

# To VPN or NOT?

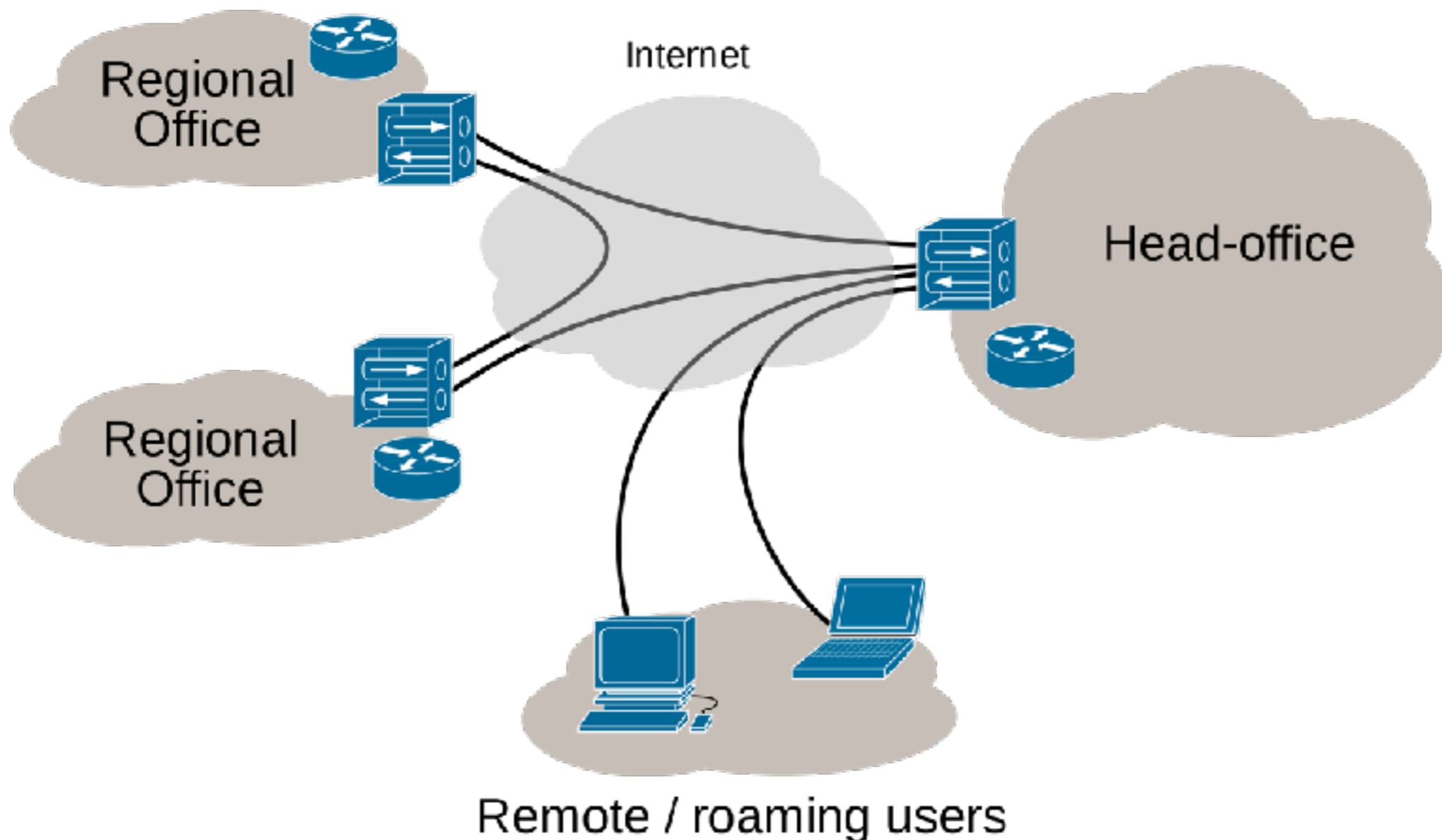
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# What is a VPN?

- Virtual Private Network
- [https://en.wikipedia.org/wiki/Virtual\\_private\\_network](https://en.wikipedia.org/wiki/Virtual_private_network)
- A **virtual private network (VPN)** extends a **private network** across a public network

# Corporate VPN

It forms a protected “tunnel” through the internet.



# Many protocols ...

- <https://www.makeuseof.com/tag/major-vpn-protocols-explained/>
- OpenVPN: Open source, offers strongest encryption
- L2TP/IPSec: Easily blocked - relies on single port
- SSTP: Good security, difficult to block and detect
- IKEv2: potentially undermined by NSA
- PPTP: Fast, widely supported, full of security holes

# Good reasons ...

- You are online via a public hotspot such as a coffee shop or hotel.
- Your work requires one.
- Circumvent unreasonable content filtering.

# Bad reasons ...

- Anonymity. A VPN simply shifts visibility of your traffic to a different location on the network. You still expose details to the VPN provider and ISP at the VPN exit point.
- Access geo-locked content. (Debatable.)
- Download or upload illegal content via peer-to-peer.
- See <https://www.dnsthingy.com/2014/03/good-and-bad-reasons-to-use-a-vpn/> for details.

# When free is bad ...

- See 7 Hidden Dangers to Using Free VPNs  
<https://www.vpnmentor.com/blog/free-vpns-are-not-safe-to-use/>
- Worst example: The free VPN Hola is plagued with security problems including a major botnet scam. **They tunnel traffic through their users' computers rather than their own servers.**

# Do you need one?

- **Https:// links are encrypted end to end, so a VPN doesn't add much (other than DNS lookup protection)**
- **Secure IMAP mail is also end-to-end secure.**
- **Make sure the CERT is valid!!!**

# Final points

- You get what you pay for
- VPN does NOT equal anonymity
- Use OpenVPN
- Do not use vendor-supplied clients

# Questions & Demo

- Any questions?
- Tunnelblick demo ...