Dear Friends,

This mailer carries the information about port forwarding concept of VOIP in Peer to Peer calling with examples. This feature helps us to make Internet sharing along with Peer to Peer calling on single Public IP.

**What is Port?**

- As you know every computer or device on the Internet must have a unique number assigned to it. It is called IP address.
- This IP address is used to recognize your particular computer out of the millions of other computers connected to the Internet.
- When information is sent over the Internet to your computer, it accepts that information by using TCP or UDP ports.
- You have an IP address & a total of 65,535 TCP Ports and another 65,535 UDP ports.
- When a program on your computer sends or receives data over the Internet it sends that data to an IP address and a specific port on the remote computer, and receives the data on a usually random port on its own computer.
- Note that once an application binds itself to a particular port, that port can not be used by any other application. It is first come, first served.
- Our VOIP application uses SIP Port 5060 & Speech Port (RTP) 8000.
Why we need port forwarding in Peer to Peer calling?

- Look at the above figure. You can find that VOIP Device is connected in Local LAN with private IP address (same as other computers). While ADSL modem has a Public static IP address.

- If we want to make peer to peer calling with remote VOIP devices having Public IP then we have to use ADSL modem’s Public IP address.

- We need to make port forwarding of SIP port 5060 & RTP port 8000 in ADSL modem to communicate properly as explained below.

- ADSL modem’s IP:Port (203.88.142.219:5060) is forwarded to VOIP device’s IP:Port (192.168.1.151:5060)

- ADSL modem’s IP:Port (203.88.142.219:8000) is forwarded to VOIP device’s IP:Port (192.168.1.151:8000)
How to make Port Forwarding in ADSL/Router?

Below Figures shows how to make port forwarding in ZTE (Trade mark of ZTE Corporation) & LINKSYS (Trade mark of CISCO Corporation) ADSL Modems.

Example: 1

![ZTE Modem Port Forwarding](image1)

Example: 2

![LINKSYS Modem Port Forwarding](image2)
**How to resolve Speech Issue?**

- If there is one way or two ways Speech problem then, we need to use STUN server to resolve speech problems.

- We can use STUN servers addresses mentioned below.

  - stun.voipbuster.com
  - stun.kcip.com
  - stun.fwdnet.net

Thanks & Regards  
Technical Support Team  
Matrix Comsec, Makarpura, India  
E-mail: Support@Matrixcomsec.com

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