

Stateless IPv4 over IPv6 in 5 minutes

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IPv6 mercenary

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Stateful IPv6 over IPv4

- 6PE/6VPE
- BGP tunneling
- LISP
- L2TP
- GRE
- Configured Tunnels RFC1933

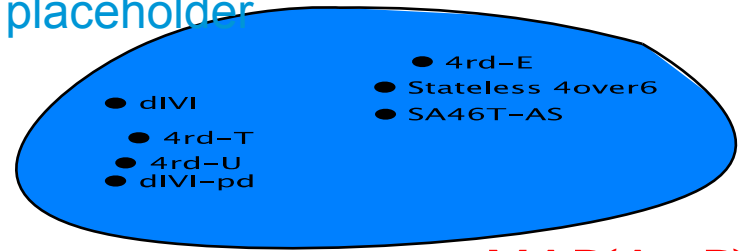
Stateless IPv6 over IPv4

- Automatic tunnels RFC1933
 - 6over4
 - 6to4
 - ISATAP
 - 6rd
- Teredo

Full bleed image placeholder

Stateful IPv4 over IPv6

- DS-Lite
- L2TP
- GRE
- DS-Lite with A+P
- IPv4 over DS-lite
- LISP



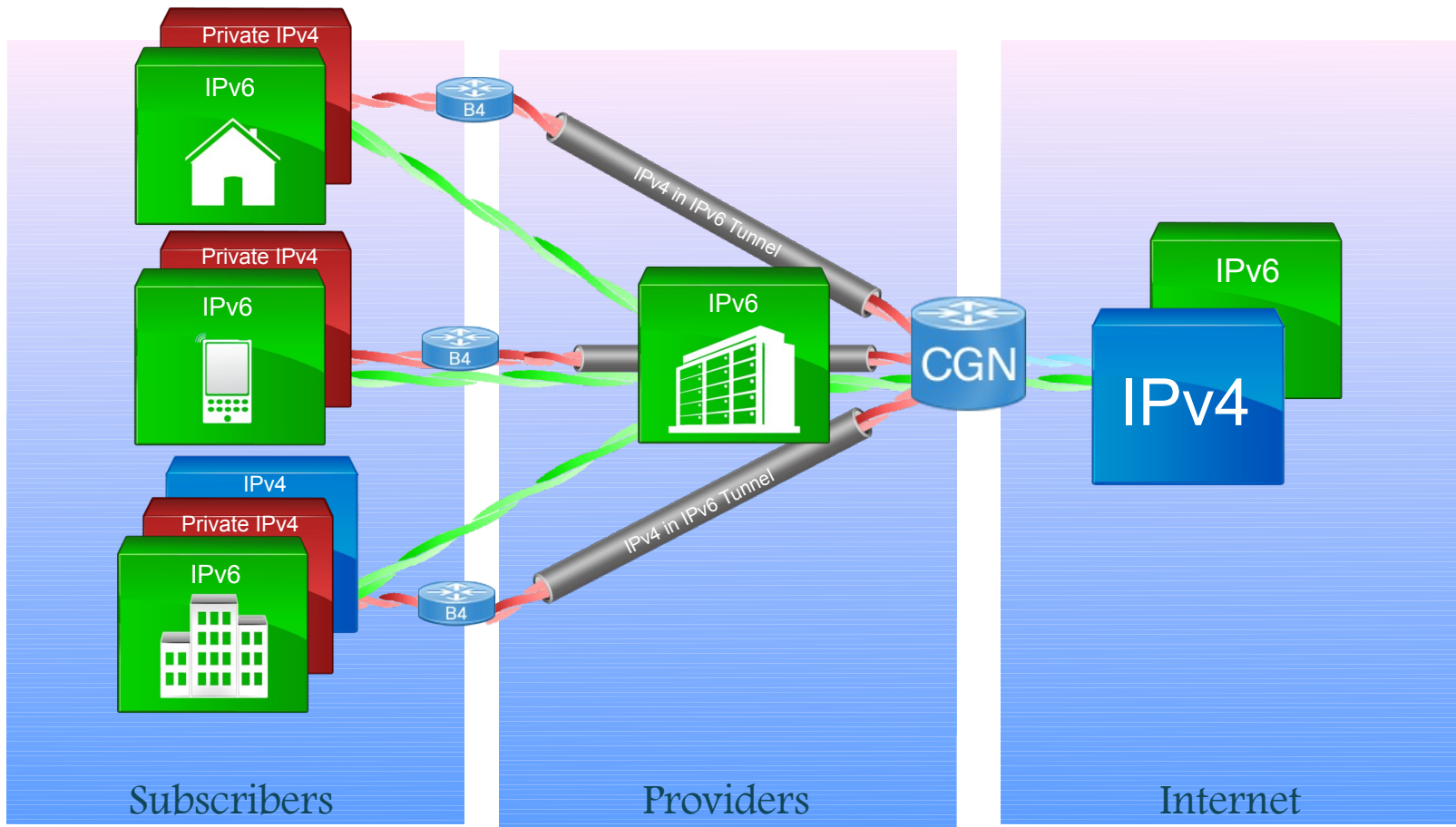
- SD-NAT

MAP(A+P)

