

## Scaling Web Application Delivery for Education

University of the Arts London is a vibrant world center for innovation, comprising six internationally renowned colleges. It is Europe's largest university for art, design, fashion, communication and the performing arts.

University of the Arts London leverages Web technologies to provide a multitude of applications and services to its students and faculty. It has over 25 Websites with interactive content, including bandwidth-intensive graphic applications. Its infrastructure spans two datacenters and consists of Apache servers running on VMware that communicate with and retrieve information from the MySQL and Oracle databases on the backend.

In 2009, University of the Arts London began a new Web service project to create a new architecture capable of providing optimized content delivery to site visitors. The project consisted of an initial phase: Redesign and build a new hardware/software platform, which included replacing the existing Radware server load balancers whose capacity was maxed out.

During the server load balancer evaluation process, the following capabilities were deemed requirements:

- Direct user requests to the best fulfillment server across both datacenters, based on host/URI and server availability/performance
- Terminate SSL for HTTPS traffic once within the datacenter
- Load balance any TCP/UDP traffic
- Provide persistence when required by the application
- Perform detailed health checks on fulfillment servers across both datacenters
- Provide graceful shutdown of virtual servers for maintenance
- Perform slow start of virtual servers after maintenance

## AX Series: The New Generation Platform

University of the Arts London selected four AX 2100 new generation server load balancers from A10 Networks to replace the aging Radware devices with a higher-performance and scalable solution. The AX Series met and exceeded the project's functional requirements with additional features, including:

- **Global Server Load Balancing (GSLB):** Load balances Web servers across University of the Arts London's two datacenters to ensure high availability. Unlike competing solutions, GSLB is included in all AX Series models, without additional licensing fees.
- **URL Switching:** Delivers services hosted on the University of the Arts London domain based upon the contents of the URL. Requests are then directed to the relevant servers located in the private address space.
- **Custom Health Checks:** Ensures that servers are available and able to communicate with and retrieve data from the backend MySQL and Oracle databases.

University of the Arts London comprises six internationally renowned colleges.

It required a new Web architecture capable of providing optimized content delivery to site visitors for over 25 Websites.

*"Our existing server load balancer platform was incapable to meet the needs for our new Web service project. We chose A10's AX 2100s as they met and exceeded the project's functional requirements, including scalable performance for growth."*

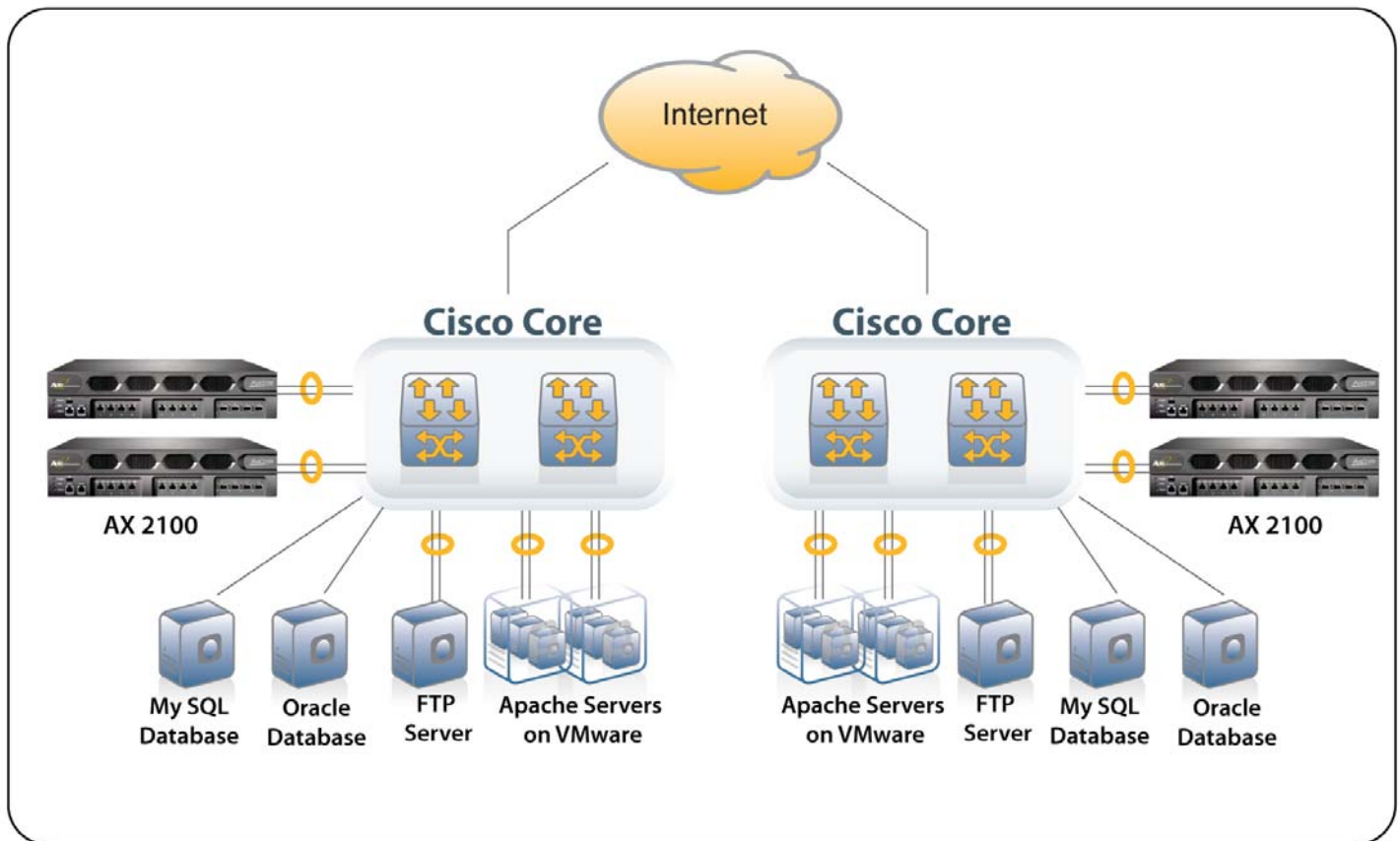
**Andrew McClements**  
**Network Services Manager**  
**University of the Arts London**

## Success

The load balancer replacement to a full-featured Application Delivery Controller (ADC) enables a suite of new features previously unavailable, ensuring increased functionality, a lower initial procurement cost, and importantly the all-inclusive licensing model removes the need to request additional funds for license upgrades (performance or feature related).

Since deploying the AX Series, University of the Arts London has the scalable platform required to develop and deliver a range of visual content services to its entire network, quickly and efficiently. In addition, the customizable AX platform allows University of the Arts London to tailor content for a diverse range of student nationalities and visitor profiles.

## University of the Arts London's Network



## About A10 Networks

A10 Networks was founded in 2004 with a mission to provide innovative networking and security solutions. A10 Networks makes high-performance products that help organizations accelerate, optimize and secure their applications. A10 Networks is headquartered in Silicon Valley with offices in the United States, United Kingdom, France, The Netherlands, Japan, China, Korea and Taiwan. For more information, visit [www.a10networks.com](http://www.a10networks.com)

## University of the Arts London

University of the Arts London is Europe's largest university for art, design, fashion, communication and the performing arts. For more information, visit <http://www.arts.ac.uk/>