The Instituto Tecnológico Autónomo de México (ITAM) is a private higher education institution in Mexico, offering over 30 undergraduate and 11 graduate programs. Founded 75 years ago, the institution belongs to the Mexican conglomerate Grupo Bal. It started by providing economics degrees, but today, it has expanded to other areas such as engineering, law, and mathematics. ITAM currently has about 4,500 students, 225 full-time professors, 350 part-time professors, and about 370 administrative staff.

The university has two campuses located in Mexico City. Its focus has been to strengthen the academic programs' excellence. Today, it is one of the most recognized educational institutions in the country and has several international exchange partnerships.

Secure and Integrated Network Infrastructure

ITAM considers a stable, secure communications infrastructure a priority to maintain its reputation and ensure quality education. Before Fortinet, the institution had a heterogeneous security infrastructure, using solutions from different vendors and lacking the visibility to manage the university-wide network properly. The lack of security also meant that users could manipulate their computers’ storage, share large files, or make video transmissions that consumed many resources.

In 2013, ITAM began its relationship with Fortinet by acquiring FortiBalancer, a server-balancing tool. Later in 2017, they chose Fortinet again when the institution required an advanced perimeter security solution and an email protection tool. To secure its infrastructure, the institution deployed FortiGate Next-Generation Firewalls (NGFWs) in its main campus in Río Hondo and at the master's and continuing education facility in Santa Teresa. Before implementing the FortiGates, the IT team did not have visibility and control of information flows between campuses and couldn’t actively manage applications.

Today, the incoming and outgoing network traffic flows through FortiGate NGFWs. This enables the school's IT team to manage data traffic in a centralized manner, with a comprehensive view of what is happening on the network. Then, ITAM moved a step forward in its network and security convergence. Through Fortinet Secure SD-WAN, supported by two redundant internet links between the two campuses, the institution can automatically balance network traffic to provide high availability for the academic community.

ITAM also added FortiMail to shield its systems against various email-based threats such as spam, phishing, and malware. “The company offered us a better cost-benefit value while allowing us to grow by integrating more products,” says Uciel Fragoso Rodríguez, ITAM’s Director of Technological and Information Services.

CASE STUDY

Mexican University Converges Network and Security Infrastructure with the Fortinet Security Fabric

“The Fortinet Security Fabric lets us add more tools easily and integrate them into a single architecture. This provides consolidated and secure management for the entire network.”

- Uciel Fragoso Rodríguez, Director of Technological and Information Services, Instituto Tecnológico Autónomo de México (ITAM)

Details

Customer: Instituto Tecnológico Autónomo de México (ITAM)
Industry: Education
Location: Mexico
Strategic Security Vision with the Fortinet Security Fabric

In recent years, alliances with foreign universities and evolving academic demands have required ITAM to focus on data protection, and IT security is now a strategic priority. The institution expanded its security solutions by implementing the Fortinet Security Fabric mesh platform, which provides complete support for the communications and IT security infrastructure connecting all its locations. “The Fortinet Security Fabric lets us add more devices easily and integrate them into a single architecture. This provides consolidated and secure management for the entire network,” Fragoso Rodríguez notes.

ITAM also utilizes FortiAnalyzer, the log management, security analytics, and reporting solution, which is fully integrated with the Fortinet Security Fabric. With this solution, the institution has an extra security layer that sends alerts about real-time incidents, evaluates their impact, and acts to prevent information leaks or intruders in the network.

ITAM also determined that protecting web services (such as the library, job portal, and student enrollment services) is essential. In the past, the institution did not have a protection tool for these portals. All web services now operate behind the FortiWeb solution to prevent cybersecurity incursions. Users are safe from attacks, and the IT team has real-time visibility of potential disruptions.

Business Impact

- Consolidated network and security infrastructure on a single platform
- Complete visibility of the network to prevent incidents and respond in real time
- Centralized management for better resource allocation to business priorities
- High network availability and easy integration of additional solutions

Better Solutions for Current Challenges

“Having all components integrated with Fortinet allows us to achieve better overall results. We have greater visibility while we can centralize administration and quickly respond to incidents,” explains Fragoso Rodriguez. This consolidation on a single platform wasn’t possible when ITAM had solutions from different brands, each with its management console. Stakeholders’ buy-in was easy, as the system’s user-friendly interface has made migration seamless and administration less complicated.

The unified solution has also enabled ITAM to deal with current challenges, such as the COVID-19 pandemic. By using FortiClient for VPN networks, the institution can connect users quickly and securely, providing faculty, students, and institution providers access to the resources, services, and applications they need. Furthermore, when the hybrid education modality began, Fortinet products enabled the IT team to proactively manage the network and prioritize services to support online classes.

With the Fortinet Security Fabric, ITAM is now confident about the security of students on its highly protected network. “Fortinet is a leading, trusted advisor in cybersecurity that invests in research and gives us peace of mind knowing that we have the most advanced solutions,” concludes Fragoso Rodríguez.