

Major LATAM Service Provider Meets CGNAT Needs through Hillstone Data Center Firewalls

The Customer

Founded in 1995, Telconet Latam is a leading provider of telecommunications services in Ecuador with operations in Colombia, Guatemala and Panama as good. With nearly 5,000 employees and a fiber optic infrastructure of 35,000 km in Ecuador, the company offers services of connectivity, cloud, collaboration, security, intelligent traffic management and electronic security services for companies throughout the regional market.

The Challenge

Like most service providers worldwide, Telconet Latam is challenged by the depletion of available IPv4 addresses. A growing customer base and a dramatic rise in internet-connected devices per user only exacerbates this challenge. In addition, IPv6 migration is required to assure the communications between IPv4 and IPv6-based resources, maintaining existing investments.

The solution of choice for these concerns is CGNAT, or carrier-grade network address translation, which can support large numbers of customers, devices and traffic. For a number of years, the service provider had relied upon a legacy CGNAT solution; however, the existing product was unable to accommodate the increasing traffic load due to hardware limit— and worse, the cost to acquire additional expansion modules was very high.

Telconet Latam data center engineers set out on a search for a new solution that would optimize the use of IPv4 addresses through CGNAT, with controlled port mapping and data storage for monitoring and statistics. Most importantly, the solution needed to have a modular design to facilitate passage of large amounts of traffic for the main data centers in the country, and to accommodate future growth.

After a great deal of research, the Telconet team zeroed in on their top three candidates – a newer model from the existing vendor; a standalone CGNAT product from another vendor; and Hillstone' s X-Series data center next-gen firewalls with integrated CGNAT capabilities. The engineers set about establishing a proof of concept (POC) demonstration in their data center.

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The Solution

Working with local channel partner Telered, the Hillstone team was able to successfully demonstrate that the X-Series data center NGFWs performed all CGNAT functions correctly, solving the existing problem with the ability to expand in the future to handle increasing traffic loads. In addition, the Hillstone solution provides complete log visibility, and monitoring capabilities for the infrastructure, along with security functionality. And finally, the Hillstone products offered superior total cost of ownership versus the other options.

Carlos Montero, networking manager at Telconet, said, "Hillstone is a stable technology for the CGNAT environment, and the NGFWs also offer a strong set of security features."

Identical Hillstone X9180 firewalls were installed in Telconet's data center facilities in Guayaquil and Quito, Ecuador, along with a Hillstone Security Audit (HSA) platform to store and manage the huge volume of log data generated by the X-Series solutions.

Designed specifically for high-speed service providers, large enterprises and carrier networks, the X-Series offers outstanding performance, reliability, scalability and TCO advantages. The product line features a fully distributed, elastic architecture that supports multi-tenancy.

Each X9180 can process up to 600 Gbps, up to 4 million new sessions per second, and up to 200 million concurrent connections with a packet forwarding delay of less than 10µs. Currently, the X9180 in Guayaquil is processing 200 Gbps, while the Quito NGFW is processing 150 Gbps, giving Telconet significant room for growth in traffic volumes.

The Hillstone X-Series offers a robust suite of carrier-grade network defenses for data centers, including attack defense with flood attack protection, granular application control, advanced intrusion protection, botnet protection, URL filtering, antivirus and more. To support the diverse customer base, the X9180 supports fine-grained, two-layer, eight-level traffic control based on policies, and elastic QoS functions to support SLAs.

The Hillstone HSA provides high-performance log storage with near-instantaneous query results to provide rapid visibility into billions of log records. It offers granular search capabilities to provide real-time visibility into network traffic.

Noted Montero, "It was a good experience with the deployment, which was easy and fast, and the technical support is very efficient. We are very happy with them."

The strong adaptability of the X-Series firewalls allowed the field engineers to easily configure the systems to support Telconet's CGNAT needs. NAT444 was configured using random blocks in order to optimize the use of the public IP pool. In addition, port block sizes were established as requested by Telconet, which allows setting multiple blocks for each private IP.

Results

For this fast-growing service provider, a high-performance CGNAT solution was essential to address IPv4 exhaustion and to support IPv4 to IPv6 translation, preserving existing infrastructure investments. Hillstone's carrier-grade X-Series data center firewalls provide Telconet with the performance, scalability, adaptability and reliability needed to meet their requirements today, and well into the future.