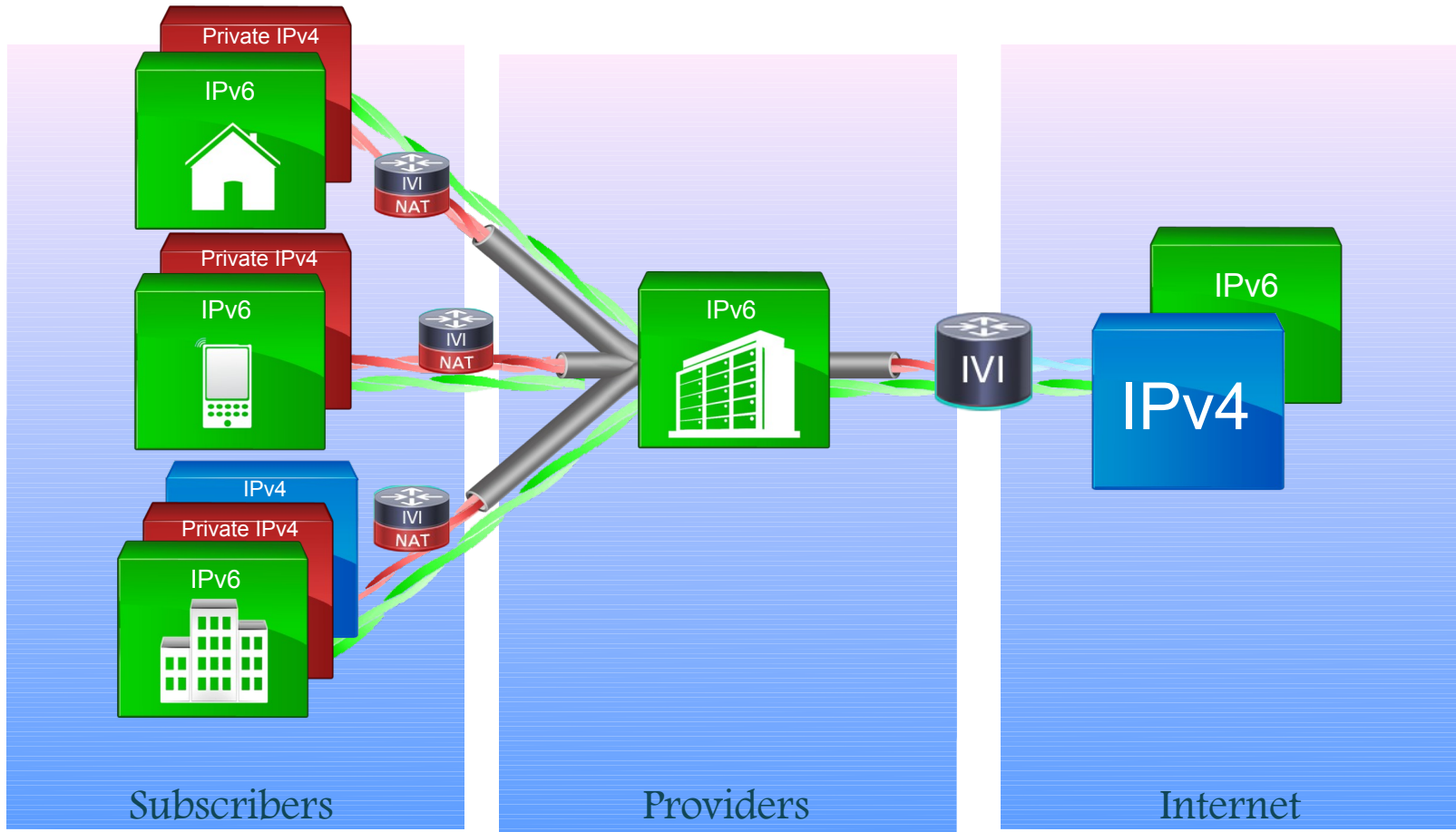
Stateless IPv4 over IPv6



