Redpill Linpro

*«96 more bits, no magic»*

# IPv6 & Redpill Linpro: Leading the Way to the Internet of Tomorrow

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Redpill Linpro Gathering 2010

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# What's the problem with IPv4?

- 4bn available addresses – **5bn** connected devices
- **Network Address Translation (NAT)** has allowed for oversubscription
- We are still running out of IPv4 addresses
- Global reserve (IANA) to deplete in early 2011
- European reserve (RIPE NCC) to deplete in 2012
- Individual ISPs shortly thereafter
- **Large Scale NAT** the only IPv4-based solution
- Not an optimal or long-term solution

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# IPv6 to the rescue

- Gigantic address space – 4bn squared squared
- No more NAT – end-to-end principle restored
- Killer application: **Facilitates the continued growth of the Internet**
- Deployment has been a chicken and egg problem
- IPv4 exhaustion will force it
- Large deployments in France and the Netherlands
- Many other ISPs are running pilot projects

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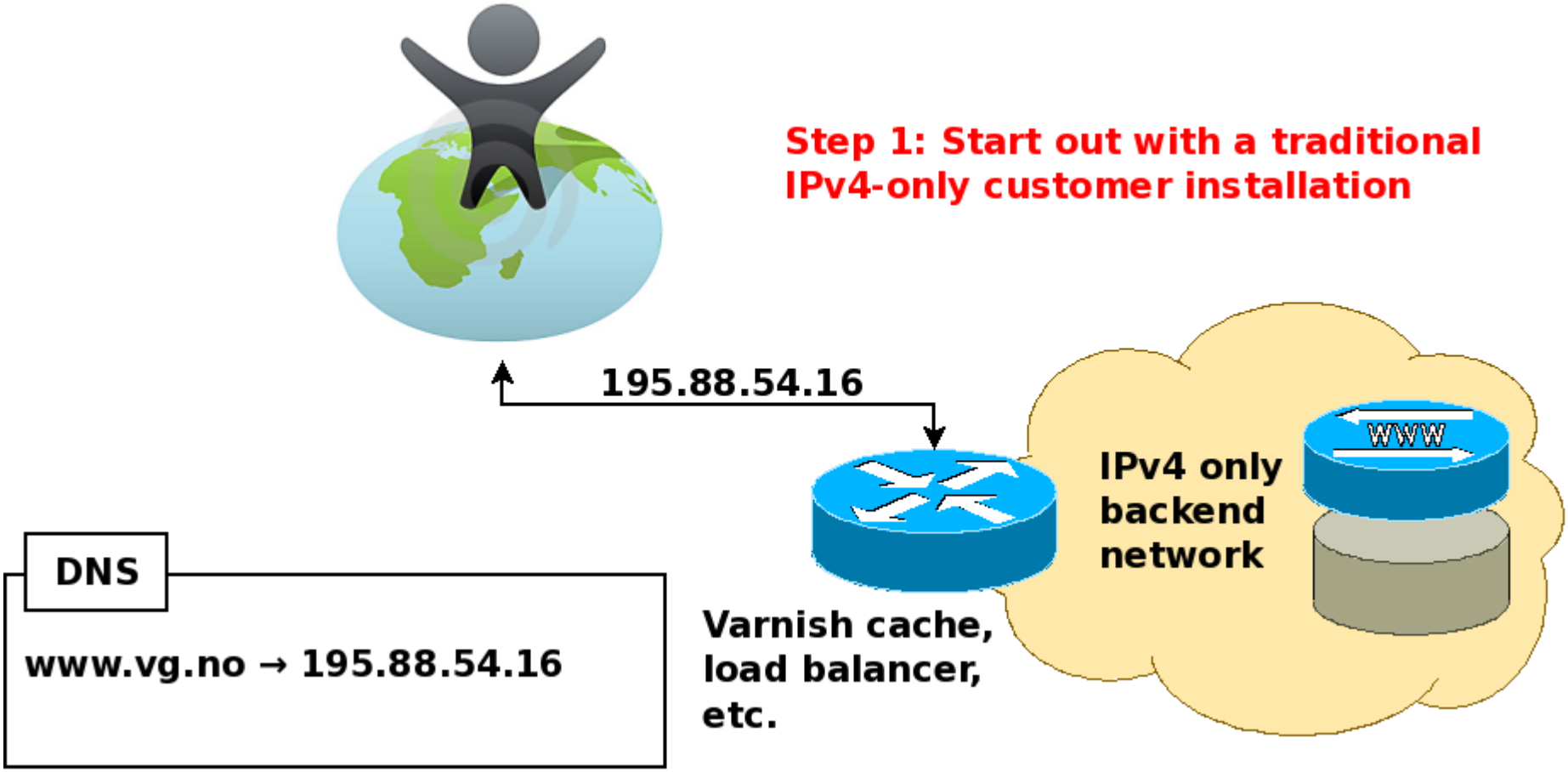
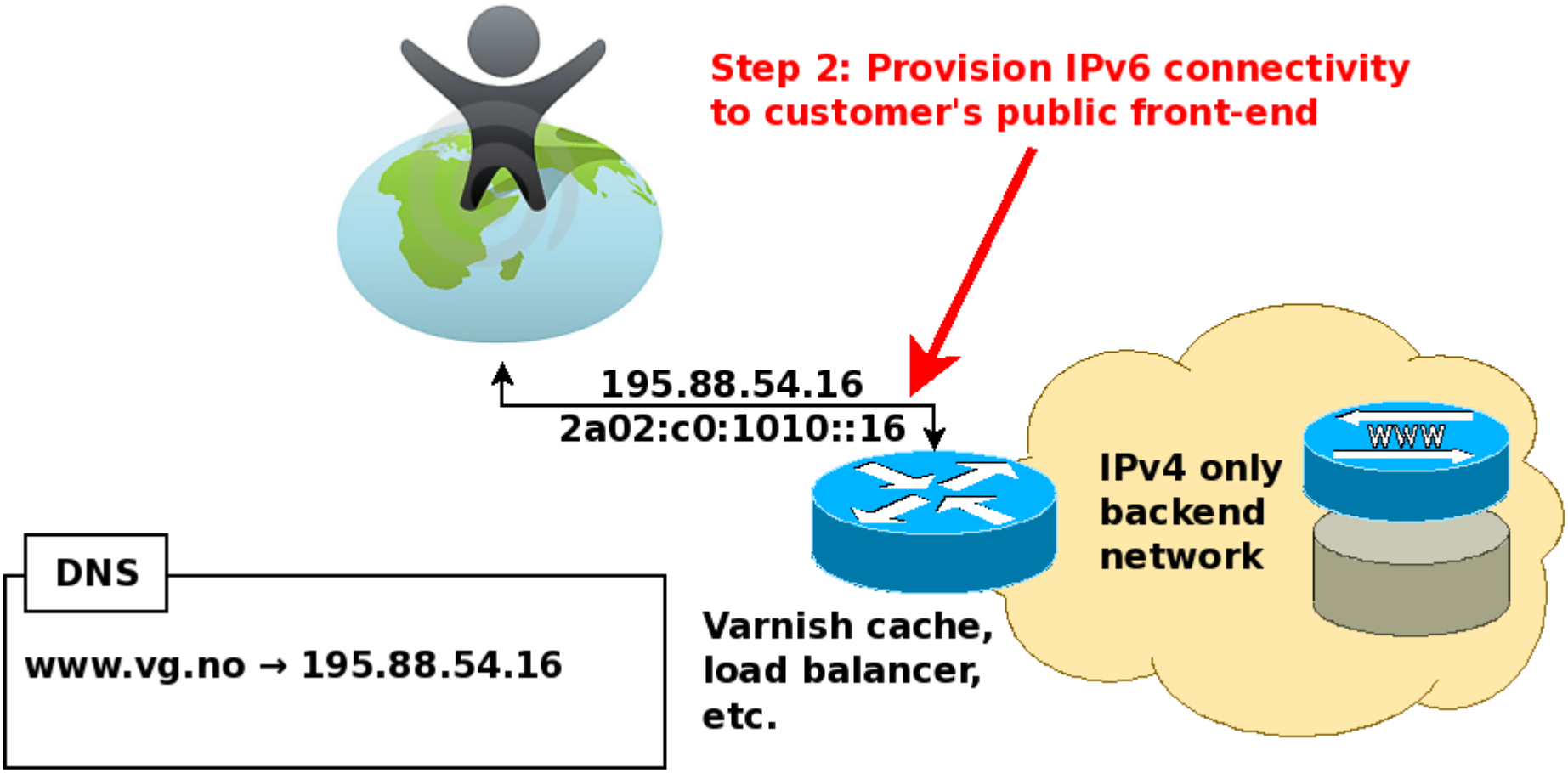
# Redpill Linpro: Ahead of the game!

- IPv6 is enabled in our network and data centres
- We have done considerable research on deployment
- Renowned in the ISP community for it
- Ready to provide IPv6 service to customers **today**
- **www.redpill-linpro.com** is available over IPv6
- In April, **24%** of IT managers in Sweden were thinking about how to deploy IPv6
- We can help them!

