

1 August 2007

## **Statement of ARIN's Board of Trustees regarding future Internet address policy in the ARIN region**

The global Internet requires numeric addresses for the routing of communications traffic. These addresses are necessarily finite in nature and have been defined in two groups. One group, called "Internet Protocol version 4," or IPv4, was defined in 1979 as a pool of approximately 4,300,000,000 addresses.(1)(2) In anticipation of the Internet growing larger than can be accommodated by the IPv4 pool, a second group, called "Internet Protocol version 6," or IPv6, was defined in 1995 as a pool of approximately 340,000,000,000,000,000,000,000,000,000,000,000,000,000,000 addresses, an address space billions upon billions of times larger.(3)

In accordance with Internet governance principles, IP addresses of both versions are allocated to users by the Regional Internet Registries.(4) Because IP addresses are a finite resource, the allocation process is defined and overseen democratically and transparently by the public. The allocation process seeks to balance two goals: universal access to the Internet, and the stability of the Internet's essential communications function.(5)

Because the growth of the Internet is leading to full use of the IPv4 address pool, soon the Regional Internet Registries will no longer have new, previously unassigned IPv4 addresses to allocate to users.(6) Forward-thinking users have already begun the transition to the much more plentiful IPv6 addresses in anticipation of this situation. There are, however, those who propose that the democratically established governance principles now be abandoned, to create a market in IP addresses. A market that abandons these existing, consensus-driven core values would encourage speculators to take advantage of the upcoming time of relative scarcity of IPv4 addresses to profit from less foresightful users' remaining need.

The purpose of this memorandum is to assure the community that the democratic principles of Internet governance will be adhered to by ARIN, the Regional Internet Registry serving Canada, many Caribbean and North Atlantic islands, and the United States.(7) The resource-allocation policy under which ARIN operates has been produced through an open, transparent, and democratic process over more than a decade. ARIN is fully dedicated to preserving universal access and stable functionality of the Internet, and our policies do not encourage profit-driven speculation in the Internet addresses. The current resource management mechanism is fully sufficient to address the upcoming shortage of IPv4 addresses, and a continuation of sober and responsible enforcement will ensure continued maximum benefit to and protection of the entire Internet community.

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(1) Internet Engineering Note 111, *Internet Protocol*, August 1979, by the University of Southern California Information Sciences Institute.  
<http://www.networksorcery.com/enp/ien/ien111.txt>

(2) Internet Engineering Task Force Request for Comment number 760, *DOD Standard Internet Protocol*, January 1980, by the University of Southern California Information Sciences Institute. <http://www.ietf.org/rfc/rfc0760.txt>

(3) Internet Engineering Task Force Request for Comment number 1883, *Internet Protocol Version 6 (IPv6) Specification*, December 1995, by Steve Deering and Robert Hinden. <http://www.ietf.org/rfc/rfc1883.txt>

(4) Internet Engineering Task Force Request for Comment number 2050, *Internet Registry IP Allocation Guidelines*, November 1996, by Kim Hubbard, Mark Kosters, David Conrad, Daniel Karrenberg, and Jon Postel.  
<http://www.ietf.org/rfc/rfc2050.txt>

(5) Internet Engineering Task Force Request for Comment number 2008, *Implications of Various Address Allocation Policies for Internet Routing*, October 1996, by Yakov Rekhter and Tony Li. <http://www.ietf.org/rfc/rfc2008.txt>

(6) *IPv4 Address Report*, updated daily, by Geoff Huston.  
<http://www.potaroo.net/tools/ipv4/index.html>

(7) The countries and territories of ARIN's service region are named at  
<http://www.arin.net/community/ARINcountries.html>