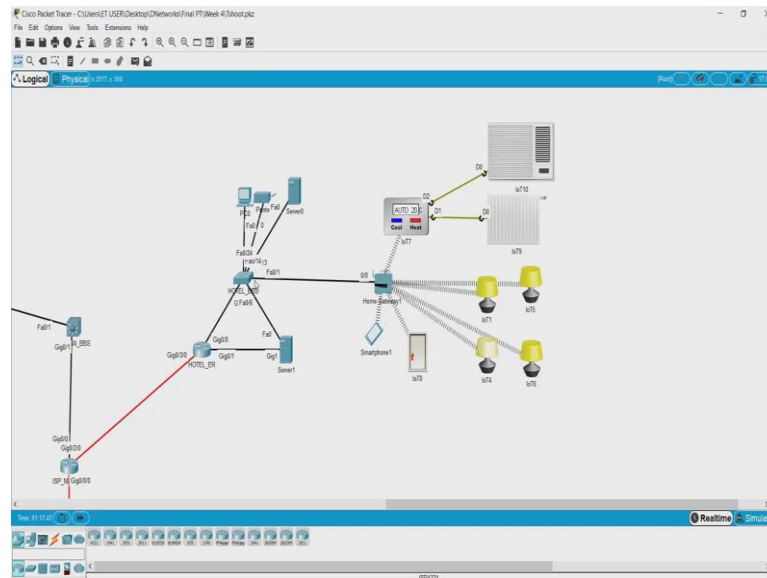


Demystifying networking
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Lecture - 97
Thats how we Troubleshoot

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So, what we have realized is that one of the ways of doing it is start from the physical layer. So, but if you are not able to find the physical cabling or you its difficult to trace, it is always good to go to the network layer, try a ping. So, if the ping is working, that means, your network connectivity is fine, then you can go ahead and look at the upper layers which is the application. So, there might be issues with the application layer or if you are if you are not able to do that you can go to the lower layers.

Now, the thing with ping is; ping is a internet layer protocol if you are looking at the TCP IP suit. So, one other thing that can happen is a scenario that we have not seen here is the ping might work, but your network traffic is not working. So, can you take any guess of what could be the issue? I mean the applications are running fine all of that is running fine.

So, if a ping is successful then; that means, the internet layer is running fine i am talking about the TCP IP model not though ISO OSI. So, the next just next layer above internet is transport. So, on transport layer what do we have is we have port numbers. So,

sometimes what we have is some firewalls will close certain ports and if application is trying using that certain port and is trying to communicate it will not be able to communicate; that means, the fault is there on the network layer on that particular port number.

If not that it could be on the application. If the ping is not happening, then we have to go down and look at the data link layers. So, there it could be the physical layer or if it the MAC card is not working and all of those. So, that is it for our troubleshooting video, now we hope you have some idea of how you can approach troubleshooting a network and how you can you know find the different subsystems and from the subsystems you can find out where the error lies.

Now, what you can do is go ahead and try this out on a packet tracer file and we will be sharing the file with you and what you can do is, you can mix certain changes and give that file to your peer or they could do the same with you and then try to figure out what were the changes that they have made and the file and the network is not working ok. So, have fun thank you.

So, now what we saw is by taking a layer by layer approach, we were able to spot the problem and fix it. So, how we did it was by looking at each layer trying to see if its functionality is being achieved and trying to see if there is any anomalous behavior at that particular layer and you by using the information of each behavior of each layer we were able to find the problem.

Right. this is a workable solution, but when there are mission critical situations this might not work because it is little time consuming. So, there are better or efficient approaches, but for that we will have to create a detailed course on troubleshooting.

It sounds like a nice idea I think we should do that ok.