




Tecnológico de Monterrey

Mexico's Largest Private University Looks to Ecora to Improve System Availability, Shorten Problem Resolution

Founded in 1943, Tecnológico de Monterrey is a private educational institution consisting of 33 regional campuses, with headquarters in Monterrey City. Today, there are more than 90,000 students across the institution's campuses, as well as additional students in other academic centers throughout Mexico and Latin America. The university also has offices in North America, Europe, and Asia, and reaches thousands of students worldwide through its Virtual University. In operation since 1989, the Virtual University offers graduate academic programs, continuing education programs for business and government organizations, programs for elementary and secondary school teachers, and programs for the development of marginalized communities.

In addition, the institution's Universidad TecMilenio offers a high school program, as well as undergraduate and graduate programs in information technology, industrial engineering, business and the humanities.

Nearly 8,500 faculty and an estimated 12,000 staff members support the institution's Vision and Mission for 2015: making the Tecnológico de Monterrey the most respected educational institution in Latin America through the leadership of its alumni in the private, public, and social sectors; research and development efforts which contribute to a knowledge-based economy; the generation and incubation of new businesses enterprises; collaboration in the improvement of public administration and policies; and the creation of models and innovative systems for the sustainable development of the community.

In 2007, for the fourth year in a row, Tecnológico de Monterrey was named one of Mexico's top 50 most innovative organizations by InformationWeek, and, in 2006, the Wall Street Journal's survey of corporate recruiters ranked the institute's business school as number seven in the international business school category, which included North American, Latin American, and European universities.

"In a single, comprehensive solution, Auditor Professional gave us everything we needed: complete system documentation generated automatically and a clear way to identify authorized and unauthorized system changes quickly. In addition, the solution is literally plug and play; we began using Auditor Pro almost immediately."

—Ramses Herrera
 Director of Infrastructure
 Administration and Operations
 Tecnológico de Monterrey

Tecnológico de Monterrey IT Challenges

- Maintaining a high level of control across widely dispersed facilities
- Generating comprehensive, up-to-date documentation of all IT systems
- Establishing an automated process for validating and auditing configurations and changes
- Increasing system availability by eliminating unplanned downtime caused by unstable configuration changes

The Ecora Solution

Ecora Auditor Professional provides Enterprise Configuration Visibility™ to customers worldwide, ensuring their IT infrastructures are secure, compliant, and effective. Ecora is the market-proven leader in transforming enterprise-wide configuration data into easy-to-understand reports for regulatory compliance and enabling IT best practices. The company's flagship solution, Auditor Professional, provides the only patented architecture proven to automate the collection and reporting of configuration information from the entire infrastructure, without agents.

Tecnológico de Monterrey Benefits with Ecora

- Improved information security through greater responsiveness in closing security vulnerabilities using continuously updated system documentation
- Increased IT staff efficiency and reduced costs by controlling and streamlining the configuration change process
- Improved system availability by proactively eliminating unstable configuration changes
- Complete visibility into the change and configuration management process
- Increased productivity by re-allocating IT staff to focus on initiatives that advance the institution's service offerings

Controlling Change; Preventing Downtime

With 33 campuses widely dispersed across Mexico and offices around the globe, more than 100,000 users, and a complex multivendor environment, Tecnológico de Monterrey's infrastructure more closely resembles that of a global business enterprise than that of a traditional educational institution. To help ensure control of the expansive environment, primary IT resources are centralized on the Monterrey campus, with regional IT departments accountable for local services. "Our IT organization at the main campus maintains the data center infrastructure—including more than 250 servers—and is responsible for meeting overall IT requirements, such as providing academic services, ensuring the security of student records and intellectual property, and delivering campus-wide email services. Regional IT teams are responsible for meeting local needs such as printing services and supporting technology in specialized labs," explained Ramses Herrera, director of

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infrastructure administration and operations. "Even with a clear differentiation of duties, however, controlling changes throughout our environment has been a challenge. We've had to trust that our entire staff was doing what they were supposed to do and, if a problem arose, we had to question everyone to determine what had changed and who had changed it. This manual process frequently took days to conduct, and was especially problematic when critical business services were interrupted as a result."

"We have much more precise control of the configuration change process. After a security update, for example, we can validate that updates and changes were deployed properly. In the event of other changes—both authorized and unauthorized—we can use Ecora's 'Who Made the Change' reporting to identify the user who made the change without spending hours or days troubleshooting."

