

INNOVATIONS

What's going behind the stage?

What will happen with those who stay waiting for things to happen?



IPv6 ice breaker

Lockheed Martin to begin transition, blazing a path for government customers to follow

Lockheed Martin is transitioning segments of its Global Vision Network to IPv6 to help develop a road map for government customers in their transition.

So during the next few months, the company will be making the transition at 10 sites in California, Florida, Maryland, Texas, Virginia and the United Kingdom. The goal will be to validate best practices, learn the lessons needed to transition the rest of the network and provide those lessons to federal customers,

The InterOperability Lab recently began conducting IPv6-enabled applications on Moonv6 as a step toward moving the protocol from the backbone into the enterprise (GCN.com, Quickfind 834). Although its use could be limited for several years, agencies are working to enable IPv6 on core network backbones by the 2008 deadline.

http://www.gcn.com/print/26_23/44983-1.html?topic=IPv6



IPv6 passes first test on applications

InterOperability Lab encounters a few glitches, but programs mostly worked

In the first large-scale test of basic enterprise networking with IPv6, applications using the next-generation IP in real-world conditions passed muster. Until recently, most of the attention on IPv6 has concentrated on the network backbone, but this summer's tests at the University of New Hampshire's InterOperability Laboratory (IOL) focused instead on applications.

The tests to begin filling that gap were conducted in June. Participants providing applications included Adobe Systems, Alcatel-Lucent, Command Information, Counterpath, Hewlett-Packard, Hexago, Ixia, Juniper, Konica-Minolta, Microsoft and Xerox.

Testing takes on greater importance because a large group of IPv6 networks are scheduled to begin coming online during the next 10 months.

http://www.gcn.com/print/26_22/44924-1.html?topic=IPv6



Bitten by IPv6

In a Feb. 5, 2007, article — “DOD to allocate its IPv6 addresses” — we mentioned that the Defense Department has acquired a /16 Block address, which we estimated to provide 247 billion IP addresses. Several readers have pointed out that number is wrong, wrong, wrong! It is far too low. And, in fact, even if we had gotten it right, the number would be pointless.

It is best to start from the beginning. The first 64 bits of every IPv6 address are reserved for network routing — so no organization can play with those numbers. A /16 means that the recipient gets approximately 16 of the leftover 64 bits for externally reachable routing. The other 48 bits can be used for subnets. Each bit could hold one of two values — 0 or 1 — so the total number of unique addresses within the 48-bit address space given to DOD would be 2 to the 48th power, or approximately 281.47 trillion.

So there you go: A /16 (pronounced “slash 16”) gets DOD 281 trillion network addresses and — theoretically — 18.45 quintillion host addresses. It took us a long time to figure this out, so please don’t send us any advanced questions on IPv6 numbering. We’ll only direct you to the Internet Engineering Task Force documents on numbering, RFC2373 (GCN.com, Quickfind 791).

http://www.gcn.com/print/26_15/44566-1.html?topic=IPv6



Beforehand

Lockheed to begin IPv6 transition as 'pathfinder' for government clients

Lockheed Martin is transitioning segments of its Global Vision Network to IPv6 to help develop a road map for government customers in their transition.

So during the next few months, the company will be doing just that at 10 sites in California, Florida, Maryland, Texas, Virginia and the United Kingdom.

Deployment of IPv6 is in its early stages, but the Office of Management and Budget mandated in 2005 that agencies enable their core networks for IPv6 by June 2008. Although actual use of the new protocols could be limited for several years, agencies are bringing the technology to their network backbones now.

Cuccias said much of the groundwork for the transition already has been done, and the 10 selected sites are expected to be IPv6 enabled by October.

http://www.gcn.com/online/vol1_no1/44960-1.html?topic=IPv6