

HONG KONG BAPTIST UNIVERSITY SELECTS A10 THUNDER ADC FOR ARCHITECTURE REDESIGN

“ We implemented the A10 Thunder ADC solution for our email application in 2012. Since then, we installed more Thunder ADC appliances to load balance mission critical applications in 2013 and 2014. A10’s redundancy capability fits our new data center architecture and maximizes application availability.”

Jack Kwok | Head of System Operations, HKBU



CASE STUDY

COMPANY

Hong Kong Baptist University (HKBU)

INDUSTRY

Education

NETWORK SOLUTION

- A10 Thunder ADC deployed in route mode with traffic inspection enabled for traffic control
- Multiple Thunder ADC appliances enabled with N+M redundancy across multiple data centers to maximize uptime

CRITICAL ISSUES

- Campus expansion with new data centers was in need of an architecture redesign to meet ultra-high SLA requirements.
- Preservation of scripting policies: HKBU did not want to rewrite and retest all of the scripts it had developed for the incumbent ADC being replaced.

RESULTS

- Cost-effective N+M redundancy capability for multiple data centers
- Improved SSL performance and 10GE port density that can easily handle projected SSL traffic growth
- Clear solution to replace the incumbent ADC vendor, while maintaining the same scripts for application integration



Established in 1956, Hong Kong Baptist University (HKBU) has over 50 years of experience in providing broad-based and creativity inspiring education. Currently, HKBU is a fully accredited multi-campus institution, with an IT network infrastructure that serves approximately 3,000 full-time staff members and 11,000 university students.

To accommodate traffic growth, HKBU needed to expand its campus and add new data centers. As part of the campus expansion, the university wanted to improve performance and network reliability.

CHALLENGE

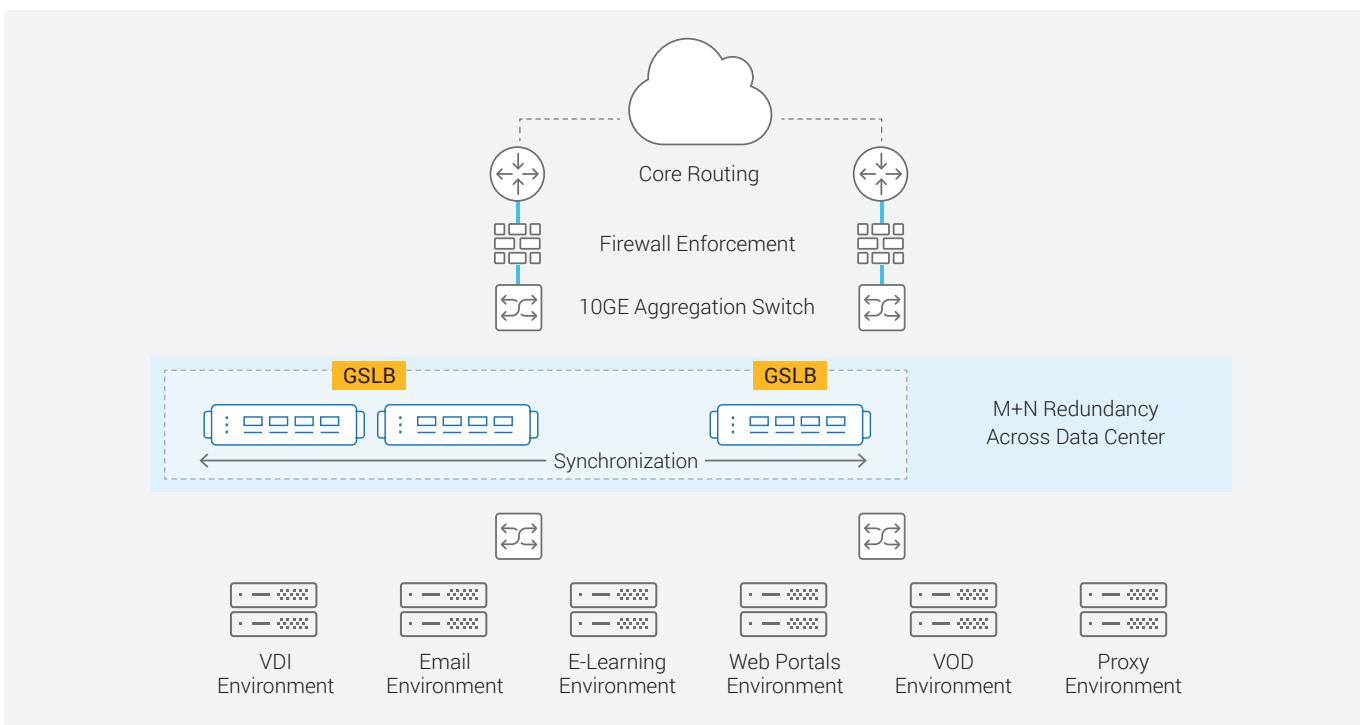
When HKBU adopted a new 4-year undergraduate curriculum and increased student admissions, its IT infrastructure team realized that the university needed to build new data centers to accommodate traffic growth, support new applications and meet higher Service Level Agreement (SLA) requirements. To enhance the scalability and availability of its demanding network, HKBU looked for an application delivery controller (ADC) with N+M redundancy to help ensure that its applications would always be available.

