IPv6

IPv6 CPE overview

<u>1:3042:2:216</u>: Marco Hogewoning XS4ALL marcoh@marcoh.net CC O BY SA RIPE-60 - 4 May 2010

Disclaimer

All vendors have been been invited to give input for this presentation. Some of them have chosen not to respond.

The information herein is based upon the information received from those who responded, combined with operational experience from me and other community members. Marco Hogewoning RIPF-60 4 May 2010 marcoh@marcoh.net

Vendors

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- AVM responded
- Draytek responded
- Cisco
- Juniper responded
- Technicolor/Thomson
- Apple

Linksys

 Zyxel - responded Marco Hogewoning **RIPE-60** IPv6 C

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AVM vendor info

- IPv6 available for 7270 and 7570
- Roadmap for 7390
- •Beta (labor), GD expected Q3 2010
- Firewall defaults to on
- ADSL, VDSL, Docsis 3 and plain
- ethernet

PPP, plain IP and tunnels
SLAAC, DHCPv6 client incl PD

• LAN includes DHCPv6 for DNS Marco Hogewoning Marco Hogewoning marcoh@marcoh.net

AVM experiences

• The occasional beta mishaps: - MTU issues (fixed) - Firewall pretty buggy • Aimed at consumers - No manual address configuration - No routing towards other hosts - Firewall pinholes limited to tcp/udp Pretty good box if you don't want anything fancy, suitable for mass Marco Hogewoning RIPF-60 4 May 2010 marcoh@marcoh.net

Draytek vendor info

- •Vigor 2130, version 1.3.0 (GD)
- PPPoE/Bridge support
- PPPoA on roadmap for 2750
- Ethernet WAN/FTTx, VDSL on roadmap

IPVI

•SLAAC/DHCPv6 PD

• 6in4 tunnel support • Firewall defaults to on Marco Hogewoning marcoh@marcoh.net Marco Hogewoning Marco Hogewonin

Draytek experiences

 Unfortunately no ADSL interface - Solution is Vigor 120 for conversion Linux based box - Routing options - Firewalling No real issues found so far - But only a limited number in field

• Vigor 120 makes nice standalone box
 • Converting PPPoA into PPPoE
 • Most people use it with Linux/BSD
 • Marco Hogewoning
 • PV6 CPE

Cisco experiences

- •87x/88x pretty complete
- Requires licensing :(
- •WLAN issues
 - 87x unknown
 - 88x version 15 confirmed fixed
- Requires some knowledge

 Packet filters default to off
 PPPoA/PPPoE/IP/tunnels
 SLAAC/DHCPv6 (incl PD)
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Juniper vendor info

- •ScreenOS after 6.1(GD)
- •SRX 10.2 onwards (beta/ED)
- ADSL/VDSL/Ethernet
- PPPoE only, PPPoA on roadmap
- •WAN SLAAC/DHCPv6, PD being
- considered
 LAN SLAAC/DHCPv6

- Firewall defaults to ON
- Not a consumer RG
 2001 888 22a5 2e0 81
 680 226 bbff 60d 8e1f 2001 980 3042 2 216 cbbf fe
- Marco Hogewoning 5:2e0.81 IPv6 CPE 2001:888:4 RIPE-60 marcoh@marcoh.net

Juniper experience

- A bit of a hassle to setup
- Missing PD could be issue
- It really speaks a lot of protocols :)
- At least one happy user Marco Hogewoning **RIPE-60** IPv6 C 4 May 2010 marcoh@marcoh.net

Technicolor experience

- Limited
- Speedtouch 789 is still roadmap
- Work continues
- •No release date yet Marco Hogewoning **RIPE-60** IPv6 CPE 4 May 2010 marcoh@marcoh.net

Apple experiences

- IPv6
- Latest release extreme/TC includes 'router option'
- •This has been tested
 - PPPoE doesn't seem to start IPv6CP
- So everything failed
- Waiting for report about static setup
 Possible issue with 'unnumbered'

980:3042:2:216:cbbf:fea3:8dca_fe80::226:bbff:fe0d:8e1f 2001:888:4:42:194:109:0:42 2001:888:22a5::2e0:81f fe80::226:bbff:fe0d:8e1f 2001:980:3042:2:216:cbbf:fe Marco Hogewoning marcoh@marcoh.net

Linksys experience

- People running OpenWRT
- •Seems to work (incl DHCPv6)
- •Not really suited for mass deployment
- Marco Hogewoning **RIPE-60** IPv6 CPE 4 May 2010 marcoh@marcoh.net

Zyxel vendor info

•Beta on all models released in 2010

IPV

- PPPoA/PPPoE/bridge/IP
- •WAN support for DHCPv6/SLAAC
- •LAN support for DHCPv6/SLAAC
- •ADSL/VDSL/ethernet/FTTx

• Firewall defaults to on

Zyxel experience

- Waiting for demo hardware
- Anybody ?

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Others ?

- D-link
 - No response at all
- Iskratel
- Busy building, need a few months
- Sagem ? • Sagem ?

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Question time!

- Should I continue doing this ?
- Is there a volunteer ?
 - To help out with testing
 - Gather and process information
 - And help publishing
- •Your feedback is more then welcome !

D1:888:22a5:2e0.81fffe34:15dc 2001:888:442:194:1 980:3042:2:216.cbbffea3:8dca fe80:226.bbfffe0d.8e1f 001:888:442:194:109:042 2001:888:22a5:2e0.81f fe80:226.bbfffe0d:8e1f 2001:980:3042:2:216.cbbfffe Marco Hogewoning marcoh@marcoh.net