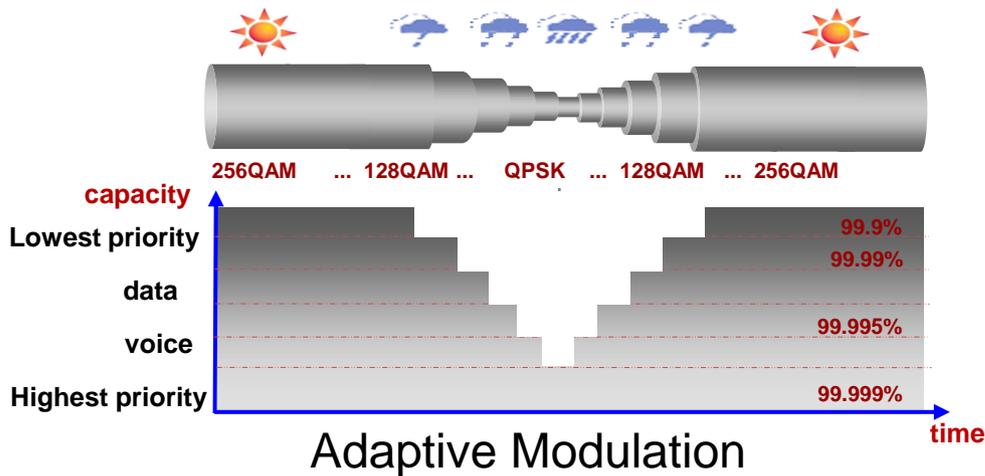
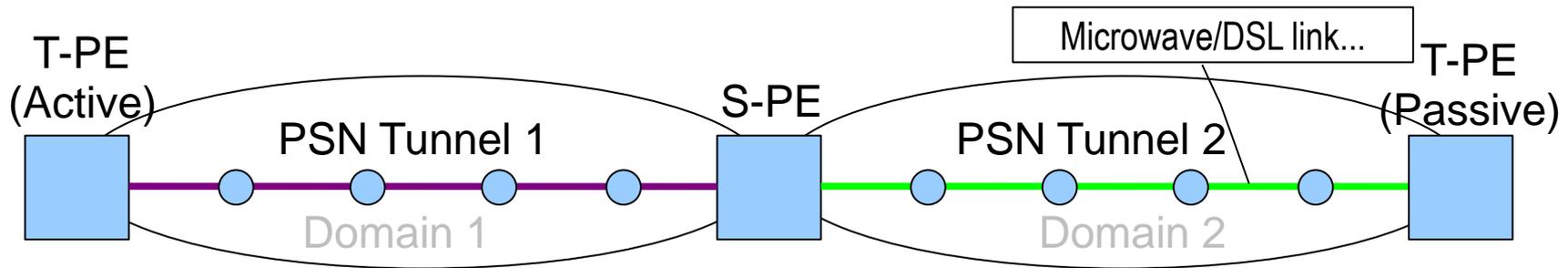


# Multi-Segment Pseudowire Signaling with Availability Information

draft-long-pwe3-ms-pw-availability-00

HAO LONG (longhao@huawei.com)  
MIN YE (amy.yemin@huawei.com)

# Problem Statement

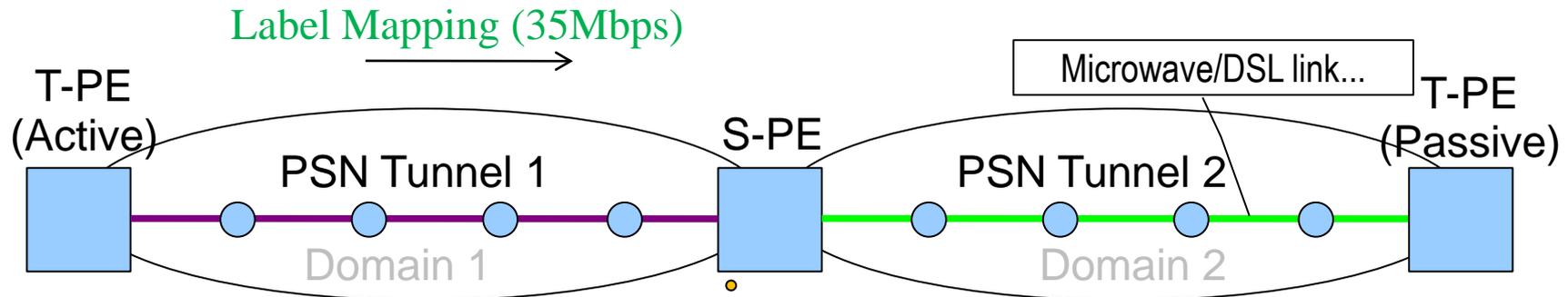


availability	bandwidth
99.999%	30Mbps
99.995%	50Mbps
99.99%	100Mbps
...	...

PSN Tunnel 2 bandwidth capacity

- PSN tunnel may pass through the links with variable bandwidth
  - Microwave: affected by environment, e.g., rain, fog, dust, snow,...
  - DSL: affected by environment, e.g., noise interference,....

