Overview of Multicast in VPNs

draft-ooms-ppvpn-mcast-overview-00.txt

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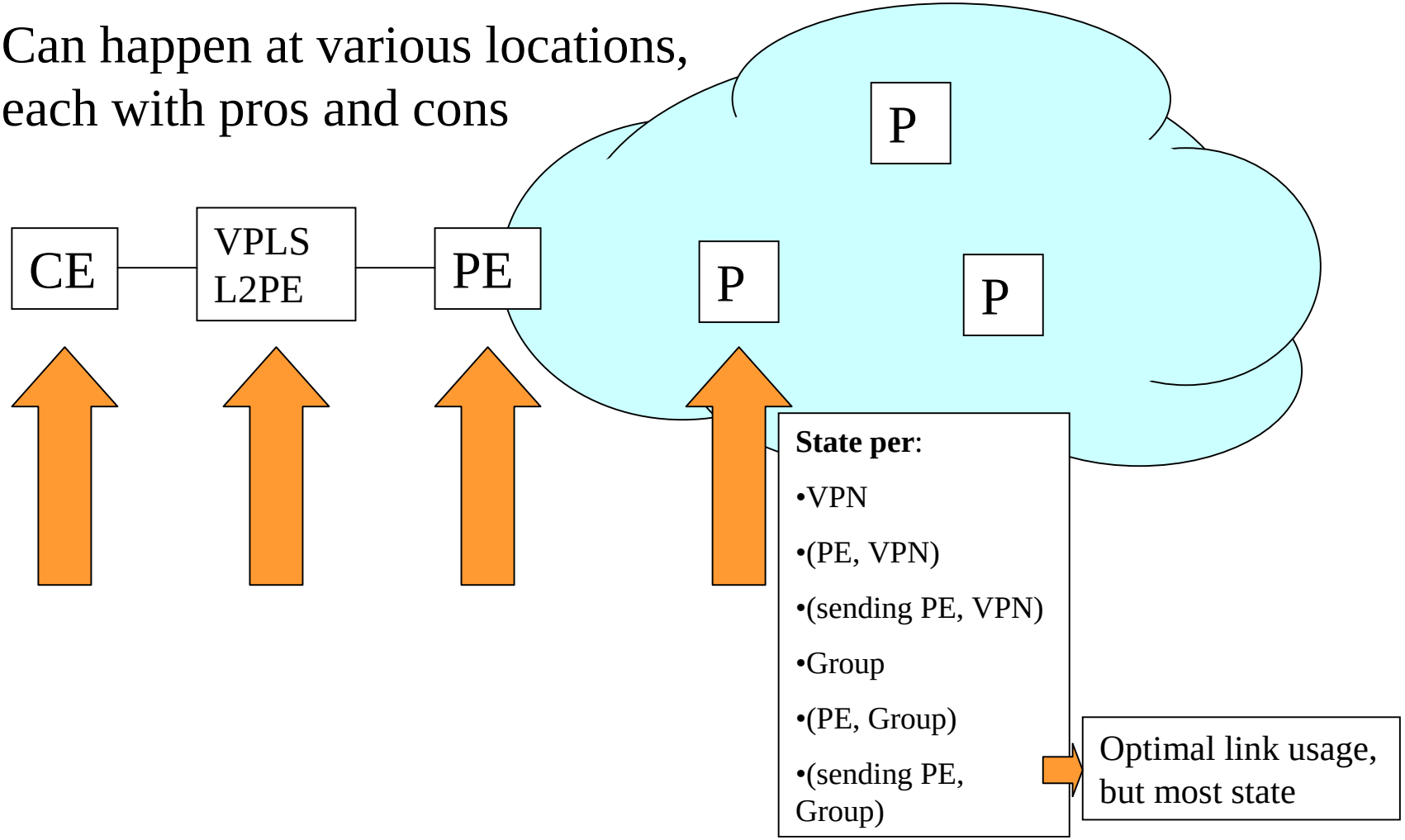
Why multicast in VPN?

