Stateless IPv4 over IPv6 in 5 minutes

Ole Trøan, ot@cisco.com
IPv6 mercenary

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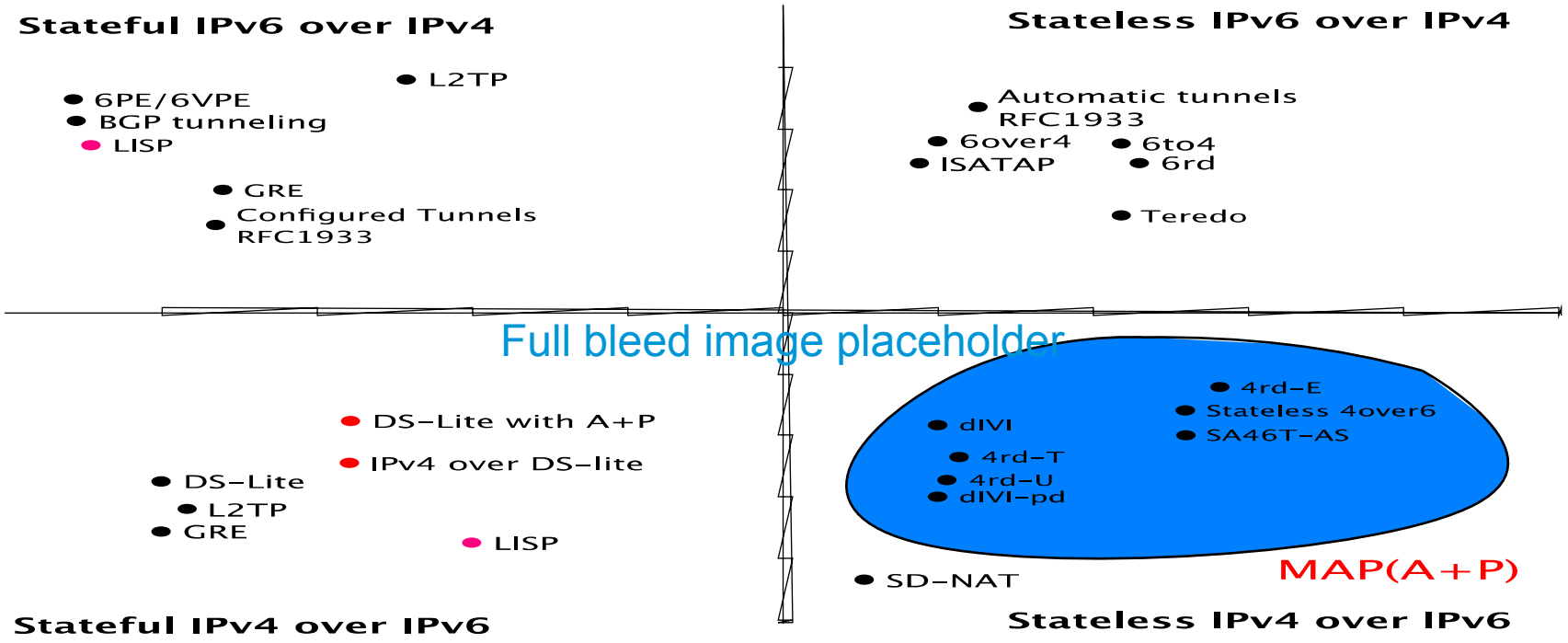

