VPN IPV6 STATUS SURVEY

@Zoom

28 April 2020

# VPN IPV6 STATUS SURVEY RESULTS

Motivation for the survey

- A large number of people working from home these day, they have more IPv6 connectivity than in their offices

- Some Core team members had VPN clients that stopped working when IPv6 was on the home network

- Do others face the some issues with their VPN when IPv6 is available? What's the status of enablement?

9 questions

40 responses

RESULTS – Q1

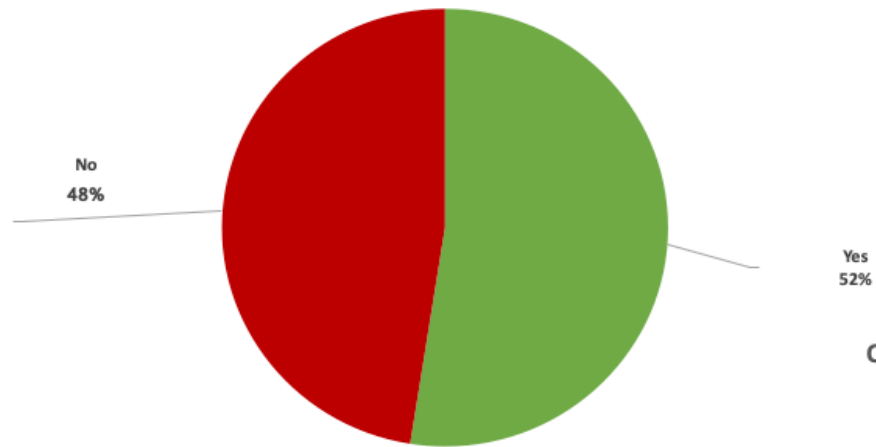Q1 What VPN client does your company use?
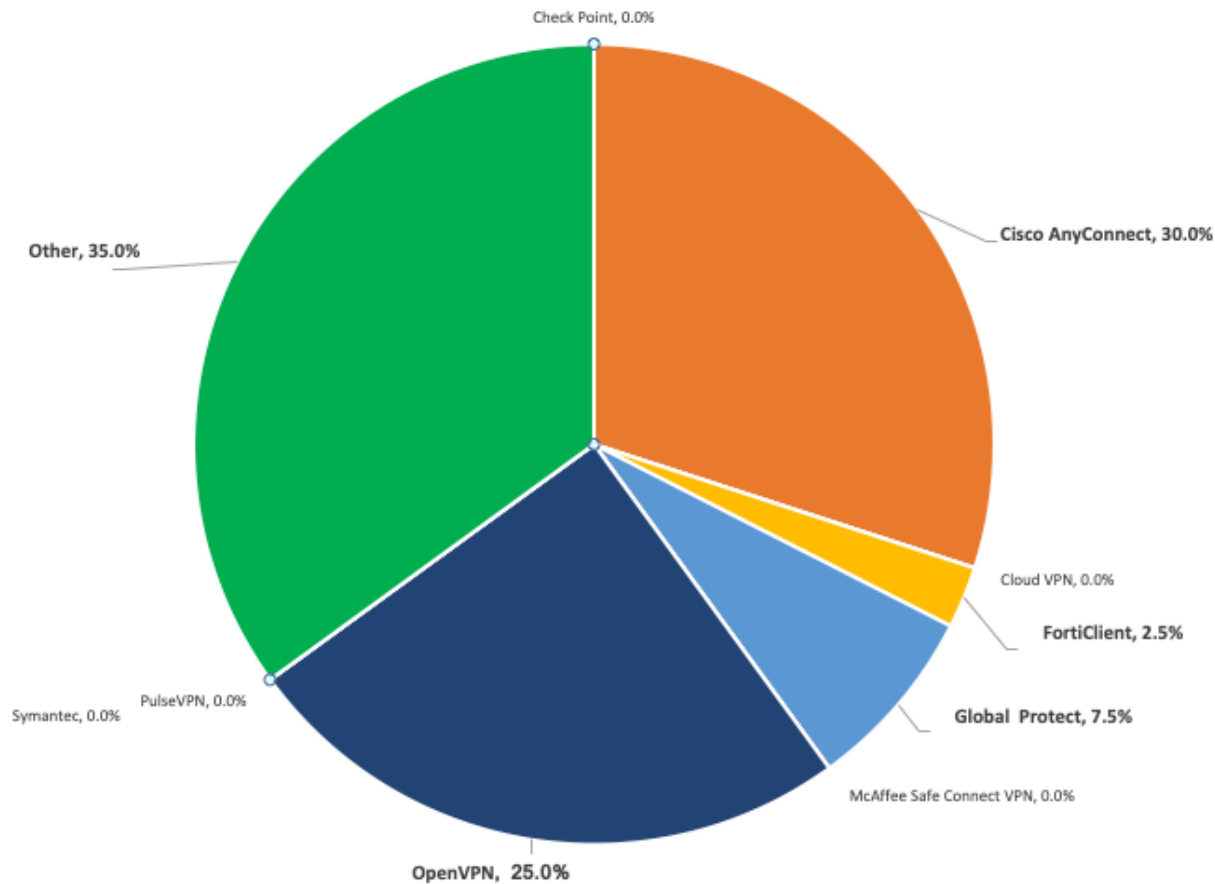

