

Why IPv6 matters for new engineers

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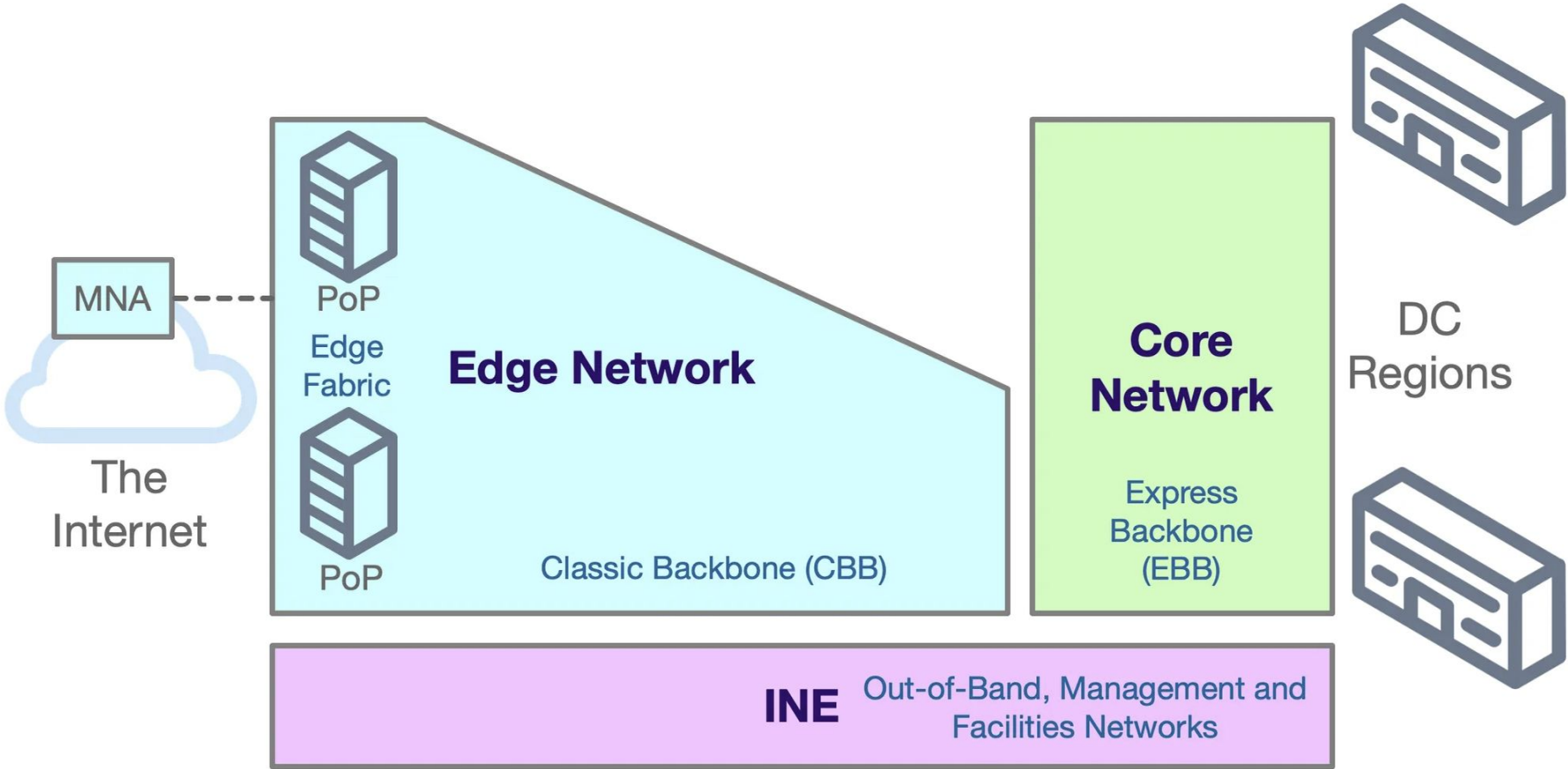


Agenda

- 01 Introduction and motivation
- 02 Why we run IPv6 internally
- 03 What this means for new engineers

01 Introduction and motivation

Meta Networks



43%

Traffic between users and Meta is over IPv6. Edge network dual-stacked.

Nearly all

Internal traffic is over IPv6

02 Why we run IPv6 internally

Scale

Massive host scale across dozens of DCs. RFC 1918 space is insufficient at this scale.

Simplification

Maintaining two address families increases engineering and operational overhead.

IP Per Task

Every container gets a unique IPv6 address. This enables fine-grained security and traffic engineering.

03 What this means for new engineers

What to prioritise in your IPv6 curriculum

Graduates with strong IPv6 skills have a direct advantage in industry. Some of the fundamentals that are beneficial:

- Addressing fundamentals — 128-bit format, hex notation, unicast/multicast, prefix compression
- Address assignment — SLAAC, NDP (RS/RA, DAD), DHCPv6
- Routing — AF concepts in common routing protocols, BGP, IPv6 route policy.

KEY TAKEAWAY

IPv6 is not a future technology — it is the production reality in many environments today. Graduates with strong IPv6 skills have a tangible advantage.

