IPv4 Residual Deployment across IPv6-only networks (4rd)

draft-despres-softwire-4rd-00

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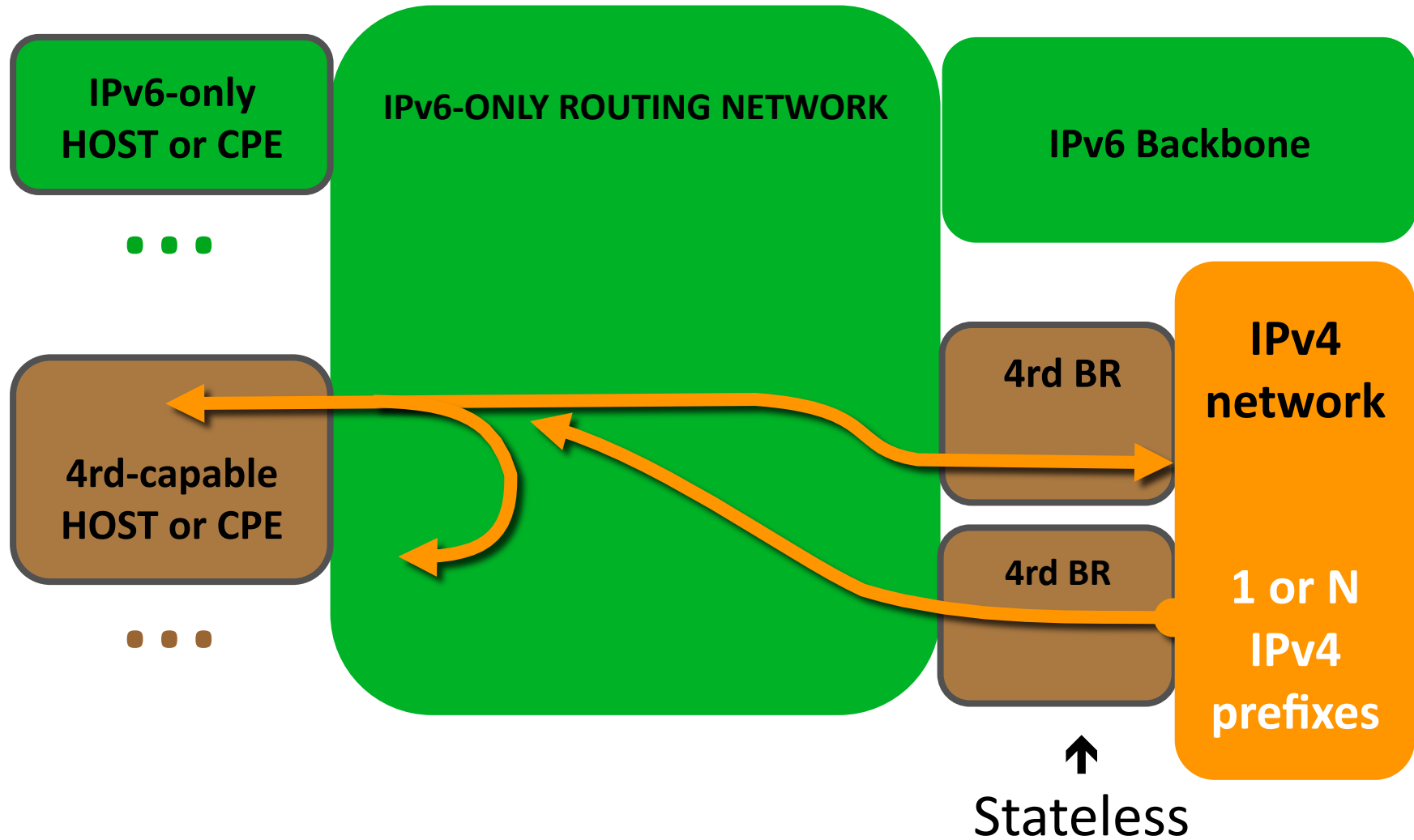IETF 79 - Softwire - November 8, 2010