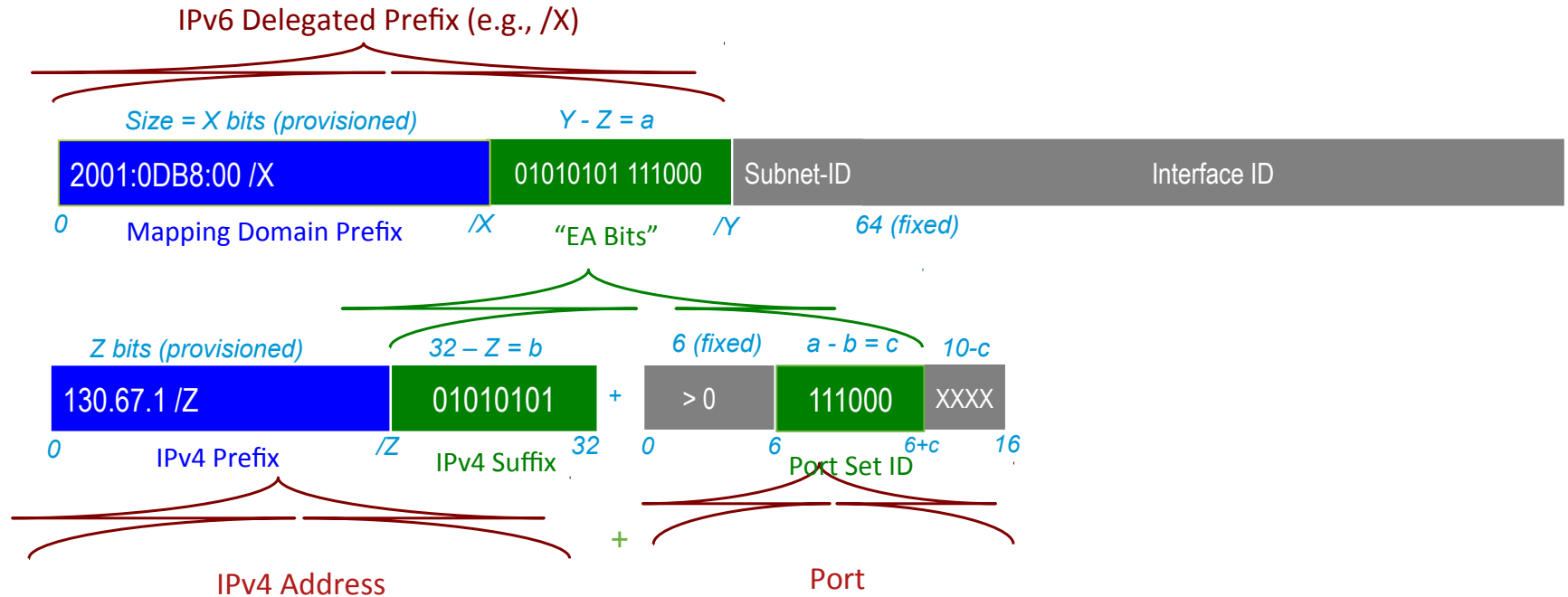
Dual Stack Lite (DS-Lite)



