



CFE Mexico

Integrating disparate systems helps Mexico’s electricity provider improve performance and service

Challenge

CFE needed to quickly and safely integrate all its systems in order to handle the large volume of information and make it available in any part of the country.

Solution

- Micro Focus RM/COBOL®
- Micro Focus Business Information Services (BIS)™

Highlights

- Integration of information for the whole country
- Fast online handling of large volumes of information
- High availability for mission critical operation
- Flexibility to make changes and innovations

“Micro Focus COBOL supports the CFE by offering excellent services and guaranteeing high levels of quality in all of its processes, in which to rival the world’s best electricity companies.”

Gerardo Treviño,
IT Sales Coordination Chief, CFE

CFE – the Federal Electricity Commission

The Federal Electricity Commission (CFE) generates, transmits, distributes and markets electrical power for more than 27.1 million customers – almost 80 million people – across Mexico. Established by the Mexican government, the CFE adds more than a million new customers every year.

The infrastructure to generate electrical power is made up of 177 generating plants, having an installed capacity of 50,373 megawatts (MW). Nearly 23% of its installed capacity stems from 21 plants which were built using private capital from Productores Independientes de Energía (PIE) (Independent Power Producers [IPP]). The CFE produces electrical power using various technologies and various primary energy sources, including thermoelectric, hydroelectric, coal-fired, geothermal and wind powered plants and facilities, as well as one nuclear power plant.

CFE needed to offer an integrated, world class solution to a whole country

The CFE’s computer infrastructure integrated comprised a diverse mix of mainframes, VAXes, other large computers and different systems and programs. The challenge of providing real-time information was made more complex due to the geographic size of Mexico and the lack of communications infrastructure for optimum operations.

Some 20 years ago the CFE Commercial Administration’s IT department recognized the need to integrate processes for invoicing, collections and customer service. The existing large computer system with five different modules covering operations right across Mexico gave rise to serious communications problems.

Traditional work processes were in operation: a user invoice was generated, was sent to the home address, the user paid it at an authorized office where the invoice was stamped, and much later, it was registered in the system. This laborious way of operating lacked the agility needed to offer a first-rate customer service. An automated solution was required.

The CFE's Commercial System module (SICOM) was created for the 20 year-old invoicing and collection system and operated in a dispersed environment with 1,000 servers around the country running XENIX and COBOL operating systems.

Another application, the Connections and Services Requests System (SICOSS), managed all work orders in the field, calls from users or those detected by the CFE, the follow-up of workers and registration of materials and vehicles, etc. This is mission critical to Commission's operations, in the Valley of Mexico alone there are more than 20 million calls a year, and the CFE determined that it was important to migrate the system to 120 servers with Unixware and Micro Focus COBOL.

Bringing diverse systems together to provide a single platform

The CFE faced the challenge of joining the systems on a single platform or something similar that would facilitate communications in order to attend to any user in any part of the country. Rather than one centralized computer, the organization needed a distributed system to provide access to the information online. This approach would enable the administrative processes associated with the entire country's use of electrical power to be simplified and managed successfully. At the same time, the aim was to improve service quality and increase the number of users and the speed and security of the systems – a mammoth task.

COBOL is an integral part of the solution

In 1990 the CFE had selected Micro Focus (Liant) COBOL as a fundamental part of its IT infrastructure and vision. Micro Focus RM/COBOL was selected for its prominence as a programming language and its suitability for processing requests for information in a way that is easy to implement and understand.

Now CFE has the world's largest RM/COBOL installation on the SCO platform, to handle its two main systems: SICOM and SICOSS.

This approach solved the CFE's problem of handling high volumes of information and making it available in real time. The organization can now process 700,000 invoices daily and deal with 1,000 branch offices and more than 2,000 automatic teller machines connected to the online systems. All this demanded security and sufficient speed to provide any information anywhere in the country in less than one second. This scenario relates to domestic electricity use, which represents 70% of total turnover. The remaining 30% is taken up with industrial use, the 620 large companies that are invoiced on the first day of each month.

The 150 strong team working in the CFE area of Information Technology Sales Coordination has extensive knowledge of Unix and COBOL and manage system developments internally. Micro Focus offers constant training to enable the Commission to make best use of the resources available and to carry out system developments themselves.

High integrity, availability and flexibility

The Commission's vision ensured that three relevant breakthroughs were achieved: the integrity of information for the high volume of more than 33 million users, high availability during mission critical operations and total flexibility to make changes that the Commission requires.

In record time, the CFE managed to integrate 6.2 million users from the defunct company Luz y Fuerza that operated the Valley of Mexico. This required a simple adaptation of the systems to add them to the 27 million users already managed across the rest of the country.

The Commission rarely deviates from its set order of doing things: readings, invoicing, delivery, collection and registration. What was previously done manually is now electronic; before it was a box with stamps and now it is a terminal. The CFE's goal is to deal with user requests safely wherever that might be: in the home, in the office, on a trip, at automatic tellers, through call centers, by telephone, by internet or in situ. This requires a large volume of information to be handled online with a very fast response time.

Having achieved this objective, the project has been deemed 'excellent' as the improvements – supported by IT – are measured against the six "CFE Service Commitments" which establish satisfactory response times for customers. Ninety-four percent of cases are satisfied with the level of service received. And it continues to improve.

A platform built for growth and future development

The CFE remains committed to using technology in order to fulfill its promise to provide excellent customer service, ensure high quality through its different processes and maintain its reputation as a rival to the best electricity provider in the world.

The CFE technology platform is designed to handle annual growth of 4 to 5% and to incorporate the million users who do not have contracts but tap into power lines without paying. It also plans to migrate its current 120 servers in Mexico to a just 13 (each one will administer around three million users).

"Our customers note that the CFE operates according to international benchmarks with regard to productivity, competitiveness and technology, but above all, they note that we are very customer service-orientated."

Gerardo Treviño,
IT Sales Coordination Chief, CFE

The CFE is looking to Micro Focus COBOL environments to offer fast migrations to new platforms, as well as investigating innovative ways in which to reuse the existing assets and web services. The company requires data to be shared with other types of tools, with graphic interfaces accessible to the user.

Since the CFE's first system development it has not stopped modernizing. The system has received 20 years of constant updating and rebuilding. "We are happy with the support that we receive and the product that we use. We have a wide experience of it and are even fond of it," says Gerardo Treviño, IT Sales Coordination Chief, CFE.

About Micro Focus

Micro Focus, a member of the FTSE 250, provides innovative software that allows companies to dramatically improve the business value of their enterprise applications. Micro Focus Enterprise Application Modernization, Testing and Management software enables customers' business applications to respond rapidly to market changes and embrace modern architectures with reduced cost and risk.

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