Other (14 responses):
- WireGuard (4)
- Build-in OS VPN (iOS, Microsoft) (5)
- Microsoft Direct Access (1)
- Zscaler (1)
- FireBrick IPSec (1)
- AppGate SDP (1)
- L2TP with DIY Server (1)

Q2 & Q3

Q2 Does your VPN gateway/concentrator allow a client connection for both IPv6 and IPv4 (outer IP)?
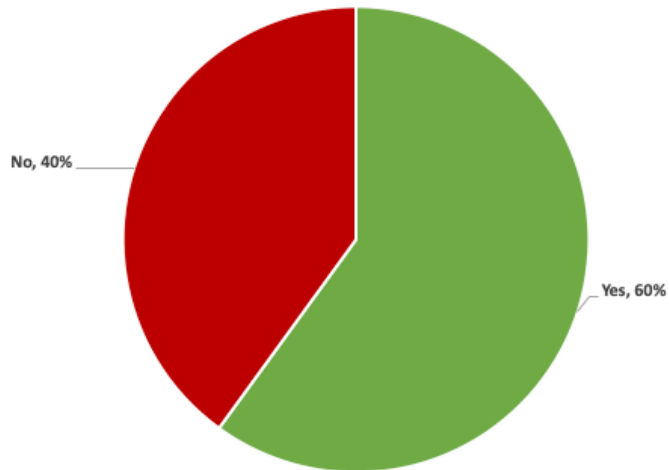
No
48%

Yes
52%

Q3 If not, does your company have plans to enable IPv6 for VPN connections (outer IP) in the next 12 months?
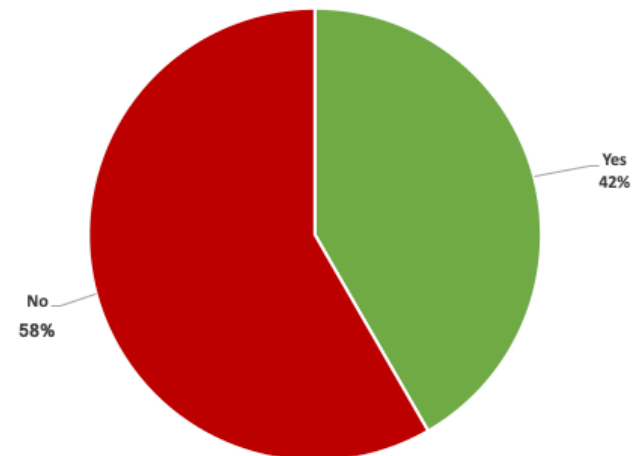
Yes, 36%

