

# A Gold Medal Performance for NBCOlympics.com



## The Situation

With exclusive U.S. rights to broadcast television coverage of the 2004 Olympics, NBC decided to take advantage of increases in broadband adoption to deliver real-time, interactive, and media-rich coverage of the Olympics on the [www.nbcolympics.com](http://www.nbcolympics.com) site. NBC wanted to build a premier Olympic Web site with multimedia integration and exclusive content that complemented television broadcasts, including those of its affiliates around the country. The goal was to make the site an interactive and definitive resource of the Athens Games for an anticipated audience of 20 million site visitors during August.

## The Challenge

A lot was riding on the site—with more planned television coverage than ever before (1,200 hours across seven networks), the NBC Olympics site had the potential to become the most visited site for a one-time event. And if all went as planned, the site would generate significant revenues from advertisers. The success of both these factors hinged on the site's performance and scalability. NBC solicited bids from a variety of solution providers for help developing the necessary online applications and a solid infrastructure. Internet Broadcasting (IB) was one of those asked to bid.

"NBC had a number of key requirements. Its broadcasting rights limited the distribution of its competition videos to a U.S. audience, so they had to be delivered securely, allowing only the intended recipient to view them. The site needed to serve near-real-time event results to millions of viewers per day without fail. NBC needed applications that helped them run polls and deliver information in a multimedia fashion. Content had to be localized for each NBC affiliate around the country for the O-Zone portion of the site and NBC wanted insight into the traffic across its site as well as at the affiliate level. And not surprisingly, NBC wanted all this done cost-effectively," explains Dave Abbott, CTO of IB.

## The Goal

To ensure successful results from their Olympics programming NBC needed to:

- **Deliver Real-time, Interactive, and Media-rich Coverage of The Olympics**
- **Use The Web to Complement Television Broadcasts** including those of its affiliates around the country
- **Enhance Viewing Experience** for anticipated audience of 20 million site visitors
- **Implement Resource-efficient Solution for Limited-time Event**
- **Meet Requirements to Limit Access to Video Highlights**

## Why Akamai

### Proven, Resource-Efficient Solution

IB immediately honed in on the economic factor—for a two-week event, it made no sense to deploy hundreds of servers and contract for additional bandwidth from multiple vendors. Installing the 500 servers needed to support the site's goals would require a huge footprint in NBC's datacenter. Beyond that, NBC needed to figure out how to ensure video highlights were not distributed outside the U.S. And managing the procurement, installment, and operation of all the necessary equipment and technology would require a fair number of dedicated personnel.

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*"The whole idea was to enable the NBC Olympics' site to be a perfect online complement to broadcast coverage, and to do so cost-effectively by minimizing the origin data center infrastructure and offloading all traffic to the Akamai network. By meeting these requirements, the Akamai solution has provided a stellar value for both NBC and IB."*

—Dave Abbott, CTO of Internet Broadcasting (IB)



### COMPANY

NBC  
New York, NY  
[www.nbc.com](http://www.nbc.com)

### INDUSTRY

Media & Entertainment

### SOLUTION

Akamai EdgeSuite®  
Akamai Streaming  
Akamai EdgeComputing™  
Akamai On Demand Registration  
Akamai Access Control  
Akamai Content Targeting  
Akamai Site Delivery

### KEY IMPACTS

- Supported fastest and most heavily trafficked Olympics' site in history—276 million page views over 17-day period
- Delivered first 100% available Olympics' site
- Processed 6 separate interactive Web applications, including polling and email-a-friend applications
- Enabled significant infrastructure savings by obviating need for over 500 servers
- Delivered average page download time of under 3 seconds throughout the Olympics
- Ensured only authorized users could access restricted video clips



## Why Akamai *(continued)*

"It was not practical to install 500 servers. Besides, that plan didn't align with NBC's goals for a cost-effective solution. For IB, the solution was a no-brainer. We offered to package up our proprietary content management system and other software tools and install them in NBC's New Jersey datacenter. Then we recommended that NBC extend its existing infrastructure across the Akamai EdgePlatform and take advantage of the bottomless well that Akamai's on demand network provides," continues Abbot.

### Agile Applications

IB has long relied on Akamai's on demand computing platform to effectively increase the performance and flexibility of its own infrastructure and online applications while reducing the resources required to support its Web operations.

