Demystifying Networking
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Lecture - 64
From delivery fisaco to Port Numbers

This article explained us about Port Numbers using which we can identify the application to which a packet belongs to. So, a sender along with a sender's address also has a sender application port number and the receiver will also have receiver application port number.

So, for example, if we look at web request being sent; so, if your browser what say sending a request to any of the websites, it could randomly take port number from the port number pool for example, 1048.

And since the request is going over HTTP it attaches the destination port as 80 which is a standard for web services. So, here the source port now becomes 1048 and the destination port becomes 80. So, when this packet reaches the server, the server knows that since the port is 80. So, it has it is for the web service application.

And when the web service application is sending back a reply what it does is it switches the ports, now the source becomes 80 and the destination becomes 1048. Now, the host computer has a entry of that browser using this particular port number for this particular page, So, that particular page is the one which receive the reply from the web server.

This is an efficient use of application port numbers because applications can pick port numbers from a pool and then after they are done with the communication they can return the port number to the pool back and other applications can use it.

Yes.

This leads us to a reflections spot, pause the video here, go through the reflection question, take time to answer the question and then continue with the video.

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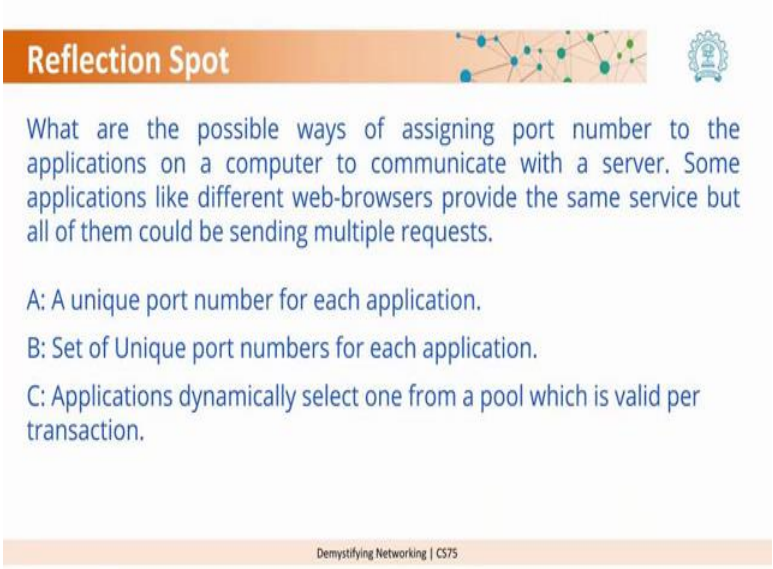

Here is your question, what are the possible ways of assigning port number to the applications on a computer to communicate with a server. Some applications like different web browsers provide the same service but all of them could be sending multiple requests. The options are, A: a unique port number for each application, B: set of unique port numbers for each application or C: applications dynamically select one from a pool which is valid per transaction. Think a while and then pick your answers.

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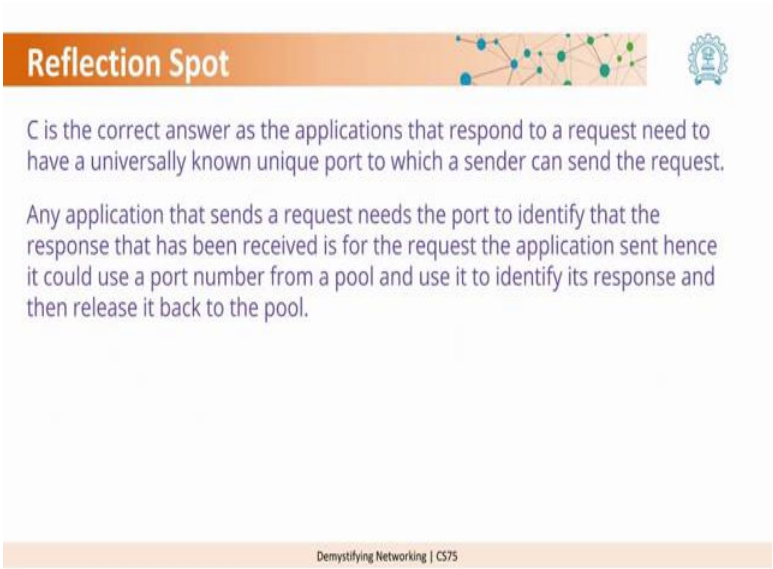

The correct answer is C, as the applications that respond to a request need to have a universally known unique port to which a sender can send the request. Any application that sends a request needs the port to identify that the response that has been received, is for the request the application sent. Hence, it could use a port number from a pool and use it to identify its response and then release it back to the pool.