Setting up Virtual Server – port forwarding using LB Router

After reading http://venkatarangan.com/blog/2014/03/configuring-multiple-wifi-access-points-with-load-balancer-in-my-home, I thought of implementing the same to solve the manual switch from one broadband to the other. I know this is going to save a lot of time and effort as I face frequent disconnection. I have 2 broadband (Airtel as main line and BSNL as backup, rarely used) and a Vodafone data card connection.

I use data card because of frequent cable cut in my location. Both my wired lines will be gone if they dig the road. You can understand Chennai – Madipakkam area, every alternate day, some department will come up with their plans. To serve more than few machines, I use TP-LINK TL-MR3020 Portable 3G/3.75G/4G Wireless N Router (Around Rs.1500) with my Vodafone data card which gives me amazing speed of more than 10 to 12 mbps anytime. This is my best connection out of all 3, only for the cost reason I am forced to use wired broadband.

Back to the configuration, here is what I did.

Device	Device IP	DHCP Config.	WAN -> Static IP in the LB Router	Gateway
Load Balancing Router	192.168.0.1	Enabled	N/A	
Airtel Modem router	192.168.1.1	Disabled	192.168.1.2	192.168.1.1
BSNL Modem router	192.168.2.1	Disabled	192.168.2.2	192.168.2.1
3G Router Vodafone Data card	192.168.3.1	Disabled	192.168.3.2	192.168.3.1

All DNS pointing to Google's 8.8.8.8 and 8.8.4.4.

Everything worked fine!!! When all working, if I switch of Airtel router, with only 2 ping failures LB router switches to BSNL. I liked it and thanked Venkat.

Here comes my next challenge. I have an internal site running on one of my machines which needs to be exposed to internet (Port: 1111). Also I used to logon to my server from home to monitor few things. I have static IP for this purpose from Airtel. I set up this with Virtual server configuration previously. It would be easier to setup in any router. All you have to do is, type the internal IP and port to which the requests has to be forwarded to.

Now it has to be done with 2 steps as we have internet router -> LB Router -> Network Switch -> Machine.

Step 1 – I have to configure the Airtel router to pass on the request to LB Router.

Step 2 – LB router should pass onto the particular machine and return the data back.

I got the concept, but not sure whether it would work or not. I did the below configuration.

Airtel router config.:

You can see the 2 configurations, one for my site and one for my Microsoft Remote Desktop (Port: 3389).

If you notice, I have given the end point as LB Router's contact point for my Airtel.

In the LB Router,

Even though I have DHCP enabled in LB router, I want these 2 machines to be assigned with specific IP so that it can always point the 2 machines I want. 192.168.0.100 is my server – I need remote desktop and 192.168.0.50 is where I have a site running on IIS under port 1111.

Here is the configuration on the L Server -> Virtual Server.

From the LB Router, I connected a cable to my network switch and inserted in LAN 1 port. I connected other machines from the remaining LAN ports.

Pictorial representation:
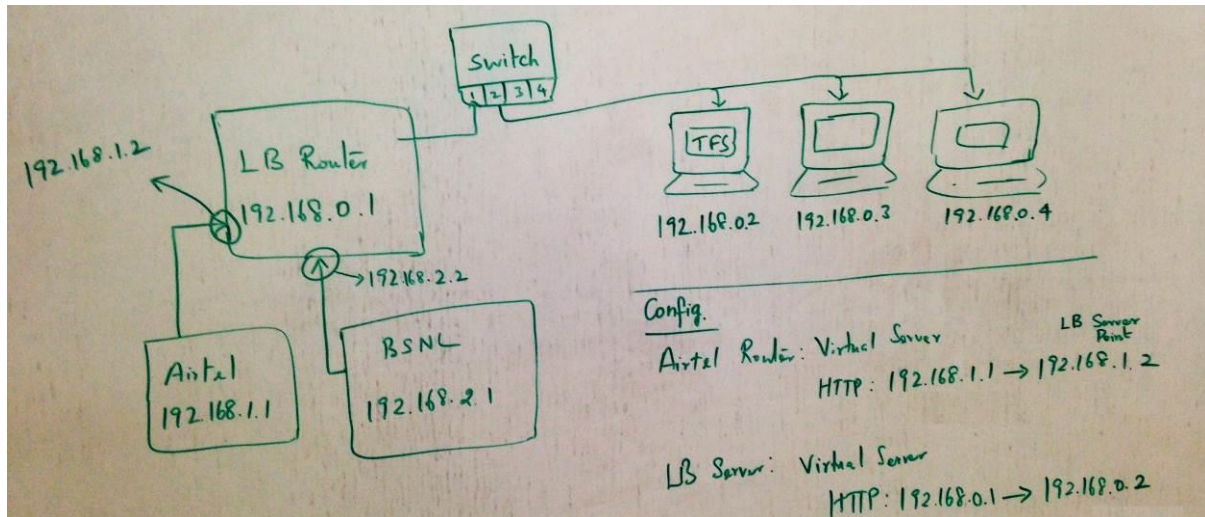
With my static IP, both works from outside world!!!

A BIG thanks to Venkat again!