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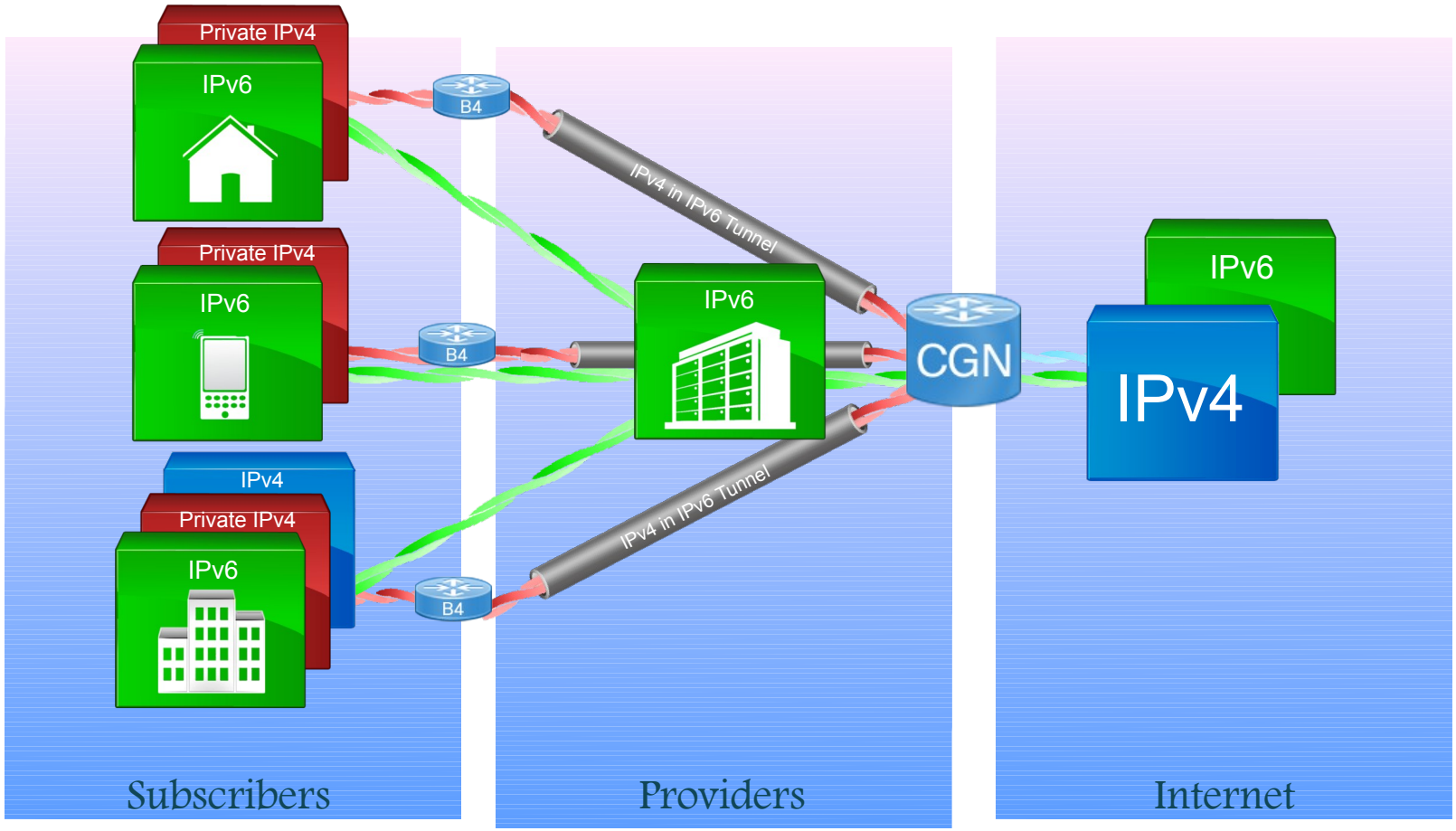
Dual Stack Lite (DS-Lite)