With N+M redundancy, multiple standby appliances could be deployed and take over the role of an active appliance in the event of a failure.

In addition, HKBU needed an ADC with an advanced feature set in order to integrate with legacy and newly developed applications. HKBU wished to replace its incumbent vendor's ADC, but also wanted to maintain the custom scripts that had already been written for its applications. The new ADC solution needed to run efficiently and flawlessly without requiring "script rewriting and retesting." Furthermore, HKBU wanted the ADC to cloak application server attributes to bolster security.

SELECTION CRITERIA

"Applications traffic is expected to increase significantly in the next few years," says Mr. Jack Kwok, Head of System Operations at HKBU. "So we really need a solution that will grow with us, provide advanced features, and meet our availability and reliability requirements. And of course, we look for a good price/performance ratio. We felt that A10 met these needs, plus we were already familiar with their outstanding technical support."



Features such as active/passive/passive (APP) high availability, together with high-quality hardware components, including the latest SSL ASICs, server-grade processors, Error Correcting Code (ECC) memory and field-proven 64-bit software for maximum uptime, are all critical for HKBU's success.

SOLUTION

A10 Networks® Thunder® ADC line of Application Delivery Controllers can ensure equal distribution of applications traffic between data centers and servers, allowing easy horizontal scaling of infrastructure and optimal performance under almost all circumstances, including peak traffic conditions during student enrollment seasons.

Specific Thunder ADC features deployed by HKBU include:

- **Global Server Load Balancing (GSLB):** HKBU load balances traffic across multiple data centers and servers using GSLB. Once traffic arrives at the site, Thunder ADC leverages deep packet inspection (DPI) functionality to load balance traffic across its server farm for high availability.
- **Superior High Availability (HA):** HKBU uses clusters of three Thunder ADC appliances among multiple data centers to simplify network design and increase stability where absolutely no downtime is tolerable.
- **TCL Scripting:** A10 Networks aFlex® Deep Packet Inspection (DPI) Scripting Technology (aFlex TCL scripting) offers DPI, content transformation and application integration. HKBU can easily transition to Thunder ADC without having to rewrite or retest scripts.
- **Security Enhancement:** HKBU protects applications with access control lists and detection of malicious IPs using the Thunder ADC black list capabilities.
- **Advanced SSL Offload:** Processing SSL traffic on Thunder ADC appliances increases transaction speeds, decreases server hardware requirements and provides ease of administration.

RESULTS

HKBU's mail system application has been performing optimally since deploying A10 Thunder ADC appliances in 2012. When HKBU's campus expansion was in need of architecture redesign in 2013 and 2014, HKBU again selected Thunder ADC and implemented a redundant architecture that is intended to provide 100% availability. Over the past three years, the university has gradually migrated various applications, including email, e-learning, student and staff web portals, virtual desktop workspaces, video on demand (VOD) systems and legacy proxy applications to the A10 Thunder ADC appliances.

SUCCESS AND NEXT STEPS

Based on the excellent track record laid down by A10 Thunder ADC and its high-performance and all-inclusive feature set, HKBU is in a position to fulfill future initiatives on-demand without worrying about additional technology add-ons or licensing costs. Thunder ADC will continue to enable HKBU's applications to be highly available, scalable and secure.

HKBU's mail system application has been performing optimally since deploying A10 Thunder ADC appliances in 2012. When HKBU's campus expansion was in need of architecture redesign in 2013 and 2014, HKBU again selected Thunder ADC and implemented a redundant architecture that is intended to provide 100% availability.



A10 THUNDER ADC

LEARN MORE

ABOUT HONG KONG BAPTIST UNIVERSITY (HKBU)

Established in 1956, Hong Kong Baptist University (HKBU) has over 50 years of experience in providing broad-based and creativity inspiring education. At HKBU, education is far more than simply equipping students with professional knowledge and skills. HKBU is committed to providing whole person education that inculcates intellectual, cultural, social and sporting skills outside the classroom in addition to training the minds within. Currently, HKBU is a fully accredited multi-campus institution and its network infrastructure serves approximately 3,000 full-time staff members and 11,000 university-based students.

ABOUT A10 NETWORKS

A10 Networks (NYSE: ATEN) provides Reliable Security Always™ through a range of high-performance solutions that enable intelligent automation with deep machine learning to ensure business critical applications are protected, reliable and always available. Founded in 2004, A10 Networks is based in San Jose, Calif., and serves customers globally with offices worldwide.

For more information, visit: a10networks.com or tweet [@A10Networks](https://twitter.com/A10Networks).

LEARN MORE
ABOUT A10 NETWORKS

CONTACT US
a10networks.com/contact

©2018 A10 Networks, Inc. All rights reserved. A10 Networks, the A10 Networks logo, ACOS, Thunder, Lightning, Harmony and SSL Insight are trademarks or registered trademarks of A10 Networks, Inc. in the United States and other countries. All other trademarks are property of their respective owners. A10 Networks assumes no responsibility for any inaccuracies in this document. A10 Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice. For the full list of trademarks, visit: www.a10networks.com/a10-trademarks.

Part Number: A10-CS-80164-EN-02 APR 2018