

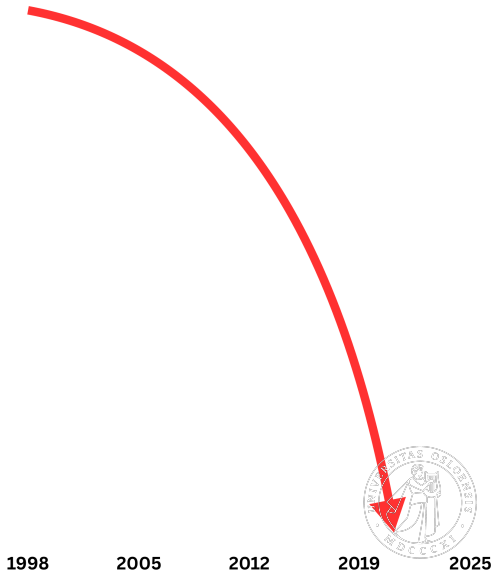
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Protocol Racing Is it really an advancement?

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Available IPv4 blocks



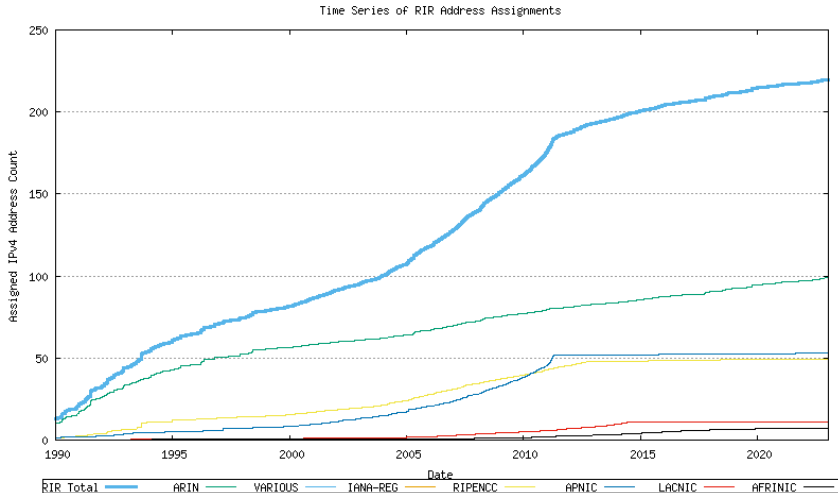
Agenda

- ① A bit of history
- ② Main
- ③ Wrap-up

IPv4

- **RFC 791** – *Internet Protocol*
- Written for DARPA in 1981 (before the IETF existed)
- Designed to interconnect different packet-switched networks (ARPANET, SATNET, university nets)
- Created under the assumption that every device would have its own globally unique, routable address
- 32-bit address space — $2^{32} = 4,294,967,296$ possible addresses
- Sounds like a lot... until you remember that there are 8 billion people alive

The problem with IPv4



Key Idea

Takeaway

Keep each slide focused on one idea.

Questions?

References I

 *IPv4 Address Report* (2025). <https://ipv4.potaroo.net/>. (**urlseen** 16/10/2025).

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