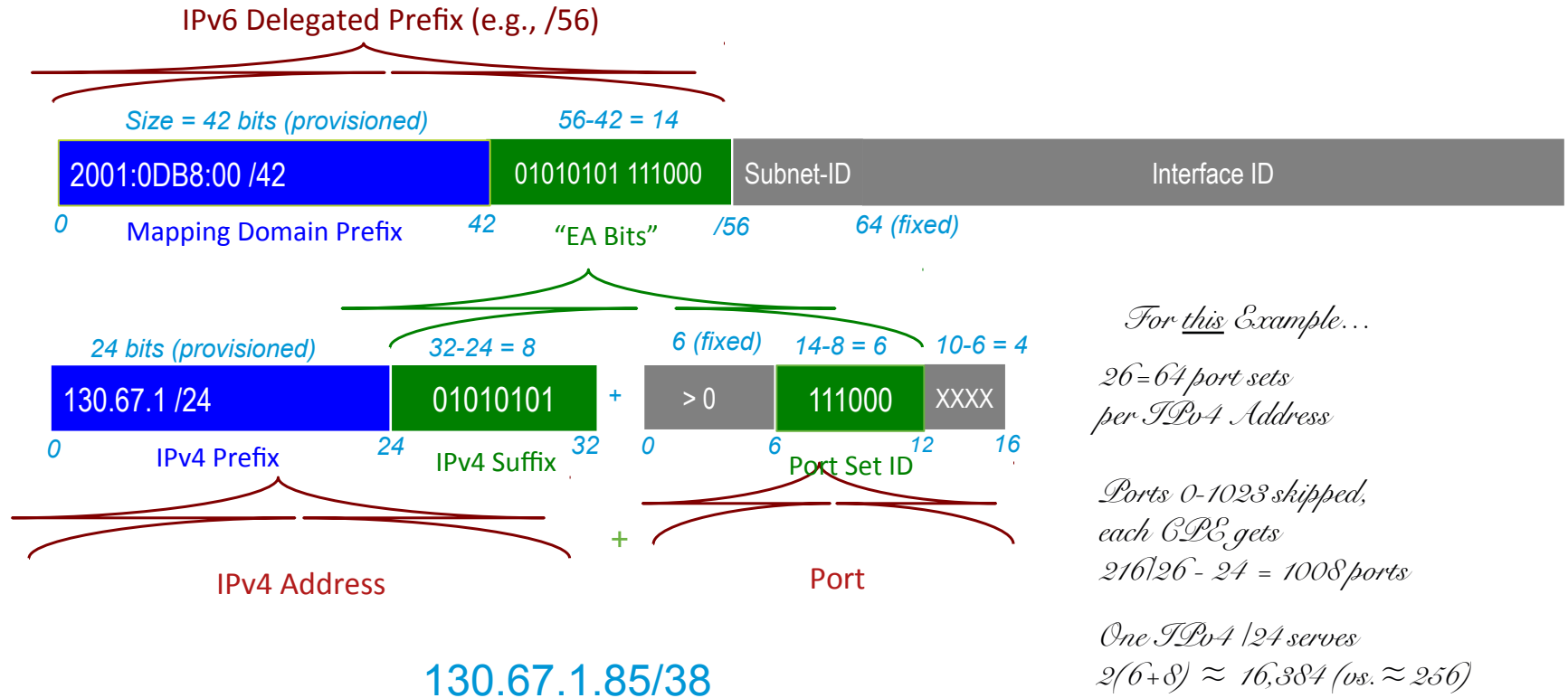
IPv6 Residual Deployment (4rd)



