebFOCUS

In fact, Adif's business intelligence project is advancing side by side with its technological evolution, the future of which includes Oracle as a database environment and IBM WebSphere as an application server.

"We are advancing towards the SOA world based on this new paradigm, although we are still using DB2 which will clearly coexist with Oracle for life," Saiz says. He also indicates that the company is immersed in an SAP deployment project that already covers the HR department and will soon be extended to the financial area.

In this complex environment, ibi analytics platform was deployed on a blade infrastructure running SUSE Linux to guarantee scalability, offering yet another benefit: extensive integration capabilities through the ibi data platform.

According to Saiz, ibi data platform "...is a 3G integration tool that extends the reach of our analytical environment to connect with both Oracle and DB2." From a user-access perspective, a Web farm of servers based on Microsoft Internet Information Server (IIS) guarantees the availability of the reporting environment. Adif uses F5 Networks technology as its traffic management solution.

Another of Adif's primary systems is its GIS system which, developed on GE Smallwood technology, currently includes more than six million records. The system continues to grow due to the integration of new components associated with the AVE (Spain's high-speed train service). Used for inventory management, the system includes its own management and analysis capabilities.

This integration is one of the company's key steps towards real-time intelligence. "Our production area is already requesting, with good reason, the ability to collect all significant events that occur in the different production systems such as the Technical Treatment Centers, and safety and signing systems," says Saiz. "We aim to centralize that data in the warehouse with the goal of facilitating real-time decision-making."

>> "[The ibi data platform] extends the reach of our analytical environment to connect with both Oracle and DB2."

Eduardo Saiz, Information Systems, Cabinet Manager, Adif

About ibi

ibi is a data and analytics software company that embeds intelligence into — everything. From the beginning, ibi has known the importance of data and insights to make better decisions. We help organizations get their complex and disconnected data in order, so they can build, embed, and automate intelligence into everything they do. By preparing organizations for the future and turning them into builders — information builders — everyone can use enterprise trusted data at scale to drive their growth. Whether our customers use pre-built applications or build their own solutions for their data and analytics challenges, ibi powers their innovation and reinvention. ibi's open platform and industry-specific building blocks accelerate speed to market, improve operational efficiency, and enhance their customers' experience.

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