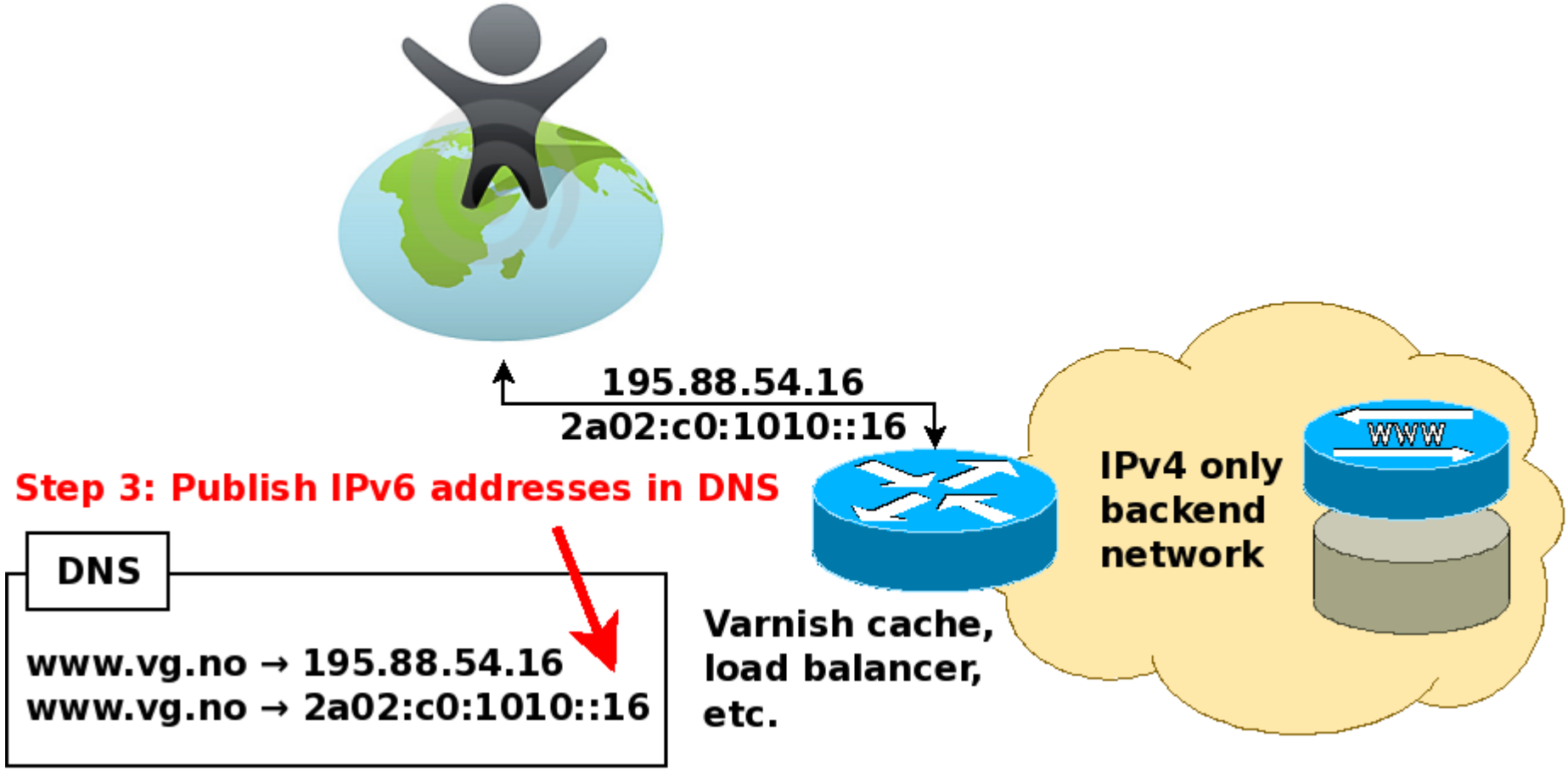
# IPv6 in 1, ...


Step 1: Start out with a traditional IPv4-only customer installation
195.88.54.16
IPv4 only backend network
WWW
Varnish cache, load balancer, etc.
DNS
www.vg.no → 195.88.54.16

# IPv6 in 1, 2, ...


Step 2: Provision IPv6 connectivity
to customer's public front-end
195.88.54.16
2a02:c0:1010::16
IPv4 only
backend
network
WWW
Varnish cache,
load balancer,
etc.
DNS
www.vg.no → 195.88.54.16

# IPv6 in 1, 2, 3!


195.88.54.16
2a02:c0:1010::16
Step 3: Publish IPv6 addresses in DNS
DNS
www.vg.no → 195.88.54.16
www.vg.no → 2a02:c0:1010::16
Varnish cache,
load balancer,
etc.
IPv4 only
backend
network
WWW

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# Questions?