

CNTV – China’s Premier Broadcaster Selects Hillstone Networks to Ensure the Quality of Broadcasts

The Customer

China Network Television (CNTV) is a national web-based TV broadcaster in China. With a network of over 45 channels broadcasting various programs, it is accessible to more than one billion viewers across China. CNTV programs include news, documentaries, entertainment as well as dramas. Operationally, CNTV engages in online broadcasting and video program production, media system research and development, live broadcasts of the nation’s major events, as well as services such as running public opinion monitoring systems. The IT team at CNTV must ensure that services are always up and running and that the billion viewers are satisfied with the service levels provided.

The IT team at CNTV focuses on the operational state of each main system, and must be able to quickly respond to any abnormality in network and system behavior; support different departments with their service requests; as well as ensure the overall security and reliability of the production, office and testing/development networks. The demands of the IT team at CNTV are high, and the team must rely on a robust infrastructure to support those demands.

The Challenge

As CNTV programs and viewership increased over the last two decades, there was a growing demand on the infrastructure to support the growing bandwidth. The IT team soon found that their existing network equipment did not have the performance capabilities to support this growth in their business. In addition, this same growth in business led to a higher demand for network security as well as operational efficiency. The status quo in human resources, equipment, and management was no longer sufficient to support increasing internal requirements and content. At the same time, security issues also surfaced at the office network and production networks. The IT team, at first, looked to open source platforms to resolve performance and security issues, and to mitigate operational overhead, but they were not achieving any operational efficiencies. Furthermore, performance and security issues were still plaguing the environment.

The IT team decided that the optimal option was to seek a third-party vendor to provide a robust network security solution and work with the vendor to customize easy-to-use management tools.

Because Hillstone’s solution has been playing an important role serving significant online live programs – including the Chinese New Year Gala, the Winter Olympics, the World Cup, Li Na’s games, Evergrande Soccer Club – it became a natural solution for the CNTV team to pursue. Specifically, the Chinese New Year Gala displayed Hillstone’s merits as a leading network solution provider. As one of the most watched and premier events for Chinese people globally, the live broadcast required support for massive concurrent sessions and low latency response times in order to keep the audiences happy with the broadcast quality. It was the performance and stability of Hillstone’s solution that prevented any network failures and supported a viewership of over 7 million.

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The Solution

The CNTV IT team was introduced to the Hillstone portfolio of network security solutions from a local partner. CNTV had a Hillstone appliance deployed in an office network environment and was impressed with the network performance. CNTV deployed the Hillstone X Series in their production data centers. They immediately saw a difference in the network state. The IT team was impressed with the rapid and professional local technical support as well as the R&D support. “The Hillstone team was very easy to work with and they were keen on helping us resolve emergencies. They were very responsive to new requirements,” said Kai Zhou, director of network technology, “Before Hillstone, we had to deal with these challenges mostly on our work, with very little support from the vendor.”

CNTV Wuxi IDC has many broadcasting business units, as well as hundreds of internal and external services that it needs to support. Under regular and daily business operations, advanced attacks often go up to tens of millions, while at key events, such as the Chinese New Year Gala and the 93 Parade, attacks can exceed to over 100 million due to the popularity and viewership of the broadcast.

Shortly after the start of the 70th anniversary of the Sino-Japanese War and the World Anti-Fascist War Victory Parade live broadcast, the peak concurrent sessions for CNTV Wuxi IDC – the team in charge of the online broadcast supporting system and auxiliary system – exceeded one million, and the two broadcasts were bombarded with network attacks. As the core security appliance for CNTV Wuxi IDC’s network throughput and data center, the Hillstone appliance supported the entire live broadcast, blocking over 100 million advanced attacks within the first hours, and ensuring that there was no outage or performance issues with the event.

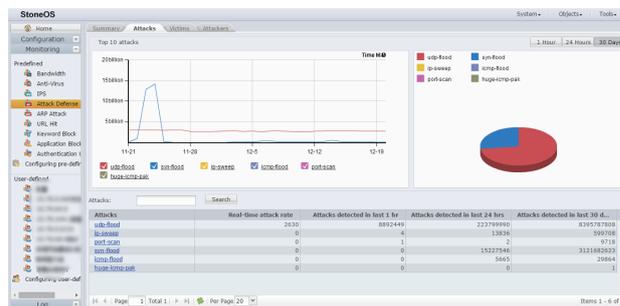


Figure 1: Dashboards provide visibility into the state and health of the network.

Furthermore, the Hillstone appliance met additional requirements for the CNTV IT team. Before Hillstone, there was a dire need for visibility into the network health and state, without which life was very cumbersome for the network administrators. Visualization and dashboards from the management console – refer to Figure 1 – greatly improved operations, offering the staff visibility into the state of the network, as well as quickly pin-pointing problems and issues in the network.

In addition to providing visibility into the health and state of the network, the Hillstone appliance, by providing secure and enhanced performance, greatly reduced operational and maintenance costs for CNTV.

With the Hillstone appliance, CNTV was able to achieve the following:

- Increased bandwidth to support up to 8 million concurrent viewers
- Improved efficiency of multi-lines export and operations to support high data transfers with a professional Link Load balance and VPN
- Higher reliability with dual-power supply HA-peer mode deployment

With Hillstone, CNTV can now support a growing viewership and business, while reducing costs and streamlining operations.