Chapter 20
Distance Vector Multicast Routing Protocol (DVMRP)

20.1 DVMRP Overview

The **dvmrp** statement is used to configure DVMRP, which is compliant with the DVMRPv3 specification.

DVMRP is the original IP multicast routing protocol. It was designed to run over both multi-cast capable LANs (like Ethernet) as well as through non-multicast capable routers. In the case of non-multicast capable routers, the IP multicast packets are "tunneled" through the routers as unicast packets. Because DVMRP replicates the packets, it has an effect on per-formance, but has provided an intermediate solution for IP multicast routing on the Internet while router vendors decide to support native IP multicast routing.

DVMRP has both "tree construction" and "route" passage functions. The DVMRP "routes" are loaded into the multicast RIB under import policy and exported using export policy.

20.2 DVMRP Syntax

```
dvmrp ( on | off | routing-only ) {
        [ defaultmetric metric ; ]
        [ preference pref ; ]
        [ prune-lifetime time ; ]
        [ traceoptions trace_options ; ]
        [ interface interface_list {
                [ enable ; | disable ; | routing-only ; ]
                [ metric metric ; ]
                [ noretransmit ; ]
                [ tunnel-compat ; ]
                [ nodvmrpout ; ]
        }; ]
};
```

More detailed descriptions of these commands can be found on page 355 of the *Command Reference Guide*.

20.3 Sample DVMRP Configurations

20.3.1 Example 1

This configuration configures a DVMRP tunnel between 10.1.25.13 and 10.1.16.4.

```
# Simple draft-10 compliant tunnel
```

```
interfaces {
        define p2p local 10.1.25.13 remote 10.1.16.4 tunnel ipip;
};


dvmrp yes {
        interface 10.1.16.4;
};


static {
        10.1.16.0 masklen 24 gw 10.1.25.14;
};
```

20.3.2 Example 2

```
# Simple mrouted compatible tunnel
interfaces {
        define p2p local 10.1.25.13 remote 10.1.16.4 tunnel ipip;
};


dvmrp yes {
        interface 10.1.16.4 {
                tunnel-compat;
        };
};


static {
         10.1.16.0 masklen 24 gw 10.1.25.14;
};
```

20.4 DVRMP Defaults

The following configuration is equivalent to **dvmrp on**.

```
dvmrp on {
        defaultmetric 1;
        prune-lifetime 7200;
        preference 70;
        interface all {
                enable;
                metric 1;
        };
};
```