

# *University Deploys Hillstone CloudEdge Virtual NGFW on the Array AVX Series for an Elastic and High-Performance Security Platform*

## The Customer

The customer is a private non-profit university located in Jiangxi, China, founded in 1994. The university has been ranked No. 1 in private universities by the Network of Science and Education Evaluation in China since 2007. There are approximately 38,000 students and 3,000 faculty and staff on the campus, and 200,000 alumni around the world.

## The Challenge

Campus data centers are crammed with disparate hardware appliances from different vendors. When adding a new network function hardware appliance, administrators need to adjust deployment environments constantly, thereby making network operations more complex. The university faced the following challenges:

### **High investment, low efficiency traditional hardware architecture**

Two of their high-end firewalls have only 3% utilization. Under the traditional hardware network architecture, stand-alone devices cannot by nature share hardware resources, thereby driving inefficiencies in the environment.

### **Devices from different vendors, complex administration and trouble-shooting**

The old network architecture consists of stand-alone load balancing servers and firewalls, which have different architectures from disparate vendors. This architecture not only requires a lot of rack space and energy sources, but also lacks a unified management platform. When it comes to business adjustments, adding new devices, or trouble shooting, administrators need to coordinate with every vendor, and modify hardware devices at each layer. This administrative overhead costs the university cycles and time.

### **Hardware network architecture lacks flexibility**

Traditional hardware network architecture lacks flexibility to scale up or down. When hardware devices cannot satisfy current performance requirements, the architecture cannot address the performance of network functions. The only solution to address performance needs would be to replace current devices or add more, causing investment waste.

### **Advanced threat protection is a challenge**

Sophisticated, targeted advanced threats and attacks, such as ransomware, have become the biggest threats to the university. Security solutions such as Next-Generation Firewalls (NGFW) are increasingly in demand for the comprehensive defense capabilities that they provide.

Because of this, the university needed a network function virtualization solution that brings together the robust security benefits of the virtual Next Generation Firewall from Hillstone with the agility and performance of the Network Functions Platform from Array Networks. This solution, both scalable and cost-effective, addresses today's advanced threat protection challenges.

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## The Solution

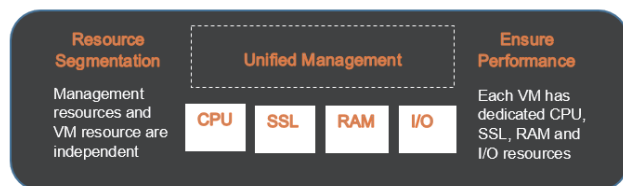
The customer deployed two sets of Array AVX7600 Network Functions Platforms, and divided different levels of virtual instances based on actual requirements. The virtual instances include Array's vAPV load balancing function, Array vxAG SSL VPN function, and Hillstone Networks NGFW functions, among others. The Array AVX Series consolidates multiple network and security functions into a single appliance to reduce rack space and power requirements, and provides unified management across all functions.

### Advanced Threat Protection

Hillstone's Virtual NGFW, CloudEdge, embedded with the Hillstone Networks StoneOS operating system, is deployed as a virtual machine on the AVX Series, and provides advanced security services for applications and users in any virtualized environment. It provides comprehensive security features including granular application identification and control, VPN, intrusion prevention, anti-virus, attack defense and cloud-sandbox to fully keep a business secure and operational.

### Network Functions with High Performance

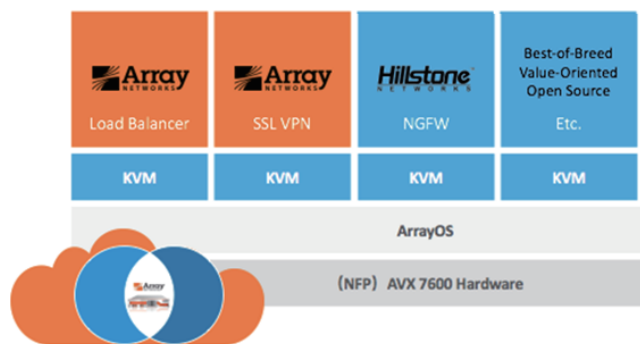
The Array AVX7600 provides guaranteed performance for virtualized network functions through dedicated CPU, SSL, memory and I/O resources. The AVX Series is an open platform that supports Array virtual ADC and SSL VPN functions, as well as 3rd-party virtual appliances such as the Hillstone CloudEdge NGFW. The platform ensures the resources are independent among different instances, delivering a 5X performance increase compared to traditional virtual architectures.



### Simplified IT Network Architecture

The Array Network Functions Platform provides a simplified architecture, which eliminates the hardware integration problem that is present with multi-vendor environments, simplifies the deployment process, and reduces deployment time. Hillstone CloudEdge and Array's vAPV virtual

application delivery controller (load balancer) and SSL VPN are deployed as a service chain on an AVX platform. In addition, users can choose from a variety of CloudEdge services such as cloud sandbox, secure remote and mobile access, SSL traffic decryption, URL filtering, and anti-DDoS/DDoS, all of which are best-of-breed technologies field-tested by customers in a broad range of industries.



### Elastic Network Functions Platform

If the university has expansion requirements for one of the network function instances, such as Hillstone CloudEdge, the AVX Series can rapidly provision and deploy it at scale. This way, the university can fully utilize the platform resources.



The integrated solution from Hillstone and Array addresses the challenges faced by the university. A network functions virtualization solution that meets all the requirements without performance compromise is now helping the campus deliver on their mission and serve their staff and students in a timely and secure way.