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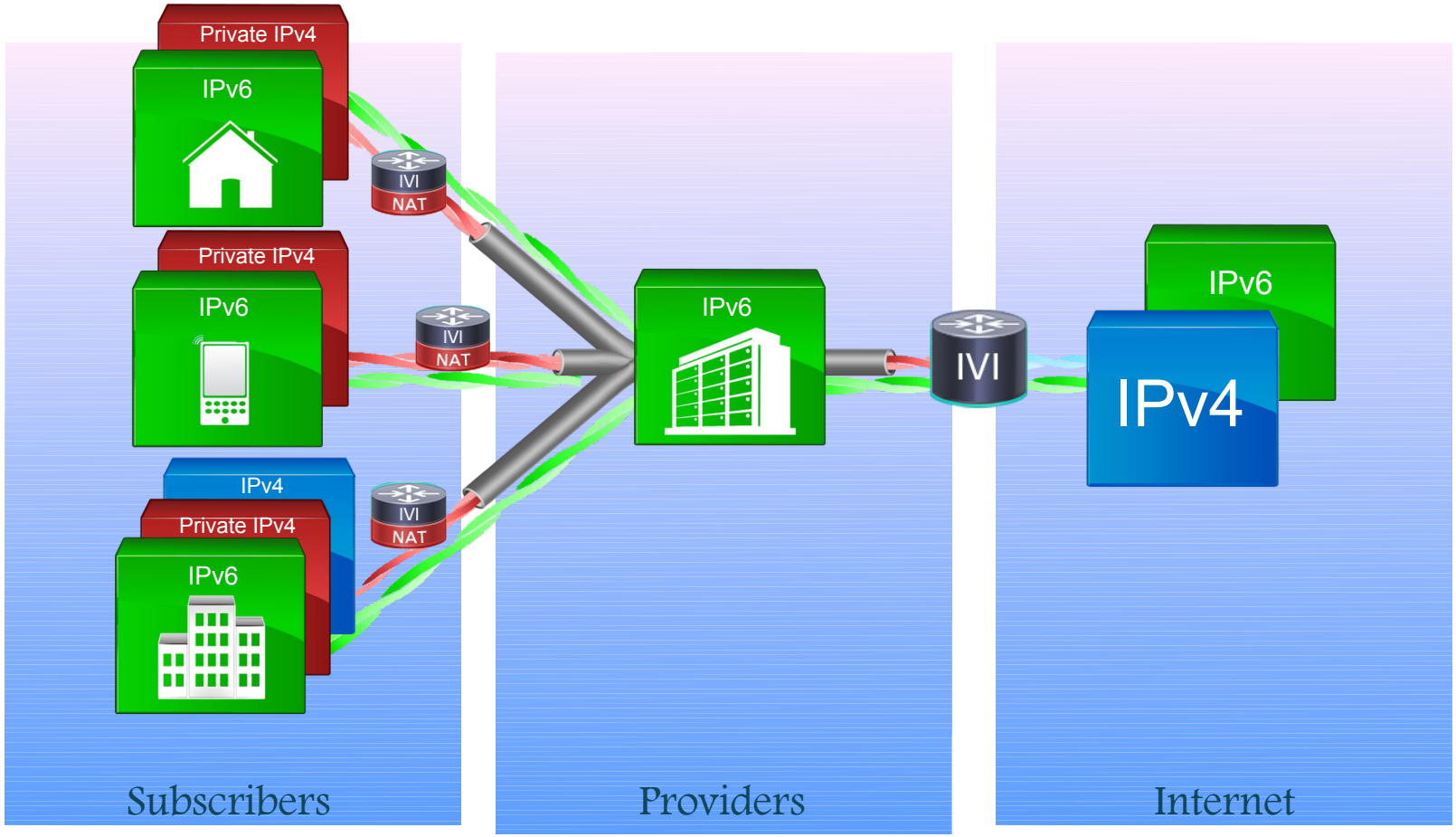
IPv6 Residual Deployment (4rd)



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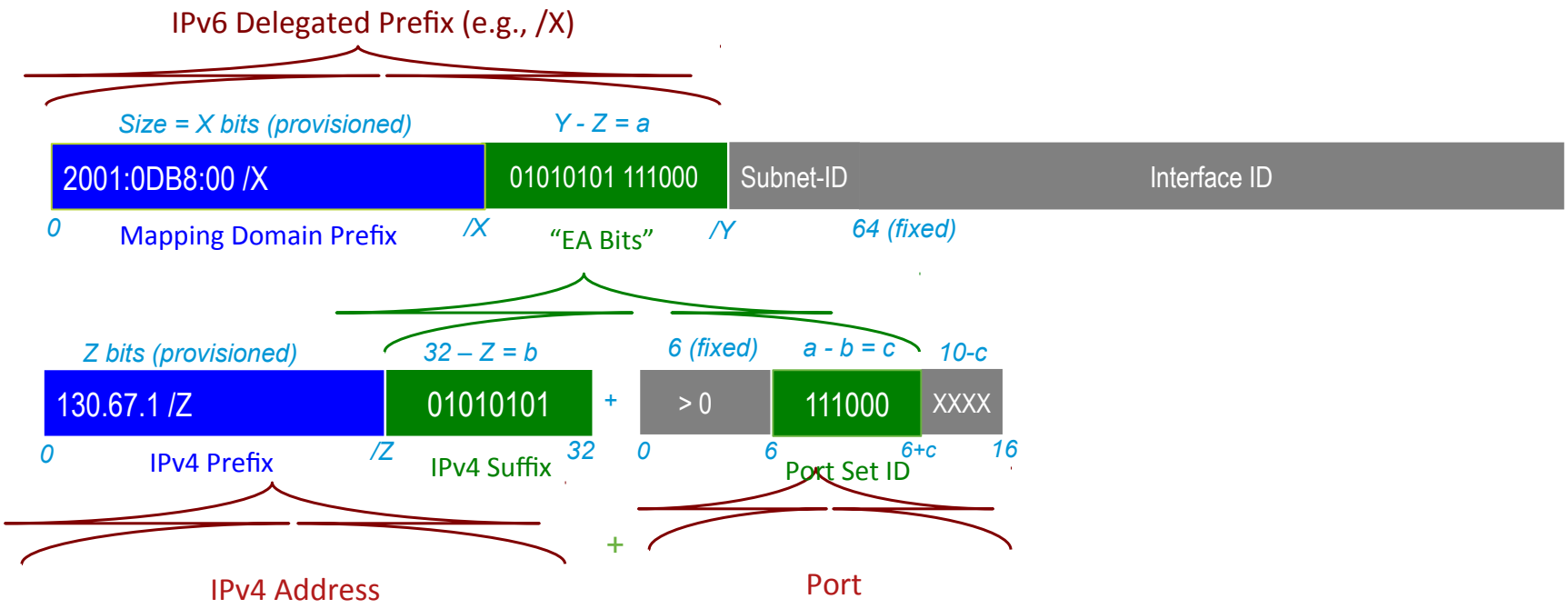
• IPv6 → IPv4 + Port Mapping



