

C# Raw Socket Issues starting TCP Connections

Source:

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.csharp/2005-03/4373.html>

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Date: 03/17/05

Date: 17 Mar 2005 07:12:20 -0800

I am working on starting and managing TCP connections manually. I build the IP headers and TCP packets manually and send them on my own. The problems I run into seems to be related to the Sockets. Maybe someone can help me out.

1) I can build the packets and put them out fine, however, I can only read incoming data if I use IOControl and set the socket SIO_RCVALL. But doing this seems to apply to other sockets I maybe running in a different thread.

2) The biggest problem I have seems to be starting a TCP connection. If I send a SYN, I get a SYN/ACK or SYN/RST like I am suppose to, but for some reason the Socket replies with a RST with out me doing anything.

Here is how I am building the socket and sending the data...

```
Socket remote = new Socket(AddressFamily.InterNetwork, SocketType.Raw,
ProtocolType.IP);
remote.Bind(this.l_ipep);
remote.SetSocketOption(SocketOptionLevel.Socket,
SocketOptionName.ReceiveTimeout, this.timeout_time);
remote.SetSocketOption(SocketOptionLevel.IP,
SocketOptionName.HeaderIncluded, 1);
int ret = remote.IOControl(SIO_RCVALL, oin, oout);

if (BitConverter.ToInt32(oout, 0) != 0) {
return error;
}
```

...

```
this.remote.SendTo(ip_packet.get_packet(), this.r_ipep);
```

What am I doing wrong??? Why does the socket send a RST without me doing anything? Why can't I read data without setting the socket in promiscuous mode. And why is it that when I do set the socket to promiscuous mode that it seems to apply to other sockets running in

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different threads? Thanks.