

IPv6 Adaptation

A seamless transition to the IPv6 world



In the past several years, mobile device usage grew at rate ten times faster than the PC revolution, two times faster than the Internet boom and three times faster than social network adoption . The dwindling supply of unique Internet Protocol (IP) addresses to support the growing number of mobile web devices is forcing a change in the Internet's core architecture; an upgrade from IP version 4 (IPv4) to IP version 6 (IPv6), which will evolve in stages.

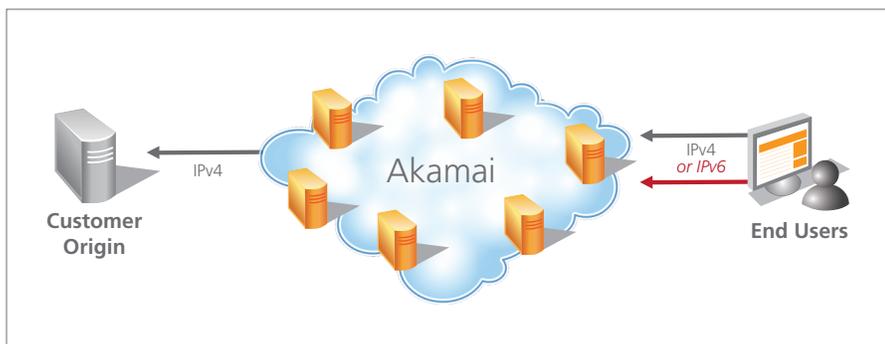
Companies relying on the Internet as a critical channel for business must be able to support both IPv4 and IPv6 in the near term while transitioning to IPv6. As IPv4 and IPv6 are incompatible, the challenge is to reach end users on both reliably while navigating a hybrid Internet with uneven protocol support. Supporting parallel Internet hardware and software systems for two protocols is expensive and complicated to support. Technologies such as Carrier Grade NAT and tunneling can help, but can cause significant online performance and other issues that put the web user experience at risk. And communications with IPv6, a new protocol, require longer paths with higher latency and frequent congestion, making it difficult to deliver fast, reliable online experiences to IPv6 users.

Akamai IPv6 Adaptation

Akamai IPv6 Adaptation enables companies to reach both IPv4 and IPv6 users immediately and reliably, and deliver superior online experiences — without changing their IPv4 origin infrastructures. IPv6 Adaptation runs on the globally distributed Akamai Intelligent Platform™, so companies can continue to respond to web user market needs and comply with any regulations while they develop and execute IPv6 transitions.

How it Works

Akamai enables IPv6 support via dual-stack regions distributed across the Akamai Intelligent Platform™. When an IPv6 user makes a request to your site, they are directed to a nearby dual-stack Akamai server. This server will respond to the end user natively over IPv6, while making any necessary content requests to the origin server using IPv4. Akamai continues to represent the client IP address in the request header and Akamai log files, whether it is connecting via IPv4 or IPv6, so you retain visibility to the client IP addresses that Akamai serves on your behalf. Akamai IPv6 Adaptation is seamless to both the website and to end users, who request the same site and receive the same content and functionality whether they are using IPv4 or IPv6.



BENEFITS TO YOUR BUSINESS

- **Transition to IPv6 seamlessly** by leveraging Akamai to reach both IPv4 and IPv6 users while you plan and execute your strategy
- **Deliver the best online experience** to all users and web devices by leveraging the Akamai Intelligent Platform™ to keep web performance, availability and security high on the hybrid Internet
- **Comply and innovate** — Meet regulatory requirements and market pressures by supporting IPv6 essentially with the flip of a switch

¹ <http://blog.flurry.com/bid/88867/iOS-and-Android-Adoption-Explodes-Internationally>

IPv6 Adaptation

Performance and Reliability

By delivering to IPv6 users natively from a nearby server, IPv6 Adaptation avoids many of the performance and reliability problems that plague the sparse IPv6 Internet and the hybrid Internet. Communications with the origin server occur as usual over IPv4, but are accelerated, via Akamai technologies.

Visibility and Control

Reports identify IPv4 and IPv6 traffic and break down unique IPv6 visitors by browser, user agent, and country, giving you better insight into your online business and the IPV6 evolution.

Security and Protection

Akamai IPv6 Adaptation can also extend the security of your website by supporting the use of Access Control Lists based on matching IP addresses for both IPv4 and IPv6.

The Akamai Ecosystem

Akamai makes the Internet fast, reliable and secure. Our comprehensive solutions are built on the globally distributed Akamai Intelligent Platform™, managed through the unified, customizable Luna Control Center for visibility and control, and supported by Professional Services experts who get you up and running easily and inspire innovation as your strategies evolve.

“ Akamai’s role in the deployment of IPv6 is critical to its customers. Cisco and Akamai worked closely to create a solution that met our needs for World IPv6 Day, and we have continued our preparations and planning for the permanent launch.

— **Mark Townsley**, Cisco Fellow and former Internet Area Director for the IETF



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.

Akamai is headquartered in Cambridge, Massachusetts in the United States with operations in more than 40 offices around the world. Our services and renowned customer care enable businesses to provide an unparalleled Internet experience for their customers worldwide. Addresses, phone numbers and contact information for all locations are listed on www.akamai.com/locations.