IPV6 MIGRATION STATUS FOR SMALL BUSINESSES

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Who am I?

- System Integrator with Vinck & Thys Systems
- Responsible for installing and maintaining:
  - Client workstations
  - Servers
  - PBX(PSTN to VOIP)
  - Network
  - Printers
  - ...
- Online gamer

Who are our customers

Small businesses and home offices

- Construction company's

- Accountancy firms

- Real estate

- Local bike shop

- ...

Lets see some old numbers…(2013)

In a selection of 25 customers

- 0% currently have a IPv6 internet connection
- 0% currently have a IPv6 website
- 0% currently have a IPv6 mail server
- 0% have a IPv6 backup mail server
- 8% currently have IPv6 capable DNS hosting
- 56% currently have a IPv6 capable router
- 80% of those without IPv6 are out of warranty
- 88,7% have an OS that can be used on IPv6 internet
- 46,1% of the devices (non smartphone) have some sort of IPv6 support
- 48,9% of the devices that don't have some IPv6 support are out of warranty

Lets see some outdated numbers...(2014)

In a selection of 25 customers

- 4% currently have a IPv6 internet connection

- 0% currently have a IPv6 website

- 0% currently have a IPv6 mail server

- 4% have a IPv6 backup mail server

- 12% currently have IPv6 capable DNS hosting

- 64% currently have a IPv6 capable router
- 88% of those without IPv6 are out of warranty

- 90,2% have an OS that can be used on IPv6 internet

- 54,6% of the devices (non smartphone) have some sort of IPv6 support
- 45,9% of the devices that don't have some IPv6 support are out of warranty

Lets see some new numbers...(2017)

In a selection of 25 customers

- 72% currently have a IPv6 internet connection

- 24% currently have a IPv6 website

- 48% currently have a IPv6 mail server

- 32% have a IPv6 backup mail server

- 56% currently have IPv6 capable DNS hosting

- 80% currently have a IPv6 capable router
- 100% of those without IPv6 are out of warranty

- 96% have an OS that can be used on IPv6 internet

- 72% of the devices (non smartphone) have some sort of IPv6 support
- 86% of the devices that don't have some IPv6 support are out of warranty

Case #1

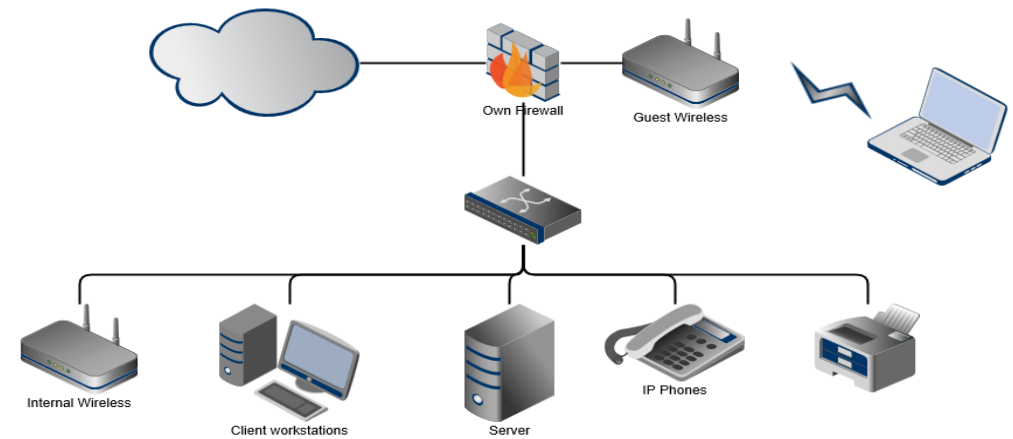1 Microsoft Windows SBS server

- Mailserver

- Fileserver

- Printserver

- PBX

- Database server

4 Client workstations (Windows 7 or 10)

2 printers

1 layer-2 switch

The only parts that are not compatible with IPv6 is a printer

Case #2

2 Mailservers (Windows 2012R2)

2 File and printservers (Windows 2012R2)

3 Database servers with their applications (Windows 2008 (R2))

2 RDP servers (Windows 2008)

100 Client workstations (Windows 2000, XP, vista, 7, 8.1 and 10)

15 printers

7 layer-2 switches

3 VPN tunnels (v4) and 2 VPN tunnels over IPv6 by 1 of the routers to other locations

5 router/NAT44/firewalls

The only parts that are not compatible with IPv6 are some old printers and some gateways that are just used to NAT44. The workstations that are still XP or 2000 need to be that version to connect to an external device(CNC, ...) and have no need for WAN connectivity.

Some of the applications might not run on a IPv6 only network but are only used internally or are missing the lack of knowledge of the software vendor to configure IPv6.

This client switched over from 1 ISP to 3 different carriers, 2 of them we use for IPv6(guest network vs corporate network)
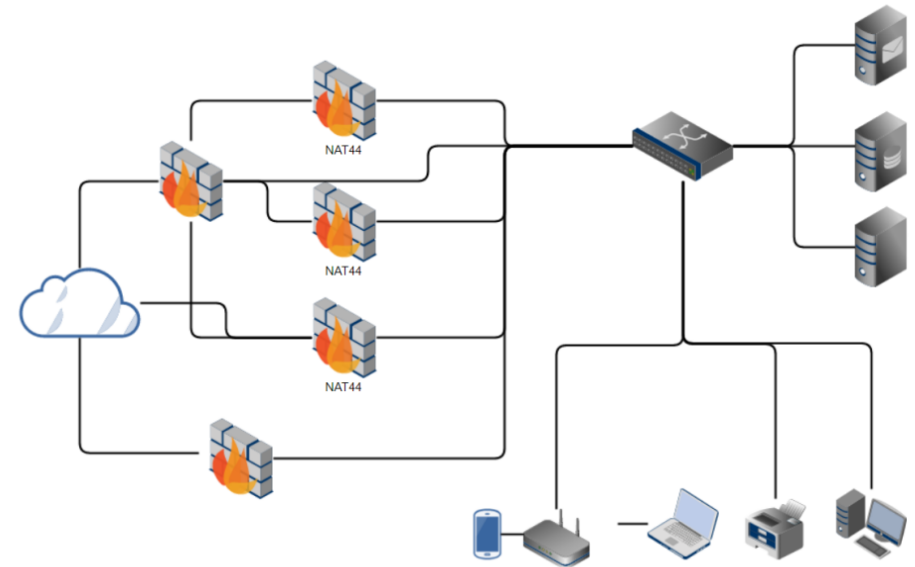
support responses

The ISP's have currently IPv6 products for a small business. Getting it takes a lot of work for some.

ISP1: waiting on response for 12 weeks on questions

ISP2: tickets with IPv6 take longer to process because they have to forward it internally (extra 24 hours)

Software vendor that use different implementations of CIDR notation within the same software package

Software vendor that complains about NAT44 but doesn't actively support IPv6

Q&A