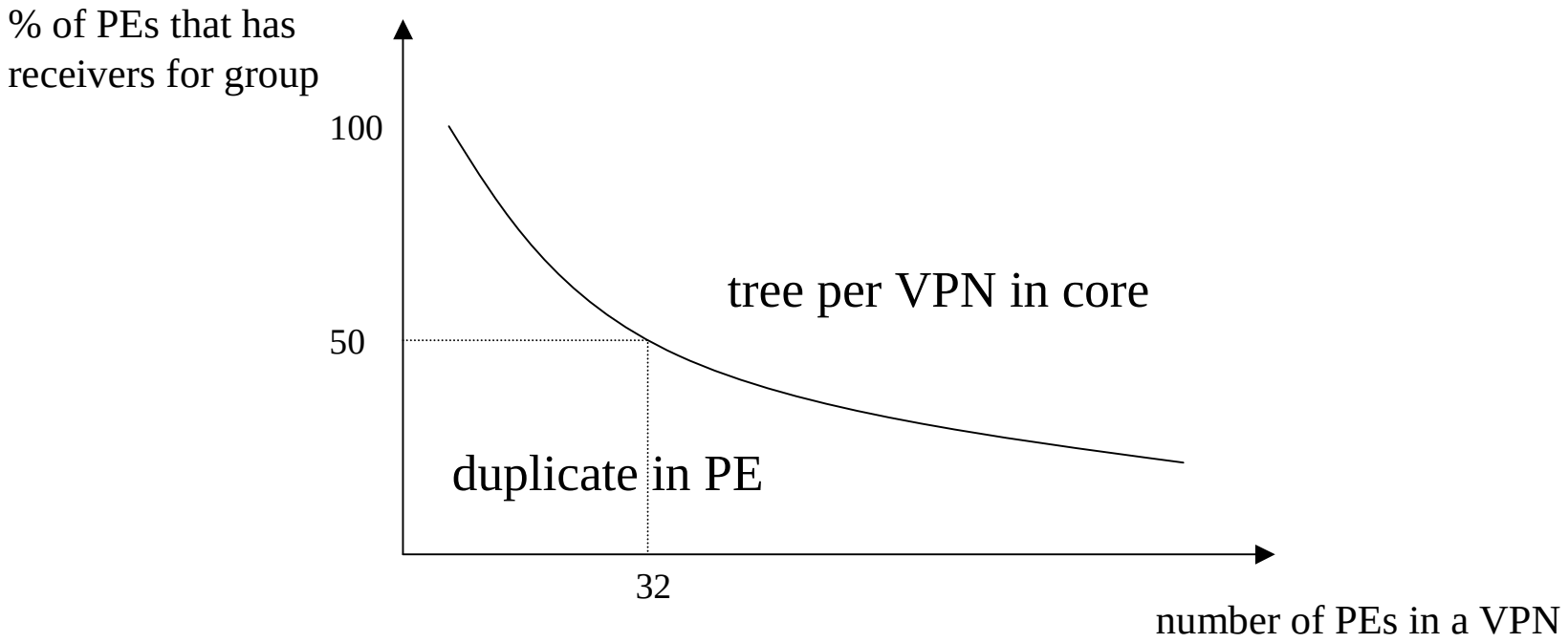
- Connect multicast-enabled sites
- VPLS requires broadcast in learning process

Where to duplicate?

Can happen at various locations, each with pros and cons



Always a trade-off!



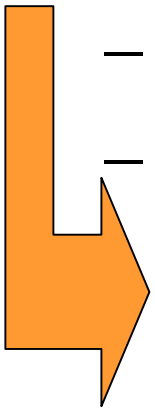
Standardise multiple methods, define switch-over mechanism ?

Various methods pose different requirements to SP network

- multicast routing/snooping on customer itf of PE router
- ASM bidir PIM-SM in SP network
- ASM PIM-SM in SP network (shared tree)
- SSM PIM-SM in SP network
- extension to MPLS signalling
- point-to-multipoint LSPs
- active source detection

MPLS alternative to mcast routing in SP network?

- Mcast routing provides:
  - Source discovery mechanism
  - Switch-over from shared to source trees
  - Hop-by-hop signalling (to create a tree)
  - Creation of (tree) state



Hey, this is precisely what MPLS typically does!
=> define extensions to MPLS to construct tree:

- draft-cheng-mpls-rsvp-multicast-er-00.txt
- draft-chung-mpls-rsvp-multicasting-00.txt
- draft-chung-mpls-ldp-multicasting-00.txt
- draft-ooms-mpls-multicast-te-01.txt

What's next?

- Collect some feedback:
  - (only) needed for VPLS?
  - or are SPs also interested in offering multicast services (in VPNs)?
  - where do SPs prefer to duplicate the traffic?
  - do they prefer multicast routing or an extension to MPLS?
- If some of the above answered positively
  - is this document a good start?