

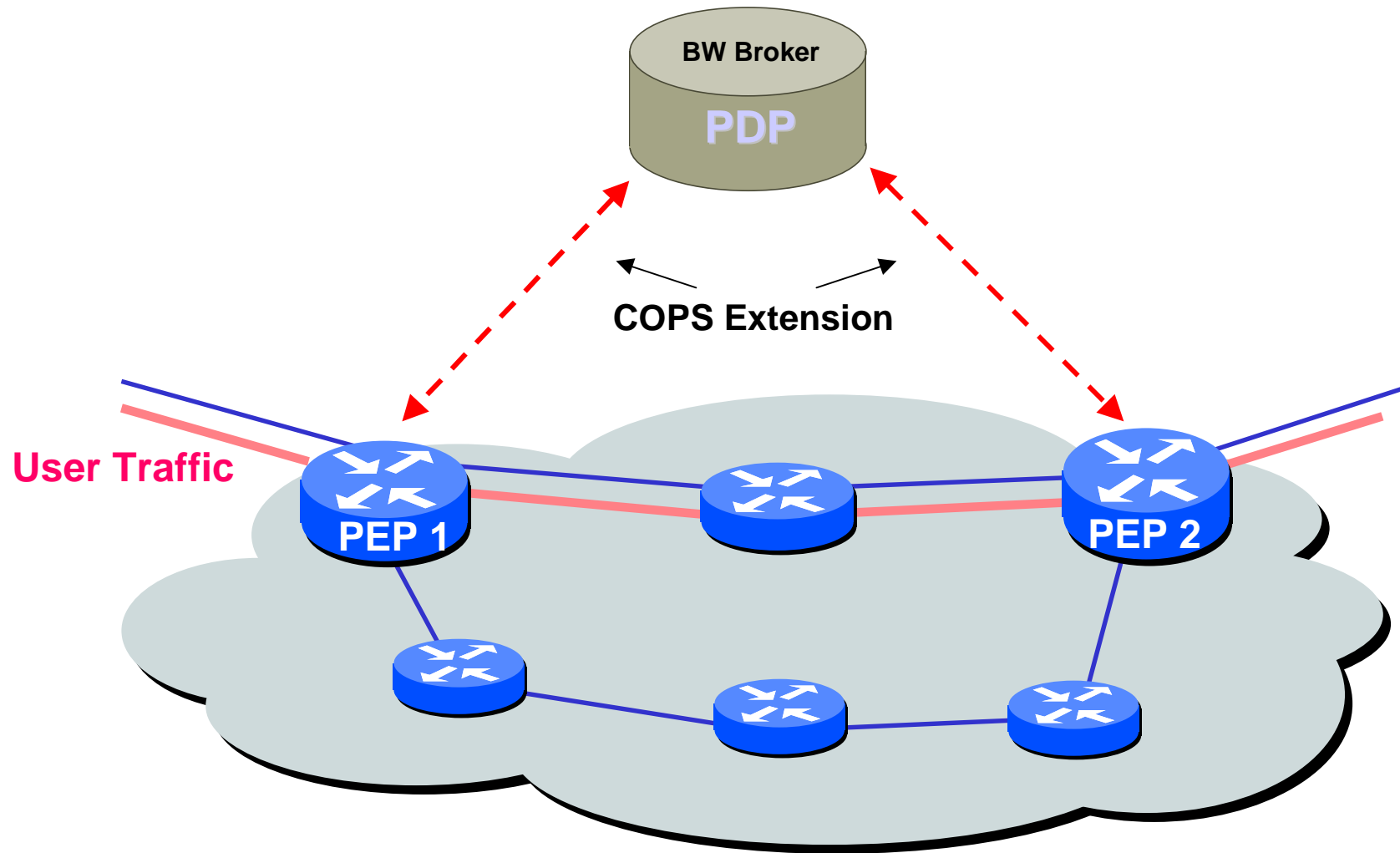
COPS Extension for Intra-domain Traffic Engineering (draft-pan-cops-te-00)

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Network Model and Framework



What Are We Trying To Do?

PDP -> PEP

- Send commands to setup “*tunnels*”.
- Send *filters* to classify user traffic.

PEP -> PDP

- Notify about “tunnel” status.

Definition of a “*tunnel*”

- Between two edge routers (PEP's);
- Can be:
 - A classical **RSVP** flow (RFC2205)
 - A **MPLS** LSP (per RSVP-LSP extension)
 - A **DiffServ** “Virtual Leased Line”

Definition of a *filter*

- Used at PEP to classify incoming traffic
- Classification can be based on:
 - 5-tuple
 - DSCP
 - BGP Path Attribute (Next-HOP)
 - MPLS LSP's
 - ...etc.

Protocol Highlights

- COPS extension with a new **Client Type**
- A few new **C-type's** for support
 - client specific data
 - decision types
 - error conditions
- A few new objects:
 - **FILTER, FILTER-ID, TUNNEL-ID**, etc.
 - **TUNNEL-PREF** ... tunnel's priority

Example: *Redundancy Support*

1. Two tunnels w/ diff. pref
2. Setup both at init. time
3. When the primary one down
 - switch-over traffic
 - inform PDP

