Chapter 4
OSPF Monitor (ospfmon)

OSPF Monitor is experimental.

4.1 Name

`ospfmon` - monitors OSPF gateways

4.2 Synopsis

```
ospfmon [-a] [-c] [-e] [-h] [-l] [-x] [-r] [-i] [-n] [-v] [-s] [-A area]
     [-C] [-I intf] [-L lsid] [-R advrtr] [-T type] [-V host]
```

4.3 Description

Use the `ospfmon` command to query OSPF routers. The `ospfmon` command operates in an interactive mode. It allows the user to query the various OSPF routers to provide detailed information about:

- IO statistics
- error logs
- link-state databases
- AS external databases
- the OSPF routing table
- configured OSPF interfaces
- OSPF neighbors

Note: This utility is provided for users of older versions of GateD and the old OSPF implementation. The new OSPF implementation implements many of the same features, but not all are available. Usage of this command is discouraged for new OSPF users; use the dump or GII facility instead.

4.4 Commands

The commands are specified using command-line flags. A description of each command follows.

`-a` - dump lsa (requires *area*, *type*, *lsid*, *advrtr*)

`-c` - show counters (default)

`-C` - don't show counters

`-h` - show next hops

`-l` - dump intra-area LSDB

-x - dump ASE LSDB

-r - show routes

-i - show interfaces

-n - show neighbors

-v - dump vertices

-V *host* - show software version

The following commands are used to specify additional parameters for the commands above. Each has a default value.

-A *area* - specify area, default is 0 (backbone)

-I *intf* - specify interface, default is IP address of queried host

-L *lsid* - LSID, default is IP address of queried host

-R *advrtr* - advertising router, default is IP address of queried host

-T *type* - type, default is 1 (Router LSA)

-K - authentication key, 8 bytes long, default is no auth

4.5 Sample Command Output

4.5.1 The 'c' command

The following is an example output of the '**c**' (show counts) command. This command shows a cumulative log of values pertaining to OSPF state.

```
    IO stats
      Input   Output   Type
          5        0   Monitor request
        171       85   Hello
          7        8   DB Description
          2        5   Link-State Req
         80       14   Link-State Update
         56       56   Link-State Ack
     ASE: 100 checksum sum 36F1AC
     LSAs Originated: 25     Received: 156
            Router: 6  ASE: 19
     Area 0.0.0.2:
            Neighbors: 2     Interfaces: 1
            Spf: 4   Checksum sum 42FDC
            DB: rtr: 3 net: 1 sumasb: 5 sumnet: 2
```

```
Routing Table:
    Intra Area: 1   Inter Area: 2   ASE: 79
done
```

4.5.2 The 'e' command

The '**e**' command shows cumulative errors. Sample output from this command follows.

```
Packets Received:
   7: Monitor request        183: Hello
   7: DB Description            2: Link-State Req
  84: Link-State Update       58: Link-State Ack


Packets Sent:
   0: Monitor response        91: Hello
   8: DB Description            5: Link-State Req
  14: Link-State Update       58: Link-State Ack


Errors:
0: IP: Bad destination         0: IP: Bad protocol
0: IP: Received my own packet  0: OSPF: Bad packet type
0: OSPF: Bad version             0: OSPF: Bad checksum
0: OSPF: Bad area id              0: OSPF: Area mismatch
0: OSPF: Bad virtual link    0: OSPF: Bad authentication type
91: OSPF: Bad authentication key  0: OSPF: Packet too small


done
```