

## Video - Testing End-to-End Connectivity (2 min)

To test the connections between all of the devices, as well as the IP address assignments, I'll use the ping command. To do this, I'll click on PCA, click on the command prompt, and I'll begin by pinging switch S1. I'll type in "ping 192.168.1.2" and see if I can get a reply. All right, the first request timed out, but the last three requests, I received replies. If I reissue the command, you can see that I'm getting replies from switch S1. I'll also try to ping switch S2 at 192.168.1.3. And you can see I also get replies. So I've verified that I can ping from PCA to switch S1, from PCA to switch S2, and now I'll attempt to ping PCB at 1.192.168.1.11. I got echo replies from PCB, indicating that I have end-to-end connectivity all the way from PCA to PCB. It's a good idea to test the connection from the other side by pinging from PCB to PCA to verify that the communication goes both ways. If, for some reason, the pings had failed and I was using real PCs, I'd also want to double-check my firewall settings and make sure that I had my Windows Firewall turned off. Windows Firewall will block ping ICMP echo requests by default. On a real network, if you can ping one way-- for instance, let's say from one PC to another-- but when you try to ping the opposite way, the pings fail, that indicates that one of the two PCs has their Windows Firewall activated.