

## How Cisco IT Is Accelerating Adoption of IPv6

BUSINESS BENEFITS
<ul style="list-style-type: none"><li>• Meet compliance requirements for governments where Cisco does business</li><li>• Accommodate growing numbers of mobile devices</li><li>• Create a real-world testing ground for new solutions</li><li>• Compile best practices for customers planning their own IPv6 migration</li></ul> <p>"As Cisco continues its journey towards a <a href="#">borderless enterprise</a>, our IPv6 deployment is enabling many of the infrastructure requirements mandated by our present and future business <a href="#">strategies</a>. It has now become clear that for enterprises large and small, IPv6 is not just a side thought, but a core technology evolution that will play an important role in the future of business and IT strategies."</p> <p><b>John Manville, Vice President, Network and Data Center Services Cisco IT</b></p>

Priority projects are IPv6-based public website and end-to-end reference implementation.

**Cisco IT has been planning IPv6 adoption since 2002, balancing the effort with other priorities such as data center virtualization and pervasive video.** Motivations for accelerating IPv6 adoption include compliance requirements from governments where Cisco does do business, the depletion of IPv4 addresses, and employees' growing use of mobile devices. In addition, Cisco IT needs IPv6 infrastructure to develop and test IPv6-compliant solutions in a real-world environment for customers planning their own migration.

**Cisco IT expects IPv4 devices to coexist with newer IPv6 devices for many years.** Therefore, the company is moving towards a dual-stack approach, meaning that devices can simultaneously support IPv4 and IPv6. All network services, including quality of service (QoS) and multicast, apply to both IPv4 and IPv6.

**A cross-functional planning team is working on the migration.**

Team members specialize in core networking, data center services, applications, web, and security. The overriding principle for the migration is to do no harm to existing IPv4 services and applications, including [www.cisco.com](http://www.cisco.com) and the internal corporate network.

**Cisco IT engaged Cisco Services to provide IPv6 readiness support through the Cisco® Network Optimization Service (NOS).** The service identified both hardware and software gaps. Cisco IT is replacing network devices that do not support basic IPv6 functions during the normal Fleet Management program, spreading out the capital expense associated with IPv6 adoption.

**Two IPv6 projects are nearly complete.** One is an end-to-end IPv6 reference architecture for public-sector customers, satisfying these customers' compliance requirements. The other is an IPv6 Internet presence on cisco.com ([www.ipv6.cisco.com](http://www.ipv6.cisco.com)), which operates in parallel with the IPv4 presence.

**Cisco tested IPv6 readiness on June 8, 2011, on World IPv6 Day.** On that day, people could access cisco.com from either IPv4 or IPv6 clients. No major issues arose during the event. Cisco IT is currently documenting lessons learned from the event about architecture, design, and operations, both for internal use and to share with customers.

### For More Information

To read the entire case study or additional Cisco IT case studies on a variety of business solutions, visit Cisco on Cisco: Inside Cisco IT [www.cisco.com/go/ciscoit](http://www.cisco.com/go/ciscoit).

## Note

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**Americas Headquarters**  
Cisco Systems, Inc.  
San Jose, CA

**Asia Pacific Headquarters**  
Cisco Systems (USA) Pte. Ltd.  
Singapore

**Europe Headquarters**  
Cisco Systems International BV  
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