- IPv6 → IPv4 + Port Mapping



• IPv6 → IPv4 + Port Mapping



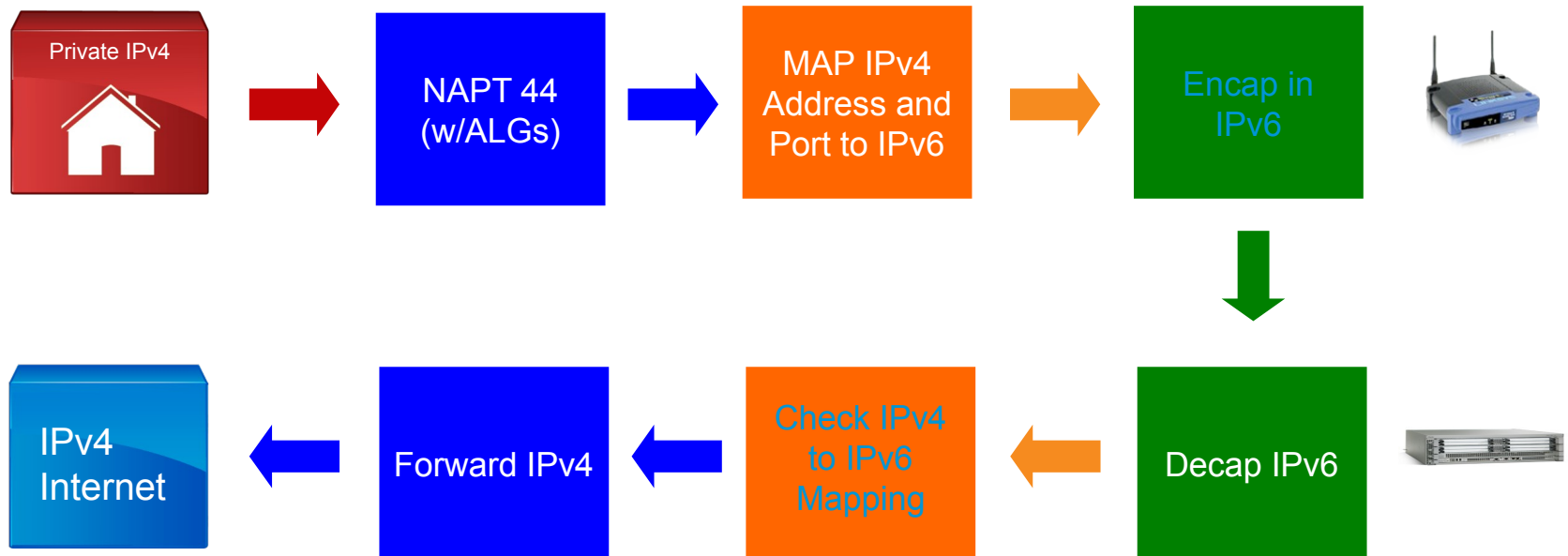
For this Example...

*26 = 64 port sets
per IPv4 Address*

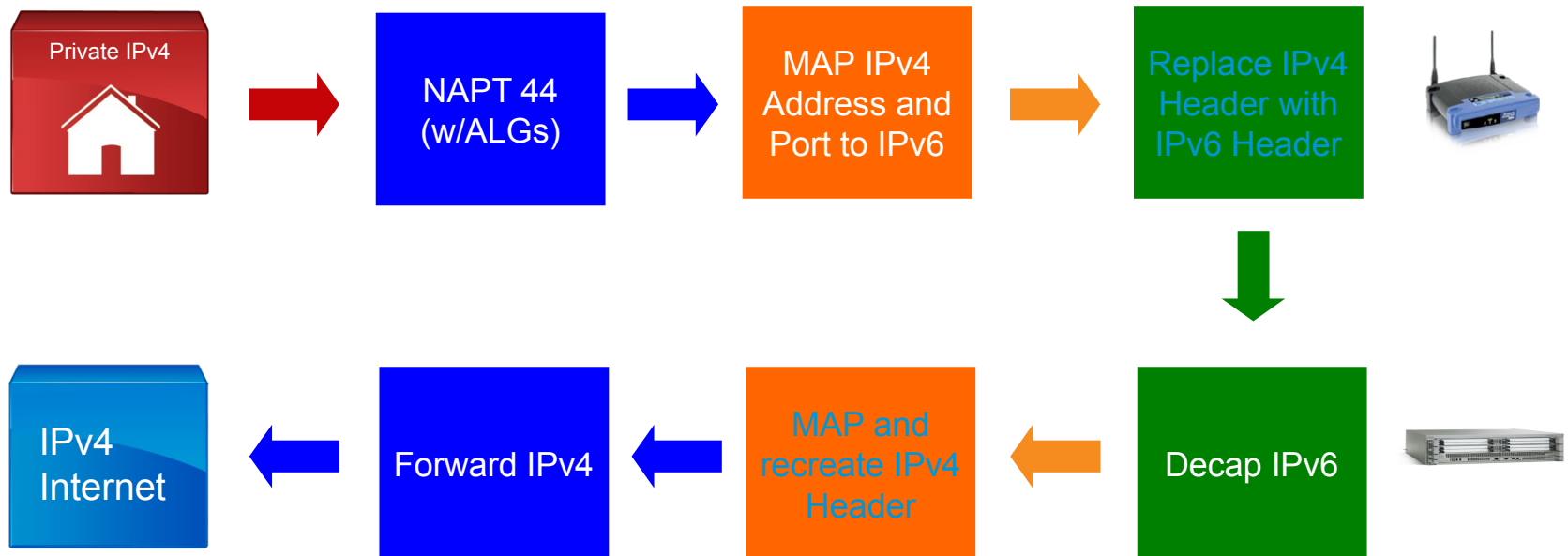
*Ports 0-1023 skipped,
each CPE gets
216/26 - 24 = 1008 ports*

