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## **Cisco étend ses capacités IPv6**

- Cisco apporte des améliorations à son architecture IP NGN avec la nouvelle solution Cisco® Carrier-Grade IP Version 6 (IPv6) qui permet aux fournisseurs de services de mieux gérer les embouteillages créés par l'épuisement imminent des adresses IPv4.
- Cette nouvelle solution vient compléter le portfolio IPv6 de Cisco, le plus large et le plus étendu du marché.

## **Cisco Helps Assure Internet's Future Amid Device Growth**

*Cisco Bolsters IP NGN Architecture, Giving Service Providers the Most Scalable and Cost-Effective Path to IPv6*

SAN JOSE, Calif., Oct. 13, 2009 – Cisco today announced significant enhancements to its [Internet Protocol Next-Generation Network \(IP NGN\) architecture](#) that are designed to secure the foundation of the Internet, which must accommodate the exponential increase of connected devices for highly secure, efficient video delivery and collaboration. With the new Cisco® Carrier-Grade IP Version 6 (IPv6) solution, Cisco helps enable service providers to effectively deal with the bottleneck created by the imminent depletion of IPv4 addresses. This new solution complements Cisco's IPv6 portfolio, the widest and most extensive in the market.

Now spanning from the core of the network to the home, Cisco's IPv6 capabilities have been expanded and added to a wide range of the company's routers and switches. Cisco is introducing new carrier-grade IPv6 capabilities to the [Cisco CRS-1 Carrier Routing System](#) for the network core and to the [Cisco Aggregation Services Routers](#) for the network edge. These new additions provide a cost-effective and efficient means to bridge to a full IPv6 next-generation network while extending the life of existing IPv4 addresses to smoothly manage that migration.

### **Highlights / Key Facts:**

- An IP address is required for each device that connects to the Internet, and IPv6 is designated as the successor to IPv4, the first implementation used in the Internet and still the most widely used today.
- Exhaustion of IPv4 addresses is predicted for sometime in 2011, according to various sources, including [potaroo.net](http://potaroo.net), a Web site that tracks IPv4 address allocation by the Internet Assigned Numbers Authority. IPv4 has a finite set of unique addresses, numbering approximately 4 billion, which is rapidly depleting due to the ever-growing number of Internet-connected devices and smart devices.
- The industry foresaw this and developed IPv6, which has 340 undecillion unique addresses ( $3.4 \times 10^{38}$ ), or more than 50 billion billion billion for each person on earth, more than enough to continue to support the demand for IP addresses. However, the protocols of IPv4 and IPv6 are not directly compatible, so migrating a network from IPv4 to IPv6 requires technology solutions to preserve IPv4 while executing a carefully orchestrated, step-by-step implementation plan.
- New Cisco IPv6 offerings, which expand on the existing Cisco IPv6 portfolio, are designed to address the current gap that service providers face in their IPv6 network evolution. They include:
  - **Cisco Carrier-Grade Services Engine for the Cisco CRS-1.** Deployed deep in the core of service provider's network, where maximum Cisco IPv6 coverage can be obtained, this "industry first" supports large-scale network address translation (large-scale NAT or LSN) and offers the industry's highest scalability for translations and throughput.
  - **Cisco Carrier-Grade IPv6 Solution for the Cisco ASR Series.** The new capabilities help enable LSN at the edge of a network in order to meet the needs of smaller or distributed IP NGNs.
  - **Cisco Services for the Carrier-Grade IPv6 Solution.** As service providers strive to address customer demands, Cisco offers migration services to make the transition to IPv6 smoothly and in a cost-effective manner, thereby reducing risk to their IP NGN operations. The Cisco Services portfolio ranges from initial planning and IPv6 readiness assessment to turnkey design and implementation.
- New capabilities complement the industry's widest selection of IPv6 functionality. Now enabled across virtually the entire routing and switching portfolio, essential capabilities such as dual stack, IPv4-over-IPv6, and IPv6-over-IPv4 tunneling technologies work in conjunction with LSN capabilities to facilitate the migration to an all-IPv6 network.

### Supporting Quotes:

- "The number of unallocated IPv4 addresses is dwindling and will be exhausted soon, slowing the future of the Internet," said Xavier Niel, chief strategy officer of FREE. "It is prudent to plan for this scenario, and we at FREE have taken specific steps to deal with it. We are pleased with Cisco's well-thought-out strategy and solution portfolio for customers to transition to IPv6. Its approach, which starts with preserving existing addressing, is a simple framework on the journey toward a complete IPv6 infrastructure."
- "IPv4 address exhaustion will cause huge problems for China Internet's growth, so we must make the IPv6 transition happen smoothly," said Xing Li, deputy director of CERNET Center in China. "For that, CERNET has been leading several new

technology proposals in IETF. We are very pleased to see the Cisco IPv6 architectural approach to support the emerging tunneling and translation technologies."

- "The Internet is at the tipping point of its industrialization, where we have an exponential increase in the number of connected devices," said Kelly Ahuja, senior vice president and general manager, Service Provider Routing Technology Group at Cisco. "Cisco solutions have been instrumental in the Internet build-out since its inception. With these new IPv6 capabilities to complement our industry-leading IPv6 capable portfolio, we are able to help service providers address their immediate challenges as they preserve and prepare their networks for long-term success, prosperity and business growth."

### **Supporting Resources:**

- [Cisco Carrier-Grade IPv6 Solution](#)
- [Cisco CRS-1 Carrier Routing System](#)
- [Cisco Aggregation Services Router Series](#)
- [Cisco Service Provider Solutions](#)
- [IPv6 Technology](#)

### **Tags / Keywords:**

Cisco, Internet Protocol Version 6, IPv6, Internet Protocol Version 4, IPv4, Cisco Carrier-Grade Services Engine, Cisco Carrier Routing System-1, CRS-1, Internet Protocol Next-Generation Network, IP NGN, Cisco ASR 1000 Series, ASR 1000, Kelly Ahuja, CERNET China, Free

### **About Cisco**

Cisco, (NASDAQ: CSCO), is the worldwide leader in networking that transforms how people connect, communicate and collaborate. Information about Cisco can be found at <http://www.cisco.com>. For ongoing news, please go to <http://newsroom.cisco.com>.

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