

7. Place important routing adjacencies on a watch list

Even in the best-designed IP networks with mesh connectivity, there are often certain links that could benefit from proactive monitoring. Examples of these may be key WAN links to important networks such as disaster recovery centers, or links to important service gateways such as a VoIP to PSTN media gateway. Monitoring these links at the routing protocol level has several benefits:

- Routing protocols discover an outage at the service level. If routing isn't working, the service is likely to be down.
- Routing protocols discover the outages without adding polling or trap overhead. This means that one routing triggered trap may replace hundreds of device layer SNMP traps or application layer polls.
- Routing protocols discover outages within seconds or fractions of seconds, giving the support staff and network engineering a vital head start in fixing the issues.

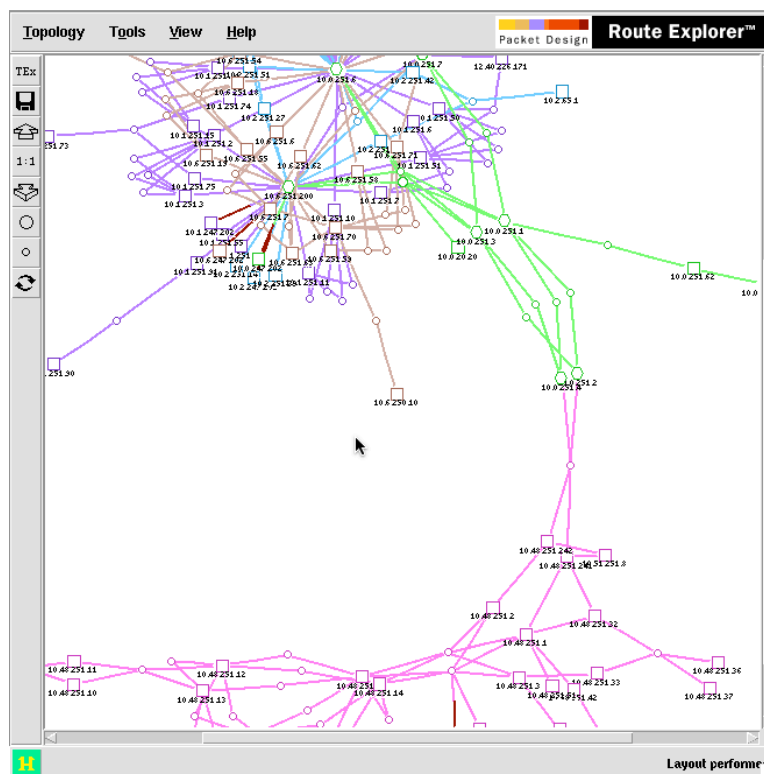


Figure 15

Figure 15 illustrates a network with an IGP area connected by a layer 2 switch and WAN connections. Placing these routing adjacencies on a Route Explorer watch list may be very beneficial to ensuring connectivity to the remote area.

Route Explorer supports the following IGP alerts and associated watch lists that can be useful in this situation:

- Adjacency Lost – alerts when a next-hop adjacency on the watch list is dropped (see Figure 16)

- Adjacency Flapping – alerts when a next-hop adjacency on the watch list is flapping, often an early indicator of hardware failure.

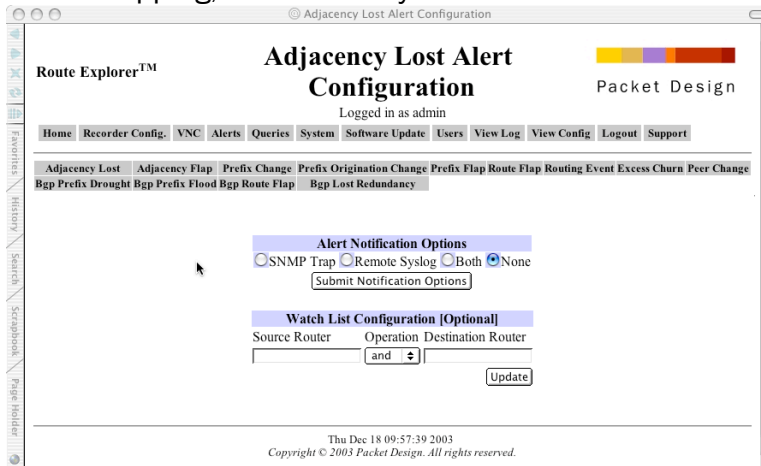


Figure 16

HOW TO:

1. To place an IGP adjacency on the watch list for dropped adjacencies and receive the corresponding alert:
 - a. Select “Adjacency Lost” in the Alerts page of the Route Explorer Admin page
 - b. Select the alert notification options (SNMP and/or Syslog)
 - c. If you wish to be alerted on ANY lost adjacency in your network, leave the watch list empty
 - d. If you wish to watch a particular adjacency, enter it into the watchlist.
 - e. To see the alert from Route Explorer, you must also enable it in your SNMP manager, or view it on your Syslog server
2. To enable the Adjacency Flap alert, select it in the Alerts page of the Route Explorer Admin page
 - a. Select the alert notification options (SNMP and/or Syslog)
 - b. Enter the flap frequency
 - c. If you wish to be alerted on ANY next-hop adjacency flap in your network, leave the watch list empty
 - d. If you wish to watch a particular adjacency for flaps, enter it into the watch list.
 - e. To see the alert from Route Explorer, you must also enable it in your SNMP manager, or view it on your Syslog server