



CASE STUDY

Ministry of Education's New Perimeter Security Solution Boosts Performance and Protection

Headquartered in Guadalajara, Jalisco, Mexico, the General Directorate of Information Technology (DGTI) is part of the Government of Jalisco's Ministry of Education. Jalisco is the fourth most populous state in Mexico and boasts the country's fourth-largest economy.

Thanks to Fortinet, the DGTI currently enjoys greater control of its network's perimeter security and simplified security management. With Fortinet security solutions, the DGTI has eliminated at least 60 hours a month otherwise spent on access management.

The Situation

The DGTI is tasked with facilitating, supporting, and contributing to the goals and objectives of other officials that shape the institution through information technology and communications. It promotes best practices for automating and upgrading processes in addition to offering efficient and secure mechanisms to capture, process, transfer, and safeguard institutional information.

The DGTI maintains the operations for all of the IT services for all units, as well as connects the central office's 13 branches and 15 sub-branches. It also provides access to the internet and institutional applications, and is responsible for innovation, as well as for implementing new applications and tools that help administrative and educational areas achieve improved performances in their activities. The DGTI manages more than 10,000 users, and it is key that it maintain informational confidentiality, integrity, and availability both while information is on the network and while it is processed or stored in data centers.

The Challenge

The DGTI had been using perimeter security equipment that was susceptible to saturation and frequent failures, which caused various service interruptions and adversely affected unit activities. Additionally, the network saturation meant slower access to the internet, unit webpages, and applications housed in the data center. Even the firewall's administrative security policies were too complex.

"Among our various needs, we required more control of our network's perimeter security and a simplified management system," says Juan Carlos Bonilla Ruvalcaba, IT executive director for the Jalisco Secretary of Education. "In the process of seeking those necessary solutions, One IT (Redes Tecnológicas de Occidente S.A. de C.V.) proposed we use Fortinet, which could also replace our perimeter firewall with UTM [unified threat management] capabilities."



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Details

Customer: DGTI Jalisco

Industry: Government

Location: Jalisco, Mexico

Business Impact

- Eliminated saturation and frequent failures in the operation of various network services necessary for the agency's activities
- Simplified management policies and enabled greater visibility
- Improved informational performance, security, and availability

From there, they installed two FortiGate next-generation firewalls (NGFWs), which work with high-availability clusters, and the FortiAnalyzer logging and reporting solution in the institution's main data center with the capacity to adequately support over 10,000 simultaneous users. With Fortinet solutions, the DGTI today enjoys functionalities such as a firewall, intrusion prevention system (IPS), distributed denial of service (DDoS) protection, application control, web filtering, single sign-on (SSO), virtual private network secure sockets layer (VPN SSL) inspection, high availability (HA), and traffic shaping, among many others.

Reliability and Simplified Management

"We chose Fortinet solutions for their performance and technical features, as the brand demonstrated as part of conceptual tests that it could meet this institution's needs, while simultaneously offering very competitive market prices in both CAPEX and OPEX," Bonilla Ruvalcaba says.

Upon adopting Fortinet security solutions, the DGTI increased its network availability and reliability from 98.9 percent to 99.99 percent each month. Consequently, each unit's operational processes are no longer impacted. The DGTI also has greater control over the network and has simplified user access management.

Today, the network also provides mobility by offering remote access capabilities that do not compromise informational integrity or confidentiality. Capabilities include detailed reports of the users and applications that access the network, making it easier to make educated decisions and quickly modify access management policies. Overall, with Fortinet, the DGTI has decreased incident resolution times, problems, and requests.

Benefits for the Institution and for Users

The advantages of Fortinet security solutions have been quite tangible for users, since reliability has increased through the elimination of incidents that could put key services at risk. In addition, the solutions enable faster internet access, as well as faster access to institutional applications. It is also important to note that response times for user access management have shrunk from an average of 24 hours to just 15 minutes.

"Thanks to the FortiGate equipment, the cost-benefit of this solution in reduced support hours and operational failures has been very high," Bonilla Ruvalcaba remarks. "We believe it has reduced the amount of time spent on access management support by 60 hours a month."

Furthermore, with the FortiAnalyzer solution, the institution can generate reports to modify and measure the impact of implemented security policies within the organization. This provides the DGTI with a complete overview of the general behavior of its users and applications, as well as the response times from various applications.

The reports also contain information on the viruses, attacks, and blocks detected, notifying the relevant person quickly and automatically for effective decision-making.

"The DGTI needed more control of its network's perimeter security and to simplify its management so that, in addition to greater speeds, it could facilitate both local and remote access, control bandwidth per user and application, and block certain websites, among other requirements," says Hector Salgado, a Fortinet sales engineer. "They also needed to receive reports on their network status and security both quickly and reliably to ensure they had enough knowledge of events to make informed decisions on security policies. Fortinet made all this possible."

Solutions

- FortiGate
- FortiAnalyzer

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