Case Study

Major Air Hub Expands and Upgrades Security Framework with Hillstone Networks

Advanced security infrastructure supports new-state-of-the-art terminal and upgrades security for existing terminal and regional airports. The new cyber-security architecture provides comprehensive protection, improves network performance and supports remote workers at the busiest airport in Central America, while providing centralized management and deep visibility into the network.

The Challenge

Deploy and Manage a Secure Network Infrastructure

The airport is the central hub for the nation and the busiest airport in Central America. The development of the new Terminal 2, which opened in 2022, was a major national project that included a requirement to design and deploy a network infrastructure with high security standards for the airport systems, staff, and travelers. In addition, this same security framework would need to extend to the existing airport terminals and facilities as well as to the regional airports to modernize their respective infrastructures.

> The development of the new Terminal included a requirement to design and deploy a network infrastructure with high security standards for the airport systems, staff, and travelers.

The key requirements for the airport's infrastructure included redundant internet access for all terminals for business continuity, and high-speed connections to data center switches, the core switch, legacy network and WAN links to regional airports. In addition, the non-secure guest WiFi for travelers needed to be segmented from other secure traffic, including business operations for the airport.

Ensuring Cyber Resilience and Business Continuity

Other key goals included improving both security and network performance for specific applications such as the telephone system, IP video surveillance systems and general traffic for line of business (LOB) systems. To minimize the impact of the pandemic, support for remote workers was needed. And finally, the IT team sought to centralize management and monitoring of the next-gen firewalls for ease of management and improved threat detection and prevention. The airport's IT team zeroed in on three potential solutions and set about conducting proof-of-concept (PoC) testing. The products were evaluated for completeness of security safeguards, scalability, ease of use and management, and other factors.

Customer Profile

Customer
Major Airport in Central America

Sector
Transportation/Aviation

Location
Panama

Focus
Central America's largest airport, serving both passenger and cargo traffic

Size
54 boarding gates and 21 airlines serving more than 16 million passengers/year; 15 cargo carriers

Challenges
To build a high-security network infrastructure for a major new terminal, extend it to the existing terminal and modernize regional airport security.

Requirements
- Enhance security and network performance with redundant 40G connections
- Improve support for remote workers
- Segregate passenger WiFi traffic from airport business traffic
- Centralized security management and improved threat detection

Result
NGFWs from Hillstone provide comprehensive protection against advanced threats, improved network performance, remote worker support, and centralized management and monitoring.

> The Hillstone firewalls addressed all of our key requirements and offered a superior total cost of ownership. Also, their multilingual support team is very responsive and available whenever we need them.

CTO for Technology and Innovation

The Solution

Comprehensive Protection Against Advanced Attacks

After the reviews were completed, the IT team for the airport selected Hillstone's next-generation firewalls (NGFWs) for its comprehensive threat detection and protection against advanced attacks, as well as its ability to improve security and network performance, support remote workers, and centralize management and monitoring.

High-availability pairs of Hillstone NGFWs were deployed to protect the airport's business systems such as passenger check-in, baggage handling, video surveillance, physical security, enterprise resource planning, and others. In addition, a separate High Availability (HA) pair of Hillstone NGFWs segregates and secures passenger WiFi traffic from its business network, and HA pairs of NGFWs were installed at each of the nation's four regional airports.

High-Speed Connections; Centralized Management and Monitoring

The new security infrastructure provides redundant internet access for both passenger terminals and supports high-speed 40G connections with the data center and core switches. The Hillstone firewalls' support for SSL VPN allows staff to work from anywhere, and the overall security, network performance and WAN resilience for airport systems have been greatly improved.

In addition, Hillstone's virtual security manager (vHSM) was deployed to allow segmentation of the network into multiple virtual domains, and to simplify configurations, and reduce management overhead.

The Conclusion

A Modern, Comprehensive Security Infrastructure

The opening of the airport's Terminal 2 was a major achievement for this nation that will help to better serve the millions of travelers who utilize the facilities each year. Through Hillstone's NGFWs, the nation's hub and regional airports have gained a modern, comprehensive security infrastructure with robust protection against advanced threats and the scalability to expand as needed.

A high-availability architecture helps assure resilience for the hub and regional sites, and support for remote workers allows business continuity even during a pandemic or other business-disruptive events. Additionally, centralized management and monitoring provides ease of management and improved policy and security enforcement throughout the system.

Learn more about Hillstone products mentioned in this case study

Next Generation Firewalls (NGFW) ⇨

Hillstone Security Manager (HSM) ⇨

Read about Hillstone solutions

Cloud Workload Protection (CWPP) ⇨

Extended Detection & Response (XDR) ⇨

Zero-Trust Network Access (ZTNA) ⇨

Secure SD-WAN ⇨

Micro-segmentation ⇨

Network Detection & Response (NDR) ⇨

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