

IGP and BGP routing

- Peering LANs are announced in BGP.
- AS100’s internal network uses RIP.
- as10r1 applies a primary/backup policy to links I and J both for incoming and for outgoing traffic.
- as100r1 and as100r4 do not establish an iBGP peering.
- as100r1 and as100r4 implement a load balancing policy both for incoming and for outgoing traffic, such that traffic towards webserver1 enters from as100r4 and traffic towards webserver2 enters from as100r1 (Figure 1).
- as1r1, as2r1, as3r1, and as4r1 filter BGP prefixes so that traffic is routed as in Figure 1.
- No routers announce the default route 0/0 or apply customer-provider policies.

Services

- ns-root is root name server, ns-org is authority for org, ns-test is authority for test.org.
- client is its own local name server.
- webserver1 and webserver2 are web servers running Apache, whose DNS names are, respectively, www1.test.org and www2.test.org. Each serves a single web page, respectively: http://www1.test.org/ and http://www2.test.org/.

Goals

- All the internal LANs of each AS must be reachable from any machines.
- client must be able to access the web pages offered by webserver1 and webserver2 using the links browser.
- Routing from client to webserver1 and from client to webserver2 must be compliant with the specification in Figure 1.
- The network, and all services, must continue operating even in the event that link J fails.

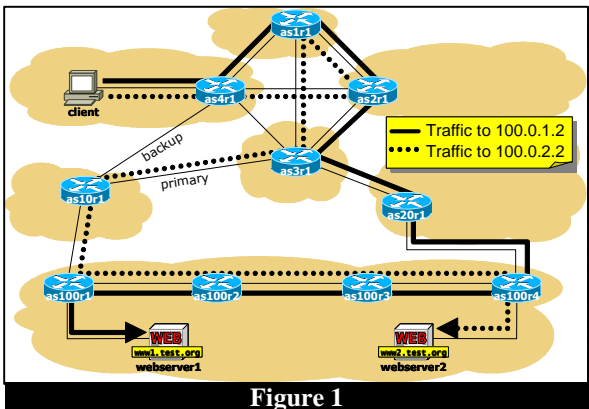


Figure 1