

Help – P2P connection in .Net – like Yahoo does for IM

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Hi,

I want to develop p2p (peer-to-peer) communication connection for chat in .Net (Lang: c# – preferable)

NOTE: if two LAN are behind their own router then also it should work as yahoo, msn messenger works.

Let me explain scenario:

In yahoo:

- We login to yahoo server from yahoo messenger (yahoo server listens at port 5050).
- We get list of yahoo users in our friend list of messenger.
- Let's say I am P1 with local IP (LAN) with 192.168.0.10 with some external IP.

(At my side, I am using Internet connection sharing from one PC – let's say it will have some external IP through which it connect my LAN to internet and will have 192.168.0.1 IP because we have enabled ICS.)

- We double click on one ONLINE user say P2 with Local IP 192.168.0.5 (P2 will have same scenario as P1 – uses ICS)
 - we write a message and send to P2 (This message is first goes to yahoo server and then server will send it to P2 and then P1 and P2 will be connected directly as P2P.
- {I don't know how yahoo server creates P2P connection between P1 and P2}}
- We get message from P2 if he write something.

Now P1 and P2 don't use Yahoo server and connected directly as P2P connection.

P1 has started the communication for IM so P1 will have 5101 listening port in case of Yahoo, and P2 will send message to 5101 port.

if P1 and P2 both are behind router then also the communication is possible in case of yahoo messenger without making any change in router configuration and both P1 and P2 can chat.

(i am sure about this with DLink router)

So, in this way P1 > 192.168.0.10:5101 (from one LAN) is connected with P2 >

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192.168.0.5: xxxx (from another LAN). And both LAN is connected with Internet through router or ICS server with an External IP uses for outer interaction with Internet.

(I got all the information about Yahoo communication by capturing and analyzing the network packets.)

I think this is the same case as IRC or MSN messenger also, just chat protocols are different. Yahoo uses YMSG protocol.

Question: how this is possible with .Net?

Or if it is not possible through .Net APIs then how can we achieve the functionality of P2P like yahoo messenger?

I have tried a lot using Sockets in .Net but still not able to solve this. Please help me out of this.

I am able to connect P1 to P2 if P2 is on the internet with some external/static IP but cant if it's behind router (like P2 in case of Yahoo in above explanation).

Now if we provide some server like application then also P1 and P2 can connect that server but how P1 will communicate with P2 as P2P communication?

How the server or P1 can establish P2P connection with P2?

Please provide me some idea... Help me out of this....

Thanks in advance,

Mahesh Devjibhai Dhola
"Empower yourself...."