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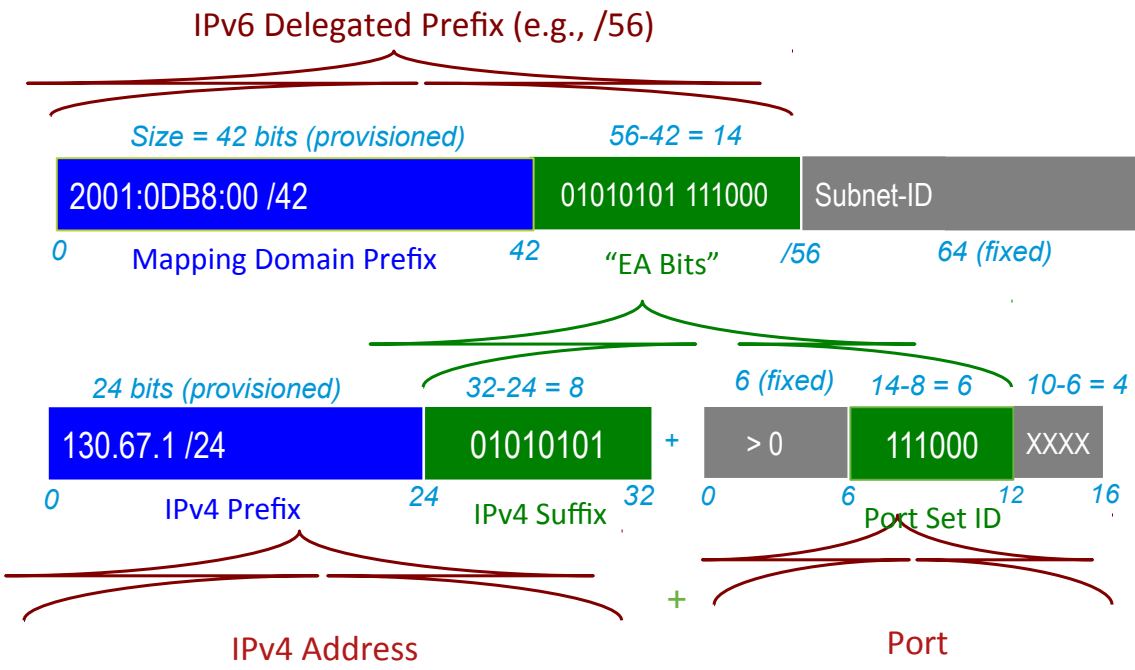
• IPv6 → IPv4 + Port Mapping



