DNS/L2TP Based VPLS

<draft-heinanen-dns-l2tp-vpls-00.txt>

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Introduction

- Discovery based on DNS as described in draft-luciani-ppvpn-discovery-02.txt

- Signaling applies draft-ietf-l2tpext-l2tp-base-02.txt with a minor change

- Data plane according to draft-so-pwe3-ethernet-01.txt

Why L2TP Based VPLS?

- Makes sense to providers that already use L2TP/IP and don't want to deploy MPLS

- L2TP based VPLS solution is cleaner and simpler than MPLS based solution:
  - L2TP bundles control, management, and data planes in a single protocol
  - bi-directional tunnel setup from one end only

- leverages existing work

Configuration

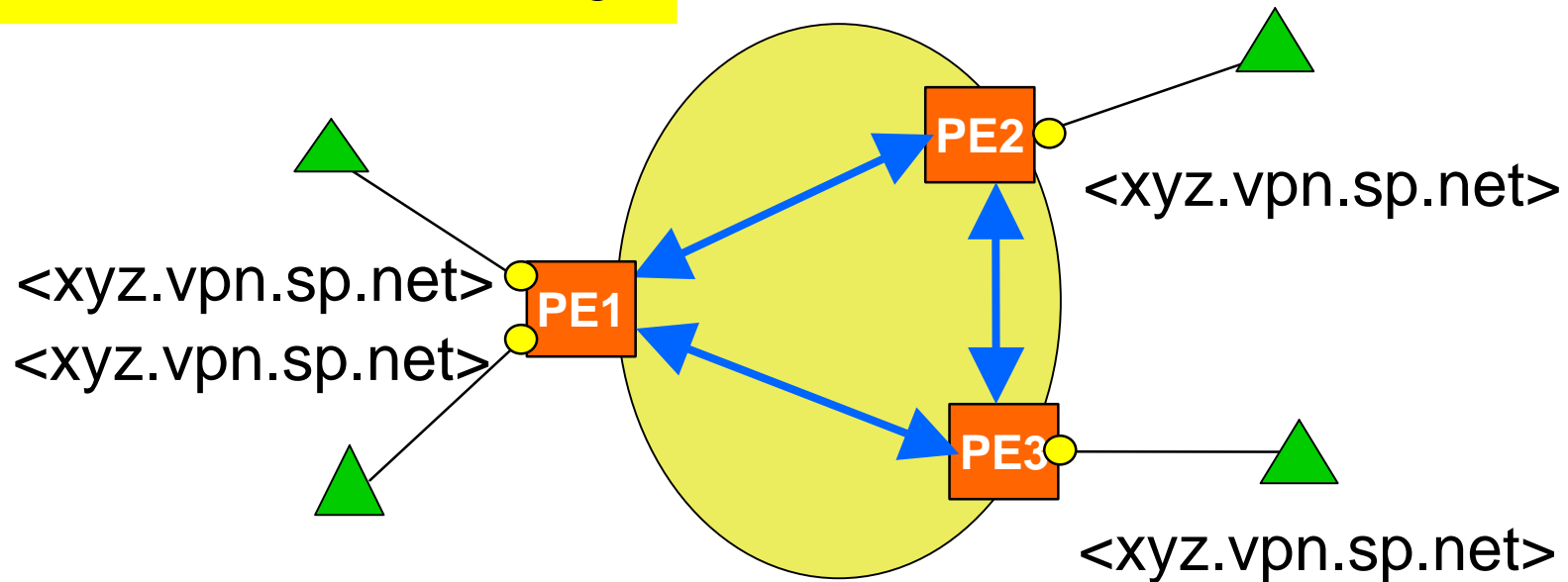- Like in draft-heinanen-dns-ldp-vpls

Protocol Actions

- Simpler than in draft-heinanen-dns-ldp-vpls, because of L2TP

Example

xyz.vpn.sp.net IN A PE1
IN A PE2
IN A PE3

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Data Plane

- PEs operate as fully connected learning bridges (if necessary) maping/adding/ removing VLAN tags

- Ethernet frame transport between PEs uses VPN specific L2TP sessions according to section 6.1 of draft-so-pwe3-ethernet-01.txt

Future Work

- Only allow L2TP sessions without Control Word
- Specify L2TP result codes
- Look at session level tie breaker
- Can the new VPN ID AVP can be avoided?
- Could Radius be used instead of DNS?