

NIST issues draft IPv6 technical profile

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The National Institute of Standards and Technology (NIST) yesterday issued a draft profile that will assist federal agencies in developing plans to acquire and deploy products that implement Internet Protocol version 6 (IPv6). The profile recommends IPv6 capabilities for common network devices, including hosts, routers, intrusion detection systems and firewalls, and includes a selection of IPv6 standards and specifications needed to meet the minimum operational requirements of most federal agencies.

The Internet Protocol (IP)—actually a suite of protocols—is an international communications standard that defines how and where information such as text, voice and video move across the Internet. IPv6 is the next generation IP developed in the 1990's to replace the current version which has been in use for more than 20 years. The IPv6 protocols offer several significant improvements over the current IPv4 protocols, including a vastly greater number of "addresses" and faster routing.

In 2005, the Office of Management and Budget advised federal agencies that they must upgrade or modify systems to handle IPv6 by June 2008. (See OMB memo at www.whitehouse.gov/omb/memoranda/fy2005/m05-22.pdf.) The NIST profile was developed to help ensure that IPv6-enabled federal information systems are interoperable and secure, and also addresses how such systems can interoperate and co-exist with the current IPv4 systems. Agencies with unique information technology requirements are expected to use the NIST profile as a basis for further refined

specifications and policies.

The draft report, A Profile for IPv6 in the U.S. Government—Version 1.0 (Special Publication 500-267), also includes findings from NIST's analysis of the current state of IPv6 standards, emerging commercial implementations and testing programs. NIST found that a core set of IPv6 standards have stabilized and viable commercial implementations are emerging. However, products currently are at varying levels of maturity and completeness. NIST also found that improved IPv6 security technologies and testing services are needed to ensure the safety of federal information systems using IPv6. Over the next year, NIST plans to develop guidelines for the secure adoption of IPv6 and develop a testing strategy for IPv6 for federal agencies.

Source: National Institute of Standards and Technology

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