

CASE STUDY

One of the Largest Universities in Mexico Consolidates Network Infrastructure and Secures Cloud Migration with Fortinet

Anáhuac Puebla University was founded in 2013 as part of the growth project of the Anáhuac University Network. One of the most important private higher education institutions in Mexico, it has established a path of innovation, creativity, and disruption since its founding. It does this by adopting the latest technologies and, more recently, positioning itself as a university of reference for its high academic quality and leadership in the field of social action in the state of Puebla.

Anáhuac Puebla's growth has evolved together with technological demands. To support the rapidly expanding student body, the campuses have increased the size of their facilities. This shift brought with it significant challenges in operations. Anáhuac Puebla established its own digital roadmap based on its size and needs.

From the beginning, Anáhuac's approach has been clear. "We must be innovative, creative, resilient, and agile, supporting the strategy of growth, consolidation, and deployment that the current circumstances demand," says Fernando Vega González, systems and technology coordinator of the Anáhuac Universities Network. "The pandemic brought with it a technological surge in the adoption of tools and the digitalization of processes, and we decided to respond quickly but with attention to detail. In this sense, security is not open for debate."

Anáhuac Puebla began implementing state-of-the-art technology as early as fifteen years ago. It was among the first universities in the Anáhuac Network to integrate Fortinet solutions into its infrastructure, and other sites followed suit. Today, Fortinet is the Anáhuac Universities Network's trusted advisor in security, connectivity, and network solutions, supporting the universities' evolution to a hybrid-cloud environment.

Keeping Pace With the Growth

Being a leader in adopting cutting-edge connectivity and security solutions did not happen overnight. In 2008, the Puebla campus needed to ensure proper management of scarce and costly connectivity resources. For network perimeter security, Puebla had a FortiGate Next-Generation Firewall (NGFW) for local connections. An additional firewall from another vendor was dedicated to the corporate area. Having disparate solutions led Puebla's IT team to realize the need for a more robust tool that would integrate all the security and management of its network infrastructure.

The university then decided to undertake a full migration to FortiGate NGFWs to support its connectivity and security needs. At the same time, due to the increasing number of security incidents, the university incorporated FortiAnalyzer for event and threat reporting. With FortiAnalyzer, the campus gained detailed reports that help it discover possible threats and make real-time decisions in a centralized manner.



Anáhuac
PUEBLA

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Systems and Technology
Coordinator, Anáhuac
University Network

Details

Customer: Anáhuac Puebla University

Industry: Education

Secure SD-WAN Locations: 4+

Location: Mexico

Business Impact

- High availability of network infrastructure to support cloud migration and growth
- Secure, cloud-enabled network infrastructure to enable additional services
- Complete network visibility and improved network performance
- Enabled more than 1,000 remote VPN access connections for staff in three days, ensuring continuity of all services

The Puebla campus's positive experience motivated the entire Anáhuac Universities Network to begin the transition to a Fortinet platform for its entire network and connectivity infrastructure. By 2018, all universities implemented Fortinet solutions. "We realized that Fortinet was the platform to optimize security, while allowing each site to customize the tools depending on their capabilities and size," says Vega González.

Even after the full migration of the network security to the Fortinet platform, the Puebla campus continued innovating by implementing new technologies. The campus integrated Fortinet Secure SD-WAN to provide higher communications availability. Because Anáhuac already has a foundation of Fortinet devices as its base infrastructure, the implementation of Fortinet Secure SD-WAN was seamless and caused no disruption to services.

With two broadband links of 2 Gbps each for regular operation at Puebla campus, plus a 300 Mbps backup link exclusively for critical services, the local campus can manage its redundant links using Fortinet Secure SD-WAN. The solution is automated to handle unforeseen outages and other network disruptions. This addressed a previous issue of electrical problems taking various services offline. Fortinet Secure SD-WAN allows other sites located in hurricane zones—which sometimes get disconnected due to bad weather—to enable their services to continue through Puebla's site infrastructure.

In addition, having the Fortinet platform supported the universities network's evolution toward the cloud. In early 2021, the Puebla campus completed the migration of its entire physical server infrastructure to Microsoft Azure. Other campuses soon followed by moving their on-premises infrastructure to hybrid environments—a critical step to becoming cloud-only. "Fortinet Secure SD-WAN guarantees the availability of our systems, operational continuity, and security in our path to the cloud," says Vega González.

Centralized Visibility for Integrated Management

Today, the Anáhuac Universities Network uses Fortinet technologies to drive its purpose of providing a positive digital experience to the entire academic community. Network management is centralized and integrated through the FortiManager device. With it, the IT team can define rules and manage implementation from a single place. It also provides complete visibility and high availability for redundancy, allowing the team to know where the security gaps are and what opportunities there are for improvement. "With Fortinet's platform, we have secure traffic, we are navigating in controlled environments, and we maintain user privacy," says Vega González.

The entire system saved the IT team time, effort, and resources. They no longer need to travel to individual sites for tasks that previously required their presence to perform.

The system also made remote access easier during the pandemic. Anáhuac's IT team enabled more than 1,000 remote virtual private network (VPN) access connections for teaching and administrative staff in just three days, ensuring continuity of all services. With FortiClient Enterprise Management Server (EMS) integrated with the other Fortinet solutions, the institution improved the security in its staff's devices with antivirus, vulnerability analysis, application firewall, software inventory, web filter, and secure VPN.

"The confidence that Fortinet's solutions give us allow us to stay at the forefront of technology, minimizing IT risks and above all consolidating strategic objectives that lead to student success, and therefore to the strengthening of our society," concludes Vega González.

Solutions

- FortiGate Next-Generation Firewall
- Fortinet Secure SD-WAN
- FortiAnalyzer
- FortiClient
- FortiManager

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