



CASE STUDY

Public Electric Utility Company Leverages Effective Cutting-edge Security



With its headquarters located in Sarajevo, Elektroprivreda BiH is the largest public electric utility company in Bosnia and Herzegovina. Serving more than 756,000 customers and employing over 4,400 staff, its activities include the generation, distribution, supply, trading, export, and import of electricity, and management of electricity systems.

Obsolescence of the Multivendor Security Approach

The performance, availability, and security of Elektroprivreda’s IT systems have always been a top priority for management. With cyberattacks becoming a big issue for public companies in Bosnia, Elektroprivreda’s management needed a new approach to efficiently secure its IT architecture.

“Our multivendor security solution (i.e., firewalls, IPS, and web application appliances) was approaching the end of its life cycle and needed to be replaced,” explains Adnan Švraka, an expert associate for the management and maintenance of ICT equipment at Elektroprivreda BiH. “We were looking for a high availability [HA] solution to protect our critical applications and internal network, as well as provide secure connectivity to our remote locations via the internet. Since the previously installed equipment was from several vendors, we were looking for a single vendor solution that could be managed from a single location and maintain all of the existing functionalities. It was important to reduce management complexity. Also, since [secure sockets layer] SSL traffic volume increased, we needed a solution which could inspect this traffic and protect our network from malicious attacks.”

Due to the complexity of its IT architecture, Elektroprivreda’s IT management was looking for a solution that could support several routing protocols like OSPF and RIP. Furthermore, there were remote locations that required a backup link via the internet as well as secure communications with IPsec VPN.

“We had to allow our partners to access a specific server in our IT infrastructure using SSL VPN. It was imperative to achieve effective user protection and provide secure communications to our customers for whom we provide IT services,” explains Mr. Švraka.

Need for a State-of-the-Art Multifunctional Cybersecurity Solution

“With our previous solutions, we had experienced downtime due to scheduled maintenance so we needed a highly available solution that would provide 100% uptime for our IT services,” says Mr. Švraka. “Therefore, the company was looking for a solution with IPS,

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– Adnan Švraka, Expert of ICT Equipment, Elektroprivreda BiH

Details

Customer: Elektroprivreda BiH

Industry: Power and Utilities

Location: Sarajevo, Bosnia and Herzegovina

application control, web filtering, anti-spam, and SSL inspection that could also provide web publishing features and additional security for locally hosted web applications as well as reliable reporting. They were considering several vendors mostly placed in Gartner's upper right quadrant for security solutions. Elektroprivreda BiH selected Fortinet in October 2017 because they fulfilled all of their requirements for a state-of-the-art cybersecurity solution."

The solution consists of two FortiGate 500D enterprise firewalls deployed in HA Active-Active mode, two FortiGate 100E enterprise firewalls in remote locations, as well as FortiWeb for web application security. Furthermore, Elektroprivreda BiH was able to consolidate and simplify all of its security operations and reporting by implementing FortiManager for centralized security management and FortiAnalyzer for centralized security analysis. Elektroprivreda IT leaders have acknowledged that prior to implementing the Fortinet solution they were completely unaware of the cybersecurity risks and threats affecting the company, which was a result of increasing encrypted SSL traffic. Owing to the very detailed reporting provided by FortiManager and FortiAnalyzer, Elektroprivreda's IT team discovered new threats that the previous solutions missed and was able to remediate them quickly and better secure the IT infrastructure.

Overcoming a Critical Situation

During the Fortinet solution implementation, Elektroprivreda BiH management faced some issues due to the fallibility of the previous installed solution. From the start, the company's old firewall solution stopped working, forcing IT management to use the cold backup solution; however, there was insufficient performance. Thanks to Fortinet Partner Emerging Markets Consultants Ltd. Sarajevo (EMC Ltd.), Elektroprivreda was able to finish the installation sooner than planned, and after only three days, the Fortinet solution was in place. Following the initial configuration, IT was able to configure the FortiGate firewalls to allow remote users to connect to the corporate network using SSL VPN. After only one week, a part of the company's user traffic was rerouted through Fortinet. The whole implementation lasted 30 days and the partner, EMC Ltd., was present the entire time and helped resolve all issues and answer all questions.

"Fortinet solutions are user-friendly and easy to configure and deploy," Mr. Švraka says. "They make it simple to maintain and monitor the system and network and it can all be done from a single location, which comes in handy in our complex network environment. Today, the team responsible for managing the appliances consists of 3 to 5 people, and it only takes them approximately 1 hour per day, allowing us to optimize our time and resources."

Value of Performance and Simplicity

Thanks to the deployment of Fortinet's solution at Elektroprivreda's main site as well as in two remote locations situated in Bihac and Mostar, 2,500 users are secured. The remote locations are connected to the main site using links with limited capacity, and as internet usage increases, Elektroprivreda's IT team is planning to implement smaller firewall solutions at these remote locations for both the local internet connection as well as for backup links through IPsec VPN.

"Today, we can conclude that our IT infrastructure has been optimized using Fortinet's solution. The number of security incidents has decreased mostly due to SSL inspection. The fact that Fortinet combines all networking and security functionalities in a single appliance is solving many issues that we were not aware of earlier. Daily and monthly reports are used to locate and solve potential problems. We've put all our efforts to further optimize our IT infrastructure. It takes our IT staff 2 to 3 times less to manage and maintain the new security system, saving both time and money. Also, due to the high availability of the Fortinet solution, our regular maintenance downtime has been greatly reduced, and as a result, we are not paying any penalties to third-party companies for whom we provide IT services," concludes Mr. Švraka.

Business Impact

- Optimized infrastructure
- Increased IT security, management, and control
- Reduced complexity resulting from multiple networking solutions in place

Solutions

- FortiGate
- FortiWeb
- FortiManager
- FortiAnalyzer

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