# Problem Statement



Does Tunnel 2 support?  
I don't know

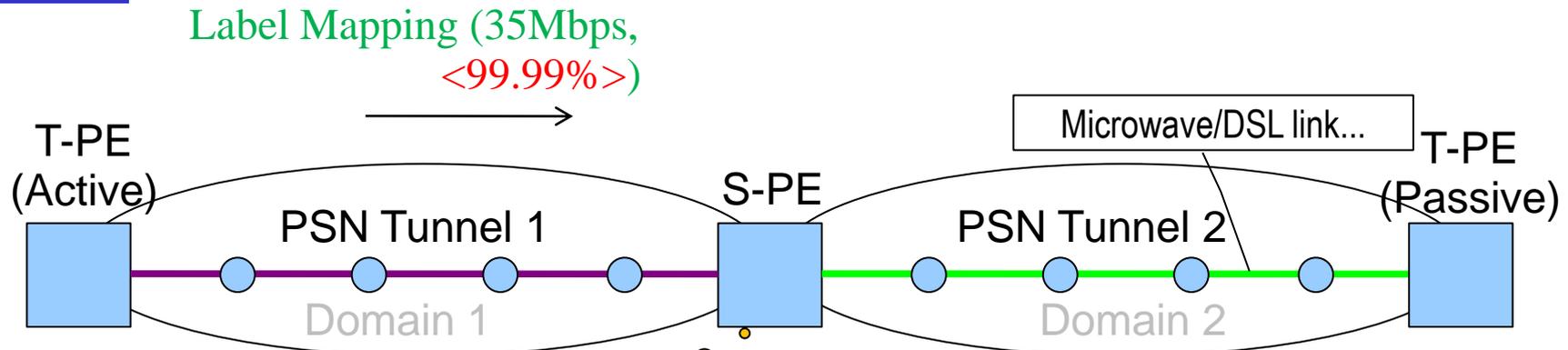
availability	bandwidth
99.999%	30Mbps
99.995%	50Mbps
99.99%	100Mbps
...	...

PSN Tunnel 2 bandwidth capacity

- If S-PE receives a Label Mapping message without availability request, S-PE don't know whether the tunnel can satisfy the requirement
  - Have no idea which bandwidth capacity should be used ;

# Proposed Solution

## Scenario 1



Tunnel 2 can support

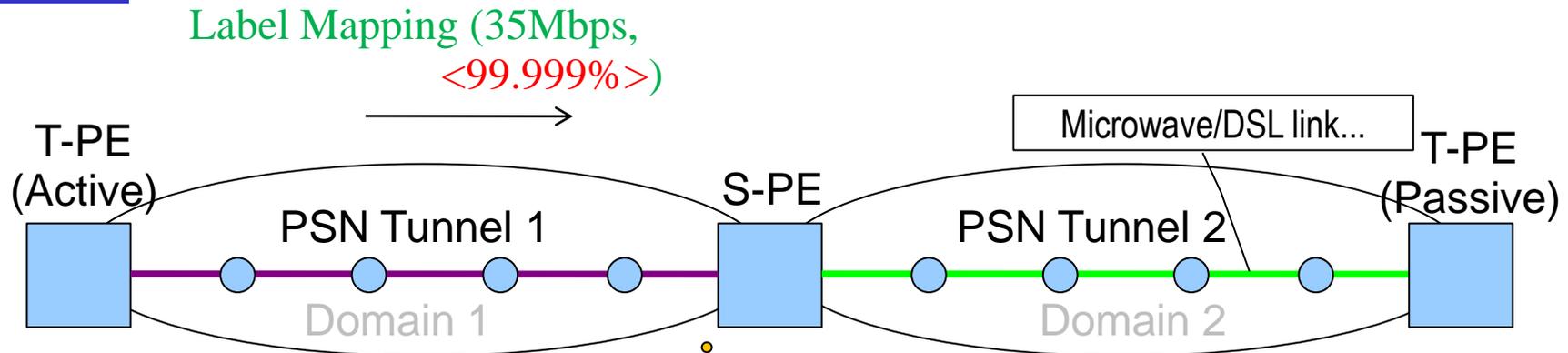
availability	bandwidth
99.999%	30Mbps
99.995%	50Mbps
99.99%	100Mbps
...	...

PSN Tunnel 2 bandwidth capacity

- Solution: Carry availability requirement for the PW in LDP signaling.
- S-PE allocates resources for the PW, and S-PE SHOULD account for the PW usage of the resources.

# Proposed Solution

## Scenario 2



availability	bandwidth
99.999%	30Mbps
99.995%	50Mbps
99.99%	100Mbps
...	...

PSN Tunnel 2 bandwidth capacity

- Solution: Carry availability requirement for the PW in LDP signaling.
- S-PE sends status message "Bandwidth resources unavailable" to previous hop
- T-PE MUST withdraw the corresponding PW label mapping for the opposite direction if it has already been successfully setup



# Next step

Comments are welcome.

Thanks