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

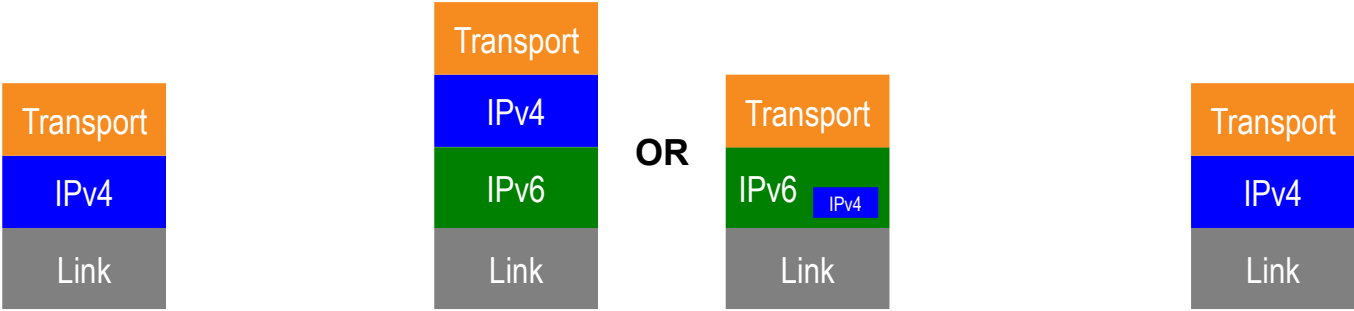
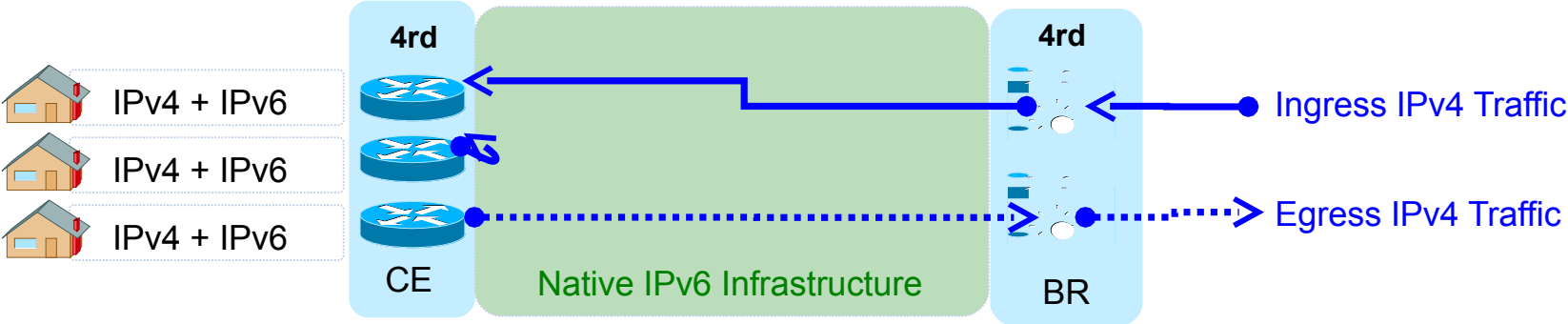
Encapsulation Forwarding Architecture



Translation Forwarding Architecture



Encapsulation or Translation – Boils down to 20 bytes



Please

Read

<http://tools.ietf.org/html/draft-mdt-softwire-mapping-address-and-port>

Come talk to me at the bar!

Ask Questions?