No, 64%
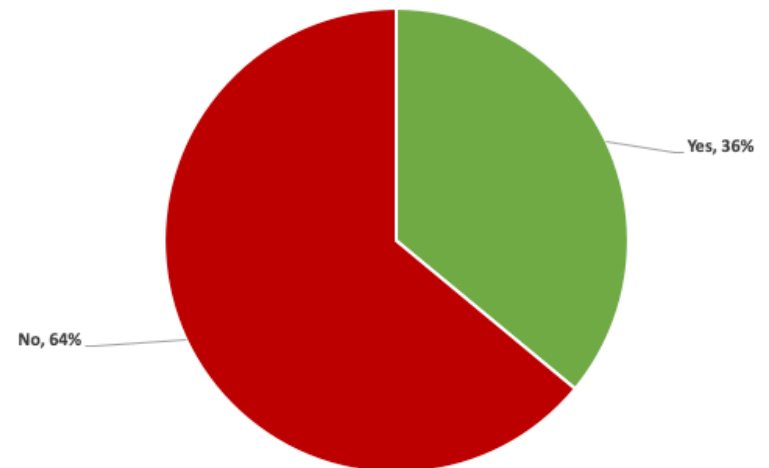
Q4 & Q5

Q4 Does your virtual VPN interface/VPN client receive IPv6 address from the gateway/concentrator (inner IP)?
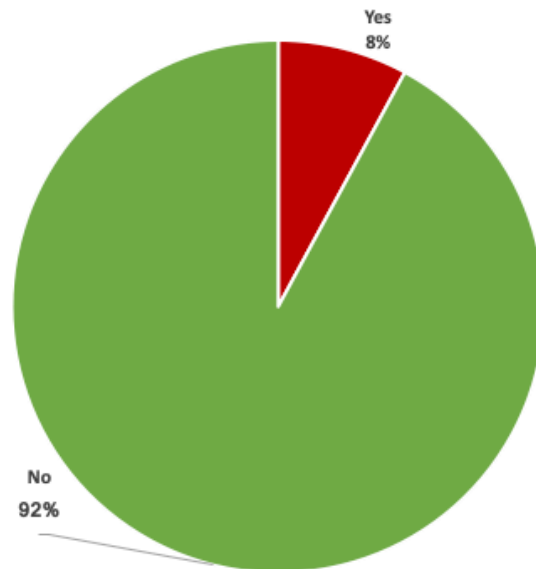
No, 40%

Yes, 60%

Q5 If not, does your company have plans to enable IPv6 inside the VPN tunnel (inner IP) in the next 12 months?

Yes 42%

No 58%

Q6 & Q7

Q6 Have you experienced any issues while connected with VPN over IPv6?

Q7 – Describe issues
- Bridged VPN instead of routed - sometimes on remote location it may be a bit slower, but no real issues
- Lack of care in relation to ACLs/split tunnels as opposed to same on ipv4
- Reverse path filtering problems on the Linux based VPN server

Q8 & Q9

Q8 Have you experienced any issues while connected with IPv4-only VPN over a dual-stack network?

Yes
11%

No
89%
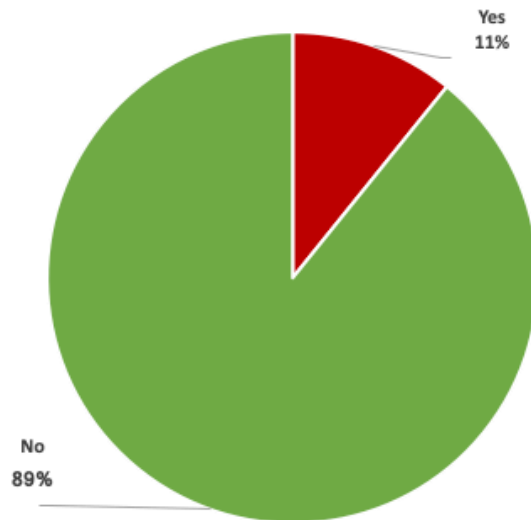
Q9 – Describe issues
- Split traffic; IPv4 down the VPN, IPv6 either not connecting or going outside the VPN
- DNS/IP based - whereas a client has its own IPv6 from $ISP, uses a VPN based resolver, gets an IPv6 address for endpoint internally then tries to connect to the v6 address (which is internal only and not tunneled)

☺ ☺

- I have actually found it quite useful having ZScaler not using IPv6 because I can avoid it tampering with v6 stuff. No IPv6 on corporate network
- IPv6 is currently disabled across the enterprise because there are problems when IPv6 is not natively available on the LAN/WAN.
- ☺ ❤️ I fricking have no IPv4 VPN anywhere and haven't had for about 8 years now but your survey is bonkersly biased <- *UK IPv6 Council loves you!!*

OTHER REMOTE WORKING TOOLS - CONFERENCING

Webex – used to be enabled (in 2015), seems no more

Zoom – on paper yes, reality says no

BlueJeans – ?

Microsoft Teams – customers have to ask for IPv6 to be enabled, Office365 login still not IPv6 enabled (dependency on IPv6 in Azure, generally available since March 2020, so possibly login over IPv6 support comes soon!)