# Term 3 Findings

The first item on the agenda for this phase of my project is create a network test-bed that will emulate the Internet link between RU and it's ISP and UNAM and it's ISP. Test the end-to-end bandwidth and find ways to congest the network. Monitor the voice traffic in order to see whether there is a difference between congested and non-congested networks with respect to voice calls. Find solutions for congested networks.
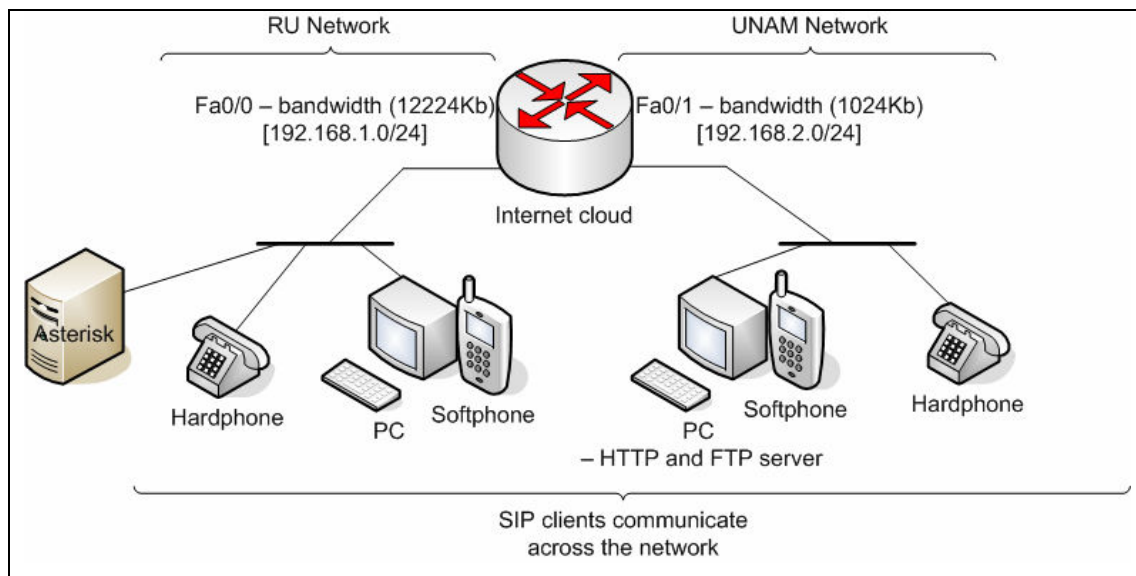
Process and Results:

1. Get the network devices for the test-bed: Router, switch, CAT 5e cables (straight through and crossover), PCs, hardphones, and softphones.

2. Get monitoring software to analyze network traffic (VoIP traffic) and measure bandwidth.

3. Cable and configure the network. And perform connectivity tests. Implement the bandwidth parameters for each ISP connection (RU: 12224Kbps and UNAM: 1024Kbps).

4. Monitor and analyze the traffic. Create test cases. For congestion ftp and http servers were installed on both sides of the network so that a high bandwidth

utilization could take place (video streaming, file downloads, remote desktop access, icmp traffic emulator).

5. The results were as expected. A high bandwidth utilization reduced call quality from Good to tolerable. A solution that worked well to solve this problem was (CBWFQ) Class Based Weighted Fair Queue