The need addressed by 4rd

- IPv6-only routing networks
- Need for IPv4 connectivity
  - Some with full IPv4 addresses
  - Some with shared addresses
  - Outgoing AND Incoming
  - Efficient Routes
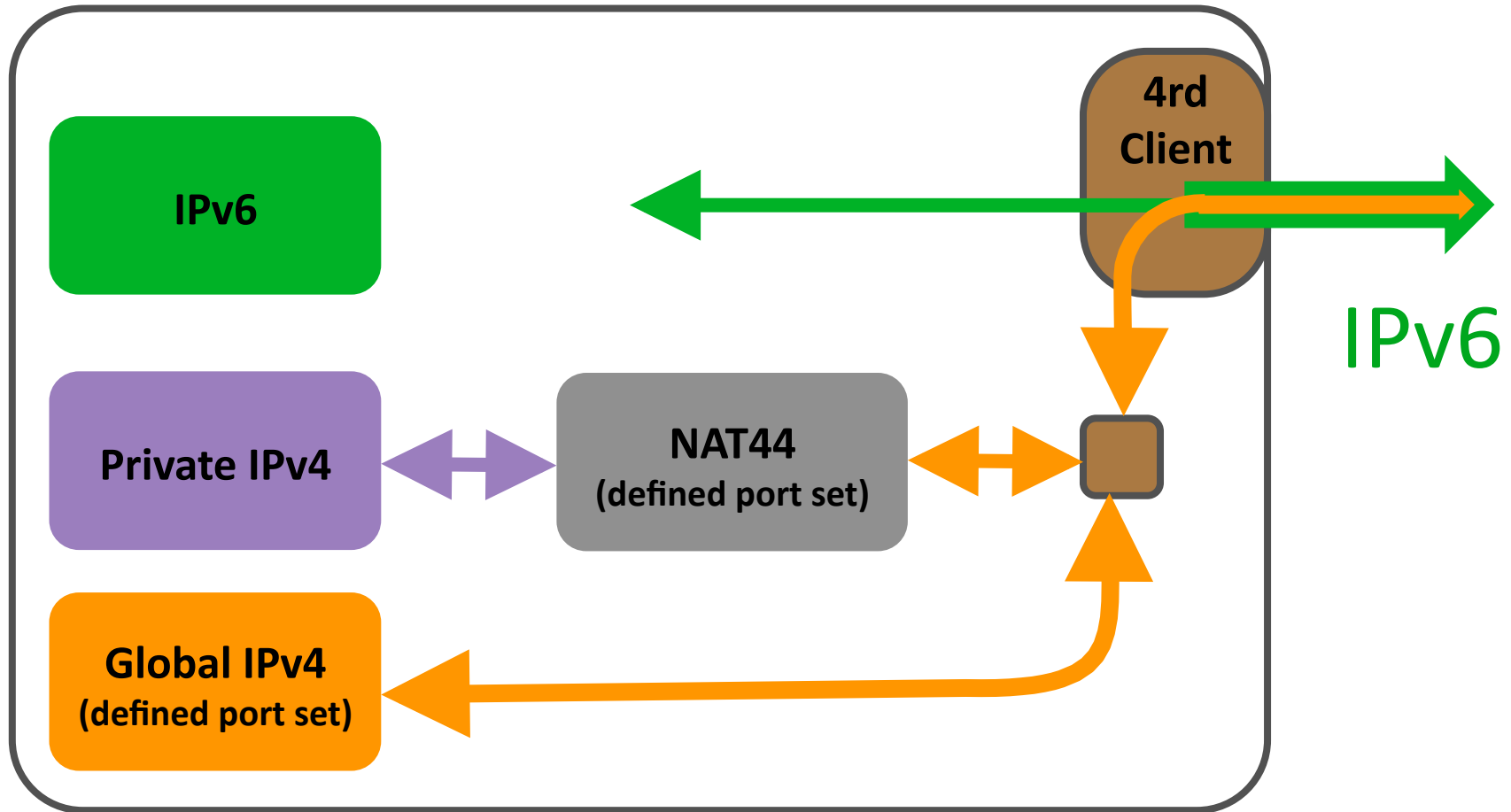- Ease of operation – Minimized costs

Comparison with DS-lite

1. Simple **incoming connectivity** (no need for PCP)

2. Possible Assignment of **full IPv4** addresses

3. **Network Transparency**

4. Stateless Treatment of **Shared Addresses**

5. Simplified **logs** of customer addresses

6. Simple **scalability** with per packet load balancing

4rd Network Overview

Example of CPE internal architecture

ISPs "intending to adopt" 4rd

- BBIX, Internet Multifeed, JPIX, IIJ-II

www.ietf.org/mail-archive/web/v4tov6transition/current/msg00157.html

www.ietf.org/mail-archive/web/v4tov6transition/current/msg00269.html

- Expressed Motivations

  - IPv4 address sharing at optimized cost

  - Automatic configurations

  - Optimized routing paths

➔ **How to have an IETF endorsed specification?**