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Maintaining up-to-date documentation was also a challenge for Tecnológico de Monterrey. "Having system documentation that was up to date depended on the willingness of our IT staff to make the effort manually," Herrera said. "As you can imagine, documenting all our IT systems and tracking and controlling configuration changes manually was highly inefficient."

Tecnológico de Monterrey needed a comprehensive tool that would enable them to ensure change control validation, prevent unplanned downtime, and automate documentation. The answer was Ecora Auditor Professional.

Proven Technology in a Comprehensive, Plug-and-Play Solution

"We selected Ecora Auditor Professional for a number of reasons," explained Herrera. "In a single, comprehensive solution, Auditor Pro gave us everything we needed: complete system documentation we can generate automatically that identifies authorized and unauthorized system changes quickly and clearly. We had looked at other solutions but they appeared much more complex."

"With Auditor Pro, the reports are easy to read and customize," added Ramon Lopez, Junior System Administrator. "Auditor Pro collects information from across the infrastructure, and then allows us to generate reports that meet our requirements. The technology is very easy to use, and we no longer have to filter through piles of data to get what we need."

Today, Ecora Auditor Professional is enabling Tecnológico de Monterrey to address problems that had been associated with tracking changes manually. "Now that we have Ecora, it's easier for us to track changes, recover a previous system state when a file is misconfigured, or in the event a system administrator forgot to log changes in the system file and their work was lost when the system was rebooted," said Pablo Romo, Director of Operations and Information Technology Strategy. Herrera adds, "After a security update,

for example, we can validate that updates and changes were deployed properly. In the event of other changes—both authorized and unauthorized—we can use Ecora’s ‘Who Made the Change’ reporting to identify the user who made the change without spending hours or days troubleshooting. In the past, we had to trust that everyone did what they were supposed to do; now we know who is responsible for every change. Ecora helps all of us do our jobs better.”

Dealing with any unplanned downtime is also simplified with Ecora Auditor Pro in place. “With more than 100,000 users relying on our infrastructure, any downtime can cause problems,” Herrera said. “In the past, if downtime occurred, we had to go through literally thousands of changes to identify what was different between time A and time B. With Auditor Pro, we have detailed change reporting that lets us proactively identify if changes could cause problems with performance, and, if downtime does occur, Auditor Pro identifies configuration changes to help us identify the root cause of the problem promptly.”

Up-To-Date Documentation Enhances Control

Auditor Pro’s auto discovery feature identifies systems, servers, services, applications, and devices throughout the Tecnológico de Monterrey environment to provide an accurate infrastructure inventory. “Auditor Pro gives us complete visibility into our extensive infrastructure,” Herrera said. “At any given point in time, we can now have a complete infrastructure inventory, which ensures we have greater control of everything we manage.”

In the future, Herrera hopes to leverage Auditor Professional’s Report Center, which can make the complete Ecora report library available to authorized users via a web interface. “When we deploy the Report Center, my end users—including developers, database administrators, and application administrators—will be able to generate and view reports that can provide them with information they can use to do their jobs more efficiently,” Herrera said. “With the ability to filter report views based on the end user’s job and appropriate permissions, I will still be able to retain total control.”

For More Information

To learn how Ecora’s automated configuration audit and analytics solutions can ensure that your IT infrastructure remains operationally effective, secure and compliant, call toll-free **877.923.2672** or **603.436.1616**, e-mail sales@ecora.com, or visit the web at www.ecora.com.

BASICS AT A GLANCE

COMPANY

Tecnológico de Monterrey

INDUSTRY SECTOR

Education

NUMBER OF USERS

92,875 students

8,448 faculty

ECORA SOLUTION

Ecora Auditor Professional

WEB SITE

www.itesm.mx

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About Ecora

Ecora Software provides Configuration Audit and Analytics solutions to customers worldwide, ensuring their IT infrastructures remain operationally effective, secure and compliant. As a crucial element integrated into the overall Business Service Management (BSM) strategy, Ecora is the market leader in transforming enterprise-wide configuration solution into clear, actionable reports for regulatory compliance and enabling IT best practices. The Company’s flagship solution, Auditor Professional™, provides immediate value with its agentless architecture matched with rich report templates and pre-defined policies providing the foundation for effective change and configuration management. Ecora Software ensures that you are prepared for any IT audit before the auditor arrives, taking the cost and complexity out of compliance audits and enabling IT best practices for more than 800 worldwide customers across a wide range of industries, including many of the Fortune 1000. For more information, please visit Ecora at www.ecora.com.