130.67.1.85/38

For this Example…

26 = 64 port sets per IPv4 Address

Ports 0-1023 skipped, each CPE gets 2^16/2^6 - 2^4 = 1008 ports

One IPv4 /24 serves 2^(6+8) ≈ 16,384 (vs. ≈ 256) subscribers

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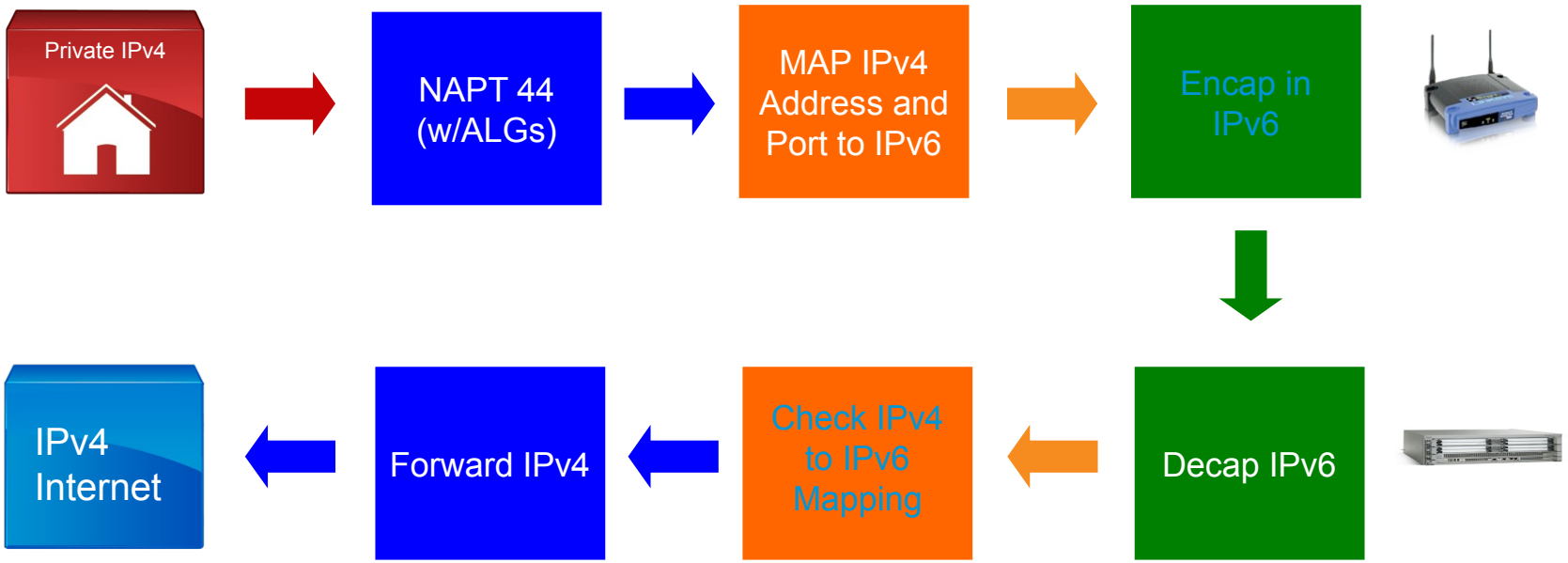
Encapsulation Forwarding Architecture



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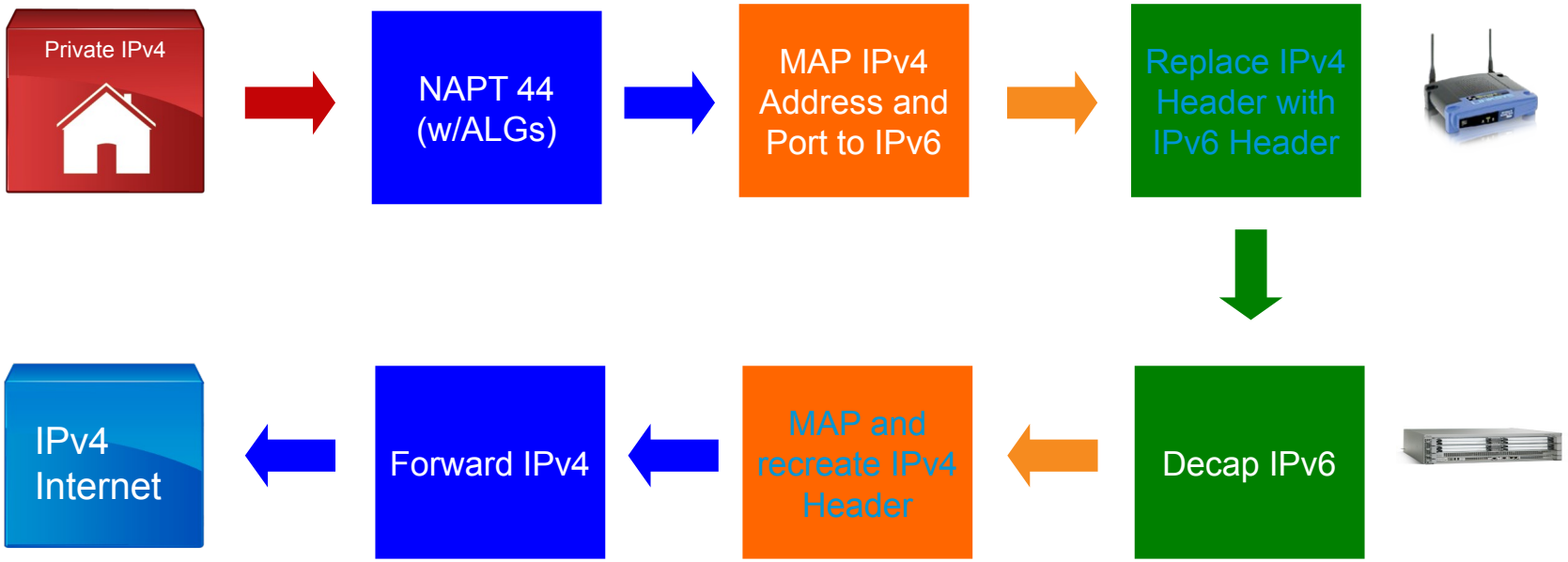
Translation Forwarding Architecture



