Project REPORT

The ping approach with timeout mechanism is widely used in distributed systems for the failure detection. The system is considered to be faulty if it does not respond within the given time limit. Usually, a ping test is a method for checking the system is connected to a particular network. This helps in determining if a network problem is somewhere on our local network, or beyond it.

Three teams, viz, Marketing, IT and Finance have been created in the first two locations and each of the total six teams reside in different VLAN's except the team leaders who are in same VLAN and thus will be able to ping each other. The router R1 uses RIP protocol to route packets between the first two locations. The router R1 is also a DHCP server for the Location2 and all the PC's in the Location2 are able to pull IP addresses from the DHCP server. The router R1 is further connected to router R2 which acts as a DHCP relay agent and uses both RIP protocol and static routing to route the packets to the desired network. One interface of the router R2 is connected to the 192.168.10.0 network in which the security engineer resides. Other interface of R2 is connected to the network of special committee in which only 2 special members reside. The router R3 uses RIP protocol to route the packets. Further, one interface of the router R2 is connected to the network of Audit team and Management team. The Audit team, Management team and the team leaders of the first two locations lie in the same VLAN and are able to ping each other. If you go to 'www.networkingismypasion.com' from any of the PC in location 2, you will be able to view a website. Further, if you disconnect the DNS server and type the same address from the same PC, you will still be able to view the website because the content gets stored in the PC's cache.

Switch Initial Configuration

Hostname

Logon Banner

Console Password - Switch1, switch2 and switch3 for the three switches respectively (at the first two locations).

Telnet password - Telnet1, telnet2 and telnet3 for three switches respectively (at the first two locations).

Management IP

Enable Password - cisco1, cisco2 and cisco3 for the three switches respectively ( at the first two locations)

Router Initial Configuration

Hostname

Logon Banner

Console password - console

Telnet password - telnet

Enable password - cisco

(for all three routers)

Router 1 - DHCP Server - RIP enabled, DHCP enabled

Router 2 - Configured as DHCP relay agent, RIP enabled

Router 3 - Router on a stick (configured)

VLANs have been configured in accordance with the project description.

Note : The configurations are subject to further optimization and improvisation.