Java Socket - Local Port

I'm learning the socket programming with Java. I connect to a website using this statement:

```
s = new Socket("www.nba.com", 80);
```

When i debug the application and look at the content of s, i see:

```
Socket[addr=www.nba.com/2.21.246.97,port=80,localport=7846]
```

1) I want to know where this localport 7846 comes from and what it exactly is.

2) if the IP address of the website is 2.21.246.97, why can't i connect to the website by just typing 2.21.246.97 in the address field
of my browser ?

Thanks

java   sockets

asked Nov 21 '12 at 23:50

Schwammkopf
1,231   11   27

1   I believe it is the port of your machine that connects to the host. — Eng.Fouad Nov 21 '12 at 23:53

1 Answer

It is a local socket port number. It is usually assigned by the system.

See What is a Socket?.

> On the client-side: The client knows the hostname of the machine on which the server is
> running and the port number on which the server is listening. To make a connection request,
> the client tries to rendezvous with the server on the server's machine and port. The client also
> needs to identify itself to the server so it binds to a local port number that it will use during this
> connection. **This is usually assigned by the system.**

As to the second question:

I assume this IP address is what you get by your DNS server when you lookup `www.nba.com`
(mine is different). The problem might be that the HTTP server at this address serves multiple
virtual hosts and/or it cares about the `Host` header your browser sends. In your case it is the IP
address instead of `www.nba.com` .