



# ESSENTIALS OF Management Information Systems

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## Chapter 3: Information Systems, Organizations, and Strategy

**Case 1:** National Basketball Association: Competing on Global Delivery With Akamai OS Streaming

**Tags:** firm strategy; IT strategy; value chain; network based strategies; strategic ecosystems; strategic partners.

**Summary:** The NBA uses Akamai's global streaming video service to reach customers and strategic partners in Asia, Europe, the Middle East, Africa and North America with high quality video streams of NBA rich media content and programs.

**URL:** <http://www.akamai.com/html/customers/testimonials/nba.html>

**NOTE:** The Akamai video is a high quality video that requires a broadband connection of greater than 5 MBPS. The video plays best at connection speeds of greater than 15 MBPS (Cable or FIOS ISP speeds). If you have trouble playing it on a Mozilla browser (Firefox), switch to Internet Explorer. Also, if you let it play through once, the second playback will be smoother because some of the content is cached on local servers and your computer. Alternatively, find a campus or corporate network which has the requisite bandwidth.

### Case

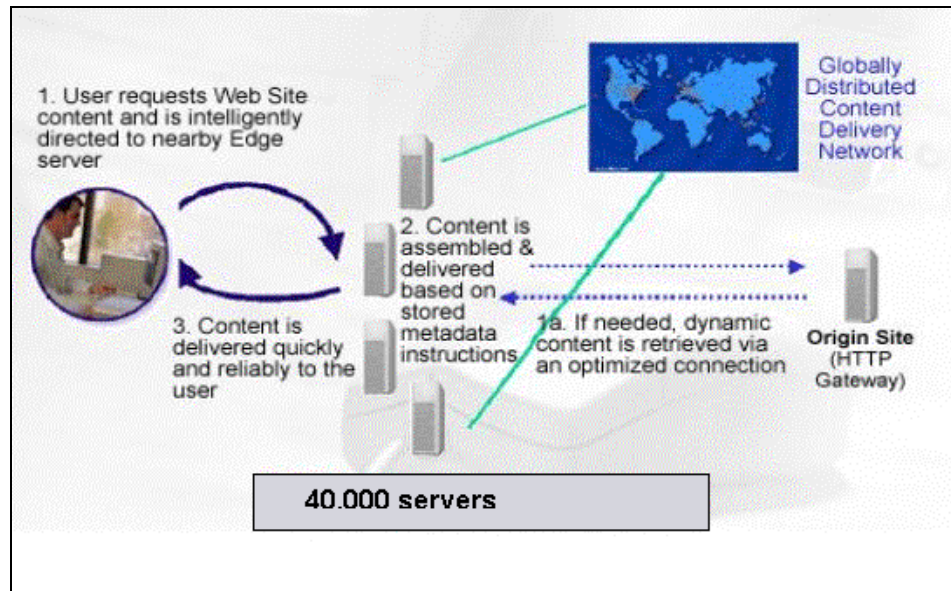
“The National Basketball Association (NBA) is North America’s premier professional men’s basketball league, composed of thirty teams: twenty-nine in the United States and one in Canada. It is an active member of USA Basketball (USAB), which is recognized by the International Basketball Federation as the National Governing Body (NGB) for basketball in the United States. The NBA is one of the four major North American professional sports leagues, which also include Major League Baseball (MLB), the National Football League (NFL), and the National Hockey League (NHL).

An increasing number of international players have moved directly from playing elsewhere in the world to starring in the NBA. The NBA is now televised in 212 nations in 42 languages.” Increasingly, fans want and expect high quality game videos, RSS feeds, widgets, and Fantasy leagues. NBA.com has an inventory of over 400,000 digital assets, including 15,000 videos. Last year, there were over 850 unique visits to NBA.com from 20 countries.

“Akamai Technologies, Inc. (NASDAQ: AKAM) is a company that provides a distributed computing platform for global Internet content and application delivery. Akamai is headquartered in Cambridge, Massachusetts. The company was founded in 1998 by then-MIT graduate student Daniel Lewin, along with MIT Applied Mathematics professor Tom Leighton and MIT Sloan School of Management students Jonathan Seelig and Preetish Nijhawan. Leighton still serves as Akamai’s Chief Scientist, while Lewin was killed aboard American Airlines flight 11 which was crashed in the September 11 attacks of 2001. Akamai is a Hawaiian word meaning smart or intelligent.

Akamai's primary service is provided by its proprietary EdgeNetwork. Akamai transparently mirrors content sometimes all content including HTML and CSS, and sometimes just media objects such as audio, graphics, animation, and video from customer servers. Large firms deliver their content to over 40,000 Akamai servers in 70 countries. These local Akamai servers cache (store) this content awaiting local demand. Akamai's network is intelligent enough not to distribute content to a local server until and unless there is local demand.

**Figure 1-1 Akamai's Global Content Distribution System**



When you click on an online video at NBA.com, the domain name is the same, but the IP address points to an Akamai server rather than the NBA server. The Akamai server is automatically picked depending on the type of content and the user's network location."

Akamai's EdgePlatform is one of the world's largest distributed computing platforms. The benefit is that users can receive content from whichever Akamai server is closest to them or has a good connection, leading to faster download times and less vulnerability to network congestion or outages. The Internet was never designed to handle large volumes of video simultaneously streaming from a single corporate server to all Internet devices. However, this content can be sent to the "edge" of the network where Akamai servers are located, and on a local or regional basis, stream this content on demand from local servers.



Akamai's 40,000 distributed servers allow it to monitor global Internet traffic patterns, attacks on the Internet, and latency (delays caused by excessive Internet traffic). Source: Akamai.com.

In addition to image caching, Akamai provides services which accelerate dynamic and personalized content, and streaming media. Akamai's personalization product is called EdgeScape, a geolocation service. Much Web content delivered by Akamai is personalized to the user's location and Internet service types. This allows Akamai's customers to gain insight into where end users are coming from and what kind of Internet service they are using. Armed with this knowledge they can customize Web content for individual end users through a wide range of criteria, making their site more relevant and compelling to everyone who visits.

For instance, Akamai knows your:

- Internet service provider: Verizon\_Trademark\_Services\_LLC
- Country Code: US
- Region Code: NY
- City: NEWYORK
- Areacode: 212
- Latitude: 40.7128
- Longitude: 74.0092
- County: NEWYORK
- Timezone: EST
- Network: verizon
- Throughput: vhigh

Akamai Stream OS is another service that runs on Akamai's EdgePlatform. It enables the NBA to get more from its media by providing a simple, automated solution for managing more than 45,000 media assets, assigning business policies, and publishing content to multiple distribution channels.

- Since implementing Akamai Stream OS, NBA.com's traffic has increased exponentially, with over 35M unique users in 222 countries accessing NBA Web content each month
- Akamai's suite of products has helped the NBA reach record traffic levels, with over 35M unique global users per month, while effectively maintaining employment and infrastructure costs
- The reach and stability of Akamai's network have allowed the NBA to grow advertising revenues by 500% since 2001"

**Resources:** NBA.com; Akamai.com; Wikipedia.com

### **Case Study Questions**

1. Using Porter's competitive forces model, analyze the NBA's market situation. How does the use of Akamai help the NBA compete in this market?
2. Using Porter's generic strategies model, what do you think is the NBA's overall strategy or strategies?
3. Why is it important that all fans in the world have the same experience?
4. Why is it important that individual franchise owners can build, manage, and distribute on the NBA platform their own content?
5. The word "partnership" appears several times in the video. Who are the NBA's partners? How does the concept of a strategic ecosystem apply to the NBA's partnership strategies?

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