

# IPv6 - Summary

IPv4 since 1982, has been an undisputed leader of Internet. With IPv4's address space exhaustion, IPv6 is now taking over the control of Internet, which is called Internet2.

IPv4 is widely deployed and migration to IPv6 would not be easy. So far IPv6 could penetrate IPv4's address space by less than 1%.

The world has celebrated 'World IPv6 Day' on June 08, 2011 with a purpose to test IPv6 address over Internet in full. On June 06, 2012 the Internet community officially launched IPv6. This day all ISPs who were offering IPv6 were to enable it on public domain and were to keep it enable. All the device manufacturer also participated to offer IPv6 by-default enabled on devices.

This was a step towards encouraging Internet community to migrate to IPv6.

Organizations are provided plenty of ways to migrate from IPv4 to IPv6. Also organizations, willing to test IPv6 before migrating completely can run both IPv4 and IPv6 simultaneously. Networks of different IP versions can communicate and user data can be tunneled to walk to the other side.

## Future of IPv6

IPv6 enabled Internet version 2 will replace today's IPv4 enabled Internet. When Internet was launched with IPv4, developed countries like U.S. and Europe took the larger space of IPv4 for deployment of Internet in their respective countries keeping future need in mind. But Internet exploded everywhere reaching and connecting every country of the world increasing the requirement of IPv4 address space. As a result, till this day U.S. and Europe have many IPv4 address space left with them and countries like India and China are bound to address their IP space requirement by means of deployment of IPv6.

Most of the IPv6 deployment is being done outside U.S., and Europe. India and China are moving forward to change their entire space to IPv6. China has announced a five year deployment plan named China Next Generation Internet.

After June 06, 2012 all major ISPs were shifted to IPv6 and rest of them are still moving.

IPv6 provides ample of address space and is designed to expand today's Internet services. Feature-rich IPv6 enabled Internet version 2 may deliver more than expected.