



Peking University Launches Cloud-based Campus Secured by Hillstone Networks CloudHive Solution

The Customer

Peking University is one of China's most prestigious universities, located in Beijing. Founded as the Imperial University of Peking in 1898, it is the first modern national university established in China. The university consists of 30 colleges and 12 departments, with approximately 35,950 students and 6441 staff.

The Challenge

In order to support the rapid growth of their network traffic in a flexible manner, Peking University set up a private cloud based on VMware v5.5, to transform their physical network infrastructure into a cloud platform to serve the campus staff and students. Thirty physical hosts, running approximately 500 virtual machines, provide cloud-computing services for its academic departments. Each department is allocated its own virtual resources—including virtual machines, storage, and networking. Most of applications are being migrated to this cloud platform, such as web-mail, online course selection system and online-accessible education. Even though a strong defense system has been implemented at the perimeter, the IT team was concerned that they did not have visibility and security control for the traffic within the cloud (a.k.a east to west traffic).

Security zones are segmented by physical devices in a traditional network environment, however, in a virtualized environment, the network perimeter disappears. Traditional security solutions cannot provide segmentation within the cloud. If one virtual machine (VM) is affected by a malware, it will potentially infect other VMs with a lateral move.

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The Solution

Hillstone delivered CloudHive to help the security team gain visibility within the cloud as well as to stop a lateral movement of malware. CloudHive delivered a very simple way to implement in Layer 2, without the need to do any changes on their original network deployment. With CloudHive, the IT team at Peking University achieved the following benefits:

- Enables the CloudHive application identification engine, where it not only provides visibility of the traffic between VMs, but also identifies applications from the traffic. The CloudHive "Insight" feature compiles application, threat, time as well as the relationship between VMs, and presents it in a topology format.
- With the CloudHive micro-segmentation technology, the IT team executes multi-dimension, fine-grained access control between the VMs, in order to secure VMs and to block attacks originating from VMs.
- The CloudHive IPS engine can effectively prevent malware spreading between VMs, once a VM is infected.

The Conclusion

With the security solution from Hillstone Networks, the IT team at Peking University was able to address all of their security requirements inside the cloud, thereby allowing the University to focus their attention on their academic excellence with peace of mind.