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CASE STUDY

Abu Dhabi Aviation Enhances Network Security and Performance With Fortinet

Abu Dhabi Aviation (ADA) provides aviation support to the oil and gas production industry and other sectors worldwide. The company also provides "very, very important people" (VVIP) passenger transportation, search and rescue services for the United Arab Emirates (UAE), crop spraying, aerial construction, firefighting, and third-party maintenance support services.

ADA operates an expert aircraft pilot training center offering fixed and rotary wing type training using state-of-the-art simulators, making it one of the best equipped aviation training centers in the Middle East and North Africa region.

An award-winning commitment to aviation safety and strict adherence to the highest regional and international aviation standards has enabled ADA to safely achieve more than one million flight hours without loss of life.

IT Security for Aviation Safety and Operational Excellence

In 2020 and 2021, with the COVID-19 pandemic causing widespread disruption to global travel and supply chains, Abu Dhabi Aviation took the opportunity to invest in its IT systems and infrastructure. Although functional, the existing network had not kept pace with the increasing demands of the business, nor with the rapidly evolving cyber threat landscape.

Meeting the threats posed by cyber criminals is mission critical for ADA, because protecting IT systems and data is directly linked to customer safety. In this regard, it wanted to protect its unblemished record and so launched a transformation project to redesign its network infrastructure with security at its core.

Meeting Management, Compliance, and Performance Requirements

Operating as a public-sector company serving military and civil customers as well as private-sector businesses, ADA is subject to strict standards' compliance and rigorous procurement procedures. The company required a solution based on mature, proven technology that followed industry standards. Furthermore, ADA was keen that the solution deliver good value for the money.

Another key consideration was ease of management. With a global shortage of skilled IT security staff and only finite resources, it was paramount that the new infrastructure would not increase the complexity of network administration and become a drain on ADA's relatively small IT security team.

Finally, as the organization was growing, both in the number of personnel and in its use of IT, the traffic load for some of the company's key applications was already approaching capacity limits. The solution would need to apply multiple layers of security without affecting network performance.

The Route to Robust and Advanced Security

After a thorough evaluation of the market, ADA selected FortiGate Next-Generation Firewalls (NGFWs). "The advantage of Fortinet is that the required technology is

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   Senior Network Engineer
   Abu Dhabi Aviation

Details

Customer: Abu Dhabi Aviation

Industry: Transportation

Location: Abu Dhabi

Business Impact

- Enhanced operational security and resilience

- Increased performance of critical applications

- Lower administrative overheads

- Centralized management and configuration, freeing IT resources

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integrated in a single solution," explained Sibtain Ali, senior network engineer at ADA. "This means that all components: the firewall, the switches, and the Wi-Fi access points work in concert to enforce a consistent security policy across the whole network. That feature makes the system simple to manage."

With each component integrated through the FortiGate NGFWs, Abu Dhabi Aviation benefits from consistent configuration and policy management as well as effortless, real-time communication across its entire security infrastructure.

The FortiGate NGFW includes an advanced artificial intelligence (AI)/machine learning (ML) powered Intrusion Prevention System (IPS), which provides near-real-time intelligence through thousands of intrusion prevention rules that detect and block known threats before they can reach ADA's devices. URL filtering provides a further level of protection by preventing access to potentially dangerous web resources.

In addition to these advanced threat protection capabilities, the FortiGate NGFW identifies thousands of different traffic types and applies quality-of-service (QoS) routing and security policy decisions based on these types. Combined with its custom-designed Security Processor Unit (SPU), the FortiGate NGFW benefits ADA through additional security processing that does not compromise network throughput or latency even for encrypted traffic.

Network Management and Compliance Made Easy

The FortiSwitch and FortiAP wireless access point devices provide ADA with secure and reliable network access. Because the FortiSwitch and the FortiAP devices are administered as logical extensions of the FortiGate NGFW, and through the same management interface, Ali and his team can enforce a common security posture for the whole network via a single configuration. This creates significant time savings for Ali and team.

FortiManager provides a centralized window and interface through which ADA can monitor and control its critical data flows. Meanwhile, FortiAnalyzer adds logging and reporting, with centralized security analytics. Combined, these solutions increase control and visibility for ADA, and simplify its compliance processes.

ADA further benefits from being able to monitor across the Fortinet platform to quickly identify and fix network performance issues. This is because the native integration between Fortinet's products enables deep insights across the network and makes them available through intuitive Fortinet Security Fabric dashboards.

Enhanced Threat Detection and Response

Through the FortiAnalyzer, ADA is benefiting from advanced quick-start automation and response capabilities, as well as proactive threat detection and correlation in real time. The solution provides ADA with the threat intelligence, event correlation, monitoring, alerts, and reporting it needs to respond quickly to potential security threats and software vulnerabilities. By using FortiAnalyzer, ADA has cut the time it takes to detect and mitigate threats, and reduced the security risks that arise from manual configuration errors and data processing.

"Fortinet has given us a secure and scalable foundation on which to build the capabilities we need to grow the business," concluded Ali, "and despite all the additional layers of security, the resulting infrastructure is now faster and easier to manage than previously."

Solutions

- FortiGate Next-Generation Firewall
- FortiSwitch
- FortiAP
- FortiManager
- FortiAnalyzer

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