

5. What has changed in the network?

This important question can lead to very important clues in diagnosing and fixing an outage. IP networks are very dynamic and network diagrams always out-of-date. Route Explorer provides instant documentation of the routing network. If you have ever experienced the following in your network, Route Explorer can help:

- A new communication link was commissioned too early, routing production traffic over it before it was stabilized. Route Explorer's topology map will show routable links instantly. Any deviations from the norm will show up instantly.
- A customer router was provisioned before the network routers. The prefix seemed available but traffic went nowhere. Route Explorer's prefix lists will show any prefix related anomalies. BGP prefix event detail will provide all details of the prefix advertisement history.
- A neighbor changed a BGP community attribute unexpectedly. The filters in your border routers marked those routes with an incorrect BGP metric, causing the traffic to be routed with a very long delay value. Or else the routes were dropped altogether. Route Explorer's RIB Browser and BGP reports can show route distributions in the most complex multi-domain networks. See Figure 13.

Route Explorer can show the network engineer exact state of the network right now to answer these vital questions during the diagnosis of an outage, when every minute counts.

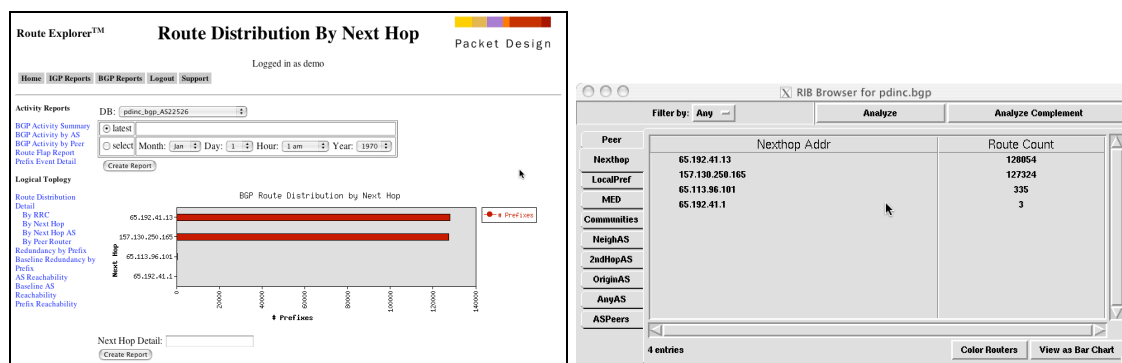


Figure 13

HOW TO:

1. Open an X Windows or VNC session to the Route Explorer.
2. Open a topology of interest
3. Open the History Navigator (see above)
4. Show RIB Browser:
 - a. Click Analysis->RIB Browser
 - b. Click on tabs on the left to see various route distributions
5. To get BGP reports, click on BGP Reports link

- a. Open a web browser and open the Route Explorer appliance home page.
- b. Select the report by clicking on the “Baseline AS Reachability” link
- c. Select a database from the DB drop-down menu
- d. Select the time of the baseline (“latest” or a time in the past)
- e. Click “Submit Query”