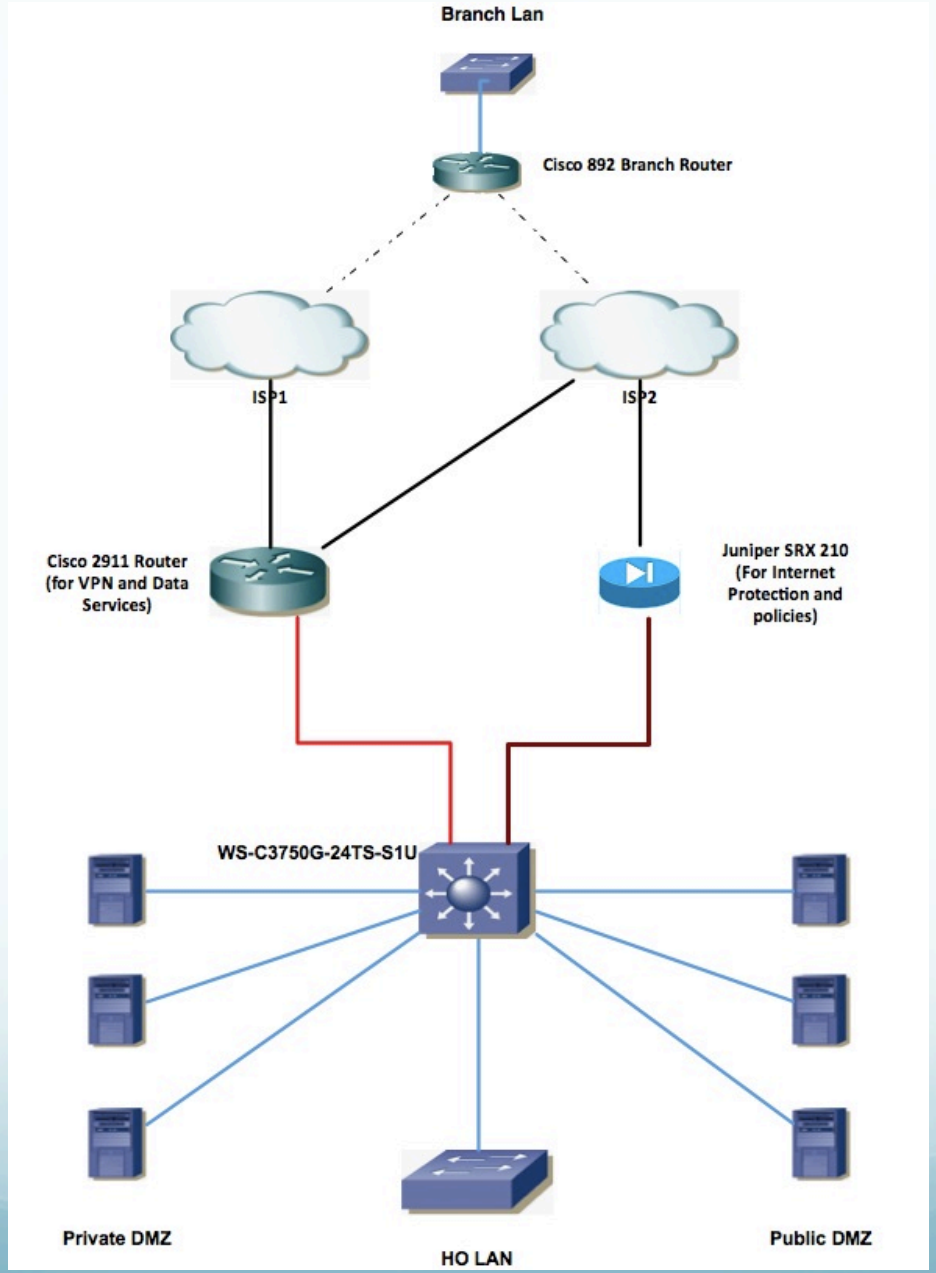
Overview of our Network

Network Diagram



Connectivity

- We have two Layer 2 Fiber connection from two different ISP (i.e ISP 1 & ISP 2) between Head Office and the Branch office.
- We are connected to internet from ISP 2 at Head office and our branch share the same internet.
- There are two IPSec VPN tunnel in which the ISP 1 is considered primary and ISP 2 is secondary.
- Routing is responsible for switching the VPN path.

Equipments

- **At Head Office**

a. Cisco 2911 Router

b. Cisco C3750G-24TS Layer 3 Switch

c. Juniper SRX 210 H Firewall

d. Cisco 2960-24TCS Switch

- **At Branch Office**

a. Cisco 892 Router

b. Cisco 2960-24TCS Switch

Routing Protocol

- Static Routing is used for internal routing.
- OSPF is used as a primary routing protocol for the remote network and static as a secondary route.

IP Addresses

- **Head office**

LAN : 192.168.100.0/24

Private Server : 192.168.1.0/24

Public server : 192.168.0.0/24

Internal Link IP : 172.16.1.0/29

Link IP ISP 1 : 172.16.101.0/24

Link IP ISP 2: 172.16.201.0/24

* Public servers are NATed to the /29 public IP pool which is obtained from the ISP.

- **Branch office**

LAN : 192.168.101.0/24

Future Plans & Challenges

- Currently no redundant devices, so implementing high availability and design changes.
- Network monitoring is zero at present, installation of monitoring tools.
- Focus on increasing the bandwidth, many more BW hungry apps around today.
- Implementing wireless.
- Implementing voice/video.
- Cost minimization