Video – Viewing the Contents of PDUs

Hello everyone. This is our Cisco Packet Tracer viewing the contents of PDUs, known as Protocol Data Units video. In this video we're going to go through and walk through the actual movement of data as it goes from one source to one destination and we're going to look at the PDU information as the traffic moves. So once PDUs are created and captured we'll be able to view the contents of the PDU by either clicking on the actual PDU inside of our event list or by actually clicking on the message within the network topology itself. So let's get started.

What we need to do first is begin simulation mode, so we'll go over to simulation mode which is the stopwatch. After we're in simulation mode we're going to go ahead and we're going to create a complex PDU. We'll click on the complex PDU button. After clicking on the complex PDU button we'll pick our source as the PC and we're going to type in the IP Address of this server, the destination IP Address at that server. The source IP Address we don't need, it's coming from the PC. Sequence number we'll pick one of one. And for the timer interval we'll put in five seconds. We can go ahead and click create PDU and we see down below we have it in our simulation panel.

We can double click that fire button and we see it's waiting to be sent out here inside of our simulation panel. We'll turn off the constant delay, fire button it again and now we're going to increase the speed and do auto capture play. From there we see the message moving, it's going to try to make its way to the cisco.com server. It goes to the cable modem, crosses to the internet and makes it to the cisco.com server and the cisco.com server should respond all the way back to that PC. While it's going you can actually keep watch on the event list. You can see it moving from last device, where it's currently moving from device to device throughout the transfer of this message. We have a success green check mark. At this time we're going to uncheck the auto capture play and now we can actually take a look at those different messages.

ICMP is the message that I created. What we can actually do is double click in this list at any point in time when that message is moving. For example, the message is moving from cisco.com, the web server, and it's going to internet, which is our internet cloud. In order for us to do that we can double click on the green square in the information column. Another way to get to this window as well is if you close it you can also just double click on the message itself on the network topology and again it will open. Inside of here we'll be able to take a look at the OSI Model tab, the Inbound PDU details tab, the Outbound PDU Details.

The OSI Model tab is awesome. This is going to show you how the packet is processed at each layer of the OSI Model by the current device. Right now as we're crossing the internet it's a physical cabling connection, port five on one device, the coax cable on another. You can click on these to see different information regarding what's going on in those layers. The inbound PDU details tab, this only applies if the PDU selected is being received on the device. It's not going to appear if the PDU originated from that device. This tab shows exactly what is in the headers of the PDU known as a Protocol Data Unit. It's broken up into header type and the individual fields in each header.

The outbound PDU details area is going to show similar information for outgoing packets. This tab only applies if the device has a PDU to send. So let's let this traffic go a little bit further. We'll double click on it as the traffic is going from the cable modem to the wireless router. When I double click on it here it selects that message. Again I can open the message using the info square on the right or by double clicking on the wireless router's message itself on the left. Here we see more information than the previous message we looked at. We have the OSI model with our seven layers. We can click on layer one as the traffic's arriving incoming on the wireless router. We can go to layer two and see more information. Layer three regarding IP Addressing and more. And even take a look at the outbound layers on the right side. Finally we have the inbound PDU details where again we can see exactly the information broken into header type and the individual fields regarding the traffic information. So that's it for this video. Make sure you practice and play with traffic moving across a network and being able to open up that traffic utilizing the PDU features inside a Cisco Packet Tracer.