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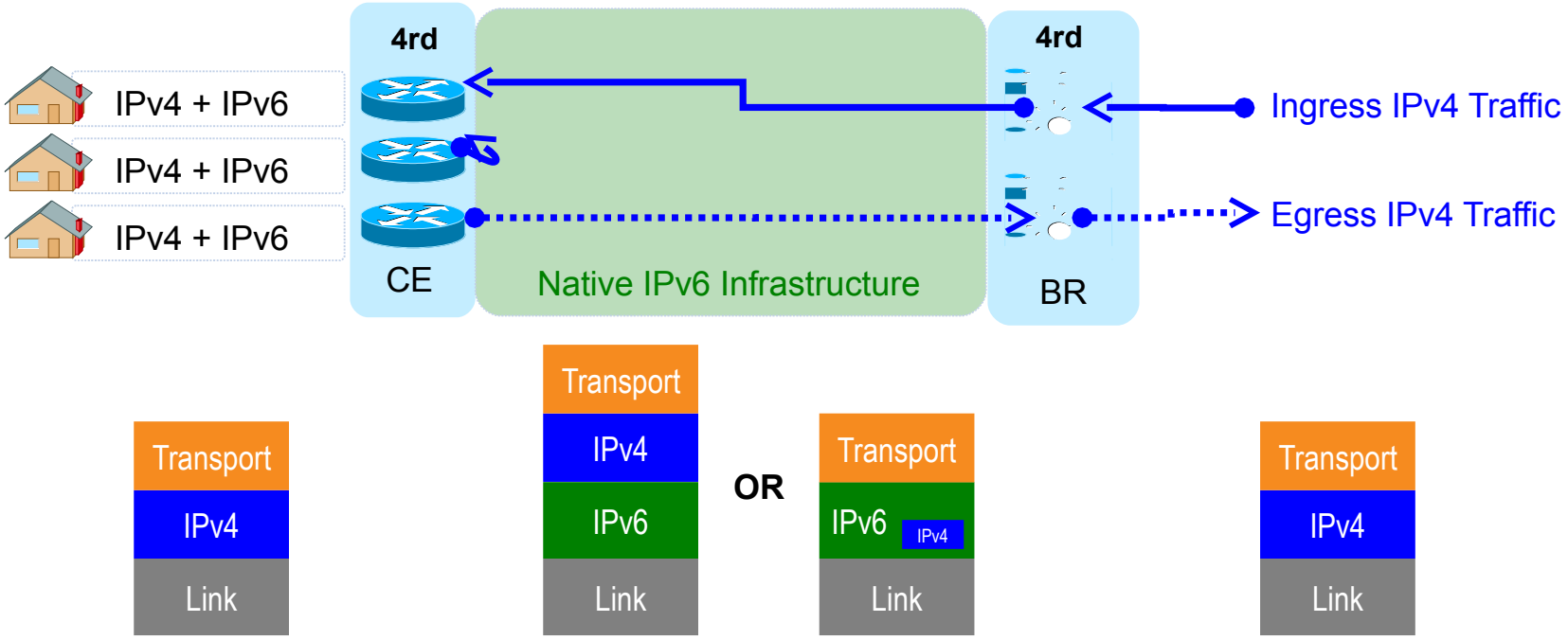
Encapsulation or Translation – Boils down to 20 bytes



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Please

Readhttp ://tools.ietf.org/html/draft-mdt-softwire-mapping-address-and-port

Come talk to me at the bar!

Ask Questions?

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