Representing Tunnels in RPSL

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Current Status

- **Current Draft**
  - **draft-ietf-rps-tunnels-00.txt**
- **Overview/Summary**
  - **Defines Representation of Tunnels**
  - **Extends inet-rtr object**
  - **Adds theTunnel class**

inet-rtr Extensions

- **inet-rtr: <key>**

  …

  peer: <u>tunnel <dest-IP1> <src-IP1></u>
  <u>encap=<encapsulation1></u>
  <u>name=<name1></u>

- **inet-rtr can have multiple tunnel peers**
  - **point to multipoint**
- **Encapsulation types**
  - **DVMRP, GRE, IPv6**

inet-tunnel Class

- Tunnel can be p2p or p2mp
- Specifies
  - Tunnel Source
  - Tunnel Sink(s)
  - Tunnel Protocol
    - BGP, DVMRP, RIPv6, PIM-DM, PIM-SM
  - Tunnel Actions
  - Tunnel Input/Output Routing filters

inet-tunnel Class

inet-tunnel: <name>
tunnel-source: <inet-rtr key>
tunnel-sink: <inet-rtr key1>
…
tunnel-protocol: <protocol>
tunnel-in: <inet-rtr key1> accept <input-filter-spec1>
…
tunnel-out: to <inet-rtr key1>
[action [ttl=<ttl1>;]
[boundary=<prefix1/len1;]
[dvmrp-metric=<metric1>;]]
announce <output-filter-spec1>
...

inet-rtr Example

inet-rtr: eugene.nero.net
localas: AS4600
ifaddr: 204.70.32.6 masklen 30 <shorten syntax?>
…
peer: tunnel 204.70.32.6 204.70.158.61
enacap=DVMRP
name=MBONE-TUNNEL-EUGENE
...

inet-tunnel Example

```
inet-tunnel:      MBONE-TUNNEL-EUGENE
tunnel-source:    eugene.nero.net
tunnel-sink:      dec3800-2-fddi-0.SanFrancisco...
tunnel-protocol:  DVMRP
tunnel-in:        from 204.70.158.61 accept ANY
tunnel-out:       to 207.70.158.61
                   action
                      scope=64;
                      boundary = {239.254.0.0/16};
                      dvmrp-metric=1;
                    announce AS-NERO-TRANSIT
```

inet-tunnel Class

- **Other Protocols?**
- **Other Actions?**
  - **Current actions multicast specific**
- **inet-rtr -- Other encapsulations?**
- **Others?**