



Internet Assigned Numbers Authority

- [Domains](#)
- [Numbers](#)
- [Protocols](#)
- [About IANA](#)

## Number Resources

IANA is responsible for global coordination of the Internet Protocol addressing systems, as well as the Autonomous System Numbers used for routing Internet traffic.

Currently there are two types of Internet Protocol (IP) addresses in active use: IP version 4 (IPv4) and IP version 6 (IPv6). IPv4 was initially deployed on 1 January 1983 and is still the most commonly used version. IPv4 addresses are 32-bit numbers often expressed as 4 octets in "dotted decimal" notation (for example, *192.0.2.53*). Deployment of the IPv6 protocol began in 1999. IPv6 addresses are 128-bit numbers and are conventionally expressed using hexadecimal strings (for example, *2001:0db8:582:ae33::29*).

Both IPv4 and IPv6 addresses are generally assigned in a hierarchical manner. Users are assigned IP addresses by Internet service providers (ISPs). ISPs obtain allocations of IP addresses from a local Internet registry (LIR) or National Internet Registry (NIR), or from their appropriate Regional Internet Registry (RIR):



Registry	Area Covered
<a href="#">AfriNIC</a>	Africa Region
<a href="#">APNIC</a>	Asia/Pacific Region
<a href="#">ARIN</a>	North America Region
<a href="#">LACNIC</a>	Latin America and some Caribbean Islands
<a href="#">RIPE NCC</a>	Europe, the Middle East, and Central Asia

The IANA's role is to allocate IP addresses from the pools of unallocated addresses to the RIRs according to their needs as described by [global policy](#) and to document protocol assignments made by the [IETF](#). When an RIR requires more IP addresses for allocation or assignment within its region, the IANA makes an additional allocation to the RIR. We do not make allocations directly to ISPs or end users except in specific circumstances, such as allocations of multicast addresses or other protocol specific needs.

## IP Address Allocations

### Internet Protocol Version 4 (IPv4)

- [Internet Protocol v4 Address Space](#)
- [Internet Protocol v4 Multicast Address Assignments](#)
- [IANA IPv4 Special Purpose Address Registry](#)

## Internet Protocol Version 6 (IPv6)

- [Announcement of Worldwide Deployment of IPv6](#) (14 July 1999)
- [RIR Comparative Policy Overview](#)
- [IPv6 Address Space](#)
- [IPv6 Global Unicast Allocations](#)
- [IPv6 Parameters](#) (Parameters described for IPv6, including header types, action codes, etc.)
- [IPv6 Anycast Address Allocations](#)
- [IPv6 Multicast Address Allocations](#)
- [IPv6 Sub-TLA Assignments](#) (DEPRECATED)
- [IANA IPv6 Special Registry](#)

## Autonomous System Number Allocations

- [Autonomous System Numbers](#)

## Emerging Regional Internet Registries

- [Criteria for Establishment of New Regional Internet Registries \(ICP-2\)](#) (4 June 2001)
- [IANA Report on Recognition of LACNIC as a Regional Internet Registry](#) (7 November 2002)
- [IANA Report on Recognition of AfriNIC as a Regional Internet Registry](#) (8 April 2005)

## Technical Documentation

- [RFC 4632](#) — Classless Inter-domain Routing (CIDR): The Internet Address Assignment and Aggregation Plan
- [RFC 1918](#) — Address Allocation for Private Internets
- [RFC 2050](#) — Internet Registry IP Allocation Guidelines
- [RFC 5735](#) — Special-Use IPv4 Addresses
- [RFC 5736](#) — IANA IPv4 Special Purpose Address Registry
- [RFC 5737](#) — IPv4 Address Blocks Reserved for Documentation
- [RFC 4291](#) — Internet Protocol Version 6 (IPv6) Addressing Architecture
- [RFC 3587](#) — IPv6 Global Unicast Address Format
- [RFC 3177](#) — IAB/IESG Recommendations on IPv6 Address Allocations to Sites
- [RFC 5156](#) — Special-Use IPv6 Addresses
- [Locally Served DNS Zones](#)

## Number Resources

- [Overview](#)
- [Abuse Issues](#)

- [Overview](#)
- [Questions and Answers](#)

## [Domain Names](#)

- [Root Zone Registry](#)
- [.INT Registry](#)
- [.ARPA Registry](#)
- [IDN Repository](#)

## [Number Resources](#)

- [Abuse Information](#)

## [Protocols](#)

- [Protocol Registries](#)
- [Performance](#)
- [Time Zone Database](#)

## [About IANA](#)

- [Presentations](#)
- [Reports](#)
- [Contact IANA](#)

IANA is responsible for coordinating the Internet's globally unique identifiers, and is operated by the [Internet Corporation for Assigned Names and Numbers](#) (ICANN).