"We felt confident in our ability to develop the needed online Flash applications, such as games that provided moment-by-moment analysis of track and field races and explained how different events are scored. And we knew that Akamai could quickly and reliably deliver these applications and the heavy site pages, which ended up averaging more than 300 KBs. We already had proof that our interactive surveys and polls would scale successfully across the Akamai Platform," continued Abbott.

### Targeting The Right Content to The Right Users

On top of that, Akamai's geographic and bandwidth verification technologies would help NBC identify whether or not visitors were based in the U.S. and were on a dial-up or broadband connection. Knowing this, NBC could prevent large video files from being served to visitors outside of the U.S. or on slow connections. "To further ensure only authorized users could access the videos, Akamai offered the Windows Media 9 digital rights management wrapper. And let's face it—there's no other company that can ensure the security and uninterrupted operation of a site the way Akamai can," states Abbott.

### Real-Time, Easy-to-Use Reporting

Equally important, IB would have access to Akamai's comprehensive reporting tools for insight into site trends and performance. IB could view site traffic in real-time and see daily summaries of a variety of visitor activities. The reporting tools supported IB's requirements for a customized dashboard and enabled IB to easily aggregate all data related to NBC affiliates around the country who were participating in the O-Zone.

### Record-Breaking Results

Akamai supported all content delivery for NBC's Olympics coverage—including streaming and dynamic applications such as polling, live event

scoring, and Web email that site visitors sent to friends or commentators. Akamai also streamed all pre-Game highlights, which included exclusive footage of the U.S. Olympic Team Trials, great moments from the 1996 Atlanta and 2000 Sydney Games, and interviews with more than 40 top U.S. Olympians.

As predicted, the [www.nbcolympic.com](http://www.nbcolympic.com) site beat all previous records, registering an unprecedented number of visitors and a traffic peak of 1.6 gigabits per second. Using third parties to measure site performance, IB and NBC were assured that the site was available 100% of the time, a first for an Olympics' site. The average page download time during the two-week Olympics was under 3 seconds. While NBC is thrilled that Akamai and IB ensured a unique and satisfying online experience for millions of site visitors, it's equally pleased that it sold nearly twice as many ads as during the 2002 Olympics.

"To know that Akamai can deliver any content—even if it's interactive and personalized—quickly and reliably to a large audience made them the obvious choice. But on top of that, they provided functionality such as geographic and bandwidth verification technology that enabled NBC to distribute its content in creative ways," concludes Abbott.

### About IB

Founded in 1995 as a pioneer in TV/Web convergence, Internet Broadcasting is the first and largest network of local news Web channels—Web sites that extend the local news, information, and advertising reach of major TV stations to the Web. The IB network of local Web channels covers 50 cities, including 20 of the top 25, a total of 64% of US households, and represents the leading American television broadcasting stations, such as NBC, Hearst-Argyle Television, McGraw-Hill Broadcasting Group, and Cox Television, to name a few. For more information, visit [www.ibsys.com](http://www.ibsys.com).

### About NBC

NBC began its online coverage of the Olympic Games in 1996 during the Atlanta Olympics. That Internet presence was dramatically increased in 2000 during NBC's Sydney Games coverage and again in 2002 at Salt Lake where the NBC Web site became one of the Web's most trafficked and critically acclaimed sports Internet sites. [NBCOlympics.com](http://NBCOlympics.com) averaged more than one million visitors a day during the Salt Lake Winter Games and set a single-day record with 2.4 million visitors the day of the ladies figure skating final. NBC, America's Olympic Network, holds the exclusive U.S. media rights to the Olympic Games through 2012, which include Athens in 2004, Torino, Italy in 2006, Beijing in 2008, Vancouver 2010 and the Summer Games of 2012. For more information, visit [www.nbc.com](http://www.nbc.com).

### About Akamai

Akamai® is the leading global service provider for accelerating content and business processes online. Thousands of organizations have formed trusted relationships with Akamai, improving their revenue and reducing costs by maximizing the performance of their online businesses. Leveraging the Akamai EdgePlatform, these organizations gain business advantage today, and have the foundation for the emerging Web solutions of tomorrow. Akamai is "The Trusted Choice for Online Business." For more information, visit [www.akamai.com](http://www.akamai.com).



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