

Confidently Move Your Campus to the Cloud with a Proven Solution from DLT and Akamai



Leverage the cloud securely and reliably to improve distance learning, drive down infrastructure costs, and increase global enrollment.

Online education is soaring in popularity. Consider that from 2002 to 2012, online course enrollment jumped from 570,000 to 6.7 million, with 32% of all college students taking at least one online course in 2012. Moreover, the number of college students enrolled in at least one online course rose from 23% to 45% between 2008 and 2013.

As a proven educational channel, online education is now essential to a school's growth and retention rates, and enables colleges and universities to grow beyond the physical capacity of their campuses. Students can enroll from all over the world, without the need for housing or physical classrooms.

Challenges of education in the cloud

Because much of the lure around online education is the flexibility when accessing courses, schools must deliver their e-learning sites and applications quickly and without fail. In other words, online education apps must always be available and responsive, as well as accessible from any device, anywhere, at any time.

Satisfying Content Demand for a Global Audience

Universities can't afford to deploy enough servers around the world to satisfy a geographically dispersed user base. Even if they could, they wouldn't be able to ensure the needed levels of performance, reliability and scalability because of the nature of the Internet.

The Internet is the culprit

The peering relationships of more than 14,000 independent Internet Service Providers (ISPs) is a major bottleneck on end-user performance. Unfortunately, the Internet's routing and delivery protocols – Border Gateway Protocol (BGP) and Transmission Control Protocol (TCP) – and the way they interact with the web's core communication protocol (HTTP) do not optimally route traffic. Furthermore, BGP and TCP don't usually identify and reroute traffic around congestion blackouts and brownouts, caused by a variety of global catastrophes.

Content Delivery Networks are the solution

To overcome these challenges, more and more universities are turning to cloud-based services backed by content delivery networks (CDNs). Content delivery networks overcome the inherent inefficiencies of the Internet to deliver site and application content quickly and reliably to distributed end users. By deploying a CDN, colleges and universities can also offload bandwidth, hardware, software and additionally, expensive real estate that would house this entire infrastructure. Combine this with cloud-based services and on-staff expertise, and institutions are empowered to deliver a memorable online learning experience.

CHALLENGES DELIVERING ONLINE EDUCATION

- **Creating a consistent and reliable user experience** for all students e.g. on/off-campus and globally
- **Addressing the proliferation of devices**, i.e., phones, tablets, phablets, etc.
- **Securing the Personally Identifiable Information (PII)** of students, faculty and staff
- **Ensuring scalability** to meet the demands of rapid swings in traffic volumes / flash crowds occurring during university enrollment, testing, and assignment deadlines
- **Avoiding higher costs** for online development and delivery
- **Supporting multiple renderings** of the same web page by using Responsive Web Design (RWD)
- **Growing sophistication and occurrence** of cyber crime

The most online activity is happening in higher education

60%

of postsecondary institutions report online offerings

30%

of college students are currently taking at least one online course

16%

of college students are currently learning primarily through online courses

Higher Education

It pays to compare options

To best overcome Internet congestion and latency, it is essential to leverage a cloud provider that elastically provisions various types of IT services, complemented by a globally distributed CDN that puts the end user within one hop from the closest Akamai edge server. This strategy enables universities to achieve much higher application availability and performance, backed by a 100% uptime SLA. It also helps them secure their applications against the most well-known attacks, including those perpetrated via XSS, SQLi, RFI and DDoS, to name a few.

Go to the head of the class with a cloud solution from DLT and Akamai

The DLT Cloud provides a secure, reliable and cost-effective hosting platform that enables universities to lower overall IT costs and rapidly scale applications. This platform provides resizable compute capacity in the cloud – designed to make it easier to scale on demand. Plus, a simple web interface makes it easy to store and retrieve any amount of data, at any time, from anywhere on the web.

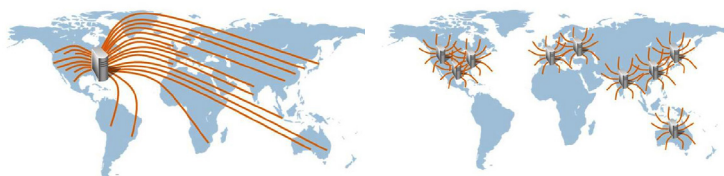
This is combined with unparalleled content delivery services from Akamai. Akamai's distributed infrastructure – the Akamai Intelligent Platform™ – consists of approximately 150,000 servers deployed in over 92 countries and in 1,200 ISP networks globally. Akamai's distributed architecture brings content within one network hop of almost every site visitor. This platform delivers about 30% of the world's web traffic daily and is the foundation for a comprehensive suite of streaming, performance, security, and availability solutions. In fact, Akamai secures content on the application layer as well as in the data center, is agnostic to all web hosting components, and is fully compliant with PCI and ISO standards.

Adopt a proven approach to delivering online learning

To capitalize on the popularity of online learning, schools must deliver their content and applications quickly, reliably, and securely. They can do that by hosting their e-learning in the cloud and delivering it via a world-class, global CDN.

For a proven approach to delivering online learning applications, universities can take advantage of DLT's industry-leading cloud hosting with Akamai's CDN and other solutions to realize the following benefits:

- **Reliably deliver e-Learning** to any device, any time, anywhere by leveraging the world's largest computing platform of 150,000 servers
- **Enjoy consistent performance and immediate scalability**, without any additional infrastructure
- **Support real-time collaboration events, lectures, podcasts** and more using proven live and on-demand streaming services
- **Take advantage of predictable billing** at reasonable cost via a pay-as-you-go model
- **Report on a variety of metrics at a granular level**, including geo-location (based on device, user etc.), audience behavior and more



Centralized CDN

"Super Pop" CDN



Akamai: Globally Distributed



Akamai® is a leading provider of cloud services for delivering, optimizing and securing online content and business applications. At the core of the company's solutions is the Akamai Intelligent Platform™ providing extensive reach, coupled with unmatched reliability, security, visibility and expertise. Akamai removes the complexities of connecting the increasingly mobile world, supporting 24/7 consumer demand, and enabling enterprises to securely leverage the cloud. To learn more about how Akamai is accelerating the pace of innovation in a hyperconnected world, please visit www.akamai.com or blogs.akamai.com, and follow @Akamai on Twitter.

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